REGISTRATION REPORT

Part B

Section 8

Environmental Fate

Detailed summary of the risk assessment

Product code: A22773A

Product name(s): **ORONDIS EVO**

Chemical active substance(s):

Azoxystrobin, 250 g/L
Oxathiapiprolin, 12 g/L

Interzonal

Zonal Rapporteur Member State: Poland

CORE ASSESSMENT

(New authorisation)

Applicant: Syngenta

Submission date: November 2021

Evaluation date: October 2022

MS Finalisation date: 28/02/2023 (CEU) / 03/07/2023 (SEU)

Version history

When	What
07 July 2022	izRMS request for additional information
26 August 2022	8.8.2.1: PEC_{GW} values included for azoxystrobin and its metabolites, using a Plant Uptake Factor (PUF) of 0, and with arithmetic sorption values (for consideration in the CEU), as a Tier 1 approach. (Existing PEC_{GW} using PUF = 0.5 and geometric sorption values retained as a Tier 2 approach, for SEU). 8.9.2.1: PEC_{SW} values included for azoxystrobin and its metabolites, using a Plant Uptake Factor (PUF) of 0, and with arithmetic sorption values (for consideration in the CEU), as a Tier 1 approach. (Existing PEC_{GW} using PUF = 0.5 and geometric sorption values retained as a Tier 2 approach, for SEU). Appendix 1: Additional modelling references included Appendix 3: Additional study summaries included
October 2022	izRMS finalized dRR evaluation.
February 2023	RR updated according to comments resived (CEU)
30 March 2023	**8.8 Predicted Environmental Concentrations in groundwater** Predicted Environmental Concentrations from the appendix were transferred to the main part to allow conclusion at FR national level and application of corresponding condition of use. **8.9 Predicted Environmental Concentrations in surface water** Predicted Environmental Concentrations from the appendix were transferred to the main part to allow conclusion at FR national level and application of corresponding condition of use.
July 2023	RR updated according to comments resived (SEU)

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8 Fate and behaviour in the environment (KCP 9)

Review Comments:

This document describes the acceptable use conditions required for registration of A22773A, a suspension concentrate containing 250 g/L azoxystrobin and 12 g/L oxathiapiprolin for use as a fungicide in fruiting and leafy vegetables.

This Part B document only reviews data and additional information that has not previously been considered within the EU review process.

Since this document is based on the information provided by the applicant, all review comments, additions and corrections have been made using commenting boxes or highlighted in grey.

The active substance **oxathiapiprolin** is approved under Commission Implementing Regulation (EU) No 2017/239 n in accordance with Regulation (EC) No 1107/2009 of the European Parliament and of the Council concerning the placing of plant protection products on the market, and amending the Annex to Commission Implementing Regulation (EU) No 540/2011.

The active substance **azoxystrobin** is approved under Reg. (EC) No 1107/2009 with effective date 1 January 2012 (Commission Implementing Regulation (EU) No 703/2011 amending Commission Implementing Regulation (EU) No 540/2011 and Commission Implementing Regulation (EU) No 2019/291 amending Commission Implementing Regulation (EU) No 540/2011 as regards the extension of the aoval periods of the active substance).

8.1 Critical GAP and overall conclusions

Table 8.1-1: Critical use pattern of the formulated product

1	2	3	4	5	6	7	8	9	10	11	11a	12	13	14	15
Use-No. *	Member state(s)	Crop and/or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I **	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	**Application**				**Application rate**				PHI (days)	Remarks: e.g. g safener/ synergist per ha	**Conclusion**
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	kg or L product/ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min/max			Groundwater
Interzonal uses (use as seed treatment, in greenhouses (or other closed places of plant production), as post-harvest treatment or for treatment of empty storage rooms)															
PL-59 = ES-61	Poland	Tomato, LYPES (covers cucumber, gherkin, melon, pumpkin, squash, watermelon, zucchini, eggplant, okra, bell pepper)	G	*Leveillula taurica*	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200-1000	3	For SEU applicable to non-drained soil only	
ES-80 $	Spain Relevant for SEU only	Tomato, LYPES (covers cucumber, gherkin, melon, pumpkin, squash, watermelon, zucchini, eggplant, okra, bell pepper)	G	*Leveillula taurica*	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200-1500	3	Drained soil	

1	2	3	4	5	6	7	8	9	10	11	11a	12	13	14	15
Use-No. *	Member state(s)	Crop and/or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I **	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	**Application**				**Application rate**				PHI (days)	Remarks: e.g. g safener/ synergist per ha	**Conclusion**
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	kg or L product/ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min/max			Groundwater
PL-54 = ES-56	Poland	Lettuce, LACSA (covers salad plants, garden purslane, spinach and similar leaves, sweet basil)	G	*Bremia lactucae*	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200-800	14	For SEU applicable to non-drained soil only max 2 application per year on the same field	
ES-75 $	Spain Relevant for SEU only	Lettuce, LACSA (covers salad plants, garden purslane, spinach and similar leaves, sweet basil)	G	*Bremia lactucae*	foliar	BBCH 09 - 13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200-800	14	Drained soil	
BG-68 $	Bulgaria Relevant for SEU only	Lettuce, LACSA (covers salad plants, garden purslane, sweet basil)	G	*Bremia lactucae*	foliar	BBCH 11 - 49	a) 2 b) 4	7	a) 1 b) 4	a) 12 b) 48	a) 250 b) 1000	200-800	14	Non drained soil	

$ The GAP for Vegetables, leafy, Vegetables, fruiting and Vegetables, bulb for SEU countries presents a split option for use on drained soils or on non-drained soils. See Section 8.9.1 for details.

* Use number(s) in accordance with the list of all intended GAPs in Part B, Section 0 should be given in column 1. The critical use patterns are reported only for Poland, Spain and Bulgaria, as they cover all the other intended uses as listed in the GAP table in Part B, Section 0.

** F: professional field use, Fn: non-professional field use, Fpn: professional and non-professional field use, G: professional greenhouse use, Gn: non-professional greenhouse use, Gpn: professional and non-professional greenhouse use, I: indoor application

Explanation for column 15 “Conclusion”

A	Safe use

R	Further refinement and/or risk mitigation measures required
C	To be confirmed by cMS
N	No safe use

Remarks table:

(1) Numeration necessary to allow references
(2) Use official codes/nomenclatures of EU
(3) For crops, the EU and Codex classifications (both) should be used; where relevant, the use situation should be described (*e.g.* fumigation of a structure)
(4) F: professional field use, Fn: non-professional field use, Fpn: professional and non-professional field use, G: professional greenhouse use, Gn: non-professional greenhouse use, Gpn: professional and non-professional greenhouse use, I: indoor application
(5) Scientific names and EPPO-Codes of target pests/diseases/ weeds or when relevant the common names of the pest groups (e.g. biting and sucking insects, soil born insects, foliar fungi, weeds) and the developmental stages of the pests and pest groups at the moment of application must be named
(6) Method, e.g. high volume spraying, low volume spraying, spreading, dusting, drench
Kind, e.g. overall, broadcast, aerial spraying, row, individual plant, between the plants - type of equipment used must be indicated
(7) Growth stage at first and last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including where relevant, information on season at time of application
(8) The maximum number of application possible under practical conditions of use must be provided
(9) Minimum interval (in days) between applications of the same product.
(10) For specific uses other specifications might be possible, e.g.: g/m³ in case of fumigation of empty rooms. See also EPPO-Guideline PP 1/239 Dose expression for plant protection products
(11) The dimension (g, kg) must be clearly specified. (Maximum) dose of a.s. per treatment (usually g, kg or L product / ha).
(12) If water volume range depends on application equipments (e.g. ULVA or LVA) it should be mentioned under "application: method/kind".
(13) PHI - minimum pre-harvest interval
(14) Remarks may include: Extent of use/economic importance/restrictions

Table 8.1-2: Assessed (critical) uses during approval of azoxystrobin concerning the Section Environmental Fate

1	2	3	4	5	6	7	8	9	10	11	12	13	14
					Application				**Application rate**				
Use-No. *	**Member state(s)**	**Crop and/or situation (crop destination / purpose of crop)**	**F, Fn, Fpn G, Gn, Gpn or I ****	**Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)**	**Method / Kind**	**Timing / Growth stage of crop & season**	**Max. number a) per use b) per crop/ season**	**Min. interval between applications (days)**	**kg or L product/ha a) max. rate per appl. b) max. total rate per crop/season**	**kg as/ha a) max. rate per appl. b) max. total rate per crop/season**	**Water L/ha min/max**	**PHI (days)**	**Remarks: e.g. g safener / synergist per ha**
n/a	EU	Broccoli	F	*Albugo candida, Alternaria brassicae, Mycosphaerella brassicicola, Peronospora parasitica*	Foliar spray	BBCH35 - BBCH39	a) 1 b) 2	12	a) 1 b) 2	a) 0.250 b) 0.500	200-600	14	

1	2	3	4	5	6	7	8	9	10	11	12	13	14
					Application				**Application rate**				
Use-No. *	**Member state(s)**	**Crop and/or situation (crop destination / purpose of crop)**	**F, Fn, Fpn G, Gn, Gpn or I ****	**Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)**	**Method / Kind**	**Timing / Growth stage of crop & season**	**Max. number a) per use b) per crop/ season**	**Min. interval between applications (days)**	**kg or L product/ha a) max. rate per appl. b) max. total rate per crop/season**	**kg as/ha a) max. rate per appl. b) max. total rate per crop/season**	**Water L/ha min/max**	**PHI (days)**	**Remarks: e.g. g safener / synergist per ha**
n/a	EU	Cauliflower	F	*Albugo candida, Alternaria brassicae, Mycosphaerella brassicicola, Peronospora parasitica*	Foliar spray	BBCH35 - BBCH39	a) 1 b) 2	12	a) 1 b) 2	a) 0.250 b) 0.500	200-600	14	
n/a	EU	Brussels sprouts	F	*Albugo candida, Alternaria brassicae, Mycosphaerella brassicicola, Peronospora parasitica*	Foliar spray	BBCH35 - BBCH39	a) 1 b) 2	12	a) 1 b) 2	a) 0.250 b) 0.500	200-600	14	
n/a	EU	Kale	F	*Albugo candida, Alternaria brassicae, Mycosphaerella brassicicola, Peronospora parasitica*	Foliar spray	BBCH35 - BBCH39	a) 1 b) 2	12	a) 1 b) 2	a) 0.250 b) 0.500	200-600	14	
n/a	EU	Barley	F	*Pyrenophora teres, Puccinia hordei, Rhynchosporium secalis, Gaeumannomyces graminis, var. Tritici Barley spotting*	Foliar spray	BBCH31 – BBCH59	a) 1 b) 2	14	a) 1 b) 2	a) 0.250 b) 0.500	100-300	35*	*Timing of applications determined primarily by growth stage;1st no later than BBCH39, 2nd no later than BBCH59.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
					Application				**Application rate**				
Use-No. *	**Member state(s)**	**Crop and/or situation (crop destination / purpose of crop)**	**F, Fn, Fpn G, Gn, Gpn or I ****	**Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)**	**Method / Kind**	**Timing / Growth stage of crop & season**	**Max. number a) per use b) per crop/ season**	**Min. interval between applications (days)**	**kg or L product/ha a) max. rate per appl. b) max. total rate per crop/season**	**kg as/ha a) max. rate per appl. b) max. total rate per crop/season**	**Water L/ha min/max**	**PHI (days)**	**Remarks: e.g. g safener / synergist per ha**
n/a	EU	Wheat	F	*Septoria tritici, Septoria nodorum, Puccinia striiformis, Puccinia recondita, Gaeumannomyces graminis var. tritici*	Foliar spray	BBCH31 – BBCH69	a) 1 b) 2	14	a) 1 b) 2	a) 0.250 b) 0.500	100-300	35**	**Timing of applications determined primarily by growth stage; 1st application no later than BBCH39, 2nd application no later than BBCH69

** F: professional field use, Fn: non-professional field use, Fpn: professional and non-professional field use, G: professional greenhouse use, Gn: non-professional greenhouse use, Gpn: professional and non-professional greenhouse use, I: indoor application

Table 8.1-3: Assessed (critical) uses during approval of oxathiapiprolin concerning the Section Environmental Fate

1	2	3	4	5	6	7	8	9	10	11	12	13	14
					Application				**Application rate**				
Use-No. *	**Member state(s)**	**Crop and/or situation (crop destination / purpose of crop)**	**F, Fn, Fpn G, Gn, Gpn or I ****	**Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)**	**Method / Kind**	**Timing / Growth stage of crop & season**	**Max. number a) per use b) per crop/ season**	**Min. interval between applications (days)**	**L product/ha a) max. rate per appl. b) max. total rate per crop/season**	**g as/ha a) max. rate per appl. b) max. total rate per crop/season**	**Water L/ha min/max**	**PHI (days)**	**Remarks: e.g. g safener / synergist per ha**
	AU, DE (NEU)	Grape (VITVI) wine	F	Plasmopara viticola	Hydraulic sprayer with or w'out air assistance/ Atomizer/ Backpack	BBCH 13-89 Spring	Max 2	10 days	a) 0.06 b) 0.12	a) 60 b) 120	300-1600	28	(Max rate/ha) Do not use more than 60 g/ha. Basis Aufwand = 16 g/ha; BBCH 61 = 32 g/ha; BBCH 71 = 48 g/ha; BBCH >75 = 60 g/ha max.
	CY, EL, IT, MT (SEU)	Grape (VITVI) table	F	Plasmopara viticola	Hydraulic sprayer with or w'out air assistance/ Atomizer/ Backpack	BBCH 13-89 Spring	Max 2	10 days	a) 0.06 b) 0.12	a) 60 b) 120	300-1500	14 (berries) 1 (leaves)	(Max rate /ha) Includes pergola vines The use on grape vine leaves for Greece, Spain and Portugal only
	CY, EL, IT, MT (SEU)	Grape (VITVI) wine	F	Plasmopara viticola	Hydraulic sprayer with or w'out air assistance/ Atomizer/ Backpack	BBCH 13-83 Spring	Max 2	10 days	a) 0.06 b) 0.12	a) 60 b) 120	300-1500	28 (berries) 1 (leaves)	(Max rate/ha) Includes pergola vines The use on grape vine leaves for Greece, Spain and Portugal only
	ES, PT (SEU)	Grape (VITVI) table	F	Plasmopara viticola	Hydraulic sprayer with or w'out air assistance/ Atomizer/ Backpack	BBCH 13-89 Spring	Max 2	10 days	a) 0.04 b) 0.08	a) 40 b) 80	300-1000	14 (berries) 1 (leaves)	Includes pergola vines The use on grape vine leaves for Greece, Spain and Portugal only

1	2	3	4	5	6	7	8	9	10	11	12	13	14
					Application				**Application rate**				
Use-No. *	**Member state(s)**	**Crop and/or situation (crop destination / purpose of crop)**	**F, Fn, Fpn G, Gn, Gpn or I ****	**Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)**	**Method / Kind**	**Timing / Growth stage of crop & season**	**Max. number a) per use b) per crop/ season**	**Min. interval between applications (days)**	**L product/ha a) max. rate per appl. b) max. total rate per crop/season**	**g as/ha a) max. rate per appl. b) max. total rate per crop/season**	**Water L/ha min/max**	**PHI (days)**	**Remarks: e.g. g safener / synergist per ha**
	ES, PT (SEU)	Grape (VITVI) wine	F	Plasmopara viticola	Hydraulic sprayer with or w'out air assistance/ Atomizer/ Backpack	BBCH 13-83 Spring	Max 2	10 days	a) 0.04 b) 0.08	a) 40 b) 80	300-1000	28 (berries) 1 (leaves)	Includes pergola vines The use on grape vine leaves for Greece, Spain and Portugal only
	FR (NEU and SEU)	Grape (VITVI) table	F	Plasmopara viticola	Hydraulic sprayer with or w'out air assistance/ Atomizer/ Backpack	BBCH 13-79 Spring	Max 2	10 days	a) 0.04 b) 0.08	a) 40 b) 80	100-600	14 (berries)	(Max in use spray concentration)
	FR (NEU and SEU)	Grape (VITVI) wine	F	Plasmopara viticola	Hydraulic sprayer with or w'out air assistance/ Atomizer/ Backpack	BBCH 13-79 Spring	Max 2	10 days	a) 0.04 b) 0.08	a) 40 b) 80	100-600	28 (berries)	(Max in use spray concentration)
	IR, UK, FR (NEU and SEU for FR only)	Potato (SOLTU)	F	Phythophthora infestans	Hydraulic sprayer	BBCH 10 to PHI May-Aug	Max 4	7 days	a) 0.015 b) 0.06	a) 15 b) 60	100-400	7	Water volume varies by country
	CY, EL, ES, IT, MT, PT (SEU)	Potato (SOLTU)	F	Phythophthora infestans	Hydraulic sprayer	BBCH 10 to PHI All year	Max 4	7 days	a) 0.015 b) 0.06	a) 15 b) 60	300-1000	7	(Min in use spray concentration)
	FI, SE, AU, BE, DE, LU, NL (NEU)	Potato (SOLTU)	F	Phythophthora infestans	Hydraulic sprayer	BBCH 10 to PHI May-Aug	Max 4	7 days	a) 0.015 b) 0.06	a) 15 b) 60	100-400	14	Water volume varies by country

1	2	3	4	5	6	7	8	9	10	11	12	13	14
					Application				**Application rate**				
Use-No. *	**Member state(s)**	**Crop and/or situation (crop destination / purpose of crop)**	**F, Fn, Fpn G, Gn, Gpn or I ****	**Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)**	**Method / Kind**	**Timing / Growth stage of crop & season**	**Max. number a) per use b) per crop/ season**	**Min. interval between applications (days)**	**L product/ha a) max. rate per appl. b) max. total rate per crop/season**	**g as/ha a) max. rate per appl. b) max. total rate per crop/season**	**Water L/ha min/max**	**PHI (days)**	**Remarks: e.g. g safener / synergist per ha**
	CY, EL, ES, FR, IT, MT, PT (SEU and NEU for FR only)	Tomato/ Aubergine (SOLLY/ SOLME) Vertical crops	F	Phythophthora infestans	Hydraulic sprayer / air assistance, atomizer	BBCH 15-89	Max 3	7 days	a) 0.03 b) 0.09	a) 30 b) 90	200-1500	3	Apply a minimum of 20 g a.s./ha Above 1000 L/ha use a concentration of 2 g a.s./hL Max water volume varies between countries
	CY, EL, ES, FR, IT, MT, PT (SEU and NEU for FR only)	Tomato/ Aubergine (SOLLY/ SOLME) Industrial use, horizontal crop	F	Phythophthora infestans	Hydraulic sprayer	BBCH 15-89	Max 3	7 days	a) 0.02 b) 0.06	a) 20 b) 60	200-1000	3	Max water volume varies between countries

** F: professional field use, Fn: non-professional field use, Fpn: professional and non-professional field use, G: professional greenhouse use, Gn: non-professional greenhouse use, Gpn: professional and non-professional greenhouse use, I: indoor application

8.2 Metabolites considered in the assessment

Table 8.2-1: Metabolites of azoxystrobin potentially relevant for exposure assessment

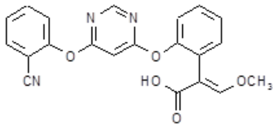
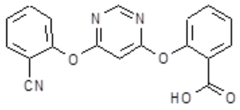
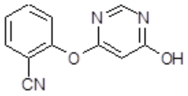
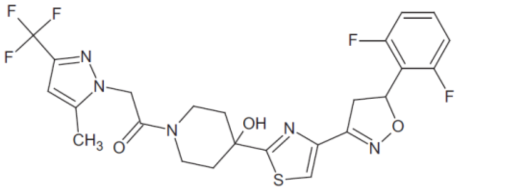
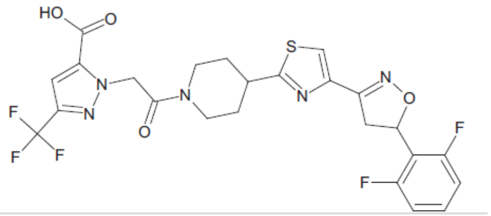
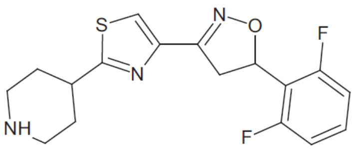
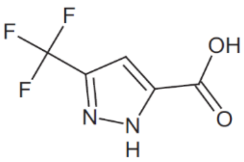
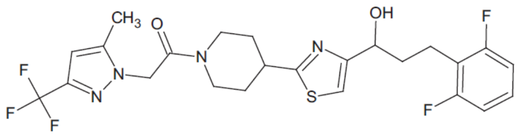
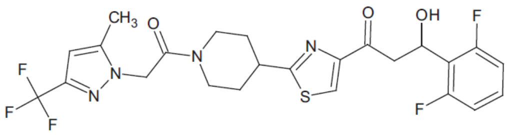
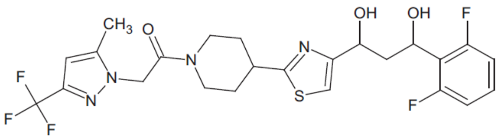
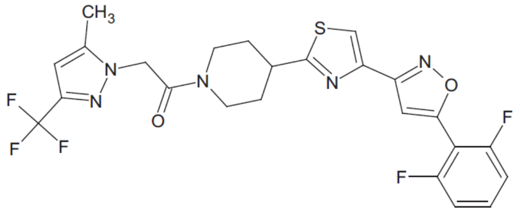
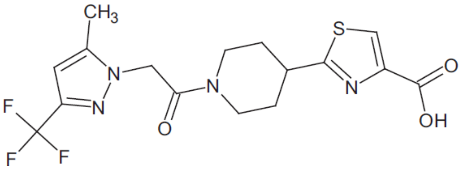
Metabolite	Molar mass (g/mol)	Chemical structure	Maximum observed occurrence in compartments (%)	Exposure assessment required due to
R234886	389.4		> 10 % of a.s. in soil > 10 % of a.s. in water > 10 % of a.s. in sediment	PEC_S: not covered by EU assessment PEC_{GW}: not covered by EU assessment $PEC_{SW/SED}$: not covered by EU assessment
R402173	333.3		> 10 % of a.s. in soil < 5 % of as in water / sediment	PEC_S: not covered by EU assessment PEC_{GW}: not covered by EU assessment $PEC_{SW/SED}$: not covered by EU assessment
R401553	213.2		> 10 % of a.s. in soil > 5 % of as in 2 sequential measurements in water / sediment	PEC_S: not covered by EU assessment PEC_{GW}: not covered by EU assessment $PEC_{SW/SED}$: not covered by EU assessment

Table 8.2-2: Metabolites of oxathiapiprolin potentially relevant for exposure assessment

Metabolite	Molar mass (g/mol)	Chemical structure	Maximum observed occurrence in compartments (%)	Exposure assessment required due to
IN-RDT31	555.53		Soil: > 5 % of as in 2 sequential measurements Water: nr Sediment: nr	PEC_{S}: not covered by EU assessment PEC_{GW}: not covered by EU assessment
IN-RAB06	569.51		Soil: > 10 % of a.s. Water: nr Sediment:nr Total System: 9.5%	PEC_{S}: not covered by EU assessment PEC_{GW}: not covered by EU assessment $PEC_{SW/SED}$: not covered by EU assessment
IN-QPS10	349.41		Soil: 8.7 % Water: nr Sediment: nr	PEC_{S}: not covered by EU assessment PEC_{GW}: not covered by EU assessment
IN-E8S72	180.09		Soil: > 10 % of a.s. Water: nr Sediment: nr	PEC_{S}: not covered by EU assessment PEC_{GW}: not covered by EU assessment
IN-S2K66	528.54		Soil: nr Water: nr Sediment: > 5 % of a.s. and maximum of formation not yet reached at the end of the study (8.7%)	$PEC_{SW/SED}$: not covered by EU assessment
IN-RSE01	542.53		Soil: nr Water: nr (3.8%) Sediment: 8.6% [b] Total System:> 10 % of a.s.	$PEC_{SW/SED}$: not covered by EU assessment
IN-RYJ52	544.54		Soil: nr Water: nr Sediment:> 10 % of a.s. (14.7%) (isomers combined) Max in total system: 16.0%[a]	$PEC_{SW/SED}$: not covered by EU assessment

Metabolite	Molar mass (g/mol)	Chemical structure	Maximum observed occurrence in compartments (%)	Exposure assessment required due to
IN-Q7D41	537.51		Soil: nr Water: nr Sediment:> 10 % of a.s. Max. in total system: > 10 % of a.s.	$PEC_{SW/SED}$: not covered by EU assessment
IN-P3X26	402.40		Soil: nr Water: > 10 % of a.s. (14%, aqueous photolysis, maximum value of two systems (natural water and buffer solution) Sediment: nr	$PEC_{SW/SED}$: not covered by EU assessment

nr not relevant

[a] Maximum sum occurrence of two metabolites in the total system was observed for Calwich Abbey Lake system with thiazole label: isomer IN-RYJ52-A at 10.04% AR and isomer IN-RYJ52-B at 5.97% AR. Therefore, the sum of these two values of 16.0% AR was calculated

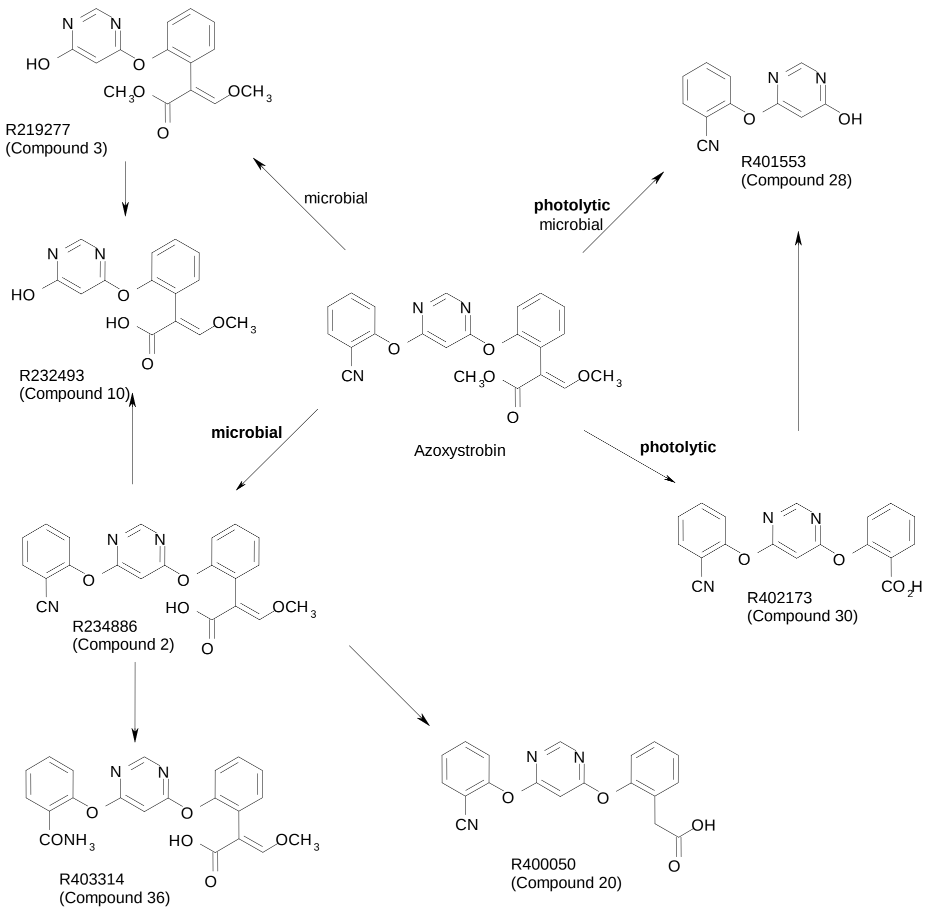
[b] >5% of a.s. at two consecutive sampling points.

8.3 Rate of degradation in soil (KCP 9.1.1)

Azoxystrobin

The rate of degradation in soil of azoxystrobin was evaluated during the EU Review. The fate and behaviour of azoxystrobin and its metabolites R234886, R402173 and R401553 in soil are discussed in detail in the corresponding document of the EU review dossier where the study references can be found. Additional data were provided for metabolite R234886 as Confirmatory Data and evaluated by the EU RMS (DAR, 2014[1]). All other metabolites shown in the degradation pathway of azoxystrobin in soil (Figure 8.3-1) are minor metabolites.

Figure 8.3-1: Proposed pathway of azoxystrobin in soil

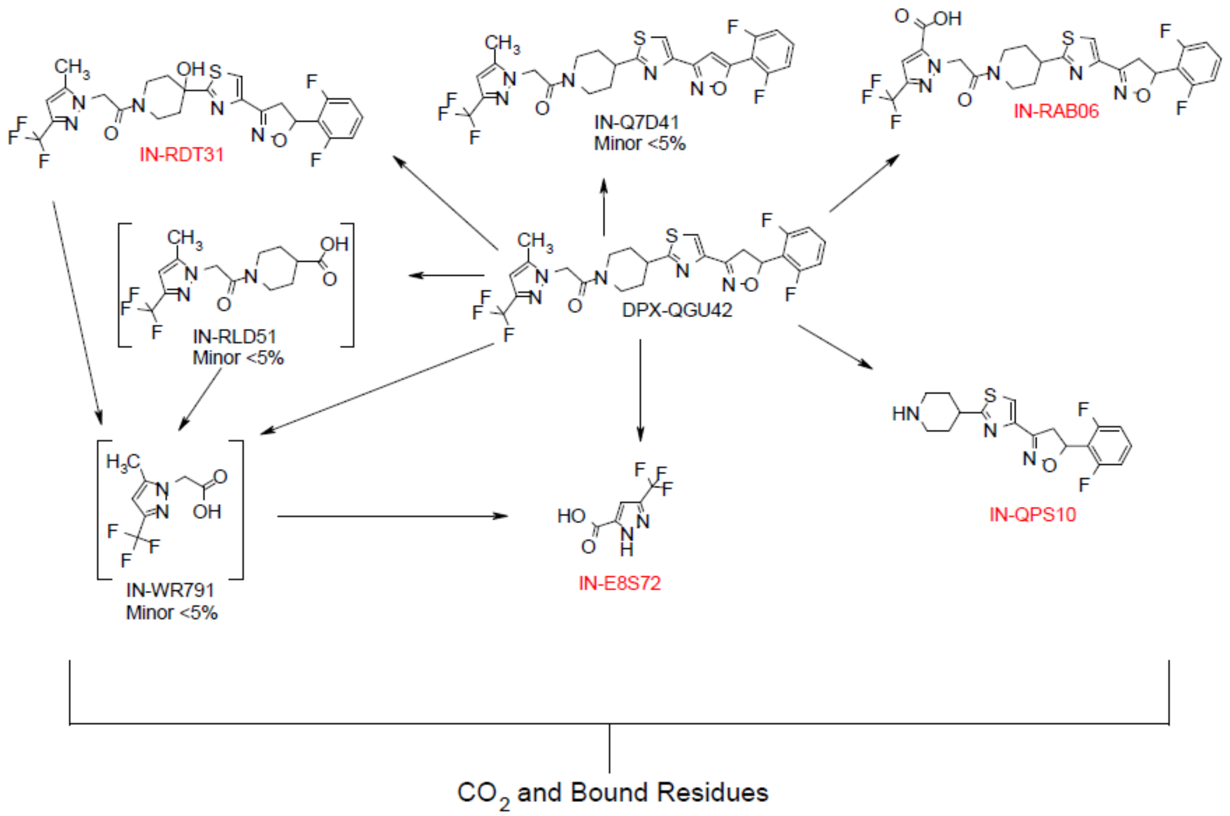


Oxathiapiprolin

As illustrated in the Figure 8.3-2 the major oxathiapiprolin metabolites in soil are IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72. All other metabolites shown in the degradation pathway of oxathiapiprolin in soil (Figure 8.3-2) are considered to be minor metabolites.

[1] DAR (2014): Azoxystrobin: Addendum – Confirmatory Information. RMS United Kingdom. December 2014

Figure 8.3-2: Proposed pathway of oxathiapiprolin in soil



Studies on degradation in soil with the formulation were not performed, since it is possible to extrapolate from data obtained with the active substances.

8.3.1 Aerobic degradation in soil (KCP 9.1.1.1)

8.3.1.1 Azoxystrobin and its metabolites

Studies on the aerobic degradation rates of azoxystrobin and its metabolites R234886, R402173 and R401553 are considered to be data provided in support of the active substance. All relevant detailed experimental information has been submitted for EU review of azoxystrobin (**EFSA Journal 2010; 8(4): 1542**). Additional data were provided for metabolite R234886 in the Addendum for confirmatory Information (see **DAR, 2014**[1] for further details).

A summary of the degradation rates is provided in Table 8.3-1 to Table 8.3-4.

In two soils a formation fraction of R234886 from parent could be derived (ff = 0.9716 in “Hyde farm“ soil and ff = 0.7764 in “18 Acres” soil). The following arithmetic mean formation fraction was calculated based on these data: ff of R234886 from parent = 0.874.

Table 8.3-1: Summary of aerobic degradation rates for azoxystrobin - laboratory studies

Azoxystrobin, Laboratory studies, aerobic conditions										
Soil name	**Soil type (USDA)**	**pH (H_2O)**	**t.(°C)**	**MWHC (%)**	**DT_{50} (d)**	**DT_{90} (d)**	**DT_{50} (d) 20°C pF2/10kPa**	**Chi[2] (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
18 Acres	Sandy clay loam	6.4	20	40	56.4	187[a]	35.2	3.70	SFO	Yes / EFSA, 2010; Tummon 1994
East Anglia	Sand	7.9	20	40	66.9	222	57.2	5.34	SFO	Yes / EFSA, 2010; Tummon 1994
Wisborough Green	Silty clay loam	5.9	20	40	94.1	313	54.1	5.60	SFO	Yes / EFSA, 2010; Tummon 1994
18 Acres	Sandy clay loam	7	20	75% 1/3 bar moisture	87.0	289[a]	65.2	2.06	SFO	Yes / EFSA, 2010; Warinton, Chalofti, Harvey, 1996
Hyde Farm	Sandy clay loam	7	20	75% 1/3 bar moisture	72.8	242	48.5	7.10	SFO	Yes / EFSA, 2010; Warinton, Chalofti, Harvey, 1996
Visalia	Sandy loam	8.4	20	75% 1/3 bar moisture	141.6	470	79.9	2.97	SFO	Yes / EFSA, 2010; Warinton, Chalofti, Harvey, 1996
Derbyshire	Clay loam	7.5	20	Field Capacity	118.4	393	118.4	4.84	SFO	Yes / EFSA, 2010; Evans, 2001
Holland	Sandy loam	8.2	20	Field Capacity	153.4	510	153.4	1.92	SFO	Yes / EFSA, 2010; Evans, 2001

Azoxystrobin, Laboratory studies, aerobic conditions										
Soil name	**Soil type (USDA)**	**pH (H_2O)**	**t.(°C)**	**MWHC (%)**	**DT_{50} (d)**	**DT_{90} (d)**	**DT_{50} (d) 20°C pF2/10kPa**	**Chi[2] (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Lincolnshire	Sandy loam	7.4	20	Field Capacity	248	824	248	7.5	SFO	Yes / EFSA, 2010; Evans, 2001
Geometric mean (n=9)							84.5[a]			
pH-dependency:							No			

[a] True geometric mean (geometric mean of 18 Acres soils taken first)

Table 8.3-2: Summary of aerobic degradation rates for R234886 - laboratory studies

R234886, Laboratory studies, aerobic conditions										
Soil name	**Soil type (USDA)**	**pH (H_2O)**	**t.(ºC)**	**MWHC %**	**DT_{50} (d)**	**DT_{90} (d)**	**DT_{50} (d) 20°C pF2/10kPa**	**Chi[2] (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Acidic soils										
Wisborough Green	Clay loam	5.3	20	pF2	97.6	259	97.6	3.4	DFOP	Yes / DAR, 2014[1]; Oddy & Simmonds, 2011
Frensham	Sandy loam	5.4	20	pF2	**110**	309	110	2.4	DFOP	Yes / DAR, 2014[1]; Oddy & Simmonds, 2011
Ohio	Loamy sand	5.8	20	pF2	89.9	299	89.9	5.0	SFO	Yes / DAR, 2014[1]; Oddy & Simmonds, 2011
Nuptown	Sandy clay loam	6.2	20	pF2	94.9	203	94.9	6.0	DFOP	Yes / DAR, 2014[1]; Oddy & Simmonds, 2011
Georgia	Loamy sand	7.1	20	pF2	102	339	102	5.7	SFO	Yes / DAR, 2014[1]; Oddy & Simmonds, 2011
Alkaline soils										

R234886, Laboratory studies, aerobic conditions										
Soil name	**Soil type (USDA)**	**pH (H_2O)**	**t.(ºC)**	**MWHC %**	**DT_{50} (d)**	**DT_{90} (d)**	**DT_{50} (d) 20°C pF2/10kPa**	**Chi² (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
18 Acres	Sandy clay loam	7.0	20	75% 1/3 bar moisture	23.7	78.8	17.8	5.9	SFO	Yes / DAR, 2014[1]; Warinton, 1996
Gartenacker	Silt loam	7.3	20	pF2	25.7	85.3	25.7	3.6	SFO	Yes / DAR, 2014[1]; Oddy & Simmonds, 2011
Pappelacker	Sandy loam	7.4	20	pF2	47.1	156	47.1	1.4	SFO	Yes / DAR, 2014[1]; Oddy & Simmonds, 2011
Hyde Farm[a]	Sandy loam	7.5	20	75% 1/3 bar moisture	31.8	105.6	21.2	12.3	SFO	Yes / DAR, 2014[1]; Warinton, 1996
East Anglia[a]	Loamy Sand	7.8	20	40	56.5	188	43.4	3.3	SFO	Yes / DAR, 2014[1]; Jones & Robertson 1999
North Dakota	Sandy loam	7.8	20	pF2	65.4	217	65.4	4.7	SFO	Yes / DAR, 2014[1]
Vetroz	Loam	7.9	20	pF2	69.1	229	69.1	2.8	SFO	Yes / DAR, 2014[1]; Oddy & Simmonds, 2011
Geometic mean, acidic soils (n=5)							**98.6**			
Geometric mean, alkaline soils (n=7)							**36.7**			
pH-dependency:							Yes			

Soils were classified as either acidic or alkaline based on their adsorption and degradation characteristics as well as pH.
Value in bold was used for PEC soil calculation
[a] original studies peer reviewed (EFSA Journal 2010; 8 (4):1542)

Figure 8.3-3: R234886 - Distribution of $DegT_{50}$ with soil pH

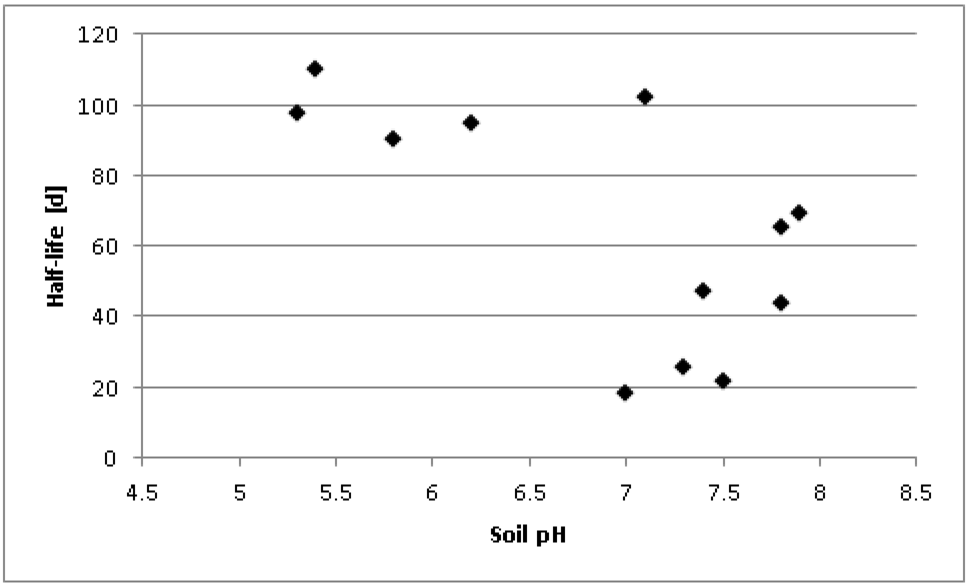


Table 8.3-3: Summary of aerobic degradation rates for R402173 - laboratory studies

R402173, Laboratory studies, aerobic conditions										
Soil name	**Soil type (USDA)**	**pH (H_2O)**	**t.(ºC)**	**MWHC %**	**DT_{50} (d)**	**DT_{90} (d)**	**DT_{50} (d) 20°C pF2/10kPa**	**Chi[2] (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Frensham	Sandy loam	6.6	20	40	8.44	28.0	5.7	8.6	SFO	Yes / EFSA, 2010; Jones, Campbell, 1998
Wisborough Green	Silty clay loam	6.4	20	40	4.24	14.1	2.4	12.3	SFO	Yes / EFSA, 2010; Jones, Campbell, 1998
East Anglia	Loamy sand	7.9	20	40	**9.80**	32.6	7.5	12.7	SFO	Yes / EFSA, 2010; Jones, Campbell, 1998
Geometric mean (n=3)							**4.68**			
pH-dependency:							No			

Value in bold was used for PEC soil calculation

Table 8.3-4: Summary of aerobic degradation rates for R401553 - laboratory studies

R401553, Laboratory studies, aerobic conditions										
Soil name	**Soil type (USDA)**	**pH (H_2O)**	**t.(ºC)**	**MWHC %**	**DT_{50} (d)**	**DT_{90} (d)**	**DT_{50} (d) 20°C pF2/10kPa**	**Chi² (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Frensham	Sandy loam	6.6	20	40	1.36	4.52	0.9	9.1	SFO	Yes / EFSA, 2010; Jones, Entwistle, 1998
Wisborough Green	Silty clay loam	6.4	20	40	1.59	5.29	0.9	10.9	SFO	Yes / EFSA, 2010; Jones, Entwistle, 1998
East Anglia	Loamy sand	7.9	20	40	**2.01**	6.68	1.5	12.3	SFO	Yes / EFSA, 2010; Jones, Entwistle, 1998
Geometric mean (n=3)							**1.07**			
pH-dependency:							No			

Value in bold was used for PEC soil calculation

8.3.1.2 Oxathiapiprolin and its metabolites

Studies on the aerobic degradation rates of oxathiapiprolin and its metabolites IN-E8S72, IN-QPS10, IN-RDT31 and IN-E8S72 are considered to be data provided in support of the active substance. All relevant detailed experimental information has been submitted for EU review of oxathiapiprolin, **EFSA Journal 2016;14(7):4504.**

Trigger endpoints

Table 8.3-5: Summary of aerobic degradation rates for oxathiapiprolin - laboratory studies

Oxathiapiprolin Laboratory studies, aerobic conditions									
Soil name	**Soil type (USDA)**	**pH (H_2O)**	**t. (ºC)**	**MWHC (%)**	**DT_{50} (d)**	**DT_{90} (d)**	**Chi² (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Lleida	Clay Loam	7.9	20		59.4	197.2	7	SFO	Yes / EFSA 2016; Manjunatha, 2011
Nambsheim	Sandy Loam	7.6	20		134.8	640	2	DFOP (k_1 = 0.308, k_2 = 0.00319, g = 0.2)	
Speyer 2.2	Sand	6.1	20		116.3	386.3	7	SFO	
Tama	Silty clay loam	6.8	20		18.2	1224	4	FOMC (a = 0.4, ß = 3.907)	
Sassafras	Loamy sand	5.3	20	33.6	89.3	626.3	3	DFOP (k_1 = 0.071, k_2 = 0.00299, g = 0.3)	Yes / EFSA 2016; Cleland, 2013
Sassafras	Loamy sand	5.3	20	33.6	130.8	434.4	7	SFO	Yes / EFSA 2016; McCorquodale , 2013

* For HS kinetics DT_{50} = ln2/k_2

Table 8.3-6: Summary of aerobic degradation rates for IN-RDT31 - laboratory studies

IN-RDT31, Laboratory studies, aerobic conditions									
Soil name	**Soil type (USDA)**	**pH ($CaCl_2$)**	**t. (ºC)**	**MWHC (%)**	**DT_{50} (d)**	**DT_{90} (d)**	**Chi² (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Nambsheim	Sandy Loam	7.4	20		46.3	235.2	5	DFOP (k_1 = 0.336, k_2 = 0.00852, g = 0.3)	Yes / EFSA, 2016; Sannappa, 2012
Tama	Silty clay loam	5.7	20		152	978.8	4	DFOP (k_1 = 0.084, k_2 = 0.00195, g = 0.3)	
Lleida	Clay	7.5	20		49.6	222.7	5	DFOP (k_1 = 0.152, k_2 = 0.009, g = 0.2)	
Speyer 2.2	Loamy sand	5.3	20		736.4	3652	2	DFOP (k_1 = **0.262**, k_2 = **0.00055**, g = **0.2**)	
Sassafras	Sandy loam	5.1	20		216.2	1160	4	HS (k_1 = 0.057, k_2 = 0.00171, t_b = 5.9)	
Lleida	Clay loam	7.9	20		47.1	156.5	18	SFO-SFO	Yes / EFSA, 2016; Manjunatha, 2011

Values in bold were used for PEC soil calculation

Table 8.3-7: Summary of aerobic degradation rates for IN-RAB06 - laboratory studies

IN-RAB06, Laboratory studies, aerobic conditions									
Soil name	**Soil type (USDA)**	**pH**	**t. (ºC)**	**MWHC (%)**	**DT_{50} (d)**	**DT_{90} (d)**	**Chi^2 (%)**	**Kinetic model***	**Evaluated on EU level / Reference**
Speyer 2.2	Loamy sand	5.4	20		83.6	346.5	4	DFOP (k_1 = 0.083, k_2 = 0.006, g =0.2)	Yes / EFSA, 2016; Ravi, 2013a
Lleida	Clay	7.7	20		51.7	258.2	5	FOMC (a = 2.194, ß = 139.09)	
Tama	Silty clay loam	6.2	20		74.6	247.9	4	SFO	
Nambsheim	Sandy loam	7.6	20		38.5	214.1	6	FOMC (a = 1.775, ß = 80.549)	
Cajon	Loam	7.3	20		68.1	226.4	4	SFO	
Tama	Silty Clay Loam	6.3	20		10.4	166.5	4	DFOP (k_1 = 0.245, k_2 = 0.0098, g = 0.5)	Yes / EFSA, 2016; Stenzel, Schaefer, 2012
Lleida	Clay	7.7	20		8.6	63.5	2	DFOP (k_1 = 0.628, k_2 = 0.029, g = 0.4)	
Sassafras	Loam	5.1	20		100.5	603.9	3	DFOP (k_1 = 0.238, k_2 = 0.0032, g = 0.3)	
Nambsheim	Sandy Loam	7.7	20		3.5	58.6	4	DFOP (k_1 = 0.9, k_2 = 0.028, g = 0.5)	
Speyer	Loamy Sand	5.5	20		**170.2**	565.2	5	SFO	
Lleida	Clay loam	7.9	20		24.1	80.2	17	SFO-SFO	Yes, EFSA, 2016; Manjunatha, 2011
Sassafras	Loamy Sand	5.3	20		38.2	127	20	DFOP-SFO	Yes / EFSA, 2016; Cleland, 2013

* For FOMC kinetics $DT_{50} = DT_{90}/3.32$; For HS and DFOP kinetics $DT_{50} = \ln(2)/k_2$
Value in bold was used for PEC soil calculation

Table 8.3-8: Summary of aerobic degradation rates for IN-E8S72 - laboratory studies

IN-E872, Laboratory studies, aerobic conditions									
Soil name	**Soil type (USDA)**	**pH ($CaCl_2$)**	**t. (ºC)**	**MWHC (%)**	**DT_{50} (d)**	**DT_{90} (d)**	**Chi^2 (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Speyer 2.2	Loamy sand	5.2	20		**477.4**	1585.8	2	SFO	Yes / EFSA, 2016; Ravi, 2013b
Lleida	Clay	7.7	20		271.7	902.5	0.82	SFO	
Tama	Silty clay loam	6.4	20		216.2	718.2	3	SFO	

IN-E872, Laboratory studies, aerobic conditions									
Soil name	**Soil type (USDA)**	**pH ($CaCl_2$)**	**t. (ºC)**	**MWHC (%)**	**DT_{50} (d)**	**DT_{90} (d)**	**Chi^2 (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Nambsheim	Sandy Loam	7.6	20		328.4	1090.9	2	SFO	
Sassafras	Sandy loam	5.1	20		379.6	1260.9	1	SFO	

Value in bold used for PEC soil calculation

Table 8.3-9: Summary of aerobic degradation rates for IN-QPS10 - laboratory studies

IN-QPS10, Laboratory studies, aerobic conditions									
Soil name	**Soil type (USDA)**	**pH ($CaCl_2$)**	**t. (ºC)**	**MWHC (%)**	**DT_{50} (d)**	**DT_{90} (d)**	**Chi^2 (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Nambsheim	Sandy Loam	7.4	20		3	171.3	9	DFOP (k_1 = 0.645, k_2 = 0.00847, g = 0.6)	Yes / EFSA, 2016; Yogeesha, S., 2012
Lleida	Clay	7.5	20		19	192.8	4	DFOP (k_1 = 1.323, k_2 = 0.00926, g = 0.4)	
Sassafras	Sandy loam	5.3	20		310.2	2266.6	5	DFOP (k_1 = **0.811**, k_2 = **0.00082**, g = **0.4**)	
Speyer 2.2	Loamy sand	5.1	20		301.4	1722.3	6	DFOP (k_1 = 5.827, k_2 = 0.00113, g = 0.3)	

Values in bold were used for PEC soil calculation

Modelling endpoints

Table 8.3-10: Summary of aerobic degradation rates for oxathiapiprolin - laboratory studies

Oxathiapiprolin Laboratory studies, aerobic conditions										
Soil name	**Soil type (USDA)**	**pH (H_2O)**	**t. (ºC)**	**MWHC (%)**	**DT_{50} (d)**	**DT_{90} (d)**	**DT_{50} (d) 20°C pF2/10kPa**	**Chi² (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Lleida	Clay Loam	7.9	20		59.4	-	59.4	7	SFO	Yes / EFSA 2016; Manjunatha, 2011
Nambsheim	Sandy Loam	7.6	20		217.3	-	217.3	2	HS (k_1 = 0.036, k_2 = 0.00319, t_b = 8.1)	
Speyer 2.2	Sand	6.1	20		116.3	-	116.3	7	SFO	
Tama	Silty clay loam	6.8	20		108.1	-	105.68	4	HS (k_1 = 0.051, k_2 = 0.00641, t_b = 14.7)	
Sassafras	Loamy sand	5.3	20	33.6	175	-	175	3	HS (k_1 = 0.02, k_2 = 0.00396, t_b = 19.9)	Yes / EFSA 2016; Cleland, 2013
Sassafras	Loamy sand	5.3	20	33.6	130.8	-	114.03	7	SFO	Yes / EFSA 2016; McCorquodale, 2013
Geometric mean (n=6)							**121.2**			
pH-dependency:							No			

* For HS kinetics $DT_{50} = \ln2/k_2$

Table 8.3-11: Summary of aerobic degradation rates for IN-RDT31 - laboratory studies

IN-RDT31, Laboratory studies, aerobic conditions										
Soil name	**Soil type (USDA)**	**pH ($CaCl_2$)**	**t. (ºC)**	**MWHC (%)**	**DT_{50} (d)**	**DT_{90} (d)**	**DT_{50} (d) 20°C pF2/10kPa**	**Chi² (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Nambsheim	Sandy Loam	7.4	20		81.5		81.5	5	HS (k_1 = 0.092, k_2 = 0.00851, t_b = 3.6)	Yes / EFSA, 2016; Sannappa, 2012
Tama	Silty clay loam	5.7	20		192		177	5	HS (k_1 = 0.033, k_2 = 0.00361, t_b = 8.4)	
Lleida	Clay	7.5	20		66.5		62.6	5	HS (k_1 = 0.053, k_2 = 0.01043, t_b = 4)	

IN-RDT31, Laboratory studies, aerobic conditions										
Soil name	**Soil type (USDA)**	**pH ($CaCl_2$)**	**t. (ºC)**	**MWHC (%)**	**DT_{50} (d)**	**DT_{90} (d)**	**DT_{50} (d) 20°C pF2/10kPa**	**Chi^2 (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Speyer 2.2	Loamy sand	5.3	20		866.4		1260	2	DFOP (k_1 = 0.262, k_2 = 0.00055, g = 0.2)	
Sassafras	Sandy loam	5.1	20		405.4		313.4	4	HS (k_1 = 0.057, k_2 = 0.00171, t_b = 5.9)	Yes / EFSA, 2016; Manjunatha, 2011
Lleida	Clay loam	7.9	20		47.1		47.1	18	SFO-SFO	
Geometric mean (n=6)							**160**			
pH-dependency:							No			

Table 8.3-12: Summary of aerobic degradation rates for IN-RAB06 - laboratory studies

IN-RAB06, Laboratory studies, aerobic conditions										
Soil name	**Soil type (USDA)**	**pH**	**t. (ºC)**	**MWHC (%)**	**DT_{50} (d)**	**DT_{90} (d)**	**DT_{50} (d) 20°C pF2/10kPa**	**Chi^2 (%)**	**Kinetic model***	**Evaluated on EU level / Reference**
Speyer 2.2	Loamy sand	5.4	20		87.7	291.5	87.7	5	SFO	Yes / EFSA, 2016; Ravi, 2013a
Lleida	Clay	7.7	20				53.5	5	SFO	
Tama	Silty clay loam	6.2	20		74.6	247.9	74.6	4	SFO	
Nambsheim	Sandy loam	7.6	20		44.4	147.5	44.4	7	SFO	
Cajon	Loam	7.3	20		68.1	226.4	66.1	4	SFO	
Tama	Silty Clay Loam	6.3	20		10.4	166.5	70.7	4	DFOP (k_1 = 0.245, k_2 = 0.0098, g = 0.5)	Yes / EFSA, 2016; Stenzel, Schaefer, 2012
Lleida	Clay	7.7	20		30.4		23.1	8	FOMC (a = 0.776, ß = 5.458)	
Sassafras	Loam	5.1	20				214.4	3	DFOP (k_1 = 0.238, k_2 = 0.0032, g = 0.3)	
Nambsheim	Sandy Loam	7.7	20				31.2	9	FOMC (a = 0.564, ß = 1.829)	

IN-RAB06, Laboratory studies, aerobic conditions										
Soil name	**Soil type (USDA)**	**pH**	**t. (ºC)**	**MWHC (%)**	**DT_{50} (d)**	**DT_{90} (d)**	**DT_{50} (d) 20°C pF2/10kPa**	**Chi^2 (%)**	**Kinetic model***	**Evaluated on EU level / Reference**
Speyer	Loamy Sand	5.5	20				231	4	HS (k_1 = 0.022, k_2 = 0.003, tb = 7.8)	
Lleida	Clay loam	7.9	20		24.1		24.1	17	SFO-SFO	Yes, EFSA, 2016; Manjunatha, 2011
Sassafras	Loamy Sand	5.3	20		38.2		38.2	20	DFOP-SFO	Yes / EFSA, 2016; Cleland, 2013
Geometric mean (n=12)							**60.5**			
pH-dependency:							No			

* For FOMC kinetics $DT_{50} = DT_{90}/3.32$; For HS and DFOP kinetics $DT_{50} = \ln(2)/k_2$

Table 8.3-13: Summary of aerobic degradation rates for IN-E8S72 - laboratory studies

IN-E872, Laboratory studies, aerobic conditions										
Soil name	**Soil type (USDA)**	**pH ($CaCl_2$)**	**t. (ºC)**	**MWHC (%)**	**DT_{50} (d)**	**DT_{90} (d)**	**DT_{50} (d) 20°C pF2/10kPa**	**Chi^2 (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Speyer 2.2	Loamy sand	5.2	20		477.4	-	477.4	2	SFO	Yes / EFSA, 2016; Ravi, 2013b
Lleida	Clay	7.7	20		271.7	-	243	0.82	SFO	
Tama	Silty clay loam	6.4	20		216.2	-	213.9	3	SFO	
Nambsheim	Sandy Loam	7.6	20		328.4	-	328.4	2	SFO	
Sassafras	Sandy loam	5.1	20		379.6	-	352.3	1	SFO	
Geometric mean (n=5)							**310.2**			
pH-dependency:							No			

Table 8.3-14: Summary of aerobic degradation rates for IN-QPS10 - laboratory studies

IN-QPS10, Laboratory studies, aerobic conditions										
Soil name	**Soil type (USDA)**	**pH ($CaCl_2$)**	**t. (ºC)**	**MWHC (%)**	**DT_{50} (d)**	**DT_{90} (d)**	**DT_{50} (d) 20°C pF2/10kPa**	**Chi^2 (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Nambsheim	Sandy Loam	7.4	20		81.8	-	81.8	9	DFOP (k_1 = 0.645, k_2 = 0.00847, g = 0.6)	Yes / EFSA, 2016; Yogeesha, S., 2012
Lleida	Clay	7.5	20		74.9	-	70.5	4	DFOP (k_1 = 1.323, k_2 = 0.00926, g = 0.4)	
Sassafras	Sandy loam	5.3	20		673	-	520.3	7	HS (k_1 = 0.161, k_2 = 0.00103, t_b = 2.5)	
Speyer 2.2	Loamy sand	5.1	20		613.4	-	613.4	6	HS (k_1 = 0.353, k_2 = 0.00113, t_b = 1)	
Geometric mean acidic (n=2)							**564.9**			
Geometric mean alkaline (n=2)							**75.9**			
pH-dependency:							Yes			

8.3.2 Anaerobic degradation in soil (KCP 9.1.1.1)

8.3.2.1 Azoxystrobin and its metabolites

The study on the anaerobic degradation rates of azoxystrobin is considered to be data provided in support of the active substance. All relevant detailed experimental information has been submitted for EU review of azoxystrobin (**EFSA Journal 2010; 8(4): 1542**). The soil anaerobic studies and endpoints are deemed not relevant to current risk assessment.

Table 8.3-15: Summary of anaerobic degradation rates of azoxystrobin – laboratory studies

Azoxystrobin, Laboratory studies, anaerobic conditions										
Soil name	**Soil type (USDA)**	**pH (H_2O)**	**t.(ºC)**	**MWHC %**	**DT_{50} (d)**	**DT_{90} (d)**	**DT_{50} (d) 20°C pF2/10kPa**	**Chi[2] (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
18 Acres	Sandy clay loam	7.0	20	flooded	59.8	198	59.8	3.41	SFO	Yes / EFSA, 2010; Warinton, Chalofti, Harvey, 1996
Hyde Farm	Sandy loam	7.0	20	flooded	49.0	163	49.0	6.76	SFO	Yes / EFSA, 2010 Warinton, Chalofti, Harvey, 1996
Geometric mean (n=2)							54.1			
pH-dependency:							No			

All studies on anaerobic degradation in soil of azoxystrobin have been reviewed under Council Directive 91/414/EEC.

8.3.2.2 Oxathiapiprolin

Studies on the anaerobic degradation rates of oxathiapiprolin are considered to be data provided in support of the active substance. All relevant detailed experimental information has been submitted for EU review of oxathiapiprolin, **EFSA Journal 2016;14(7):4504.**

Table 8.3-16: Summary of anaerobic degradation rates for oxathiapiprolin - laboratory studies

Oxathiapiprolin Laboratory studies, anaerobic conditions										
Soil name	**Soil type (USDA)**	**pH (H_2O)**	**t. (ºC)**	**MWHC (%)**	**DT_{50} (d)**	**DT_{90} (d)**	**DT_{50} (d) 20°C pF2/10kPa**	**Chi[2] (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Sassafras	Sandy loam	5.7	20	50	1505	4998	-		SFO	Yes / EFSA, 2016

8.4 Field studies (KCP 9.1.1.2)

8.4.1 Soil dissipation testing on a range of representative soils (KCP 9.1.1.2.1)

Studies on field dissipation rates, while commonly performed with a formulation, are considered to be data provided in support of the active substance.

8.4.1.1 Azoxystrobin and its metabolites

The field dissipation rate of azoxystrobin was evaluated during the EU review (**EFSA Journal 2010; 8(4): 1542)**. No additional studies have been performed.

The dissipation of azoxystrobin was investigated in ten surface applied trials and five soil-incorporated trials. Data from all studies were evaluated according to FOCUS Kinetics (FOCUS, 2006) and normalised to FOCUS reference conditions (20°C and pF2 soil moisture content). After this process, 13 degradation end-points were considered relevant for evaluating the dissipation of azoxystrobin under field conditions. In the 10 surface-applied trials, bi-phasic decline of azoxystrobin was observed, which was attributed to photolysis on the surface followed by microbial degradation in the soil. In the remaining three in-furrow (i.e. soil incorporated) trials, degradation was best described by single first order kinetics and was assumed to occur via microbial processes in the absence of light. The resulting triggering and modelling endpoints are presented in Table 8.4-1 and Table 8.4-2 respectively.

Trigger endpoints

Table 8.4-1: Summary of aerobic degradation rates for azoxystrobin - field studies: Triggering endpoints

Azoxystrobin, Field studies – Trigger endpoints									
Soil type (USDA)	**Location**	**pH (H_2O)**	**Depth (cm)**	**$DissT_{50}$ (d) Actual**	**DT_{90} (d) Actual**	**Kinetic parameters**	**Chi^2 (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Applied to bare soil and incorporated									
Sandy clay loam	Spalding (UK)	7.5 (0-15 cm)	30	261.9	869.9	-	10.6	SFO	Yes / EFSA, 2010; Kay, Emburey, 2002
Silty clay loam	Nagele (NL)	7.9 (0-15 cm)	30	186.4	619.3	-	10.2	SFO	Yes / EFSA, 2010; Poppezijn, Emburey, 2002
Sandy clay loam	Shirebrook (UK)	6.7 (0-20 cm)	30	120.9	401.7	-	17.2	SFO	Yes / EFSA, 2010; Emburey, 2002
			Maximum (n=3)	**261.9**	**869.9**				

Modelling endpoints

Table 8.4-2: Summary of aerobic degradation rates for azoxystrobin - field studies: Modelling endpoints

Azoxystrobin, Field studies – Modelling endpoints							
Soil type (USDA)	**Location**	**pH (H_2O)**	**Depth (cm)**	**DT_{50} (d) 20°C, pF2 fast phase**	**DT_{50} (d) 20°C, pF2 slow phase**	**Kinetic model**	**Evaluated on EU level / Reference**
Applied to bare soil and incorporated							
Sandy clay loam	Spalding (UK)	7.5 (0-15 cm)	30	106.7		SFO	Yes / EFSA, 2010; Kay, Emburey, 2002
Silty clay loam	Nagele (NL)	7.9 (0-15 cm)	30	86.3		SFO	Yes / EFSA, 2010; Poppezijn, Emburey, 2002
Sandy clay loam	Shirebrook (UK)	6.7 (0-20 cm)	30	56.1		SFO	Yes / EFSA, 2010; Emburey, 2002
Geometric mean (n=3)				80.2			
Applied to soil and not incorporated							
Clay loam	Volpedo (IT)	8.2 (0-20 cm)	30	2.62 [a]	80.6 [a]	DFOP	Yes / EFSA, 2010; Bonfanti, Earl, 1995
Sandy loam	Bienenbuttel-Varendorf (DE)	6.4 (0-30 cm)	30	2.95 [a]	61.3 [a]	DFOP	Yes / EFSA, 2010; Earl, Chamier, 1995
Sandy clay loam	Saxa-Anhalt (DE)	6.6 (0-30 cm)	30	1.64 [a]	93.7 [a]	DFOP	Yes / EFSA, 2010; Earl, Chamier, 1995a
Clay loam	Isle/Sorgue (FR)	8.5 (0-20 cm)	30	4.65 [a]	121.6 [a]	DFOP	Yes / EFSA, 2010; Barnaud, Tummon, Earl, 1995
Sandy loam	Monteux Vaucluse (FR)	8.5 (0-20 cm)	30	4.03 [a]	68 [a]	DFOP	Yes / EFSA, 2010; Barnaud, Tummon, Earl, 1995a
Silt loam	St Vigor (FR)	6.1 (0-20 cm)	30	3.02 [a]	34.5 [a]	DFOP	Yes / EFSA, 2010; Barnaud, Tummon, Earl, 1995b

Azoxystrobin, Field studies – Modelling endpoints							
Soil type (USDA)	**Location**	**pH (H_2O)**	**Depth (cm)**	**DT_{50} (d) 20°C, pF2 fast phase**	**DT_{50} (d) 20°C, pF2 slow phase**	**Kinetic model**	**Evaluated on EU level / Reference**
Silty clay loam	Massalombarda (FR)	8.3 (0-20 cm)	30	1.39 [a]	105 [a]	DFOP	Yes / EFSA, 2010; Bonfanti, Tummon, Earl, 1995
Clay loam	Grisolles (FR)	7.7 (0-20 cm)	30	13.3 [a]	66 [a]	DFOP	Yes / EFSA, 2010; Eschenbrenner, Tummon, Earl, 1995
Clay	Cambridgeshire (UK)	8.0 (0-20 cm)	30	2.09 [a]	93.7 [a]	DFOP	Yes / EFSA, 2010; Hall, Earl, 1995
Clay	Somerset (UK)	8.1 (0-20 cm)	30	0.42 [a]	73.7 [a]	DFOP	Yes / EFSA, 2010; Myles, Tummon, Earl, 1995
Geometric mean (n=10)				**2.55**	**75.9**		
Overall geometric mean, slow phase (n=13) [b]				**78**			
pH-dependency				No			

[a] Q10 of 2.58 for the correction of the temperature effect was used in the normalization procedure for the whole, biphasic decline
[b] calculated from the geometric mean of the soil incorporated field studies (80.2 days) and the slow phase of the non-incorporated studies (75.9 days)

The azoxystrobin degradation products R234886, R230130, R402173 and R401553 were analysed alongside parent in the bare soil dissipation trials. R230130 was not detected at any site (limit of quantification, LOQ 0.02 mg/kg). Both photolytic metabolites, R402173 and R401553 were found in field trials at significant levels (>10%), while less than 5% was found to be degraded into R234886. R234886 was only observed in one dissipation trial with a maximum residue of 0.03 mg/kg 92 days after application, then declining to below the LOQ (0.02 mg/kg) 176 days after application. A maximum occurrence of R402173 and R401553 were detected in all trials at a maximum level of 0.05 and 0.03 mg/kg, respectively. These residues were equivalent to a maximum of 17% of parent residue for both metabolites (corrected for molecular weight). These maximal amounts were all observed during the first three months of the trials and levels had fallen to less than the LOQ by the end of the studies (0.01 mg/kg for R402173 and R401553).

The following formation fractions were calculated based on these data: ffm of R402173 from parent = 0.385, ffm of R401553 from parent = 0.392, ffm of R401553 from R402173 = 0.468.

All studies supporting the field dissipation rates of azoxystrobin have been reviewed for azoxystrobin under Council Directive 91/414/EEC.

8.4.1.2 Oxathiapiprolin and its metabolites

Studies on the field dissipation rates of oxathiapiprolin and are considered to be data provided in support of the active substance. All relevant detailed experimental information has been submitted for EU review of oxathiapiprolin, **EFSA Journal 2016;14(7):4504.**

Trigger endpoints

Table 8.4-3: Summary of aerobic degradation rates for oxathiapiprolin - field studies: Trigger endpoints

Oxathiapiprolin, Field studies – Trigger endpoints					
Location	**DT_{50} (d) Actual**	**DT_{90} (d) Actual**	**Chi^2 (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Lucenay, France	5.5	178.5	8	DFOP (k_1 = 0.194, k_2 = 0.005, g = 0.8)	Yes / EFSA, 2016
Lentzke, Germany	23.9	556.7	12	DFOP (k_1 = 0.055, k_2 = 0.002, g = 0.7)	
Cambridgeshire, U.K.	101	524.5	6	DFOP (k_1 = 0.07, k_2 = 0.004, g = 0.3)	
Sevilla, Spain	8.1	211.5	10	DFOP (k_1 = 0.239, k_2 = 0.007, g = 0.6)	
North Rose, New York	3.9	208	19	DFOP (k_1 = 0.367, k_2 = 0.006, g = 0.6)	
Raymondville, Texas	9.8	75.8	13	FOMC (a = 1.155, ß = 11.956)	
Citra, Florida	34.6	270.3	9	FOMC (a = 1.14, ß = 41.333)	
Porterville, California	30	174.2	9	FOMC (a = 1.659, ß = 57.932)	
Manitoba, Canada	**205.3**	682	19	SFO	
British Columbia, Canada	169.6	563.4	13	SFO	

Figures in bold used for PEC soil calculation

Table 8.4-4: Summary of aerobic degradation rates for IN-RDT31- field studies: Trigger endpoints

IN-RDT31, Field studies – Trigger endpoints					
Location	**DT_{50} (d) Actual**	**DT_{90} (d) Actual**	**Chi^2 (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Lentzke, Germany	134.5	446.8	19	SFO	Yes / EFSA, 2016
Cambridgeshire, U.K.	190.00	632.00	14	SFO	

Modelling endpoints

Table 8.4-5: Summary of aerobic degradation rates for oxathiapiprolin - field studies: Modelling endpoints

Oxathiapiprolin, Field studies – Modelling endpoints					
Location	**pH**	**DT_{50} (d) Actual**	**Chi^2 (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Lucenay, France	6.9	31.5	11	FOMC (a = 0.567, ß = 1.843)	Yes / EFSA, 2016
Lentzke, Germany	6	97.9	11	FOMC (a = 0.61, ß =	

Oxathiapiprolin, Field studies – Modelling endpoints					
Location	**pH**	**DT_{50} (d) Actual**	**Chi^2 (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
				7.622)	
Cambridgeshire, U.K.	7.4	68.4	9	SFO	
Sevilla, Spain	8.1	104	13	FOMC (a = 0.468, ß = 2.544)	
North Rose, New York	5.1	73.7	21	FOMC (a = 0.426, ß = 1.104)	
Raymondville, Texas	8.3	52.8	15	FOMC (a = 1.05, ß = 22.038)	
Citra, Florida	6.7	138.5	9	FOMC (a = 1.125, ß = 68.16)	
Porterville, California	8.5	56.5	8	FOMC (a = 0.828, ß = 12.369)	
Manitoba, Canada	7.9	76.2	21	SFO	
British Columbia, Canada	6.5	66.5	13	FOMC (a = 2.719, ß = 165.82)	

* For FOMC kinetics $DT_{50} = DT_{90}/3.32$

Table 8.4-6: Summary of aerobic degradation rates for IN-E8S72- field studies: Modelling endpoints

IN-E8S72, Field studies – Modelling endpoints					
Location	**pH**	**DT_{50} (d) Actual**	**Chi^2 (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Lucenay, France	6.9	47.3	15	SFO	Yes / EFSA, 2016
Cambridgeshire, U.K.	7.4	157.3	7	SFO	
North Rose, New York	5.1	56.6	20	FOMC (a = 0.621, ß = 4.72)	
Raymondville, Texas	8.3	113.6	9	SFO	

* For FOMC kinetics $DT_{50} = DT_{90}/3.32$

Table 8.4-7: Summary of aerobic degradation rates for IN-RDT31- field studies: Modelling endpoints

IN-RDT31, Field studies – Modelling endpoints					
Location	**pH**	**DT_{50} (d) Actual**	**Chi^2 (%)**	**Kinetic model**	**Evaluated on EU level / Reference**
Lentzke, Germany	6	47.6	13	DFOP-SFO	Yes / EFSA, 2016
Cambridgeshire, U.K.	7.4	53.6	15	SFO-SFO	
Citra, Florida	6.7	111.7	20	FOMC-SFO	
British Columbia, Canada	6.5	105.1	7	FOMC-SFO	

Table 8.4-8: Summary of aerobic degradation rates for IN-RAB06- field studies: Modelling endpoints

IN-RAB06, Field studies – Modelling endpoints					
Location	**pH**	**DT_{50} (d) Actual**	**Chi^2 (%)**	**Kinetic model***	**Evaluated on EU level / Reference**
Lucenay, France	6.9	77.1	12	SFO	Yes / EFSA, 2016
North Rose, New York	5.1	34.2	20	FOMC (a = 0.616, ß = 2.77)	
Citra, Florida	6.7	167.6	21	SFO	
British Columbia, Canada	6.5	208.6	10	SFO	

* For FOMC kinetics $DT_{50} = DT_{90}/3.32$

8.4.2 Soil accumulation testing (KCP 9.1.1.2.2)

8.4.2.1 Azoxystrobin and its metabolites

Based on the field dissipation data azoxystrobin is likely to significantly accumulate in soil with repeated applications. The potential for accumulation has been assessed by calculation under Section 8.7.

8.4.2.2 Oxathiapiprolin and its metabolites

Studies on the mobility of oxathiapiprolin and are considered to be data provided in support of the active substance. All relevant detailed experimental information has been submitted for EU review of oxathiapiprolin, **EFSA Journal 2016;14(7):4504.**

8.5 Mobility in soil (KCP 9.1.2)

Studies on mobility in soil with the formulation were not performed, since it is possible to extrapolate from data obtained with the active substance.

8.5.1 Azoxystrobin and its metabolites

Studies on the mobility in soil of azoxystrobin and its metabolites R234886, R402173 and R401553 are considered to be data provided in support of the active substance. All relevant detailed experimental information has been submitted for EU review of azoxystrobin (**EFSA Journal 2010; 8(4): 1542**). Additional data were provided for metabolite R234886 in the Addendum for confirmatory Information (see ***DAR, 2014***[1] for further details) in order to provide more detailed information on pH-dependent sorption of this metabolite.

A summary of the soil adsorption data is provided in Table 8.5-1 to Table 8.5-4.

Table 8.5-1: Summary of soil adsorption/desorption for azoxystrobin

Azoxystrobin							
Soil name	**Soil type (USDA)**	**OC (%)**	**pH (H_2O)**	**K_F (mL/g)**	**K_{FOC} (mL/g)**	**1/n (-)**	**Evaluated on EU level/ Reference**
Hyde Farm (UK)	Sandy clay loam	1.7	7.5	7.9	465	0.84	Yes / EFSA, 2010; Rowe, Lane, 1994
East Anglia (UK)	Loamy sand	1.7	7.8	4	235	0.82	Yes / EFSA, 2010; Rowe, Lane, 1994
Kenny Hill (UK)	Loamy sand	3.0	7.9	6.2	207	0.85	Yes / EFSA, 2010; Rowe, Lane, 1994
Lilly Field (UK)	Sand	0.3	5.5	1.5	500	0.84	Yes / EFSA, 2010; Rowe, Lane, 1994
Nebo (UK)	Silty clay loam	1.6	4.9	9.5	594	0.90	Yes / EFSA, 2010; Rowe, Lane, 1994
Pickett Piece (UK)	Clay loam	2.8	5.5	15	536	0.90	Yes / EFSA, 2010; Rowe, Lane, 1994
Arithmetic mean (n=6)					**423**	**0.86**	
Geometric mean (n=6)					392	-	
pH-dependency					No		

The adsorption of R234886 in soil has previously been determined in six soils and reviewed during the Annex I Renewal of azoxystrobin. The evaluation concluded that adsorption of R234886 was inversely correlated with pH; i.e. decreasing adsorption with increasing pH.

Since publication of the EFSA conclusion (2010), R234886 soil adsorption has been further evaluated in the same nine soils used for the additional degradation study (Simmonds, 2011) and was evaluated in the DAR (2014[1]).

The soil adsorption data from all studies are presented in order of ascending pH in Table 8.5-2. The correlation of soil adsorption and pH was confirmed with the additional data. The relationship was linear with a fit of log K_{FOC} vs. pH (Figure 8.5-1). The Georgia soil had a higher K_{FOC} than would have been expected from its pH and appears to be an outlier. This soil also had a slower rate of degradation compared to its apparent pH.

Because of the clear relationship of adsorption with pH, paired acidic/alkaline values have been used in modelling assessments (Table 8.5-2).

Table 8.5-2: Summary of soil adsorption/desorption for R234886

R234886							
Soil Name	**Soil Type (USDA)**	**OC (%)**	**pH (H_2O)**	**K_F (mL/g)**	**K_{FOC} (mL/g)**	**1/n (-)**	**Evaluated on EU level / Reference**
Acidic soils [a]							
Nebo (UK)	-	1.6	4.9	6.8	420	0.900	Yes / EFSA, 2010; Ferguson, Muller, Lane, 1994
Wisborough Green (UK)	-	2.4	5.3	2.43	101	0.542 [b]	Yes / DAR, 2014[1]; Simmonds, 2011
Frensham (UK)	-	1.8	5.4	1.83	100	0.639 [b]	Yes / DAR, 2014[1]; Simmonds, 2011
Lilly Field (UK)	-	0.3	5.5	1.4	490	0.790	Yes / DAR, 2014[1]; Simmonds, 2011
Pickett Piece (UK)	-	2.8	5.5	10	360	0.890	Yes / EFSA, 2010; Ferguson, Muller, Lane, 1994
Ohio (US)	-	1.4	5.8	1.52	112	0.663 [b]	Yes / DAR, 2014[1]
Nuptown (UK)	-	2.5	6.2	1.53	62	0.705	Yes / DAR, 2014[1]
Georgia (US)	-	0.7	7.1	1.22	182	0.832	Yes / DAR, 2014[1]
Alkaline soils [a]							
Gartenacker (CH)	-	2.7	7.3	0.87	33	0.820	Yes / DAR, 2014[1]; Simmonds, 2011
Pappelacker (CH)	-	1.1	7.4	0.42	37	0.803	Yes / DAR, 2014[1]; Simmonds, 2011
Hyde Farm (UK)	-	1.7	7.5	0.85	49	0.850	Yes / EFSA, 2010, Ferguson, Muller, Lane, 1994

R234886							
Soil Name	**Soil Type (USDA)**	**OC (%)**	**pH (H_2O)**	**K_F (mL/g)**	**K_{FOC} (mL/g)**	**1/n (-)**	**Evaluated on EU level / Reference**
East Anglia (UK)	-	1.7	7.8	0.35	21	0.760	Yes / EFSA, 2010, Ferguson, Muller, Lane, 1994
North Dakota (US)	-	2.8	7.8	1.65	59	0.863	Yes / DAR, 2014[1]; Simmonds, 2011
Vetroz (CH)	-	2.4	7.9	0.72	30	0.861	Yes / DAR, 2014[1]; Simmonds, 2011
Kenny Hill (UK)	-	3.0	7.9	0.82	28	0.900	Yes / EFSA, 2010, Ferguson, Muller, Lane, 1994
Arithmetic mean, acidic soils (n=8)					**228.4**	**0.78 [c]**	
Geometric mean, acidic soils (n=8)					177.0	-	
Arithmetic mean, alkaline soils (n=7)					**36.7**	**0.83**	
Geometric mean, alkaline soils (n=7)					34.8	-	
pH-dependency					Yes		

[a] Soils were classified as either acidic or alkaline based on their adsorption and degradation characteristics as well as pH
[b] values rounded to 0.7 used in modelling as this is the minimum reliable 1/n value stated in FOCUS (2000)
[c] arithmetic mean used in modelling; based on 1/n values of 0.7 for Wisborough Green, Frensham and Ohio

Figure 8.5-1: R234886 – Distribution of log K_{FOC} vs. soil pH

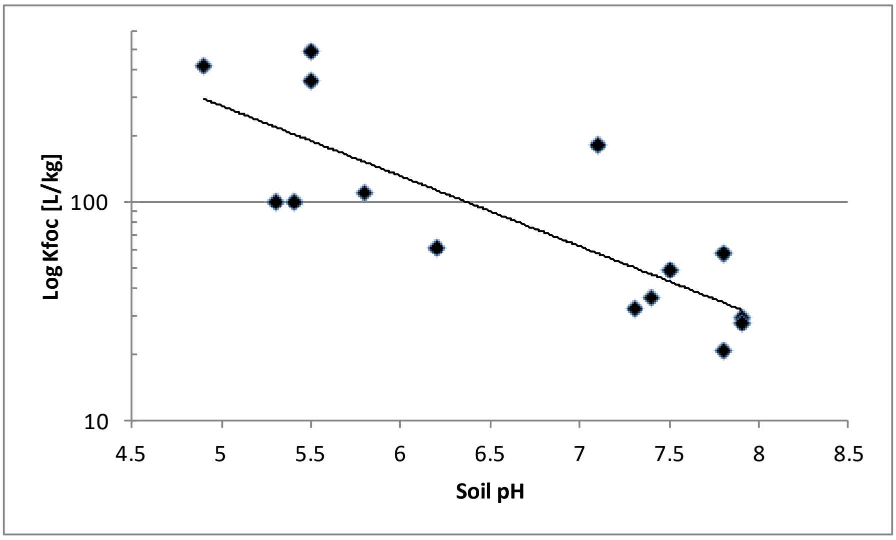


Table 8.5-3: Summary of soil adsorption/desorption for R402173

R402173							
Soil Name	**Soil Type (USDA)**	**OC (%)**	**pH (H_2O)**	**K_F (mL/g)**	**K_{FOC} (mL/g)**	**1/n (-)**	**Evaluated on EU level / Reference**
Hyde Farm (UK)	Sandy clay loam	1.74	7.5	0.65	37	0.96	Yes / EFSA, 2010; Rowe, Lane, 1995
ERTC (UK)	Loamy sand	0.29	6.8	0.27	93	0.95	Yes / EFSA, 2010; Rowe, Lane, 1995
Kenny Hill (UK)	Sandy loam	2.96	8.5	0.74	25	0.96	Yes / EFSA, 2010; Rowe, Lane, 1995
NRTC (UK)	Silty clay loam	2.15	6.2	4.2	200	0.92	Yes / EFSA, 2010; Rowe, Lane, 1995
Wisborough Green (UK)	Silty clay loam	2.38	5.6	2.0	86	0.93	Yes / EFSA, 2010; Rowe, Lane, 1995
Pickett Piece (UK)	Clay loam	2.61	5.4	2.9	110	0.96	Yes / EFSA, 2010; Rowe, Lane, 1995
Arithmetic mean (n=6)					91.8	0.95	
Geometric mean (n=6)					73.9	-	
Minimum / maximum value used for modelling (n=6)					**25 / 200**	**0.96 [a]**	
pH-dependency					Yes		

[a] 1/n related to minimum K_{FOC} was used in modelling

Table 8.5-4: Summary of soil adsorption/desorption for R401553

R401553							
Soil Name	**Soil Type (USDA)**	**OC (%)**	**pH (H_2O)**	**K_F (mL/g)**	**K_{FOC} (mL/g)**	**1/n (-)**	**Evaluated on EU level/ Reference**
Hyde Farm (UK)	Sandy clay loam	1.74	7.5	1.9	110	0.81	Yes / EFSA, 2010; Rowe, Lane, 1995a
ERTC (UK)	Loamy sand	0.29	6.8	0.76	260	0.81	Yes / EFSA, 2010; Rowe, Lane, 1995a
Kenny Hill (UK)	Sandy loam	2.96	8.5	2.4	81	0.84	Yes / EFSA, 2010; Rowe, Lane, 1995a
NRTC (UK)	Silty clay loam	2.15	6.2	11	500	0.89	Yes / EFSA, 2010; Rowe, Lane, 1995a
Wisborough Green (UK)	Silty clay loam	2.38	5.6	1.6	66	0.85	Yes / EFSA, 2010; Rowe, Lane, 1995a
Pickett Piece (UK)	Clay loam	2.61	5.4	2.9	110	0.92	Yes / EFSA, 2010; Rowe, Lane, 1995a
				Arithmetic mean (n=6)	**188**	**0.85**	
				Geometric mean (n=6)	143	-	
				pH-dependency	No		

8.5.2 Oxathiapiprolin and its metabolites

Studies on the mobility of oxathiapiprolin and its metabolites IN-RDT31, IN-RAB06, IN-QPS10, and IN-E8S72 in soil are considered to be data provided in support of the active substance. All relevant detailed experimental information has been submitted for EU review of oxathiapiprolin, **EFSA Journal 2016;14(7):4504**.

Table 8.5-5: Summary of soil adsorption for oxathiapiprolin

Oxathiapiprolin							
Soil name	**Soil type (USDA)**	**OC (%)**	**pH (H_2O)**	**K_F (mL/g)**	**K_{FOC} (mL/g)**	**1/n (-)**	**Evaluated on EU level/ Reference**
Drummer (USA) [a]	Clay loam	2.9	6.4	1322	45586	1.1207	Yes /EFSA, 2016 Manjunatha, S. 2010 Manjunatha,
Gross Umstadt (Germany)	Loam	1.2	7.3	52.2	4350	0.9741	
Nambsheim	Sandy loam	1.4	7.7	102	7286	1.0294	

Oxathiapiprolin							
Soil name	**Soil type (USDA)**	**OC (%)**	**pH (H_2O)**	**K_F (mL/g)**	**K_{FOC} (mL/g)**	**1/n (-)**	**Evaluated on EU level/ Reference**
(France)							S. 2013
Lleida (Spain)	Silty clay	1.8	7.6	100	5556	0.9833	
Sassafras (USA)	Sandy loam	1.2	5.7	87.4	7283	0.9851	
Porterville (USA)	Loam	1.3	7.4	53.9	6738	0.8877	
				Arithmetic mean (n=5)	**6242.6**	**0.97**	
				Geometric mean (n=5)	6128	-	
				pH-dependence	No		

[a] The values obtained from the Clay loam (Drummer) soil were significantly higher than the other soils. This was most likely due to experimental shortcomings described in the evaluation report. Therefore the Drummer values were excluded from the arithmetic mean calculation. The Drummer soil K_{FOC} value was used as a worst case scenario for acidic soils during the PEC_{SED} assessment.

Table 8.5-6: Summary of soil adsorption for IN-RDT31

IN-RDT31							
Soil name	**Soil type (USDA)**	**OC (%)**	**pH (H_2O)**	**K_F (mL/g)**	**K_{FOC} (mL/g)**	**1/n (-)**	**Evaluated on EU level / Reference**
Nambsheim (France)	Sandy loam	1.7	7.6	14.2	835	0.8654	Yes /EFSA 2016 Sannappa, H. 2012a
Tama (USA)	Silty clay loam	1.9	5.9	47.9	2521	0.9048	
Lleida (Spain)	Clay	2.0	7.5	12.6	630	0.8481	
Gross Umstadt (Germany)	Loam	1.2	7.0	14.1	1175	0.856	
Sassafras (USA)	Sandy loam	3.1	5.4	21.1	681	0.8814	
				Arithmetic mean (n=5)	**1168**	**0.87**	
				Geometric mean (n=5)	1012	-	
				pH-dependence	No		

Table 8.5-7: Summary of soil adsorption of IN-RAB06

IN-RAB06							
Soil name	**Soil type (USDA)**	**OC (%)**	**pH (H_2O)**	**K_F (mL/g)**	**K_{FOC} (mL/g)**	**1/n (-)**	**Evaluated on EU level / Reference**
Tama (USA)	Silty clay loam	1.9	6.3	9.98	521	0.7967	Yes /EFSA 2016 Schaefer, E.C., Ponizovsky, A. 2012
Sassafras (USA)	Loam	1.5	5.5	6.93	460	0.8767	
Lleida (Spain)	Clay	2.4	7.7	9.06	381	0.9614	

IN-RAB06							
Soil name	**Soil type (USDA)**	**OC (%)**	**pH (H_2O)**	**K_F (mL/g)**	**K_{FOC} (mL/g)**	**1/n (-)**	**Evaluated on EU level / Reference**
Gross Umstadt (Germany)	Loam	1.2	7.0	7.71	665	0.8865	
Nambsheim (France)	Sandy loam	1.7	7.7	7.59	451	0.9070	
				Arithmetic mean (n=5)	**496**	**0.89**	
				Geometric mean (n=5)	487	-	
				pH-dependence	No		

Table 8.5-8: Summary of soil adsorption of IN-QPS10

IN-QPS10							
Soil name	**Soil type (USDA)**	**OC (%)**	**pH (H_2O)**	**K_F (mL/g)**	**K_{FOC} (mL/g)**	**1/n (-)**	**Evaluated on EU level / Reference**
Nambsheim (France)	Sandy loam	1.7	7.6	39.2	2306	0.9034	Yes /EFSA 2016 Sannappa, H. 2012b
Tama (USA)	Silty clay loam	1.9	5.9	273	14368	0.9604	
Lleida (Spain)	Clay	2.0	7.5	51.4	2570	0.9127	
Gross Umstadt (Germany)	Loam	1.2	7.0	40.4	3367	0.8926	
Sassafras (USA)	Sandy loam	3.1	5.4	55.5	1790	0.9094	
				Arithmetic mean (n=5)	**4880.2**	**0.92**	
				Geometric mean (n=5)	3484	-	
				pH-dependence	No		

Table 8.5-9: Summary of soil adsorption of IN-E8S72

IN-E8S72							
Soil name	**Soil type (USDA)**	**OC (%)**	**pH (H_2O)**	**K_F (mL/g)**	**K_{FOC} (mL/g)**	**1/n (-)**	**Evaluated on EU level / Reference**
Tama (USA)	Silty clay loam	2.2	6.6	0.135	6.14	1.07	Yes /EFSA 2016 Ravi, P.E. 2012
Lleida (Spain)	Clay	1.8	7.8	0.209	11	0.931	
Gross Umstadt (Germany)	Loam	1.1	6.8	0.116	9.67	1.12	
Nambsheim (France)	Sandy loam	1.5	7.8	0.075	5.01	0.928	

IN-E8S72							
Soil name	**Soil type (USDA)**	**OC (%)**	**pH (H_2O)**	**K_F (mL/g)**	**K_{FOC} (mL/g)**	**1/n (-)**	**Evaluated on EU level / Reference**
Sassafras (USA)	Sandy loam	1.1	5.4	0.058	4.83	1	
				Arithmetic mean (n=5)	**7.33**	**1**	
				Geometric mean (n=5)	6.91	-	
				pH-dependence	No		

8.5.3 Column leaching (KCP 9.1.2.1)

Studies on column leaching are considered to be data provided in support of the active substance; no leaching was observed for azoxystrobin. All column leaching studies on azoxystrobin have been reviewed under Council Directive 91/414/EEC.

Column leaching studies were not conducted for oxathiapiprolin since reliable adsorption coefficient values were obtained from the adsorption/desorption studies reported for both active substances and their metabolites.

8.5.4 Lysimeter studies (KCP 9.1.2.2)

Where undertaken, lysimeter studies are considered to be data provided in support of the active substance. Based on the properties of azoxystrobin and oxathiapiprolin and the results of the ground water modelling (Section 8.8) lysimeter studies are not required.

8.5.5 Field leaching studies (KCP 9.1.2.3)

Based on the properties of azoxystrobin and oxathiapiprolin and the results of the ground water modelling (Section 8.8) field leaching studies are not required.

8.6 Degradation in the water/sediment systems (KCP 9.2, KCP 9.2.1, KCP 9.2.2, KCP 9.2.3)

Studies on degradation in water/sediment systems with the formulation were not performed, since it is possible to extrapolate from data obtained with the active substance.

8.6.1 Azoxystrobin and its metabolites

The rate of degradation in water/sediment systems of azoxystrobin was evaluated during the EU review (**EFSA Journal 2010; 8(4): 1542)**. No additional studies have been performed. Data for the degradation of azoxystrobin metabolites R234886, R402173 and R401553 in water/sediment is not currently available.

Table 8.6-1: Summary of degradation in water/sediment of azoxystrobin

Azoxystrobin Distribution (max. water 91.2% after 0 days, max. sediment 90.5% after 0 days)										
Water/sediment system	**pH water/ sed.**	**$DegT_{50}$ whole syst. (d)**	**$DegT_{90}$ whole syst. (d)**	**Kinetic model**	**$DissT_{50}$ water (d)**	**$DissT_{90}$ water (d)**	**Kinetic model**	**$DissT_{50}$ sed. (d)**	**Kinetic model**	**Evaluated on EU level / Reference**
Old Basing	7.5 / 7.8	234	777	SFO	-	-	-	-	-	Yes / EFSA 2010; Warinton, 1994
Virginia water	6.4 / 6.9	180	598	SFO	-	-	-	-	-	Yes / EFSA, 2010; Warinton, 1994
Geometric mean (n=2)		**205**	682							

Table 8.6-2: Summary of observed metabolites of azoxystrobin

Metabolite	Maximum observed value in water/sediment system	Evaluated on EU level / Reference
R234886 Water/sediment system	Max. in water 10.8% after 152 d Max. in sediment 15.6% after 152 d Max in total system 18.1% [a]	Yes / EFSA, 2010; Warinton, 1994
R402173 Aquatic photolysis	Max. in total system ~~water~~ 2.4%	Yes / EFSA, 2010; Warinton, 1994
R401553 Aquatic photolysis	Max. in total system ~~water~~ 8.9%	Yes / EFSA, 2010; Warinton, 1994

[a] note that the correct maximum occurrence level of this metabolite was agreed to be 18.1% AR (derived by calculating the individual mean for each of 3 label positions from data from 3 TLC solvent systems prior to calculating an overall mean). This value was used for modelling.

8.6.2 Oxathiapiprolin and its metabolites

Studies on the mobility of oxathiapiprolin and are considered to be data provided in support of the active substance. All relevant detailed experimental information has been submitted for EU review of oxathiapiprolin, **EFSA Journal 2016;14(7):4504.**

Table 8.6-3: Summary of degradation in water/sediment of oxathiapiprolin

Oxathiapiprolin, Distribution (Max.3.5% in water after 99 d. Max 43.27% in sed after 14 d)										
Water/sediment system	**pH water/ sed.**	**$DegT_{50}$ whole syst. (d)**	**$DegT_{90}$ whole syst. (d)**	**Kinetic model**	**$DissT_{50}$ water (d)**	**$DissT_{90}$ water (d)**	**Kinetic model**	**$DissT_{50}$ sed. (d)**	**Kinetic model**	**Evaluated on EU level / Reference**
Swiss Lake	5.8 / 6.3	44.9		SFO	13.6		SFO	112.7	SFO	Yes/ EFSA, 2016
Calwich Abbey	6.7 /	110		HS	30.1		DFOP	249.2	SFO	

Oxathiapiprolin, Distribution (Max.3.5% in water after 99 d. Max 43.27% in sed after 14 d)										
Water/sediment system	**pH water/ sed.**	**$DegT_{50}$ whole syst. (d)**	**$DegT_{90}$ whole syst. (d)**	**Kinetic model**	**$DissT_{50}$ water (d)**	**$DissT_{90}$ water (d)**	**Kinetic model**	**$DissT_{50}$ sed. (d)**	**Kinetic model**	**Evaluated on EU level / Reference**
	7.5									
Geometric mean (n=2)		70.3			20.2			167.6		

Table 8.6-4: Summary of observed metabolites

Metabolite (Water / sediment system)	Distribution in water / sediment system	Evaluated on EU level / Reference
IN-RAB06 (Water / sediment system)	Max. in water 4.2% after 28 d Max. in sediment 5.2% after 28 d Max. in total system: 9.5%	Yes/ EFSA, 2016
IN-S2K66 (Water / sediment system)	Max. in water: not observed Max. in sediment 8.7% after 99 d	
IN-RSE01 (Water / sediment system)	Max. in water 3.8% after 60 d Max. in sediment 8.6% after 14 d Max in total system: 10.4% after 28 d	
IN-RYJ52 (Water / sediment system)	Max. in water 7.9% after 28-60 d (isomers combined) Max. in sediment 14.7% after 28-60 d (isomers combined) Max in total system: 16.0%[a]	
IN-Q7D41 (Water / sediment system)	Max. in water 1.5% after 99 d Max. in sediment 10.5% after 99 d Max. in total system: 11.8% after 99 d	
IN-P3X26 (Aqueous photolysis)	Max. in water 14.0% after 15 d Max. in sediment: not observed	

[a] Maximum sum occurrence of two metabolites in the total system was observed for Calwich Abbey Lake system with thiazole label: isomer IN-RYJ52-A at 10.04% AR and isomer IN-RYJ52-B at 5.97% AR. Therefore, the sum of these two values of 16.0% AR was calculated

8.7 Predicted Environmental Concentrations in soil (PEC_S) (KCP 9.1.3)

Review Comments:

The PEC_{soil} calculations for azoxystrobin, oxathiapiprolin and their metabolites and for formulation were provided by the Applicant and are considered acceptable. The EU agreed endpoints were used for PEC_{soil} calculations.

The PEC_{soil} reported below can be used for the risk assessment of the non-target organisms. Please refer to Section B9.

Unless otherwise stated, EU agreed endpoints refer to those stated in the EU review of azoxystrobin (**EFSA Journal 2010; 8(4): 1542** and **DAR, 2014[1])** and oxathiapiprolin, (**EFSA Journal 2016;14(7):4504** and **DAR, 2015[2]).**

[2] Ireland (2015). Draft Assessment Report (DAR) on the active substance oxathiapiprolin prepared by the rapporteur Member State Ireland in the framework of Regulation (EC) No 1107/2009, February 2015

8.7.1 Active substances and relevant metabolites

The following PEC_S calculations for azoxystrobin and its metabolites R234886, R402173, R401553 and oxathiapiprolin and its metabolites IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 have not previously been reviewed and are provided in support of this assessment in Appendix 3 of this document.

Table 8.7-1: Input parameters related to application for PEC_S calculations

Use No.	ES-75	PL-54 (covers BG-68, PL-59, ES-80)
Crop	Cabbage	Cabbage[a]
Application rate (g as/ha), parent compounds	Azoxystrobin: 250 Oxathiapiprolin: 12	Azoxystrobin: 250 Oxathiapiprolin: 12
Number of applications/interval (d)	1 / -	2 / 7
Pseudo application rate (g as/ha), metabolites[b]	**Azoxystrobin:** R234886: 139 R402173: 70.2 R401553: 44.9 **Oxathiapiprolin:** IN-RDT31: 2.32 IN-RAB06: 3.42 IN-QPS10: 1.35 IN-E8S72: 0.825	
Crop interception (%)	0	25 / 25[c]
Depth of soil layer (relevant for $PEC_{S,plateau}$) (cm)	5 ($PEC_{S,initial}$) / 20 ($PEC_{S,plateau}$)	5 ($PEC_{S,initial}$) / 20 ($PEC_{S,plateau}$)
Models used for calculation	ESCAPE v.2.0	

[a] covers the application in tomatoes as the interception rate for tomatoes at BBCH 11 is 50%
[b] metabolites were treated as pseudo parent compounds. PEC_{soil} for the metabolites was calculated based on the single maximum application rates of the parent compounds adjusted for the molar mass differences between metabolites and parents and maximum occurrence in soil
[c] worst case interception for cabbage BBCH 11 (EFSA, 2014) [3]

Table 8.7-2: Input parameter for active substances and relevant metabolites for PEC_S calculation

Compound	Molar mass (g/mol)	Maximum occurrence (%)	DT_{50} (d)	Value in accordance to EU endpoint / Reference
Azoxystrobin	403.4	-	262 (SFO, Maximum, field studies, n = 13, non-normalised)	Yes / EFSA, 2010
R234886	389.4	28.8	110 (DFOP slow phase, maximum, laboratory studies, n = 12, normalised)	Yes / DAR, 2014[a]

[3] EFSA (2014). EFSA Guidance Document for evaluating laboratory and field dissipation studies to obtain $DegT_{50}$ values of active substances of plant protection products and transformation products of these active substances in soil. EFSA Journal 2014;12(5):3662, 37 pp., doi:10.2903/j.efsa.2014.3662

Compound	Molar mass (g/mol)	Maximum occurrence (%)	DT_{50} (d)	Value in accordance to EU endpoint / Reference
R402173	333.3	17	9.8 (SFO, maximum, laboratory studies, n = 3, non-normalised)	Yes / EFSA, 2010
R401553	213.2	17	2.01 (SFO, maximum, laboratory studies, n = 3, non-normalised)	Yes / EFSA, 2010
Oxathiapiprolin	539.53	-	205.3 (SFO, maximum, field studies, n = 10, non-normalised)	Yes / EFSA, 2016
IN-RDT31	555.53	9.4	736.4 (2.6 / 1260.3) (DFOP[b], maximum, field and lab studies, n = 7, non-normalised)	Yes / DAR, 2015
IN-RAB06	569.51	13.5	170.2 (SFO, maximum, lab studies, n = 12, non-normalised)	Yes / DAR, 2015
IN-QPS10	349.41	8.7	310.2 (0.855 / 845.3) (DFOP[c], maximum, lab studies, n = 4, non-normalised)	Yes / DAR, 2015
IN-E8S72	180.09	10.3	477.4 (SFO, maximum, lab studies, n = 5, non-normalised)	Yes / DAR, 2015

[a] DAR (2014): Azoxystrobin: Addendum – Confirmatory Information. RMS United Kingdom. December 2014.
[b] DT_{50} 1 and DT_{50} 2, respectively, correspond to the maximum calculated half-life. Corresponding g = 0.2
[c] DT_{50} 1 and DT_{50} 2, respectively, correspond to the maximum calculated half-life. Corresponding g = 0.4

8.7.1.1 Azoxystrobin and its metabolites

Table 8.7-3: PEC_S for azoxystrobin on cabbage, 1 × 250 g a.s./ha

PEC_S (mg/kg)		ES-75, Cabbage, 1 × 250 g a.s./ha	
		Single application	
		Actual	TWA
$PEC_{S,ini}$		0.333	-
Short term	24h	0.333	0.333
	2d	0.332	0.333
	4d	0.330	0.332
Long term	7d	0.327	0.330
	14d	0.321	0.327
	21d	0.315	0.324
	28d	0.310	0.321
	42d	0.298	0.316
	50d	0.292	0.312
	100d	0.256	0.293
$PEC_{S,plateau}$ (20 cm) with tillage after year 10		0.051	-
$PEC_{S,accumulation}$ ($PEC_{S,accumulation} = PEC_{S,ini} + PEC_{S,plateau}$)		0.385	-

Table 8.7-4: PEC_S for azoxystrobin on cabbage, 2 × 250 g a.s./ha

PEC_S (mg/kg)		PL- 54, Cabbage, 2 × 250 g a.s./ha	
		Multiple application	
		Actual	TWA
$PEC_{S,ini}$		0.495	-
Short term	24h	0.494	0.495
	2d	0.493	0.494
	4d	0.490	0.493
Long term	7d	0.486	0.491
	14d	0.477	0.486
	21d	0.469	0.482
	28d	0.460	0.478
	42d	0.443	0.469
	50d	0.434	0.464
	100d	0.380	0.435
$PEC_{S,plateau}$ (20 cm) with tillage after year 10		0.076	-
$PEC_{S,accumulation}$ ($PEC_{S,accumulation} = PEC_{S,ini} + PEC_{S,plateau}$)		0.572	-

PEC_S of metabolites

Table 8.7-5: PEC_S for R234886[a]

Crop	PEC_S (mg/kg)	Single application
ES-75, Cabbage, 1 × 69.5 g a.s./ha[b]	$PEC_{S,ini}$	0.093
	$PEC_{S,plateau}$ (20 cm) with tillage after year 10	0.003
	$PEC_{S,accumulation}$ ($PEC_{S,ini}$ + $PEC_{S,plateau}$)	0.095
PL-54, Cabbage, 1 × 139 g a.s./ha[b]	$PEC_{S,ini}$	0.139
	$PEC_{S,plateau}$ (20 cm) with tillage after year 10	0.004
	$PEC_{S,accumulation}$ ($PEC_{S,ini}$ + $PEC_{S,plateau}$)	0.143

[a] an example calculation is provided in the Appendix (A 3.1)
[b] 'Pseudo application rate' of metabolite = parent total dose x MW correction factor x maximum formation

Table 8.7-6: PEC_S for R402173 [a]

Crop	PEC_S (mg/kg)	Single application
ES-75, Cabbage, 1 × 35.1 g a.s./ha[b]	$PEC_{S,ini}$	0.047
PL-54, Cabbage, 1 × 70.2 g a.s./ha[b]	$PEC_{S,ini}$	0.070

[a] an example calculation is provided in the Appendix (A 3.1)
[b] 'Pseudo application rate' of metabolite = parent total dose x MW correction factor x maximum formation

Table 8.7-7: PEC_S for R401553 [a]

Crop	PEC_S (mg/kg)	Single application
Cabbage, 1 × 22.5 g a.s./ha[b]	$PEC_{S,ini}$	0.030
Cabbage, 1 × 44.9 g a.s./ha[b]	$PEC_{S,ini}$	0.045

[a] an example calculation is provided in the Appendix (A 3.1)
[b] 'Pseudo application rate' of metabolite = parent total dose x MW correction factor x maximum formation

8.7.1.2 Oxathiapiprolin and its metabolites

Table 8.7-8: PEC_S for oxathiapiprolin on cabbage, 1 × 12 g a.s./ha

PEC_S (mg/kg)		ES-75, Cabbage, 1 × 12 g a.s./ha	
		Single applications	
		Actual	TWA
$PEC_{S,ini}$		0.016	-
Short term	24h	0.016	0.016
	2d	0.016	0.016
	4d	0.016	0.016

PEC_S (mg/kg)		**ES-75, Cabbage, 1 × 12 g a.s./ha**	
		Single applications	
		Actual	**TWA**
Long term	7d	0.016	0.016
	14d	0.015	0.016
	21d	0.015	0.015
	28d	0.015	0.015
	42d	0.014	0.015
	50d	0.014	0.015
	100d	0.011	0.014
$PEC_{S,plateau}$ (20 cm) with tillage after year 10		0.002	-
$PEC_{S,accumulation}$ ($PEC_{S,accumulation} = PEC_{S,ini} + PEC_{S,plateau}$)		0.018	-

Table 8.7-9: PEC_S for oxathiapiprolin on cabbage, 2 × 12 g a.s./ha

PEC_S (mg/kg)		**PL-54, Cabbage, 2 × 12 g a.s./ha**	
		Multiple applications	
		Actual	**TWA**
$PEC_{S,ini}$		0.024	-
Short term	24h	0.024	0.024
	2d	0.024	0.024
	4d	0.023	0.024
Long term	7d	0.023	0.023
	14d	0.023	0.023
	21d	0.022	0.023
	28d	0.022	0.023
	42d	0.021	0.022
	50d	0.020	0.022
	100d	0.017	0.020
$PEC_{S,plateau}$ (20 cm) with tillage after year 10		0.002	-
$PEC_{S,accumulation}$ ($PEC_{S,accumulation} = PEC_{S,ini} + PEC_{S,plateau}$)		0.026	-

PEC_S of metabolites

Table 8.7-10: PEC_S for IN-RDT31 [a]

Crop	PEC_S (mg/kg)	Single application
ES-75, Cabbage, 1 × 1.16 g a.s./ha[b]	$PEC_{S,ini}$	0.002
	$PEC_{S,plateau}$ (20 cm) with tillage, plateau was not yet reached after year 10	0.001
	$PEC_{S,accumulation}$ ($PEC_{S,ini}$ + $PEC_{S,plateau}$)	0.003
PL-54, Cabbage, 1 × 2.32 g a.s./ha[b]	$PEC_{S,ini}$	0.002
	$PEC_{S,plateau}$ (20 cm) with tillage, plateau was not yet reached after year 10	0.002
	$PEC_{S,accumulation}$ ($PEC_{S,ini}$ + $PEC_{S,plateau}$)	0.004

[a] an example calculation is provided in the Appendix (A 3.2)
[b] 'Pseudo application rate' of metabolite = parent total dose x MW correction factor x maximum formation

Table 8.7-11: PEC_S for IN-RAB06 [a]

Crop	PEC_S (mg/kg)	Single application
ES-75, Cabbage, 1 × 1.71 g a.s./ha[b]	$PEC_{S,ini}$	0.002
	$PEC_{S,plateau}$ (20 cm) with tillage after year 10	< 0.001
	$PEC_{S,accumulation}$ ($PEC_{S,ini}$ + $PEC_{S,plateau}$)	0.002
PL-54, Cabbage, 1 × 3.42 g a.s./ha[b]	$PEC_{S,ini}$	0.003
	$PEC_{S,plateau}$ (20 cm) with tillage after year 10	<0.001
	$PEC_{S,accumulation}$ ($PEC_{S,ini}$ + $PEC_{S,plateau}$)	0.004

[a] an example calculation is provided in the Appendix A 3.2)
[b] 'Pseudo application rate' of metabolite = parent total dose x MW correction factor x maximum formation

Table 8.7-12: PEC_S for IN-QPS10 [a]

Crop	PEC_S (mg/kg)	Single application
ES-75, Cabbage, 1 × 0.676 g a.s./ha[b]	$PEC_{S,ini}$	< 0.001
	$PEC_{S,plateau}$ (20 cm) with tillage, plateau was not yet reached after year 10	< 0.001
	$PEC_{S,accumulation}$ ($PEC_{S,ini}$ + $PEC_{S,plateau}$)	0.001
PL-54, Cabbage, 1 × 1.35 g a.s./ha[b]	$PEC_{S,ini}$	0.001

Crop	PEC_S (mg/kg)	Single application
	$PEC_{S,plateau}$ (20 cm) with tillage, plateau was not yet reached after year 10	<0.001
	$PEC_{S,accumulation}$ ($PEC_{S,ini}$ + $PEC_{S,plateau}$)	0.002

[a] an example calculation is provided in the Appendix (A 3.2)
[b] 'Pseudo application rate' of metabolite = parent total dose x MW correction factor x maximum formation

Table 8.7-13: PEC_S for IN-E8S72 [a]

Crop	PEC_S (mg/kg)	Single application
ES-75, Cabbage, 1 × 0.413g a.s./ha[b]	$PEC_{S,ini}$	< 0.001
	$PEC_{S,plateau}$ (20 cm) with tillage, plateau was not yet reached after year 10	< 0.001
	$PEC_{S,accumulation}$ ($PEC_{S,ini}$ + $PEC_{S,plateau}$)	< 0.001
PL-54, Cabbage, 1 × 0.825g a.s./ha[b]	$PEC_{S,ini}$	< 0.001
	$PEC_{S,plateau}$ (20 cm) with tillage, plateau was not yet reached after year 10	< 0.001
	$PEC_{S,accumulation}$ ($PEC_{S,ini}$ + $PEC_{S,plateau}$)	0.001

[a] an example calculation is provided in the Appendix (A 3.2)
[b] 'Pseudo application rate' of metabolite = parent total dose x MW correction factor x maximum formation

8.7.1.3 PEC_S of A22773A

Table 8.7-14: PEC_S for A22773A on cabbage

Formulation	Crop	Maximum use rate (g A22773A /ha[a])	Crop interception (%)	$PEC_{S,ini}$ (mg A22773A /kg) [b]
A22773A	Cabbage	1097	0	1.46

[a] The formulation components are considered to dissipate rapidly after application, therefore only one application is taken into consideration. The rate of formulation was based on a specific density of 1.097 g/mL with a maximum application of 1 L/ha.
[b] Calculated as:

$$PEC_{S,ini}\ [mg/kg] = A x (1-I)/z \ x \ bd_{SOIL} \ x \ 100$$

Where:
A = application rate [g product/ha]
$PEC_{S,ini}$ = initial (maximum) concentration in soil [mg product/kg soil]
I = Interception [-]
z = soil mixing depth (5 cm) [m]
bd_{SOIL} = bulk density of the soil (1500 kg/m³) [kg soil/m³]

8.8 Predicted Environmental Concentrations in groundwater (PEC_{GW}) (KCP 9.2.4)

Review Comments:

The PEC_{GW} calculations for azoxystrobin, oxathiapiprolin and their metabolites were provided by the Applicant and are considered acceptable.

For uses that are relevant in CEU zone, the PEC_{GW} values were calculated based on EU agreed K_{FOC} values for azoxystrobin, oxathiapiprolin and respective metabolites. For SEU uses, the K_{FOC} values used in modelling for azoxystrobin, oxathiapiprolin and their respective metabolites were calculated based on the geometric mean.

According FOCUS DG SANTE for active substances and their relevant metabolites PEC_{GW} calculations after 1 January 2022 should be performed with new versions of models: FOCUS PEARL 5.5.5 and FOCUS PELMO 6.6.4. Nevertheless, as submission date is November 2021, thus the calculation performed with FOCUS MACRO 5.5.4, FOCUS PEARL 4.4.4 and FOCUS PELMO 5.5.3 were accepted. The EU agreed endpoints, derived from the datasets presented in the EFSA Journal 2016;14(7):4504 and EFSA Journal 2010; 8(4):1542 with Confirmatory Data for metabolite R234886, were used.

The results of FOCUS groundwater calculation for azoxystrobin indicated that PEC_{gw} values do not exceed the regulatory trigger of 0.1 µg/L at 1 m depth in any of the scenarios.

The maximum PEC_{GW} of R401553 and R402173 were below 0.1 µg/L in all scenarios.

Uses proposed for CEU zone

The sorption of metabolites R234886 is pH dependent. Therefore, the simulations were performed using specific K_{foc} values for acidic and alkaline soils and at Tier 1 PUF=0 for azoxystrobin. The maximum Tier 1 PEC_{GW} of metabolites R234886 was 5.11 µg/L. Further simulations were performed for metabolite R234886 at Tier 2 using PUF=0.5 for active substance. The maximum Tier 2 PEC_{GW} was 4.73 µg/L.

Uses proposed for SEU zone

The sorption of metabolites R234886 is pH dependent. Therefore, the simulations were performed using specific K_{foc} values for acidic and alkaline soils. The PUF of 0.5 for azoxystrobin was considered. The maximum PEC_{GW} for two crop cycle per year for the single application of 250 g a.s./ha was 7.43 µg/L.

The maximum PEC_{GW} for four application per year for the twofold application of 250 g a.s./ha were 13.2 µg/L (Hamburg scenario) and 7.57 µg/L (Kremsmünster scenario).

According to WORKING DOCUMENT ON THE WORK-SHARING OF THE SOUTHERN ZONE MEMBER STATES UNDER REGULATION EC 1107/2009, Rev. 7.1 of 06.08.2018, the Hamburg scenario is relevant (e.g. for Spain). For several Southern Member States the national data requirements are not given. Thus, the relevance of Hamburg scenario need to be consider at SMS level.

The results of FOCUS groundwater calculation for oxathiapiprolin, indicated that PEC_{gw} values do not exceed the regulatory trigger of 0.1 µg/L at 1 m depth in any of the scenarios.

The maximum PEC_{GW} of IN-RDT31, IN-RAB06 and IN-QPS10 were below 0.1 µg/L in all scenarios.

However, PEC_{gw} for metabolite IN-E8S72 exceed this threshold. The maximum PEC_{GW} were 1.55 µg/L and 3.11 µg/L for CEU (two applications per year) and SEU (four applications per year), respectively.

Assessment of the relevance of these metabolites according to the stepwise procedure of the EC guidance document SANCO/221/2000 –rev.10 is presented in Section B10.

In conclusion, the results demonstrate that A22773A can be applied safely according to the recommended use patterns without risk of azoxystrobin, oxathiapiprolin and their metabolites exceeding acceptable levels in groundwater.

Unless otherwise stated, EU agreed endpoints refer to those stated in the EU review of azoxystrobin (**EFSA Journal 2010; 8(4): 1542** and **DAR, 2014**[1]**)** and and oxathiapiprolin, (**EFSA Journal 2016;14(7):4504 and DAR, 2015**[2)]**.**

8.8.1 Justification for new endpoints

For uses that are relevant both in SEU and CEU zones (PL-54 = ES-56, PL-59 = ES-61), the PEC_{GW} values below are calculated based on EU agreed K_{FOC} values for azoxystrobin, oxathiapiprolin and respective metabolites.
For SEU uses, the K_{FOC} values used in modelling for azoxystrobin, oxathiapiprolin and their respective metabolites were also calculated based on the recommendation of the latest guideline (EFSA, 2014). The individual values from which the geometric mean is calculated are those established in the EU review of azoxystrobin (**EFSA Journal 2010; 8(4): 1542)** and oxathiapiprolin **(EFSA Journal 2016; 14(7):4504)**. Alternative PEC_{GW} values calculated with geometric mean are described in the modelling reports listed in appendix 3 (A 3.5 for azoxystrobin, A 3.7 for oxathiapiprolin).
For uses relevant to SEU countries only, (ES-75 and BG-68), the PEC_{GW} values calculated with geometric mean are reported below.

8.8.2 Active substance(s) and relevant metabolite(s) (KCP 9.2.4.1)

The following PEC_{GW} modelling for azoxystrobin and its metabolites R234886, R401553, R402173 as well as oxathiapiprolin and its metabolites IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 have not previously been reviewed and are provided in support of this assessment in Appendix 3 of this document.

Table 8.8-1: Input parameters related to application for PEC_{GW} calculations

Use No.	ES-75 (SEU only)	PL-54 (= ES-56, CEU+SEU) BG-68 (SEU only)		PL-59 (= ES-61, CEU+SEU, covers ES-80, SEU only)			
Crop	Cabbage	Cabbage		Tomatoes			
Application rate (g a.s./ha)	Azoxystrobin: 250 Oxathiapiprolin: 12	Azoxystrobin: 250 Oxathiapiprolin: 12		Azoxystrobin: 250 Oxathiapiprolin: 12			
Number of applications / interval (d)	1 / -	2 / 7		2 / 7			
PHI	7*	7*		3			
BBCH growth stage	09	11	49	11	51	81	89
Crop interception (%)[a]	0	25 + 25	70 + 70	50 + 50	80 + 80	80 + 80	80 + 80
Frequency of application	Annual						
Models used for calculation	FOCUS PEARL v4.4.4, FOCUS PELMO v5.5.3, MACRO v5.5.4						

[a] interception rates according to EFSA, 2014[3]
* Intended PHI for lettuce is 14 days. A worst case interception from PHI of 7 days was used in the calculations.

For cabbage, two potential growing seasons per year are defined in five out of seven FOCUS scenarios. In these scenarios two simulation options were considered:

I. The first and second possible crop cycles simulated separately i.e. one application per year for the single application and two applications per year for the twofold applications
II. Both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application and four applications per year for the twofold applications

Table 8.8-2: Application dates used for groundwater risk assessment

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
ES-75, Cabbage BBCH 09-13 1 × 250 g a.s./ha BBCH 09	First application at BBCH 09 (AppDate 3.06)	Châteaudun 1st	20-Apr (110)	-
		Châteaudun 2nd	31-Jul (212)	-
		Hamburg 1st	20-Apr (110)	-
		Hamburg 2nd	31-Jul (212)	-
		Jokioinen	20-May (140)	-
		Kremsmünster 1st	20-Apr (110)	-
		Kremsmünster 2nd	31-Jul (212)	-
		Porto 1st	28-Feb (59)	-
		Porto 2nd	31-Jul (212)	-
		Sevilla 1st	01-Mar (60)	-
		Sevilla 2nd	15-Jun (166)	-
		Thiva	15-Aug (227)	-
PL-54 and BG-68, Cabbage BBCH 11-49 2 × 250 g a.s./ha 7 days interval BBCH 11	First application at BBCH 11 (AppDate 3.06)	Châteaudun 1st	25-Apr (115)	2-May (122)
		Châteaudun 2nd	5-Aug (217)	12-Aug (224)
		Hamburg 1st	25-Apr (115)	2-May (122)
		Hamburg 2nd	5-Aug (217)	12-Aug (224)
		Jokioinen	1-Jun (152)	8-Jun (159)
		Kremsmünster 1st	25-Apr (115)	2-May (122)
		Kremsmünster 2nd	5-Aug (217)	12-Aug (224)
		Porto 1st	9-Mar (68)	16-Mar (75)
		Porto 2nd	4-Aug (216)	11-Aug (223)
		Sevilla 1st	8-Mar (67)	15-Mar (74)
		Sevilla 2nd	22-Jun (173)	29-Jun (180)
		Thiva	21-Aug (233)	28-Aug (240)
PL-54 and BG-68, Cabbage BBCH 11-49 2 × 250 g a.s./ha 7 days interval BBCH 49	Last application at BBCH 49, except when conflicting with the PHI (AppDate 3.06)	Châteaudun 1st [a]	1-Jul (182)	8-Jul (189)
		Châteaudun 2nd [a]	1-Oct (274)	8-Oct (281)
		Hamburg 1st [a]	1-Jul (182)	8-Jul (189)
		Hamburg 2nd [a]	1-Oct (274)	8-Oct (281)
		Jokioinen [a]	6-Sep (249)	13-Sep (256)
		Kremsmünster 1st [a]	1-Jul (182)	8-Jul (189)
		Kremsmünster 2nd [a]	1-Oct (274)	8-Oct (281)

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
		Porto 1st [a]	17-Jun (168)	24-Jun (175)
		Porto 2nd	31-Oct (304)	7-Nov (311)
		Sevilla 1st [a]	18-May (138)	25-May (145)
		Sevilla 2nd [a]	1-Sep (244)	8-Sep (251)
		Thiva [a]	16-Nov (320)	23-Nov (327)
PL-59, Tomatoes 2 × 250 g a.s./ha BBCH 11 - 89 7 days interval BBCH 11	First application at BBCH 11 (AppDate 3.06)	Châteaudun	13-May (133)	20-May (140)
		Piacenza	13-May (133)	20-May (140)
		Porto	19-Mar (78)	26-Mar (85)
		Sevilla	17-Apr (107)	24-Apr (114)
		Thiva	13-Apr (103)	20-Apr (110)
PL-59, Tomatoes 2 × 250 g a.s./ha BBCH 11 - 89 7 days interval BBCH 51	First application at BBCH 51 (AppDate 3.06)	Châteaudun	15-Jun (166)	22-Jun (173)
		Piacenza	15-Jun (166)	22-Jun (173)
		Porto	19-May (139)	26-May (146)
		Sevilla	17-May (137)	24-May (144)
		Thiva	15-May (135)	22-May (142)
PL-59, Tomatoes 2 × 250 g a.s./ha BBCH 11 - 81 7 days interval BBCH 81	Last application at BBCH 81 (AppDate 3.06)	Châteaudun	01-Aug (213)	08-Aug (220)
		Piacenza	01-Aug (213)	08-Aug (220)
		Porto	01-Aug (213)	08-Aug (220)
		Sevilla	14-Jun (165)	21-Jun (172)
		Thiva	03-Aug (215)	10-Aug (222)
PL-59, Tomatoes 2 × 250 g a.s./ha BBCH 11 - 89 7 days interval BBCH 89	Last application at BBCH 89, except when conflicting with the PHI (AppDate 3.06)	Châteaudun [a]	15-Aug (227)	22-Aug (234)
		Piacenza [a]	15-Aug (227)	22-Aug (234)
		Porto	21-Aug (233)	28-Aug (240)
		Sevilla [a]	21-Jun (172)	28-Jun (179)
		Thiva	31-Aug (243)	7-Sep (250)

Numbers in brackets are corresponding Julian day numbers used for MACRO simulations
[a] last application on harvest date minus PHI
[b] the growth stage BBCH 21 is not defined in AppDate 3.06, thus BBCH 19 was chosen instead

8.8.2.1 Azoxystrobin and its metabolites

The input parameters of azoxystrobin and its metabolites R234886, R401553 and R402173 used in modelling are shown in the table below. Separate runs were done for four different substance parameter sets:

- Arithmetic mean sorption values (for consideration in the CEU)
  - Tier 1: EU agreed endpoints with a worst case plant uptake factor of 0 for azoxystrobin
  - Tier 2: EU agreed endpoints with a plant uptake factor of 0.5 for azoxystrobin (Weinfurtner, 2013)
- Geometric mean sorption values (for consideration in the SEU)

Table 8.8-3: Input parameters related to active substance substance azoxystrobin, R234886, R402173 and R401553 for PEC_{GW} calculations

Compound	Azoxystrobin	R234886	R402173	R401553	Value in accordance with EU endpoint / Reference
Molar mass (g/mol)	403.4	389.4	333.3	213.2	Yes / EFSA, 2010
Water solubility (mg/L)	6.0 (20°C) 12.0 (30°C)	57 (25°C)	61 (25°C)	560 (25°C)	Yes / EFSA, 2010
Saturated vapour pressure (Pa)	1.~~1~~0 x 10^{-10} (20°C) 4.00 x 10^{-10} (30°C)	0	0	0	Yes / EFSA, 2010
DT_{50} in soil (d)	Microbial pathway: 78[a*] (n = 2) Photolytic pathway: 2.55[b*] (n = 10) (geometric mean, field studies normalisation to pF2, 20°C with Q_{10} of 2.58)	**Acidic soils:** 98.6[**] (n = 5) **Alkaline soils:** 36.7[**] (n = 7) (geometric mean, lab studies, normalisation to pF2, 20°C with Q_{10} of 2.58)	4.7[*] (geometric mean, lab studies, normalisation to pF2, 20°C with Q_{10} of 2.58, n = 3)	1.1[*] (geometric mean, lab studies, normalisation to pF2, 20°C with Q_{10} of 2.58, n = 3)	[*]Yes / EFSA, 2010 [**]Yes / DAR, 2014[1]

Compound	Azoxystrobin	R234886	R402173	R401553	Value in accordance with EU endpoint / Reference
Transformation rate	**Microbial pathway:** 0.007767 (to R234886) 0.001120 (to sink) **Photolytic pathway:** 0.104652 (to R402173) 0.106554 (to R401553) 0.060616 (to sink)	**Acidic soils:** 0.007030 (to sink) **Alkaline soils:** 0.018887 (to sink)	0.069020 (to R401553) 0.078458 (to sink)	0.630134 (to sink)	Calculated for PELMO; (ln(2) / DT_{50}) × FFm
CEU uses: K_{FOC} / K_{FOM} (mL/g)	423 / 245* (arithmetic mean, n = 6)	**Acidic soils:** 228.4 / 132.5** (arithmetic mean, n = 8) **Alkaline soils:** 36.7 / 21.3** (arithmetic mean, n = 7)	25 / 14.5* (worst case, n = 6)	188 / 109* (arithmetic mean, n = 6)	*Yes / EFSA, 2010 **Yes/ DAR, 2014[1] K_{FOM} = K_{FOC} / 1.724
SEU uses: K_{FOC} / K_{FOM} (mL/g)	392 / 227* (geometric mean, n = 6)	**Acidic soils:** 177 / 103** (geometric mean, n = 8) **Alkaline soils:** 34.8 / 20.2** (geometric mean, n = 7)	25 / 14.5*** (worst case, n = 6)	143 / 82.9* (geometric mean, n = 6)	*No [c] / EFSA, 2010 **No [c] / EFSA, 2010 & DAR, 2014[1] ***Yes / EFSA, 2010 K_{FOM} = K_{FOC} / 1.724
1/n	0.86 (arithmetic mean, n = 6)	**Acidic soils:** 0.78 (arithmetic mean, n = 8) **Alkaline soils:** 0.83 (arithmetic mean, n = 7)	0.96 (relate to worst case K_{FOC})	0.85 (arithmetic mean, n = 6)	Yes / EFSA, 2010
CEU uses: Plant uptake factor	Tier 1: 0 (worst-case) Tier2: 0.5*	0**	0**	0**	*Yes / DAR, 2014 & Weinfurtner, 2013 **Yes / DAR, 2014[1]
SEU uses: Plant uptake factor	0.5*	0**	0**	0**	*Yes / DAR, 2014 & Weinfurtner, 2013 **Yes / DAR, 2014[1]

Compound	Azoxystrobin	R234886	R402173	R401553	Value in accordance with EU endpoint / Reference
Formation fraction	-	0.874 from parent	0.385 from parent	0.392 from parent 0.468 from R402173	Yes / EFSA, 2010
Conversion fraction	-	0.844 from parent	0.318 from parent	0.302[e] from parent	for MACRO; molar mass (metabolite)/molar mass (parent) × formation fraction

[a] calculated from the geometric mean of the soil incorporated field studies (80.2 days, n = 3) and the slow phase of the non-incorporated studies (75.9 days, n = 10)
[b] geometric mean, quick phase, field
[c] Differs from the EFSA conclusion as the latest guideline (EFSA Journal 2014;12(5):3662) recommends the use of the geometric mean instead of the arithmetic mean or median. The individual values from which the geometric mean is calculated, are those established in azoxystrobin, EFSA Journal 2010; 8(4):1542 and DAR (2014)
[d] For the secondary metabolite R401553 the formation fraction was multiplied along the pathway; therefore 213.2/403.4 × ((0.385 × 0.468)+0.392)

Arithmetic K_{FOC} values

Tier 1

Table 8.8-4: PEC_{GW} for azoxystrobin, R234886, R402173 and R401553 on various crops with FOCUS PEARL v4.4.4 (A 3.3: Langa Peñalba, S., & Robinson, P. 2022, VV-961774)

Crop	Scenario	80[th] Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
PL-54, Cabbage[a] 2 × 250 g a.s./ha BBCH 11	Châteaudun 1[st]	< 0.001	< 0.001	1.55	< 0.001	< 0.001
	Châteaudun 2[nd]	< 0.001	< 0.001	1.85	< 0.001	< 0.001
	Hamburg 1[st]	< 0.001	0.015	4.13	< 0.001	< 0.001
	Hamburg 2[nd]	< 0.001	0.021	4.72	0.010	< 0.001
	Jokioinen	< 0.001	< 0.001	2.07	< 0.001	< 0.001
	Kremsmünster 1[st]	< 0.001	< 0.001	2.54	< 0.001	< 0.001
	Kremsmünster 2[nd]	< 0.001	0.002	2.83	0.002	< 0.001
	Porto 1[st]	< 0.001	< 0.001	1.61	< 0.001	< 0.001
	Porto 2[nd]	< 0.001	< 0.001	2.91	< 0.001	< 0.001
	Sevilla 1[st]	< 0.001	< 0.001	0.218	< 0.001	< 0.001
	Sevilla 2[nd]	< 0.001	< 0.001	0.346	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.877	< 0.001	< 0.001
PL-54, Cabbage[a] 2 × 250 g a.s./ha BBCH 49	Châteaudun 1[st]	< 0.001	< 0.001	0.360	< 0.001	< 0.001
	Châteaudun 2[nd]	< 0.001	< 0.001	0.359	< 0.001	< 0.001
	Hamburg 1[st]	< 0.001	< 0.001	1.23	< 0.001	< 0.001
	Hamburg 2[nd]	< 0.001	< 0.001	1.21	0.033	0.002
	Jokioinen	< 0.001	< 0.001	0.451	0.007	< 0.001
	Kremsmünster 1[st]	< 0.001	< 0.001	0.747	< 0.001	< 0.001
	Kremsmünster 2[nd]	< 0.001	< 0.001	0.692	0.006	< 0.001
	Porto 1[st]	< 0.001	< 0.001	0.621	< 0.001	< 0.001
	Porto 2[nd]	< 0.001	< 0.001	0.548	0.045	< 0.001
	Sevilla 1[st]	< 0.001	< 0.001	0.043	< 0.001	< 0.001

Crop	Scenario	80[th] Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
	Sevilla 2[nd]	< 0.001	< 0.001	0.071	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.049	0.001	< 0.001
PL-28, Tomatoes 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	1.03	< 0.001	< 0.001
	Piacenza	< 0.001	0.001	1.40	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	1.00	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.124	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.280	< 0.001	< 0.001
PL-28, Tomatoes 2 × 250 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	0.208	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.381	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.300	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.018	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.060	< 0.001	< 0.001
PL-28, Tomatoes 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.248	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.456	0.002	< 0.001
	Porto	< 0.001	< 0.001	0.422	0.002	< 0.001
	Sevilla	< 0.001	< 0.001	0.027	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.074	< 0.001	< 0.001

[a] the first and second possible crop cycles simulated separately i.e. two applications per year

Table 8.8-5: PEC_{GW} for azoxystrobin, R234886, R402173 and R401553 on various crops with FOCUS PELMO v5.5.3 (A 3.3: Langa Peñalba, S., & Robinson, P. 2022, VV-961774)

Crop	Scenario	80[th] Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
PL-54, Cabbage[a] 2 × 250 g a.s./ha BBCH 11	Châteaudun 1[st]	< 0.001	< 0.001	1.29	< 0.001	< 0.001
	Châteaudun 2[nd]	< 0.001	< 0.001	1.51	0.001	< 0.001
	Hamburg 1[st]	< 0.001	0.004	4.47	< 0.001	< 0.001
	Hamburg 2[nd]	< 0.001	0.006	5.11	0.013	< 0.001
	Jokioinen	< 0.001	< 0.001	2.09	0.001	< 0.001
	Kremsmünster 1[st]	< 0.001	0.001	2.65	< 0.001	< 0.001
	Kremsmünster 2[nd]	< 0.001	0.001	2.90	0.005	< 0.001
	Porto 1[st]	< 0.001	0.003	2.40	< 0.001	< 0.001
	Porto 2[nd]	< 0.001	0.006	3.63	0.001	< 0.001
	Sevilla 1[st]	< 0.001	< 0.001	0.146	< 0.001	< 0.001
	Sevilla 2[nd]	< 0.001	< 0.001	0.243	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.946	< 0.001	< 0.001
PL-54, Cabbage[a] 2 × 250 g a.s./ha BBCH 49	Châteaudun 1[st]	< 0.001	< 0.001	0.291	< 0.001	< 0.001
	Châteaudun 2[nd]	< 0.001	< 0.001	0.285	0.001	< 0.001
	Hamburg 1[st]	< 0.001	< 0.001	1.24	0.001	< 0.001
	Hamburg 2[nd]	< 0.001	< 0.001	1.22	0.052	0.001
	Jokioinen	< 0.001	< 0.001	0.446	0.019	< 0.001
	Kremsmünster 1[st]	< 0.001	< 0.001	0.781	< 0.001	< 0.001
	Kremsmünster 2[nd]	< 0.001	< 0.001	0.719	0.016	< 0.001
	Porto 1[st]	< 0.001	< 0.001	0.872	< 0.001	< 0.001
	Porto 2[nd]	< 0.001	< 0.001	0.796	0.084	< 0.001
	Sevilla 1[st]	< 0.001	< 0.001	0.032	< 0.001	< 0.001
	Sevilla 2[nd]	< 0.001	< 0.001	0.044	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.066	0.005	< 0.001
PL-59, Tomatoes	Châteaudun	< 0.001	< 0.001	0.685	< 0.001	< 0.001

Crop	**Scenario**	**80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)**				
		Azoxy-strobin	**R234886**		**R402173**	**R401553**
			Acidic	**Alkaline**		
2 × 250 g a.s./ha BBCH 11	Piacenza	< 0.001	0.002	1.72	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	1.22	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.050	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.216	< 0.001	< 0.001
PL-59, Tomatoes 2 × 250 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	0.130	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.452	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.366	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.005	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.038	< 0.001	< 0.001
PL-59, Tomatoes 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.155	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.540	0.002	< 0.001
	Porto	< 0.001	< 0.001	0.528	0.002	< 0.001
	Sevilla	< 0.001	< 0.001	0.007	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.051	< 0.001	< 0.001

[a] the first and second possible crop cycles simulated separately i.e. two applications per year

Table 8.8-6: PEC_{GW} for azoxystrobin, R234886, R402173 and R401553 on various crops with FOCUS MACRO v5.5.4 (A 3.3: Langa Peñalba, S., & Robinson, P. 2022, VV-961774)

Crop	**Scenario**	**80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)**				
		Azoxystrobin	**R234886**		**R402173**	**R401553**
			Acidic	**Alkaline**		
PL-54, Cabbage[a], 2 × 250 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	0.002	1.56	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	0.009	2.31	0.002	< 0.001
PL-54, Cabbage[a], 2 × 250 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	0.472	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	0.447	0.007	< 0.001
PL-59, Tomatoes, 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	0.680	< 0.001	< 0.001
PL-59, Tomatoes, 2 × 250 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	0.174	< 0.001	< 0.001
PL-59, Tomatoes, 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.183	< 0.001	< 0.001

[a] the first and second possible crop cycles simulated separately i.e. two applications per year

Tier 2

Table 8.8-7: PEC_{GW} for azoxystrobin, R234886, R402173 and R401553 on various crops with FOCUS PEARL v4.4.4 (A 3.4, Anagu, I. & Langa Peñalba, S., 2021, VV-911613)

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
PL-54, Cabbage[a] 2 × 250 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	< 0.001	1.50	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	1.82	< 0.001	< 0.001
	Hamburg 1st	< 0.001	0.014	4.03	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	0.020	4.64	0.010	< 0.001
	Jokioinen	< 0.001	< 0.001	2.04	< 0.001	< 0.001
	Kremsmünster 1st	< 0.001	< 0.001	2.49	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.002	2.79	0.003	< 0.001
	Porto 1st	< 0.001	< 0.001	1.52	< 0.001	< 0.001
	Porto 2nd	< 0.001	< 0.001	2.81	< 0.001	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.190	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.312	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.848	< 0.001	< 0.001
PL-54, Cabbage[a] 2 × 250 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	0.353	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	0.353	< 0.001	< 0.001
	Hamburg 1st	< 0.001	< 0.001	1.21	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	< 0.001	1.20	0.033	0.002
	Jokioinen	< 0.001	< 0.001	0.446	0.007	< 0.001
	Kremsmünster 1st	< 0.001	< 0.001	0.738	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	< 0.001	0.683	0.006	< 0.001
	Porto 1st	< 0.001	< 0.001	0.601	< 0.001	< 0.001
	Porto 2nd	< 0.001	< 0.001	0.533	0.045	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.038	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.070	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.049	0.001	< 0.001
PL- 59, Tomatoes 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	1.00	< 0.001	< 0.001
	Piacenza	< 0.001	0.001	1.36	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.937	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.116	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.258	< 0.001	< 0.001
PL-59, Tomatoes 2 × 250 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	0.204	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.376	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.287	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.018	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.057	< 0.001	< 0.001
PL-59, Tomatoes 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.245	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.453	0.002	< 0.001
	Porto	< 0.001	< 0.001	0.415	0.002	< 0.001
	Sevilla	< 0.001	< 0.001	0.027	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.072	< 0.001	< 0.001

[a] the first and second possible crop cycles simulated separately i.e. two applications per year
~~[b] both possible crop cycles considered within one simulation run, i.e. four applications per year~~

Table 8.8-8: PEC_{GW} for azoxystrobin, R234886, R402173 and R401553 on various crops with FOCUS PELMO v5.5.3 (A 3.4, Anagu, I. & Langa Peñalba, S., 2021, VV-911613)

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
PL-54, Cabbage[a] 2 × 250 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	< 0.001	1.16	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	1.38	0.001	< 0.001
	Hamburg 1st	< 0.001	0.003	4.03	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	0.004	4.73	0.013	< 0.001
	Jokioinen	< 0.001	< 0.001	1.94	0.001	< 0.001
	Kremsmünster 1st	< 0.001	0.001	2.44	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.001	2.72	0.005	< 0.001
	Porto 1st	< 0.001	0.002	2.11	< 0.001	< 0.001
	Porto 2nd	< 0.001	0.004	3.39	0.001	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.108	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.196	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.858	< 0.001	< 0.001
PL-54, Cabbage[a] 2 × 250 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	0.266	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	0.256	0.001	< 0.001
	Hamburg 1st	< 0.001	< 0.001	1.13	0.001	< 0.001
	Hamburg 2nd	< 0.001	< 0.001	1.12	0.052	0.001
	Jokioinen	< 0.001	< 0.001	0.411	0.019	< 0.001
	Kremsmünster 1st	< 0.001	< 0.001	0.728	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	< 0.001	0.664	0.016	< 0.001
	Porto 1st	< 0.001	< 0.001	0.802	< 0.001	< 0.001
	Porto 2nd	< 0.001	< 0.001	0.738	0.084	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.026	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.037	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.055	0.005	< 0.001
PL-59, Tomatoes 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	0.621	< 0.001	< 0.001
	Piacenza	< 0.001	0.002	1.62	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	1.05	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.041	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.177	< 0.001	< 0.001
PL-59, Tomatoes 2 × 250 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	0.119	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.430	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.331	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.004	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.033	< 0.001	< 0.001
PL-59, Tomatoes 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.140	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.501	0.002	< 0.001
	Porto	< 0.001	< 0.001	0.491	0.002	< 0.001
	Sevilla	< 0.001	< 0.001	0.006	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.044	< 0.001	< 0.001

[a] the first and second possible crop cycles simulated separately i.e. two applications per year
~~[b] both possible crop cycles considered within one simulation run, i.e. four applications per year~~

Table 8.8-9: **PEC_{GW} for azoxystrobin, R234886, R402173 and R401553 on various crops with FOCUS MACRO v5.5.4 (A 3.4, Anagu, I. & Langa Peñalba, S., 2021, VV-911613)**

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
PL-54, Cabbage[a], 2 × 250 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	0.002	1.49	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	0.009	2.28	0.002	< 0.001
PL-54, Cabbage[a], 2 × 250 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	0.467	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	0.440	0.007	< 0.001
PL-59, Tomatoes, 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	0.634	< 0.001	< 0.001
PL-59, Tomatoes, 2 × 250 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	0.166	< 0.001	< 0.001
PL-59, Tomatoes, 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.179	< 0.001	< 0.001

[a] the first and second possible crop cycles simulated separately i.e. two applications per year

Geometric K_{FOC} values

Table 8.8-10: **PEC_{GW} for azoxystrobin, R234886, R402173 and R401553 on leafy vegetables with FOCUS PEARL v4.4.4 (A 3.5, Anagu, I. & Langa Peñalba, S., 2021, VV-911615) – SEU only**

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
ES-75, Cabbage[a] 1 × 250 g a.s./ha BBCH 09	Châteaudun 1st	< 0.001	< 0.001	0.946	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	1.14	< 0.001	< 0.001
	Hamburg 1st	< 0.001	0.050	2.58	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	0.061	2.97	0.003	< 0.001
	Jokioinen	< 0.001	< 0.001	1.26	< 0.001	< 0.001
	Kremsmünster 1st	< 0.001	0.010	1.60	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.013	1.81	< 0.001	< 0.001
	Porto 1st	< 0.001	0.003	0.951	< 0.001	< 0.001
	Porto 2nd	< 0.001	0.006	1.76	< 0.001	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.111	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.179	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.541	< 0.001	< 0.001
ES-75, Cabbage[b] 1 × 250 g a.s./ha	Châteaudun	< 0.001	0.022	3.14	< 0.001	< 0.001
	Hamburg	< 0.001	0.362	7.43	0.004	< 0.001

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
BBCH 09	Jokioinen	< 0.001	< 0.001	1.26	< 0.001	< 0.001
	Kremsmünster	< 0.001	0.145	4.37	< 0.001	< 0.001
	Porto	< 0.001	0.065	3.44	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.521	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.541	< 0.001	< 0.001

[a] the first and second possible crop cycles simulated separately i.e. one application per year for the single application
[b] both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application

Table 8.8-11: PEC_{GW} for azoxystrobin, R234886, R402173 and R401553 on leafy vegetables with FOCUS PELMO v5.5.3 (A 3.5, Anagu, I. & Langa Peñalba, S., 2021, VV-911615) – SEU only

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
ES-75, Cabbage[a] 1 × 250 g a.s./ha BBCH 09	Châteaudun 1st	< 0.001	< 0.001	0.724	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	0.866	< 0.001	< 0.001
	Hamburg 1st	< 0.001	0.018	2.55	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	0.025	3.04	0.004	< 0.001
	Jokioinen	< 0.001	< 0.001	1.20	< 0.001	< 0.001
	Kremsmünster 1st	< 0.001	0.005	1.56	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.007	1.76	0.002	< 0.001
	Porto 1st	< 0.001	0.011	1.32	< 0.001	< 0.001
	Porto 2nd	< 0.001	0.020	2.17	< 0.001	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.064	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.115	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.536	< 0.001	< 0.001
ES-75, Cabbage[b] 1 × 250 g a.s./ha BBCH 09	Châteaudun	< 0.001	0.006	2.36	< 0.001	< 0.001
	Hamburg	< 0.001	0.196	7.39	0.005	< 0.001
	Jokioinen	< 0.001	< 0.001	1.20	< 0.001	< 0.001
	Kremsmünster	< 0.001	0.097	4.27	0.002	< 0.001
	Porto	< 0.001	0.149	4.35	0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.309	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.535	< 0.001	< 0.001

[a] the first and second possible crop cycles simulated separately i.e. one application per year for the single application
[b] both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application

Table 8.8-12: PEC$_{GW}$ for azoxystrobin, R234886, R402173 and R401553 on leafy vegetables with FOCUS MACRO v5.5.4 (A 3.5, Anagu, I. & Langa Peñalba, S., 2021, VV-911615) – SEU only

Crop	Scenario	80th Percentile PEC$_{GW}$ at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
ES-75, Cabbage[a], 1 × 250 g a.s./ha BBCH 09	Châteaudun 1st	< 0.001	0.007	0.938	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	0.024	1.41	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	0.003	0.533	0.007	< 0.001
ES-75, Cabbage[b], 1 × 250 g a.s./ha BBCH 09	Châteaudun	< 0.001	0.132	3.18	< 0.001	< 0.001

[a] the first and second possible crop cycles simulated separately i.e. one application per year for the single application
[b] both possible crop cycles considered within one simulation run, i.e. two applications per year

Table 8.8-13: PEC$_{GW}$ for azoxystrobin, R234886, R402173 and R401553 on leafy vegetables with FOCUS PEARL v4.4.4 (A 3.5, Anagu, I. & Langa Peñalba, S., 2021, VV-911615) – SEU only

Crop	Scenario	80th Percentile PEC$_{GW}$ at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
BG-68, Cabbage[a] 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	0.112	5.88	< 0.001	< 0.001
	Hamburg	< 0.001	1.03	13.2	0.013	< 0.001
	Jokioinen	< 0.001	< 0.001	2.47	< 0.001	< 0.001
	Kremsmünster	< 0.001	0.444	7.57	0.003	< 0.001
	Porto	< 0.001	0.220	6.14	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	1.13	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	1.02	< 0.001	< 0.001
BG-68, Cabbage[a] 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	0.001	1.42	< 0.001	< 0.001
	Hamburg	< 0.001	0.102	3.71	0.034	0.002
	Jokioinen	< 0.001	< 0.001	0.554	0.007	< 0.001
	Kremsmünster	< 0.001	0.028	2.20	0.006	< 0.001
	Porto	< 0.001	0.009	1.79	0.045	< 0.001
	Sevilla	< 0.001	< 0.001	0.256	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.063	0.001	< 0.001
Cabbage[b] 2 × 250 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	0.005	1.85	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	0.007	2.22	< 0.001	< 0.001
	Hamburg 1st	< 0.001	0.161	4.67	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	0.202	5.33	0.010	< 0.001
	Jokioinen	< 0.001	< 0.001	2.47	< 0.001	< 0.001
	Kremsmünster 1st	< 0.001	0.052	2.83	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.064	3.16	0.003	< 0.001
	Porto 1st	< 0.001	0.016	1.74	< 0.001	< 0.001
	Porto 2nd	< 0.001	0.033	3.18	< 0.001	< 0.001

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
	Sevilla 1st	< 0.001	< 0.001	0.255	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.415	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	1.02	< 0.001	< 0.001
Cabbage[b] 2 × 250 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	0.450	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	0.455	< 0.001	< 0.001
	Hamburg 1st	< 0.001	0.010	1.40	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	0.013	1.39	0.033	0.002
	Jokioinen	< 0.001	< 0.001	0.554	0.007	< 0.001
	Kremsmünster 1st	< 0.001	0.001	0.867	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.002	0.797	0.006	< 0.001
	Porto 1st	< 0.001	< 0.001	0.696	< 0.001	< 0.001
	Porto 2nd	< 0.001	< 0.001	0.627	0.046	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.055	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.078	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.063	0.001	< 0.001

[a] both possible crop cycles considered within one simulation run, i.e. four applications per year

[b] the first and second possible crop cycles simulated separately i.e. one application per year for the single application

Table 8.8-14: PEC_{GW} for azoxystrobin, R234886, R402173 and R401553 on leafy vegetables with FOCUS PELMO v5.5.3 (A 3.5, Anagu, I. & Langa Peñalba, S., 2021, VV-911615) – SEU only

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
BG-68, Cabbage[a] 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	0.041	4.42	0.001	< 0.001
	Hamburg	0.001	0.608	13.0	0.018	< 0.001
	Jokioinen	< 0.001	< 0.001	2.38	0.001	< 0.001
	Kremsmünster	< 0.001	0.321	7.39	0.005	< 0.001
	Porto	0.001	0.455	7.50	0.002	< 0.001
	Sevilla	< 0.001	< 0.001	0.679	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	1.08	< 0.001	< 0.001
BG-68, Cabbage[a] 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	0.001	1.06	0.001	< 0.001
	Hamburg	< 0.001	0.047	3.75	0.054	0.002
	Jokioinen	< 0.001	< 0.001	0.526	0.019	< 0.001
	Kremsmünster	< 0.001	0.015	2.14	0.016	< 0.001
	Porto	< 0.001	0.032	2.24	0.084	< 0.001
	Sevilla	< 0.001	< 0.001	0.167	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.071	0.005	< 0.001
Cabbage[b] 2 × 250 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	0.001	1.40	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	0.002	1.69	0.001	< 0.001
	Hamburg 1st	< 0.001	0.077	4.62	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	0.101	5.41	0.013	< 0.001
	Jokioinen	< 0.001	< 0.001	2.38	0.001	< 0.001
	Kremsmünster 1st	< 0.001	0.032	2.76	< 0.001	< 0.001

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
	Kremsmünster 2nd	< 0.001	0.041	3.08	0.005	< 0.001
	Porto 1st	< 0.001	0.051	2.36	< 0.001	< 0.001
	Porto 2nd	< 0.001	0.088	3.78	0.001	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.144	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.251	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	1.08	< 0.001	< 0.001
Cabbage[b] 2 × 250 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	0.340	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	0.328	0.001	< 0.001
	Hamburg 1st	< 0.001	0.003	1.35	0.001	< 0.001
	Hamburg 2nd	< 0.001	0.004	1.34	0.052	0.002
	Jokioinen	< 0.001	< 0.001	0.526	0.019	< 0.001
	Kremsmünster 1st	< 0.001	0.001	0.843	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.001	0.774	0.016	< 0.001
	Porto 1st	< 0.001	0.002	0.917	< 0.001	< 0.001
	Porto 2nd	< 0.001	0.003	0.846	0.084	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.037	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.054	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.071	0.005	< 0.001

[a] both possible crop cycles considered within one simulation run, i.e. four applications per year
[b] the first and second possible crop cycles simulated separately i.e. one application per year for the single application

Table 8.8-15: PEC_{GW} for azoxystrobin, R234886, R402173 and R401553 on leafy vegetables with FOCUS MACRO v5.5.4 (A 3.5, Anagu, I. & Langa Peñalba, S., 2021, VV-911615) – SEU only

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
BG-68, Cabbage[a], 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	0.429	5.82	0.002	< 0.001
BG-68, Cabbage[a], 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	0.029	1.55	0.007	<0.001
Cabbage[b], 2 × 250 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	0.033	1.75	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	0.103	2.67	0.002	< 0.001
Cabbage[b], 2 × 250 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	0.003	0.565	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	0.003	0.533	0.007	< 0.001

[a] both possible crop cycles considered within one simulation run, i.e. four applications per year
[b] the first and second possible crop cycles simulated separately i.e. one application per year for the single application

Table 8.8-16: Summary of maximum PEC_{GW} across all models for azoxystrobin, R234886, R402173 and R401553 (A 3.3, Anagu, I. & Langa Peñalba, S., 2021, VV-911613)

Substance		80th Percentile PEC_{GW} (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
Azoxystrobin		< 0.001	Cabbage, PL-54	1 × 250[a]	11 - 49	All models	All scenarios
		< 0.001	Tomatoes, PL-59	2 × 250	11 - 89	All models	All scenarios
R234886	Acidic	0.362	Cabbage, PL-54	1 × 250[a]	11 - 49	FOCUS PEARL v4.4.4	Hamburg
		0.030	Tomatoes, PL-59	2 × 250	11 - 89	FOCUS PELMO v5.5.3	Piacenza
	Alkaline	7.43	Cabbage, PL-54	1 × 250[a]	11 - 49	FOCUS PELMO v5.5.3	Hamburg
		1.85	Tomatoes, PL-59	2 × 250	11 - 89	FOCUS PELMO v5.5.3	Piacenza
R402173		0.005	Cabbage PL-54	1 × 250[a]	11 - 49	FOCUS PELMO v5.5.3	Hamburg
		0.002	Tomatoes, PL-59	2 × 250	11 - 89	FOCUS PEARL v4.4.4/FOCUS PELMO v.5.5.3	Piacenza Porto
R401553		< 0.001	Cabbage PL-54	1 × 250[a]	11 - 49	All models	All scenarios
		< 0.001	Tomatoes, PL-59	2 × 250	11 - 89	All models	All scenarios

[a] the first and second possible crop cycles simulated separately i.e. two applications per year

Table 8.8-17: Summary of maximum PEC_{GW} across all models for azoxystrobin, R234886, R402173 and R401553 (A 3.5, Anagu, I. & Langa Peñalba, S., 2021, VV-911615) - SEU only

Substance		80th Percentile PEC_{GW} (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
Azoxystrobin		< 0.001	Cabbage, ES-75	1 × 250[a]	09	All models	All scenarios
		< 0.001	Cabbage, ES-75	1 × 250[b]	09	All models	All scenarios
R234886	Acidic	0.061	Cabbage, ES-75	1 × 250[a]	09	FOCUS PEARL v4.4.4	Hamburg, 2nd
		0.362	Cabbage, ES-75	1 × 250[b]	09	FOCUS PEARL v4.4.4	Hamburg
	Alkaline	3.04	Cabbage, ES-75	1 × 250[a]	09	FOCUS PELMO v5.5.3	Hamburg, 2nd
		7.43	Cabbage, ES-75	1 × 250[b]	09	FOCUS PEARL v4.4.4	Hamburg

Substance	80th Percentile PEC_{GW} (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
R402173	0.004	Cabbage, ES-75	1 × 250[a]	09	FOCUS PELMO v5.5.3	Hamburg, 2nd
	0.005	Cabbage, ES-75	1 × 250[b]	09	FOCUS PELMO v5.5.3	Hamburg
R401553	< 0.001	Cabbage, ES-75	1 × 250[a]	09	All models	All scenarios
	< 0.001	Cabbage, ES-75	1 × 250[b]	09	All models	All scenarios

[a] the first and second possible crop cycles simulated separately i.e. one application per year for the single application
[b] both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application

Table 8.8-18: Summary of maximum PEC_{GW} across all models for azoxystrobin, R234886, R402173 and R401553 (A 3.5, Anagu, I. & Langa Peñalba, S., 2021, VV-911615) - SEU only

Substance		80th Percentile PEC_{GW} (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
Azoxystrobin		< 0.001	Cabbage, BG-68	2 × 250[a]	11 - 49	All models	All scenarios
		< 0.001		2 × 250[b]	11 - 49	All models	All scenarios
R234886	Acidic	1.03	Cabbage, BG-68	2 × 250 [a]	11 - 49	FOCUS PEARL v4.4.4	Hamburg,
		0.202		2 × 250 [b]	11 - 49	FOCUS PEARL v4.4.4	Hamburg 2nd
	Alkaline	7.57 (13.2*)	Cabbage, BG-68	2 × 250 [a]	11 - 49	FOCUS PELMO v5.5.3	Kremsmünster (Hamburg)
		5.41		2 × 250 [b]	11 - 49	FOCUS PELMO v5.5.3	Hamburg 2nd
R402173		0.084	Cabbage, BG-68	2 × 250 [a]	11 - 49	FOCUS PELMO v5.5.3	Porto
		0.084		2 × 250 [b]	11 - 49	FOCUS PELMO v5.5.3	Porto 2nd
R401553		0.002	Cabbage, BG-68	2 × 250 [a]	11 - 49	FOCUS PEARL v4.4.4/FOCUS PELMO v5.5.3	Hamburg
		0.002		2 × 250 [b]	11 - 49	FOCUS PEARL v4.4.4/FOCUS PELMO v5.5.3	Hamburg

[a] both possible crop cycles considered within one simulation run, i.e. four applications per year
* Hamburg scenario not relevant for countries where 2 applications in 2 crop cycles (total of 4 application per year) are the intended GAP, therefore there is no exceedance of the threshold in the relevant scenarios
[b] both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application

8.8.2.2 Oxathiapiprolin and its metabolites

Table 8.8-19: Summary of input parameters for oxathiapiprolin, IN-RDT31 and IN-RAB06 for PEC_{GW} calculations

Compound	Oxathiapiprolin	IN-RDT31	IN-RAB06	Value in accordance with EU endpoint / Reference
Molar mass (g/mol)	539.53*	555.53**	569.51**	*Yes / EFSA, 2016 **Yes / DAR, 2015
Water solubility (mg/L)	0.1844* (20°C) 0.3688 (30°C)	0.1844** (20°C)	0.1844** (20°C)	*Yes / EFSA, 2016 **Parent data used for metabolite
Saturated vapour pressure (Pa)	1.141E-06* (20°C) 4.56E-06 (30°C)	0** (20°C)	0** (20°C)	*Yes / EFSA, 2016 **worst case
DT_{50} in soil (d)	121.2 (geometric mean lab, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 6)	160 (geometric mean lab, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 6)	60.5 (geometric mean field and lab, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 12)	Yes / EFSA, 2016
Transformation rate	Pathway A: 0.004003 to IN-RDT31 0.001716 to IN-E8S72 Pathway B: 0.002288 to IN-RAB06 0.003431 to IN-QPS10	Pathway A: 0.001733 to IN-E8S72 0.002599 to sink	Pathway B: 0.011457 to IN- QPS10	Calculated for PELMO; (ln(2) / DT_{50}) * FFm
CEU uses: K_{FOC} / K_{FOM} (mL/g)	6242.6 / 3621 (arithmetic mean, n = 5)	1168.4 / 677.7 (arithmetic mean, n = 5)	495.6 / 287.5 (arithmetic mean, n = 5)	Yes / EFSA, 2016
SEU uses: K_{FOC} / K_{FOM} (mL/g)	6128 / 3555 (geometric mean, n = 5)	1012 / 587 (geometric mean, n = 5)	487 / 282 (geometric mean, n = 5)	No[a] / EFSA, 2016
1/n	0.97 (arithmetic mean, n = 5)	0.87 (arithmetic mean, n = 5)	0.89 (arithmetic mean, n = 5)	Yes / EFSA, 2016
Plant uptake factor	0	0	0	Worst-case assumption
Formation fraction	-	0.7 from parent	0.4 from parent	Yes / EFSA, 2016

Compound	Oxathiapiprolin	IN-RDT31	IN-RAB06	Value in accordance with EU endpoint / Reference
Conversion fraction	-	0.721 from parent	0.422 from parent	Calculated for MACRO; molar mass (metabolite) / molar mass (parent) x formation fraction

[a] differs from the EFSA conclusion as the latest guideline (EFSA Journal 2014, 12 (5):3662) recommends the use of the geometric mean instead of the arithmetic mean. The individual values from which the geometric mean is calculated, are those established in EFSA, 2016

Table 8.8-20: Summary of input parameters for IN-QPS10 and IN-E8S72 for PEC_{GW} calculations

Compound	IN-QPS10	IN-E8S72	Value in accordance with EU endpoint / Reference
Molar mass (g/mol)	349.41	180.09	Yes / DAR, 2015
Water solubility (mg/L)	0.1844** (20°C)	0.1844** (20°C)	**Parent data used for metabolite
Saturated vapour pressure (Pa)	0 (20°C)	0 (20°C)	worst case
DT_{50} in soil (d)	564.9 (geometric mean lab, acidic, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 2)	310.2 (geometric mean lab, normalisation to or pF2, 20 °C with Q_{10} of 2.58, n = 5)	Yes / EFSA, 2016
Transformation rate	Pathway B: 0.001227 to sink	Pathway A: 0.002235 to sink	Calculated for PELMO; (ln(2) / DT_{50}) * FFm
CEU uses: K_{FOC} / K_{FOM} (mL/g)	4880.2 / 2830.7 (arithmetic mean, n = 5)	7.33 / 4.25 (arithmetic mean, n = 5)	Yes / EFSA, 2016
SEU uses: K_{FOC} / K_{FOM} (mL/g)	3484 / 2021 (geometric mean, n = 5)	6.91 / 4.01 (geometric mean, n = 5)	No[a] / EFSA, 2016
1/n	0.92 (arithmetic mean, n = 5)	1 (arithmetic mean, n = 5)	Yes / EFSA, 2016
Plant uptake factor	0	0	Worst-case assumption
Formation fraction	0.6 from parent 1.0 from IN-RAB06	0.3 from parent 0.4 from IN-RDT31	Yes / EFSA, 2016
Conversion fraction	0.648[b] from parent	0.194[c] from parent	Calculated for MACRO; molar mass (metabolite) / molar mass (parent) x formation fraction

[a] differs from the EFSA conclusion as the latest guideline (EFSA Journal 2014, 12 (5):3662) recommends the use of the geometric mean instead of the arithmetic mean. The individual values from which the geometric mean is calculated, are those established in EFSA, 2016

[b] For the secondary metabolite IN-QPS10 the formation fraction was multiplied along the pathway; therefore 349.41/539.53 × ((0.4 × 1.0)+0.6)

[c] For the secondary metabolite IN-E8S72 the formation fraction was multiplied along the pathway; therefore 180.09/539.53 × ((0.7× 0.4)+0.3)

Table 8.8-21: PEC$_{GW}$ for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 on various crops with FOCUS PEARL v4.4.4 (A 3.5, Anagu, I. & Bo, Y., 2021, VV-911806)

Crop	Scenario	80th Percentile PEC$_{GW}$ at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
PL-54, Cabbage[a] 2 × 12 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.33
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.32
	Hamburg 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.54
	Hamburg 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.55
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	1.44
	Kremsmünster 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.888
	Kremsmünster 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.878
	Porto 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.607
	Porto 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.602
	Sevilla 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.51
	Sevilla 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.53
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.05
PL-54, Cabbage[a] 2 × 12 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.527
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.534
	Hamburg 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.620
	Hamburg 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.618
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.569
	Kremsmünster 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.350
	Kremsmünster 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.357
	Porto 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.241
	Porto 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.234
	Sevilla 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.610
	Sevilla 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.598
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.406
PL-59, Tomatoes 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.10
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.997
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.488
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	1.10
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.43
PL-59, Tomatoes 2 × 12 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.434
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.401
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.196
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.439
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.571
PL-59, Tomatoes 2 × 12 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.441
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.408
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.193
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.439
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.562

[a] the first and second possible crop cycles simulated separately i.e. two applications per year

Table 8.8-22: PEC_{GW} for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 on various crops with FOCUS PELMO v5.5.3 (A 3.5, Anagu, I. & Bo, Y., 2021, VV-911806)

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
PL-54, Cabbage[a] 2 × 12 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.22
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.20
	Hamburg 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.19
	Hamburg 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.18
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	1.29
	Kremsmünster 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.963
	Kremsmünster 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.953
	Porto 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.473
	Porto 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.467
	Sevilla 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.20
	Sevilla 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.16
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.924
PL-54, Cabbage[a] 2 × 12 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.456
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.475
	Hamburg 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.466
	Hamburg 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.489
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.521
	Kremsmünster 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.380
	Kremsmünster 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.381
	Porto 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.164
	Porto 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.184
	Sevilla 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.394
	Sevilla 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.353
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.374
PL-59, Tomatoes 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.995
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.689
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.415
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	1.20
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.967
PL-59, Tomatoes 2 × 12 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.394
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.276
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.169
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.426
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.384
PL-59, Tomatoes 2 × 12 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.375
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.249
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.152
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.241
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.326

[a] the first and second possible crop cycles simulated separately i.e. two applications per year

Table 8.8-23: PEC_{GW} for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 on various crops with MACRO v5.5.4 (A 3.5, Anagu, I. & Bo, Y., 2021, VV-911806)

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.931

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
PL-54, Cabbage[a], 2 × 12 g a.s./ha BBCH 11	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.933
PL-54, Cabbage[a], 2 × 12 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.373
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.372
PL-59, Tomatoes, 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.809
PL-59, Tomatoes, 2 × 12 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.322
PL-59, Tomatoes, 2 × 12 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.325

[a] the first and second possible crop cycles simulated separately i.e. two applications per year

Table 8.8-24: PEC_{GW} for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 on leafy vegetables with FOCUS PEARL v4.4.4 (A 3.7, Anagu, I. & Bo, Y., 2021, VV-911808) – SEU only

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
ES-75, Cabbage[a] 1 × 12 g a.s./ha BBCH 09	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.893
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.890
	Hamburg 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.03
	Hamburg 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.04
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.970
	Kremsmünster 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.595
	Kremsmünster 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.587
	Porto 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.405
	Porto 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.403
	Sevilla 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.02
	Sevilla 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.03
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.703
ES-75, Cabbage[b] 1 × 12 g a.s./ha BBCH 09	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.78
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	2.07
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.970
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	1.17
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.808
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	2.04
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.703

[a] the first and second possible crop cycles simulated separately i.e. one application per year for the single application
[b] both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application

Table 8.8-25: PEC$_{GW}$ for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 on leafy vegetables with FOCUS PELMO v5.5.3 (A 3.7, Anagu, I. & Bo, Y., 2021, VV-911808) – SEU only

Crop	Scenario	80th Percentile PEC$_{GW}$ at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
ES-75, Cabbage[a] 1 × 12 g a.s./ha BBCH 09	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.813
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.789
	Hamburg 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.795
	Hamburg 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.784
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.873
	Kremsmünster 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.641
	Kremsmünster 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.644
	Porto 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.314
	Porto 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.300
	Sevilla 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.783
	Sevilla 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.732
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.581
ES-75, Cabbage[b] 1 × 12 g a.s./ha BBCH 09	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.60
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	1.58
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.873
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	1.29
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.614
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	1.52
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.581

[a] the first and second possible crop cycles simulated separately i.e. one application per year for the single application
[b] both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application

Table 8.8-26: PEC$_{GW}$ for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 on leafy vegetables with MACRO v5.5.4 (A 3.7, Anagu, I. & Bo, Y., 2021, VV-911808) – SEU only

Crop	Scenario	80th Percentile PEC$_{GW}$ at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
ES-75, Cabbage[a], 1 × 12 g a.s./ha BBCH 09	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.625
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.626
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.373
ES-75, Cabbage[b], 1 × 12 g a.s./ha BBCH 09	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.25

[a] the first and second possible crop cycles simulated separately i.e. one application per year for the single application
[b] both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application

Table 8.8-27: PEC_{GW} for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 on leafy vegetables with FOCUS PEARL v4.4.4 (A 3.7, Anagu, I. & Bo, Y., 2021, VV-911808) – SEU only

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
BG-68, Cabbage[a] 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	2.68
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	3.11
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	1.45
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	1.76
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	1.21
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	3.07
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.05
BG-68, Cabbage[a] 2 × 12 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.07
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	1.24
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.577
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.705
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.477
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	1.21
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.408

[a] both possible crop cycles considered within one simulation run, i.e. four applications per year

Table 8.8-28: PEC$_{GW}$ for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 on leafy vegetables with FOCUS PELMO v5.5.3 (A 3.7, Anagu, I. & Bo, Y., 2021, VV-911808) – SEU only

Crop	Scenario	80th Percentile PEC$_{GW}$ at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
BG-68, Cabbage[a] 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	2.43
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	2.37
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	1.32
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	1.92
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.939
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	2.38
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.928
BG-68, Cabbage[a] 2 × 12 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.933
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.957
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.531
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.761
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.348
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.744
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.375

[a] both possible crop cycles considered within one simulation run, i.e. four applications per year

Table 8.8-29: PEC$_{GW}$ for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 on leafy vegetables with MACRO v5.5.4 (A 3.7, Anagu, I. & Bo, Y., 2021, VV-911808) – SEU only

Crop	Scenario	80th Percentile PEC$_{GW}$ at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
BG-68, Cabbage[a], 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.87
BG-68, Cabbage[a], 2 × 12 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.747

[a] both possible crop cycles considered within one simulation run, i.e. four applications per year

Table 8.8-30: Summary of maximum PEC$_{GW}$ across all models for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 (A 3.5, Anagu, I. & Bo, Y., 2021, VV-911806)

Substance	80th Percentile PEC$_{GW}$ (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
Oxathiapiprolin	< 0.001	Cabbage, PL-54	1 × 12[a]	11 - 49	All models	All scenarios
	< 0.001	Tomatoes, PL-59	2 × 12	11 - 89	All models	All scenarios

Substance	80th Percentile PEC_{GW} (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
IN-RDT31	< 0.001	Cabbage, PL-54	1 × 12[a]	11 - 49	All models	All scenarios
	< 0.001	Tomatoes, PL-59	2 × 12	11 - 89	All models	All scenarios
IN-RAB06	< 0.001	Cabbage, PL-54	1 × 12[a]	11 - 49	All models	All scenarios
	< 0.001	Tomatoes, PL-59	2 × 12	11 - 89	All models	All scenarios
IN-QPS10	< 0.001	Cabbage, PL-54	1 × 12[a]	11 - 49	All models	All scenarios
	< 0.001	Tomatoes, PL-59	2 × 12	11 - 89	All models	All scenarios
IN-E8S72	2.07	Cabbage, PL-54	1 × 12[a]	09	FOCUS PEARL v4.4.4	Hamburg
	1.43	Tomatoes, PL-59	2 × 12	11 - 89	FOCUS PEARL v4.4.4	Thiva

[a] the first and second possible crop cycles simulated separately i.e. two applications per year

Table 8.8-31: Summary of maximum PEC_{GW} across all models for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 (A 3.7, Anagu, I. & Bo, Y., 2021, VV-911808) – SEU only

Substance	80th Percentile PEC_{GW} (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
Oxathiapiprolin	< 0.001	Cabbage, ES-75	1 × 12[a]	09	All models	All scenarios
	< 0.001	Cabbage, ES-75	1 × 12[b]	09	All models	All scenarios
IN-RDT31	< 0.001	Cabbage, ES-75	1 × 12[a]	09	All models	All scenarios
	< 0.001	Cabbage, ES-75	1 × 12[b]	09	All models	All scenarios
IN-RAB06	< 0.001	Cabbage, ES-75	1 × 12[a]	09	All models	All scenarios
	< 0.001	Cabbage, ES-75	1 × 12[b]	09	All models	All scenarios
IN-QPS10	< 0.001	Cabbage, ES-75	1 × 12[a]	09	All models	All scenarios
	< 0.001	Cabbage, ES-75	1 × 12[b]	09	All models	All scenarios
IN-E8S72	1.04	Cabbage, ES-75	1 × 12[a]	09	FOCUS PEARL v4.4.4	Hamburg, 2nd season
	2.07	Cabbage, ES-75	1 × 12[b]	09	FOCUS PEARL v4.4.4	Hamburg

[a] the first and second possible crop cycles simulated separately i.e. one application per year for the single application
[b] both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application

Table 8.8-32: Summary of maximum PEC_{GW} across all models for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 (A 3.7, Anagu, I. & Bo, Y., 2021, VV-911808) – SEU only

Substance	80th Percentile PEC_{GW} (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
Oxathiapiprolin	< 0.001	Cabbage, BG-68	2 × 12[a]	11 - 49	All models	All scenarios
IN-RDT31	< 0.001	Cabbage, BG-68	2 × 12[a]	11 - 49	All models	All scenarios
IN-RAB06	< 0.001	Cabbage, BG-68	2 × 12[a]	11 - 49	All models	All scenarios
IN-QPS10	< 0.001	Cabbage, BG-68	2 × 12[a]	11 - 49	All models	All scenarios
IN-E8S72	3.11	Cabbage, BG-68	2 × 12[a]	11 - 49	FOCUS PEARL v4.4.4	Hamburg, 1st season

[a] both possible crop cycles considered within one simulation run, i.e. four applications per year

8.9 Predicted Environmental Concentrations in surface water (PEC_{SW}) and sediment (PEC_{SED}) (KCP 9.2.5)

Review Comments:

The $PECS_{SW/SED}$ calculations for azoxystrobin, oxathiapiprolin and their metabolites were provided by the Applicant and are considered acceptable.

For active substances and relevant metabolites PEC_{SW} calculations were performed with FOCUS STEPS 1-2 (both active substances and metabolites) and FOCUS STEP 3 (active substances).

The EU agreed endpoints, derived from the datasets presented in the EFSA Journal 2016;14(7):4504 and EFSA Journal 2010; 8(4):1542 with Confirmatory Data for metabolite R234886, were used.

The PEC_{sw} reported below can be used for the risk assessment for aquatic organisms. Please refer to Section B9.

Unless otherwise stated, EU agreed endpoints refer to those stated in the EU review of azoxystrobin (**EFSA Journal 2010; 8(4): 1542** and **DAR, 2014**[1]) and oxathiapiprolin, (**EFSA Journal 2016;14(7):4504)**.

8.9.1 Justification for new endpoints

For CEU uses (PL-54, PL-59), the PEC_{SW} and PEC_{SED} values below are calculated based on EU agreed K_{FOC} values for azoxystrobin, oxathiapiprolin and respective metabolites.

For SEU uses (ES-56, ES-61, ES-75, ES-80), the K_{FOC} values used in modelling for azoxystrobin, oxathiapiprolin and their respective metabolites were also re-calculated based on the recommendation of the latest guideline (EFSA, 2014). The individual values from which the geometric mean is calculated are those established in the EU review of azoxystrobin (**EFSA Journal 2010; 8(4): 1542)** and oxathiapiprolin **(EFSA Journal 2016; 14(7):4504)**.
Alternative PEC_{SW} and PEC_{SED} values calculated at Step 3 with geometric mean are reported below for azoxystrobin and oxathiapiprolin.
Alternative PEC_{SW} and PEC_{SED} values calculated at Step 1 and 2 with geometric mean for azoxystrobin and oxathiapiprolin and for the metabolites of azoxystrobin and oxathiapiprolin are described in the modelling

reports listed in appendix 3 (A3.8 for azoxystrobin Step 1 and 2, A3.12 for oxathiapiprolin Step 1 and 2).

8.9.2 Active substances, relevant metabolites and the formulation (KCP 9.2.5)

PEC_{SW} and PEC_{SED} of azoxystrobin and its metabolites R234886, R402173 and R401553 as well as oxathiapiprolin and its metabolites IN-RDT31, IN-RAB06, IN-QPS10, IN-E8S72, IN-S2K66, IN-RSE01, IN-RYJ52, IN-Q7D41, and IN-P3X26 have been assessed with the FOCUS surface water models, i.e. FOCUS STEPS 1-2 (Step 1 and 2 simulations) and FOCUS SWASH (Step 3 simulations).

In order to calculate PEC_{SW} and PEC_{SED} following application of azoxystrobin and oxathiapiprolin on leafy and fruiting vegetables in greenhouses at Step 3, drift entries to surface water were amended with drift rates of 0.1% and 0.2% of the dose rate at Step 3 (EFSA, 2014[4]). As entry via runoff is not expected to occur in greenhouses, only the D-scenarios were considered. The input parameters relevant for the calculation are summarised in Table 8.9-1.

Table 8.9-1: Input parameters related to application for $PEC_{SW/SED}$ calculations

Plant protection product	A22773A			
Use No.	ES-75* (SEU only)	PL-54 (covers BG-68) = ES-56**	PL-59 = ES-61**	ES-80* (SEU only)
Crop	Vegetables, leafy	Vegetables, leafy	Vegetables, fruiting	Vegetables, fruiting
Application rate (g as/ha)	Azoxystrobin: 250 Oxathiapiprolin: 12	Azoxystrobin: 250 Oxathiapiprolin: 12	Azoxystrobin: 250 Oxathiapiprolin: 12	Azoxystrobin: 250 Oxathiapiprolin: 12
Number of applications/interval (d)	1 / -	2 / 7	2 / 7	2 / 7
BBCH growth stage	09 – 13	11 – 49	11 – 89	11 – 81
Application method	Ground spray	Ground spray	Ground spray	Ground spray
CAM (Chemical application method)	2 (application foliar linear)			
Soil depth (cm)	4 (default)			
Models used for calculation	FOCUS-STEPS 1-2 v3.2, FOCUS SWASH v5.3, FOCUS PRZM v4.3.1, FOCUS MACRO v5.5.4, FOCUS TOXWA v5.5.3			

* for SEU: only drained soils
** for SEU: only non-drained soils

[4] EFSA Journal 2014;12(3):3615. EFSA Guidance Document on clustering and ranking of emissions of active substances of plant protection products and transformation products of these active substances from protected crops (greenhouses and crops grown under cover) to relevant environmental compartments. EFSA Journal 2014;12(3):3615, 43 pp.

Table 8.9-2: FOCUS Step 3 scenario related input parameters for $PEC_{SW/SED}$ calculations for the application of A22773A

Crop	Rationale	Scenario	Azoxystrobin / Oxathiapiprolin			
			Application window used in modelling			
			Single application		Multiple applications	
			Start of Window	End of Window	Start of Window	End of Window
Vegetables, leafy, BBCH 09	Start of window at BBCH 9 (AppDate 3.06)	D3	25-Apr (115)	25-May (145)	-	-
		D3	5-Aug (217)	4-Sep (247)	-	-
		D4	10-May (130)	9-Jun (160)	-	-
		D6	15-Aug (227)	14-Sep (257)	-	-
Vegetables, leafy, 7 days interval, BBCH 11	Start of window at BBCH 11 (AppDate 3.06)	D3	30-Apr (120)	30-May (150)	30-Apr (120)	6-Jun (157)
		D3	10-Aug (222)	9-Sep (252)	10-Aug (222)	16-Sep (259)
		D4	18-May (138)	17-Jun (168)	18-May (138)	24-Jun (175)
		D6	21-Aug (233)	20-Sep (263)	21-Aug (233)	27-Sep (270)
Vegetables, leafy, 7 days interval, BBCH 49	End of window at harvest	D3	20-Jun (171)	20-Jul (201)	13-Jun (164)	20-Jul (201)
		D3	20-Sep (263)	20-Oct (293)	13-Sep (256)	20-Oct (293)
		D4	27-Aug (239)	26-Sep (269)	20-Aug (232)	26-Sep (269)
		D6	31-Oct (304)	30-Nov (334)	24-Oct (297)	30-Nov (334)
Vegetables, fruiting, 7 days interval, BBCH 11	Start of window at BBCH 11 (AppDate 3.06)	D6	13-Apr (103)	13-May (133)	13-Apr (103)	20-May (140)
Vegetables, fruiting, 7 days interval, BBCH 51	Start of window at BBCH 51 (AppDate 3.06)	D6	15-May (135)	14-Jun (165)	15-May (135)	21-Jun (172)
Vegetables, fruiting, 7 days interval, BBCH 81	End of window at BBCH 81 (AppDate 3.06)	D6	19-Jun (170)	19-Jul (200)	12-Jun (163)	19-Jul (200)
Vegetables, fruiting, 7 days interval, BBCH 89	End of window at harvest	D6	11-Jul (192)	10-Aug (222)	4-Jul (185)	10-Aug (222)

Numbers in brackets are the corresponding 'Julian Day' numbers

8.9.2.1 Azoxystrobin and its metabolites

The input parameters of azoxystrobin and its metabolites R234886, R401553, R402173 used in modelling are shown in the table below. Separate runs were done for four different substance parameter sets:

- Arithmetic mean sorption values (for consideration in the CEU)
  - Tier 1: EU agreed endpoints with a worst case plant uptake factor of 0 for azoxystrobin
  - Tier 2: EU agreed endpoints with a plant uptake factor of 0.5 for azoxystrobin (Weinfurtner, 2013)
- Geometric mean sorption values (for consideration in the SEU)

Table 8.9-3: Input parameters related to active substance azoxystrobin, R401553, R402173 and R234886 for $PEC_{SW/SED}$ calculations STEPs 1/2 and 3

Compound	Azoxystrobin	R234886	R402173	R401553	Value in accordance with EU endpoint / Reference
Molar mass (g/mol)	403.4	389.4	333.3	213.2	Yes, EFSA, 2010
Water solubility (mg/L)	6.0 (20°C)	57 (25°C)	61 (25°C)	560 (25°C)	Yes / EFSA, 2010
Saturated vapour pressure (Pa)	1.1×10^{-10} (20°C)	Not required for Step 1/2	Not required for Step 1/2	Not required for Step 1/2	No[a] / EFSA, 2010
CEU uses: K_{FOC} / K_{FOM} (mL/g)	423 / 245* (arithmetic mean, n = 6)	**Acidic soils:** 228.4 / 132.5** (arithmetic mean, n = 8) **Alkaline soils:** 36.7 / 21.3** (arithmetic mean, n = 7)	25 / 14.5* (worst case, n = 6)	188 / 109* (arithmetic mean, n = 6)	*Yes / EFSA, 2010 **Yes / EFSA, 2010 & DAR, 2014[1] $K_{FOM} = K_{FOC}$ / 1.724
SEU uses: K_{FOC} / K_{FOM} (mL/g)	392 / 227* (geometric mean, n = 6)	**Acidic soils:** 177 / 103** (geometric mean, n = 8) **Alkaline soils:** 34.8 / 20.2** (geometric mean, n = 7)	25 / 14.5*** (worst case, n = 6)	143 / 82.9* (geometric mean, n = 6)	*No [c] / EFSA, 2010 **No [c] / EFSA, 2010 & DAR, 2014[1] ***Yes / EFSA, 2010 $K_{FOM} = K_{FOC}$ / 1.724
Freundlich Exponent 1/n	0.86 (arithmetic mean, n = 6)	not required for Step 1/2	not required for Step 1/2	not required for Step 1/2	Yes / EFSA, 2010
Plant Uptake	0.5	not required for Step 1/2	not required for Step 1/2	not required for Step 1/2	Yes / Weinfurtner, 2013, DAR, 2014[1]

Compound	Azoxystrobin	R234886	R402173	R401553	Value in accordance with EU endpoint / Reference
$DT_{50,soil}$ (d)	78[d*] (geometric mean field , n = 13)	98.6[**] (geometric mean, acidic soils, n = 5) 36.7[**] (geometric mean, alkaline soils, n = 7)	4.7[*] (geometric mean, n = 3)	1.1[*] (geometric mean, n = 3)	[*]Yes / EFSA, 2010 [**]Yes / DAR 2014[1] normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 5
$DT_{50,water}$ (d)	205 (Step 2, geometric mean, total system, n = 2) **Option 1:** 1000[d] (Step 3, default) **Option 2:** 205[d] (Step 3, geometric mean, total system, n = 2)	1000 (default value)	1000 (default value)	1000 (default value)	Yes / EFSA, 2010
$DT_{50,sed}$ (d)	205 (Step 2, geometric mean, total system, n = 2) **Option 1:** 205[e] (Step 3, geometric mean, total system, n = 2) **Option 2:** 1000[e] (Step 3, default)	1000 (default value)	1000 (default value)	1000 (default value)	Yes / EFSA, 2010
$DT_{50,whole\ system}$ (d)	205 (geometric mean, normalisation to pF2, 20 °C with Q_{10} of 2.58, n =2)	1000 (default value)	1000 (default value)	1000 (default value)	Yes / EFSA, 2010
Maximum occurrence observed (% molar basis with respect to the parent)	-	Soil: 28.8[f] Total system: 18.1	Soil: 17[g] Total system: 2.4[g]	Soil: 17[g] Total system: 8.9[h]	Yes / EFSA, 2010

[a] although the value is given in EFSA, 2010, loss due to volatilisation was not considered in the EU review
[b] calculated from the geometric mean of the soil incorporated field studies (80.2 days, n = 3) and the slow phase of the non-incorporated studies (75.9 days, n = 10)
[c] Differs from the EFSA conclusion as the latest guideline (EFSA Journal 2014;12(5):3662) recommends the use of the geometric mean instead of the arithmetic mean or median. The individual values from which the geometric mean is calculated, are those established in azoxystrobin, EFSA Journal 2010; 8(4):1542 and DAR (2014)
[d] calculated from the geometric mean of the soil incorporated field studies (80.2 days, n = 3) and the slow phase of the non-incorporated studies (75.9 days, n = 10)
[e] two options were simulated based on FOCUS (2015): Generic guidance for FOCUS surface water scenarios, version 1.4. 367pp
[e] in aerobic laboratory studies
[f] in field studies
[g] in aquatic photolysis studies

$PEC_{SW/SED}$

Arithmetic K_{FOC} values

Table 8.9-4: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for azoxystrobin following application to PL-54, vegetables, leafy, BBCH 11-49 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	111	462
Step 2			
Northern Europe/ Southern Europe	Mar-May/ Jun-Sep/ Oct-Feb	32.8	137

Table 8.9-5: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for azoxystrobin following application to PL-59, vegetables, fruiting, BBCH 11-89 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	111	462
Step 2			
Northern Europe/ Southern Europe	Mar-May/ Jun-Sep	32.8	137

Step 3 results considering arithmetic K_{FOC} values were summarised in the following tables. Please refer to the modelling report (see A3.9) for details of the calculations.

Tier 1

Table 8.9-6: FOCUS Step 3 Summary Table, Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy - maximum over option 1 and option 2 – 0.1% drift (A 3.10, Langa Peñalba, S, 2022 & Robinson, P., VV-961781)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	0.082	Drift	0.047
	D3	ditch 2nd	0.082	Drift	0.050
	D4	pond	0.655	Drainage	4.25
	D4	stream	0.644	Drainage	1.69
	D6	ditch	2.58	Drainage	2.62
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	0.082	Drift	0.064
	D3	ditch 2nd	0.082	Drift	0.066
	D4	pond	1.37	Drainage	8.40
	D4	stream	1.33	Drainage	3.33
	D6	ditch	5.66	Drainage	5.53
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	0.082	Drift	0.048
	D3	ditch 2nd	0.082	Drift	0.034
	D4	pond	0.390	Drainage	2.68
	D4	stream	0.612	Drainage	0.974
	D6	ditch	5.12	Drainage	5.95
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	0.082	Drift	0.064
	D3	ditch 2nd	0.082	Drift	0.049
	D4	pond	1.39	Drainage	8.27
	D4	stream	1.68	Drainage	3.32
	D6	ditch	12.0	Drainage	14.1

[a] maximum over option 1 and 2

Table 8.9-7: FOCUS Step 3 Summary Table, Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – maximum over option 1 and option 2 – 0.1% drift (A 3.10, Langa Peñalba, S, 2022 & Robinson, P., VV-961781)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 11	D6	ditch	0.349	Drainage	0.403
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11	D6	ditch	0.717	Drainage	0.834
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 51	D6	ditch	0.442	Drainage	0.518
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.971	Drainage	1.14
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 89	D6	ditch	1.96	Drainage	1.61
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.67	Drainage	3.28

[a] maximum over option 1 and 2

Tier 2

Table 8.9-8: Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application of A22773A to PL-54, vegetables, leafy - maximum over option 1 and option 2 – 0.1% drift (A 3.10, Anagu, I. & Langa Peñalba, S, 2021, VV-911782)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, leafy 1 × 250 g a.s./ha BBCH 11	D3	ditch	0.082	Drift	0.047
	D3 2nd	ditch	0.082	Drift	0.050
	D4	pond	0.646	Drainage	4.20
	D4	stream	0.634	Drainage	1.67
	D6	ditch	2.55	Drainage	2.58
Vegetables, leafy 2 × 250 g a.s./ha BBCH 11	D3	ditch	0.082	Drift	0.064
	D3 2nd	ditch	0.082	Drift	0.066
	D4	pond	1.35	Drainage	8.27
	D4	stream	1.31	Drainage	3.28
	D6	ditch	5.58	Drainage	5.45
Vegetables, leafy 1 × 250 g a.s./ha	D3	ditch	0.082	Drift	0.048
	D3 2nd	ditch	0.082	Drift	0.034

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
BBCH 49	D4	pond	0.388	Drainage	2.66
	D4	stream	0.609	Drainage	0.968
	D6	ditch	5.12	Drainage	5.95
Vegetables, leafy 2 × 250 g a.s./ha BBCH 49	D3	ditch	0.082	Drift	0.064
	D3 2nd	ditch	0.082	Drift	0.049
	D4	pond	1.39	Drainage	8.24
	D4	stream	1.68	Drainage	3.30
	D6	ditch	12.0	Drainage	14.1

[a] maximum over option 1 and 2

Table 8.9-9: Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application of A22773A to PL-59, vegetables, fruiting – maximum over option 1 and option 2 – 0.1% drift (A 3.10, Anagu, I. & Langa Peñalba, S, 2021, VV-911782)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, fruiting 1 × 250 g a.s./ha BBCH 11	D6	ditch	0.336	Drainage	0.390
Vegetables, fruiting 2 × 250 g a.s./ha BBCH 11	D6	ditch	0.688	Drainage	0.805
Vegetables, fruiting 1 × 250 g a.s./ha BBCH 51	D6	ditch	0.431	Drainage	0.507
Vegetables, fruiting 2 × 250 g a.s./ha BBCH 51	D6	ditch	0.945	Drainage	1.12
Vegetables, fruiting 1 × 250 g a.s./ha BBCH 89	D6	ditch	1.95	Drainage	1.60
Vegetables, fruiting 2 × 250 g a.s./ha BBCH 89	D6	ditch	3.64	Drainage	3.25

[a] maximum over option 1 and 2

Table 8.9-10: Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application of A22773A to PL-54, vegetables, leafy - maximum over option 1 and option 2 – 0.2% drift (A 3.10, Anagu, I. & Langa Peñalba, S, 2021, VV-911782)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, leafy 1 × 250 g a.s./ha BBCH 11	D3	ditch	0.164	Drift	0.091
	D3 2nd	ditch	0.165	Drift	0.098
	D4	pond	0.649	Drainage	4.27
	D4	stream	0.634	Drainage	1.67
	D6	ditch	2.55	Drainage	2.58
Vegetables, leafy 2 × 250 g a.s./ha BBCH 11	D3	ditch	0.165	Drift	0.124
	D3 2nd	ditch	0.165	Drift	0.127
	D4	pond	1.36	Drainage	8.40
	D4	stream	1.31	Drainage	3.28
	D6	ditch	5.58	Drainage	5.46
Vegetables, leafy 1 × 250 g a.s./ha BBCH 49	D3	ditch	0.164	Drift	0.093
	D3 2nd	ditch	0.164	Drift	0.067
	D4	pond	0.394	Drainage	2.74
	D4	stream	0.609	Drainage	0.969
	D6	ditch	5.12	Drainage	5.95
Vegetables, leafy 2 × 250 g a.s./ha BBCH 49	D3	ditch	0.165	Drift	0.124
	D3 2nd	ditch	0.164	Drift	0.094
	D4	pond	1.40	Drainage	8.40
	D4	stream	1.68	Drainage	3.30
	D6	ditch	12.0	Drainage	14.1

[a] maximum over option 1 and 2

Table 8.9-11: Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application of A22773A to PL-59, vegetables, fruiting – maximum over option 1 and option 2 – 0.2% drift (A 3.10, Anagu, I. & Langa Peñalba, S, 2021, VV-911782)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, fruiting 1 × 250 g a.s./ha BBCH 11	D6	ditch	0.336	Drainage	0.391
Vegetables, fruiting 2 × 250 g a.s./ha BBCH 11	D6	ditch	0.688	Drainage	0.807
Vegetables, fruiting 1 × 250 g a.s./ha BBCH 51	D6	ditch	0.431	Drainage	0.508
Vegetables, fruiting 2 × 250 g a.s./ha BBCH 51	D6	ditch	0.945	Drainage	1.12
Vegetables, fruiting 1 × 250 g a.s./ha BBCH 89	D6	ditch	1.95	Drainage	1.61
Vegetables, fruiting 2 × 250 g a.s./ha BBCH 89	D6	ditch	3.64	Drainage	3.25

[a] maximum over option 1 and 2

Geometric K_{FOC} values

Step 3 results considering geometric K_{FOC} values were summarised in the following tables. Please refer to the modelling report A3.8 for Step 1 and 2.

Table 8.9-12: Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application of A22773A to vegetables, leafy - maximum over option 1 and option 2 – 0.1% drift (A 3.12, Anagu, I. & Langa Peñalba, S, 2021, VV-911804)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
ES-75, Vegetables, leafy 1 × 250 g a.s./ha, BBCH 09	D3	ditch	0.082	Drift	0.046
	D3 2nd	ditch	0.082	Drift	0.049
	D4	pond	0.652	Drainage	4.07
	D4	stream	0.634	Drainage	1.61
	D6	ditch	2.14	Drainage	2.29
ES-56, Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	0.082	Drift	0.046
	D3 2nd	ditch	0.082	Drift	0.049
	D4	pond	0.663	Drainage	4.12
	D4	stream	0.642	Drainage	1.63
	D6	ditch	2.51	Drainage	2.52
ES-56, Vegetables, leafy 2 × 250 g a.s./ha,	D3	ditch	0.082	Drift	0.062
	D3 2nd	ditch	0.082	Drift	0.064

Application scenario	Scenario	Water body	PECSW (µg/L)[a]	Dominant Route of Entry	PECSED (µg/kg)[a]
BBCH 11	D4	pond	1.38	Drainage	8.10
	D4	stream	1.33	Drainage	3.22
	D6	ditch	5.43	Drainage	5.22
ES-56, Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	0.082	Drift	0.047
	D3 2[nd]	ditch	0.082	Drift	0.033
	D4	pond	0.489	Drainage	3.09
	D4	stream	0.659	Drainage	1.20
	D6	ditch	5.96	Drainage	6.39
ES-56, Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	0.082	Drift	0.062
	D3 2[nd]	ditch	0.082	Drift	0.047
	D4	pond	1.68	Drainage	9.26
	D4	stream	1.83	Drainage	3.75
	D6	ditch	12.9	Drainage	14.1

[a] maximum over option 1 and 2

Table 8.9-13: Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application of A22773A to vegetables, leafy - maximum over option 1 and option 2 – 0.2% drift (A 3.12, Anagu, I. & Langa Peñalba, S, 2021, VV-911804)

Application scenario	Scenario	Water body	PECSW (µg/L)[a]	Dominant Route of Entry	PECSED (µg/kg)[a]
ES-75, Vegetables, leafy 1 × 250 g a.s./ha, BBCH 09	D3	ditch	0.164	Drift	0.089
	D3 2[nd]	ditch	0.165	Drift	0.096
	D4	pond	0.655	Drainage	4.13
	D4	stream	0.634	Drainage	1.61
	D6	ditch	2.14	Drainage	2.29
ES-56, Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	0.164	Drift	0.089
	D3 2[nd]	ditch	0.165	Drift	0.096
	D4	pond	0.666	Drainage	4.19
	D4	stream	0.642	Drainage	1.63
	D6	ditch	2.51	Drainage	2.53
ES-56, Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	0.165	Drift	0.120
	D3 2[nd]	ditch	0.165	Drift	0.124
	D4	pond	1.38	Drainage	8.23
	D4	stream	1.33	Drainage	3.22
	D6	ditch	5.43	Drainage	5.23
ES-56, Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	0.164	Drift	0.091
	D3 2[nd]	ditch	0.164	Drift	0.065
	D4	pond	0.495	Drainage	3.17
	D4	stream	0.659	Drainage	1.20

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
	D6	ditch	5.96	Drainage	6.39
ES-56, Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	0.165	Drift	0.120
	D3 2[nd]	ditch	0.164	Drift	0.092
	D4	pond	1.69	Drainage	9.41
	D4	stream	1.83	Drainage	3.75
	D6	ditch	12.9	Drainage	14.1

[a] maximum over option 1 and 2

Table 8.9-14: Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application of A22773A to vegetables, fruiting - maximum over option 1 and option 2 – 0.1% drift (A 3.12, Anagu, I. & Langa Peñalba, S, 2021, VV-911804)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
ES-61 and ES-80, Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	0.330	Drainage	0.387
ES-61 and ES-80, Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	0.677	Drainage	0.794
ES-61 and ES-80, Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	0.415	Drainage	0.495
ES-61 and ES-80, Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.915	Drainage	1.08
ES-61 and ES-80, Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 81	D6	ditch	1.01	Drainage	1.08
ES-61 and ES-80, Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 81	D6	ditch	2.44	Drainage	2.46
ES-61, Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	2.07	Drainage	1.73
ES-61, Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.66	Drainage	3.38

[a] maximum over option 1 and 2

Table 8.9-15: Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application of A22773A to vegetables, fruiting - maximum over option 1 and option 2 – 0.2% drift (A 3.12, Anagu, I. & Langa Peñalba, S, 2021, VV-911804)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
ES-61 and ES-80, Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	0.330	Drainage	0.388
ES-61 and ES-80, Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	0.677	Drainage	0.795
ES-61 and ES-80, Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	0.415	Drainage	0.496
ES-61 and ES-80, Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.915	Drainage	1.08
ES-61 and ES-80, Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 81	D6	ditch	1.01	Drainage	1.09
ES-61 and ES-80, Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 81	D6	ditch	2.44	Drainage	2.46
ES-61, Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	2.07	Drainage	1.74
ES-61, Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.66	Drainage	3.38

[a] maximum over option 1 and 2

Table 8.9-16: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy – maximum over option 1 and option 2 (A 3.12, Anagu, I. & Langa Peñalba, S, 2021, VV-911804)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 9	D3	ditch	1.58	Drift	0.775
	D3 2[nd]	ditch	1.59	Drift	0.828
	D4	pond	0.656	Drainage	4.14
	D4	stream	1.25	Drift	1.61
	D6	ditch	2.14	Drainage	2.31

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58	Drift	0.775
	D3 2nd	ditch	1.59	Drift	0.828
	D4	pond	0.666	Drainage	4.20
	D4	stream	1.26	Drift	1.64
	D6	ditch	2.51	Drainage	2.55
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	1.39	Drift	0.908
	D3 2nd	ditch	1.39	Drift	0.934
	D4	pond	1.38	Drainage	8.20
	D4	stream	1.33	Drainage	3.23
	D6	ditch	5.43	Drainage	5.27
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	1.59	Drift	0.787
	D3 2nd	ditch	1.58	Drift	0.581
	D4	pond	0.496	Drainage	3.18
	D4	stream	1.13	Drift	1.20
	D6	ditch	5.96	Drainage	6.39
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.39	Drift	0.908
	D3 2nd	ditch	1.38	Drift	0.701
	D4	pond	1.69	Drainage	9.38
	D4	stream	1.83	Drainage	3.76
	D6	ditch	12.9	Drainage	14.1

[a] maximum over option 1 and 2

Table 8.9-17: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – maximum over option 1 and option 2 (A 3.12, Anagu, I. & Langa Peñalba, S, 2021, VV-911804)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	1.56	Drift	0.429
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	1.37	Drift	0.760
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	1.58	Drift	0.582
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	1.38	Drift	1.12
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 81	D6	ditch	1.58	Drift	1.11

Application scenario	Scenario	Water body	PEC$_{SW}$ (µg/L)[a]	Dominant Route of Entry	PEC$_{SED}$ (µg/kg)[a]
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 81	D6	ditch	2.44	Drainage	2.51
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	2.07	Drainage	1.76
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.66	Drainage	3.43

[a] maximum over option 1 and 2

Table 8.9-18: FOCUS Step 3 PEC$_{SW}$ and PEC$_{SED}$ for azoxystrobin following application to vegetables, bulb – maximum over option 1 and option 2 (A 3.12, Anagu, I. & Langa Peñalba, S, 2021, VV-911804)

Application scenario	Scenario	Water body	PEC$_{SW}$ (µg/L)[a]	Dominant Route of Entry	PEC$_{SED}$ (µg/kg)[a]
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58	Drift	0.779
	D4	pond	0.617	Drainage	3.91
	D4	stream	1.22	Drift	1.51
	D6	ditch	1.61	Drift	1.32
	D6 2[nd]	ditch	4.52	Drainage	4.80
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	1.39	Drift	0.895
	D4	pond	1.30	Drainage	7.72
	D4	stream	1.24	Drainage	3.01
	D6	ditch	2.53	Drainage	2.59
	D6 2[nd]	ditch	13.1	Drainage	14.4
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 49	D3	ditch	1.59	Drift	0.789
	D4	pond	0.630	Drainage	3.95
	D4	stream	1.13	Drift	1.48
	D6	ditch	1.60	Drift	2.30
	D6 2[nd]	ditch	1.61	Drift	1.55
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.39	Drift	0.895
	D4	pond	1.58	Drainage	9.24
	D4	stream	1.72	Drainage	3.58
	D6	ditch	1.90	Drainage	3.41
	D6 2[nd]	ditch	1.47	Drift	2.17
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 41	D3	ditch	1.58	Drift	0.773
	D4	pond	1.05	Drainage	6.06
	D4	stream	1.12	Drift	2.40
	D6	ditch	1.60	Drift	2.31

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
	D6 2[nd]	ditch	1.61	Drift	1.55
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 41	D3	ditch	1.39	Drift	0.845
	D4	pond	2.06	Drainage	11.6
	D4	stream	2.06	Drainage	4.53
	D6	ditch	1.75	Drainage	3.43
	D6 2[nd]	ditch	1.45	Drift	2.38

[a] maximum over option 1 and 2

Metabolites of azoxystrobin

Step 1 and 2 results considering arithemtic K_{FOC} values were summarised in the following tables (see modelling detail in A 3.8). For alternative PEC_{SW} and PEC_{SED} values calculated with geometric mean for the metabolites of azoxystrobin at Step 1 and 2, refer to the modelling report A3.8 listed in appendix 3.

Table 8.9-19: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for R234886 following application of A22773A to PL-54, vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11-49

Scenario FOCUS	Period	Acidic soils		Alkaline soils	
		Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1					
-	-	58.6	133	72.7	26.7
Step 2					
Northern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	21.1	48.0	24.8	9.11
Southern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	17.0	38.6	20.0	7.33

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.8

Table 8.9-20: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for R234886 following application of A22773A to PL-59, vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period	Acidic soils		Alkaline soils	
		Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1					
-	-	58.6	133	72.7	26.7
Step 2					
Northern Europe	Mar-May / Jun-Sep[b]	8.78	19.9	10.3	3.79
Southern Europe	Mar-May / Jun-Sep[b]	17.0	38.6	20.0	7.33

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.8

Table 8.9-21: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for R402173 following application of A22773A to PL-54, vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11-49

Scenario FOCUS	Period	Max PEC_{SW} (µg/L)[a c]	Max PEC_{SED} (µg/kg)[a d]
Step 1			
-	-	25.9	42.3
Step 2			
Northern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	4.40	7.16
Southern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	3.53	5.76

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.8[c] worst case for PEC_{SW} using K_{FOC} 25 mL/kg
[d] worst case for PEC_{SED} using K_{FOC} 200 mL/kg

Table 8.9-22: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for R402173 following application of A22773A to PL-59, vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period	Max PEC_{SW} (µg/L)[a c]	Max PEC_{SED} (µg/kg)[a d]
Step 1			
-	-	25.9	42.3
Step 2			
Northern Europe	Mar-May / Jun-Sep[b]	1.81	2.94
Southern Europe	Mar-May / Jun-Sep[b]	3.53	5.76

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.8
[c] worst case for PEC_{SW} using K_{FOC} 25 mL/kg
[d] worst case for PEC_{SED} using K_{FOC} 200 mL/kg

Table 8.9-23: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for R401553 following application of A22773A to PL-54, vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11-49

Scenario FOCUS	Period	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	18.5	34.6
Step 2			
Northern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	2.55	4.76
Southern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	2.07	3.87

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.8

Table 8.9-24: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for R401553 following application of A22773A to PL-59, vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	18.5	34.6
Step 2			
Northern Europe	Mar-May / Jun-Sep[b]	1.12	2.08

Scenario FOCUS	Period	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Southern Europe	Mar-May / Jun-Sep[b]	2.07	3.87

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.8

8.9.2.2 Oxathiapiprolin and its metabolites

Table 8.9-25: Input parameters related to active substance oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 for $PEC_{SW/SED}$ calculations STEPs 1/2 and 3

Compound	Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72	Value in accordance to EU endpoint / Reference
Molar mass (g/mol)	539.53*	555.53**	569.51**	349.41**	180.09**	*Yes / EFSA, 2016 **DAR / 2015
Water solubility (mg/L)	0.1844* (20°C)	0.1844** (20°C)	0.1844** (20°C)	0.1844** (20°C)	0.1844** (20°C)	*Yes / EFSA, 2016 **Parent data
Saturated vapour pressure (Pa)	1.141×10^{-6} (20°C)	-[a]	-[a]	-[a]	-[a]	Yes / EFSA, 2016
For CEU: K_{FOC} / K_{FOM} (mL/g)	6242.6 / 3621 (arithmetic mean, n = 5) 45586 (single value, worst case, Step 1-2 only)	1168.4 / 677.7 (arithmetic mean, n = 5)	495.6 / 287.5 (arithmetic mean, n = 5)	4880.2 / 2830.7 (arithmetic mean, n = 5	7.33 / 4.25 (arithmetic mean, n = 5)	Yes / EFSA, 2016
For SEU: K_{FOC} / K_{FOM} (mL/g)	6128 / 3555 (geometric mean, n = 5) 45586 (single value, worst case, Step 1-2 only)	1012 / 587 (geometric mean, n = 5)	487 / 282 (geometric mean, n = 5)	3484 / (geometric mean, n = 5)	6.91 / (geometric mean, n = 5)	No[b] / EFSA, 2016
Freundlich Exponent 1/n (-)	0.97 (arithmetic mean, n = 5)	-[a]	-[a]	-[a]	-[a]	Yes / EFSA, 2016
Plant Uptake	0	-[a]	-[a]	-[a]	-[a]	Worst-case assumption
$DT_{50,soil}$ (d)	121.2 (geometric mean lab, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 6)	160 (geometric mean lab, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 6)	60.5 (geometric mean field and lab, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 12)	564.9 (geometric mean lab, acidic, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 2)	310.2 (geometric mean lab, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 5)	Yes / EFSA, 2016

Compound	Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72	Value in accordance to EU endpoint / Reference
$DT_{50,water}$ (d)	70.3[c] (geometric mean, total system, n = 2)	1000 (FOCUS default)				Yes / EFSA, 2016
$DT_{50,sed}$ (d)	1000 [c] (FOCUS default)	1000 (FOCUS default)				Yes / EFSA, 2016
$DT_{50,whole\ system}$ (d)	70.3 (geometric mean, total system, n = 2)	1000 (FOCUS default)				Yes / EFSA, 2016
Maximum occurrence observed (% molar basis with respect to the parent)	-	Soil: 9.4 Total system: -	Soil: 13.5 Total system: 9.5	Soil: 8.7 Total system: -	Soil: 10.3 Total system: -	Yes / EFSA, 2016

[a] not required for Steps 1 & 2

[b] differs from the EFSA conclusion as the latest guideline (EFSA Journal 2014, 12 (5):3662) recommends the use of the geometric mean instead of the arithmetic mean. The individual values from which the geometric mean is calculated are those established in EFSA (2016).

[c] for compounds with K_{OC} above 2000 mL/g the FOCUS kinetics advice recommends to use the default DT_{50} in the water compartement., however thes proposed approach is in accordance with the DAR where it is stated: "*The case with water compartment set to P-I level degradation rate and sediment to 1000 days was selected as it resulted in higher concentrations in both columns"*[2]

Table 8.9-26: Input parameters related to metabolites of oxathiapiprolin IN-S2K66, IN-RSE01, IN-RYJ52, IN-Q7D41, and IN-P3X26 for $PEC_{SW/SED}$ calculations STEPs 1/2

Compound	IN-S2K66	IN-RSE01	IN-RYJ52	IN-Q7D41	IN-P3X26	Value in accordance to EU endpoint / Reference
Molar mass (g/mol)	528.54	510.47[$]	544.54	537.51	402.4	Yes / DAR, 2015[2]
Water solubility (mg/L)	0.1844[*] (20°C)					[*]Parent data
K_{FOC} (mL/g)	10 / 10000 (FOCUS default)				0.1 / 10000 (FOCUS default)	Yes / EFSA, 2016
$DT_{50,soil}$ (d)	1000 (FOCUS default)					Yes / EFSA, 2016
$DT_{50,water}$ (d)	1000 (FOCUS default)					Yes / EFSA, 2016
$DT_{50,sed}$ (d)	1000 (FOCUS default)					Yes / EFSA, 2016
$DT_{50,whole\ system}$ (d)	1000 (FOCUS default)					Yes / EFSA, 2016
Maximum occurrence observed (% molar basis with respect	Soil: - Total system: 8.7	Soil: - Total system: 10.4	Soil: - Total system: 16	Soil: - Total system: 11.8	Soil: - Total system: 14 (aqueous photolysis)	Yes / EFSA, 2016

Compound	IN-S2K66	IN-RSE01	IN-RYJ52	IN-Q7D41	IN-P3X26	Value in accordance to EU endpoint / Reference
to the parent)						

$ Incorrect input value was used in the modelling. Using the correct molar mass (542.53), higher PEC values by a factor of 1.06 (differences between correct and incorrect molar weight correction factor) would be obtained. This is foreseen to have no impact on the aquatic risk assessment for metabolite IN-RSE01 because of the high safety factor.

$PEC_{SW/SED}$

Arithmetic K_{FOC} values

Table 8.9-27: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to PL-54, vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	21 d - $PEC_{SW,twa}$ (µg/L)[a]	Max PEC_{SED} (µg/kg)
Step 1				
-	-	1.08	0.801	60.1
Step 2				
Northern Europe/ Southern Europe	Mar-May/ Jun-Sep/ Oct-Feb	0.338	0.321	22.6

[a] twa-time as required by ecotox

Table 8.9-28: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to PL-59, vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	21 d - $PEC_{sw,twa}$ (µg/L)[a]	Max PEC_{SED} (µg/kg)
Step 1				
-	-	1.08	0.801	60.1
Step 2				
Northern Europe/ Southern Europe	Mar-May/ Jun-Sep	0.276	0.261	18.4

[a] twa-time as required by ecotox

Step 3 results considering arithmetic mean K_{FOC} values were summarised in the following tables. Please refer to the modelling report (see A 3.15) for details of the calculations.

Table 8.9-29: Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application of A22773A to PL-54, vegetables, leafy - 0.1% drift (A 3.15, Anagu, I. & Yang, B, 2021, VV-911814)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy,	D3 1st	ditch	0.004	Drift	0.003

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
1 × 12 g a.s./ha BBCH 11	D3 2nd	ditch	0.004	Drift	0.003
	D4	pond	0.001	Drift	0.012
	D4	stream	0.004	Drainage	0.003
	D6	ditch	0.012	Drainage	0.004
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.004	Drift	0.005
	D3 2nd	ditch	0.004	Drift	0.005
	D4	pond	0.002	Drift	0.025
	D4	stream	0.008	Drainage	0.007
	D6	ditch	0.025	Drainage	0.008
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.004	Drift	0.003
	D3 2nd	ditch	0.004	Drift	0.002
	D4	pond	0.001	Drift	0.011
	D4	stream	0.003	Drift	0.002
	D6	ditch	0.007	Drainage	0.002
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.004	Drift	0.005
	D3 2nd	ditch	0.004	Drift	0.003
	D4	pond	0.002	Drift	0.023
	D4	stream	0.004	Drainage	0.003
	D6	ditch	0.020	Drainage	0.005

Table 8.9-30: Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application of A22773A to PL-59, vegetables, fruiting - 0.1% drift (A 3.15, Anagu, I. & Yang, B, 2021, VV-911814)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 11	D6	ditch	0.006	Drainage	0.002
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	0.012	Drainage	0.004
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 51	D6	ditch	0.006	Drainage	0.002
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	0.012	Drainage	0.003
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 89	D6	ditch	0.006	Drainage	0.002
Vegetables, fruiting, 2 × 12 g a.s./ha	D6	ditch	0.013	Drainage	0.004

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
BBCH 89					

Table 8.9-31: Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application of A22773A to PL-54, vegetables, leafy - 0.2% drift (A 3.15, Anagu, I. & Yang, B, 2021, VV-911814)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.008	Drift	0.006
	D3 2nd	ditch	0.008	Drift	0.006
	D4	pond	0.002	Drift	0.019
	D4	stream	0.007	Drift	0.003
	D6	ditch	0.012	Drainage	0.004
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.008	Drift	0.009
	D3 2nd	ditch	0.008	Drift	0.010
	D4	pond	0.004	Drift	0.037
	D4	stream	0.008	Drainage	0.007
	D6	ditch	0.025	Drainage	0.008
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.008	Drift	0.006
	D3 2nd	ditch	0.008	Drift	0.004
	D4	pond	0.002	Drift	0.020
	D4	stream	0.006	Drift	0.002
	D6	ditch	0.007	Drift	0.002
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.008	Drift	0.009
	D3 2nd	ditch	0.008	Drift	0.007
	D4	pond	0.004	Drift	0.041
	D4	stream	0.007	Drift	0.003
	D6	ditch	0.020	Drainage	0.006

Table 8.9-32: Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application of A22773A to PL-59, vegetables, fruiting - 0.2% drift (A 3.15, Anagu, I. & Yang, B, 2021, VV-911814)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 11	D6	ditch	0.008	Drift	0.002
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	0.012	Drainage	0.004

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 51	D6	ditch	0.008	Drift	0.003
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	0.012	Drainage	0.004
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 89	D6	ditch	0.008	Drift	0.003
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	0.013	Drainage	0.004

Geometric K_{FOC} values

Step 3 results considering geometric K_{FOC} values were summarised in the following tables. Please refer to the modelling report A 3.14 for Step 1 and 2.

Table 8.9-33: Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application of A22773A to vegetables, leafy - 0.1% drift (A 3.16, Anagu, I. & Yang, B, 2021, VV-911827)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
ES-75, Vegetables, leafy, 1 × 12 g a.s./ha BBCH 09	D3 1st	ditch	0.004	Drift	0.003
	D3 2nd	ditch	0.004	Drift	0.003
	D4	pond	0.001	Drift	0.013
	D4	stream	0.004	Drainage	0.003
	D6	ditch	0.013	Drainage	0.004
ES-56, Vegetables, leafy, 1 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.004	Drift	0.003
	D3 2nd	ditch	0.004	Drift	0.003
	D4	pond	0.001	Drift	0.013
	D4	stream	0.004	Drainage	0.003
	D6	ditch	0.013	Drainage	0.004
ES-56, Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.004	Drift	0.005
	D3 2nd	ditch	0.004	Drift	0.005
	D4	pond	0.002	Drift	0.025
	D4	stream	0.008	Drainage	0.007
	D6	ditch	0.026	Drainage	0.008
ES-56, Vegetables, leafy, 1 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.004	Drift	0.003
	D3 2nd	ditch	0.004	Drift	0.002
	D4	pond	0.001	Drift	0.011

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
	D4	stream	0.003	Drift	0.002
	D6	ditch	0.007	Drainage	0.002
ES-56, Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.004	Drift	0.005
	D3 2nd	ditch	0.004	Drift	0.003
	D4	pond	0.002	Drift	0.023
	D4	stream	0.004	Drainage	0.004
	D6	ditch	0.021	Drainage	0.006

Table 8.9-34: Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application of A22773A to vegetables, fruiting - 0.1% drift (A 3.16, Anagu, I. & Yang, B, 2021, VV-911827)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
ES-61 and ES-80, Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 11	D6	ditch	0.006	Drainage	0.002
ES-61 and ES-80, Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	0.012	Drainage	0.004
ES-61 and ES-80, Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 51	D6	ditch	0.006	Drainage	0.002
ES-61 and ES-80, Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	0.012	Drainage	0.004
ES-61 and ES-80, Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 81	D6	ditch	0.006	Drainage	0.002
ES-61 and ES-80, Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 81	D6	ditch	0.013	Drainage	0.004
ES-61, Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 89	D6	ditch	0.006	Drainage	0.002

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
ES-61, Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	0.013	Drainage	0.004

Table 8.9-35: Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application of A22773A to vegetables, leafy - 0.2% drift (A 3.16, Anagu, I. & Yang, B, 2021, VV-911827)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
ES-75, Vegetables, leafy, 1 × 12 g a.s./ha BBCH 09	D3 1st	ditch	0.008	Drift	0.006
	D3 2nd	ditch	0.008	Drift	0.006
	D4	pond	0.002	Drift	0.019
	D4	stream	0.007	Drift	0.004
	D6	ditch	0.013	Drainage	0.004
ES-56, Vegetables, leafy, 1 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.008	Drift	0.006
	D3 2nd	ditch	0.008	Drift	0.006
	D4	pond	0.002	Drift	0.019
	D4	stream	0.007	Drift	0.003
	D6	ditch	0.013	Drainage	0.004
ES-56, Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.008	Drift	0.009
	D3 2nd	ditch	0.008	Drift	0.010
	D4	pond	0.004	Drift	0.037
	D4	stream	0.008	Drainage	0.007
	D6	ditch	0.026	Drainage	0.008
ES-56, Vegetables, leafy, 1 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.008	Drift	0.006
	D3 2nd	ditch	0.008	Drift	0.004
	D4	pond	0.002	Drift	0.020
	D4	stream	0.006	Drift	0.002
	D6	ditch	0.007	Drift	0.002
ES-56, Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.008	Drift	0.009
	D3 2nd	ditch	0.008	Drift	0.007
	D4	pond	0.004	Drift	0.041
	D4	stream	0.007	Drift	0.004
	D6	ditch	0.021	Drainage	0.006

Table 8.9-36: Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application of A22773A to vegetables, fruiting - 0.2% drift (A 3.16, Anagu, I. & Yang, B, 2021, VV-911827)

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
ES-61 and ES-80, Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 11	D6	ditch	0.008	Drift	0.002
ES-61 and ES-80, Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	0.012	Drainage	0.004
ES-61 and ES-80, Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 51	D6	ditch	0.008	Drift	0.003
ES-61 and ES-80, Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	0.012	Drainage	0.004
ES-61 and ES-80, Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 81	D6	ditch	0.008	Drift	0.003
ES-61 and ES-80, Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 81	D6	ditch	0.013	Drainage	0.005
ES-61, Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 89	D6	ditch	0.008	Drift	0.003
ES-61, Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	0.013	Drainage	0.004

Metabolites of oxathiapiprolin

Step 1 and 2 results considering arithemtic K_{FOC} values were summarised in the following tables. For alternative PEC_{SW} and PEC_{SED} values calculated with geometric mean for the metabolites of oxathiapiprolin at Step 1 and 2, refer to the modelling report A 3.13 listed in appendix 3.

Table 8.9-37: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-RDT31 following application of A22773A to PL-54, vegetables, leafy, 2 × 12 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	0.303	3.54
Step 2			
Northern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.110	1.28
Southern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.088	1.03

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-38: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-RDT31 following application of A22773A PL-59, vegetables, fruiting, 2 × 12 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	0.303	3.54
Step 2			
Northern Europe	Mar-May / Jun-Sep[b]	0.044	0.514
Southern Europe	Mar-May / Jun-Sep[b]	0.088	1.03

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-39: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-RAB06 following application of A22773A to PL-54, vegetables, leafy, 2 × 12 g a.s./ha, BBCH 11-49

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	1.19	5.86
Step 2			
Northern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.424	2.09
Southern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.342	1.68

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-40: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-RAB06 following application of A22773A PL-59, vegetables, fruiting, 2 × 12 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	1.19	5.86
Step 2			
Northern Europe	Mar-May / Jun-Sep[b]	0.178	0.870
Southern Europe	Mar-May / Jun-Sep[b]	0.342	1.68

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-41: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-QPS10 following application of A22773A to PL-54, vegetables, leafy, 2 × 12 g a.s./ha, BBCH 11-

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	0.060	2.93
Step 2			
Northern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.022	1.09
Southern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.018	0.871

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-42: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-QPS10 following application of A22773A PL-59, vegetables, fruiting, 2 × 12 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	0.060	2.93
Step 2			
Northern Europe	Mar-May / Jun-Sep[b]	0.009	0.436
Southern Europe	Mar-May / Jun-Sep[b]	0.018	0.871

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-43: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-E8S72 following application of A22773A to PL-54, vegetables, leafy, 2 × 12 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	0.272	0.020
Step 2			
Northern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.100	0.007
Southern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.080	0.006

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-44: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-E8S72 following application of A22773A PL-59, vegetables, fruiting, 2 × 12 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	0.272	0.020
Step 2			
Northern Europe	Mar-May / Jun-Sep[b]	0.040	0.003
Southern Europe	Mar-May / Jun-Sep[b]	0.080	0.006

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-45: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-S2K66 following application of A22773A to PL-54, vegetables, leafy, 2 × 12 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	0.692	4.89
Step 2			
Northern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.258	1.82
Southern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.210	1.48

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-46: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-S2K66 following application of A22773A PL-59, vegetables, fruiting, 2 × 12 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	0.692	4.89
Step 2			
Northern Europe	Mar-May / Jun-Sep[b]	0.113	0.799
Southern Europe	Mar-May / Jun-Sep[b]	0.210	1.48

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-47: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-RSE01 following application of A22773A to PL-54, vegetables, leafy, 2 × 12 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	0.799	5.64
Step 2			
Northern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.298	2.11
Southern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.242	1.71

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-48: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-RSE01 following application of A22773A PL-59, vegetables, fruiting, 2 × 12 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	0.799	5.64
Step 2			
Northern Europe	Mar-May / Jun-Sep[b]	0.131	0.922
Southern Europe	Mar-May / Jun-Sep[b]	0.242	1.71

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-49: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-RYJ52 following application of A22773A to PL-54, vegetables, leafy, 2 × 12 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	1.31	9.26
Step 2			
Northern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.489	3.46
Southern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.398	2.81

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-50: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-RYJ52 following application of A22773A PL-59, vegetables, fruiting, 2 × 12 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	1.31	9.26
Step 2			
Northern Europe	Mar-May / Jun-Sep[b]	0.214	1.51
Southern Europe	Mar-May / Jun-Sep[b]	0.398	2.81

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-51: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-Q7D41 following application of A22773A to PL-54, vegetables, leafy, 2 × 12 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	0.954	6.74
Step 2			
Northern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.356	2.52
Southern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.289	2.04

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-52: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-Q7D41 following application of A22773A PL-59, vegetables, fruiting, 2 × 12 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	0.954	6.74
Step 2			
Northern Europe	Mar-May / Jun-Sep[b]	0.156	1.10
Southern Europe	Mar-May / Jun-Sep[b]	0.289	2.04

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-53: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-P3X26 following application of A22773A to PL-54, vegetables, leafy, 2 × 12 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	0.858	5.99
Step 2			
Northern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.320	2.23
Southern Europe	Mar-May / Jun-Sep / Oct-Feb[b]	0.260	1.82

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

Table 8.9-54: Maximum FOCUS Step 1 and 2 $PEC_{SW/SED}$ for IN-P3X26 following application of A22773A PL-59, vegetables, fruiting, 2 × 12 g a.s./ha, BBCH 11-89

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)[a]	Max PEC_{SED} (µg/kg)[a]
Step 1			
-	-	0.858	5.99
Step 2			
Northern Europe	Mar-May / Jun-Sep[b]	0.140	0.978
Southern Europe	Mar-May / Jun-Sep[b]	0.260	1.82

[a] all PEC resulted from multiple applications
[b] maximum over all periods simulated. Full set of results available in Appendix A 3.13

8.9.2.3 PEC_{SW} of A22773A

PEC_{SW} for the formulation was calculated for drift only. The formulation components are expected to dissipate rapidly after application, therefore only one application and drift entry are taken into consideration.

The initial PEC_{SW} for a single application is calculated as follows:

$$PEC_{SW}\ (\mu g/L) = \frac{\%\ drift \times application\ rate\ (g/ha)}{water\ depth\ (30\ cm) \times 10}$$

Table 8.9-8: Initial PEC_{SW} for A22773A following single application on protected crops

Formulation/ compound	No. of applications	Maximum use rate (g A22773A/ha[a])	Drift[b]	PEC_{SW} (µg A22773A L)
A22773A	1	1097	0.1	0.366
			0.2	0.731

[a] the rate of formulation is based on a specific density of 1.097 g/mL
[b] drift value according to EFSA (2014)[4]

8.10 Fate and behaviour in air (KCP 9.3, KCP 9.3.1)

Review Comments:

The data on atmospheric degradation and behaviour in air for azoxystrobin and oxathiapiprolin provided by the Applicant are considered acceptable. The justification for non-assessment via volatilization is accepted. Both active substances are regarded as non-volatile and, consequently, exposure of adjacent surface waters and terrestrial ecosystems by azoxystrobin and oxathiapiprolin due to volatilization with subsequent deposition is not expected.

8.10.1 Azoxystrobin

The fate and behaviour of azoxystrobin in air are considered to be data provided in support of the active substance. All relevant detailed experimental information has been submitted for EU review of azoxystrobin (**EFSA Journal 2010; 8(4): 1542**).

Table 8.10-1: Summary of atmospheric degradation and behaviour

Compound	Azoxystrobin
Direct photolysis in air [a]	-
Quantum yield of direct phototransformation [a]	-
Photochemical oxidative degradation in air	DT_{50} (h): 2.7 derived by the Atkinson model
Volatilisation	Vapour pressure (Pa): 1.1 x 10^{-10} (at 20°C) Henry's Law Constant (Pa.m^3/mol): 7.3 x 10^{-9} (at 25°C)
Metabolites	-

[a] data not currently available

The vapour pressure at 20 °C of the active substance azoxystrobin is < 10^{-5} Pa. Hence the active substance azoxystrobin is regarded as non-volatile. Therefore exposure of adjacent surface waters and terrestrial ecosystems by the active substance azoxystrobin due to volatilization with subsequent deposition should not be considered.

8.10.2 Oxathiapiprolin

The fate and behaviour of oxathiapiprolin in air are considered to be data provided in support of the active substance. All relevant detailed experimental information has been submitted for EU review of oxathiapiprolin, (**EFSA Journal 2016;14(7):4504.**.

Table 8.10-2 Summary of atmospheric degradation and behaviour

Compound	Oxathiapiprolin
Direct photolysis in air	Not required as oxathiapiprolin is not volatile
Quantum yield of direct phototransformation	Not required as oxathiapiprolin is not volatile
Photochemical oxidative degradation in air	DT_{50} (h): 3.307 derived by the Atkinson model OH (12h) concentration assumed = 1.5 × 10^6 cm^{-3}
Volatilisation	Not required as oxathiapiprolin is not volatile.
Metabolites	Metabolites of oxathiapiprolin are not anticipated to be volatile so no additional work was performed.

The vapour pressure at 20 °C of the active substance oxathiapiprolin is < 10^{-5} Pa. Hence the active substance oxathiapiprolin is regarded as non-volatile. Therefore exposure of adjacent surface waters and terrestrial ecosystems by the active substance oxathiapiprolin due to volatilization with subsequent deposition should not be considered.

Appendix 1 Lists of data considered in support of the evaluation

List of data submitted by the applicant and relied on on - Azoxystrobin

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 9.2.4	Anagu, I. Penalba, S.	30/06/2021	Azoxystrobin - A Leaching Assessment for Parent and Metabolites R234886, R402173 and R401553 Using the PEARL 4.4.4, PELMO 5.5.3 and MACRO 5.5.4 Groundwater Models Following Spray Application to Various Crops Using EU Agreed Endpoints Report No. 116223-1 Document No. VV-911613 Test Facility Knoell Germany GmbH Not GLP Unpublished	N	SYN
KCP 9.2.4	Langa Peñalba, S., & Robinson, P.	18/08/2022	Azoxystrobin - A Leaching Assessment for Parent and Metabolites R234886, R402173 and R401553 Using the PEARL 4.4.4, PELMO 5.5.3 and MACRO 5.5.4 Groundwater Models Following Spray Application to Various Crops Report No. 120095-1 Document No. VV-961774 Test Facility Knoell Germany GmbH Not GLP Unpublished	N	SYN
KCP 9.2.4	Penalba, S. Anagu, I.	30/06/2021	Azoxystrobin - A Leaching Assessment for Parent and Metabolites R234886, R402173 and R401553 Using the PEARL 4.4.4, PELMO 5.5.3 and MACRO 5.5.4 Groundwater Models Following Spray Application to Various Crops Using Geometric Mean Sorption Endpoints Report No. 116223-2 Document No. VV-911615 Test Facility Knoell Germany GmbH Not GLP Unpublished	N	SYN
KCP	Anagu, I.	28/06/2021	Azoxystrobin - A European Environmental Fate Assessment Using the FOCUS Surface Water Models at Steps	N	SYN

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
9.2.5	Penalba, S.		3 to 4 Following Spray Application to Various Crops Using Arithmetic Mean Sorption Endpoints Report No. 116223-3 Document No. VV-911782 Test Facility Knoell Germany GmbH Not GLP Unpublished		
KCP 9.2.5	Anagu, I. Penalba, S.	07/07/2021	Azoxystrobin - A European Environmental Fate Assessment Using the FOCUS Surface Water Models at Steps 3 to 4 Following Spray Application to Various Crops Using Geometric Mean Sorption Endpoints Report No. 116223-4 Document No. VV-911804 Test Facility Knoell Germany GmbH Not GLP Unpublished	N	SYN
KCP 9.2.5	Langa Peñalba, S., & Robinson, P.	18/08/2022	Azoxystrobin - A European Environmental Fate Assessment Using the FOCUS Surface Water Models at Steps 3 to 4 Following Spray Application to Various Crops Report No. 120095-3 Document No. VV-961781 Test Facility Knoell Germany GmbH Not GLP Unpublished	N	SYN

List of data submitted by the applicant and relied on - Oxathiapiprolin

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 9.2.4	Anagu, I. Bo, Y.	14/06/2021	Oxathiapiprolin - A Leaching Assessment for Parent and Metabolites IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 Using the PEARL 4.4.4, PELMO 5.5.3 and MACRO 5.5.4 Groundwater Models Following Spray Application to Various Crops Using EU Agreed Endpoints	N	SYN

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			Report No. 116223-5 Document No. VV-911806 Test Facility Knoell Germany GmbH Not GLP Unpublished		
KCP 9.2.4	Bo, Y. Anagu, I.	30/06/2021	Oxathiapiprolin - A Leaching Assessment for Parent and Metabolites IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 Using the PEARL 4.4.4, PELMO 5.5.3 and MACRO 5.5.4 Groundwater Models Following Spray Application to Various Crops Using Geometric Mean Sorption Endpoints Modelling Assessment Report No. 116223-6 Document No. VV-911808 Test Facility Knoell Germany GmbH Not GLP Unpublished	N	SYN
KCP 9.2.5	Anagu, I. Bo, Y.	30/06/2021	Oxathiapiprolin - A European Environmental Fate Assessment for Parent Using the FOCUS Surface Water Models at Step 3 to 4 Following Spray Application to Various Crops Using Arithmetic Mean Sorption Endpoints Report No. 116223-7 Document No. VV-911814 Test Facility Knoell Germany GmbH Not GLP Unpublished	N	SYN
KCP 9.2.5	Anagu, I. Bo, Y.	30/06/2021	Oxathiapiprolin - A European Environmental Fate Assessment for Parent Using the FOCUS Surface Water Models at Step 3 to 4 Following Spray Application to Various Crops Using Geometric Mean Sorption Endpoints Report No. 116223-8 Document No. VV-911827 Test Facility Knoell Germany GmbH Not GLP Unpublished	N	SYN

List of data submitted or referred to by the applicant and relied on, but already evaluated at EU peer review

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			n/a		

he following tables are to be completed by MS

List of data submitted by the applicant and not relied on

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP <x>	<Author>	<YYYY>	<Title> <Company Report No> <Source> <GLP/non GLP/GEP/non GEP> <Published/Unpublished>	Y/N	<Owner>

List of data relied on not submitted by the applicant but necessary for evaluation

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP <x>	<Author>	<YYYY>	<Title> <Company Report No> <Source> <GLP/non GLP/GEP/non GEP> <Published/Unpublished>	Y/N	<Owner>

Appendix 2 Detailed evaluation of the new Annex II studies

No studies provided.

Appendix 3 Additional information provided by the applicant (e.g. detailed modelling data)

A 3.1 KCP 9.1.3: Azoxystrobin - PEC_S following application to cabbage

Comments of zRMS:	All input parameters for azoxystrobin and its metabolites were considered acceptable as they followed the EFSA conclusion and LoEP or corresponded to standard default values. Thus, the zRMS considers the presented PEC_{soil} calculations acceptable for the parent and its metabolites.

Simulation of $PEC_{S,ini}$, short-term and long-term PEC_S values as well as $PEC_{S,plateau}$ and $PEC_{S,accumulation}$ were carried out using the tool ESCAPE (v.2). ESCAPE output files for azoxystrobin and its metabolites R234886, R402173 and R401553 are presented below.

Azoxystrobin, cabbage, 2 x 250 g/ha, BBCH 11

E S C A P E

Estimation of Soil Concentrations After PEsticide Applications

developed by Michael Klein

Program version: 2.0 (26 November 2019)
Date of this simulation: 22/09/2021, 12:23:01
Calculation problem: AZT_cabbage_7d

PROGRAM SETTINGS

Calculation mode: Residues from different applications are considered separately over one year
Application mode: Iteration of annual application pattern over 10 years

SCENARIO DATA USED IN THE CALCULATION

Name of the scenario: AZT_cabbage_7d
Name of the soil: Borstel
Soil density (kg/L): 1.5
Soil depth (cm): 5
Tillage depth (cm)*: 20
Organic carbon content (%): 1.5
Field capacity (Vol%): 29.2
Wilting point (Vol%): 6.4

Climatic conditions: 20 °C constant
(* for calculation of background concentrations)

APPLICATION PATTERN USED IN THE CALCULATION

Crop rotation: every year

Number of Applications : 2
1st Application date: 1 May
Application rate (g/ha): 250

Time between two applications (d): 7
Crop interception (%): 25

COMPOUNDS CONSIDERED IN THE CALCULATION

Metabolism scheme: Parent compound without metabolites

DEGRADATION KINETICS PARAMETERS CONSIDERED FOR THE CALCULATION

Soil study: soil study 1

Metabolism scheme: Parent compound without metabolites

Kinetics for AZT_cabbage_7d: Single First order (SFO)
DT50 (d): 262
Rate constant (1/d): 0.0026
Q10-factor: 2.58
Walker-exponent: 0.7
Ref. temperature (°C): 20

RESULTS OF THE CALCULATION

Metabolism scheme: Parent compound without metabolites

RESULTS FOR: AZT_cabbage_7d

Calculations over one year

Maximum annual total soil concentration for AZT_cabbage_7d over 5 cm(mg/kg): 0.4954 occurring on day 7

Calculated time dependent total soil concentrations over 5 cm for AZT_cabbage_7d after one year (mg/kg)

Time(d)	PECact*	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.4941	0.4948	7	8
2	0.4928	0.4941	7	9
4	0.4902	0.4928	7	11
7	0.4863	0.4909	7	14
14	0.4774	0.4864	7	21
21	0.4686	0.4819	7	28
28	0.4600	0.4775	7	35
42	0.4433	0.4689	7	49
50	0.4340	0.4640	7	57
100	0.3803	0.4353	7	107

(* PECact values are related to the time after the maximum concentration)

Calculation of background concentrations after many years

Final Background concentration in total soil for AZT_cabbage_7d over 20 cm(mg/kg):
0.0761**

(** according to the estimation 100% of the final plateau was reached after 10 years without crop rotation)

Reduction factor to account for crop rotation: 1

Final Background concentration in total soil including crop rotation(mg/kg): 0.0761

Calculations of concentrations considering accumulation after many years of application

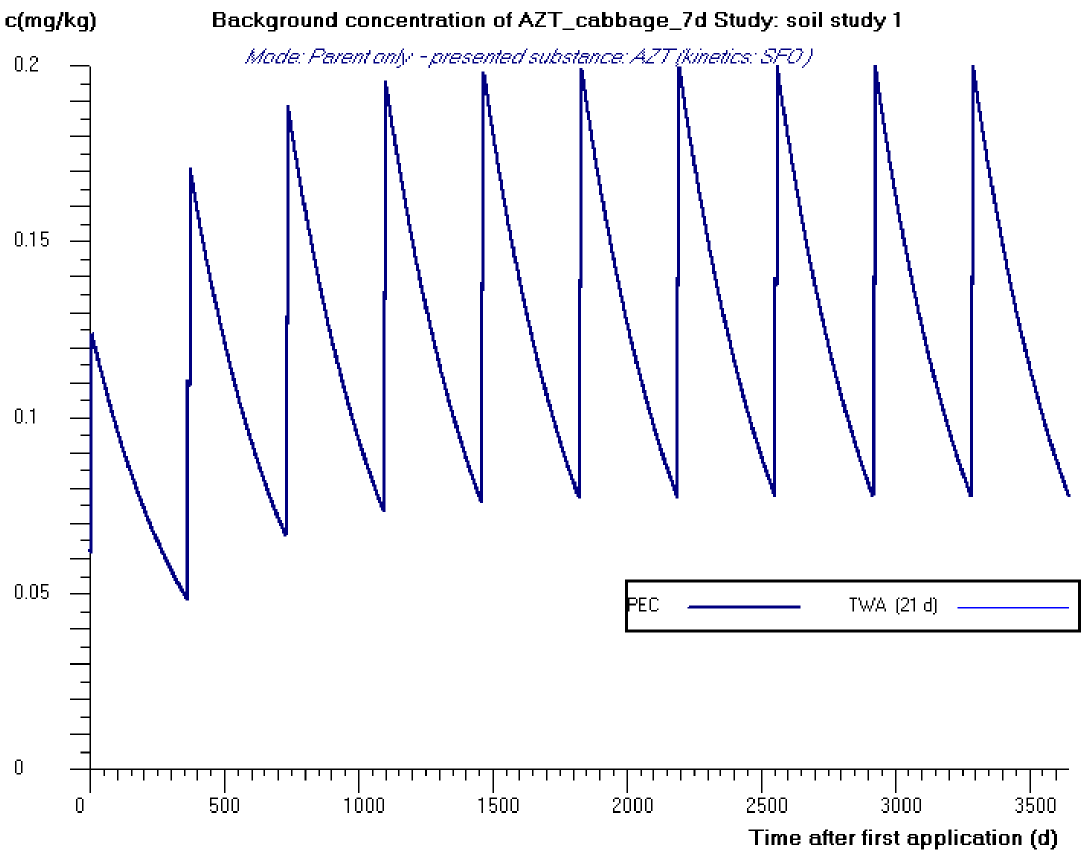
Maximum total soil concentration for AZT_cabbage_7d over 5 cm considering accumulation* (mg/kg) 0.5716
(* a tillage depth of 20 cm was considered for calculating the background concentration)

Calculated time dependent total soil concentrations over 5 cm for AZT_cabbage_7d(mg/kg) considering accumulation*

Time(d)	PECact**	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.5703	0.5709	7	8
2	0.5689	0.5703	7	9
4	0.5663	0.5689	7	11
7	0.5625	0.5670	7	14
14	0.5535	0.5625	7	21
21	0.5448	0.5581	7	28
28	0.5362	0.5537	7	35
42	0.5195	0.5450	7	49
50	0.5102	0.5402	7	57
100	0.4564	0.5114	7	107

(* a tillage depth of 20 cm was considered for calculating the background concentration)
(** PECact values are related to the time after the maximum concentration)'

GRAPHIC REPRESENTATION OF THE CALCULATION



R234886, cabbage, 1 x 139 g/ha, BBCH 11

E S C A P E
Estimation of Soil Concentrations After PEsticide Applications

developed by Michael Klein

Program version: 2.0 (26 November 2019)
Date of this simulation: 22/09/2021, 12:39:41
Calculation problem: R234886_alk_cabbage_7d

PROGRAM SETTINGS

Calculation mode: Residues from different applications are considered separately over one year
Application mode: Iteration of annual application pattern over 10 years

SCENARIO DATA USED IN THE CALCULATION

Name of the scenario: R234886_alk_cabbage_7d
Name of the soil: Borstel

Soil density (kg/L): 1.5
Soil depth (cm): 5
Tillage depth (cm)*: 20
Organic carbon content (%): 1.5
Field capacity (Vol%): 29.2
Wilting point (Vol%): 6.4

Climatic conditions: 20 °C constant
(* for calculation of background concentrations)

APPLICATION PATTERN USED IN THE CALCULATION

Crop rotation: every year

Application date: 1 May
Application rate (g/ha): 139.0024789
Crop interception (%): 25

COMPOUNDS CONSIDERED IN THE CALCULATION

Metabolism scheme: Parent compound without metabolites

DEGRADATION KINETICS PARAMETERS CONSIDERED FOR THE CALCULATION

Soil study: soil study 1

Metabolism scheme: Parent compound without metabolites

Kinetics for R234886_alk_cabbage_7d: Single First order (SFO)
DT50 (d): 110
Rate constant (1/d): 0.0063
Q10-factor: 2.58
Walker-exponent: 0.7
Ref. temperature (°C): 20

RESULTS OF THE CALCULATION

Metabolism scheme: Parent compound without metabolites

RESULTS FOR: R234886_alk_cabbage_7d

Calculations over one year

Maximum annual total soil concentration for R234886_alk_cabbage_7d over 5 cm(mg/kg):
0.1390 occurring on day 0

Calculated time dependent total soil concentrations over 5 cm for R234886_alk_cabbage_7d after one year (mg/kg)

Time(d)	PECact*	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.1381	0.1386	0	1
2	0.1373	0.1381	0	2

4	0.1355	0.1373	0	4
7	0.1330	0.1360	0	7
14	0.1273	0.1330	0	14
21	0.1218	0.1302	0	21
28	0.1165	0.1274	0	28
42	0.1067	0.1221	0	42
50	0.1014	0.1192	0	50
100	0.0740	0.1031	0	100

(* PECact values are related to the time after the first application)

Calculation of background concentrations after many years

Final Background concentration in total soil for R234886_alk_cabbage_7d over 20 cm(mg/kg): 0.0039**

(** according to the estimation 100% of the final plateau was reached after 10 years without crop rotation)

Reduction factor to account for crop rotation: 1

Final Background concentration in total soil including crop rotation(mg/kg): 0.0039

Calculations of concentrations considering accumulation after many years of application

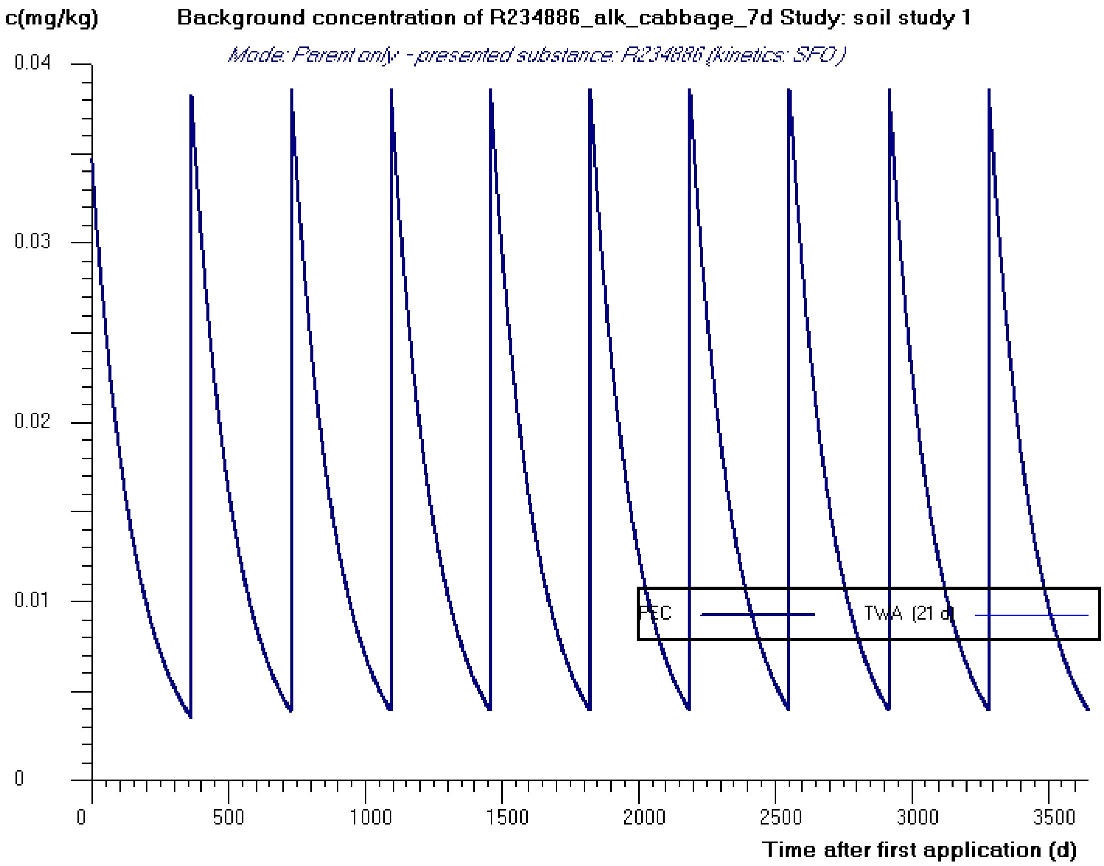
Maximum total soil concentration for R234886_alk_cabbage_7d over 5 cm considering accumulation* (mg/kg) 0.1429
(* a tillage depth of 20 cm was considered for calculating the background concentration)

Calculated time dependent total soil concentrations over 5 cm for R234886_alk_cabbage_7d(mg/kg) considering accumulation*

Time(d)	PECact**	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.1420	0.1424	0	1
2	0.1411	0.1420	0	2
4	0.1394	0.1411	0	4
7	0.1369	0.1399	0	7
14	0.1311	0.1369	0	14
21	0.1256	0.1341	0	21
28	0.1204	0.1313	0	28
42	0.1106	0.1260	0	42
50	0.1053	0.1231	0	50
100	0.0779	0.1070	0	100

(* a tillage depth of 20 cm was considered for calculating the background concentration)
(** PECact values are related to the time after the first application)

GRAPHIC REPRESENTATION OF THE CALCULATION



R402173, cabbage, 1 x 70.2g g/ha, BBCH 11

E S C A P E

Estimation of Soil Concentrations After PEsticide Applications

developed by Michael Klein

Program version: 2.0 (26 November 2019)
Date of this simulation: 11/05/2021, 22:12:52
Calculation problem: R402173_cabbage_7d

PROGRAM SETTINGS

Calculation mode: Residues from different applications are considered separately over one year
Application mode: Single annual application pattern (calculation period 1 year)

SCENARIO DATA USED IN THE CALCULATION

Name of the scenario: R402173_cabbage_7d
Name of the soil: Borstel

Soil density (kg/L): 1.5
Soil depth (cm): 5
Tillage depth (cm)*: 20
Organic carbon content (%): 1.5
Field capacity (Vol%): 29.2
Wilting point (Vol%): 6.4

Climatic conditions: 20 °C constant
(* for calculation of background concentrations)

APPLICATION PATTERN USED IN THE CALCULATION

Crop rotation: every year

Application date: 1 May
Application rate (g/ha): 70.22930094
Crop interception (%): 25

COMPOUNDS CONSIDERED IN THE CALCULATION

Metabolism scheme: Parent compound without metabolites

DEGRADATION KINETICS PARAMETERS CONSIDERED FOR THE CALCULATION

Soil study: soil study 1

Metabolism scheme: Parent compound without metabolites

Kinetics for R402173_cabbage_7d: Single First order (SFO)
DT50 (d): 9.8
Rate constant (1/d): 0.0707
Q10-factor: 2.58
Walker-exponent: 0.7
Ref. temperature (°C): 20

RESULTS OF THE CALCULATION

Metabolism scheme: Parent compound without metabolites

*RESULTS FOR: R402173*_cabbage_7d

Calculations over one year

Maximum annual total soil concentration for R402173_cabbage_7d over 5 cm(mg/kg): 0.0702
occurring on day 0

Calculated time dependent total soil concentrations over 5 cm for R402173_cabbage_7d after one year (mg/kg)

Time(d)	PECact*	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.0654	0.0678	0	1
2	0.0610	0.0655	0	2

4	0.0529	0.0612	0	4
7	0.0428	0.0554	0	7
14	0.0261	0.0446	0	14
21	0.0159	0.0366	0	21
28	0.0097	0.0306	0	28
42	0.0036	0.0224	0	42
50	0.0020	0.0193	0	50
100	0.0001	0.0099	0	100

(* PECact values are related to the time after the first application)

Calculation of background concentrations after many years

Final Background concentration in total soil for R402173_cabbage_7d over 20 cm(mg/kg):
<0.0001**

(** according to the estimation 100% of the final plateau was reached after 10 years without crop rotation)

Reduction factor to account for crop rotation: 1

Final Background concentration in total soil including crop rotation(mg/kg): <0.0001

Calculations of concentrations considering accumulation after many years of application

Maximum total soil concentration for R402173_cabbage_7d over 5 cm considering accumulation* (mg/kg) 0.0702
(* a tillage depth of 20 cm was considered for calculating the background concentration)

Calculated time dependent total soil concentrations over 5 cm for R402173_cabbage_7d(mg/kg) considering accumulation*

Time(d)	PECact**	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.0654	0.0678	0	1
2	0.0610	0.0655	0	2
4	0.0529	0.0612	0	4
7	0.0428	0.0554	0	7
14	0.0261	0.0446	0	14
21	0.0159	0.0366	0	21
28	0.0097	0.0306	0	28
42	0.0036	0.0224	0	42
50	0.0020	0.0193	0	50
100	0.0001	0.0099	0	100

(* a tillage depth of 20 cm was considered for calculating the background concentration)
(** PECact values are related to the time after the first application)

R401553, cabbage, 1 x 44.9 g/ha, BBCH 11

E S C A P E

Estimation of Soil Concentrations After PEsticide Applications

developed by Michael Klein

Program version: 2.0 (26 November 2019)
Date of this simulation: 11/05/2021, 22:12:36
Calculation problem: R40153_cabbage_7d

PROGRAM SETTINGS

Calculation mode: Residues from different applications are considered separately over one year
Application mode: Single annual application pattern (calculation period 1 year)

SCENARIO DATA USED IN THE CALCULATION

Name of the scenario: R401553_cabbage_7d
Name of the soil: Borstel
Soil density (kg/L): 1.5
Soil depth (cm): 5
Tillage depth (cm)*: 20
Organic carbon content (%): 1.5
Field capacity (Vol%): 29.2
Wilting point (Vol%): 6.4

Climatic conditions: 20 °C constant
(* for calculation of background concentrations)

APPLICATION PATTERN USED IN THE CALCULATION

Crop rotation: every year

Application date: 1 May
Application rate (g/ha): 44.9231532
Crop interception (%): 25

COMPOUNDS CONSIDERED IN THE CALCULATION

Metabolism scheme: Parent compound without metabolites

DEGRADATION KINETICS PARAMETERS CONSIDERED FOR THE CALCULATION

Soil study: soil study 1

Metabolism scheme: Parent compound without metabolites

Kinetics for R40153_cabbage_7d: Single First order (SFO)
DT50 (d): 2.01
Rate constant (1/d): 0.3448
Q10-factor: 2.58
Walker-exponent: 0.7
Ref. temperature (°C): 20

RESULTS OF THE CALCULATION

Metabolism scheme: Parent compound without metabolites

RESULTS FOR: R40153_cabbage_7d

Calculations over one year

Maximum annual total soil concentration for R40153_cabbage_7d over 5 cm(mg/kg): 0.0449
occurring on day 0

Calculated time dependent total soil concentrations over 5 cm for R40153_cabbage_7d after one year (mg/kg)

Time(d)	PECact*	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.0318	0.0384	0	1
2	0.0225	0.0328	0	2
4	0.0113	0.0246	0	4
7	0.0040	0.0171	0	7
14	0.0004	0.0093	0	14
21	<0.0001	0.0063	0	21
28	<0.0001	0.0047	0	28
42	<0.0001	0.0031	0	42
50	<0.0001	0.0026	0	50
100	<0.0001	0.0013	0	100

(* PECact values are related to the time after the first application)

Calculation of background concentrations after many years

Final Background concentration in total soil for R40153_cabbage_7d over 20 cm(mg/kg):
<0.0001**

(** according to the estimation 100% of the final plateau was reached after 10 years without crop rotation)

Reduction factor to account for crop rotation: 1

Final Background concentration in total soil including crop rotation(mg/kg): <0.0001

Calculations of concentrations considering accumulation after many years of application

Maximum total soil concentration for R40153_cabbage_7d over 5 cm considering accumulation* (mg/kg) 0.0449
(* a tillage depth of 20 cm was considered for calculating the background concentration)

Calculated time dependent total soil concentrations over 5 cm for R40153_cabbage_7d(mg/kg) considering accumulation*

Time(d)	PECact**	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.0318	0.0384	0	1
2	0.0225	0.0328	0	2

4	0.0113	0.0246	0	4
7	0.0040	0.0171	0	7
14	0.0004	0.0093	0	14
21	<0.0001	0.0063	0	21
28	<0.0001	0.0047	0	28
42	<0.0001	0.0031	0	42
50	<0.0001	0.0026	0	50
100	<0.0001	0.0013	0	100

(* a tillage depth of 20 cm was considered for calculating the background concentration)
(** PECact values are related to the time after the first application)

A 3.2 KCP 9.1.3: Oxathiapiprolin - PEC_S following application to cabbage

Comments of zRMS:	All input parameters for oxathiapiprolin and its metabolites were considered acceptable as they followed the EFSA conclusion and LoEP or corresponded to standard default values. Thus, the zRMS considers the presented PEC_{soil} calculations acceptable for the parent and its metabolites.

Simulation of $PEC_{S,ini}$, short-term and long-term PEC_S values as well as $PEC_{S,plateau}$ and $PEC_{S,accumulation}$ were carried out using the tool ESCAPE (v.2). ESCAPE output files for oxathiapiprolin and its metabolites IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 are presented below.

Oxathiapiprolin, cabbage, 2 x 12 g/ha, BBCH 11

E S C A P E
Estimation of Soil Concentrations After PEsticide Applications

developed by Michael Klein

Program version: 2.0 (26 November 2019)
Date of this simulation: 22/09/2021, 13:14:02
Calculation problem: Cabbage_OXTP_B11

PROGRAM SETTINGS

Calculation mode: Residues from different applications are considered separately over one year
Application mode: Iteration of annual application pattern over 10 years

SCENARIO DATA USED IN THE CALCULATION

Name of the scenario: Cabbage_OXTP_B11
Name of the soil: Borstel
Soil density (kg/L): 1.5
Soil depth (cm): 5
Tillage depth (cm)*: 20
Organic carbon content (%): 1.5
Field capacity (Vol%): 29.2
Wilting point (Vol%): 6.4

Climatic conditions: 20 °C constant
(* for calculation of background concentrations)

APPLICATION PATTERN USED IN THE CALCULATION

Crop rotation: every year

Number of Applications : 2
1st Application date: 1 May
Application rate (g/ha): 12
Time between two applications (d): 7
Crop interception (%): 25

COMPOUNDS CONSIDERED IN THE CALCULATION

Metabolism scheme: Parent compound without metabolites

DEGRADATION KINETICS PARAMETERS CONSIDERED FOR THE CALCULATION

Soil study: soil study 1

Metabolism scheme: Parent compound without metabolites

Kinetics for Cabbage_OXTP_B11: Single First order (SFO)
DT50 (d): 205.3
Rate constant (1/d): 0.0034
Q10-factor: 2.58
Walker-exponent: 0.7
Ref. temperature (°C): 20

RESULTS OF THE CALCULATION

Metabolism scheme: Parent compound without metabolites

RESULTS FOR: Cabbage_OXTP_B11

Calculations over one year

Maximum annual total soil concentration for Cabbage_OXTP_B11 over 5 cm(mg/kg): 0.0237 occurring on day 7

Calculated time dependent total soil concentrations over 5 cm for Cabbage_OXTP_B11 after one year (mg/kg)

Time(d)	PECact*	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.0236	0.0237	7	8
2	0.0236	0.0236	7	9
4	0.0234	0.0236	7	11
7	0.0232	0.0234	7	14
14	0.0226	0.0232	7	21
21	0.0221	0.0229	7	28
28	0.0216	0.0226	7	35
42	0.0206	0.0221	7	49
50	0.0200	0.0218	7	57
100	0.0169	0.0201	6	106

(* PECact values are related to the time after the maximum concentration)

Calculation of background concentrations after many years

Final Background concentration in total soil for Cabbage_OXTP_B11 over 20 cm(mg/kg): 0.0024**

(** according to the estimation 100% of the final plateau was reached after 10 years without crop rotation)

Reduction factor to account for crop rotation: 1

Final Background concentration in total soil including crop rotation(mg/kg): 0.0024

Calculations of concentrations considering accumulation after many years of application

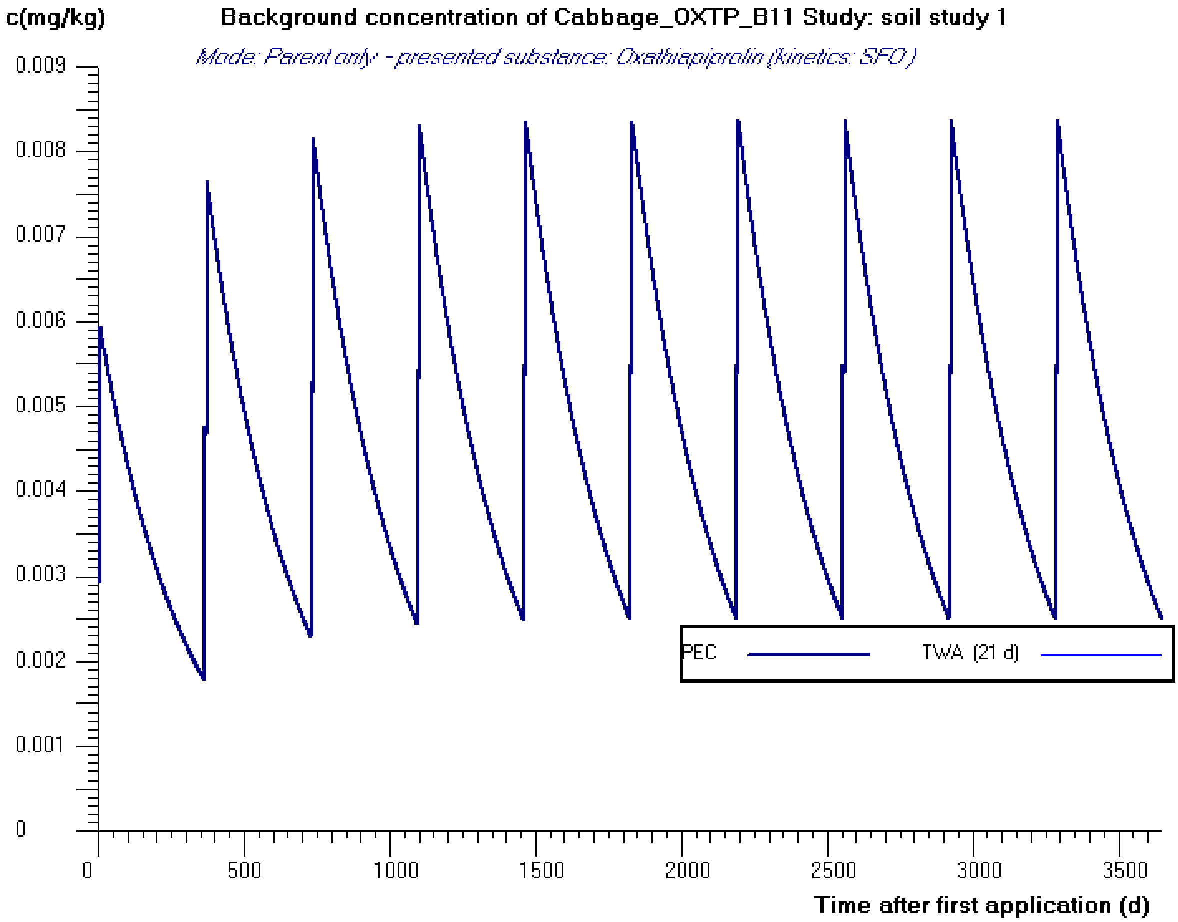
Maximum total soil concentration for Cabbage_OXTP_B11 over 5 cm considering accumulation* (mg/kg) 0.0262
(* a tillage depth of 20 cm was considered for calculating the background concentration)

Calculated time dependent total soil concentrations over 5 cm for Cabbage_OXTP_B11(mg/kg) considering accumulation*

Time(d)	PECact**	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.0261	0.0261	7	8
2	0.0260	0.0261	7	9
4	0.0258	0.0260	7	11
7	0.0256	0.0259	7	14
14	0.0251	0.0256	7	21
21	0.0245	0.0253	7	28
28	0.0240	0.0251	7	35
42	0.0230	0.0246	7	49
50	0.0225	0.0243	7	57
100	0.0194	0.0226	6	106

(* a tillage depth of 20 cm was considered for calculating the background concentration)
(** PECact values are related to the time after the maximum concentration)'

GRAPHIC REPRESENTATION OF THE CALCULATION



IN-RDT31, cabbage, 1 x 2.32 g/ha, BBCH 11

E S C A P E

Estimation of Soil Concentrations After PEsticide Applications

developed by Michael Klein

Program version: 2.0 (26 November 2019)
Date of this simulation: 22/09/2021, 14:52:42
Calculation problem: Cabbage_RDT_B11

PROGRAM SETTINGS

Calculation mode: Residues from different applications are considered separately over one year
Application mode: Iteration of annual application pattern over 10 years

SCENARIO DATA USED IN THE CALCULATION

Name of the scenario: Cabbage_RDT_B11

Name of the soil: Borstel
Soil density (kg/L): 1.5
Soil depth (cm): 5
Tillage depth (cm)*: 20
Organic carbon content (%): 1.5
Field capacity (Vol%): 29.2
Wilting point (Vol%): 6.4

Climatic conditions: 20 °C constant
(* for calculation of background concentrations)

APPLICATION PATTERN USED IN THE CALCULATION

Crop rotation: every year

Application date: 1 May
Application rate (g/ha): 2.322902675
Crop interception (%): 25

COMPOUNDS CONSIDERED IN THE CALCULATION

Metabolism scheme: Parent compound without metabolites

DEGRADATION KINETICS PARAMETERS CONSIDERED FOR THE CALCULATION

Soil study: soil study 1

Metabolism scheme: Parent compound without metabolites

Kinetics for Cabbage_RDT_B11: Double First Order in Parallel (DFOP)
DT50 1(d): 2.6
DT50 2(d): 1260.3
Rate constant 1 (1/d): 0.2666
Rate constant 2 (1/d): 0.0005
Parameter g: 0.2
Q10-factor: 2.58
Walker-exponent: 0.7
Ref. temperature (°C): 20

RESULTS OF THE CALCULATION

Metabolism scheme: Parent compound without metabolites

RESULTS FOR: Cabbage_RDT_B11

Calculations over one year

Maximum annual total soil concentration for Cabbage_RDT_B11 over 5 cm(mg/kg): 0.0023
occurring on day 0

Calculated time dependent total soil concentrations over 5 cm for Cabbage_RDT_B11 after one year (mg/kg)

Time(d)	PECact*	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.0022	0.0023	0	1
2	0.0021	0.0022	0	2
4	0.0020	0.0021	0	4
7	0.0019	0.0021	0	7
14	0.0019	0.0020	0	14
21	0.0018	0.0019	0	21
28	0.0018	0.0019	0	28
42	0.0018	0.0019	0	42
50	0.0018	0.0019	0	50
100	0.0018	0.0018	0	100

(* PECact values are related to the time after the first application)

Calculation of background concentrations after many years

Final Background concentration in total soil for Cabbage_RDT_B11 over 20 cm(mg/kg):
0.0021**

(** according to the estimation 84% of the final plateau was reached after 10 years without crop rotation)

Reduction factor to account for crop rotation: 1

Final Background concentration in total soil including crop rotation(mg/kg): 0.0021

Calculations of concentrations considering accumulation after many years of application

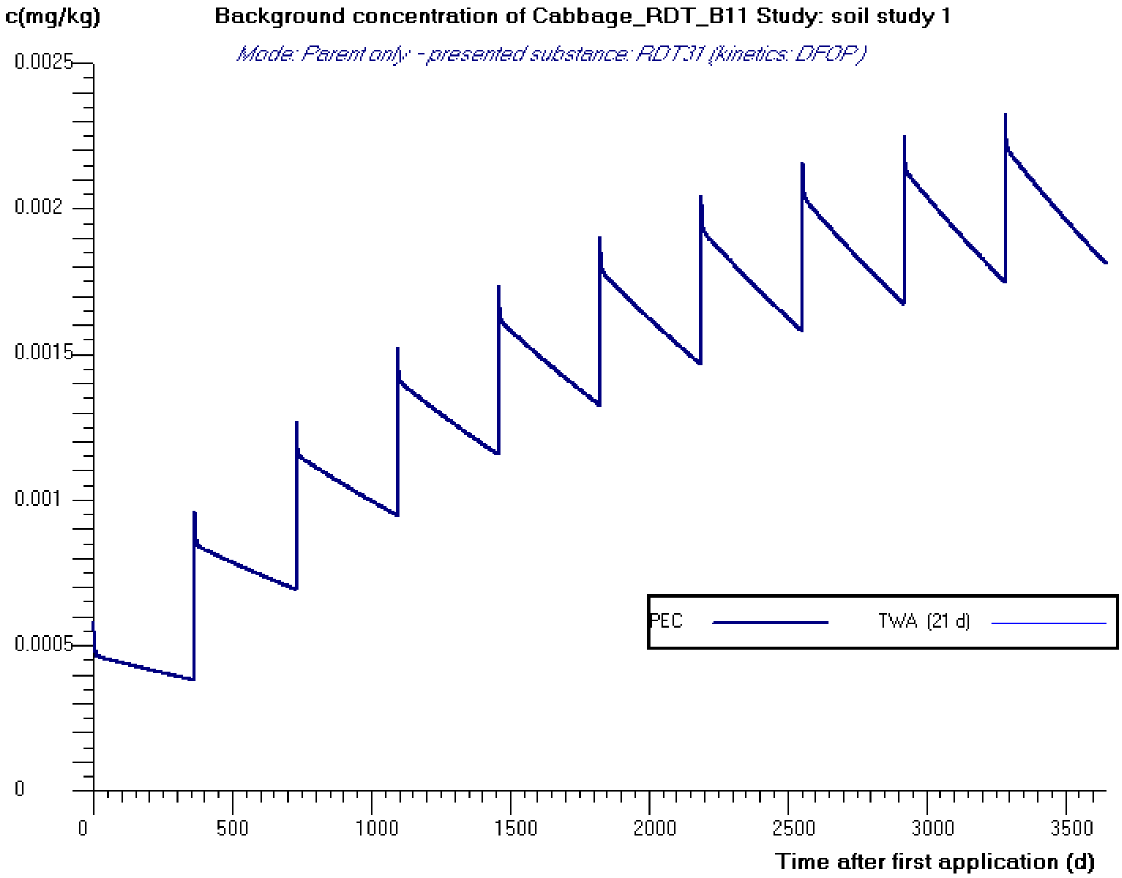
Maximum total soil concentration for Cabbage_RDT_B11 over 5 cm considering accumulation* (mg/kg) 0.0044
(* a tillage depth of 20 cm was considered for calculating the background concentration)

Calculated time dependent total soil concentrations over 5 cm for Cabbage_RDT_B11(mg/kg) considering accumulation*

Time(d)	PECact**	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.0043	0.0043	0	1
2	0.0042	0.0043	0	2
4	0.0041	0.0042	0	4
7	0.0040	0.0041	0	7
14	0.0039	0.0040	0	14
21	0.0039	0.0040	0	21
28	0.0039	0.0040	0	28
42	0.0039	0.0040	0	42
50	0.0039	0.0039	0	50
100	0.0038	0.0039	0	100

(* a tillage depth of 20 cm was considered for calculating the background concentration)
(** PECact values are related to the time after the first application)

GRAPHIC REPRESENTATION OF THE CALCULATION



IN-RAB06, cabbage, 1 x 3.42 g/ha, BBCH 11

E S C A P E
Estimation of Soil Concentrations After PEsticide Applications

developed by Michael Klein

Program version: 2.0 (26 November 2019)
Date of this simulation: 22/09/2021, 14:50:18
Calculation problem: Cabbage_RAB_B11

PROGRAM SETTINGS

Calculation mode: Residues from different applications are considered separately over one year
Application mode: Iteration of annual application pattern over 10 years

SCENARIO DATA USED IN THE CALCULATION

Name of the scenario: Cabbage_RAB_B11
Name of the soil: Borstel

Soil density (kg/L): 1.5
Soil depth (cm): 5
Tillage depth (cm)*: 20
Organic carbon content (%): 1.5
Field capacity (Vol%): 29.2
Wilting point (Vol%): 6.4

Climatic conditions: 20 °C constant
(* for calculation of background concentrations)

APPLICATION PATTERN USED IN THE CALCULATION

Crop rotation: every year

Application date: 1 May
Application rate (g/ha): 3.420036699
Crop interception (%): 25

COMPOUNDS CONSIDERED IN THE CALCULATION

Metabolism scheme: Parent compound without metabolites

DEGRADATION KINETICS PARAMETERS CONSIDERED FOR THE CALCULATION

Soil study: soil study 1

Metabolism scheme: Parent compound without metabolites

Kinetics for Cabbage_RAB_B11: Single First order (SFO)
DT50 (d): 170.2
Rate constant (1/d): 0.0041
Q10-factor: 2.58
Walker-exponent: 0.7
Ref. temperature (°C): 20

RESULTS OF THE CALCULATION

Metabolism scheme: Parent compound without metabolites

RESULTS FOR: Cabbage_RAB_B11

Calculations over one year

Maximum annual total soil concentration for Cabbage_RAB_B11 over 5 cm(mg/kg): 0.0034
occurring on day 0

Calculated time dependent total soil concentrations over 5 cm for Cabbage_RAB_B11 after one year (mg/kg)

Time(d)	PECact*	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.0034	0.0034	0	1
2	0.0034	0.0034	0	2

4	0.0034	0.0034	0	4
7	0.0033	0.0034	0	7
14	0.0032	0.0033	0	14
21	0.0031	0.0033	0	21
28	0.0031	0.0032	0	28
42	0.0029	0.0031	0	42
50	0.0028	0.0031	0	50
100	0.0023	0.0028	0	100

(* PECact values are related to the time after the first application)

Calculation of background concentrations after many years

Final Background concentration in total soil for Cabbage_RAB_B11 over 20 cm(mg/kg):
0.0002**

(** according to the estimation 100% of the final plateau was reached after 10 years without crop rotation)

Reduction factor to account for crop rotation: 1

Final Background concentration in total soil including crop rotation(mg/kg): 0.0002

Calculations of concentrations considering accumulation after many years of application

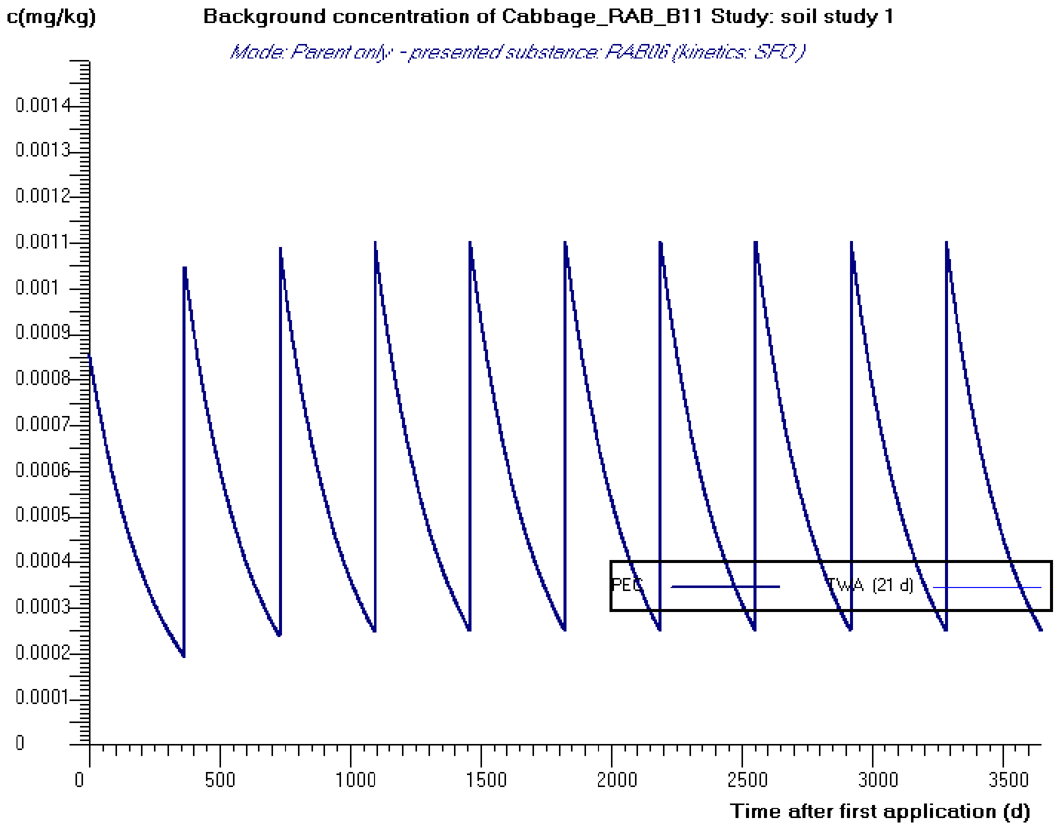
Maximum total soil concentration for Cabbage_RAB_B11 over 5 cm considering accumulation* (mg/kg) 0.0037
(* a tillage depth of 20 cm was considered for calculating the background concentration)

Calculated time dependent total soil concentrations over 5 cm for Cabbage_RAB_B11(mg/kg) considering accumulation*

Time(d)	PECact**	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.0037	0.0037	0	1
2	0.0036	0.0037	0	2
4	0.0036	0.0036	0	4
7	0.0036	0.0036	0	7
14	0.0035	0.0036	0	14
21	0.0034	0.0035	0	21
28	0.0033	0.0035	0	28
42	0.0031	0.0034	0	42
50	0.0030	0.0033	0	50
100	0.0025	0.0031	0	100

(* a tillage depth of 20 cm was considered for calculating the background concentration)
(** PECact values are related to the time after the first application)

GRAPHIC REPRESENTATION OF THE CALCULATION



IN-QPS10, cabbage, 1 x 1.35 g/ha, BBCH 11

E S C A P E
Estimation of Soil Concentrations After PEsticide Applications

developed by Michael Klein

Program version: 2.0 (26 November 2019)
Date of this simulation: 22/09/2021, 14:36:11
Calculation problem: Cabbage_QPS_B11

PROGRAM SETTINGS

Calculation mode: Residues from different applications are considered separately over one year
Application mode: Iteration of annual application pattern over 10 years

SCENARIO DATA USED IN THE CALCULATION

Name of the scenario: Cabbage_QPS_B11
Name of the soil: Borstel
Soil density (kg/L): 1.5
Soil depth (cm): 5

Tillage depth (cm)*: 20
Organic carbon content (%): 1.5
Field capacity (Vol%): 29.2
Wilting point (Vol%): 6.4

Climatic conditions: 20 °C constant
(* for calculation of background concentrations)

APPLICATION PATTERN USED IN THE CALCULATION

Crop rotation: every year

Application date: 1 May
Application rate (g/ha): 1.35222894
Crop interception (%): 25

COMPOUNDS CONSIDERED IN THE CALCULATION

Metabolism scheme: Parent compound without metabolites

DEGRADATION KINETICS PARAMETERS CONSIDERED FOR THE CALCULATION

Soil study: soil study 1

Metabolism scheme: Parent compound without metabolites

Kinetics for Cabbage_QPS_B11: Double First Order in Parallel (DFOP)
DT50 1(d): 0.855
DT50 2(d): 845.3
Rate constant 1 (1/d): 0.8107
Rate constant 2 (1/d): 0.0008
Parameter g: 0.4
Q10-factor: 2.58
Walker-exponent: 0.7
Ref. temperature (°C): 20

RESULTS OF THE CALCULATION

Metabolism scheme: Parent compound without metabolites

RESULTS FOR: Cabbage_QPS_B11

Calculations over one year

Maximum annual total soil concentration for Cabbage_QPS_B11 over 5 cm(mg/kg): 0.0014
occurring on day 0

Calculated time dependent total soil concentrations over 5 cm for Cabbage_QPS_B11 after one year (mg/kg)

Time(d)	PECact*	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.0011	0.0012	0	1

2	0.0009	0.0011	0	2
4	0.0008	0.0010	0	4
7	0.0008	0.0009	0	7
14	0.0008	0.0009	0	14
21	0.0008	0.0008	0	21
28	0.0008	0.0008	0	28
42	0.0008	0.0008	0	42
50	0.0008	0.0008	0	50
100	0.0007	0.0008	0	100

(* PECact values are related to the time after the first application)

Calculation of background concentrations after many years

Final Background concentration in total soil for Cabbage_QPS_B11 over 20 cm(mg/kg):
0.0006**

(** according to the estimation 94% of the final plateau was reached after 10 years without crop rotation)

Reduction factor to account for crop rotation: 1

Final Background concentration in total soil including crop rotation(mg/kg): 0.0006

Calculations of concentrations considering accumulation after many years of application

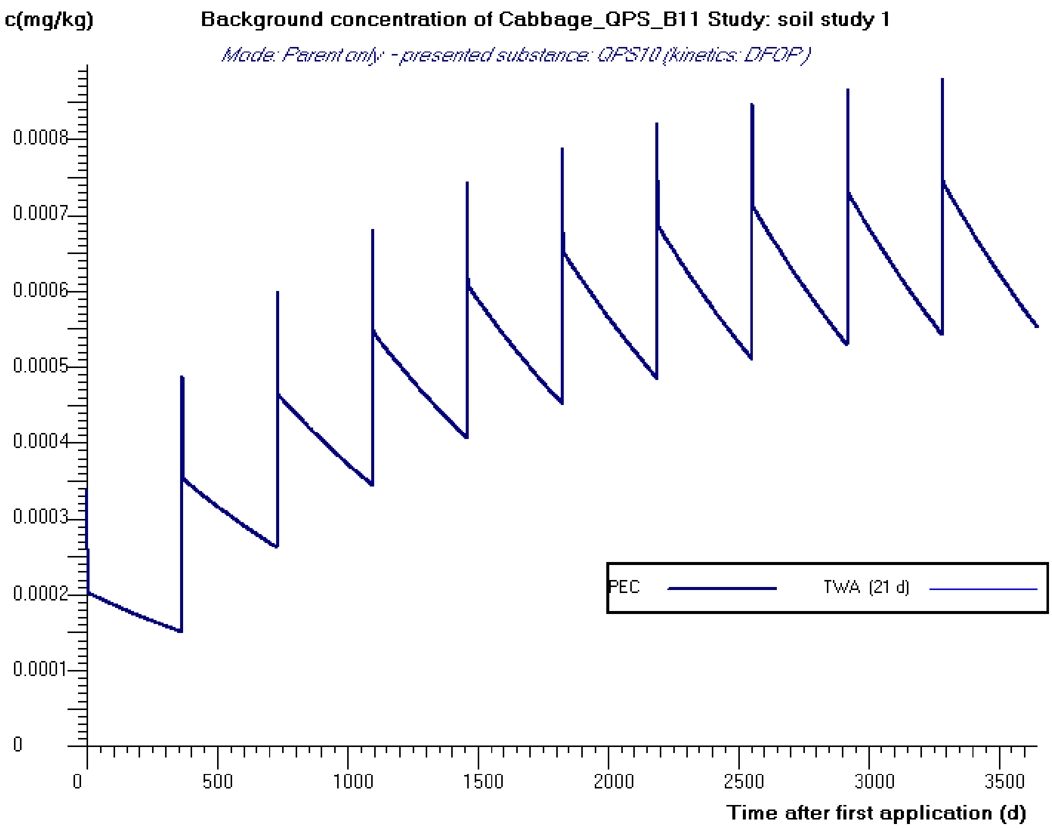
Maximum total soil concentration for Cabbage_QPS_B11 over 5 cm considering accumulation* (mg/kg) 0.0019
(* a tillage depth of 20 cm was considered for calculating the background concentration)

Calculated time dependent total soil concentrations over 5 cm for Cabbage_QPS_B11(mg/kg) considering accumulation*

Time(d)	PECact**	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.0016	0.0018	0	1
2	0.0015	0.0017	0	2
4	0.0014	0.0016	0	4
7	0.0014	0.0015	0	7
14	0.0014	0.0014	0	14
21	0.0014	0.0014	0	21
28	0.0014	0.0014	0	28
42	0.0014	0.0014	0	42
50	0.0014	0.0014	0	50
100	0.0013	0.0014	0	100

(* a tillage depth of 20 cm was considered for calculating the background concentration)
(** PECact values are related to the time after the first application)

GRAPHIC REPRESENTATION OF THE CALCULATION



IN-E8S72, cabbage, 1 x 0.825 g/ha, BBCH 11

E S C A P E
Estimation of Soil Concentrations After PEsticide Applications

developed by Michael Klein

Program version: 2.0 (26 November 2019)
Date of this simulation: 22/09/2021, 14:20:03
Calculation problem: Cabbage_E8S_B11

PROGRAM SETTINGS

Calculation mode: Residues from different applications are considered separately over one year
Application mode: Iteration of annual application pattern over 10 years

SCENARIO DATA USED IN THE CALCULATION

Name of the scenario: Cabbage_E8S_B11
Name of the soil: Borstel
Soil density (kg/L): 1.5
Soil depth (cm): 5

Tillage depth (cm)*: 20
Organic carbon content (%): 1.5
Field capacity (Vol%): 29.2
Wilting point (Vol%): 6.4

Climatic conditions: 20 °C constant
(* for calculation of background concentrations)

APPLICATION PATTERN USED IN THE CALCULATION

Crop rotation: every year

Application date: 1 May
Application rate (g/ha): 0.825130169
Crop interception (%): 25

COMPOUNDS CONSIDERED IN THE CALCULATION

Metabolism scheme: Parent compound without metabolites

DEGRADATION KINETICS PARAMETERS CONSIDERED FOR THE CALCULATION

Soil study: soil study 1

Metabolism scheme: Parent compound without metabolites

Kinetics for Cabbage_E8S_B11: Single First order (SFO)
DT50 (d): 477.4
Rate constant (1/d): 0.0015
Q10-factor: 2.58
Walker-exponent: 0.7
Ref. temperature (°C): 20

RESULTS OF THE CALCULATION

Metabolism scheme: Parent compound without metabolites

RESULTS FOR: Cabbage_E8S_B11

Calculations over one year

Maximum annual total soil concentration for Cabbage_E8S_B11 over 5 cm(mg/kg): 0.0008
occurring on day 0

Calculated time dependent total soil concentrations over 5 cm for Cabbage_E8S_B11 after one year (mg/kg)

Time(d)	PECact*	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.0008	0.0008	0	1
2	0.0008	0.0008	0	2
4	0.0008	0.0008	0	4
7	0.0008	0.0008	0	7

14	0.0008	0.0008	0	14
21	0.0008	0.0008	0	21
28	0.0008	0.0008	0	28
42	0.0008	0.0008	0	42
50	0.0008	0.0008	0	50
100	0.0007	0.0008	0	100

(* PECact values are related to the time after the first application)

Calculation of background concentrations after many years

Final Background concentration in total soil for Cabbage_E8S_B11 over 20 cm(mg/kg): 0.0003**

(** according to the estimation 99% of the final plateau was reached after 10 years without crop rotation)

Reduction factor to account for crop rotation: 1

Final Background concentration in total soil including crop rotation(mg/kg): 0.0003

Calculations of concentrations considering accumulation after many years of application

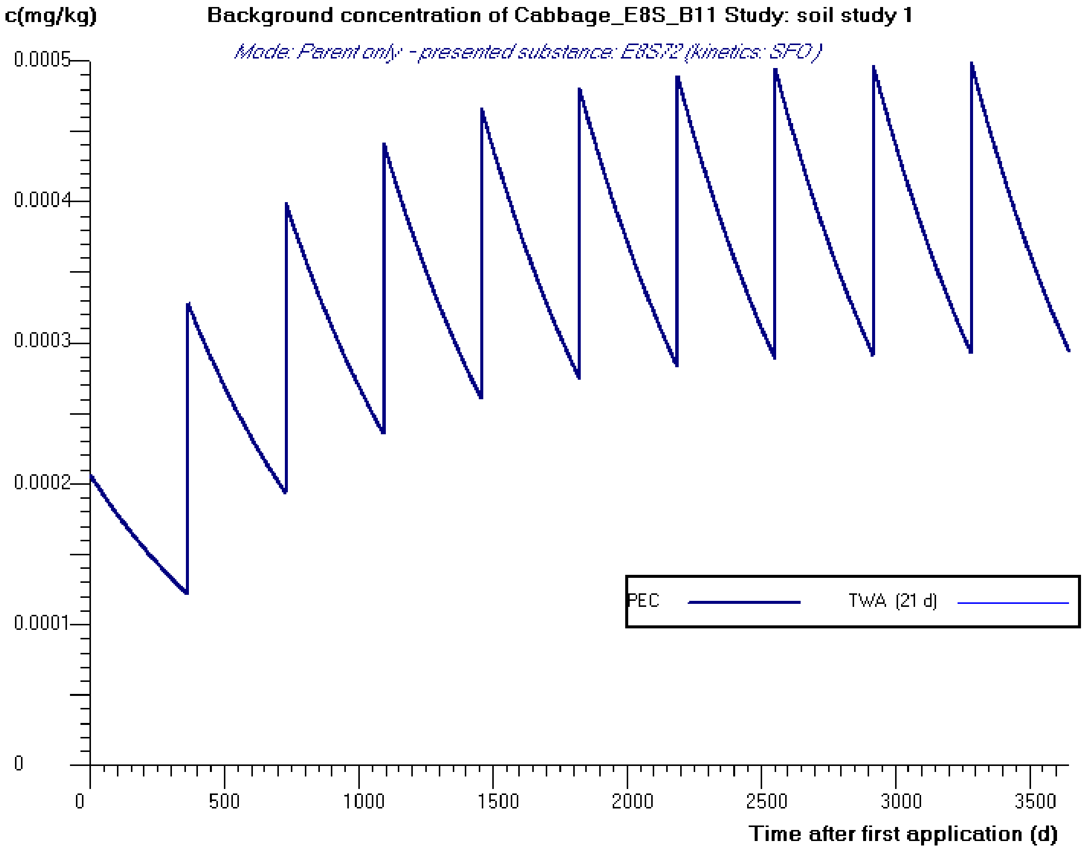
Maximum total soil concentration for Cabbage_E8S_B11 over 5 cm considering accumulation* (mg/kg) 0.0011
(* a tillage depth of 20 cm was considered for calculating the background concentration)

Calculated time dependent total soil concentrations over 5 cm for Cabbage_E8S_B11(mg/kg) considering accumulation*

Time(d)	PECact**	PECtwa	Begin TWAframe(d)	End TWAframe(d)
1	0.0011	0.0011	0	1
2	0.0011	0.0011	0	2
4	0.0011	0.0011	0	4
7	0.0011	0.0011	0	7
14	0.0011	0.0011	0	14
21	0.0011	0.0011	0	21
28	0.0011	0.0011	0	28
42	0.0011	0.0011	0	42
50	0.0011	0.0011	0	50
100	0.0010	0.0011	0	100

(* a tillage depth of 20 cm was considered for calculating the background concentration)
(** PECact values are related to the time after the first application)

GRAPHIC REPRESENTATION OF THE CALCULATION


c(mg/kg)
Background concentration of Cabbage_E8S_B11 Study: soil study 1
Mode: Parent only - presented substance: E8S72 (kinetics: SFO)
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
500
1000
1500
2000
2500
3000
3500
Time after first application (d)
PEC
TWA (21 d)

A 3.3 KCP 9.2.4: Langa Peñalba, S., & Robinson, P. 2022, Azoxystrobin PEC_{GW} following application to various crops

Use numbers in this summary refer to the modelling report and not to the GAP table in section 8.1 above.

Comments of zRMS:	All input parameters for azoxystrobin and its metabolites were considered acceptable as they followed the EFSA conclusion and LoEP or corresponded to standard default values. Thus, the zRMS considers the presented PEC_{gw} calculations acceptable for the parent and its metabolites.

Reference:	KCP 9.2.4
Report	Azoxystrobin - Azoxystrobin - A Leaching Assessment for Parent and Metabolites R234886, R402173 and R401553 Using the PEARL 4.4.4, PELMO 5.5.3 and MACRO 5.5.4 Groundwater Models Following Spray Application to Various Crops, Report No. 120095-1 (Syngenta File No. VV-961774)
Guideline(s):	European Commission (2014). Assessing potential for movement of active substances and their metabolites to ground water in the EU. Report of the FOCUS ground water work group, EC document reference SANCO/13144/2010 version 3, 613 pp. FOCUS (2000). FOCUS groundwater scenarios in the EU review of active substances. Report of the FOCUS groundwater scenarios workgroup, EC document reference SANCO/321/2000 rev. 2, 202 pp. FOCUS (2014). Generic guidance for Tier 1 FOCUS ground water assessments, version 2.2. May 2014. 66 pp.
Deviations:	No
GLP:	Not applicable
Acceptability:	Yes

A 3.3.1 Materials and methods

This report describes a FOCUS groundwater modelling study that examined the potential for azoxystrobin and its metabolites R234886, R402173 and R401553 to reach groundwater following application to cabbage, tomatoes, onions, and vines. The FOCUS simulation models FOCUS PEARL (v4.4.4), FOCUS PELMO (v5.5.3) and FOCUS MACRO (v5.5.4) were used in the modelling study.

Twofold applications at the rate of 250 g a.s./ha were considered. Applications starting from approximately BBCH 11 were considered for cabbage, tomatoes and onions with an interval of 7 days between applications for cabbage and tomatoes as well as 12 days for onions. For vines, applications starting from approximately BBCH 21 with an interval of 12 days between applications were considered. Due to the wide BBCH range, simulations were carried out for possible applications at early (BBCH 11 or 21), intermediate (BBCH 51 or 60) and late (BBCH 49 or 89) stages, depending on the crop. The input parameters relating to application are shown in the table below.

Table A 1: Application patterns of azoxystrobin to various crops used in modelling

Crop	Cabbage		Tomatoes			Onions		Vines[a]		
Application rate (g a.s./ha)	250		250			250		250		
Number of applications / interval (d)	2 / 7		2 / 7			2 / 12		2 / 12		
PHI	7		3			7		14		
BBCH growth stage	11	49	11	51	89	11	49	21	60	89
Crop interception (%)[b]	25 + 25	70 + 70	50 + 50	80 + 80	80 + 80	10 + 10	40 + 40	60 + 60	60 + 60	75 + 75
Frequency of application	Annual									
Models used for calculation	FOCUS PEARL v4.4.4, FOCUS PELMO v5.5.3, FOCUS MACRO v5.5.4									

[a] vines was used as surrogate model crop for hops
[b] according to EFSA (2014)

Applications were considered for the FOCUS scenarios defined for each of the modelled FOCUS crops. The dates were selected with the tool AppDate (v3.06) based on the BBCH growth stages given in the recommended GAP. For the late applications, because some of the application dates suggested by the AppDate tool were later than the given pre-harvest interval (PHI), the end of the application window was set to be the harvest date minus the PHI for the affected scenarios. Simulations were carried out using the FOCUS standard crops ‘cabbage’, ‘tomatoes’, ‘onions’ and ‘vines’ in FOCUS PEARL and PELMO. The FOCUS standard crops ‘vegetables, leafy’ (cabbage), ‘vegetables, fruiting’ (tomatoes), ‘vegetables, bulb’ (onions), and ‘vines’ were used in FOCUS MACRO. Simulations were carried out over 26 years, as proposed by FOCUS for pesticides that are applied annually. The first 6 years are intended to be a ‘warm up’ period, thus the following 20 years were taken into account for the assessment of the leaching behaviour. Application dates are presented in the table, below.

Table A 2: Application dates of azoxystrobin to cabbage, tomatoes, onions, and vines used in modelling

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
Cabbage 2 × 250 g a.s./ha BBCH 11 - 49 7 days interval BBCH 11	First application at BBCH 11 (AppDate 3.06)	Châteaudun 1st	25-Apr (115)	2-May (122)
		Châteaudun 2nd	5-Aug (217)	12-Aug (224)
		Hamburg 1st	25-Apr (115)	2-May (122)
		Hamburg 2nd	5-Aug (217)	12-Aug (224)
		Jokioinen	1-Jun (152)	8-Jun (159)
		Kremsmünster 1st	25-Apr (115)	2-May (122)
		Kremsmünster 2nd	5-Aug (217)	12-Aug (224)
		Porto 1st	9-Mar (68)	16-Mar (75)
		Porto 2nd	4-Aug (216)	11-Aug (223)
		Sevilla 1st	8-Mar (67)	15-Mar (74)
		Sevilla 2nd	22-Jun (173)	29-Jun (180)
		Thiva	21-Aug (233)	28-Aug (240)
Cabbage	Last application at	Châteaudun 1st [a]	1-Jul (182)	8-Jul (189)

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
2 × 250 g a.s./ha BBCH 11 - 49 7 days interval BBCH 49	BBCH 49, except when conflicting with the PHI (AppDate 3.06)	Châteaudun 2nd [a]	1-Oct (274)	8-Oct (281)
		Hamburg 1st [a]	1-Jul (182)	8-Jul (189)
		Hamburg 2nd [a]	1-Oct (274)	8-Oct (281)
		Jokioinen [a]	6-Sep (249)	13-Sep (256)
		Kremsmünster 1st [a]	1-Jul (182)	8-Jul (189)
		Kremsmünster 2nd [a]	1-Oct (274)	8-Oct (281)
		Porto 1st [a]	17-Jun (168)	24-Jun (175)
		Porto 2nd	31-Oct (304)	7-Nov (311)
		Sevilla 1st [a]	18-May (138)	25-May (145)
		Sevilla 2nd [a]	1-Sep (244)	8-Sep (251)
		Thiva [a]	16-Nov (320)	23-Nov (327)
Tomatoes 2 × 250 g a.s./ha BBCH 11 - 89 7 days interval BBCH 11	First application at BBCH 11 (AppDate 3.06)	Châteaudun	13-May (133)	20-May (140)
		Piacenza	13-May (133)	20-May (140)
		Porto	19-Mar (78)	26-Mar (85)
		Sevilla	17-Apr (107)	24-Apr (114)
		Thiva	13-Apr (103)	20-Apr (110)
Tomatoes 2 × 250 g a.s./ha BBCH 11 - 89 7 days interval BBCH 51	First application at BBCH 51 (AppDate 3.06)	Châteaudun	15-Jun (166)	22-Jun (173)
		Piacenza	15-Jun (166)	22-Jun (173)
		Porto	19-May (139)	26-May (146)
		Sevilla	17-May (137)	24-May (144)
		Thiva	15-May (135)	22-May (142)
Tomatoes 2 × 250 g a.s./ha BBCH 11 - 89 7 days interval BBCH 89	Last application at BBCH 89, except when conflicting with the PHI (AppDate 3.06)	Châteaudun [a]	15-Aug (227)	22-Aug (234)
		Piacenza [a]	15-Aug (227)	22-Aug (234)
		Porto	21-Aug (233)	28-Aug (240)
		Sevilla [a]	21-Jun (172)	28-Jun (179)
		Thiva	31-Aug (243)	7-Sep (250)
Onions 2 × 250 g a.s./ha BBCH 11 - 49 12 days interval BBCH 11	First application at BBCH 11 (AppDate 3.06)	Châteaudun	3-May (123)	15-May (135)
		Hamburg	3-May (123)	15-May (135)
		Jokioinen	25-May (145)	6-Jun (157)
		Kremsmünster	3-May (123)	15-May (135)
		Porto	9-Mar (68)	21-Mar (80)
		Thiva	18-Apr (108)	30-Apr (120)
Onions 2 × 250 g a.s./ha BBCH 11 - 49 12 days interval BBCH 49	Last application at BBCH 49, except when conflicting with the PHI (AppDate 3.06)	Châteaudun [a]	13-Aug (225)	25-Aug (237)
		Hamburg [a]	13-Aug (225)	25-Aug (237)
		Jokioinen [a]	27-Jul (208)	8-Aug (220)
		Kremsmünster [a]	13-Aug (225)	25-Aug (237)

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
		Porto [a]	12-May (132)	24-May (144)
		Thiva [a]	11-Jun (162)	23-Jun (174)
Vines 2 × 250 g a.s./ha BBCH 21 - 89 12 days interval BBCH 21	First application at BBCH 19 [b] (AppDate 3.06)	Châteaudun	8-May (128)	20-May (140)
		Hamburg	24-May (144)	5-Jun (156)
		Kremsmünster	24-May (144)	5-Jun (156)
		Piacenza	8-May (128)	20-May (140)
		Porto	26-Apr (116)	8-May (128)
		Sevilla	24-Apr (114)	6-May (126)
		Thiva	17-Apr (107)	29-Apr (119)
Vines 2 × 250 g a.s./ha BBCH 21 - 89 12 days interval BBCH 60	First application at BBCH 60 (AppDate 3.06)	Châteaudun	21-Jun (172)	3-Jul (184)
		Hamburg	20-Jun (171)	2-Jul (183)
		Kremsmünster	20-Jun (171)	2-Jul (183)
		Piacenza	21-Jun (172)	3-Jul (184)
		Porto	15-Jun (166)	27-Jun (178)
		Sevilla	21-May (141)	2-Jun (153)
		Thiva	26-May (146)	7-Jun (158)
Vines 2 × 250 g a.s./ha BBCH 21 - 89 12 days interval BBCH 89	Last application at BBCH 89, except when conflicting with the PHI (AppDate 3.06)	Châteaudun [a]	6-Oct (279)	18-Oct (291)
		Hamburg [a]	4-Oct (277)	16-Oct (289)
		Kremsmünster [a]	4-Oct (277)	16-Oct (289)
		Piacenza [a]	6-Oct (279)	18-Oct (291)
		Porto [a]	4-Sep (242)	16-Sep (259)
		Sevilla [a]	4-Nov (308)	16-Nov (320)
		Thiva [a]	24-Sep (267)	6-Oct (279)

Numbers in brackets are corresponding Julian day numbers used for MACRO simulations
[a] last application on harvest date minus PHI
[b] the growth stage BBCH 21 is not defined in AppDate 3.06, thus BBCH 19 was chosen instead

The input parameters of azoxystrobin and its metabolites R234886, R402173 and R401553 used in the modelling are shown in Table A 3, below. All other input values were set at the default values unless otherwise stated.

A schematic diagram of the modelled route of degradation of azoxystrobin in soil is shown in Figure 1. The degradation mechanism of azoxystrobin in soil occurs via microbial and photolytic processes. Modelling of the three metabolites, which form via the different degradation mechanisms (microbial action and photolytic action) cannot be undertaken in a single simulation. Therefore, calculations were performed separately for the two degradation pathways. The first calculations assumed that azoxystrobin degraded to R234886 with a formation fraction of 0.874 (EFSA, 2010). The second assumed that azoxystrobin degraded to form R401553 and R402173 (subsequently degrading to R401553) with formation fractions of 0.385 for R402173 and 0.392 for R401553 (EFSA, 2010). Added together, the overall formation fraction for the metabolites in total is greater than one, which indicates that this approach is a conservative implementation of the metabolic pathway for azoxystrobin. In addition, the microbial pathway was simulated with two sets of parameters (for alkaline and acidic soils) in order to account for the pH-dependent degradation and sorption of R234886. Therefore, simulations were performed separately with three model runs for each application scenario:

- **Run 1**: microbial action: azoxystrobin to R234886 (acidic soil parameters).
- **Run 2**: microbial action: azoxystrobin to R234886 (alkaline soil parameters).
- **Run 3**: photolytic action azoxystrobin to R402173 and R401553.

Since the complex degradation scheme of azoxystrobin cannot be implemented in the GUI of MACRO, all metabolites were assumed to form directly from azoxystrobin. For this purpose, the formation fraction of the secondary metabolite (R401553), which is formed from parent and from R402173, was corrected for the formation of preceding metabolite, e.g.:

$FF(tot)_{P \rightarrow R401553} = FF_{P \rightarrow R402173} \times FF_{R402173 \rightarrow R401553} + FF_{P \rightarrow R401553}$

With:

$FF(tot)_{P \rightarrow R401553}$ = total formation fraction from parent to secondary metabolite R401553
$FF_{P \rightarrow R402173}$ = formation fraction for parent to primary metabolite R402173
$FF_{R402173 \rightarrow R401553}$ = formation fraction from primary metabolite R402173 to secondary metabolite R401553
$FF_{P \rightarrow R401553}$ = formation fraction for parent to metabolite R401553

Additionally, molar based formation fractions have to be corrected for molar mass differences between metabolite and parent to get conversion fractions for MACRO.

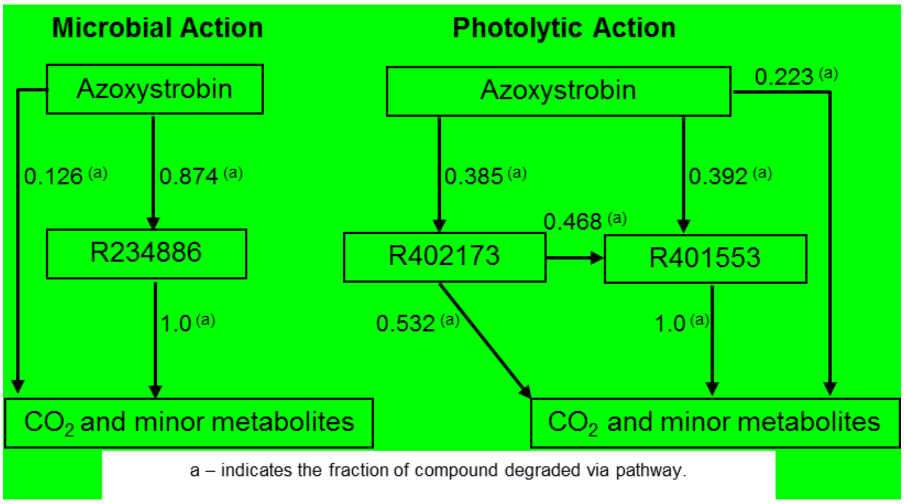
Table A 3: Summary of input parameters for azoxystrobin, R234886, R402173 and R401553 for PECGW calculations

Compound	**Azoxystrobin**	**R234886**	**R402173**	**R401553**	**Value in accordance with EU endpoint / Reference**
Molar mass (g/mol)	403.4	389.4	333.3	213.2	Yes / EFSA, 2010
Water solubility (mg/L)	6.0 (20°C)	57 (25°C)	61 (25°C)	560 (25°C)	Yes / EFSA, 2010
Saturated vapour pressure (Pa)	1.1×10^{-10}*	0	0	0	Yes / EFSA, 2010
DT_{50} in soil (d)	**Microbial pathway:** 78[a]* (n = 2) **Photolytic pathway:** 2.55[b]* (n = 10) (geometric mean, field studies normalisation to pF2, 20°C with Q_{10} of 2.58)	**Acidic soils:** 98.6** (n = 5) **Alkaline soils:** 36.7** (n = 7) (geometric mean, lab studies, normalisation to pF2, 20°C with Q_{10} of 2.58)	4.7* (geometric mean, lab studies, normalisation to pF2, 20°C with Q_{10} of 2.58, n = 3)	1.1* (geometric mean, lab studies, normalisation to pF2, 20°C with Q_{10} of 2.58, n = 3)	*Yes / EFSA, 2010 **Yes / DAR, 2014[c]

Compound	**Azoxystrobin**	**R234886**	**R402173**	**R401553**	**Value in accordance with EU endpoint / Reference**
Transformation rate	**Microbial pathway:** 0.007767 (to R234886) 0.001120 (to sink) **Photolytic pathway:** 0.104652 (to R402173) 0.106554 (to R401553) 0.060616 (to sink)	**Acidic soils:** 0.007030 (to sink) **Alkaline soils:** 0.018887 (to sink)	0.069020 (to R401553) 0.078458 (to sink)	0.630134 (to sink)	Calculated for PELMO; (ln(2) / DT_{50}) × FFm
K_{FOC} / K_{FOM} (mL/g)	423 / 245* (arithmetic mean, n = 6)	**Acidic soils:** 228.4 / 132.5** (arithmetic mean, n = 8) **Alkaline soils:** 36.7 / 21.3** (arithmetic mean, n = 7)	25 / 14.5* (worst case value, n = 6)	188 / 109* (arithmetic mean, n = 6)	*Yes / EFSA, 2010 **Yes/ DAR, 2014[c] K_{FOM} = K_{FOC} / 1.724
1/n	0.86 (arithmetic mean, n = 6)	**Acidic soils:** 0.78 (arithmetic mean, n = 8) **Alkaline soils:** 0.83 (arithmetic mean, n = 7)	0.96 (relate to worst case K_{FOC})	0.85 (arithmetic mean, n = 6)	Yes / EFSA, 2010
Plant uptake factor	0 (worst case value)	0*	0*	0*	*Yes / DAR, 2014[c]
Formation fraction	-	0.874 from parent	0.385 from parent	0.392 from parent 0.468 from R402173	Yes / EFSA, 2010
Conversion fraction	-	0.844 from parent	0.318 from parent	0.302[d] from parent	for MACRO; molar mass (metabolite)/molar mass (parent) × formation fraction

[a] calculated from the geometric mean of the soil incorporated field studies (80.2 days, n = 3) and the slow phase of the non-incorporated studies (75.9 days, n = 10)
[b] geometric mean, quick phase, field
[c] DAR (2014): Azoxystrobin: Addendum – Confirmatory Information. RMS United Kingdom. December 2014.
[d] For the secondary metabolite R401553 the formation fraction was multiplied along the pathway; therefore 213.2/403.4 × ((0.385 × 0.468) + 0.392)

Figure A 1: Schematic diagram of the modelled route of degradation of azoxystrobin



A 3.3.2 RESULTS

Predicted environmental concentrations for azoxystrobin and its metabolites R234886, R402173 and R401553 in groundwater (PEC_{GW}) were calculated for the use azoxystrobin on various crops in Europe in accordance with FOCUS guidelines (FOCUS, 2000, 2014, EC 2014).

The 80th percentile (at 1 m soil depth) PEC_{GW} values generated by the FOCUS PEARL, FOCUS PELMO and FOCUS MACRO simulations are given in Table A 4 to Table A 6. The overall maximum 80th percentile PEC_{GW} values are given in Table A 7.

Table A 4: PEC_{GW} for azoxystrobin, R234886, R402173 and R401553 (with FOCUS PEARL v4.4.4)

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
Cabbage 2 × 250 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	< 0.001	1.55	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	1.85	< 0.001	< 0.001
	Hamburg 1st	< 0.001	0.015	4.13	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	0.021	4.72	0.010	< 0.001
	Jokioinen	< 0.001	< 0.001	2.07	< 0.001	< 0.001
	Kremsmünster 1st	< 0.001	< 0.001	2.54	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.002	2.83	0.002	< 0.001
	Porto 1st	< 0.001	< 0.001	1.61	< 0.001	< 0.001
	Porto 2nd	< 0.001	< 0.001	2.91	< 0.001	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.218	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.346	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.877	< 0.001	< 0.001
Cabbage 2 × 250 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	0.360	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	0.359	< 0.001	< 0.001
	Hamburg 1st	< 0.001	< 0.001	1.23	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	< 0.001	1.21	0.033	0.002
	Jokioinen	< 0.001	< 0.001	0.451	0.007	< 0.001
	Kremsmünster 1st	< 0.001	< 0.001	0.747	< 0.001	< 0.001

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
	Kremsmünster 2nd	< 0.001	< 0.001	0.692	0.006	< 0.001
	Porto 1st	< 0.001	< 0.001	0.621	< 0.001	< 0.001
	Porto 2nd	< 0.001	< 0.001	0.548	0.045	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.043	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.071	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.049	0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	1.03	< 0.001	< 0.001
	Piacenza	< 0.001	0.001	1.40	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	1.00	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.124	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.280	< 0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	0.208	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.381	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.300	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.018	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.060	< 0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.248	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.456	0.002	< 0.001
	Porto	< 0.001	< 0.001	0.422	0.002	< 0.001
	Sevilla	< 0.001	< 0.001	0.027	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.074	< 0.001	< 0.001
Onions 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	1.48	< 0.001	< 0.001
	Hamburg	< 0.001	0.029	5.21	< 0.001	< 0.001
	Jokioinen	< 0.001	< 0.001	2.33	< 0.001	< 0.001
	Kremsmünster	< 0.001	0.004	3.25	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	1.66	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.569	< 0.001	< 0.001
Onions 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	0.874	< 0.001	< 0.001
	Hamburg	< 0.001	0.008	3.25	0.010	< 0.001
	Jokioinen	< 0.001	< 0.001	1.22	0.006	< 0.001
	Kremsmünster	< 0.001	< 0.001	1.98	0.002	< 0.001
	Porto	< 0.001	< 0.001	1.14	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.405	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 21	Châteaudun	< 0.001	< 0.001	1.36	< 0.001	< 0.001
	Hamburg	< 0.001	0.002	1.93	< 0.001	< 0.001
	Kremsmünster	< 0.001	< 0.001	1.20	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	1.23	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.699	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.611	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.362	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 60	Châteaudun	< 0.001	< 0.001	1.42	< 0.001	< 0.001
	Hamburg	< 0.001	0.002	2.01	< 0.001	< 0.001
	Kremsmünster	< 0.001	< 0.001	1.24	< 0.001	< 0.001
	Piacenza	< 0.001	0.001	1.55	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.888	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.639	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.381	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.690	0.001	< 0.001
	Hamburg	< 0.001	< 0.001	1.02	0.027	0.001
	Kremsmünster	< 0.001	< 0.001	0.600	0.007	< 0.001
	Piacenza	< 0.001	< 0.001	0.642	0.017	< 0.001
	Porto	< 0.001	< 0.001	0.579	0.004	< 0.001
	Sevilla	< 0.001	< 0.001	0.273	0.005	< 0.001

Crop	Scenario	80th Percentile PEC$_{GW}$ at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
	Thiva	< 0.001	< 0.001	0.253	0.002	< 0.001

Table A 5: PEC$_{GW}$ for azoxystrobin, R234886, R402173 and R401553 (with FOCUS PELMO v5.5.3)

Crop	Scenario	80th Percentile PEC$_{GW}$ at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
Cabbage 2 × 250 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	< 0.001	1.29	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	1.51	0.001	< 0.001
	Hamburg 1st	< 0.001	0.004	4.47	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	0.006	5.11	0.013	< 0.001
	Jokioinen	< 0.001	< 0.001	2.09	0.001	< 0.001
	Kremsmünster 1st	< 0.001	0.001	2.65	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.001	2.90	0.005	< 0.001
	Porto 1st	< 0.001	0.003	2.40	< 0.001	< 0.001
	Porto 2nd	< 0.001	0.006	3.63	0.001	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.146	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.243	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.946	< 0.001	< 0.001
Cabbage 2 × 250 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	0.291	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	0.285	0.001	< 0.001
	Hamburg 1st	< 0.001	< 0.001	1.24	0.001	< 0.001
	Hamburg 2nd	< 0.001	< 0.001	1.22	0.052	0.001
	Jokioinen	< 0.001	< 0.001	0.446	0.019	< 0.001
	Kremsmünster 1st	< 0.001	< 0.001	0.781	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	< 0.001	0.719	0.016	< 0.001
	Porto 1st	< 0.001	< 0.001	0.872	< 0.001	< 0.001
	Porto 2nd	< 0.001	< 0.001	0.796	0.084	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.032	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.044	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.066	0.005	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	0.685	< 0.001	< 0.001
	Piacenza	< 0.001	0.002	1.72	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	1.22	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.050	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.216	< 0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	0.130	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.452	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.366	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.005	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.038	< 0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.155	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.540	0.002	< 0.001
	Porto	< 0.001	< 0.001	0.528	0.002	< 0.001
	Sevilla	< 0.001	< 0.001	0.007	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.051	< 0.001	< 0.001
Onions 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	1.32	< 0.001	< 0.001
	Hamburg	< 0.001	0.007	5.20	< 0.001	< 0.001
	Jokioinen	< 0.001	< 0.001	2.22	0.001	< 0.001
	Kremsmünster	< 0.001	0.003	3.35	< 0.001	< 0.001

Crop	Scenario	80th Percentile PEC$_{GW}$ at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
	Porto	< 0.001	0.002	3.18	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.290	< 0.001	< 0.001
Onions 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	0.714	< 0.001	< 0.001
	Hamburg	< 0.001	0.002	3.37	0.016	< 0.001
	Jokioinen	< 0.001	< 0.001	1.18	0.009	< 0.001
	Kremsmünster	< 0.001	0.001	2.03	0.005	< 0.001
	Porto	< 0.001	0.001	2.04	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.178	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 21	Châteaudun	< 0.001	< 0.001	1.18	< 0.001	< 0.001
	Hamburg	< 0.001	0.002	2.13	< 0.001	< 0.001
	Kremsmünster	< 0.001	0.001	1.49	0.001	< 0.001
	Piacenza	< 0.001	0.006	1.54	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.984	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.265	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.279	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 60	Châteaudun	< 0.001	< 0.001	1.19	< 0.001	< 0.001
	Hamburg	< 0.001	0.002	2.24	0.001	< 0.001
	Kremsmünster	< 0.001	0.001	1.53	0.001	< 0.001
	Piacenza	< 0.001	0.006	1.64	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	1.20	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.258	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.267	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.694	0.002	< 0.001
	Hamburg	< 0.001	0.001	1.11	0.047	0.001
	Kremsmünster	< 0.001	< 0.001	0.759	0.014	< 0.001
	Piacenza	< 0.001	0.002	0.820	0.059	0.002
	Porto	< 0.001	< 0.001	0.867	0.007	< 0.001
	Sevilla	< 0.001	< 0.001	0.131	0.011	< 0.001
	Thiva	< 0.001	< 0.001	0.237	0.007	< 0.001

Table A 6: PEC$_{GW}$ for azoxystrobin, R234886, R402173 and R401553 (with FOCUS MACRO v5.5.4)

Crop	Scenario	80th Percentile PEC$_{GW}$ at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
Cabbage[a] 2 × 250 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	0.002	1.56	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	0.009	2.31	0.002	< 0.001
Cabbage[a] 2 × 250 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	0.472	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	0.447	0.007	< 0.001
Tomatoes[b] 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	0.680	< 0.001	< 0.001
Tomatoes[b] 2 × 250 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	0.174	< 0.001	< 0.001

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
Tomatoes[b] 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.183	< 0.001	< 0.001
Onions[c] 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	1.39	< 0.001	< 0.001
Onions[c] 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	0.891	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 21	Châteaudun	< 0.001	< 0.001	0.485	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 60	Châteaudun	< 0.001	< 0.001	0.524	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.278	0.003	< 0.001

[a] vegetables, leafy in MACRO v5.5.4
[b] vegetables, fruiting in MACRO v5.5.4
[c] vegetables, bulb in MACRO v5.5.4

Table A 7: Summary of maximum PEC_{GW} across all models for azoxystrobin, R234886, R402173 and R401553

Substance		80th Percentile PEC_{GW} (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
Azoxystrobin		< 0.001	Cabbage	2 × 250	11 - 49	All models	All scenarios
		< 0.001	Tomatoes	2 × 250	11 - 89	All models	All scenarios
		< 0.001	Onions	2 × 250	11 - 49	All models	All scenarios
		< 0.001	Vines	2 × 250	21 - 89	All models	All scenarios
R234886	Acidic	0.021	Cabbage	2 × 250	11 - 49	FOCUS PEARL v4.4.4	Hamburg, 2nd
		0.002	Tomatoes	2 × 250	11 - 89	FOCUS PELMO v5.5.3	Piacenza
		0.029	Onions	2 × 250	11 - 49	FOCUS PEARL v4.4.4	Hamburg
		0.006	Vines	2 × 250	21 - 89	FOCUS PELMO v5.5.3	Piacenza
	Alkaline	5.11	Cabbage	2 × 250	11 - 49	FOCUS PELMO v5.5.3	Hamburg, 2nd
		1.72	Tomatoes	2 × 250	11 - 89	FOCUS PELMO v5.5.3	Piacenza
		5.21	Onions	2 × 250	11 - 49	FOCUS PEARL v4.4.4	Hamburg
		2.24	Vines	2 × 250	21 - 89	FOCUS PELMO v5.5.3	Hamburg
R402173		0.084	Cabbage	2 × 250	11 - 49	FOCUS PELMO	Porto, 2nd

Substance	80th Percentile PEC_{GW} (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
					v5.5.3	
	0.002	Tomatoes	2 × 250	11 - 89	FOCUS PEARL v4.4.4/ FOCUS PELMO v.5.5.3	Piacenza Porto
	0.016	Onions	2 × 250	11 - 49	FOCUS PELMO v5.5.3	Hamburg
	0.059	Vines	2 × 250	21 - 89	FOCUS PELMO v5.5.3	Piacenza
R401553	0.002	Cabbage	2 × 250	11 - 49	FOCUS PEARL v4.4.4	Hamburg, 2nd
	< 0.001	Tomatoes	2 × 250	11 - 89	All models	All scenarios
	< 0.001	Onions	2 × 250	11 - 49	All models	All scenarios
	0.002	Vines	2 × 250	21 - 89	FOCUS PELMO v5.5.3	Piacenza

A 3.4 KCP 9.2.4: Anagu, I. & Langa Peñalba, S., 2021, Azoxystrobin PEC_{GW} following application to various crops - Arithmetic Mean Sorption Endpoints

Comments of zRMS:	All input parameters for azoxystrobin and its metabolites were considered acceptable as they followed the EFSA conclusion and LoEP or corresponded to standard default values. Simulations were performed for azoxystrobin at Tier 2 using PUF=0.5. Thus, the zRMS considers the presented PEC_{gw} calculations acceptable for the parent and its metabolites.

Reference:	KCP 9.2.4.
Report	Azoxystrobin - A Leaching Assessment for Parent and Metabolites R234886, R402173 and R401553 Using the PEARL 4.4.4, PELMO 5.5.3 and MACRO 5.5.4 Groundwater Models Following Spray Application to Various Crops Using EU Agreed Endpoints, Report No. 116223-1 (Syngenta File No. VV-911613)
Guideline(s):	European Commission (2014). Assessing potential for movement of active substances and their metabolites to ground water in the EU. Report of the FOCUS ground water work group, EC document reference SANCO/13144/2010 version 3, 613 pp. FOCUS (2000). FOCUS groundwater scenarios in the EU review of active substances. Report of the FOCUS groundwater scenarios workgroup, EC document reference SANCO/321/2000 rev. 2, 202 pp. FOCUS (2014). Generic guidance for Tier 1 FOCUS ground water assessments, version 2.2. May 2014. 66 pp.
Deviations:	No
GLP:	Not applicable
Acceptability:	Yes/No/Supplementary

A 3.4.1 Materials and methods

This report describes a FOCUS groundwater modelling study that examined the potential for azoxystrobin and its metabolites R234886, R402173 and R401553 to reach groundwater following application to cabbage, tomatoes, onions, and vines. The FOCUS simulation models FOCUS PEARL (v4.4.4), FOCUS PELMO (v5.5.3) and FOCUS MACRO (v5.5.4) were used in the modelling study.

Twofold applications at the rate of 250 g a.s./ha were considered. Applications starting from approximately BBCH 11 were considered for cabbage, tomatoes and onions with an interval of 7 days between applications for cabbage and tomatoes as well as 12 days for onions. For vines, applications starting from approximately BBCH 21 with an interval of 12 days between applications were considered. Due to the wide BBCH range, simulations were carried out for possible applications at early (BBCH 11 or 21), intermediate (BBCH 51 or 60) and late (BBCH 49 or 89) stages, depending on the crop. The input parameters relating to application are shown in the table below.

Table A 8: Application patterns of azoxystrobin to various crops used in the modelling

Use number	PL-54	PL-59	-	-
Crop	Cabbage	Tomatoes	Onions	Vines [a]

Application rate (g a.s./ha)	250		250			250		250		
Number of applications / interval (d)	2 / 7		2 / 7			2 / 12		2 / 12		
PHI	7		3			7		14		
BBCH growth stage	11	49	11	51	89	11	49	21	60	89
Crop interception (%)[b]	25 + 25	70 + 70	50 + 50	80 + 80	80 + 80	10 + 10	40 + 40	60 + 60	60 + 60	75 + 75
Frequency of application	Annual									
Models used for calculation	FOCUS PEARL v4.4.4, FOCUS PELMO v5.5.3, FOCUS MACRO v5.5.4									

[a] vines was used as a surrogate crop for hops
[b] according to EFSA (2014)

Applications were considered for the FOCUS scenarios defined for each of the modelled FOCUS crops. The dates were selected with the tool AppDate (v3.06) based on the BBCH growth stages given in the recommended GAP. For the late applications, because some of the application dates suggested by the AppDate tool were later than the given pre-harvest interval (PHI), the end of the application window was set to be the harvest date minus the PHI for the affected scenarios. Simulations were carried out using the FOCUS standard crops ‘cabbage’, ‘tomatoes’, ‘onions’ and ‘vines’ in FOCUS PEARL and PELMO. The FOCUS standard crops ‘vegetables, leafy’ (cabbage), ‘vegetables, fruiting’ (tomatoes), ‘vegetables, bulb’ (onions), and ‘vines’ were used in FOCUS MACRO. Simulations were carried out over 26 years, as proposed by FOCUS for pesticides that are applied annually. The first 6 years are intended to be a ‘warm up’ period, thus the following 20 years were taken into account for the assessment of the leaching behaviour. Application dates are presented in table below.

Table A 9: Application dates of azoxystrobin to cabbage, tomatoes, onions and vines used in modelling

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
Cabbage BBCH 11-49 2 × 250 g a.s./ha 7 days interval BBCH 11	First application at BBCH 11 (AppDate 3.06)	Châteaudun 1st	25-Apr (115)	2-May (122)
		Châteaudun 2nd	5-Aug (217)	12-Aug (224)
		Hamburg 1st	25-Apr (115)	2-May (122)
		Hamburg 2nd	5-Aug (217)	12-Aug (224)
		Jokioinen	1-Jun (152)	8-Jun (159)
		Kremsmünster 1st	25-Apr (115)	2-May (122)
		Kremsmünster 2nd	5-Aug (217)	12-Aug (224)
		Porto 1st	9-Mar (68)	16-Mar (75)
		Porto 2nd	4-Aug (216)	11-Aug (223)
		Sevilla 1st	8-Mar (67)	15-Mar (74)
		Sevilla 2nd	22-Jun (173)	29-Jun (180)
		Thiva	21-Aug (233)	28-Aug (240)
Cabbage BBCH 11-49 2 × 250 g a.s./ha		Châteaudun 1st [a]	1-Jul (182)	8-Jul (189)
		Châteaudun 2nd [a]	1-Oct (274)	8-Oct (281)
		Hamburg 1st [a]	1-Jul (182)	8-Jul (189)

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
7 days interval BBCH 49	Last application at BBCH 49, except when conflicting with the PHI (AppDate 3.06)	Hamburg 2nd [a]	1-Oct (274)	8-Oct (281)
		Jokioinen [a]	6-Sep (249)	13-Sep (256)
		Kremsmünster 1st [a]	1-Jul (182)	8-Jul (189)
		Kremsmünster 2nd [a]	1-Oct (274)	8-Oct (281)
		Porto 1st [a]	17-Jun (168)	24-Jun (175)
		Porto 2nd	31-Oct (304)	7-Nov (311)
		Sevilla 1st [a]	18-May (138)	25-May (145)
		Sevilla 2nd [a]	1-Sep (244)	8-Sep (251)
		Thiva [a]	16-Nov (320)	23-Nov (327)
Tomatoes 2 × 250 g a.s./ha BBCH 11 - 89 7 days interval BBCH 11	First application at BBCH 11 (AppDate 3.06)	Châteaudun	13-May (133)	20-May (140)
		Piacenza	13-May (133)	20-May (140)
		Porto	19-Mar (78)	26-Mar (85)
		Sevilla	17-Apr (107)	24-Apr (114)
		Thiva	13-Apr (103)	20-Apr (110)
Tomatoes 2 × 250 g a.s./ha BBCH 11 - 89 7 days interval BBCH 51	First application at BBCH 51 (AppDate 3.06)	Châteaudun	15-Jun (166)	22-Jun (173)
		Piacenza	15-Jun (166)	22-Jun (173)
		Porto	19-May (139)	26-May (146)
		Sevilla	17-May (137)	24-May (144)
		Thiva	15-May (135)	22-May (142)
Tomatoes 2 × 250 g a.s./ha BBCH 11 - 89 7 days interval BBCH 89	Last application at BBCH 89, except when conflicting with the PHI (AppDate 3.06)	Châteaudun [a]	15-Aug (227)	22-Aug (234)
		Piacenza [a]	15-Aug (227)	22-Aug (234)
		Porto	21-Aug (233)	28-Aug (240)
		Sevilla [a]	21-Jun (172)	28-Jun (179)
		Thiva	31-Aug (243)	7-Sep (250)
Onions 2 × 250 g a.s./ha BBCH 11 - 49 12 days interval BBCH 11	First application at BBCH 11 (AppDate 3.06)	Châteaudun	3-May (123)	15-May (135)
		Hamburg	3-May (123)	15-May (135)
		Jokioinen	25-May (145)	6-Jun (157)
		Kremsmünster	3-May (123)	15-May (135)
		Porto	9-Mar (68)	21-Mar (80)
		Thiva	18-Apr (108)	30-Apr (120)
Onions 2 × 250 g a.s./ha BBCH 11 - 49 12 days interval BBCH 49	Last application at BBCH 49, except when conflicting with the PHI (AppDate 3.06)	Châteaudun [a]	13-Aug (225)	25-Aug (237)
		Hamburg [a]	13-Aug (225)	25-Aug (237)
		Jokioinen [a]	27-Jul (208)	8-Aug (220)
		Kremsmünster [a]	13-Aug (225)	25-Aug (237)
		Porto [a]	12-May (132)	24-May (144)
		Thiva [a]	11-Jun (162)	23-Jun (174)

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
Vines 2 × 250 g a.s./ha BBCH 21 - 89 12 days interval BBCH 21	First application at BBCH 19 [b] (AppDate 3.06)	Châteaudun	8-May (128)	20-May (140)
		Hamburg	24-May (144)	5-Jun (156)
		Kremsmünster	24-May (144)	5-Jun (156)
		Piacenza	8-May (128)	20-May (140)
		Porto	26-Apr (116)	8-May (128)
		Sevilla	24-Apr (114)	6-May (126)
		Thiva	17-Apr (107)	29-Apr (119)
Vines 2 × 250 g a.s./ha BBCH 21 - 89 12 days interval BBCH 60	First application at BBCH 60 (AppDate 3.06)	Châteaudun	21-Jun (172)	3-Jul (184)
		Hamburg	20-Jun (171)	2-Jul (183)
		Kremsmünster	20-Jun (171)	2-Jul (183)
		Piacenza	21-Jun (172)	3-Jul (184)
		Porto	15-Jun (166)	27-Jun (178)
		Sevilla	21-May (141)	2-Jun (153)
		Thiva	26-May (146)	7-Jun (158)
Vines 2 × 250 g a.s./ha BBCH 21 - 89 12 days interval BBCH 89	Last application at BBCH 89, except when conflicting with the PHI (AppDate 3.06)	Châteaudun [a]	6-Oct (279)	18-Oct (291)
		Hamburg [a]	4-Oct (277)	16-Oct (289)
		Kremsmünster [a]	4-Oct (277)	16-Oct (289)
		Piacenza [a]	6-Oct (279)	18-Oct (291)
		Porto [a]	4-Sep (242)	16-Sep (259)
		Sevilla [a]	4-Nov (308)	16-Nov (320)
		Thiva [a]	24-Sep (267)	6-Oct (279)

Numbers in brackets are corresponding Julian day numbers used for MACRO simulations
[a] last application on harvest date minus PHI
[b] the growth stage BBCH 21 is not defined in AppDate 3.06, thus BBCH 19 was chosen instead

For cabbage, two potential growing seasons per year are defined in five out of seven FOCUS scenarios. In these scenarios two simulation options were considered:

- The first and second possible crop cycles simulated separately i.e. two applications per year
- Both possible crop cycles considered within one simulation run, i.e. four applications per year

The input parameters of azoxystrobin and its metabolites R234886, R402173 and R401553 used in the modelling are shown in Table A 10, below. All other input values were set at the default values unless otherwise stated.

A schematic diagram of the modelled route of degradation of azoxystrobin in soil is shown in Figure A 2. The degradation mechanism of azoxystrobin in soil occurs via microbial and photolytic processes. Modelling of the three metabolites, which form via the different degradation mechanisms (microbial action and photolytic action) cannot be undertaken in a single simulation. Therefore, calculations were performed separately for the two degradation pathways. The first calculations assumed that azoxystrobin degraded to R234886 with a formation fraction of 0.874 (EFSA, 2010). The second assumed that azoxystrobin degraded to form R401553 and R402173 (subsequently degrading to R401553) with formation fractions of 0.385 for R402173 and 0.392 for R401553 (EFSA, 2010). Added together, the overall formation fraction for the metabolites in total is greater than one, which indicates that this approach is a conservative implementation of the metabolic pathway for azoxystrobin. In addition, the microbial pathway was simulated with two sets of parameters (for alkaline and acidic soils) in order to account for the pH-dependent degradation and sorption of R234886. Therefore, simulations were performed separately with three model runs for each application scenario:

- **Run 1**: microbial action: azoxystrobin to R234886 (acidic soil parameters).
- **Run 2**: microbial action: azoxystrobin to R234886 (alkaline soil parameters).
- **Run 3**: photolytic action azoxystrobin to R402173 and R401553.

Since the complex degradation scheme of azoxystrobin cannot be implemented in the GUI of MACRO, all metabolites were assumed to form directly from azoxystrobin. For this purpose, the formation fraction of the secondary metabolite (R401553), which is formed from parent and from R402173, was corrected for the formation of preceding metabolite, e.g.:

$FF(tot)_{P \rightarrow R401553} = FF_{P \rightarrow R402173} \times FF_{R402173 \rightarrow R401553} + FF_{P \rightarrow R401553}$

With:

$FF(tot)_{P \rightarrow R401553}$ = total formation fraction from parent to secondary metabolite R401553
$FF_{P \rightarrow R402173}$ = formation fraction for parent to primary metabolite R402173
$FF_{R402173 \rightarrow R401553}$ = formation fraction from primary metabolite R402173 to secondary metabolite R401553
$FF_{P \rightarrow R401553}$ = formation fraction for parent to metabolite R401553

Additionally, molar based formation fractions have to be corrected for molar mass differences between metabolite and parent to get conversion fractions for MACRO.

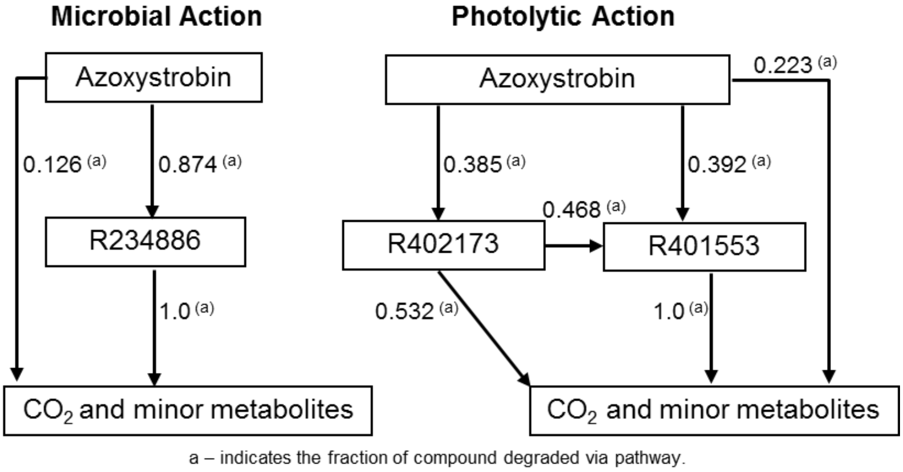
Table A 10: Summary of input parameters for azoxystrobin, R234886, R402173 and R401553 for PEC_{GW} calculations

Compound	Azoxystrobin	R234886	R402173	R401553	Value in accordance with EU endpoint / Reference
Molar mass (g/mol)	403.4	389.4	333.3	213.2	Yes / EFSA, 2010
Water solubility (mg/L)	6.0 (20°C)	57 (25°C)	61 (25°C)	560 (25°C)	Yes / EFSA, 2010
Saturated vapour pressure (Pa)	$1.1 \times 10^{-10*}$	0	0	0	Yes / EFSA, 2010
DT_{50} in soil (d)	**Microbial pathway:** 78[a*] (n = 2) **Photolytic pathway:** 2.55[b *] (n = 10) (geometric mean, field	**Acidic soils:** 98.6[**] (n = 5) **Alkaline soils:** 36.7[**] (n = 7) (geometric mean, lab studies, normalisation to pF2, 20°C with Q_{10} of 2.58)	4.7[*] (geometric mean, lab studies, normalisation to pF2, 20°C with Q_{10} of 2.58, n = 3)	1.1[*] (geometric mean, lab studies, normalisation to pF2, 20°C with Q_{10} of 2.58, n = 3)	[*]Yes / EFSA, 2010 [**]Yes / DAR, 2014[c]

Compound	Azoxystrobin	R234886	R402173	R401553	Value in accordance with EU endpoint / Reference
	studies normalisation to pF2, 20°C with Q_{10} of 2.58)				
Transformation rate	**Microbial pathway:** 0.007767 (to R234886) 0.001120 (to sink) **Photolytic pathway:** 0.104652 (to R402173) 0.106554 (to R401553) 0.060616 (to sink)	**Acidic soils:** 0.007030 (to sink) **Alkaline soils:** 0.018887 (to sink)	0.069020 (to R401553) 0.078458 (to sink)	0.630134 (to sink)	Calculated for PELMO; (ln(2) / DT_{50}) × FFm
K_{FOC} / K_{FOM} (mL/g)	423 / 245* (arithmetic mean, n = 6)	**Acidic soils:** 228.4 / 132.5** (arithmetic mean, n = 8) **Alkaline soils:** 36.7 / 21.3** (arithmetic mean, n = 7)	25 / 14.5* (worst case, n = 6)	188 / 109* (arithmetic mean, n = 6)	*Yes / EFSA, 2010 **Yes/ DAR, 2014[c] K_{FOM} = K_{FOC} / 1.724
1/n	0.86 (arithmetic mean, n = 6)	**Acidic soils:** 0.78 (arithmetic mean, n = 8) **Alkaline soils:** 0.83 (arithmetic mean, n = 7)	0.96 (relate to worst case K_{FOC})	0.85 (arithmetic mean, n = 6)	Yes / EFSA, 2010
Plant uptake factor	0.5*	0**	0**	0**	*Yes / DAR, 2014 & Weinfurtner, 2013 **Yes / DAR, 2014[c]
Formation fraction	-	0.874 from parent	0.385 from parent	0.392 from parent 0.468 from R402173	Yes / EFSA, 2010
Conversion fraction	-	0.844 from parent	0.318 from parent	0.302[d] from parent	for MACRO; molar mass (metabolite)/molar mass (parent) × formation fraction

[a] calculated from the geometric mean of the soil incorporated field studies (80.2 days, n = 3) and the slow phase of the non-incorporated studies (75.9 days, n = 10)
[b] geometric mean, quick phase, field
[c] DAR (2014): Azoxystrobin: Addendum – Confirmatory Information. RMS United Kingdom. December 2014.
[d] For the secondary metabolite R401553 the formation fraction was multiplied along the pathway; therefore 213.2/403.4 × ((0.385 × 0.468)+0.392)

Figure A 2: Schematic diagram of the modelled route of degradation of azoxystrobin



A 3.4.2 Results and discussions

Predicted environmental concentrations for azoxystrobin and its metabolites R234886, R402173 and R401553 in groundwater (PEC_{GW}) were calculated for the use azoxystrobin on various crops in Europe in accordance with FOCUS guidelines (FOCUS, 2000, 2014, EC 2014).

The 80th percentile (at 1 m soil depth) PEC_{GW} values generated by the FOCUS PEARL, FOCUS PELMO and FOCUS MACRO simulations are given in Table A 11 to Table A 13. The overall maximum 80th percentile PEC_{GW} values are given in Table A 14.

Table A 11: PEC_{GW} for azoxystrobin, R234886, R402173 and R401553 (with FOCUS PEARL v4.4.4)

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
Cabbage[a] 2 × 250 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	< 0.001	1.50	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	1.82	< 0.001	< 0.001
	Hamburg 1st	< 0.001	0.014	4.03	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	0.020	4.64	0.010	< 0.001
	Jokioinen	< 0.001	< 0.001	2.04	< 0.001	< 0.001
	Kremsmünster 1st	< 0.001	< 0.001	2.49	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.002	2.79	0.003	< 0.001
	Porto 1st	< 0.001	< 0.001	1.52	< 0.001	< 0.001
	Porto 2nd	< 0.001	< 0.001	2.81	< 0.001	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.190	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.312	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.848	< 0.001	< 0.001
Cabbage[a] 2 × 250 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	0.353	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	0.353	< 0.001	< 0.001
	Hamburg 1st	< 0.001	< 0.001	1.21	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	< 0.001	1.20	0.033	0.002
	Jokioinen	< 0.001	< 0.001	0.446	0.007	< 0.001
	Kremsmünster 1st	< 0.001	< 0.001	0.738	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	< 0.001	0.683	0.006	< 0.001
	Porto 1st	< 0.001	< 0.001	0.601	< 0.001	< 0.001
	Porto 2nd	< 0.001	< 0.001	0.533	0.045	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.038	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.070	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.049	0.001	< 0.001
Cabbage[b] 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	0.001	4.94	< 0.001	< 0.001
	Hamburg	< 0.001	0.179	11.6	0.013	< 0.001
	Jokioinen	< 0.001	< 0.001	2.04	< 0.001	< 0.001
	Kremsmünster	< 0.001	0.038	6.76	0.003	< 0.001
	Porto	< 0.001	0.014	5.49	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.886	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.848	< 0.001	< 0.001
Cabbage[b] 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	1.15	< 0.001	< 0.001
	Hamburg	< 0.001	0.007	3.24	0.034	0.002
	Jokioinen	< 0.001	< 0.001	0.446	0.007	< 0.001
	Kremsmünster	< 0.001	< 0.001	1.92	0.006	< 0.001
	Porto	< 0.001	< 0.001	1.56	0.045	< 0.001
	Sevilla	< 0.001	< 0.001	0.188	< 0.001	< 0.001

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
	Thiva	< 0.001	< 0.001	0.049	0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	1.00	< 0.001	< 0.001
	Piacenza	< 0.001	0.001	1.36	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.937	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.116	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.258	< 0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	0.204	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.376	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.287	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.018	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.057	< 0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.245	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.453	0.002	< 0.001
	Porto	< 0.001	< 0.001	0.415	0.002	< 0.001
	Sevilla	< 0.001	< 0.001	0.027	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.072	< 0.001	< 0.001
Onions 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	1.43	< 0.001	< 0.001
	Hamburg	< 0.001	0.027	5.09	< 0.001	< 0.001
	Jokioinen	< 0.001	< 0.001	2.27	< 0.001	< 0.001
	Kremsmünster	< 0.001	0.004	3.20	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	1.62	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.547	< 0.001	< 0.001
Onions 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	0.864	< 0.001	< 0.001
	Hamburg	< 0.001	0.008	3.21	0.010	< 0.001
	Jokioinen	< 0.001	< 0.001	1.20	0.006	< 0.001
	Kremsmünster	< 0.001	< 0.001	1.96	0.002	< 0.001
	Porto	< 0.001	< 0.001	1.13	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.401	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 21	Châteaudun	< 0.001	< 0.001	1.34	< 0.001	< 0.001
	Hamburg	< 0.001	0.002	1.91	< 0.001	< 0.001
	Kremsmünster	< 0.001	< 0.001	1.20	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	1.21	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.689	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.591	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.353	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 60	Châteaudun	< 0.001	< 0.001	1.40	< 0.001	< 0.001
	Hamburg	< 0.001	0.002	2.00	< 0.001	< 0.001
	Kremsmünster	< 0.001	< 0.001	1.23	< 0.001	< 0.001
	Piacenza	< 0.001	0.001	1.53	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.877	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.620	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.373	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.683	0.001	< 0.001
	Hamburg	< 0.001	< 0.001	1.02	0.027	0.002
	Kremsmünster	< 0.001	< 0.001	0.598	0.007	< 0.001
	Piacenza	< 0.001	< 0.001	0.637	0.017	< 0.001
	Porto	< 0.001	< 0.001	0.576	0.004	< 0.001
	Sevilla	< 0.001	< 0.001	0.268	0.005	< 0.001
	Thiva	< 0.001	< 0.001	0.250	0.002	< 0.001

[a] the first and second possible crop cycles simulated separately i.e. two applications per year
[b] both possible crop cycles considered within one simulation run, i.e. four applications per year

Table A 12: PEC$_{GW}$ for azoxystrobin, R234886, R402173 and R401553 (with FOCUS PELMO v5.5.3)

Crop	Scenario	80th Percentile PEC$_{GW}$ at 1 m Soil Depth (μg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
Cabbage[a] 2 × 250 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	< 0.001	1.16	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	1.38	0.001	< 0.001
	Hamburg 1st	< 0.001	0.003	4.03	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	0.004	4.73	0.013	< 0.001
	Jokioinen	< 0.001	< 0.001	1.94	0.001	< 0.001
	Kremsmünster 1st	< 0.001	0.001	2.44	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.001	2.72	0.005	< 0.001
	Porto 1st	< 0.001	0.002	2.11	< 0.001	< 0.001
	Porto 2nd	< 0.001	0.004	3.39	0.001	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.108	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.196	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.858	< 0.001	< 0.001
Cabbage[a] 2 × 250 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	0.266	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	0.256	0.001	< 0.001
	Hamburg 1st	< 0.001	< 0.001	1.13	0.001	< 0.001
	Hamburg 2nd	< 0.001	< 0.001	1.12	0.052	0.001
	Jokioinen	< 0.001	< 0.001	0.411	0.019	< 0.001
	Kremsmünster 1st	< 0.001	< 0.001	0.728	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	< 0.001	0.664	0.016	< 0.001
	Porto 1st	< 0.001	< 0.001	0.802	< 0.001	< 0.001
	Porto 2nd	< 0.001	< 0.001	0.738	0.084	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.026	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.037	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.055	0.005	< 0.001
Cabbage[b] 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	3.73	0.001	< 0.001
	Hamburg	< 0.001	0.065	11.5	0.018	< 0.001
	Jokioinen	< 0.001	< 0.001	1.94	0.001	< 0.001
	Kremsmünster	< 0.001	0.018	6.61	0.005	< 0.001
	Porto	< 0.001	0.047	6.83	0.002	< 0.001
	Sevilla	< 0.001	< 0.001	0.524	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.857	< 0.001	< 0.001
Cabbage[b] 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	0.852	0.001	< 0.001
	Hamburg	< 0.001	0.002	3.25	0.054	0.002
	Jokioinen	< 0.001	< 0.001	0.411	0.019	< 0.001
	Kremsmünster	< 0.001	< 0.001	1.88	0.016	< 0.001
	Porto	< 0.001	0.001	1.99	0.084	< 0.001
	Sevilla	< 0.001	< 0.001	0.127	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.055	0.005	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	0.621	< 0.001	< 0.001
	Piacenza	< 0.001	0.002	1.62	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	1.05	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.041	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.177	< 0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	0.119	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.430	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.331	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.004	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.033	< 0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.140	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.501	0.002	< 0.001
	Porto	< 0.001	< 0.001	0.491	0.002	< 0.001

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxy-strobin	R234886		R402173	R401553
			Acidic	Alkaline		
	Sevilla	< 0.001	< 0.001	0.006	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.044	< 0.001	< 0.001
Onions 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	1.18	< 0.001	< 0.001
	Hamburg	< 0.001	0.005	4.71	< 0.001	< 0.001
	Jokioinen	< 0.001	< 0.001	2.03	0.001	< 0.001
	Kremsmünster	< 0.001	0.002	3.10	< 0.001	< 0.001
	Porto	< 0.001	0.002	2.80	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.246	< 0.001	< 0.001
Onions 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	0.635	< 0.001	< 0.001
	Hamburg	< 0.001	0.002	3.10	0.016	< 0.001
	Jokioinen	< 0.001	< 0.001	1.08	0.009	< 0.001
	Kremsmünster	< 0.001	0.001	1.88	0.005	< 0.001
	Porto	< 0.001	< 0.001	1.82	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.161	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 21	Châteaudun	< 0.001	< 0.001	1.13	< 0.001	< 0.001
	Hamburg	< 0.001	0.002	2.04	< 0.001	< 0.001
	Kremsmünster	< 0.001	0.001	1.45	0.001	< 0.001
	Piacenza	< 0.001	0.005	1.49	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.927	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.244	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.255	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 60	Châteaudun	< 0.001	< 0.001	1.14	< 0.001	< 0.001
	Hamburg	< 0.001	0.002	2.15	0.001	< 0.001
	Kremsmünster	< 0.001	0.001	1.49	0.001	< 0.001
	Piacenza	< 0.001	0.005	1.60	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	1.14	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.239	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.245	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.657	0.002	< 0.001
	Hamburg	< 0.001	0.001	1.05	0.047	0.001
	Kremsmünster	< 0.001	< 0.001	0.723	0.014	< 0.001
	Piacenza	< 0.001	0.002	0.785	0.059	0.002
	Porto	< 0.001	< 0.001	0.827	0.007	< 0.001
	Sevilla	< 0.001	< 0.001	0.114	0.011	< 0.001
	Thiva	< 0.001	< 0.001	0.215	0.007	< 0.001

[a] the first and second possible crop cycles simulated separately i.e. two applications per year
[b] both possible crop cycles considered within one simulation run, i.e. four applications per year

Table A 13: PEC_{GW} for azoxystrobin, R234886, R402173 and R401553 (with FOCUS MACRO v5.5.4)

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
Cabbage[a,c], 2 × 250 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	0.002	1.49	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	0.009	2.28	0.002	< 0.001
Cabbage[a,c], 2 × 250 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	0.467	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	0.440	0.007	< 0.001

Crop	Scenario	80[th] Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
Cabbage[b,c], 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	0.054	5.08	0.002	< 0.001
Cabbage[b,c], 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	0.001	1.30	0.007	< 0.001
Tomatoes[d], 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	0.634	< 0.001	< 0.001
Tomatoes[d], 2 × 250 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	0.166	< 0.001	< 0.001
Tomatoes[d], 3 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.179	< 0.001	< 0.001
Onions[e], 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	1.30	< 0.001	< 0.001
Onions[e], 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	0.872	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 21	Châteaudun	< 0.001	< 0.001	0.462	0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 60	Châteaudun	< 0.001	< 0.001	0.501	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.272	0.003	< 0.001

[a] the first and second possible crop cycles simulated separately i.e. two applications per year
[b] both possible crop cycles considered within one simulation run, i.e. four applications per year
[c] vegetables, leafy in MACRO v5.5.4
[d] vegetables, fruiting in MACRO v5.5.4
[e] vegetables, bulb in MACRO v5.5.4

Table A 14: Summary of maximum PEC_{GW} across all models for azoxystrobin, R234886, R402173 and R401553

Substance		80[th] Percentile PEC_{GW} (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
Azoxystrobin		< 0.001	Cabbage[ab]	2 × 250	11 - 49	All models	All scenarios
		< 0.001	Tomatoes	2 × 250	11 - 89	All models	All scenarios
		< 0.001	Onions	2 × 250	11 - 49	All models	All scenarios
		< 0.001	Vines	2 × 250	21 - 89	All models	All scenarios
R234886	Acidic	0.020	Cabbage[a]	2 × 250	11 - 49	FOCUS PEARL v4.4.4	Hamburg, 2[nd]
		0.179	Cabbage[b]	2 × 250	11 - 49	FOCUS PEARL v4.4.4	Hamburg

Substance		80th Percentile PEC_{GW} (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
		0.002	Tomatoes	2 × 250	11 - 89	FOCUS PELMO v5.5.3	Piacenza
		0.027	Onions	2 × 250	11 - 49	FOCUS PEARL v4.4.4	Hamburg
		0.005	Vines	2 × 250	21 - 89	FOCUS PELMO v5.5.3	Piacenza
	Alkaline	4.73	Cabbage[a]	2 × 250	11 - 49	FOCUS PELMO v5.5.3	Hamburg, 2nd
		11.6	Cabbage[b]	2 × 250	11 - 49	FOCUS PEARL v4.4.4	Hamburg
		1.62	Tomatoes	2 × 250	11 - 89	FOCUS PELMO v5.5.3	Piacenza
		5.09	Onions	2 × 250	11 - 49	FOCUS PEARL v4.4.4	Hamburg
		2.15	Vines	2 × 250	21 - 89	FOCUS PELMO v5.5.3	Hamburg
R402173		0.084	Cabbage[a]	2 × 250	11 - 49	FOCUS PELMO v5.5.3	Porto, 2nd
		0.084	Cabbage[b]	2 × 250	11 - 49	FOCUS PELMO v5.5.3	Porto
		0.002	Tomatoes	2 × 250	11 - 89	FOCUS PEARL v4.4.4/FOCUS PELMO v.5.5.3	Piacenza Porto
		0.016	Onions	2 × 250	11 - 49	FOCUS PELMO v5.5.3	Hamburg
		0.059	Vines	2 × 250	21 - 89	FOCUS PELMO v5.5.3	Piacenza
R401553		0.002	Cabbage[a]	2 × 250	11 - 49	FOCUS PEARL v4.4.4	Hamburg, 2nd
		0.002	Cabbage[b]	2 × 250	11 - 49	FOCUS PEARL v4.4.4/FOCUS PELMO v5.5.3	Hamburg
		< 0.001	Tomatoes	2 × 250	11 - 49	All models	All scenarios
		< 0.001	Onions	2 × 250	21 - 89	All models	All scenarios
		0.002	Vines	2 × 250	11 - 49	FOCUS PELMO v5.5.3	Piacenza

[a] the first and second possible crop cycles simulated separately i.e. two applications per year
[b] both possible crop cycles considered within one simulation run, i.e. four applications per year

A 3.5 KCP 9.2.4: Anagu, I. & Langa Peñalba, S., 2021, Azoxystrobin PEC_{GW} following application to various crops Using Geometric Mean Sorption Endpoints

Comments of zRMS:	All input parameters for azoxystrobin and its metabolites were considered acceptable.

Reference:	KCP 9.2.4.
Report	Azoxystrobin - A Leaching Assessment for Parent and Metabolites R234886, R402173 and R401553 Using the PEARL 4.4.4, PELMO 5.5.3 and MACRO 5.5.4 Groundwater Models Following Spray Application to Various Crops Using Geometric Mean Sorption Endpoints, Report No. 116223-2 (Syngenta File No. VV-911615)
Guideline(s):	European Commission (2014). Assessing potential for movement of active substances and their metabolites to ground water in the EU. Report of the FOCUS ground water work group, EC document reference SANCO/13144/2010 version 3, 613 pp. FOCUS (2000). FOCUS groundwater scenarios in the EU review of active substances. Report of the FOCUS groundwater scenarios workgroup, EC document reference SANCO/321/2000 rev. 2, 202 pp. FOCUS (2014). Generic guidance for Tier 1 FOCUS ground water assessments, version 2.2. May 2014. 66 pp.
Deviations:	No
GLP:	Not applicable
Acceptability:	Yes/No/Supplementary

A 3.5.1 Materials and methods

This report describes a FOCUS groundwater modelling study that examined the potential for azoxystrobin and its metabolites R234886, R402173 and R401553 to reach groundwater following application to cabbage, tomatoes, onions, and vines. The FOCUS simulation models FOCUS PEARL (v4.4.4), FOCUS PELMO (v5.5.3) and FOCUS MACRO (v5.5.4) were used in the modelling study.

Twofold applications at the rate of 250 g a.s./ha were considered for all the modelled crops. Applications starting from approximately BBCH 11 were considered for cabbage, tomatoes and onions with an interval of 7 days between applications for cabbage and tomatoes as well as 12 days for onions. For vines, applications starting from approximately BBCH 21 with an interval of 12 days between applications were considered. Due to the wide BBCH range, simulations were carried out for possible applications at early (BBCH 11 or 21), intermediate (BBCH 51 or 60) and late (BBCH 49 or 89) stages, depending on the crop. An additional single application at the rate of 250 g a.s.ha was considered for cabbage at BBCH 09. The input parameters relating to application are shown in the table below.

Table A 15: Application patterns of azoxystrobin to cabbage, tomatoes, onions, and vines used in modelling

Use number	ES-75	ES-56, BG-68		ES-61 (covers ES-80)			
Crop	Cabbage	Cabbage		Tomatoes			
Application rate (g a.s./ha)	250	250		250			
Number of applications / interval (d)	1 / -	2 / 7		2 / 7			
PHI	7	7		3			
BBCH growth stage	09	11	49	11	51	81	89
Crop interception (%)[a]	0	25 + 25	70 + 70	50 + 50	80 + 80	80 + 80	80 + 80
Frequency of application	Annual						
Models used for calculation	FOCUS PEARL v4.4.4, FOCUS PELMO v5.5.3, MACRO v5.5.4						

Crop	Onions			Vines[b]		
Application rate (g a.s./ha)	250			250		
Number of applications / interval (d)	2 / 12			2 / 12		
PHI	7			14		
BBCH growth stage	11	41	49	21	60	89
Crop interception (%)[a]	10 + 10	40 + 40	40 + 40	60 + 60	60 + 60	75 + 75
Frequency of application	Annual					
Models used for calculation	FOCUS PEARL v4.4.4, FOCUS PELMO v5.5.3, MACRO v5.5.4					

[a] according to EFSA (2014)
[b] vines was used as surrogate model crop for hops

Applications were considered for the FOCUS scenarios defined for each of the modelled FOCUS crops. The dates were selected with the tool AppDate (v3.06) based on the BBCH growth stages given in the recommended GAP. For the late applications, because some of the application dates suggested by the AppDate tool were later than the given pre-harvest interval (PHI), the end of the application window was set to be the harvest date minus the PHI for the affected scenarios. Simulations were carried out using the FOCUS standard crops ‘cabbage’, ‘tomatoes’, ‘onions’ and ‘vines’ in FOCUS PEARL and PELMO. The FOCUS standard crops ‘vegetables, leafy’ (cabbage), ‘vegetables, fruiting’ (tomatoes), ‘vegetables, bulb’ (onions), and ‘vines’ were used in FOCUS MACRO. Simulations were carried out over 26 years, as proposed by FOCUS for pesticides that are applied annually. The first 6 years are intended to be a ‘warm up’ period, thus the following 20 years were taken into account for the assessment of the leaching behaviour. Application dates are presented in Table A 16, below.

Table A 16: Application dates of azoxystrobin to cabbage, tomatoes, onions, and vines used in modelling

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
Cabbage BBCH 09-13 1 × 250 g a.s./ha BBCH 09	First application at BBCH 09 (AppDate 3.06)	Châteaudun 1st	20-Apr (110)	-
		Châteaudun 2nd	31-Jul (212)	-
		Hamburg 1st	20-Apr (110)	-
		Hamburg 2nd	31-Jul (212)	-
		Jokioinen	20-May (140)	-
		Kremsmünster 1st	20-Apr (110)	-
		Kremsmünster 2nd	31-Jul (212)	-

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
		Porto 1st	28-Feb (59)	-
		Porto 2nd	31-Jul (212)	-
		Sevilla 1st	01-Mar (60)	-
		Sevilla 2nd	15-Jun (166)	-
		Thiva	15-Aug (227)	-
Cabbage BBCH 11-49 2 × 250 g a.s./ha 7 days interval BBCH 11	First application at BBCH 11 (AppDate 3.06)	Châteaudun 1st	25-Apr (115)	2-May (122)
		Châteaudun 2nd	5-Aug (217)	12-Aug (224)
		Hamburg 1st	25-Apr (115)	2-May (122)
		Hamburg 2nd	5-Aug (217)	12-Aug (224)
		Jokioinen	1-Jun (152)	8-Jun (159)
		Kremsmünster 1st	25-Apr (115)	2-May (122)
		Kremsmünster 2nd	5-Aug (217)	12-Aug (224)
		Porto 1st	9-Mar (68)	16-Mar (75)
		Porto 2nd	4-Aug (216)	11-Aug (223)
		Sevilla 1st	8-Mar (67)	15-Mar (74)
		Sevilla 2nd	22-Jun (173)	29-Jun (180)
		Thiva	21-Aug (233)	28-Aug (240)
Cabbage BBCH 11-49 2 × 250 g a.s./ha 7 days interval BBCH 49	Last application at BBCH 49, except when conflicting with the PHI (AppDate 3.06)	Châteaudun 1st [a]	1-Jul (182)	8-Jul (189)
		Châteaudun 2nd [a]	1-Oct (274)	8-Oct (281)
		Hamburg 1st [a]	1-Jul (182)	8-Jul (189)
		Hamburg 2nd [a]	1-Oct (274)	8-Oct (281)
		Jokioinen [a]	6-Sep (249)	13-Sep (256)
		Kremsmünster 1st [a]	1-Jul (182)	8-Jul (189)
		Kremsmünster 2nd [a]	1-Oct (274)	8-Oct (281)
		Porto 1st [a]	17-Jun (168)	24-Jun (175)
		Porto 2nd	31-Oct (304)	7-Nov (311)
		Sevilla 1st [a]	18-May (138)	25-May (145)
		Sevilla 2nd [a]	1-Sep (244)	8-Sep (251)
		Thiva [a]	16-Nov (320)	23-Nov (327)
Tomatoes 2 × 250 g a.s./ha BBCH 11 - 89 7 days interval BBCH 11	First application at BBCH 11 (AppDate 3.06)	Châteaudun	13-May (133)	20-May (140)
		Piacenza	13-May (133)	20-May (140)
		Porto	19-Mar (78)	26-Mar (85)
		Sevilla	17-Apr (107)	24-Apr (114)
		Thiva	13-Apr (103)	20-Apr (110)
Tomatoes 2 × 250 g a.s./ha		Châteaudun	15-Jun (166)	22-Jun (173)
		Piacenza	15-Jun (166)	22-Jun (173)

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
BBCH 11 - 89 7 days interval BBCH 51	First application at BBCH 51 (AppDate 3.06)	Porto	19-May (139)	26-May (146)
		Sevilla	17-May (137)	24-May (144)
		Thiva	15-May (135)	22-May (142)
Tomatoes 2 × 250 g a.s./ha BBCH 11 - 81 7 days interval BBCH 81	Last application at BBCH 81 (AppDate 3.06)	Châteaudun	01-Aug (213)	08-Aug (220)
		Piacenza	01-Aug (213)	08-Aug (220)
		Porto	01-Aug (213)	08-Aug (220)
		Sevilla	14-Jun (165)	21-Jun (172)
		Thiva	03-Aug (215)	10-Aug (222)
Tomatoes 2 × 250 g a.s./ha BBCH 11 - 89 7 days interval BBCH 89	Last application at BBCH 89, except when conflicting with the PHI (AppDate 3.06)	Châteaudun [a]	15-Aug (227)	22-Aug (234)
		Piacenza [a]	15-Aug (227)	22-Aug (234)
		Porto	21-Aug (233)	28-Aug (240)
		Sevilla [a]	21-Jun (172)	28-Jun (179)
		Thiva	31-Aug (243)	7-Sep (250)
Onions 2 × 250 g a.s./ha BBCH 11 - 49 12 days interval BBCH 11	First application at BBCH 11 (AppDate 3.06)	Châteaudun	3-May (123)	15-May (135)
		Hamburg	3-May (123)	15-May (135)
		Jokioinen	25-May (145)	6-Jun (157)
		Kremsmünster	3-May (123)	15-May (135)
		Porto	9-Mar (68)	21-Mar (80)
		Thiva	18-Apr (108)	30-Apr (120)
Onions 2 × 250 g a.s./ha BBCH 41 - 49 12 days interval BBCH 41	First application at BBCH 41, except when conflicting with the PHI (AppDate 3.06)	Châteaudun	6-Jul (187)	18-Jul (199)
		Hamburg	6-Jul (187)	18-Jul (199)
		Jokioinen	30-Jun (181)	12-Jul (193)
		Kremsmünster	6-Jul (187)	18-Jul (199)
		Porto [a]	12-May (132)	24-May (144)
		Thiva [a]	11-Jun (162)	23-Jun (174)
Onions 2 × 250 g a.s./ha BBCH 11 - 49 12 days interval BBCH 49	Last application at BBCH 49, except when conflicting with the PHI (AppDate 3.06)	Châteaudun [a]	13-Aug (225)	25-Aug (237)
		Hamburg [a]	13-Aug (225)	25-Aug (237)
		Jokioinen [a]	27-Jul (208)	8-Aug (220)
		Kremsmünster [a]	13-Aug (225)	25-Aug (237)
		Porto [a]	12-May (132)	24-May (144)
		Thiva [a]	11-Jun (162)	23-Jun (174)
Vines 2 × 250 g a.s./ha BBCH 21 - 89 12 days interval BBCH 21	First application at BBCH 19[b] (AppDate 3.06)	Châteaudun	8-May (128)	20-May (140)
		Hamburg	24-May (144)	5-Jun (156)
		Kremsmünster	24-May (144)	5-Jun (156)
		Piacenza	8-May (128)	20-May (140)
		Porto	26-Apr (116)	8-May (128)

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
		Sevilla	24-Apr (114)	6-May (126)
		Thiva	17-Apr (107)	29-Apr (119)
Vines 2 × 250 g a.s./ha BBCH 21 - 89 12 days interval BBCH 60	First application at BBCH 60 (AppDate 3.06)	Châteaudun	21-Jun (172)	3-Jul (184)
		Hamburg	20-Jun (171)	2-Jul (183)
		Kremsmünster	20-Jun (171)	2-Jul (183)
		Piacenza	21-Jun (172)	3-Jul (184)
		Porto	15-Jun (166)	27-Jun (178)
		Sevilla	21-May (141)	2-Jun (153)
		Thiva	26-May (146)	7-Jun (158)
Vines 2 × 250 g a.s./ha BBCH 21 - 89 12 days interval BBCH 89	Last application at BBCH 89, except when conflicting with the PHI (AppDate 3.06)	Châteaudun [a]	6-Oct (279)	18-Oct (291)
		Hamburg [a]	4-Oct (277)	16-Oct (289)
		Kremsmünster [a]	4-Oct (277)	16-Oct (289)
		Piacenza [a]	6-Oct (279)	18-Oct (291)
		Porto [a]	4-Sep (242)	16-Sep (259)
		Sevilla [a]	4-Nov (308)	16-Nov (320)
		Thiva [a]	24-Sep (267)	6-Oct (279)

Numbers in brackets are corresponding Julian day numbers used for MACRO simulations
[a] last application on harvest date minus PHI
[b] the growth stage BBCH 21 is not defined in AppDate 3.06, thus BBCH 19 was chosen instead

For cabbage, two potential growing seasons per year are defined in five out of seven FOCUS scenarios. In these scenarios two simulation options were considered:

- The first and second possible crop cycles simulated separately i.e. one application per year for the single application and two applications per year for the twofold applications
- Both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application and four applications per year for the twofold applications

The input parameters of azoxystrobin and its metabolites R234886, R402173 and R401553 used in the modelling are shown in Table A 17, below. All other input values were set at the default values unless otherwise stated.

A schematic diagram of the modelled route of degradation of azoxystrobin in soil is shown in Figure A 3. The degradation mechanism of azoxystrobin in soil occurs via microbial and photolytic processes. Modelling of the three metabolites, which form via the different degradation mechanisms (microbial action and photolytic action) cannot be undertaken in a single simulation. Therefore, calculations were performed separately for the two degradation pathways. The first calculations assumed that azoxystrobin degraded to R234886 with a formation fraction of 0.874 (EFSA, 2010). The second assumed that azoxystrobin degraded to form R401553 and R402173 (subsequently degrading to R401553) with formation fractions of 0.385 for R402173 and 0.392 for R401553 (EFSA, 2010). Added together, the overall formation fraction for the metabolites in total is greater than one, which indicates that this approach is a conservative implementation of the metabolic pathway for azoxystrobin. In addition, the microbial pathway was simulated with two sets of parameters (for alkaline and acidic soils) in order to account for the pH-dependent degradation and sorption of R234886. Therefore, simulations were performed separately with three model runs for each application scenario:

- **Run 1**: microbial action: azoxystrobin to R234886 (acidic soil parameters).
- **Run 2**: microbial action: azoxystrobin to R234886 (alkaline soil parameters).
- **Run 3**: photolytic action azoxystrobin to R402173 and R401553.

Since the complex degradation scheme of azoxystrobin cannot be implemented in the GUI of MACRO, all metabolites were assumed to form directly from azoxystrobin. For this purpose, the formation fraction of the secondary metabolite (R401553), which is formed from parent and from R402173, was corrected for the formation of preceding metabolite, e.g.:

$FF(tot)_{P\rightarrow R401553} = FF_{P\rightarrow R402173} \times FF_{R402173\rightarrow R401553} + FF_{P\rightarrow R401553}$

With:

$FF(tot)_{P\rightarrow R401553}$	= total formation fraction from parent to secondary metabolite R401553
$FF_{P\rightarrow R402173}$	= formation fraction for parent to primary metabolite R402173
$FF_{R402173\rightarrow R401553}$	= formation fraction from primary metabolite R402173 to secondary metabolite R401553
$FF_{P\rightarrow R401553}$	= formation fraction for parent to metabolite R401553

Additionally, molar based formation fractions have to be corrected for molar mass differences between metabolite and parent to get conversion fractions for MACRO.

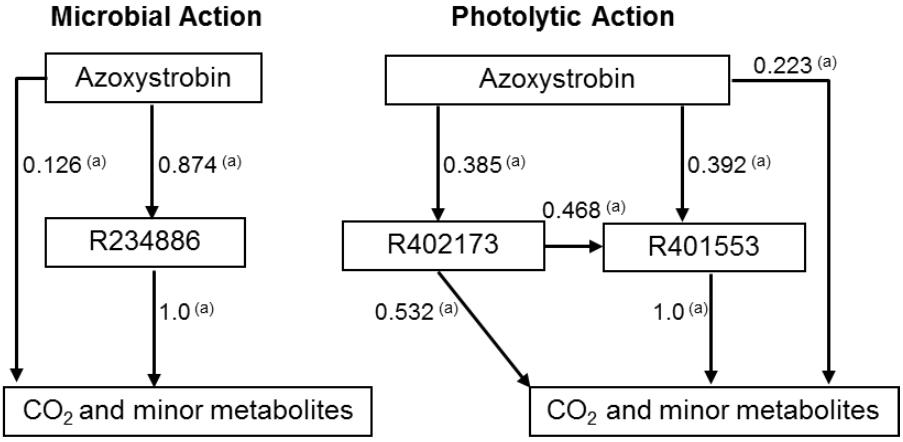
Table A 17: Summary of input parameters for azoxystrobin, R234886, R402173 and R401553 for PEC_{GW} calculations

Compound	Azoxystrobin	R234886	R402173	R401553	Value in accordance with EU endpoint / Reference
Molar mass (g/mol)	403.4	389.4	333.3	213.2	Yes / EFSA, 2010
Water solubility (mg/L)	6.0 (20°C)	57 (25°C)	61 (25°C)	560 (25°C)	Yes / EFSA, 2010
Saturated vapour pressure (Pa)	1.1×10^{-10}	0	0	0	Yes / EFSA, 2010
DT_{50} in soil (d)	**Microbial pathway:** 78[a*] (n = 2) **Photolytic pathway:** 2.55[b*] (n = 10) (geometric mean, field studies normalisation to pF2, 20°C with Q_{10} of 2.58)	**Acidic soils:** 98.6[**] (n = 5) **Alkaline soils:** 36.7[**] (n = 7) (geometric mean, lab studies, normalisation to pF2, 20°C with Q_{10} of 2.58)	4.7[*] (geometric mean, lab studies, normalisation to pF2, 20°C with Q_{10} of 2.58, n = 3)	1.1[*] (geometric mean, lab studies, normalisation to pF2, 20°C with Q_{10} of 2.58, n = 3)	[*]Yes / EFSA, 2010 [**]Yes / DAR, 2014[c]
Transformation rate	**Microbial pathway:** 0.007767 (to R234886)	**Acidic soils:** 0.007030 (to sink)	0.069020 (to R401553)	0.630134 (to sink)	Calculated for PELMO; (ln(2) / DT_{50}) × FFm

Compound	Azoxystrobin	R234886	R402173	R401553	Value in accordance with EU endpoint / Reference
	0.001120 (to sink) **Photolytic pathway:** 0.104652 (to R402173) 0.106554 (to R401553) 0.060616 (to sink)	**Alkaline soils:** 0.018887 (to sink)	0.078458 (to sink)		
K_{FOC} / K_{FOM} (mL/g)	392 / 227* (geometric mean, n = 6)	**Acidic soils:** 177 / 103** (geometric mean, n = 8) **Alkaline soils:** 34.8 / 20.2** (geometric mean, n = 7)	25 / 14.5*** (worst case, n = 6)	143 / 82.9* (geometric mean, n = 6)	*No [e] / EFSA, 2010 **No [e] / EFSA, 2010 & DAR, 2014[c] ***Yes / EFSA, 2010 $K_{FOM} = K_{FOC}$ / 1.724
1/n	0.86 (arithmetic mean, n = 6)	**Acidic soils:** 0.78 (arithmetic mean, n = 8) **Alkaline soils:** 0.83 (arithmetic mean, n = 7)	0.96 (relate to worst case K_{FOC})	0.85 (arithmetic mean, n = 6)	Yes / EFSA, 2010
Plant uptake factor	0.5*	0**	0**	0**	*Yes / DAR, 2014 & Weinfurtner, 2013 **Yes / DAR, 2014[b]
Formation fraction	-	0.874 from parent	0.385 from parent	0.392 from parent 0.468 from R402173	Yes / EFSA, 2010
Conversion fraction	-	0.844 from parent	0.318 from parent	0.302[e] from parent	for MACRO; molar mass (metabolite)/molar mass (parent) × formation fraction

[a] calculated from the geometric mean of the soil incorporated field studies (80.2 days, n = 3) and the slow phase of the non-incorporated studies (75.9 days, n = 10)
[b] geometric mean, quick phase, field
[c] DAR (2014): Azoxystrobin: Addendum – Confirmatory Information. RMS United Kingdom. December 2014.
[d] Differs from the EFSA conclusion as the latest guideline (EFSA Journal 2014;12(5):3662) recommends the use of the geometric mean instead of the arithmetic mean or median. The individual values from which the geometric mean is calculated, are those established in azoxystrobin, EFSA Journal 2010; 8(4):1542 and DAR (2014)
[e] For the secondary metabolite R401553 the formation fraction was multiplied along the pathway; therefore 213.2/403.4 × ((0.385 × 0.468)+0.392)

Figure A 3: Schematic diagram of the modelled route of degradation of azoxystrobin



a – indicates the fraction of compound degraded via pathway.

A 3.5.2 Results and discussions

Predicted environmental concentrations for azoxystrobin and its metabolites R234886, R402173 and R401553 in groundwater (PEC_{GW}) were calculated for the use azoxystrobin on cabbage, tomatoes, onions, and vines in Europe in accordance with FOCUS guidelines (FOCUS, 2000, 2014, EC 2014).

The 80th percentile (at 1 m soil depth) PEC_{GW} values generated by the FOCUS PEARL, FOCUS PELMO and FOCUS MACRO simulations are given in Table A 18 to Table A 20. The overall maximum 80th percentile PEC_{GW} values are given in Table A 21.

Table A 18: PEC_{GW} for azoxystrobin, R234886, R402173 and R401553 (with FOCUS PEARL v4.4.4)

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (μg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
Cabbage[a] 1 × 250 g a.s./ha BBCH 09	Châteaudun 1st	< 0.001	< 0.001	0.946	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	1.14	< 0.001	< 0.001
	Hamburg 1st	< 0.001	0.050	2.58	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	0.061	2.97	0.003	< 0.001
	Jokioinen	< 0.001	< 0.001	1.26	< 0.001	< 0.001
	Kremsmünster 1st	< 0.001	0.010	1.60	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.013	1.81	< 0.001	< 0.001
	Porto 1st	< 0.001	0.003	0.951	< 0.001	< 0.001
	Porto 2nd	< 0.001	0.006	1.76	< 0.001	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.111	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.179	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.541	< 0.001	< 0.001
Cabbage[a] 2 × 250 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	0.005	1.85	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	0.007	2.22	< 0.001	< 0.001
	Hamburg 1st	< 0.001	0.161	4.67	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	0.202	5.33	0.010	< 0.001
	Jokioinen	< 0.001	< 0.001	2.47	< 0.001	< 0.001
	Kremsmünster 1st	< 0.001	0.052	2.83	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.064	3.16	0.003	< 0.001
	Porto 1st	< 0.001	0.016	1.74	< 0.001	< 0.001
	Porto 2nd	< 0.001	0.033	3.18	< 0.001	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.255	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.415	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	1.02	< 0.001	< 0.001
Cabbage[a] 2 × 250 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	0.450	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	0.455	< 0.001	< 0.001
	Hamburg 1st	< 0.001	0.010	1.40	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	0.013	1.39	0.033	0.002
	Jokioinen	< 0.001	< 0.001	0.554	0.007	< 0.001
	Kremsmünster 1st	< 0.001	0.001	0.867	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.002	0.797	0.006	< 0.001
	Porto 1st	< 0.001	< 0.001	0.696	< 0.001	< 0.001
	Porto 2nd	< 0.001	< 0.001	0.627	0.046	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.055	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.078	< 0.001	< 0.001

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
	Thiva	< 0.001	< 0.001	0.063	0.001	< 0.001
Cabbage[b] 1 × 250 g a.s./ha BBCH 09	Châteaudun	< 0.001	0.022	3.14	< 0.001	< 0.001
	Hamburg	< 0.001	0.362	7.43	0.004	< 0.001
	Jokioinen	< 0.001	< 0.001	1.26	< 0.001	< 0.001
	Kremsmünster	< 0.001	0.145	4.37	< 0.001	< 0.001
	Porto	< 0.001	0.065	3.44	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.521	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.541	< 0.001	< 0.001
Cabbage[b] 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	0.112	5.88	< 0.001	< 0.001
	Hamburg	< 0.001	1.03	13.2	0.013	< 0.001
	Jokioinen	< 0.001	< 0.001	2.47	< 0.001	< 0.001
	Kremsmünster	< 0.001	0.444	7.57	0.003	< 0.001
	Porto	< 0.001	0.220	6.14	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	1.13	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	1.02	< 0.001	< 0.001
Cabbage[b] 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	0.001	1.42	< 0.001	< 0.001
	Hamburg	< 0.001	0.102	3.71	0.034	0.002
	Jokioinen	< 0.001	< 0.001	0.554	0.007	< 0.001
	Kremsmünster	< 0.001	0.028	2.20	0.006	< 0.001
	Porto	< 0.001	0.009	1.79	0.045	< 0.001
	Sevilla	< 0.001	< 0.001	0.256	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.063	0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	0.001	1.20	< 0.001	< 0.001
	Piacenza	< 0.001	0.027	1.55	< 0.001	< 0.001
	Porto	< 0.001	0.002	1.09	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.157	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.317	< 0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	0.259	< 0.001	< 0.001
	Piacenza	< 0.001	< 0.001	0.445	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.341	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.028	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.073	< 0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 81	Châteaudun	< 0.001	< 0.001	0.292	< 0.001	< 0.001
	Piacenza	< 0.001	0.001	0.519	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.473	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.036	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.087	< 0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.310	< 0.001	< 0.001
	Piacenza	< 0.001	0.002	0.535	0.002	< 0.001
	Porto	< 0.001	< 0.001	0.492	0.002	< 0.001
	Sevilla	< 0.001	< 0.001	0.039	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.092	< 0.001	< 0.001
Onions 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	0.001	1.82	< 0.001	< 0.001
	Hamburg	< 0.001	0.251	5.88	< 0.001	< 0.001
	Jokioinen	< 0.001	< 0.001	2.74	< 0.001	< 0.001
	Kremsmünster	< 0.001	0.103	3.63	< 0.001	< 0.001
	Porto	< 0.001	0.012	1.87	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.653	< 0.001	< 0.001
Onions 2 × 250 g a.s./ha BBCH 41	Châteaudun	< 0.001	< 0.001	0.979	< 0.001	< 0.001
	Hamburg	< 0.001	0.093	3.62	0.001	< 0.001
	Jokioinen	< 0.001	< 0.001	1.50	< 0.001	< 0.001
	Kremsmünster	< 0.001	0.031	2.22	0.001	< 0.001
	Porto	< 0.001	0.002	1.31	< 0.001	< 0.001

Crop	Scenario	80[th] Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
	Thiva	< 0.001	< 0.001	0.488	< 0.001	< 0.001
Onions 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	1.08	< 0.001	< 0.001
	Hamburg	< 0.001	0.102	3.71	0.010	< 0.001
	Jokioinen	< 0.001	< 0.001	1.52	0.006	< 0.001
	Kremsmünster	< 0.001	0.033	2.23	0.002	< 0.001
	Porto	< 0.001	0.002	1.31	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.488	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 21	Châteaudun	< 0.001	0.013	1.59	< 0.001	< 0.001
	Hamburg	< 0.001	0.040	2.22	< 0.001	< 0.001
	Kremsmünster	< 0.001	0.018	1.37	< 0.001	< 0.001
	Piacenza	< 0.001	0.025	1.40	< 0.001	< 0.001
	Porto	< 0.001	0.002	0.797	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.712	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.442	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 60	Châteaudun	< 0.001	0.013	1.65	< 0.001	< 0.001
	Hamburg	< 0.001	0.042	2.31	< 0.001	< 0.001
	Kremsmünster	< 0.001	0.019	1.41	< 0.001	< 0.001
	Piacenza	< 0.001	0.029	1.74	< 0.001	< 0.001
	Porto	< 0.001	0.002	1.01	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.730	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.464	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	0.002	0.819	0.001	< 0.001
	Hamburg	< 0.001	0.011	1.18	0.027	0.002
	Kremsmünster	< 0.001	0.004	0.695	0.007	< 0.001
	Piacenza	< 0.001	0.008	0.746	0.017	< 0.001
	Porto	< 0.001	< 0.001	0.675	0.004	< 0.001
	Sevilla	< 0.001	< 0.001	0.328	0.005	< 0.001
	Thiva	< 0.001	< 0.001	0.307	0.002	< 0.001

[a] the first and second possible crop cycles simulated separately i.e. one application per year for the single application and two applications per year for the twofold applications
[b] both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application and four applications per year for the twofold applications

Table A 19: PEC$_{GW}$ for azoxystrobin, R234886, R402173 and R401553 (with FOCUS PELMO v5.5.3)

Crop	Scenario	80th Percentile PEC$_{GW}$ at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
Cabbage[a] 1 × 250 g a.s./ha BBCH 09	Châteaudun 1st	< 0.001	< 0.001	0.724	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	0.866	< 0.001	< 0.001
	Hamburg 1st	< 0.001	0.018	2.55	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	0.025	3.04	0.004	< 0.001
	Jokioinen	< 0.001	< 0.001	1.20	< 0.001	< 0.001
	Kremsmünster 1st	< 0.001	0.005	1.56	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.007	1.76	0.002	< 0.001
	Porto 1st	< 0.001	0.011	1.32	< 0.001	< 0.001
	Porto 2nd	< 0.001	0.020	2.17	< 0.001	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.064	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.115	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.536	< 0.001	< 0.001
Cabbage[a] 2 × 250 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	0.001	1.40	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	0.002	1.69	0.001	< 0.001
	Hamburg 1st	< 0.001	0.077	4.62	< 0.001	< 0.001
	Hamburg 2nd	< 0.001	0.101	5.41	0.013	< 0.001
	Jokioinen	< 0.001	< 0.001	2.38	0.001	< 0.001
	Kremsmünster 1st	< 0.001	0.032	2.76	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.041	3.08	0.005	< 0.001
	Porto 1st	< 0.001	0.051	2.36	< 0.001	< 0.001
	Porto 2nd	< 0.001	0.088	3.78	0.001	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.144	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.251	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	1.08	< 0.001	< 0.001
Cabbage[a] 2 × 250 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	0.340	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	< 0.001	0.328	0.001	< 0.001
	Hamburg 1st	< 0.001	0.003	1.35	0.001	< 0.001
	Hamburg 2nd	< 0.001	0.004	1.34	0.052	0.002
	Jokioinen	< 0.001	< 0.001	0.526	0.019	< 0.001
	Kremsmünster 1st	< 0.001	0.001	0.843	< 0.001	< 0.001
	Kremsmünster 2nd	< 0.001	0.001	0.774	0.016	< 0.001
	Porto 1st	< 0.001	0.002	0.917	< 0.001	< 0.001
	Porto 2nd	< 0.001	0.003	0.846	0.084	< 0.001
	Sevilla 1st	< 0.001	< 0.001	0.037	< 0.001	< 0.001
	Sevilla 2nd	< 0.001	< 0.001	0.054	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.071	0.005	< 0.001
Cabbage[b] 1 × 250 g a.s./ha BBCH 09	Châteaudun	< 0.001	0.006	2.36	< 0.001	< 0.001
	Hamburg	< 0.001	0.196	7.39	0.005	< 0.001
	Jokioinen	< 0.001	< 0.001	1.20	< 0.001	< 0.001
	Kremsmünster	< 0.001	0.097	4.27	0.002	< 0.001
	Porto	< 0.001	0.149	4.35	0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.309	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.535	< 0.001	< 0.001
Cabbage[b] 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	0.041	4.42	0.001	< 0.001
	Hamburg	0.001	0.608	13.0	0.018	< 0.001
	Jokioinen	< 0.001	< 0.001	2.38	0.001	< 0.001
	Kremsmünster	< 0.001	0.321	7.39	0.005	< 0.001
	Porto	0.001	0.455	7.50	0.002	< 0.001
	Sevilla	< 0.001	< 0.001	0.679	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	1.08	< 0.001	< 0.001
	Châteaudun	< 0.001	0.001	1.06	0.001	< 0.001

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
Cabbage[b] 2 × 250 g a.s./ha BBCH 49	Hamburg	< 0.001	0.047	3.75	0.054	0.002
	Jokioinen	< 0.001	< 0.001	0.526	0.019	< 0.001
	Kremsmünster	< 0.001	0.015	2.14	0.016	< 0.001
	Porto	< 0.001	0.032	2.24	0.084	< 0.001
	Sevilla	< 0.001	< 0.001	0.167	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.071	0.005	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	0.772	< 0.001	< 0.001
	Piacenza	< 0.001	0.030	1.85	< 0.001	< 0.001
	Porto	< 0.001	0.005	1.21	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.062	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.229	< 0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	0.159	< 0.001	< 0.001
	Piacenza	< 0.001	0.002	0.508	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.390	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.007	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.045	< 0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 81	Châteaudun	< 0.001	< 0.001	0.172	< 0.001	< 0.001
	Piacenza	< 0.001	0.002	0.607	< 0.001	< 0.001
	Porto	< 0.001	< 0.001	0.558	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.009	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.055	< 0.001	< 0.001
Tomatoes 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.183	< 0.001	< 0.001
	Piacenza	< 0.001	0.002	0.595	0.002	< 0.001
	Porto	< 0.001	< 0.001	0.575	0.002	< 0.001
	Sevilla	< 0.001	< 0.001	0.010	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.059	< 0.001	< 0.001
Onions 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	0.001	1.45	< 0.001	< 0.001
	Hamburg	< 0.001	0.123	5.38	< 0.001	< 0.001
	Jokioinen	< 0.001	< 0.001	2.50	0.001	< 0.001
	Kremsmünster	< 0.001	0.068	3.51	< 0.001	< 0.001
	Porto	< 0.001	0.042	3.15	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.309	< 0.001	< 0.001
Onions 2 × 250 g a.s./ha BBCH 41	Châteaudun	< 0.001	< 0.001	0.719	< 0.001	< 0.001
	Hamburg	< 0.001	0.038	3.50	0.001	< 0.001
	Jokioinen	< 0.001	< 0.001	1.33	0.002	< 0.001
	Kremsmünster	< 0.001	0.016	2.15	0.002	< 0.001
	Porto	< 0.001	0.012	2.06	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.204	< 0.001	< 0.001
Onions 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	0.817	< 0.001	< 0.001
	Hamburg	< 0.001	0.042	3.56	0.016	< 0.001
	Jokioinen	< 0.001	< 0.001	1.35	0.009	< 0.001
	Kremsmünster	< 0.001	0.018	2.14	0.005	< 0.001
	Porto	< 0.001	0.012	2.06	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.204	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 21	Châteaudun	< 0.001	0.006	1.35	< 0.001	< 0.001
	Hamburg	< 0.001	0.029	2.35	< 0.001	< 0.001
	Kremsmünster	< 0.001	0.027	1.66	0.001	< 0.001
	Piacenza	< 0.001	0.053	1.71	< 0.001	< 0.001
	Porto	< 0.001	0.006	1.07	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.312	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.325	< 0.001	< 0.001
	Châteaudun	< 0.001	0.006	1.35	< 0.001	< 0.001
	Hamburg	< 0.001	0.030	2.47	0.001	< 0.001

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
Vines 2 × 250 g a.s./ha BBCH 60	Kremsmünster	< 0.001	0.028	1.69	0.001	< 0.001
	Piacenza	< 0.001	0.054	1.84	< 0.001	< 0.001
	Porto	< 0.001	0.007	1.30	< 0.001	< 0.001
	Sevilla	< 0.001	< 0.001	0.308	< 0.001	< 0.001
	Thiva	< 0.001	< 0.001	0.306	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	0.001	0.787	0.002	< 0.001
	Hamburg	< 0.001	0.007	1.22	0.047	0.001
	Kremsmünster	< 0.001	0.006	0.837	0.014	< 0.001
	Piacenza	< 0.001	0.021	0.901	0.059	0.002
	Porto	< 0.001	0.003	0.955	0.007	< 0.001
	Sevilla	< 0.001	< 0.001	0.151	0.011	< 0.001
	Thiva	< 0.001	< 0.001	0.270	0.007	< 0.001

[a] the first and second possible crop cycles simulated separately i.e. one application per year for the single application and two applications per year for the twofold applications

[b] both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application and four applications per year for the twofold applications

Table A 20: PEC_{GW} for azoxystrobin, R234886, R402173 and R401553 (with FOCUS MACRO v5.5.4)

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (μg/L)				
		Azoxystrobin	R234886		R402173	R401553
			Acidic	Alkaline		
Cabbage[d], 1 × 250 g a.s./ha BBCH 09	Châteaudun 1st	< 0.001	0.007	0.938	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	0.024	1.41	< 0.001	< 0.001
Cabbage[ad], 2 × 250 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	0.033	1.75	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	0.103	2.67	0.002	< 0.001
Cabbage[ad], 2 × 250 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	0.003	0.565	< 0.001	< 0.001
	Châteaudun 2nd	< 0.001	0.003	0.533	0.007	< 0.001
Cabbage[bd], 1 × 250 g a.s./ha BBCH 09	Châteaudun	< 0.001	0.132	3.18	< 0.001	< 0.001
Cabbage[cd], 2 × 250 g a.s./ha BBCH 11	Châteaudun	0.002	0.429	5.82	0.002	< 0.001
Cabbage[cd], 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	0.029	1.55	0.007	<0.001
Tomatoes[e], 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	0.001	0.784	< 0.001	< 0.001
Tomatoes[e], 2 × 250 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	0.206	< 0.001	< 0.001
Tomatoes[e], 2 × 250 g a.s./ha BBCH 81	Châteaudun	< 0.001	< 0.001	0.218	< 0.001	< 0.001
Tomatoes[e], 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.226	< 0.001	< 0.001
Onions[f], 2 × 250 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	1.59	< 0.001	< 0.001
Onions[f], 2 × 250 g a.s./ha BBCH 41	Châteaudun	< 0.001	< 0.001	0.747	< 0.001	< 0.001
Onions[f], 2 × 250 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	1.06	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 21	Châteaudun	< 0.001	< 0.001	0.579	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 60	Châteaudun	< 0.001	< 0.001	0.616	< 0.001	< 0.001
Vines 2 × 250 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	0.340	0.003	< 0.001

[a] the first and second possible crop cycles simulated separately i.e. two applications per year
[b] both possible crop cycles considered within one simulation run, i.e. two applications per year
[c] both possible crop cycles considered within one simulation run, i.e. four applications per year

[d] vegetables, leafy in MACRO v5.5.4
[e] vegetables, fruiting in MACRO v5.5.4
[f] vegetables, bulb in MACRO v5.5.4

Table A 21: Summary of maximum PEC_{GW} across all models for azoxystrobin, R234886, R402173 and R401553

Substance		80th Percentile PEC_{GW} (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
Azoxystrobin		< 0.001	Cabbage	1 × 250[a]	09	All models	All scenarios
		< 0.001	Cabbage	2 × 250[a]	11 - 49	All models	All scenarios
		< 0.001	Cabbage	1 × 250[b]	09	All models	All scenarios
		0.002	Cabbage	2 × 250[b]	11 - 49	FOCUS MACRO v5.5.4	Chateaudun
		< 0.001	Tomatoes	2 × 250	11 - 89	All models	All scenarios
		< 0.001	Onions	2 × 250	11 - 49	All models	All scenarios
		< 0.001	Vines	2 × 250	21 - 89	All models	All scenarios
R234886	Acidic	0.061	Cabbage	1 × 250[a]	09	FOCUS PEARL v4.4.4	Hamburg, 2nd
		0.202	Cabbage	2 × 250[a]	11 - 49	FOCUS PEARL v4.4.4	Hamburg, 2nd
		0.362	Cabbage	1 × 250[b]	09	FOCUS PEARL v4.4.4	Hamburg
		1.03	Cabbage	2 × 250[b]	11 - 49	FOCUS PEARL v4.4.4	Hamburg
		0.030	Tomatoes	2 × 250	11 - 89	FOCUS PELMO v5.5.3	Piacenza
		0.251	Onions	2 × 250	11 - 49	FOCUS PEARL v4.4.4	Hamburg
		0.054	Vines	2 × 250	21 - 89	FOCUS PELMO v5.5.3	Piacenza
	Alkaline	3.04	Cabbage	1 × 250[a]	09	FOCUS PELMO v5.5.3	Hamburg, 2nd
		5.41	Cabbage	2 × 250[a]	11 - 49	FOCUS PELMO v5.5.3	Hamburg, 2nd
		7.43	Cabbage	1 × 250[b]	09	FOCUS PEARL v4.4.4	Hamburg
		13.2	Cabbage	2 × 250[b]	11 - 49	FOCUS PEARL v4.4.4	Hamburg
		1.85	Tomatoes	2 × 250	11 - 89	FOCUS PELMO v5.5.3	Piacenza
		5.88	Onions	2 × 250	11 - 49	FOCUS PEARL v4.4.4	Hamburg
		2.47	Vines	2 × 250	21 - 89	FOCUS PELMO v5.5.3	Hamburg
R402173		0.004	Cabbage	1 × 250[a]	09	FOCUS PELMO v5.5.3	Hamburg, 2nd
		0.084	Cabbage	2 × 250[a]	11 - 49	FOCUS PELMO v5.5.3	Porto, 2nd
		0.005	Cabbage	1 × 250[b]	09	FOCUS PELMO v5.5.3	Hamburg
		0.084	Cabbage	2 × 250[b]	11 - 49	FOCUS PELMO v5.5.3	Porto

Substance	80th Percentile PEC_{GW} (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
	0.002	Tomatoes	2 × 250	11 - 89	FOCUS PEARL v4.4.4/FOCUS PELMO v.5.5.3	Piacenza Porto
	0.016	Onions	2 × 250	11 - 49	FOCUS PELMO v5.5.3	Hamburg
	0.059	Vines	2 × 250	21 - 89	FOCUS PELMO v5.5.3	Piacenza
R401553	< 0.001	Cabbage	1 × 250[a]	09	All models	All scenarios
	0.002	Cabbage	2 × 250[a]	11 - 49	FOCUS PEARL v4.4.4/FOCUS PELMO v5.5.3	Hamburg, 2nd
	< 0.001	Cabbage	1 × 250[b]	09	All models	All scenarios
	0.002	Cabbage	2 × 250[b]	11 - 49	FOCUS PEARL v4.4.4/FOCUS PELMO v5.5.3	Hamburg
	< 0.001	Tomatoes	2 × 250	11 - 89	All models	All scenarios
	< 0.001	Onions	2 × 250	11 - 49	All models	All scenarios
	0.002	Vines	2 × 250	21 - 89	FOCUS PELMO v5.5.3	Piacenza

[a] the first and second possible crop cycles simulated separately i.e. one application per year for the single application and two applications per year for the twofold applications
[b] both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application and four applications per year for the twofold applications

A 3.6 KCP 9.2.4: Anagu, I. & Bo, Y., 2021, Oxathiapiprolin PEC_{GW} following application to various crops - Arithmetic Mean Sorption Endpoints

Comments of zRMS:	All input parameters for oxathiapiprolin and its metabolites were considered acceptable as they followed the EFSA conclusion and LoEP or corresponded to standard default values. Thus, the zRMS considers the presented PEC_{gw} calculations acceptable for the parent and its metabolites.

Reference:	KCP 9.2.4.
Report	Oxathiapiprolin - A Leaching Assessment for Parent and Metabolites IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 Using the PEARL 4.4.4, PELMO 5.5.3 and MACRO 5.5.4 Groundwater Models Following Spray Application to Various Crops Using EU Agreed Endpoints, Report No. 116223-5, (Syngenta File No VV-911806)
Guideline(s):	European Commission (2014). Assessing potential for movement of active substances and their metabolites to ground water in the EU. Report of the FOCUS ground water work group, EC document reference SANCO/13144/2010 version 3, 613 pp. FOCUS (2000). FOCUS groundwater scenarios in the EU review of active substances. Report of the FOCUS groundwater scenarios workgroup, EC document reference SANCO/321/2000 rev. 2, 202 pp. FOCUS (2014). Generic guidance for Tier 1 FOCUS ground water assessments, version 2.2. May 2014. 66 pp.
Deviations:	No
GLP:	Not applicable
Acceptability:	Yes/No/Supplementary

A 3.6.1 Materials and methods

This report describes a FOCUS groundwater modelling study that examined the potential for oxathiapiprolin and its metabolites IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 to reach groundwater following application to cabbage, tomatoes, onions, and vines. The FOCUS simulation models FOCUS PEARL (v4.4.4), FOCUS PELMO (v5.5.3) and MACRO (v5.5.4) were used in the modelling study.

Twofold applications at the rate of 12 g a.s./ha, were considered for all the modelled crops. Applications starting from approximately BBCH 11 were considered for cabbage, tomatoes and onions with an interval of 7 days between applications for cabbage and tomatoes as well as 12 days for onions. For vines, applications starting from approximately BBCH 21 with an interval of 12 days between applications were considered. Due to the wide BBCH range, simulations were carried out for possible applications at early (BBCH 11 or 21), intermediate (BBCH 51 or 60) and late (BBCH 49 or 89) stages, depending on the crop. The input parameters relating to application are shown below.

Table A 22: Application patterns of oxathiapiprolin to various crops used in the modelling

Use number	PL-54	PL-59	-	-
Crop	Cabbage	Tomatoes	Onions	Vines[a]
Application rate (g a.s./ha)	12	12	12	12

Number of applications / interval (d)	2 / 7		2 / 7			2 / 12		2 / 12		
PHI	7		3			7		14		
BBCH growth stage	11	49	11	51	89	11	49	21	60	89
Crop interception (%)[b]	25 + 25	70 + 70	50 + 50	80 + 80	80 + 80	10 + 10	40 + 40	60 + 60	60 + 60	75 + 75
Frequency of application	Annual									
Models used for calculation	FOCUS PEARL v4.4.4, FOCUS PELMO v5.5.3, MACRO v5.5.4									

[a] vines was used as a surrogate crop for hops
[b] according to EFSA (2014)

Applications were considered for the FOCUS scenarios defined for each of the modelled FOCUS crops. The dates were selected with the tool AppDate (v3.06) based on the BBCH growth stages given in the recommended GAP. For the late applications, because some of the application dates suggested by the AppDate tool were later than the given pre-harvest interval (PHI), the end of the application window was set to be the harvest date minus the PHI for the affected scenarios. Simulations were carried out using the FOCUS standard crops 'cabbage', 'tomatoes', 'onions' and 'vines' in FOCUS PEARL and PELMO. The FOCUS standard crops 'vegetables, leafy' (cabbage), 'vegetables, fruiting' (tomatoes), 'vegetables, bulb' (onions), and 'vines' were used in FOCUS MACRO. Simulations were carried out over 26 years, as proposed by FOCUS for pesticides that are applied annually. The first 6 years are intended to be a 'warm up' period, thus the following 20 years were taken into account for the assessment of the leaching behaviour. Application dates are presented in the table below.

Table A 23: Application dates of oxathiapiprolin to cabbage, tomatoes, onions and vines used in modelling

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
Cabbage BBCH 11-49 2 × 12 g a.s./ha 7 days interval BBCH 11	First application on BBCH 11 (AppDate 3.06)	Châteaudun 1st	25-Apr (115)	2-May (122)
		Châteaudun 2nd	5-Aug (217)	12-Aug (224)
		Hamburg 1st	25-Apr (115)	2-May (122)
		Hamburg 2nd	5-Aug (217)	12-Aug (224)
		Jokioinen	1-Jun (152)	8-Jun (159)
		Kremsmünster 1st	25-Apr (115)	2-May (122)
		Kremsmünster 2nd	5-Aug (217)	12-Aug (224)
		Porto 1st	9-Mar (68)	16-Mar (75)
		Porto 2nd	4-Aug (216)	11-Aug (223)
		Sevilla 1st	8-Mar (67)	15-Mar (74)
		Sevilla 2nd	22-Jun (173)	29-Jun (180)
		Thiva	21-Aug (233)	28-Aug (240)
Cabbage BBCH 11-49 2 × 12 g a.s./ha 7 days interval BBCH 49	Last application on BBCH 49, except when conflicting with the PHI (AppDate 3.06)	Châteaudun 1st [a]	1-Jul (182)	8-Jul (189)
		Châteaudun 2nd [a]	1-Oct (274)	8-Oct (281)
		Hamburg 1st [a]	1-Jul (182)	8-Jul (189)
		Hamburg 2nd [a]	1-Oct (274)	8-Oct (281)

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
		Jokioinen [a]	6-Sep (249)	13-Sep (256)
		Kremsmünster 1st [a]	1-Jul (182)	8-Jul (189)
		Kremsmünster 2nd [a]	1-Oct (274)	8-Oct (281)
		Porto 1st [a]	17-Jun (168)	24-Jun (175)
		Porto 2nd	31-Oct (304)	7-Nov (311)
		Sevilla 1st [a]	18-May (138)	25-May (145)
		Sevilla 2nd [a]	1-Sep (244)	8-Sep (251)
		Thiva [a]	16-Nov (320)	23-Nov (327)
Tomatoes 2 × 12 g a.s./ha BBCH 11 - 89 7 days interval BBCH 11	First application on BBCH 11 (AppDate 3.06)	Châteaudun	13-May (133)	20-May (140)
		Piacenza	13-May (133)	20-May (140)
		Porto	19-Mar (78)	26-Mar (85)
		Sevilla	17-Apr (107)	24-Apr (114)
		Thiva	13-Apr (103)	20-Apr (110)
Tomatoes 2 × 12 g a.s./ha BBCH 11 - 89 7 days interval BBCH 51	First application on BBCH 51 (AppDate 3.06)	Châteaudun	15-Jun (166)	22-Jun (173)
		Piacenza	15-Jun (166)	22-Jun (173)
		Porto	19-May (139)	26-May (146)
		Sevilla	17-May (137)	24-May (144)
		Thiva	15-May (135)	22-May (142)
Tomatoes 2 × 12 g a.s./ha BBCH 11 - 89 7 days interval BBCH 89	Last application on BBCH 89, except when conflicting with the PHI (AppDate 3.06)	Châteaudun [a]	15-Aug (227)	22-Aug (234)
		Piacenza [a]	15-Aug (227)	22-Aug (234)
		Porto	21-Aug (233)	28-Aug (240)
		Sevilla [a]	21-Jun (172)	28-Jun (179)
		Thiva	31-Aug (243)	7-Sep (250)
Onions 2 × 12 g a.s./ha BBCH 11 - 49 12 days interval BBCH 11	First application on BBCH 11 (AppDate 3.06)	Châteaudun	3-May (123)	15-May (135)
		Hamburg	3-May (123)	15-May (135)
		Jokioinen	25-May (145)	6-Jun (157)
		Kremsmünster	3-May (123)	15-May (135)
		Porto	9-Mar (68)	21-Mar (80)
		Thiva	18-Apr (108)	30-Apr (120)
Onions 2 × 12 g a.s./ha BBCH 11 - 49 12 days interval BBCH 49	Last application on BBCH 49, except when conflicting with the PHI (AppDate 3.06)	Châteaudun [a]	13-Aug (225)	25-Aug (237)
		Hamburg [a]	13-Aug (225)	25-Aug (237)
		Jokioinen [a]	27-Jul (208)	8-Aug (220)
		Kremsmünster [a]	13-Aug (225)	25-Aug (237)
		Porto [a]	12-May (132)	24-May (144)
		Thiva [a]	11-Jun (162)	23-Jun (174)
		Châteaudun	8-May (128)	20-May (140)

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
Vines 2 × 12 g a.s./ha BBCH 21 - 89 12 days interval BBCH 21	First application on BBCH 19[b] (AppDate 3.06)	Hamburg	24-May (144)	5-Jun (156)
		Kremsmünster	24-May (144)	5-Jun (156)
		Piacenza	8-May (128)	20-May (140)
		Porto	26-Apr (116)	8-May (128)
		Sevilla	24-Apr (114)	6-May (126)
		Thiva	17-Apr (107)	29-Apr (119)
Vines 2 × 12 g a.s./ha BBCH 21 - 89 12 days interval BBCH 60	First application on BBCH 60 (AppDate 3.06)	Châteaudun	21-Jun (172)	3-Jul (184)
		Hamburg	20-Jun (171)	2-Jul (183)
		Kremsmünster	20-Jun (171)	2-Jul (183)
		Piacenza	21-Jun (172)	3-Jul (184)
		Porto	15-Jun (166)	27-Jun (178)
		Sevilla	21-May (141)	2-Jun (153)
		Thiva	26-May (146)	7-Jun (158)
Vines 2 × 12 g a.s./ha BBCH 21 - 89 12 days interval BBCH 89	Last application on BBCH 89, except when conflicting with the PHI (AppDate 3.06)	Châteaudun [a]	6-Oct (279)	18-Oct (291)
		Hamburg [a]	4-Oct (277)	16-Oct (289)
		Kremsmünster [a]	4-Oct (277)	16-Oct (289)
		Piacenza [a]	6-Oct (279)	18-Oct (291)
		Porto [a]	4-Sep (242)	16-Sep (259)
		Sevilla [a]	4-Nov (308)	16-Nov (320)
		Thiva [a]	24-Sep (267)	6-Oct (279)

Numbers in brackets are corresponding Julian day numbers used for MACRO simulations
[a] last application on harvest date minus PHI
[b] the growth stage BBCH 21 is not defined in AppDate 3.06, thus BBCH 19 was chosen instead

For cabbage, two potential growing seasons per year are defined in five out of seven FOCUS scenarios. In these scenarios two simulation options were considered:

I. The first and second possible crop cycles simulated separately i.e. two applications per year
II. Both possible crop cycles considered within one simulation run, i.e. four applications per year

The input parameters of oxathiapiprolin and its metabolites IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 used in modelling are shown in Table A 24 and Table A 25, below. All other input values were set at the default values unless otherwise stated. A schematic diagram of the modelled route of degradation of oxathiapiprolin in soil is shown in Figure A 4.

Modelling of the four metabolites cannot be undertaken in a single simulation when using the FOCUS PELMO model. Therefore, calculations were performed separately for two degradation pathways (A and B). The degradation scheme used in FOCUS PELMO is presented in Figure A 5.

Since the complex degradation scheme of oxathiapiprolin cannot be implemented in the GUI of MACRO, all metabolites were assumed to form directly from oxathiapiprolin.

For this purpose, the formation fractions of the secondary metabolites (IN-E8S72 and IN-QPS10), which are formed from the parent and from the metabolites IN-RDT31 and IN-RAB06, respectively, were corrected for the formation of preceding metabolites, e.g.:

$FF(tot)_{P \rightarrow IN\text{-}E8S72} = FF_{P \rightarrow IN\text{-}E8S72} + (FF_{P \rightarrow IN\text{-}RDT31} \times FF_{IN\text{-}RDT31 \rightarrow IN\text{-}E8S72})$

With:

$FF(tot)_{P \rightarrow IN\text{-}E8S72}$	= total formation fraction from parent to secondary metabolite IN-E8S72
$FF_{P \rightarrow IN\text{-}E8S72}$	= formation fraction from parent to secondary metabolite IN-E8S72
$FF_{P \rightarrow IN\text{-}RDT31}$	= formation fraction from parent to primary metabolite IN-RDT31
$FF_{IN\text{-}RDT31 \rightarrow IN\text{-}E8S72}$	= formation fraction from primary metabolite IN-RDT31 to secondary metabolite IN-RDT31

Additionally, molar based formation fractions have to be corrected for molar mass differences between metabolite and parent to get conversion fractions for MACRO.

Table A 24: Summary of input parameters for oxathiapiprolin, IN-RDT31, and IN-RAB06, for PEC_{GW} calculations

Compound	Oxathiapiprolin	IN-RDT31	IN-RAB06	Value in accordance with EU endpoint / Reference
Molar mass (g/mol)	539.53*	555.53**	569.51**	Yes / EFSA, 2016
Water solubility (mg/L)	0.1844* (20°C)	0.1844** (20°C)	0.1844** (20°C)	*Yes / EFSA, 2016 **Parent data used for metabolite
Saturated vapour pressure (Pa)	1.141E-06* (20°C)	0** (20°C)	0** (20°C)	*Yes / EFSA, 2016 **worst case
DT_{50} in soil (d)	121.2 (geometric mean lab, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 6)	160 (geometric mean lab, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 6)	60.5 (geometric mean field and lab, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 12)	Yes / EFSA, 2016
Transformation rate	Pathway A: 0.004003 to IN-RDT31 0.001716 to IN-E8S72 Pathway B: 0.002288 to IN-RAB06 0.003431 to IN-QPS10	Pathway A: 0.001733 to IN-E8S72 0.002599 to sink	Pathway B: 0.011457 to IN- QPS10	Calculated for PELMO; (ln(2) / DT_{50}) * FFm
K_{FOC} / K_{FOM} (mL/g)	6242.6 / 3621 (arithmetic mean, n = 5)	1168.4 / 677.7 (arithmetic mean, n = 5)	495.6 / 287.5 (arithmetic mean, n = 5)	Yes / EFSA, 2016
1/n	0.97 (arithmetic mean, n = 5)	0.87 (arithmetic mean, n = 5)	0.89 (arithmetic mean, n = 5)	Yes / EFSA, 2016
Plant uptake factor	0	0	0	Worst-case assumption
Formation fraction	-	0.7	0.4	Yes / EFSA, 2016

Compound	Oxathiapiprolin	IN-RDT31	IN-RAB06	Value in accordance with EU endpoint / Reference
		from parent	from parent	
Conversion fraction	-	0.721 from parent	0.422 from parent	Calculated for MACRO; molar mass (metabolite) / molar mass (parent) x formation fraction

Table A 25: Summary of input parameters for IN-QPS10, and IN-E8S72, for PEC_{GW} calculations

Compound	IN-QPS10	IN-E8S72	Value in accordance with EU endpoint / Reference
Molar mass (g/mol)	349.41	180.09	Yes / DAR, 2015
Water solubility (mg/L)	0.1844** (20°C)	0.1844** (20°C)	**Parent data used for metabolite
Saturated vapour pressure (Pa)	0 (20°C)	0 (20°C)	worst case
DT_{50} in soil (d)	564.9 (geometric mean lab, acidic, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 2)	310.2 (geometric mean lab, normalisation to or pF2, 20 °C with Q_{10} of 2.58, n = 5)	Yes / EFSA, 2016
Transformation rate	Pathway B: 0.001227 to sink	Pathway A: 0.002235 to sink	Calculated for PELMO; (ln(2) / DT_{50}) * FFm
K_{FOC} / K_{FOM} (mL/g)	4880.2 / 2830.7 (arithmetic mean, n = 5)	7.33 / 4.25 (arithmetic mean, n = 5)	Yes / EFSA, 2016
1/n	0.92 (arithmetic mean, n = 5)	1 (arithmetic mean, n = 5)	Yes / EFSA, 2016
Plant uptake factor	0	0	Worst-case assumption
Formation fraction	0.6 from parent 1.0 from IN-RAB06	0.3 from parent 0.4 from IN-RDT31	Yes / EFSA, 2016
Conversion fraction	0.648[a] from parent	0.194[b] from parent	Calculated for MACRO; molar mass (metabolite) / molar mass (parent) x formation fraction

[a] for the secondary metabolite IN-QPS10 the formation fraction was multiplied along the pathway; therefore 349.41/539.53 × ((0.4 × 1.0)+0.6)

[b] for the secondary metabolite IN-E8S72 the formation fraction was multiplied along the pathway; therefore 180.09/539.53 × ((0.7× 0.4)+0.3)

Figure A 4: Schematic diagram of the modelled route of degradation of oxathiapiprolin

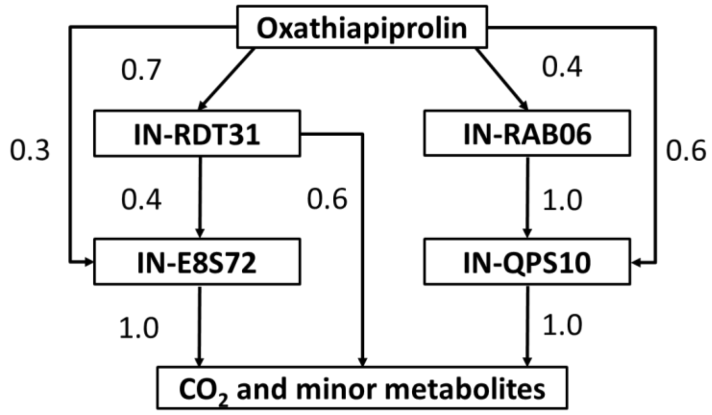
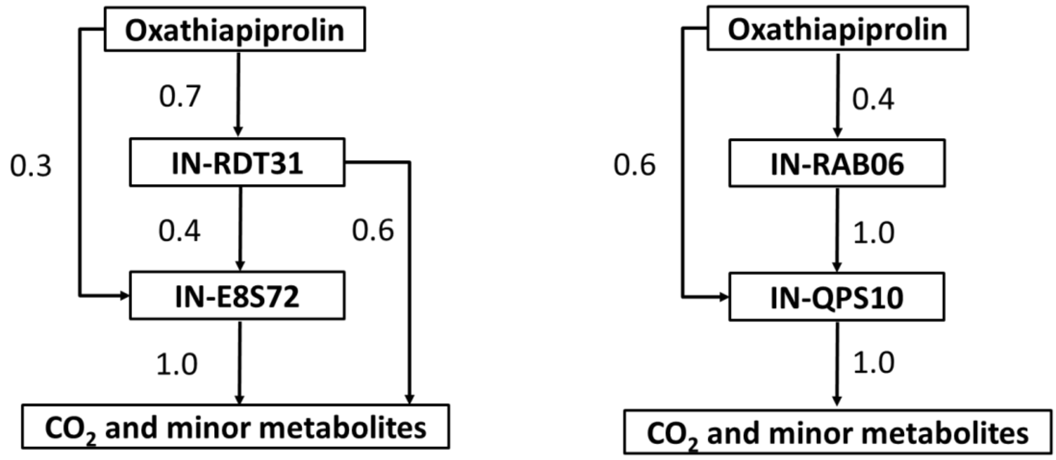


Figure A 5: Simulation pathways in groundwater for use in FOCUS OELMO model



Pathway A

Pathway B

A 3.6.2 Results and discussions

Predicted environmental concentrations for oxathiapiprolin and its metabolites IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 in groundwater (PEC_{GW}) were calculated for the use oxathiapiprolin on cabbage, tomatoes, onions, and vines in Europe in accordance with FOCUS guidelines (FOCUS, 2000, 2014, European Commission, 2014).

The 80th percentile (at 1 m soil depth) PEC_{GW} values generated by the FOCUS PEARL, FOCUS PELMO and MACRO simulations are given in Table A 26, Table A 27 and Table A 28. The overall maximum 80th percentile PEC_{GW} values are given in Table A 29.

Table A 26: PEC_{GW} for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 (with FOCUS PEARL v4.4.4)

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
Cabbage[a] 2 × 12 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.33
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.32
	Hamburg 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.54
	Hamburg 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.55
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	1.44
	Kremsmünster 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.888
	Kremsmünster 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.878
	Porto 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.607
	Porto 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.602
	Sevilla 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.51
	Sevilla 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.53
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.05
Cabbage[a] 2 × 12 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.527
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.534
	Hamburg 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.620
	Hamburg 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.618
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.569
	Kremsmünster 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.350
	Kremsmünster 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.357
	Porto 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.241
	Porto 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.234
	Sevilla 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.610
	Sevilla 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.598
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.406
Cabbage[b] 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	2.65
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	3.09
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	1.44
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	1.76
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	1.21
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	3.04
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.05
Cabbage[b] 2 × 12 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.06
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	1.24
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.569
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.702
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.476
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	1.20
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.406
	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.10
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.997

Crop	Scenario	80[th] Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
Tomatoes 2 × 12 g a.s./ha BBCH 11	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.488
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	1.10
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.43
Tomatoes 2 × 12 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.434
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.401
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.196
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.439
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.571
Tomatoes 2 × 12 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.441
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.408
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.193
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.439
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.562
Onions 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.83
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	1.71
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	1.39
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	1.01
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.734
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.93
Onions 2 × 12 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.21
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	1.14
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.916
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.672
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.485
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.30
Vines 2 × 12 g a.s./ha BBCH 21	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.678
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.581
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.373
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.711
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.294
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.615
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.19
Vines 2 × 12 g a.s./ha BBCH 60	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.672
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.582
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.373
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.727
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.297
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.614
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.18
Vines 2 × 12 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.423
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.362
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.231
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.451
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.184
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.381
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.728

[a] the first and second possible crop cycles simulated separately i.e. two applications per year
[b] both possible crop cycles considered within one simulation run, i.e. four applications per year

Table A 27: PEC_{GW} for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 (with FOCUS PELMO v5.5.3)

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
Cabbage[a] 2 × 12 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.22
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.20
	Hamburg 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.19
	Hamburg 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.18
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	1.29
	Kremsmünster 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.963
	Kremsmünster 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.953
	Porto 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.473
	Porto 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.467
	Sevilla 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.20
	Sevilla 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.16
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.924
Cabbage[a] 2 × 12 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.456
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.475
	Hamburg 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.466
	Hamburg 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.489
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.521
	Kremsmünster 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.380
	Kremsmünster 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.381
	Porto 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.164
	Porto 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.184
	Sevilla 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.394
	Sevilla 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.353
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.374
Cabbage[b] 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	2.42
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	2.36
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	1.29
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	1.92
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.940
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	2.36
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.923
Cabbage[b] 2 × 12 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.931
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.956
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.521
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.760
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.349
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.741
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.374
Tomatoes 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.995
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.689
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.415
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	1.20
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.967
Tomatoes 2 × 12 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.394
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.276
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.169
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.426
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.384
Tomatoes 2 × 12 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.375
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.249
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.152

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.241
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.326
Onions 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.54
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	1.34
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	1.36
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	1.06
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.747
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.31
Onions 2 × 12 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.961
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.899
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.909
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.701
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.484
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.798
Vines 2 × 12 g a.s./ha BBCH 21	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.645
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.654
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.424
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.414
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.326
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	1.05
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.20
Vines 2 × 12 g a.s./ha BBCH 60	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.632
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.652
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.422
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.413
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.326
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	1.03
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.19
Vines 2 × 12 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.392
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.423
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.265
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.257
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.193
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.622
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.693

[a] the first and second possible crop cycles simulated separately i.e. two applications per year
[b] both possible crop cycles considered within one simulation run, i.e. four applications per year

Table A 28: PEC_{GW} for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 (with FOCUS MACRO v5.5.4)

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
Cabbage[a,c], 2 × 12 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.931
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.933
Cabbage[a,c], 2 × 12 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.373
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.372

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
Cabbage[b,c], 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.86
Cabbage[b,c], 2 × 12 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.744
Tomatoes[d], 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.809
Tomatoes[d], 2 × 12 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.322
Tomatoes[d], 3 × 12 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.325
Onions[e], 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.38
Onions[e], 2 × 12 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.918
Vines 2 × 12 g a.s./ha BBCH 21	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.745
Vines 2 × 12 g a.s./ha BBCH 60	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.666
Vines 2 × 12 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.480

[a] the first and second possible crop cycles simulated separately i.e. two applications per year
[b] both possible crop cycles considered within one simulation run, i.e. four applications per year
[c] vegetables, leafy in the MACRO GUI
[d] vegetables, fruiting in the MACRO GUI
[e] vegetables, bulb in the MACRO GUI

Table A 29: Summary of maximum PEC_{GW} across all models for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72

Substance	80th Percentile PEC_{GW} (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
Oxathiapiprolin	< 0.001	Cabbage	2 × 12	11 - 49	All models	All scenarios
	< 0.001	Tomatoes	2 × 12	11 - 89	All models	All scenarios
	< 0.001	Onions	2 × 12	11 - 49	All models	All scenarios
	< 0.001	Vines	2 × 12	21 - 89	All models	All scenarios
IN-RDT31	< 0.001	Cabbage	2 × 12	11 - 49	All models	All scenarios
	< 0.001	Tomatoes	2 × 12	11 - 89	All models	All scenarios
	< 0.001	Onions	2 × 12	11 - 49	All models	All scenarios
	< 0.001	Vines	2 × 12	21 - 89	All models	All scenarios
IN-RAB06	< 0.001	Cabbage	2 × 12	11 - 49	All models	All scenarios
	< 0.001	Tomatoes	2 × 12	11 - 89	All models	All scenarios
	< 0.001	Onions	2 × 12	11 - 49	All models	All scenarios
	< 0.001	Vines	2 × 12	21 - 89	All models	All scenarios
IN-QPS10	< 0.001	Cabbage	2 × 12	11 - 49	All models	All scenarios
	< 0.001	Tomatoes	2 × 12	11 - 89	All models	All scenarios

Substance	80th Percentile PEC_{GW} (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
	< 0.001	Onions	2 × 12	11 - 49	All models	All scenarios
	< 0.001	Vines	2 × 12	21 - 89	All models	All scenarios
IN-E8S72	1.54	Cabbage	2 × 12[a]	11 - 49	FOCUS PEARL v4.4.4	Hamburg, 1st season
	3.09	Cabbage	2 × 12[b]	11 - 49	FOCUS PEARL v4.4.4	Hamburg
	1.43	Tomatoes	2 × 12	11 - 89	FOCUS PEARL v4.4.4	Thiva
	1.93	Onions	2 × 12	11 - 49	FOCUS PEARL v4.4.4	Thiva
	1.20	Vines	2 × 12	21 - 89	FOCUS PELMO v5.5.3	Thiva

[a] the first and second possible crop cycles simulated separately i.e. two applications per year
[b] both possible crop cycles considered within one simulation run, i.e. four applications per year

A 3.7 KCP 9.2.4: Anagu, I. & Bo, Y., 2021, Oxathiapiprolin PEC_{GW} following application to various crops Using Geometric Mean Sorption Endpoints

Comments of zRMS:	All input parameters for oxathiapiprolin and its metabolites were considered acceptable.

Reference:	KCP 9.2.4.
Report	Oxathiapiprolin - A Leaching Assessment for Parent and Metabolites IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 Using the PEARL 4.4.4, PELMO 5.5.3 and MACRO 5.5.4 Groundwater Models Following Spray Application to Various Crops Using Geometric Mean Sorption Endpoints Modelling Assessment, Report No. 116223-6, (Syngenta File No VV-911808)
Guideline(s):	European Commission (2014). Assessing potential for movement of active substances and their metabolites to ground water in the EU. Report of the FOCUS ground water work group, EC document reference SANCO/13144/2010 version 3, 613 pp. FOCUS (2000). FOCUS groundwater scenarios in the EU review of active substances. Report of the FOCUS groundwater scenarios workgroup, EC document reference SANCO/321/2000 rev. 2, 202 pp. FOCUS (2014). Generic guidance for Tier 1 FOCUS ground water assessments, version 2.2. May 2014. 66 pp.
Deviations:	No
GLP:	Not applicable
Acceptability:	Yes/No/Supplementary

A 3.7.1 Materials and methods

This report describes a FOCUS groundwater modelling study that examined the potential for oxathiapiprolin and its metabolites IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 to reach groundwater following application to cabbage, tomatoes, onions, and vines. The FOCUS simulation models FOCUS PEARL (v4.4.4), FOCUS PELMO (v5.5.3) and MACRO (v5.5.4) were used in the modelling study.

Twofold applications at the rate of 12 g a.s./ha, were considered for all the modelled crops. Applications starting from approximately BBCH 11 were considered for cabbage, tomatoes and onions with an interval of 7 days between applications for cabbage and tomatoes as well as 12 days for onions. For vines, applications starting from approximately BBCH 21 with an interval of 12 days between applications were considered. Due to the wide BBCH range, simulations were carried out for possible applications at early (BBCH 11 or 21), intermediate (BBCH 51 or 60) and late (BBCH 49 or 89) stages, depending on the crop. An additional single application at the rate of 12 g a.s.ha was considered for cabbage at BBCH 09. The input parameters relating to application are shown below.

Table A 30: Application patterns of oxathiapiprolin to cabbage, tomatoes, onions, and vines used in modelling

Use numbers	ES-75	ES-56, BG-68		ES-61 (covers ES-80)			
Crop	Cabbage	Cabbage		Tomatoes			
Application rate (g a.s./ha)	12	12		12			
Number of applications / interval (d)	1 / -	2 / 7		2 / 7			
PHI	7	7		3			
BBCH growth stage	09	11	49	11	51	81	89
Crop interception (%)[a]	0	25 + 25	70 + 70	50 + 50	80 + 80	80 + 80	80 + 80
Frequency of application	Annual						
Models used for calculation	FOCUS PEARL v4.4.4, FOCUS PELMO v5.5.3, MACRO v5.5.4						

Crop	Onions			Vines[b]		
Application rate (g a.s./ha)	12			12		
Number of applications / interval (d)	2 / 12			2 / 12		
PHI	7			14		
BBCH growth stage	11	41	49	21	60	89
Crop interception (%)[a]	10 + 10	40 + 40	40 + 40	60 + 60	60 + 60	75 + 75
Frequency of application	Annual					
Models used for calculation	FOCUS PEARL v4.4.4, FOCUS PELMO v5.5.3, MACRO v5.5.4					

[a] according to EFSA (2014)
[b] vines was used as surrogate model crop for hops

Applications were considered for the FOCUS scenarios defined for each of the modelled FOCUS crops. The dates were selected with the tool AppDate (v3.06) based on the BBCH growth stages given in the recommended GAP. For the late applications, because some of the application dates suggested by the AppDate tool were later than the given pre-harvest interval (PHI), the end of the application window was set to be the harvest date minus the PHI for the affected scenarios. Simulations were carried out using the FOCUS standard crops ‘cabbage’, ‘tomatoes’, ‘onions’ and ‘vines’ in FOCUS PEARL and PELMO. The FOCUS standard crops ‘vegetables, leafy’ (cabbage), ‘vegetables, fruiting’ (tomatoes), ‘vegetables, bulb’ (onions), and ‘vines’ were used in FOCUS MACRO. Simulations were carried out over 26 years, as proposed by FOCUS for pesticides that are applied annually. The first 6 years are intended to be a ‘warm up’ period, thus the following 20 years were taken into account for the assessment of the leaching behaviour. Application dates are presented in Table A 31, below.

Table A 31: Application dates of oxathiapiprolin to cabbage, tomatoes, onions, and vines used in modelling

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
Cabbage BBCH 09-13 1 × 12 g a.s./ha BBCH 09	First application on BBCH 09 (AppDate 3.06)	Châteaudun 1st	20-Apr (110)	-
		Châteaudun 2nd	31-Jul (212)	-
		Hamburg 1st	20-Apr (110)	-
		Hamburg 2nd	31-Jul (212)	-
		Jokioinen	20-May (140)	-
		Kremsmünster 1st	20-Apr (110)	-
		Kremsmünster 2nd	31-Jul (212)	-
		Porto 1st	28-Feb (59)	-

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
		Porto 2nd	31-Jul (212)	-
		Sevilla 1st	01-Mar (60)	-
		Sevilla 2nd	15-Jun (166)	-
		Thiva	15-Aug (227)	-
Cabbage BBCH 11-49 2 × 12 g a.s./ha 7 days interval BBCH 11	First application on BBCH 11 (AppDate 3.06)	Châteaudun 1st	25-Apr (115)	2-May (122)
		Châteaudun 2nd	5-Aug (217)	12-Aug (224)
		Hamburg 1st	25-Apr (115)	2-May (122)
		Hamburg 2nd	5-Aug (217)	12-Aug (224)
		Jokioinen	1-Jun (152)	8-Jun (159)
		Kremsmünster 1st	25-Apr (115)	2-May (122)
		Kremsmünster 2nd	5-Aug (217)	12-Aug (224)
		Porto 1st	9-Mar (68)	16-Mar (75)
		Porto 2nd	4-Aug (216)	11-Aug (223)
		Sevilla 1st	8-Mar (67)	15-Mar (74)
		Sevilla 2nd	22-Jun (173)	29-Jun (180)
		Thiva	21-Aug (233)	28-Aug (240)
Cabbage BBCH 11-49 2 × 12 g a.s./ha 7 days interval BBCH 49	Last application on BBCH 49, except when conflicting with the PHI (AppDate 3.06)	Châteaudun 1st [a]	1-Jul (182)	8-Jul (189)
		Châteaudun 2nd [a]	1-Oct (274)	8-Oct (281)
		Hamburg 1st [a]	1-Jul (182)	8-Jul (189)
		Hamburg 2nd [a]	1-Oct (274)	8-Oct (281)
		Jokioinen [a]	6-Sep (249)	13-Sep (256)
		Kremsmünster 1st [a]	1-Jul (182)	8-Jul (189)
		Kremsmünster 2nd [a]	1-Oct (274)	8-Oct (281)
		Porto 1st [a]	17-Jun (168)	24-Jun (175)
		Porto 2nd	31-Oct (304)	7-Nov (311)
		Sevilla 1st [a]	18-May (138)	25-May (145)
		Sevilla 2nd [a]	1-Sep (244)	8-Sep (251)
		Thiva [a]	16-Nov (320)	23-Nov (327)
Tomatoes 2 × 12 g a.s./ha BBCH 11 - 89 7 days interval BBCH 11	First application on BBCH 11 (AppDate 3.06)	Châteaudun	13-May (133)	20-May (140)
		Piacenza	13-May (133)	20-May (140)
		Porto	19-Mar (78)	26-Mar (85)
		Sevilla	17-Apr (107)	24-Apr (114)
		Thiva	13-Apr (103)	20-Apr (110)
Tomatoes 2 × 12 g a.s./ha BBCH 11 - 89	First application on BBCH 51 (AppDate 3.06)	Châteaudun	15-Jun (166)	22-Jun (173)
		Piacenza	15-Jun (166)	22-Jun (173)
		Porto	19-May (139)	26-May (146)

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
7 days interval BBCH 51		Sevilla	17-May (137)	24-May (144)
		Thiva	15-May (135)	22-May (142)
Tomatoes 2 × 12 g a.s./ha BBCH 11 - 81 7 days interval BBCH 81	Last application on BBCH 81 (AppDate 3.06)	Châteaudun	01-Aug (213)	08-Aug (220)
		Piacenza	01-Aug (213)	08-Aug (220)
		Porto	01-Aug (213)	08-Aug (220)
		Sevilla	14-Jun (165)	21-Jun (172)
		Thiva	03-Aug (215)	10-Aug (222)
Tomatoes 2 × 12 g a.s./ha BBCH 11 - 89 7 days interval BBCH 89	Last application on BBCH 89, except when conflicting with the PHI (AppDate 3.06)	Châteaudun [a]	15-Aug (227)	22-Aug (234)
		Piacenza [a]	15-Aug (227)	22-Aug (234)
		Porto	21-Aug (233)	28-Aug (240)
		Sevilla [a]	21-Jun (172)	28-Jun (179)
		Thiva	31-Aug (243)	7-Sep (250)
Onions 2 × 12 g a.s./ha BBCH 11 - 49 12 days interval BBCH 11	First application on BBCH 11 (AppDate 3.06)	Châteaudun	3-May (123)	15-May (135)
		Hamburg	3-May (123)	15-May (135)
		Jokioinen	25-May (145)	6-Jun (157)
		Kremsmünster	3-May (123)	15-May (135)
		Porto	9-Mar (68)	21-Mar (80)
		Thiva	18-Apr (108)	30-Apr (120)
Onions 2 × 12 g a.s./ha BBCH 41 - 49 12 days interval BBCH 41	First application on BBCH 41, except when conflicting with the PHI (AppDate 3.06)	Châteaudun	6-Jul (187)	18-Jul (199)
		Hamburg	6-Jul (187)	18-Jul (199)
		Jokioinen	30-Jun (181)	12-Jul (193)
		Kremsmünster	6-Jul (187)	18-Jul (199)
		Porto [a]	12-May (132)	24-May (144)
		Thiva [a]	11-Jun (162)	23-Jun (174)
Onions 2 × 12 g a.s./ha BBCH 11 - 49 12 days interval BBCH 49	Last application on BBCH 49, except when conflicting with the PHI (AppDate 3.06)	Châteaudun [a]	13-Aug (225)	25-Aug (237)
		Hamburg [a]	13-Aug (225)	25-Aug (237)
		Jokioinen [a]	27-Jul (208)	8-Aug (220)
		Kremsmünster [a]	13-Aug (225)	25-Aug (237)
		Porto [a]	12-May (132)	24-May (144)
		Thiva [a]	11-Jun (162)	23-Jun (174)
Vines 2 × 12 g a.s./ha BBCH 21 - 89 12 days interval BBCH 21	First application on BBCH 19[b] (AppDate 3.06)	Châteaudun	8-May (128)	20-May (140)
		Hamburg	24-May (144)	5-Jun (156)
		Kremsmünster	24-May (144)	5-Jun (156)
		Piacenza	8-May (128)	20-May (140)
		Porto	26-Apr (116)	8-May (128)
		Sevilla	24-Apr (114)	6-May (126)

Crop	Rationale	Scenario	Application dates (absolute)	
			1st application	2nd application
		Thiva	17-Apr (107)	29-Apr (119)
Vines 2 × 12 g a.s./ha BBCH 21 - 89 12 days interval BBCH 60	First application on BBCH 60 (AppDate 3.06)	Châteaudun	21-Jun (172)	3-Jul (184)
		Hamburg	20-Jun (171)	2-Jul (183)
		Kremsmünster	20-Jun (171)	2-Jul (183)
		Piacenza	21-Jun (172)	3-Jul (184)
		Porto	15-Jun (166)	27-Jun (178)
		Sevilla	21-May (141)	2-Jun (153)
		Thiva	26-May (146)	7-Jun (158)
Vines 2 × 12 g a.s./ha BBCH 21 - 89 12 days interval BBCH 89	Last application on BBCH 89, except when conflicting with the PHI (AppDate 3.06)	Châteaudun [a]	6-Oct (279)	18-Oct (291)
		Hamburg [a]	4-Oct (277)	16-Oct (289)
		Kremsmünster [a]	4-Oct (277)	16-Oct (289)
		Piacenza [a]	6-Oct (279)	18-Oct (291)
		Porto [a]	4-Sep (242)	16-Sep (259)
		Sevilla [a]	4-Nov (308)	16-Nov (320)
		Thiva [a]	24-Sep (267)	6-Oct (279)

Numbers in brackets are corresponding Julian day numbers used for MACRO simulations
[a] last application on harvest date minus PHI
[b] the growth stage BBCH 21 is not defined in AppDate 3.06, thus BBCH 19 was chosen instead

For cabbage, two potential growing seasons per year are defined in five out of seven FOCUS scenarios. In these scenarios two simulation options were considered:

III. The first and second possible crop cycles simulated separately i.e. one application per year for the single application and two applications per year for the twofold applications
IV. Both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application and four applications per year for the twofold applications

The input parameters of oxathiapiprolin and its metabolites IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 used in modelling are shown in Table A 32 and Table A 33, below. All other input values were set at the default values unless otherwise stated. A schematic diagram of the modelled route of degradation of oxathiapiprolin in soil is shown in Figure A 6.

Modelling of the four metabolites cannot be undertaken in a single simulation when using the FOCUS PELMO model. Therefore, calculations were performed separately for two degradation pathways (A and B). The degradation scheme used in FOCUS PELMO is presented in Figure A 7.

Since the complex degradation scheme of oxathiapiprolin cannot be implemented in the GUI of MACRO, all metabolites were assumed to form directly from oxathiapiprolin.

For this purpose, the formation fractions of the secondary metabolites (IN-E8S72 and IN-QPS10), which are formed from the parent and from the metabolites IN-RDT31 and IN-RAB06, respectively, were corrected for the formation of preceding metabolites, e.g.:

$$FF(tot)_{P \rightarrow IN\text{-}E8S72} = FF_{P \rightarrow IN\text{-}E8S72} + (FF_{P \rightarrow IN\text{-}RDT31} \times FF_{IN\text{-}RDT31 \rightarrow IN\text{-}E8S72})$$

With:

$FF(tot)_{P \rightarrow IN\text{-}E8S72}$ = total formation fraction from parent to secondary metabolite IN-E8S72

$FF_{P \rightarrow IN\text{-}E8S72}$ = formation fraction from parent to secondary metabolite IN-E8S72
$FF_{P \rightarrow IN\text{-}RDT31}$ = formation fraction from parent to primary metabolite IN-RDT31
$FF_{IN\text{-}RDT31 \rightarrow IN\text{-}E8S72}$ = formation fraction from primary metabolite IN-RDT31 to secondary metabolite IN-RDT31

Additionally, molar based formation fractions have to be corrected for molar mass differences between metabolite and parent to get conversion fractions for MACRO.

Table A 32: Summary of input parameters for oxathiapiprolin, IN-RDT31 and IN-RAB06 for PEC_{GW} calculations

Compound	Oxathiapiprolin	IN-RDT31	IN-RAB06	Value in accordance with EU endpoint / Reference
Molar mass (g/mol)	539.53*	555.53**	569.51**	*Yes / EFSA, 2016 **Yes / DAR, 2015
Water solubility (mg/L)	0.1844* (20°C)	0.1844** (20°C)	0.1844** (20°C)	*Yes / EFSA, 2016 **Parent data used for metabolite
Saturated vapour pressure (Pa)	1.141E-06* (20°C)	0** (20°C)	0** (20°C)	*Yes / EFSA, 2016 **worst case
DT_{50} in soil (d)	121.2 (geometric mean lab, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 6)	160 (geometric mean lab, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 6)	60.5 (geometric mean field and lab, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 12)	Yes / EFSA, 2016
Transformation rate	Pathway A: 0.004003 to IN-RDT31 0.001716 to IN-E8S72 Pathway B: 0.002288 to IN-RAB06 0.003431 to IN-QPS10	Pathway A: 0.001733 to IN-E8S72 0.002599 to sink	Pathway B: 0.011457 to IN- QPS10	Calculated for PELMO; (ln(2) / DT_{50}) * FFm
K_{FOC} / K_{FOM} (mL/g)	6128 / 3555 (geometric mean, n = 5)	1012 / 587 (geometric mean, n = 5)	487 / 282 (geometric mean, n = 5)	No[a] / EFSA, 2016
1/n	0.97 (arithmetic mean, n = 5)	0.87 (arithmetic mean, n = 5)	0.89 (arithmetic mean, n = 5)	Yes / EFSA, 2016
Plant uptake factor	0	0	0	Worst-case assumption
Formation fraction	-	0.7 from parent	0.4 from parent	Yes / EFSA, 2016
Conversion fraction	-	0.721 from parent	0.422 from parent	Calculated for MACRO; molar

Compound	Oxathiapiprolin	IN-RDT31	IN-RAB06	Value in accordance with EU endpoint / Reference
				mass (metabolite) / molar mass (parent) x formation fraction

[a] differs from the EFSA conclusion as the latest guideline (EFSA Journal 2014, 12 (5):3662) recommends the use of the geometric mean instead of the arithmetic mean. The individual values from which the geometric mean is calculated, are those established in EFSA, 2016

Table A 33: Summary of input parameters for IN-QPS10and IN-E8S72 for PEC_{GW} calculations

Compound	IN-QPS10	IN-E8S72	Value in accordance with EU endpoint / Reference
Molar mass (g/mol)	349.41	180.09	Yes / DAR, 2015
Water solubility (mg/L)	0.1844** (20°C)	0.1844** (20°C)	**Parent data used for metabolite
Saturated vapour pressure (Pa)	0 (20°C)	0 (20°C)	worst case
DT_{50} in soil (d)	564.9 (geometric mean lab, acidic, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 2)	310.2 (geometric mean lab, normalisation to or pF2, 20 °C with Q_{10} of 2.58, n = 5)	Yes / EFSA, 2016
Transformation rate	Pathway B: 0.001227 to sink	Pathway A: 0.002235 to sink	Calculated for PELMO; (ln(2) / DT_{50}) * FFm
K_{FOC} / K_{FOM} (mL/g)	3484 / 2021 (geometric mean, n = 5)	6.91 / 4.01 (geometric mean, n = 5)	No[a] / EFSA, 2016
1/n	0.92 (arithmetic mean, n = 5)	1 (arithmetic mean, n = 5)	Yes / EFSA, 2016
Plant uptake factor	0	0	Worst-case assumption
Formation fraction	0.6 from parent 1.0 from IN-RAB06	0.3 from parent 0.4 from IN-RDT31	Yes / EFSA, 2016
Conversion fraction	0.648[b] from parent	0.194[c] from parent	Calculated for MACRO; molar mass (metabolite) / molar mass (parent) x formation fraction

[a] differs from the EFSA conclusion as the latest guideline (EFSA Journal 2014, 12 (5):3662) recommends the use of the geometric mean instead of the arithmetic mean. The individual values from which the geometric mean is calculated, are those established in EFSA, 2016

[b] For the secondary metabolite IN-QPS10 the formation fraction was multiplied along the pathway; therefore 349.41/539.53 × ((0.4 × 1.0)+0.6)

[c] For the secondary metabolite IN-E8S72 the formation fraction was multiplied along the pathway; therefore 180.09/539.53 × ((0.7× 0.4)+0.3)

Figure A 6: Schematic diagram of the modelled route of degradation of oxathiapiprolin

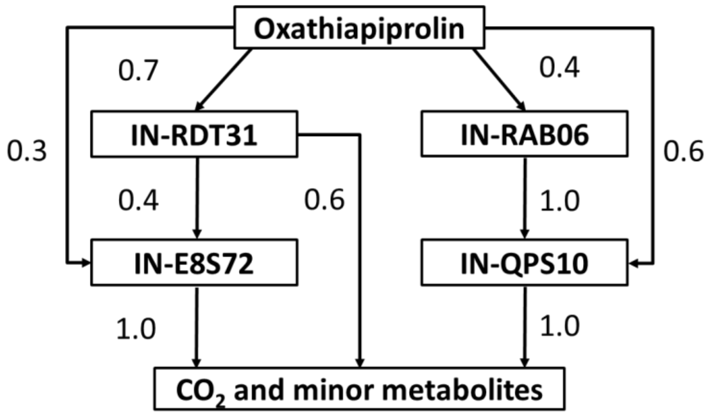
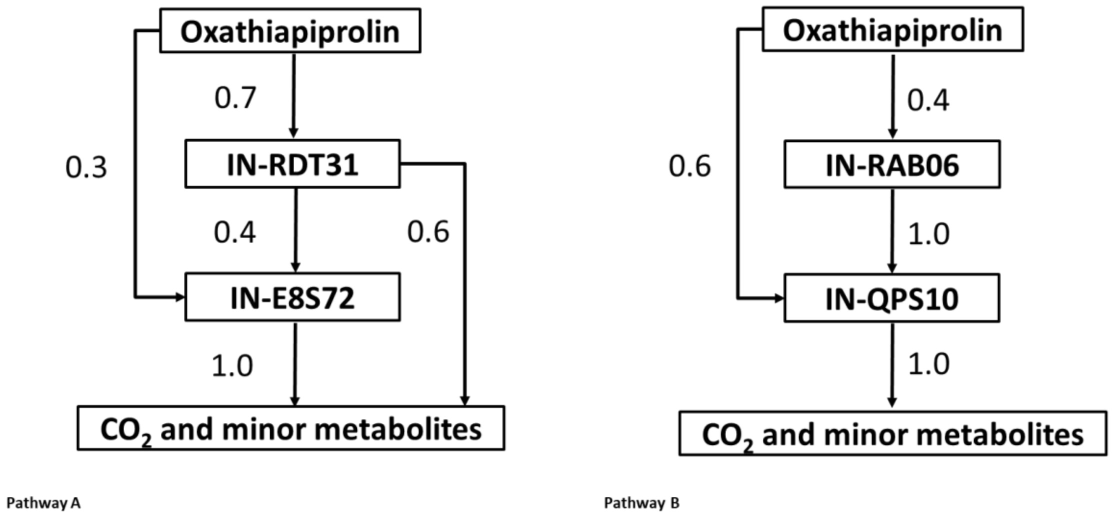


Figure A 7: Simulation pathways in groundwater for use in FOCUS PELMO model



A 3.7.2 Results and discussions

Predicted environmental concentrations for oxathiapiprolin and its metabolites IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 in groundwater (PEC_{GW}) were calculated for the use oxathiapiprolin on cabbage, tomatoes, onions, and vines in Europe in accordance with FOCUS guidelines (FOCUS, 2000, 2014, European Commission, 2014).

The 80[th] percentile (at 1 m soil depth) PEC_{GW} values generated by the FOCUS PEARL, FOCUS PELMO and MACRO simulations are given in Table A 34, Table A 35 and Table A 36. The overall maximum 80[th] percentile PEC_{GW} values are given in Table A 37.

Table A 34: PEC_{GW} for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 (with FOCUS PEARL v4.4.4)

Crop	Scenario	80[th] Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
Cabbage[a] 1 × 12 g a.s./ha BBCH 09	Châteaudun 1[st]	< 0.001	< 0.001	< 0.001	< 0.001	0.893
	Châteaudun 2[nd]	< 0.001	< 0.001	< 0.001	< 0.001	0.890
	Hamburg 1[st]	< 0.001	< 0.001	< 0.001	< 0.001	1.03
	Hamburg 2[nd]	< 0.001	< 0.001	< 0.001	< 0.001	1.04
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.970
	Kremsmünster 1[st]	< 0.001	< 0.001	< 0.001	< 0.001	0.595
	Kremsmünster 2[nd]	< 0.001	< 0.001	< 0.001	< 0.001	0.587
	Porto 1[st]	< 0.001	< 0.001	< 0.001	< 0.001	0.405
	Porto 2[nd]	< 0.001	< 0.001	< 0.001	< 0.001	0.403
	Sevilla 1[st]	< 0.001	< 0.001	< 0.001	< 0.001	1.02
	Sevilla 2[nd]	< 0.001	< 0.001	< 0.001	< 0.001	1.03
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.703
Cabbage[a] 2 × 12 g a.s./ha BBCH 11	Châteaudun 1[st]	< 0.001	< 0.001	< 0.001	< 0.001	1.34
	Châteaudun 2[nd]	< 0.001	< 0.001	< 0.001	< 0.001	1.34
	Hamburg 1[st]	< 0.001	< 0.001	< 0.001	< 0.001	1.55
	Hamburg 2[nd]	< 0.001	< 0.001	< 0.001	< 0.001	1.56
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	1.46
	Kremsmünster 1[st]	< 0.001	< 0.001	< 0.001	< 0.001	0.891
	Kremsmünster 2[nd]	< 0.001	< 0.001	< 0.001	< 0.001	0.882
	Porto 1[st]	< 0.001	< 0.001	< 0.001	< 0.001	0.607
	Porto 2[nd]	< 0.001	< 0.001	< 0.001	< 0.001	0.604
	Sevilla 1[st]	< 0.001	< 0.001	< 0.001	< 0.001	1.53
	Sevilla 2[nd]	< 0.001	< 0.001	< 0.001	< 0.001	1.54
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.05
Cabbage[a] 2 × 12 g a.s./ha BBCH 49	Châteaudun 1[st]	< 0.001	< 0.001	< 0.001	< 0.001	0.532
	Châteaudun 2[nd]	< 0.001	< 0.001	< 0.001	< 0.001	0.539
	Hamburg 1[st]	< 0.001	< 0.001	< 0.001	< 0.001	0.623
	Hamburg 2[nd]	< 0.001	< 0.001	< 0.001	< 0.001	0.622
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.577
	Kremsmünster 1[st]	< 0.001	< 0.001	< 0.001	< 0.001	0.351
	Kremsmünster 2[nd]	< 0.001	< 0.001	< 0.001	< 0.001	0.358
	Porto 1[st]	< 0.001	< 0.001	< 0.001	< 0.001	0.242
	Porto 2[nd]	< 0.001	< 0.001	< 0.001	< 0.001	0.235
	Sevilla 1[st]	< 0.001	< 0.001	< 0.001	< 0.001	0.615
	Sevilla 2[nd]	< 0.001	< 0.001	< 0.001	< 0.001	0.599

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.408
Cabbage[b] 1 × 12 g a.s./ha BBCH 09	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.78
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	2.07
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.970
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	1.17
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.808
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	2.04
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.703
Cabbage[b] 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	2.68
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	3.11
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	1.45
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	1.76
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	1.21
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	3.07
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.05
Cabbage[b] 2 × 12 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.07
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	1.24
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.577
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.705
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.477
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	1.21
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.408
Tomatoes 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.11
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	1.00
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.488
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	1.10
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.44
Tomatoes 2 × 12 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.438
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.403
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.196
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.441
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.574
Tomatoes 2 × 12 g a.s./ha BBCH 81	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.442
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.410
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.193
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.441
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.566
Tomatoes 2 × 12 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.444
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.410
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.193
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.441
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.564
Onions 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.83
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	1.72
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	1.40
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	1.01
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.740
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.95
Onions 2 × 12 g a.s./ha BBCH 41	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.22
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	1.15
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.931
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.678
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.489
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.31

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
Onions 2 × 12 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.21
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	1.14
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.926
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.675
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.489
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.31
Vines 2 × 12 g a.s./ha BBCH 21	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.680
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.582
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.376
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.710
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.294
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.617
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.19
Vines 2 × 12 g a.s./ha BBCH 60	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.676
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.583
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.374
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.726
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.297
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.616
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.19
Vines 2 × 12 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.426
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.363
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.232
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.452
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.184
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.383
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.733

[a] the first and second possible crop cycles simulated separately i.e. one application per year for the single application and two applications per year for the twofold applications

[b] both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application and four applications per year for the twofold applications

Table A 35: PEC_{GW} for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 (with FOCUS PELMO v5.5.3)

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
Cabbage[a] 1 × 12 g a.s./ha BBCH 09	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.813
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.789
	Hamburg 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.795
	Hamburg 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.784
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.873
	Kremsmünster 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.641
	Kremsmünster 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.644
	Porto 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.314
	Porto 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.300
	Sevilla 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.783
	Sevilla 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.732
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.581
	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.23
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.20

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
Cabbage[a] 2 × 12 g a.s./ha BBCH 11	Hamburg 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.19
	Hamburg 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.18
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	1.32
	Kremsmünster 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.965
	Kremsmünster 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.954
	Porto 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.473
	Porto 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.466
	Sevilla 1st	< 0.001	< 0.001	< 0.001	< 0.001	1.21
	Sevilla 2nd	< 0.001	< 0.001	< 0.001	< 0.001	1.17
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.928
Cabbage[a] 2 × 12 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.457
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.477
	Hamburg 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.467
	Hamburg 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.490
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.531
	Kremsmünster 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.380
	Kremsmünster 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.381
	Porto 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.164
	Porto 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.184
	Sevilla 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.396
	Sevilla 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.355
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.375
Cabbage[b] 1 × 12 g a.s./ha BBCH 09	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.60
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	1.58
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.873
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	1.29
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.614
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	1.52
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.581
Cabbage[b] 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	2.43
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	2.37
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	1.32
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	1.92
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.939
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	2.38
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.928
Cabbage[b] 2 × 12 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.933
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.957
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.531
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.761
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.348
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.744
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.375
Tomatoes 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.00
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.689
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.416
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	1.20
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.971
Tomatoes 2 × 12 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.397
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.276
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.169
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.427
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.385
	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.368

Crop	Scenario	80th Percentile PEC_{GW} at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
Tomatoes 2 × 12 g a.s./ha BBCH 81	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.241
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.142
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.255
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.321
Tomatoes 2 × 12 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.378
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.249
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.152
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.240
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.326
Onions 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.54
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	1.36
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	1.39
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	1.06
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.748
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.31
Onions 2 × 12 g a.s./ha BBCH 41	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.946
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.895
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.927
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.703
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.485
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.803
Onions 2 × 12 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.964
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.901
	Jokioinen	< 0.001	< 0.001	< 0.001	< 0.001	0.929
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.702
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.485
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.803
Vines 2 × 12 g a.s./ha BBCH 21	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.645
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.660
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.425
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.415
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.325
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	1.05
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.20
Vines 2 × 12 g a.s./ha BBCH 60	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.633
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.658
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.423
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.412
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.326
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	1.03
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	1.19
Vines 2 × 12 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.392
	Hamburg	< 0.001	< 0.001	< 0.001	< 0.001	0.427
	Kremsmünster	< 0.001	< 0.001	< 0.001	< 0.001	0.265
	Piacenza	< 0.001	< 0.001	< 0.001	< 0.001	0.258
	Porto	< 0.001	< 0.001	< 0.001	< 0.001	0.193
	Sevilla	< 0.001	< 0.001	< 0.001	< 0.001	0.624
	Thiva	< 0.001	< 0.001	< 0.001	< 0.001	0.695

[a] the first and second possible crop cycles simulated separately i.e. one application per year for the single application and two applications per year for the twofold applications

[b] both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application and four applications per year for the twofold applications

Table A 36: PEC$_{GW}$ for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72 (with MACRO v5.5.4)

Crop	Scenario	80th Percentile PEC$_{GW}$ at 1 m Soil Depth (µg/L)				
		Oxathiapiprolin	IN-RDT31	IN-RAB06	IN-QPS10	IN-E8S72
Cabbage[a,c], 1 × 12 g a.s./ha BBCH 09	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.625
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.626
Cabbage[a,c], 2 × 12 g a.s./ha BBCH 11	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.935
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.937
Cabbage[a,c], 2 × 12 g a.s./ha BBCH 49	Châteaudun 1st	< 0.001	< 0.001	< 0.001	< 0.001	0.374
	Châteaudun 2nd	< 0.001	< 0.001	< 0.001	< 0.001	0.373
Cabbage[b,c], 1 × 12 g a.s./ha BBCH 09	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.25
Cabbage[b,c], 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.87
Cabbage[b,c], 2 × 12 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.747
Tomatoes[d], 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.812
Tomatoes[d], 2 × 12 g a.s./ha BBCH 51	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.323
Tomatoes[d], 2 × 12 g a.s./ha BBCH 81	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.326
Tomatoes[d], 3 × 12 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.326
Onions[e], 2 × 12 g a.s./ha BBCH 11	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	1.38
Onions[e], 2 × 12 g a.s./ha BBCH 41	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.838
Onions[e], 2 × 12 g a.s./ha BBCH 49	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.921
Vines 2 × 12 g a.s./ha BBCH 21	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.747
Vines 2 × 12 g a.s./ha BBCH 60	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.671
Vines 2 × 12 g a.s./ha BBCH 89	Châteaudun	< 0.001	< 0.001	< 0.001	< 0.001	0.481

[a] the first and second possible crop cycles simulated separately i.e. one application per year for the single application and two applications per year for the twofold applications

[b] both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application and four applications per year for the twofold applications
[c] vegetables, leafy in the MACRO GUI
[d] vegetables, fruiting in the MACRO GUI
[e] vegetables, bulb in the MACRO GUI

Table A 37: Summary of maximum PEC_{GW} across all models for oxathiapiprolin, IN-RDT31, IN-RAB06, IN-QPS10 and IN-E8S72

Substance	80th Percentile PEC_{GW} (µg/L)	Crop	Application rate (g a.s./ha)	BBCH code	Model and Version Number	Scenario
Oxathiapiprolin	< 0.001	Cabbage	2 × 12	11 - 49	All models	All scenarios
	< 0.001	Tomatoes	2 × 12	11 - 89	All models	All scenarios
	< 0.001	Onions	2 × 12	11 - 49	All models	All scenarios
	< 0.001	Vines	2 × 12	21 - 89	All models	All scenarios
IN-RDT31	< 0.001	Cabbage	2 × 12	11 - 49	All models	All scenarios
	< 0.001	Tomatoes	2 × 12	11 - 89	All models	All scenarios
	< 0.001	Onions	2 × 12	11 - 49	All models	All scenarios
	< 0.001	Vines	2 × 12	21 - 89	All models	All scenarios
IN-RAB06	< 0.001	Cabbage	2 × 12	11 - 49	All models	All scenarios
	< 0.001	Tomatoes	2 × 12	11 - 89	All models	All scenarios
	< 0.001	Onions	2 × 12	11 - 49	All models	All scenarios
	< 0.001	Vines	2 × 12	21 - 89	All models	All scenarios
IN-QPS10	< 0.001	Cabbage	2 × 12	11 - 49	All models	All scenarios
	< 0.001	Tomatoes	2 × 12	11 - 89	All models	All scenarios
	< 0.001	Onions	2 × 12	11 - 49	All models	All scenarios
	< 0.001	Vines	2 × 12	21 - 89	All models	All scenarios
IN-E8S72	1.04	Cabbage	1 × 12[a]	09	FOCUS PEARL v4.4.4	Hamburg, 2nd season
	1.56	Cabbage	2 × 12[a]	11 - 49	FOCUS PEARL v4.4.4	Hamburg, 2nd season
	2.07	Cabbage	1 × 12[b]	09	FOCUS PEARL v4.4.4	Hamburg
	3.11	Cabbage	2 × 12[b]	11 - 49	FOCUS PEARL v4.4.4	Hamburg
	1.44	Tomatoes	2 × 12	11 - 89	FOCUS PEARL v4.4.4	Thiva
	1.95	Onions	2 × 12	11 - 49	FOCUS PEARL v4.4.4	Thiva
	1.20	Vines	2 × 12	21 - 89	FOCUS PELMO v5.5.3	Thiva

[a] the first and second possible crop cycles simulated separately i.e. one application per year for the single application and two applications per year for the twofold applications
[b] both possible crop cycles considered within one simulation run, i.e. two applications per year for the single application and four applications per year for the twofold applications

A 3.8 KCP 9.2.5: Azoxystrobin - FOCUS Step 1 and 2 PEC_{sw} and PEC_{sed} Using Arithmetic Mean Sorption Endpoints

Comments of zRMS:	All input parameters for azoxystrobin and its metabolites were considered acceptable as they followed the EFSA conclusion and LoEP or corresponded to standard default values. Thus, the zRMS considers the presented PEC_{sw} calculations acceptable for the parent and its metabolites.

Results below outline detailed FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for all crops and all uses outlined in the GAP

Table A 38: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy, BBCH 11-49 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	55.6	231
Step 2			
Northern Europe	Mar-May	9.36	38.6
Northern Europe	Jun-Sep	9.36	38.6
Northern Europe	Oct-Feb	20.9	87.4
Southern Europe	Mar-May	17.1	71.1
Southern Europe	Jun-Sep	13.2	54.9
Southern Europe	Oct-Feb	17.1	71.1

Table A 39: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy, BBCH 11-49 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	111	462
Step 2			
Northern Europe	Mar-May	17.8	73.8
Northern Europe	Jun-Sep	17.8	73.8
Northern Europe	Oct-Feb	40.3	168
Southern Europe	Mar-May	32.8	137
Southern Europe	Jun-Sep	25.3	105
Southern Europe	Oct-Feb	32.8	137

Table A 40: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting, BBCH 11-89 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	55.6	231
Step 2			

Northern Europe	Mar-May	9.36	38.6
Northern Europe	Jun-Sep	9.36	38.6
Southern Europe	Mar-May	17.1	71.2
Southern Europe	Jun-Sep	13.2	54.9

Table A 41: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting, BBCH 11-89 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	111	462
Step 2			
Northern Europe	Mar-May	17.8	73.8
Northern Europe	Jun-Sep	17.8	73.8
Southern Europe	Mar-May	32.8	137
Southern Europe	Jun-Sep	25.3	105

Table A 42: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, bulb, BBCH 11-49 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	55.6	231
Step 2			
Northern Europe	Mar-May	10.9	45.1
Northern Europe	Jun-Sep	10.9	45.1
Northern Europe	Oct-Feb	24.8	104
Southern Europe	Mar-May	20.2	84.2
Southern Europe	Jun-Sep	15.5	64.6
Southern Europe	Oct-Feb	20.2	84.2

Table A 43: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, bulb, BBCH 11-49 (2 × 250 g a.s./ha, with application interval of 12 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	111	462
Step 2			
Northern Europe	Mar-May	20.4	84.7
Northern Europe	Jun-Sep	20.4	84.7
Northern Europe	Oct-Feb	46.8	196

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Southern Europe	Mar-May	38.0	159
Southern Europe	Jun-Sep	29.2	122
Southern Europe	Oct-Feb	38.0	159

Table A 44: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (acidic soils) following application to vegetables, leafy, BBCH 11-49 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	29.3	66.7
Step 2			
Northern Europe	Mar-May	4.54	10.3
Northern Europe	Jun-Sep	4.54	10.3
Northern Europe	Oct-Feb	10.9	24.7
Southern Europe	Mar-May	8.74	19.9
Southern Europe	Jun-Sep	6.64	15.1
Southern Europe	Oct-Feb	8.74	19.9

Table A 45: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (acidic soils) following application to vegetables, leafy, BBCH 11-49 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	58.6	133
Step 2			
Northern Europe	Mar-May	8.78	19.9
Northern Europe	Jun-Sep	8.78	19.9
Northern Europe	Oct-Feb	21.1	48.0
Southern Europe	Mar-May	17.0	38.6
Southern Europe	Jun-Sep	12.9	29.3
Southern Europe	Oct-Feb	17.0	38.6

Table A 46: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (acidic soils) following application to vegetables, fruiting, BBCH 11-89 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	29.3	66.7
Step 2			
Northern Europe	Mar-May	4.54	10.3
Northern Europe	Jun-Sep	4.54	10.3

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Southern Europe	Mar-May	8.74	19.9
Southern Europe	Jun-Sep	6.64	15.1

Table A 47: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (acidic soils) following application to vegetables, fruiting, BBCH 11-89 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	58.6	133
Step 2			
Northern Europe	Mar-May	8.78	19.9
Northern Europe	Jun-Sep	8.78	19.9
Southern Europe	Mar-May	17.0	38.6
Southern Europe	Jun-Sep	12.9	29.3

Table A 48: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (acidic soils) following application to vegetables, bulb, BBCH 11-49 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	29.3	66.7
Step 2			
Northern Europe	Mar-May	5.38	12.2
Northern Europe	Jun-Sep	5.38	12.2
Northern Europe	Oct-Feb	13.0	29.5
Southern Europe	Mar-May	10.4	23.7
Southern Europe	Jun-Sep	7.90	18.0
Southern Europe	Oct-Feb	10.4	23.7

Table A 49: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (acidic soils) following application to vegetables, bulb, BBCH 11-49 (2 × 250 g a.s./ha, with application interval of 12 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	58.6	133
Step 2			
Northern Europe	Mar-May	10.2	23.3
Northern Europe	Jun-Sep	10.2	23.3
Northern Europe	Oct-Feb	24.7	56.3
Southern Europe	Mar-May	19.9	45.3

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Southern Europe	Jun-Sep	15.1	34.3
Southern Europe	Oct-Feb	19.9	45.3

TableA 50: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (alkaline soils) following application to vegetables, leafy, BBCH 11-49 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	36.4	13.3
Step 2			
Northern Europe	Mar-May	5.47	2.00
Northern Europe	Jun-Sep	5.47	2.00
Northern Europe	Oct-Feb	13.1	4.80
Southern Europe	Mar-May	10.6	3.87
Southern Europe	Jun-Sep	8.01	2.94
Southern Europe	Oct-Feb	10.6	3.87

Table A 51: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (alkaline soils) following application to vegetables, leafy, BBCH 11-49 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	72.7	26.7
Step 2			
Northern Europe	Mar-May	10.3	3.79
Northern Europe	Jun-Sep	10.3	3.79
Northern Europe	Oct-Feb	24.8	9.11
Southern Europe	Mar-May	20.0	7.33
Southern Europe	Jun-Sep	15.2	5.56
Southern Europe	Oct-Feb	20.0	7.33

Table A 52: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (alkaline soils) following application to vegetables, fruiting, BBCH 11-89 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	36.4	13.3
Step 2			
Northern Europe	Mar-May	5.47	2.00
Northern Europe	Jun-Sep	5.47	2.00

Southern Europe	Mar-May	10.6	3.87
Southern Europe	Jun-Sep	8.01	2.94

Table A 53: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (alkaline soils) following application to vegetables, fruiting, BBCH 11-89 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	72.7	26.7
Step 2			
Northern Europe	Mar-May	10.3	3.79
Northern Europe	Jun-Sep	10.3	3.79
Southern Europe	Mar-May	20.0	7.33
Southern Europe	Jun-Sep	15.2	5.56

Table A 54: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (alkaline soils) following application to vegetables, bulb, BBCH 11-49 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	36.4	13.3
Step 2			
Northern Europe	Mar-May	6.49	2.38
Northern Europe	Jun-Sep	6.49	2.38
Northern Europe	Oct-Feb	15.6	5.73
Southern Europe	Mar-May	12.6	4.61
Southern Europe	Jun-Sep	9.53	3.49
Southern Europe	Oct-Feb	12.6	4.61

Table A 55: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (alkaline soils) following application to vegetables, bulb, BBCH 11-49 (2 × 250 g a.s./ha, with application interval of 12 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	72.7	26.7
Step 2			
Northern Europe	Mar-May	11.9	4.36
Northern Europe	Jun-Sep	11.9	4.36
Northern Europe	Oct-Feb	28.7	10.5
Southern Europe	Mar-May	23.1	8.46
Southern Europe	Jun-Sep	17.5	6.41

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Southern Europe	Oct-Feb	23.1	8.46

Table A 56: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R402173 following application to vegetables, leafy, BBCH 11-49 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)[a]	Max PEC_{sed} (µg/kg)[b]
Step 1			
-	-	13.0	21.2
Step 2			
Northern Europe	Mar-May	1.22	1.99
Northern Europe	Jun-Sep	1.22	1.99
Northern Europe	Oct-Feb	2.98	4.86
Southern Europe	Mar-May	2.39	3.90
Southern Europe	Jun-Sep	1.81	2.94
Southern Europe	Oct-Feb	2.39	3.90

[a] worst case for PEC_{SW} using K_{FOC} 25 mL/kg
[b] worst case for PEC_{SED} using K_{FOC} 200 mL/kg

Table A 57: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R402173 following application to vegetables, leafy, BBCH 11-49 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)[a]	Max PEC_{sed} (µg/kg)[b]
Step 1			
-	-	25.9	42.3
Step 2			
Northern Europe	Mar-May	1.81	2.94
Northern Europe	Jun-Sep	1.81	2.94
Northern Europe	Oct-Feb	4.40	7.16
Southern Europe	Mar-May	3.53	5.76
Southern Europe	Jun-Sep	2.67	4.35
Southern Europe	Oct-Feb	3.53	5.76

[a] worst case for PEC_{SW} using K_{FOC} 25 mL/kg
[b] worst case for PEC_{SED} using K_{FOC} 200 mL/kg

Table A 58: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R402173 following application to vegetables, fruiting, BBCH 11-89 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)[a]	Max PEC_{sed} (µg/kg)[b]
Step 1			
-	-	13.0	21.2
Step 2			
Northern Europe	Mar-May	1.22	1.99

Northern Europe	Jun-Sep	1.22	1.99
Southern Europe	Mar-May	2.39	3.90
Southern Europe	Jun-Sep	1.81	2.94

[a] worst case for PEC_{SW} using K_{FOC} 25 mL/kg
[b] worst case for PEC_{SED} using K_{FOC} 200 mL/kg

Table A 59: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R402173 following application to vegetables, fruiting, BBCH 11-89 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)[a]	Max PEC_{sed} (µg/kg)[b]
Step 1			
-	-	25.9	42.3
Step 2			
Northern Europe	Mar-May	1.81	2.94
Northern Europe	Jun-Sep	1.81	2.94
Southern Europe	Mar-May	3.53	5.76
Southern Europe	Jun-Sep	2.67	4.35

[a] worst case for PEC_{SW} using K_{FOC} 25 mL/kg
[b] worst case for PEC_{SED} using K_{FOC} 200 mL/kg

Table A 60: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R402173 following application to vegetables, bulb, BBCH 11-49 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)[a]	Max PEC_{sed} (µg/kg)[a]
Step 1			
-	-	13.0	21.2
Step 2			
Northern Europe	Mar-May	1.45	2.37
Northern Europe	Jun-Sep	1.45	2.37
Northern Europe	Oct-Feb	3.57	5.81
Southern Europe	Mar-May	2.86	4.66
Southern Europe	Jun-Sep	2.16	3.52
Southern Europe	Oct-Feb	2.86	4.66

[a] worst case for PEC_{SW} using K_{FOC} 25 mL/kg
[b] worst case for PEC_{SED} using K_{FOC} 200 mL/kg

Table A 61: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R402173 following application to vegetables, bulb, BBCH 11-49 (2 × 250 g a.s./ha, with application interval of 12 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)[a]	Max PEC_{sed} (µg/kg)[b]
Step 1			
-	-	25.9	42.3

Step 2			
Northern Europe	Mar-May	1.93	3.14
Northern Europe	Jun-Sep	1.93	3.14
Northern Europe	Oct-Feb	4.70	7.67
Southern Europe	Mar-May	3.78	6.16
Southern Europe	Jun-Sep	2.85	4.65
Southern Europe	Oct-Feb	3.78	6.16

[a] worst case for PEC_{SW} using K_{FOC} 25 mL/kg
[b] worst case for PEC_{SED} using K_{FOC} 200 mL/kg

Table A 62: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R401553 following application to vegetables, leafy, BBCH 11-49 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	9.23	17.3
Step 2			
Northern Europe	Mar-May	0.618	1.15
Northern Europe	Jun-Sep	0.618	1.15
Northern Europe	Oct-Feb	1.41	2.63
Southern Europe	Mar-May	1.14	2.14
Southern Europe	Jun-Sep	0.881	1.64
Southern Europe	Oct-Feb	1.14	2.14

Table A 63: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R401553 following application to vegetables, leafy, BBCH 11-49 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	18.5	34.6
Step 2			
Northern Europe	Mar-May	1.12	2.08
Northern Europe	Jun-Sep	1.12	2.08
Northern Europe	Oct-Feb	2.55	4.76
Southern Europe	Mar-May	2.07	3.87
Southern Europe	Jun-Sep	1.59	2.97
Southern Europe	Oct-Feb	2.07	3.87

Table A 64: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R401553 following application to vegetables, fruiting, BBCH 11-89 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	9.23	17.3
Step 2			
Northern Europe	Mar-May	0.618	1.15
Northern Europe	Jun-Sep	0.618	1.15
Southern Europe	Mar-May	1.14	2.14
Southern Europe	Jun-Sep	0.881	1.64

Table A 65: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R401553 following application to vegetables, fruiting, BBCH 11-89 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	18.5	34.6
Step 2			
Northern Europe	Mar-May	1.12	2.08
Northern Europe	Jun-Sep	1.12	2.08
Southern Europe	Mar-May	2.07	3.87
Southern Europe	Jun-Sep	1.59	2.97

Table A 66: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R401553 following application to vegetables, bulb, BBCH 11-49 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	9.23	17.3
Step 2			
Northern Europe	Mar-May	0.724	1.35
Northern Europe	Jun-Sep	0.724	1.35
Northern Europe	Oct-Feb	1.67	3.13
Southern Europe	Mar-May	1.36	2.53
Southern Europe	Jun-Sep	1.04	1.94
Southern Europe	Oct-Feb	1.36	2.53

Table A 67: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R401553 following application to vegetables, bulb, BBCH 11-49 (2 × 250 g a.s./ha, with application interval of 12 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	18.5	34.6
Step 2			
Northern Europe	Mar-May	1.28	2.39
Northern Europe	Jun-Sep	1.28	2.39
Northern Europe	Oct-Feb	2.96	5.55
Southern Europe	Mar-May	2.40	4.50
Southern Europe	Jun-Sep	1.84	3.44
Southern Europe	Oct-Feb	2.40	4.50

A 3.9 KCP 9.2.5: Azoxystrobin - FOCUS Step 1 and 2 PEC_{sw} and PEC_{sed} Using Geometric Mean Sorption Endpoints

Results below outline detailed FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for all crops and all uses outlined in the GAP

Comments of zRMS:	All input parameters for azoxystrobin and its metabolites were considered acceptable.

Table A 68: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy, BBCH 09 (1 × 250 g a.s./ha)

Scenario FOCUS	**Period/ Waterbody**	**Max PEC_{sw} (µg/L)**	**Max PEC_{sed} (µg/kg)**
Step 1			
-	-	57.0	220
Step 2			
Northern Europe	Mar-May	12.3	47.1
Northern Europe	Jun-Sep	12.3	47.1
Northern Europe	Oct-Feb	28.1	109
Southern Europe	Mar-May	22.8	88.4
Southern Europe	Jun-Sep	17.5	67.7
Southern Europe	Oct-Feb	22.8	88.4

Table A 69: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy, BBCH 11-49 (1 × 250 g a.s./ha)

Scenario FOCUS	**Period/ Waterbody**	**Max PEC_{sw} (µg/L)**	**Max PEC_{sed} (µg/kg)**
Step 1			
-	-	57.0	220
Step 2			
Northern Europe	Mar-May	9.61	36.8
Northern Europe	Jun-Sep	9.61	36.8
Northern Europe	Oct-Feb	21.5	83.2
Southern Europe	Mar-May	17.5	67.7
Southern Europe	Jun-Sep	13.6	52.3
Southern Europe	Oct-Feb	17.5	67.7

Table A 70: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy, BBCH 11-49 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	**Period/ Waterbody**	**Max PEC_{sw} (µg/L)**	**Max PEC_{sed} (µg/kg)**
Step 1			

-	-	114	439
Step 2			
Northern Europe	Mar-May	18.3	70.2
Northern Europe	Jun-Sep	18.3	70.2
Northern Europe	Oct-Feb	41.4	160
Southern Europe	Mar-May	33.7	130
Southern Europe	Jun-Sep	26.0	100
Southern Europe	Oct-Feb	33.7	130

Table A 71: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting, BBCH 11-89 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	57.0	220
Step 2			
Northern Europe	Mar-May	9.61	36.8
Northern Europe	Jun-Sep	9.61	36.8
Southern Europe	Mar-May	17.5	67.7
Southern Europe	Jun-Sep	13.6	52.3

Table A 72: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting, BBCH 11-89 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	114	439
Step 2			
Northern Europe	Mar-May	18.3	70.2
Northern Europe	Jun-Sep	18.3	70.2
Southern Europe	Mar-May	33.7	130
Southern Europe	Jun-Sep	26.0	100

Table A 73: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (acidic soils) following application to vegetables, leafy, BBCH 09 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			

-	-	30.9	54.6
Step 2			
Northern Europe	Mar-May	6.27	11.0
Northern Europe	Jun-Sep	6.27	11.0
Northern Europe	Oct-Feb	15.1	26.7
Southern Europe	Mar-May	12.2	21.5
Southern Europe	Jun-Sep	9.22	16.3
Southern Europe	Oct-Feb	12.2	21.5

Table A 74: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (acidic soils) following application to vegetables, leafy, BBCH 11-49 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	30.9	54.6
Step 2			
Northern Europe	Mar-May	4.79	8.43
Northern Europe	Jun-Sep	4.79	8.43
Northern Europe	Oct-Feb	11.4	20.2
Southern Europe	Mar-May	9.22	16.3
Southern Europe	Jun-Sep	7.00	12.4
Southern Europe	Oct-Feb	9.22	16.3

Table A 75: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (acidic soils) following application to vegetables, leafy, BBCH 11-49 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	61.9	109
Step 2			
Northern Europe	Mar-May	9.25	16.3
Northern Europe	Jun-Sep	9.25	16.3
Northern Europe	Oct-Feb	22.2	39.2
Southern Europe	Mar-May	17.9	31.6
Southern Europe	Jun-Sep	13.6	23.9
Southern Europe	Oct-Feb	17.9	31.6

Table A 76: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (acidic soils) following application to vegetables, fruiting, BBCH 11-89 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	30.9	54.6
Step 2			
Northern Europe	Mar-May	4.79	8.43
Northern Europe	Jun-Sep	4.79	8.43
Southern Europe	Mar-May	9.22	16.3
Southern Europe	Jun-Sep	7.00	12.4

Table A 77: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (acidic soils) following application to vegetables, fruiting, BBCH 11-89 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	61.9	109
Step 2			
Northern Europe	Mar-May	9.25	16.3
Northern Europe	Jun-Sep	9.25	16.3
Southern Europe	Mar-May	17.9	31.6
Southern Europe	Jun-Sep	13.6	23.9

Table A 78: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (alkaline soils) following application to vegetables, leafy, BBCH 09 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	36.5	12.7
Step 2			
Northern Europe	Mar-May	7.18	2.50
Northern Europe	Jun-Sep	7.18	2.50
Northern Europe	Oct-Feb	17.4	6.04
Southern Europe	Mar-May	14.0	4.86
Southern Europe	Jun-Sep	10.6	3.68
Southern Europe	Oct-Feb	14.0	4.86

Table A 79: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (alkaline soils) following application to vegetables, leafy, BBCH 11-49 (1 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	36.5	12.7
Step 2			
Northern Europe	Mar-May	5.48	1.91
Northern Europe	Jun-Sep	5.48	1.91
Northern Europe	Oct-Feb	13.1	4.56
Southern Europe	Mar-May	10.6	3.68
Southern Europe	Jun-Sep	8.03	2.79
Southern Europe	Oct-Feb	10.6	3.68

Table A 80: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (alkaline soils) following application to vegetables, leafy, BBCH 11-49 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	72.9	25.3
Step 2			
Northern Europe	Mar-May	10.4	3.60
Northern Europe	Jun-Sep	10.4	3.60
Northern Europe	Oct-Feb	24.9	8.65
Southern Europe	Mar-May	20.1	6.97
Southern Europe	Jun-Sep	15.2	5.29
Southern Europe	Oct-Feb	20.1	6.97

Table A 81: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (alkaline soils) following application to vegetables, fruiting, BBCH 11-89 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	36.5	12.7
Step 2			
Northern Europe	Mar-May	5.48	1.91
Northern Europe	Jun-Sep	5.48	1.91
Southern Europe	Mar-May	10.6	3.68

Southern Europe	Jun-Sep	8.03	2.79

Table A 82: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R234886 (alkaline soils) following application to vegetables, fruiting, BBCH 11-89 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	72.9	25.3
Step 2			
Northern Europe	Mar-May	10.4	3.60
Northern Europe	Jun-Sep	10.4	3.60
Southern Europe	Mar-May	20.1	6.97
Southern Europe	Jun-Sep	15.2	5.29

Table A 83: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R402173 following application to vegetables, leafy, BBCH 09 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)[a]	Max PEC_{sed} (µg/kg)[b]
Step 1			
-	-	13.0	21.2
Step 2			
Northern Europe	Mar-May	1.61	2.62
Northern Europe	Jun-Sep	1.61	2.62
Northern Europe	Oct-Feb	3.96	6.45
Southern Europe	Mar-May	3.17	5.17
Southern Europe	Jun-Sep	2.39	3.90
Southern Europe	Oct-Feb	3.17	5.17

[a] worst case for PEC_{SW} using K_{FOC} 25 mL/kg
[b] worst case for PEC_{SED} using K_{FOC} 200 mL/kg

Table A 84: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R402173 following application to vegetables, leafy, BBCH 11-49 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)[a]	Max PEC_{sed} (µg/kg)[b]
Step 1			
-	-	13.0	21.2
Step 2			
Northern Europe	Mar-May	1.22	1.99
Northern Europe	Jun-Sep	1.22	1.99

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)[a]	Max PEC_{sed} (µg/kg)[b]
Northern Europe	Oct-Feb	2.98	4.86
Southern Europe	Mar-May	2.39	3.90
Southern Europe	Jun-Sep	1.81	2.94
Southern Europe	Oct-Feb	2.39	3.90

[a] worst case for PEC_{SW} using K_{FOC} 25 mL/kg
[b] worst case for PEC_{SED} using K_{FOC} 200 mL/kg

Table A 85: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R402173 following application to vegetables, leafy, BBCH 11-49 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)[a]	Max PEC_{sed} (µg/kg)[b]
Step 1			
-	-	25.9	42.3
Step 2			
Northern Europe	Mar-May	1.81	2.94
Northern Europe	Jun-Sep	1.81	2.94
Northern Europe	Oct-Feb	4.40	7.16
Southern Europe	Mar-May	3.53	5.76
Southern Europe	Jun-Sep	2.67	4.35
Southern Europe	Oct-Feb	3.53	5.76

[a] worst case for PEC_{SW} using K_{FOC} 25 mL/kg
[b] worst case for PEC_{SED} using K_{FOC} 200 mL/kg

Table A 86: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R402173 following application to vegetables, fruiting, BBCH 11-89 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)[a]	Max PEC_{sed} (µg/kg)[b]
Step 1			
-	-	13.0	21.2
Step 2			
Northern Europe	Mar-May	1.22	1.99
Northern Europe	Jun-Sep	1.22	1.99
Southern Europe	Mar-May	2.39	3.90
Southern Europe	Jun-Sep	1.81	2.94

[a] worst case for PEC_{SW} using K_{FOC} 25 mL/kg
[b] worst case for PEC_{SED} using K_{FOC} 200 mL/kg

Table A 87: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R402173 following application to vegetables, fruiting, BBCH 11-89 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)[a]	Max PEC_{sed} (µg/kg)[b]
Step 1			
-	-	25.9	42.3
Step 2			
Northern Europe	Mar-May	1.81	2.94
Northern Europe	Jun-Sep	1.81	2.94
Southern Europe	Mar-May	3.53	5.76
Southern Europe	Jun-Sep	2.67	4.35

[a] worst case for PEC_{SW} using K_{FOC} 25 mL/kg
[b] worst case for PEC_{SED} using K_{FOC} 200 mL/kg

Table A 88: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R401553 following application to vegetables, leafy, BBCH 09 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	9.69	13.8
Step 2			
Northern Europe	Mar-May	0.832	1.18
Northern Europe	Jun-Sep	0.832	1.18
Northern Europe	Oct-Feb	1.94	2.76
Southern Europe	Mar-May	1.57	2.24
Southern Europe	Jun-Sep	1.20	1.71
Southern Europe	Oct-Feb	1.57	2.24

Table A 89: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R401553 following application to vegetables, leafy, BBCH 11-49 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	9.69	13.8
Step 2			
Northern Europe	Mar-May	0.648	0.919
Northern Europe	Jun-Sep	0.648	0.919
Northern Europe	Oct-Feb	1.48	2.10
Southern Europe	Mar-May	1.20	1.71

Southern Europe	Jun-Sep	0.924	1.31
Southern Europe	Oct-Feb	1.20	1.71

Table A 90: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R401553 following application to vegetables, leafy, BBCH 11-49 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	19.4	27.6
Step 2			
Northern Europe	Mar-May	1.17	1.66
Northern Europe	Jun-Sep	1.17	1.66
Northern Europe	Oct-Feb	2.67	3.81
Southern Europe	Mar-May	2.17	3.09
Southern Europe	Jun-Sep	1.67	2.37
Southern Europe	Oct-Feb	2.17	3.09

Table A 91: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R401553 following application to vegetables, fruiting, BBCH 11-89 (1 × 250 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	9.69	13.8
Step 2			
Northern Europe	Mar-May	0.648	0.919
Northern Europe	Jun-Sep	0.648	0.919
Southern Europe	Mar-May	1.20	1.71
Southern Europe	Jun-Sep	0.924	1.31

Table A 92: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for R401553 following application to vegetables, fruiting, BBCH 11-89 (2 × 250 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{sw} (µg/L)	Max PEC_{sed} (µg/kg)
Step 1			
-	-	19.4	27.6
Step 2			
Northern Europe	Mar-May	1.17	1.66

Northern Europe	Jun-Sep	1.17	1.66
Southern Europe	Mar-May	2.17	3.09
Southern Europe	Jun-Sep	1.67	2.37

A 3.10 KCP 9.2.5: Langa Peñalba, S., & Robinson, P. 2022, Azoxystrobin PEC_{SW} following application to various crops

Use numbers in this summary refer to the modelling report and not to the GAP table in section 8.1 above.

Comments of zRMS:	All input parameters for azoxystrobin were considered acceptable as they followed the EFSA conclusion and LoEP or corresponded to standard default values. Thus, the zRMS considers the presented PEC_{sw} calculations acceptable for the active substances.

Reference:	KCP 9.2.5
Report	Azoxystrobin - A European Environmental Fate Assessment Using the FOCUS Surface Water Models at Steps 3 to 4 Following Spray Application to Various Crops Report No. 120095-3, (Syngenta File No VV-961781)
Guideline(s):	EFSA (2014). EFSA Guidance Document on clustering and ranking of emissions of active substances of plant protection products and transformation products of these active substances from protected crops (greenhouses and crops grown under cover) to relevant environmental compartments. EFSA Journal 2014; 12(3):3615, 43 pp. FOCUS (2001). FOCUS Surface Water Scenarios in the EU Evaluation Process under 91/414/EEC. Report of the FOCUS Working Group on Surface Water Scenarios, EC Document Reference SANCO/4802/2001 rev. 2. FOCUS (2007). Landscape and mitigation factors in aquatic ecological risk assessment. Volume 1. Extended summary and recommendations, the final report of the FOCUS working group on landscape and mitigation factors in ecological risk assessment, EC document reference SANCO/10422/2005, version 2.0, September 2007. FOCUS (2015). Generic Guidance for FOCUS Surface Water Scenarios, version 1.4.
Deviations:	No
GLP:	Not applicable
Acceptability:	Yes

A 3.10.1 Materials and methods

This report describes a FOCUS modelling study that examined the potential for azoxystrobin to reach surface water following field (foliar) and greenhouse applications to vegetables (leafy and fruiting) and field applications to vegetables (bulb) and hops. The FOCUS tool SWASH (v 5.3), including the operational models FOCUS-MACRO (v 5.5.4), FOCUS-PRZM (v 4.3.1) and FOCUS-TOXSWA (v 5.5.3), were used in the modelling study for Step 3 simulations. The ECPA tool SWAN (v 5.0.0) was used to implement mitigation options at Step 4.

Twofold applications at the rate of 250 g a.s./ha, were considered. Applications starting from approximately BBCH 11 were considered for vegetables with an interval of 7 days between applications for vegetables (leafy and fruiting), as well as 12 days for vegetables (bulb). For hops, applications from approximately BBCH 21 with an interval of 12 days between applications were considered. Due to the wide BBCH range, simulations were carried out for possible applications at early (BBCH 11 or 21), intermediate (BBCH 51) and late (BBCH 49 or 89) stages, depending on the crop. The input parameters relating to application are shown below.

Table A 93: Input parameters related to application for $PEC_{SW/SED}$ calculations

Crop	Vegetables, leafy	Vegetables, fruiting	Vegetables, bulb	Hops
Application rate (g a.s./ha)	250	250	250	250
Number of applications/interval (d)	2 / 7	2 / 7	2 / 12	2 / 12
BBCH growth stage	11 – 49	11 – 89	11 – 89	21 – 89
Application method	Ground spray	Ground spray	Ground spray	Airblast
CAM (Chemical application method)	2 (application foliar linear)			
Soil depth (cm)	4 (default)			
Models used for calculation	FOCUS SWASH v5.3, FOCUS PRZM v4.3.1, FOCUS MACRO v5.5.4, FOCUS TOXWA v5.5.3, SWAN v5.0.0			

Ground spray application (foliar spray) was considered as the application method in the simulations for vegetables (leafy, fruiting and bulb), while air blast was considered as the application method in the simulations for hops. Crop interception at Step 3 was calculated internally by the model on the basis of the maximum interception capacity and the actual leaf area index.

An application window has to be specified from which the Pesticide Application Timer (PAT), internal to the model, determines actual application dates which were set generically for all scenarios. The application dates for the early and intermediate applications were selected with the tool AppDate (v3.06) based on BBCH growth stages given in the recommended GAP. For the late applications, the end of the application window was set to the harvest date. Simulations were carried out using the FOCUS standard crops 'vegetables, leafy', 'vegetables, fruiting', 'vegetables, bulb' and 'hops'. Application windows are presented in the table, below.

Table A 94: FOCUS Step 3 Scenario related input parameters for $PEC_{SW/SED}$ calculations for the application of azoxystrobin to vegetables, leafy, vegetables, fruiting, hops and vegetables, bulb

Crop	Rationale	Scenario	Azoxystrobin			
			Application window used in modelling			
			Single application		Multiple applications	
			Start of Window	End of Window	Start of Window	End of Window
Vegetables, leafy, BBCH 11 – 49 2 × 250 g a.s./ha; 7 days interval, BBCH 11	Start of window at BBCH 11 (AppDate 3.06)	D3	30-Apr (120)	30-May (150)	30-Apr (120)	6-Jun (157)
		D3	10-Aug (222)	9-Sep (252)	10-Aug (222)	16-Sep (259)
		D4	18-May (138)	17-Jun (168)	18-May (138)	24-Jun (175)
		D6	21-Aug (233)	20-Sep (263)	21-Aug (233)	27-Sep (270)
		R1	25-Apr (115)	25-May (145)	25-Apr (115)	1-Jun (152)
		R1	5-Aug (217)	4-Sep (247)	5-Aug (217)	11-Sep (254)
		R2	9-Mar (68)	8-Apr (98)	9-Mar (68)	15-Apr (105)
		R2	4-Aug (216)	3-Sep (246)	4-Aug (216)	10-Sep (253)
		R3	8-Mar (67)	7-Apr (97)	8-Mar (67)	14-Apr (104)
		R3	22-Jun (173)	22-Jul (203)	22-Jun (173)	29-Jul (210)
		R4	8-Mar (67)	7-Apr (97)	8-Mar (67)	14-Apr (104)
		R4	22-Jun (173)	22-Jul (203)	22-Jun (173)	29-Jul (210)
Vegetables, leafy, BBCH 11 – 49 2 × 250 g a.s./ha; 7 days interval, BBCH 49	End of window at harvest	D3	20-Jun (171)	20-Jul (201)	13-Jun (164)	20-Jul (201)
		D3	20-Sep (263)	20-Oct (293)	13-Sep (256)	20-Oct (293)
		D4	27-Aug (239)	26-Sep (269)	20-Aug (232)	26-Sep (269)
		D6	31-Oct (304)	30-Nov (334)	24-Oct (297)	30-Nov (334)
		R1	15-Jun (166)	15-Jul (196)	8-Jun (159)	15-Jul (196)
		R1	15-Sep (258)	15-Oct (288)	8-Sep (251)	15-Oct (288)
		R2	1-Jun (152)	1-Jul (182)	25-May (145)	1-Jul (182)
		R2	16-Oct (289)	15-Nov (319)	9-Oct (282)	15-Nov (319)
		R3	2-May (122)	1-Jun (152)	25-Apr (115)	1-Jun (152)
		R3	16-Aug (228)	15-Sep (258)	9-Aug (221)	15-Sep (258)
		R4	2-May (122)	1-Jun (152)	25-Apr (115)	1-Jun (152)
		R4	16-Aug (228)	15-Sep (258)	9-Aug (221)	15-Sep (258)
Vegetables, fruiting, BBCH 11 –89 2 × 250 g a.s./ha; 7 days interval, BBCH 11	Start of window at BBCH 11 (AppDate 3.06)	D6	13-Apr (103)	13-May (133)	13-Apr (103)	20-May (140)
		R2	19-Mar (78)	18-Apr (108)	19-Mar (78)	25-Apr (115)
		R3	13-May (133)	12-Jun (163)	13-May (133)	19-Jun (170)
		R4	23-Apr (113)	23-May (143)	23-Apr (113)	30-May (150)
Vegetables, fruiting,	Start of window at	D6	15-May (135)	14-Jun (165)	15-May (135)	21-Jun (172)
		R2	19-May (139)	18-Jun (169)	19-May (139)	25-Jun (176)

Crop	Rationale	Scenario	Azoxystrobin			
			Application window used in modelling			
			Single application		Multiple applications	
			Start of Window	End of Window	Start of Window	End of Window
BBCH 11 – 89 2 × 250 g a.s./ha; 7 days interval, BBCH 51	BBCH 51 (AppDate 3.06)	R3	15-Jun (166)	15-Jul (196)	15-Jun (166)	22-Jul (203)
		R4	26-May (146)	25-Jun (176)	26-May (146)	2-Jul (183)
Vegetables, fruiting, BBCH 11 – 89 2 × 250 g a.s./ha; 7 days interval, BBCH 89	End of window at harvest	D6	11-Jul (192)	10-Aug (222)	4-Jul (185)	10-Aug (222)
		R2	1-Aug (213)	31-Aug (243)	25-Jul (206)	31-Aug (243)
		R3	26-Jul (207)	25-Aug (237)	19-Jul (200)	25-Aug (237)
		R4	15-Jun (166)	15-Jul (196)	8-Jun (159)	15-Jul (196)
Vegetables, bulb, BBCH 11 - 49 2 × 250 g a.s./ha; 12 days interval, BBCH 11	Start of window at BBCH 11 (AppDate 3.06)	D3	3-May (123)	2-Jun (153)	3-May (123)	14-Jun (165)
		D4	2-May (122)	1-Jun (152)	2-May (122)	13-Jun (164)
		D6	16-May (136)	15-Jun (166)	16-May (136)	27-Jun (178)
		D6	4-Nov (308)	4-Dec (338)	4-Nov (308)	16-Dec (350)
		R1	28-Apr (118)	28-May (148)	28-Apr (118)	9-Jun (160)
		R2	9-Mar (68)	8-Apr (98)	9-Mar (68)	20-Apr (110)
		R3	9-Mar (68)	8-Apr (98)	9-Mar (68)	20-Apr (110)
		R4	9-Mar (68)	8-Apr (98)	9-Mar (68)	20-Apr (110)
Vegetables, bulb, BBCH 11 - 49 2 × 250 g a.s./ha; 12 days interval, BBCH 49	End of window at harvest	D3	2-Aug (214)	1-Sep (244)	21-Jul (202)	1-Sep (244)
		D4	14-Aug (226)	13-Sep (256)	2-Aug (214)	13-Sep (256)
		D6	1-Jul (182)	31-Jul (212)	19-Jun (170)	31-Jul (212)
		D6	11-Mar (70)	10-Apr (100)	27-Feb (58)	10-Apr (100)
		R1	26-Jul (207)	25-Aug (237)	14-Jul (195)	25-Aug (237)
		R2	1-May (121)	31-May (151)	19-Apr (109)	31-May (151)
		R3	1-May (121)	31-May (151)	19-Apr (109)	31-May (151)
		R4	1-May (121)	31-May (151)	19-Apr (109)	31-May (151)
Hops BBCH 21 - 89 2 × 250 g a.s./ha; 12 days interval, BBCH 21	Start of window at BBCH 21 (AppDate 3.06)	R1	15-May (135)	14-Jun (165)	15-May (135)	26-Jun (177)
Hops BBCH 21 - 89 2 × 250 g a.s./ha; 12 days interval, BBCH 51	Start of window at BBCH 51 (AppDate 3.06)	R1	7-Jul (188)	6-Aug (218)	7-Jul (188)	18-Aug (230)

Crop	**Rationale**	**Scenario**	**Azoxystrobin**			
			Application window used in modelling			
			Single application		**Multiple applications**	
			Start of Window	**End of Window**	**Start of Window**	**End of Window**
Hops BBCH 21 - 89 2 × 250 g a.s./ha; 12 days interval, BBCH 89	End of window at harvest	R1	2-Aug (214)	1-Sep (244)	21-Jul (202)	1-Sep (244)

Numbers in brackets are the corresponding 'Julian Day' numbers

Due to the statistical nature of the drift implementation at Step 3 (FOCUS, 2001, 2015), the drift loading to the water body for a single application is higher than the loading from an individual event from a multiple application pattern; this can result in higher global maximum PEC_{SW} values for the single application. Therefore all values are presented, but where the single application results in a higher maximum PEC, this is highlighted in the summary tables.

Step 4 calculations were carried out considering the following mitigation methods:

- spray drift reduction by non-sprayed buffer strips of 10 m, 15 m and 20 m for hops only
- spray drift reduction by 50%, 75% and 90% drift reduction nozzles for hops only
- runoff reduction using vegetated buffer strips of 10 m and 20 m using runoff and erosion reduction values as given by the FOCUS Working Group on Landscape and Mitigation Factors (2007) of 60/85% for 10 m and 80/95% for 20 m, for vegetables (leafy, fruiting, bulb).
- Runoff reduction considering 5 m VFSmod for vegetables (leafy, fruiting, bulb).

In order to simulate conditions in greenhouses, drift entries to surface water were amended with a drift rate of 0.1% of the dose rate at Step 3 (EFSA, 2014). As entry via runoff is not expected to occur in greenhouses, only the FOCUS D scenarios were considered.

The input parameters for azoxystrobin used in the modelling are shown in Table 3. In accordance with FOCUS guidance (FOCUS 2015), since the K_{FOC} value of azoxystrobin is between 100 – 2000 mL/g calculations were run twice with two different parameter sets for degradation in water and sediment. In Option 1 the measured whole system DT_{50} was used to describe the degradation in sediment together with the default value of 1000 days for water. In Option 2 these DT_{50} values were reversed.

Table A 95: Input parameters related to active substance azoxystrobin for $PEC_{SW/SED}$ calculations

Compound	**Azoxystrobin**	**Value in accordance with EU endpoint / Reference**
Molar mass (g/mol)	403.4	Yes / EFSA, 2010
Water solubility (mg/L)	6.0 (20°C)	Yes / EFSA, 2010
Saturated vapour pressure (Pa)	1.1×10^{-10} (20 °C)	Yes / EFSA, 2010
K_{FOC} / K_{FOM} (mL/g)	423 / 245 (arithmetic mean, n = 6)	Yes / EFSA, 2010 $K_{FOM} = K_{FOC}/1.724$
Freundlich Exponent	0.86	Yes / EFSA, 2010

Compound	**Azoxystrobin**	**Value in accordance with EU endpoint / Reference**
1/n	(arithmetic mean, n = 6)	
Plant Uptake	0 (worst case value)	FOCUS default
$DT_{50,soil}$ (d)	78[a] (geometric mean field , n = 13)	Yes / EFSA, 2010
$DT_{50,water}$ (d)	**Option 1:** 1000[* b] **Option 2:** 205[**b] (geometric mean, total system, n = 2)	[*]FOCUS default [**]Yes / EFSA, 2010
$DT_{50,sed}$ (d)	**Option 1:** 205[*b] (geometric mean, total system, n = 2) **Option 2:** 1000[**b]	[*]Yes / EFSA, 2010 [**]FOCUS default

[a] calculated from the geometric mean of the soil incorporated field studies (80.2 days, n = 3) and the slow phase of the non-incorporated studies (75.9 days, n = 10)
[b] for compounds with K_{OC} between 100 and 2000 mL/g , the FOCUS kinetics advice regarding running simulations with both combinations for ascribing the whole system DT_{50} and default and selecting the results that give the highest concentrations for the risk assessment was followed.

A 3.10.2 RESULTS

Predicted environmental concentrations in surface water (PEC_{SW}) and sediment (PEC_{SED}) were calculated for the use of azoxystrobin on vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops in Europe in accordance with FOCUS guidelines.

The results are presented in the tables below in the following order:

Field uses:

FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Option 1 and Option 2

FOCUS Application dates and global maximum timing

FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Maximum over Option 1 and Option 2

FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Maximum over single and multiple applications

FOCUS Step 4 PEC_{SW} and PEC_{SED} for azoxystrobin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Option 1 and Option 2

FOCUS Step 4 PEC_{SW} and PEC_{SED} for azoxystrobin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Maximum over Option 1 and Option 2

FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Maximum over single and multiple applications

Greenhouse uses:

FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following applications to vegetables, leafy and vegetables, fruiting, Option 1 and Option 2 – 0.1% drift

FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following applications to vegetables, leafy and vegetables, fruiting, – Maximum over Option 1 and Option 2 – 0.1% drift

Field uses:

Table A 96: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	1.58	Drift	0.795	1.58	Drift	0.795
	D3	ditch 2nd	1.59	Drift	0.851	1.59	Drift	0.851
	D4	pond	0.658	Drainage	4.29	0.651	Drainage	4.33
	D4	stream	1.26	Drift	1.66	1.26	Drift	1.70
	D6	ditch	2.58	Drainage	2.50	2.58	Drainage	2.64
	R1	pond 1st	0.224	Runoff	1.54	0.221	Runoff	1.55
	R1	pond 2nd	0.206	Runoff	1.61	0.200	Runoff	1.61
	R1	stream 1st	2.29	Runoff	0.880	2.29	Runoff	0.885
	R1	stream 2nd	1.87	Runoff	0.965	1.87	Runoff	0.967
	R2	stream 1st	1.38	Drift	2.20	1.38	Drift	2.20
	R2	stream 2nd	1.40	Drift	1.53	1.40	Drift	1.55
	R3	stream 1st	3.37	Runoff	1.22	3.37	Runoff	1.22
	R3	stream 2nd	3.36	Runoff	2.53	3.36	Runoff	2.54
	R4	stream 1st	1.77	Runoff	0.847	1.77	Runoff	0.848
	R4	stream 2nd	5.39	Runoff	2.63	5.39	Runoff	2.63
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	1.39	Drift	0.931	1.39	Drift	0.935
	D3	ditch 2nd	1.39	Drift	0.957	1.39	Drift	0.962
	D4	pond	1.38	Drainage	8.41	1.36	Drainage	8.50
	D4	stream	1.33	Drainage	3.27	1.33	Drainage	3.33
	D6	ditch	5.66	Drainage	5.28	5.66	Drainage	5.58
	R1	pond 1st	0.450	Runoff	2.76	0.446	Runoff	2.79
	R1	pond 2nd	0.412	Runoff	3.11	0.401	Runoff	3.11
	R1	stream 1st	4.91	Runoff	1.80	4.91	Runoff	1.81
	R1	stream 2nd	4.26	Runoff	2.18	4.26	Runoff	2.19
	R2	stream 1st	2.51	Runoff	5.17	2.51	Runoff	5.18

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
	R2	stream 2nd	1.28	Runoff	2.82	1.28	Runoff	2.83
	R3	stream 1st	4.35	Runoff	2.68	4.35	Runoff	2.69
	R3	stream 2nd	5.77	Runoff	4.84	5.77	Runoff	4.89
	R4	stream 1st	6.45	Runoff	3.13	6.45	Runoff	3.13
	R4	stream 2nd	8.52	Runoff	4.79	8.52	Runoff	4.82
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	1.59	Drift	0.808	1.59	Drift	0.808
	D3	ditch 2nd	1.58	Drift	0.593	1.58	Drift	0.593
	D4	pond	0.398	Drainage	2.76	0.393	Drainage	2.77
	D4	stream	1.13	Drift	0.965	1.13	Drift	0.975
	D6	ditch	5.12	Drainage	5.64	5.12	Drainage	5.96
	R1	pond 1st	0.608	Runoff	3.36	0.598	Runoff	3.29
	R1	pond 2nd	0.296	Runoff	1.88	0.292	Runoff	1.89
	R1	stream 1st	2.31	Runoff	2.85	2.31	Runoff	2.86
	R1	stream 2nd	1.43	Runoff	0.577	1.43	Runoff	0.586
	R2	stream 1st	1.40	Drift	2.28	1.40	Drift	2.43
	R2	stream 2nd	1.39	Drift	3.29	1.39	Drift	3.31
	R3	stream 1st	2.58	Runoff	2.47	2.58	Runoff	2.54
	R3	stream 2nd	2.50	Runoff	2.39	2.50	Runoff	2.49
	R4	stream 1st	3.24	Runoff	2.33	3.24	Runoff	2.35
	R4	stream 2nd	3.39	Runoff	2.30	3.39	Runoff	2.30
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	1.39	Drift	0.930	1.39	Drift	0.935
	D3	ditch 2nd	1.38	Drift	0.718	1.38	Drift	0.720
	D4	pond	1.40	Drainage	8.37	1.39	Drainage	8.40
	D4	stream	1.68	Drainage	3.29	1.68	Drainage	3.32
	D6	ditch	12.0	Drainage	13.4	12.0	Drainage	14.1
	R1	pond 1st	0.897	Runoff	5.50	0.887	Runoff	5.40
	R1	pond 2nd	0.721	Runoff	4.22	0.713	Runoff	4.23
	R1	stream 1st	4.88	Runoff	4.90	4.88	Runoff	4.93
	R1	stream 2nd	3.76	Runoff	1.47	3.76	Runoff	1.48
	R2	stream 1st	1.74	Runoff	4.53	1.74	Runoff	4.54
	R2	stream 2nd	1.41	Runoff	4.85	1.41	Runoff	4.92
	R3	stream 1st	4.38	Runoff	2.96	4.38	Runoff	3.05
	R3	stream 2nd	5.58	Runoff	7.80	5.58	Runoff	7.88

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
	R4	stream 1st	7.15	Runoff	3.94	7.15	Runoff	3.95
	R4	stream 2nd	6.92	Runoff	4.74	6.92	Runoff	4.76

Table A 97: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 11	D6	ditch	1.56	Drift	0.432	1.56	Drift	0.440
	R2	stream	1.38	Drift	2.16	1.38	Drift	2.16
	R3	stream	3.99	Runoff	1.56	3.99	Runoff	1.56
	R4	stream	5.71	Runoff	2.84	5.71	Runoff	2.84
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11	D6	ditch	1.37	Drift	0.798	1.37	Drift	0.866
	R2	stream	1.72	Runoff	2.16	1.72	Runoff	2.21
	R3	stream	4.22	Runoff	2.75	4.22	Runoff	2.78
	R4	stream	8.52	Runoff	4.65	8.52	Runoff	4.66
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 51	D6	ditch	1.58	Drift	0.583	1.58	Drift	0.596
	R2	stream	1.40	Drift	1.85	1.40	Drift	1.85
	R3	stream	2.27	Runoff	1.96	2.27	Runoff	1.97
	R4	stream	2.98	Runoff	1.44	2.98	Runoff	1.44
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 51	D6	ditch	1.38	Drift	1.10	1.38	Drift	1.19
	R2	stream	1.90	Runoff	3.90	1.90	Runoff	3.91
	R3	stream	5.55	Runoff	4.41	5.55	Runoff	4.42
	R4	stream	7.40	Runoff	3.53	7.40	Runoff	3.54
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 89	D6	ditch	1.96	Drainage	1.53	1.96	Drainage	1.64
	R2	stream	1.40	Drift	2.81	1.40	Drift	2.89
	R3	stream	2.59	Runoff	2.63	2.59	Runoff	2.74
	R4	stream	3.73	Runoff	2.11	3.73	Runoff	2.13
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.67	Drainage	3.10	3.67	Drainage	3.33
	R2	stream	1.21	Drift	5.35	1.21	Drift	5.52
	R3	stream	5.49	Runoff	5.66	5.49	Runoff	5.72

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
	R4	stream	6.62	Runoff	3.82	6.62	Runoff	3.84

Table A 98: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, bulb

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, bulb, 1 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58	Drift	0.799	1.58	Drift	0.799
	D4	pond	0.622	Drainage	4.06	0.615	Drainage	4.10
	D4	stream	1.22	Drift	1.56	1.22	Drift	1.60
	D6	ditch 1st	1.60	Drift	1.31	1.60	Drift	1.33
	D6	ditch 2nd	4.57	Drainage	3.97	4.57	Drainage	4.48
	R1	pond	0.217	Runoff	1.28	0.215	Runoff	1.29
	R1	stream	2.24	Runoff	0.959	2.24	Runoff	0.961
	R2	stream	1.38	Drift	2.20	1.38	Drift	2.20
	R3	stream	3.39	Runoff	1.21	3.39	Runoff	1.21
	R4	stream	5.69	Runoff	2.75	5.69	Runoff	2.75
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 11	D3	ditch	1.39	Drift	0.916	1.39	Drift	0.921
	D4	pond	1.31	Drainage	8.06	1.30	Drainage	8.14
	D4	stream	1.26	Drainage	3.11	1.26	Drainage	3.18
	D6	ditch 1st	2.37	Drainage	2.32	2.37	Drainage	2.58
	D6	ditch 2nd	12.7	Drainage	13.0	12.7	Drainage	14.1
	R1	pond	0.493	Runoff	2.68	0.488	Runoff	2.69
	R1	stream	5.52	Runoff	2.22	5.52	Runoff	2.23
	R2	stream	2.42	Runoff	3.94	2.42	Runoff	3.96
	R3	stream	4.48	Runoff	2.70	4.48	Runoff	2.71
	R4	stream	6.23	Runoff	3.50	6.23	Runoff	3.51
Vegetables, bulb, 1 × 250 g a.s./ha, BBCH 49	D3	ditch	1.59	Drift	0.809	1.59	Drift	0.809
	D4	pond	0.494	Drainage	3.33	0.488	Drainage	3.35
	D4	stream	1.13	Drift	1.18	1.13	Drift	1.19
	D6	ditch 1st	1.60	Drift	2.34	1.60	Drift	2.37

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
	D6	ditch 2nd	1.61	Drift	1.56	1.61	Drift	1.57
	R1	pond	0.120	Runoff	0.921	0.117	Runoff	0.923
	R1	stream	1.04	Runoff	0.375	1.04	Runoff	0.377
	R2	stream	1.40	Drift	2.85	1.40	Drift	2.86
	R3	stream	3.31	Runoff	1.36	3.31	Runoff	1.37
	R4	stream	4.45	Runoff	2.52	4.45	Runoff	2.53
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.39	Drift	0.916	1.39	Drift	0.921
	D4	pond	1.36	Drainage	8.32	1.34	Drainage	8.37
	D4	stream	1.61	Drainage	3.13	1.61	Drainage	3.17
	D6	ditch 1st	1.73	Drainage	3.39	1.73	Drainage	3.50
	D6	ditch 2nd	1.46	Drift	1.97	1.46	Drift	2.18
	R1	pond	0.284	Runoff	1.99	0.278	Runoff	1.99
	R1	stream	2.86	Runoff	1.000	2.86	Runoff	1.00
	R2	stream	1.87	Runoff	4.04	1.87	Runoff	4.06
	R3	stream	5.07	Runoff	2.18	5.07	Runoff	2.18
	R4	stream	6.45	Runoff	3.90	6.45	Runoff	3.92

Table A 99: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to hops

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Hops, 1 × 250 g a.s./ha, BBCH 21	R1	pond	0.657	Drift	2.65	0.657	Drift	2.62
	R1	stream	9.44	Drift	1.25	9.44	Drift	1.25
Hops, 2 × 250 g a.s./ha, BBCH 21	R1	pond	0.847	Drift	3.72	0.841	Drift	3.72
	R1	stream	7.82	Drift	1.08	7.82	Drift	1.08
Hops, 1 × 250 g a.s./ha, BBCH 51	R1	pond	0.657	Drift	2.70	0.657	Drift	2.64
	R1	stream	9.21	Drift	0.722	9.21	Drift	0.722
Hops,	R1	pond	0.828	Drift	3.81	0.817	Drift	3.71

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
2 × 250 g a.s./ha, BBCH 51	R1	stream	7.81	Drift	0.755	7.81	Drift	0.759
Hops, 1 × 250 g a.s./ha, BBCH 89	R1	pond	0.657	Drift	2.82	0.657	Drift	2.76
	R1	stream	9.46	Drift	1.33	9.46	Drift	1.33
Hops, 2 × 250 g a.s./ha, BBCH 89	R1	pond	0.809	Drift	3.89	0.796	Drift	3.79
	R1	stream	8.03	Drift	1.22	8.03	Drift	1.22

Table A 100: FOCUS Application dates and global maximum timing for vegetables, leafy

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	4-May-92	-	4-May-92	4-May-92
	D3	ditch 2nd	18-Aug-92	-	18-Aug-92	18-Aug-92
	D4	pond	18-May-85	-	30-Dec-85	29-Dec-85
	D4	stream	18-May-85	-	18-May-85	18-May-85
	D6	ditch	25-Aug-86	-	29-Oct-86	29-Oct-86
	R1	pond 1st	26-Apr-84	-	30-May-84	30-May-84
	R1	pond 2nd	20-Aug-78	-	31-Dec-78	31-Dec-78
	R1	stream 1st	26-Apr-84	-	20-May-84	20-May-84
	R1	stream 2nd	20-Aug-78	-	17-Sep-78	17-Sep-78
	R2	stream 1st	22-Mar-77	-	22-Mar-77	22-Mar-77
	R2	stream 2nd	5-Aug-89	-	5-Aug-89	5-Aug-89
	R3	stream 1st	10-Mar-80	-	22-Mar-80	22-Mar-80
	R3	stream 2nd	25-Jun-75	-	1-Jul-75	1-Jul-75
	R4	stream 1st	8-Mar-84	-	12-Apr-84	12-Apr-84
	R4	stream 2nd	23-Jun-85	-	28-Jun-85	28-Jun-85
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	4-May-92	14-May-92	14-May-92	14-May-92
	D3	ditch 2nd	18-Aug-92	26-Aug-92	26-Aug-92	26-Aug-92
	D4	pond	18-May-85	29-May-85	29-Dec-85	29-Dec-85
	D4	stream	18-May-85	29-May-85	7-Dec-85	7-Dec-85
	D6	ditch	25-Aug-86	1-Sep-86	29-Oct-86	29-Oct-86
	R1	pond 1st	26-Apr-84	3-May-84	30-May-84	30-May-84

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
	R1	pond 2nd	20-Aug-78	2-Sep-78	31-Dec-78	31-Dec-78
	R1	stream 1st	26-Apr-84	3-May-84	20-May-84	20-May-84
	R1	stream 2nd	20-Aug-78	2-Sep-78	17-Sep-78	17-Sep-78
	R2	stream 1st	21-Mar-77	30-Mar-77	3-Apr-77	3-Apr-77
	R2	stream 2nd	5-Aug-89	12-Aug-89	22-Oct-89	22-Oct-89
	R3	stream 1st	10-Mar-80	28-Mar-80	20-Apr-80	20-Apr-80
	R3	stream 2nd	25-Jun-75	6-Jul-75	10-Jul-75	10-Jul-75
	R4	stream 1st	8-Mar-84	3-Apr-84	12-Apr-84	12-Apr-84
	R4	stream 2nd	23-Jun-85	30-Jun-85	5-Jul-85	5-Jul-85
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	25-Jun-92	-	25-Jun-92	25-Jun-92
	D3	ditch 2nd	19-Sep-92	-	19-Sep-92	19-Sep-92
	D4	pond	27-Aug-85	-	31-Dec-85	31-Dec-85
	D4	stream	27-Aug-85	-	27-Aug-85	27-Aug-85
	D6	ditch	31-Oct-86	-	23-Dec-86	23-Dec-86
	R1	pond 1st	29-Jun-78	-	18-Jul-78	18-Jul-78
	R1	pond 2nd	19-Sep-78	-	31-Dec-78	31-Dec-78
	R1	stream 1st	29-Jun-78	-	9-Jul-78	9-Jul-78
	R1	stream 2nd	19-Sep-78	-	25-Oct-78	25-Oct-78
	R2	stream 1st	4-Jun-89	-	4-Jun-89	4-Jun-89
	R2	stream 2nd	24-Oct-77	-	24-Oct-77	24-Oct-77
	R3	stream 1st	18-May-80	-	23-May-80	23-May-80
	R3	stream 2nd	28-Aug-75	-	2-Sep-75	2-Sep-75
	R4	stream 1st	4-May-84	-	10-May-84	10-May-84
	R4	stream 2nd	19-Aug-85	-	24-Aug-85	24-Aug-85
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	14-Jun-92	25-Jun-92	25-Jun-92	25-Jun-92
	D3	ditch 2nd	17-Sep-92	24-Sep-92	24-Sep-92	24-Sep-92
	D4	pond	27-Aug-85	10-Sep-85	31-Dec-85	31-Dec-85
	D4	stream	27-Aug-85	10-Sep-85	7-Dec-85	7-Dec-85
	D6	ditch	25-Oct-86	1-Nov-86	5-Nov-86	5-Nov-86
	R1	pond 1st	29-Jun-78	11-Jul-78	18-Jul-78	18-Jul-78
	R1	pond 2nd	19-Sep-78	6-Oct-78	31-Dec-78	31-Dec-78
	R1	stream 1st	29-Jun-78	11-Jul-78	18-Jul-78	18-Jul-78
	R1	stream 2nd	19-Sep-78	6-Oct-78	25-Oct-78	25-Oct-78
	R2	stream 1st	25-May-77	3-Jun-77	10-Jun-77	10-Jun-77

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
	R2	stream 2nd	11-Oct-77	24-Oct-77	6-Nov-77	6-Nov-77
	R3	stream 1st	25-Apr-80	18-May-80	23-May-80	23-May-80
	R3	stream 2nd	12-Aug-75	19-Aug-75	23-Aug-75	23-Aug-75
	R4	stream 1st	25-Apr-84	4-May-84	10-May-84	10-May-84
	R4	stream 2nd	12-Aug-85	19-Aug-85	24-Aug-85	24-Aug-85

Table A 101: FOCUS Application dates and global maximum timing for vegetables, fruiting

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 11	D6	ditch	23-Apr-86	-	23-Apr-86	23-Apr-86
	R2	stream	22-Mar-77	-	22-Mar-77	22-Mar-77
	R3	stream	18-May-80	-	23-May-80	23-May-80
	R4	stream	23-Apr-84	-	28-Apr-84	28-Apr-84
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11	D6	ditch	23-Apr-86	7-May-86	7-May-86	7-May-86
	R2	stream	22-Mar-77	22-Apr-77	5-May-77	5-May-77
	R3	stream	18-May-80	01-Jun-80	22-Jun-80	22-Jun-80
	R4	stream	23-Apr-84	4-May-84	9-May-84	9-May-84
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 51	D6	ditch	19-May-86	-	19-May-86	19-May-86
	R2	stream	20-May-77	-	20-May-77	20-May-77
	R3	stream	18-Jun-75	-	29-Jun-75	29-Jun-75
	R4	stream	27-May-84	-	14-Jun-84	14-Jun-84
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 51	D6	ditch	19-May-86	31-May-86	19-May-86	19-May-86
	R2	stream	20-May-77	27-May-77	10-Jun-77	10-Jun-77
	R3	stream	18-Jun-75	25-Jun-75	29-Jun-75	29-Jun-75
	R4	stream	27-May-84	6-Jun-84	14-Jun-84	14-Jun-84
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 89	D6	ditch	17-Jul-86	-	30-Oct-86	30-Oct-86
	R2	stream	5-Aug-89	-	5-Aug-89	5-Aug-89
	R3	stream	30-Jul-75	-	5-Aug-75	5-Aug-75
	R4	stream	23-Jun-85	-	28-Jun-85	28-Jun-85
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 89	D6	ditch	6-Jul-86	17-Jul-86	30-Oct-86	30-Oct-86
	R2	stream	5-Aug-89	12-Aug-89	12-Aug-89	12-Aug-89
	R3	stream	24-Jul-75	31-Jul-75	5-Aug-75	5-Aug-75
	R4	stream	12-Jun-85	23-Jun-85	28-Jun-85	28-Jun-85

Table A 102: FOCUS Application dates and global maximum timing for vegetables, bulb

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
Vegetables, bulb, 1 × 250 g a.s./ha, BBCH 11	D3	ditch	4-May-92	-	4-May-92	4-May-92
	D4	pond	12-May-85	-	29-Dec-85	29-Dec-85
	D4	stream	12-May-85	-	12-May-85	12-May-85
	D6	ditch 1st	16-May-86	-	16-May-86	16-May-86
	D6	ditch 2nd	6-Nov-86	-	19-Jan-87	19-Jan-87
	R1	pond	28-Apr-84	-	30-May-84	30-May-84
	R1	stream	28-Apr-84	-	20-May-84	20-May-84
	R2	stream	22-Mar-77	-	22-Mar-77	22-Mar-77
	R3	stream	10-Mar-80	-	22-Mar-80	22-Mar-80
	R4	stream	9-Mar-84	-	14-Mar-84	14-Mar-84
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 11	D3	ditch	4-May-92	16-May-92	16-May-92	16-May-92
	D4	pond	12-May-85	24-May-85	29-Dec-85	29-Dec-85
	D4	stream	12-May-85	24-May-85	7-Dec-85	7-Dec-85
	D6	ditch 1st	16-May-86	28-May-86	5-Nov-86	5-Nov-86
	D6	ditch 2nd	1-Dec-86	13-Dec-86	25-Dec-86	25-Dec-86
	R1	pond	28-Apr-84	10-May-84	30-May-84	30-May-84
	R1	stream	28-Apr-84	10-May-84	20-May-84	20-May-84
	R2	stream	14-Mar-77	26-Mar-77	3-Apr-77	3-Apr-77
	R3	stream	10-Mar-80	28-Mar-80	20-Apr-80	20-Apr-80
	R4	stream	9-Mar-84	3-Apr-84	11-Apr-84	11-Apr-84
Vegetables, bulb, 1 × 250 g a.s./ha, BBCH 49	D3	ditch	4-Aug-92	-	4-Aug-92	4-Aug-92
	D4	pond	27-Aug-85	-	30-Dec-85	30-Dec-85
	D4	stream	27-Aug-85	-	27-Aug-85	27-Aug-85
	D6	ditch 1st	1-Jul-86	-	1-Jul-86	1-Jul-86
	D6	ditch 2nd	14-Mar-86	-	14-Mar-86	14-Mar-86
	R1	pond	28-Jul-78	-	31-Dec-78	31-Dec-78
	R1	stream	28-Jul-78	-	29-Sep-78	29-Sep-78
	R2	stream	7-May-77	-	7-May-77	7-May-77
	R3	stream	18-May-80	-	23-May-80	23-May-80
	R4	stream	7-May-84	-	12-May-84	12-May-84
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 49	D3	ditch	24-Jul-92	5-Aug-92	5-Aug-92	5-Aug-92
	D4	pond	27-Aug-85	10-Sep-85	30-Dec-85	30-Dec-85
	D4	stream	27-Aug-85	10-Sep-85	7-Dec-85	7-Dec-85

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
	D6	ditch 1st	19-Jun-86	1-Jul-86	5-Nov-86	5-Nov-86
	D6	ditch 2nd	27-Feb-86	14-Mar-86	27-Feb-86	27-Feb-86
	R1	pond	28-Jul-78	20-Aug-78	31-Dec-78	31-Dec-78
	R1	stream	28-Jul-78	20-Aug-78	29-Sep-78	29-Sep-78
	R2	stream	22-Apr-77	7-May-77	13-May-77	13-May-77
	R3	stream	22-Apr-80	18-May-80	23-May-80	23-May-80
	R4	stream	20-Apr-84	7-May-84	12-May-84	12-May-84

Table A 103: FOCUS Application dates and global maximum timing for hops

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
Hops, 1 × 250 g a.s./ha, BBCH 21	R1	pond	13-Jun-84	-	13-Jun-84	13-Jun-84
	R1	stream	13-Jun-84	-	13-Jun-84	13-Jun-84
Hops, 2 × 250 g a.s./ha, BBCH 21	R1	pond	15-May-84	31-May-84	31-May-84	31-May-84
	R1	stream	15-May-84	31-May-84	31-May-84	31-May-84
Hops, 1 × 250 g a.s./ha, BBCH 51	R1	pond	11-Jul-78	-	11-Jul-78	11-Jul-78
	R1	stream	11-Jul-78	-	11-Jul-78	11-Jul-78
Hops, 2 × 250 g a.s./ha, BBCH 51	R1	pond	11-Jul-78	28-Jul-78	28-Jul-78	28-Jul-78
	R1	stream	11-Jul-78	28-Jul-78	28-Jul-78	28-Jul-78
Hops, 1 × 250 g a.s./ha, BBCH 89	R1	pond	20-Aug-78	-	20-Aug-78	20-Aug-78
	R1	stream	20-Aug-78	-	20-Aug-78	20-Aug-78
Hops, 2 × 250 g a.s./ha, BBCH 89	R1	pond	28-Jul-78	20-Aug-78	20-Aug-78	20-Aug-78
	R1	stream	28-Jul-78	20-Aug-78	20-Aug-78	20-Aug-78

Table A 104: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy – maximum over option 1 and option 2

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	1.58	Drift	0.795
	D3	ditch 2nd	1.59	Drift	0.851
	D4	pond	0.658	Drainage	4.33

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
	D4	stream	1.26	Drift	1.70
	D6	ditch	2.58	Drainage	2.64
	R1	pond 1st	0.224	Runoff	1.55
	R1	pond 2nd	0.206	Runoff	1.61
	R1	stream 1st	2.29	Runoff	0.885
	R1	stream 2nd	1.87	Runoff	0.967
	R2	stream 1st	1.38	Drift	2.20
	R2	stream 2nd	1.40	Drift	1.55
	R3	stream 1st	3.37	Runoff	1.22
	R3	stream 2nd	3.36	Runoff	2.54
	R4	stream 1st	1.77	Runoff	0.848
	R4	stream 2nd	5.39	Runoff	2.63
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	1.39	Drift	0.935
	D3	ditch 2nd	1.39	Drift	0.962
	D4	pond	1.38	Drainage	8.50
	D4	stream	1.33	Drainage	3.33
	D6	ditch	5.66	Drainage	5.58
	R1	pond 1st	0.450	Runoff	2.79
	R1	pond 2nd	0.412	Runoff	3.11
	R1	stream 1st	4.91	Runoff	1.81
	R1	stream 2nd	4.26	Runoff	2.19
	R2	stream 1st	2.51	Runoff	5.18
	R2	stream 2nd	1.28	Runoff	2.83
	R3	stream 1st	4.35	Runoff	2.69
	R3	stream 2nd	5.77	Runoff	4.89
	R4	stream 1st	6.45	Runoff	3.13
	R4	stream 2nd	8.52	Runoff	4.82
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	1.59	Drift	0.808
	D3	ditch 2nd	1.58	Drift	0.593
	D4	pond	0.398	Drainage	2.77
	D4	stream	1.13	Drift	0.975
	D6	ditch	5.12	Drainage	5.96
	R1	pond 1st	0.608	Runoff	3.36
	R1	pond 2nd	0.296	Runoff	1.89
	R1	stream 1st	2.31	Runoff	2.86
	R1	stream 2nd	1.43	Runoff	0.586
	R2	stream 1st	1.40	Drift	2.43

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
	R2	stream 2nd	1.39	Drift	3.31
	R3	stream 1st	2.58	Runoff	2.54
	R3	stream 2nd	2.50	Runoff	2.49
	R4	stream 1st	3.24	Runoff	2.35
	R4	stream 2nd	3.39	Runoff	2.30
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	1.39	Drift	0.935
	D3	ditch 2nd	1.38	Drift	0.720
	D4	pond	1.40	Drainage	8.40
	D4	stream	1.68	Drainage	3.32
	D6	ditch	12.0	Drainage	14.1
	R1	pond 1st	0.897	Runoff	5.50
	R1	pond 2nd	0.721	Runoff	4.23
	R1	stream 1st	4.88	Runoff	4.93
	R1	stream 2nd	3.76	Runoff	1.48
	R2	stream 1st	1.74	Runoff	4.54
	R2	stream 2nd	1.41	Runoff	4.92
	R3	stream 1st	4.38	Runoff	3.05
	R3	stream 2nd	5.58	Runoff	7.88
	R4	stream 1st	7.15	Runoff	3.95
	R4	stream 2nd	6.92	Runoff	4.76

[a] maximum over option 1 and 2

Table A 105: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – maximum over option 1 and option 2

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 11	D6	ditch	1.56	Drift	0.440
	R2	stream	1.38	Drift	2.16
	R3	stream	3.99	Runoff	1.56
	R4	stream	5.71	Runoff	2.84
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11	D6	ditch	1.37	Drift	0.866
	R2	stream	1.72	Runoff	2.21
	R3	stream	4.22	Runoff	2.78
	R4	stream	8.52	Runoff	4.66
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 51	D6	ditch	1.58	Drift	0.596
	R2	stream	1.40	Drift	1.85
	R3	stream	2.27	Runoff	1.97

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
	R4	stream	2.98	Runoff	1.44
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 51	D6	ditch	1.38	Drift	1.19
	R2	stream	1.90	Runoff	3.91
	R3	stream	5.55	Runoff	4.42
	R4	stream	7.40	Runoff	3.54
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 89	D6	ditch	1.96	Drainage	1.64
	R2	stream	1.40	Drift	2.89
	R3	stream	2.59	Runoff	2.74
	R4	stream	3.73	Runoff	2.13
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.67	Drainage	3.33
	R2	stream	1.21	Drift	5.52
	R3	stream	5.49	Runoff	5.72
	R4	stream	6.62	Runoff	3.84

[a] maximum over option 1 and 2

Table A 106: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, bulb – maximum over option 1 and option 2

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, bulb, 1 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58	Drift	0.799
	D4	pond	0.622	Drainage	4.10
	D4	stream	1.22	Drift	1.60
	D6	ditch 1st	1.60	Drift	1.33
	D6	ditch 2nd	4.57	Drainage	4.48
	R1	pond	0.217	Runoff	1.29
	R1	stream	2.24	Runoff	0.961
	R2	stream	1.38	Drift	2.20
	R3	stream	3.39	Runoff	1.21
	R4	stream	5.69	Runoff	2.75
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 11	D3	ditch	1.39	Drift	0.921
	D4	pond	1.31	Drainage	8.14
	D4	stream	1.26	Drainage	3.18
	D6	ditch 1st	2.37	Drainage	2.58
	D6	ditch 2nd	12.7	Drainage	14.1
	R1	pond	0.493	Runoff	2.69
	R1	stream	5.52	Runoff	2.23
	R2	stream	2.42	Runoff	3.96

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
	R3	stream	4.48	Runoff	2.71
	R4	stream	6.23	Runoff	3.51
Vegetables, bulb, 1 × 250 g a.s./ha, BBCH 49	D3	ditch	1.59	Drift	0.809
	D4	pond	0.494	Drainage	3.35
	D4	stream	1.13	Drift	1.19
	D6	ditch 1st	1.60	Drift	2.37
	D6	ditch 2nd	1.61	Drift	1.57
	R1	pond	0.120	Runoff	0.923
	R1	stream	1.04	Runoff	0.377
	R2	stream	1.40	Drift	2.86
	R3	stream	3.31	Runoff	1.37
	R4	stream	4.45	Runoff	2.53
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.39	Drift	0.921
	D4	pond	1.36	Drainage	8.37
	D4	stream	1.61	Drainage	3.17
	D6	ditch 1st	1.73	Drainage	3.50
	D6	ditch 2nd	1.46	Drift	2.18
	R1	pond	0.284	Runoff	1.99
	R1	stream	2.86	Runoff	1.00
	R2	stream	1.87	Runoff	4.06
	R3	stream	5.07	Runoff	2.18
	R4	stream	6.45	Runoff	3.92

[a] maximum over option 1 and 2

Table A 107: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to hops – maximum over option 1 and option 2

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Hops, 1 × 250 g a.s./ha, BBCH 21	R1	pond	0.657	Drift	2.65
	R1	stream	9.44	Drift	1.25
Hops, 2 × 250 g a.s./ha, BBCH 21	R1	pond	0.847	Drift	3.72
	R1	stream	7.82	Drift	1.08
Hops, 1 × 250 g a.s./ha, BBCH 51	R1	pond	0.657	Drift	2.70
	R1	stream	9.21	Drift	0.722
Hops, 2 × 250 g a.s./ha, BBCH 51	R1	pond	0.828	Drift	3.81
	R1	stream	7.81	Drift	0.759

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Hops, 1 × 250 g a.s./ha, BBCH 89	R1	pond	0.657	Drift	2.82
	R1	stream	9.46	Drift	1.33
Hops, 1 × 250 g a.s./ha, BBCH 89	R1	pond	0.809	Drift	3.89
	R1	stream	8.03	Drift	1.22

[a] maximum over option 1 and 2

Table A 108: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy – maximum over single and multiple application

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	1.58*	Drift	0.935
	D3	ditch 2nd	1.59*	Drift	0.962
	D4	pond	1.38	Drainage	8.50
	D4	stream	1.33	Drainage	3.33
	D6	ditch	5.66	Drainage	5.58
	R1	pond 1st	0.450	Runoff	2.79
	R1	pond 2nd	0.412	Runoff	3.11
	R1	stream 1st	4.91	Runoff	1.81
	R1	stream 2nd	4.26	Runoff	2.19
	R2	stream 1st	2.51	Runoff	5.18
	R2	stream 2nd	1.40*	Drift	2.83
	R3	stream 1st	4.35	Runoff	2.69
	R3	stream 2nd	5.77	Runoff	4.89
	R4	stream 1st	6.45	Runoff	3.13
	R4	stream 2nd	8.52	Runoff	4.82
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	1.59*	Drift	0.935
	D3	ditch 2nd	1.58*	Drift	0.720
	D4	pond	1.40	Drainage	8.40
	D4	stream	1.68	Drainage	3.32
	D6	ditch	12.0	Drainage	14.1
	R1	pond 1st	0.897	Runoff	5.50
	R1	pond 2nd	0.721	Runoff	4.23
	R1	stream 1st	4.88	Runoff	4.93
	R1	stream 2nd	3.76	Runoff	1.48
	R2	stream 1st	1.74	Runoff	4.54
	R2	stream 2nd	1.41	Runoff	4.92

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
	R3	stream 1st	4.38	Runoff	3.05
	R3	stream 2nd	5.58	Runoff	7.88
	R4	stream 1st	7.15	Runoff	3.95
	R4	stream 2nd	6.92	Runoff	4.76

[a] values resulting from single applications are marked *

Table A 109: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – maximum over single and multiple application

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11	D6	ditch	1.56*	Drift	0.866
	R2	stream	1.72	Runoff	2.21
	R3	stream	4.22	Runoff	2.78
	R4	stream	8.52	Runoff	4.66
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 51	D6	ditch	1.58*	Drift	1.19
	R2	stream	1.90	Runoff	3.91
	R3	stream	5.55	Runoff	4.42
	R4	stream	7.40	Runoff	3.54
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.67	Drainage	3.33
	R2	stream	1.40*	Drift	5.52
	R3	stream	5.49	Runoff	5.72
	R4	stream	6.62	Runoff	3.84

[a] values resulting from single applications are marked *

Table A 110: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, bulb – maximum over single and multiple application

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58*	Drift	0.921
	D4	pond	1.31	Drainage	8.14
	D4	stream	1.26	Drainage	3.18
	D6	ditch 1st	2.37	Drainage	2.58
	D6	ditch 2nd	12.7	Drainage	14.1
	R1	pond	0.493	Runoff	2.69
	R1	stream	5.52	Runoff	2.23
	R2	stream	2.42	Runoff	3.96

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
	R3	stream	4.48	Runoff	2.71
	R4	stream	6.23	Runoff	3.51
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.59*	Drift	0.921
	D4	pond	1.36	Drainage	8.37
	D4	stream	1.61	Drainage	3.17
	D6	ditch 1st	1.73	Drainage	3.5
	D6	ditch 2nd	1.61*	Drift	2.18
	R1	pond	0.284	Runoff	1.99
	R1	stream	2.86	Runoff	1.00
	R2	stream	1.87	Runoff	4.06
	R3	stream	5.07	Runoff	2.18
	R4	stream	6.45	Runoff	3.92

[a] values resulting from single applications are marked *

Table A 111: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to hops – maximum over single and multiple application

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Hops 2 × 250 g a.s./ha, BBCH 21	R1	pond	0.847	Drift	3.72
	R1	stream	9.44*	Drift	1.25*
Hops 2 × 250 g a.s./ha, BBCH 51	R1	pond	0.828	Drift	3.81
	R1	stream	9.21*	Drift	0.759
Hops 2 × 250 g a.s./ha, BBCH 89	R1	pond	0.809	Drift	3.89
	R1	stream	9.46*	Drift	1.33*

[a] values resulting from single applications are marked *

Table A 112: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, leafy, BBCH 11 – 49 – Option 1

Mitigation options						
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)						
		Vegetative strip (m)	10 – 12[a]		18 – 20[b]	
		No spray buffer (m)	0		0	
		Nozzle reduction (%)	0		0	
Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SW} (µg/L)	Dominant Route of Entry
Vegetables, leafy,	D3	ditch 1st	-	-	-	-

Mitigation options						
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)						
Vegetative strip (m)			10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0	
Nozzle reduction (%)			0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
1 × 250 g a.s./ha, BBCH 11	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.111	Runoff	0.073	Runoff
	R1	pond 2nd	0.096	Runoff	0.062	Runoff
	R1	stream 1st	1.04	Drift	1.04	Drift
	R1	stream 2nd	1.05	Drift	1.05	Drift
	R2	stream 1st	1.38	Drift	1.38	Drift
	R2	stream 2nd	1.40	Drift	1.40	Drift
	R3	stream 1st	1.52	Runoff	1.47	Drift
	R3	stream 2nd	1.53	Runoff	1.47	Drift
	R4	stream 1st	1.04	Drift	1.04	Drift
	R4	stream 2nd	2.45	Runoff	1.28	Runoff
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	-	-	-	-
	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.217	Runoff	0.139	Runoff
	R1	pond 2nd	0.191	Runoff	0.121	Runoff
	R1	stream 1st	2.22	Runoff	1.16	Runoff
	R1	stream 2nd	1.94	Runoff	1.02	Runoff
	R2	stream 1st	1.19	Drift	1.19	Drift
	R2	stream 2nd	1.21	Drift	1.21	Drift
	R3	stream 1st	1.99	Runoff	1.27	Drift
	R3	stream 2nd	2.63	Runoff	1.38	Runoff
	R4	stream 1st	2.93	Runoff	1.54	Runoff
	R4	stream 2nd	3.87	Runoff	2.03	Runoff
Vegetables, leafy, 1 × 250 g a.s./ha,	D3	ditch 1st	-	-	-	-
	D3	ditch 2nd	-	-	-	-

Mitigation options						
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)						
		Vegetative strip (m)	10 – 12[a]		18 – 20[b]	
		No spray buffer (m)	0		0	
		Nozzle reduction (%)	0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
BBCH 49	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.272	Runoff	0.157	Runoff
	R1	pond 2nd	0.136	Runoff	0.079	Runoff
	R1	stream 1st	1.05	Runoff	1.05	Drift
	R1	stream 2nd	1.05	Drift	1.05	Drift
	R2	stream 1st	1.40	Drift	1.40	Drift
	R2	stream 2nd	1.39	Drift	1.39	Drift
	R3	stream 1st	1.48	Drift	1.48	Drift
	R3	stream 2nd	1.47	Drift	1.47	Drift
	R4	stream 1st	1.47	Runoff	1.02	Drift
	R4	stream 2nd	1.54	Runoff	1.05	Drift
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	-	-	-	-
	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.407	Runoff	0.240	Runoff
	R1	pond 2nd	0.323	Runoff	0.182	Runoff
	R1	stream 1st	2.22	Runoff	1.16	Runoff
	R1	stream 2nd	1.71	Runoff	0.906	Drift
	R2	stream 1st	1.21	Drift	1.21	Drift
	R2	stream 2nd	1.20	Drift	1.20	Drift
	R3	stream 1st	1.99	Runoff	1.28	Drift
	R3	stream 2nd	2.54	Runoff	1.33	Runoff
	R4	stream 1st	3.24	Runoff	1.70	Runoff
	R4	stream 2nd	3.15	Runoff	1.65	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 113: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, leafy, BBCH 11 – 49 – Option 2

Mitigation options						
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)						
		Vegetative strip (m)	10 – 12[a]		18 - 20[b]	
		No spray buffer (m)	0		0	
		Nozzle reduction (%)	0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	-	-	-	-
	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.110	Runoff	0.072	Runoff
	R1	pond 2nd	0.093	Runoff	0.060	Runoff
	R1	stream 1st	1.04	Drift	1.04	Drift
	R1	stream 2nd	1.05	Drift	1.05	Drift
	R2	stream 1st	1.38	Drift	1.38	Drift
	R2	stream 2nd	1.40	Drift	1.40	Drift
	R3	stream 1st	1.52	Runoff	1.47	Drift
	R3	stream 2nd	1.53	Runoff	1.47	Drift
	R4	stream 1st	1.04	Drift	1.04	Drift
	R4	stream 2nd	2.45	Runoff	1.28	Runoff
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	-	-	-	-
	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.214	Runoff	0.136	Runoff
	R1	pond 2nd	0.185	Runoff	0.119	Runoff
	R1	stream 1st	2.22	Runoff	1.16	Runoff
	R1	stream 2nd	1.94	Runoff	1.02	Runoff
	R2	stream 1st	1.19	Drift	1.19	Drift
	R2	stream 2nd	1.21	Drift	1.21	Drift
	R3	stream 1st	1.99	Runoff	1.27	Drift
	R3	stream 2nd	2.63	Runoff	1.38	Runoff
	R4	stream 1st	2.93	Runoff	1.54	Runoff
	R4	stream 2nd	3.87	Runoff	2.03	Runoff

Mitigation options						
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)						
Vegetative strip (m)			10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0	
Nozzle reduction (%)			0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	-	-	-	-
	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.267	Runoff	0.154	Runoff
	R1	pond 2nd	0.134	Runoff	0.077	Runoff
	R1	stream 1st	1.05	Runoff	1.05	Drift
	R1	stream 2nd	1.05	Drift	1.05	Drift
	R2	stream 1st	1.40	Drift	1.40	Drift
	R2	stream 2nd	1.39	Drift	1.39	Drift
	R3	stream 1st	1.48	Drift	1.48	Drift
	R3	stream 2nd	1.47	Drift	1.47	Drift
	R4	stream 1st	1.47	Runoff	1.02	Drift
	R4	stream 2nd	1.54	Runoff	1.05	Drift
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	-	-	-	-
	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.402	Runoff	0.237	Runoff
	R1	pond 2nd	0.319	Runoff	0.178	Runoff
	R1	stream 1st	2.22	Runoff	1.16	Runoff
	R1	stream 2nd	1.71	Runoff	0.906	Drift
	R2	stream 1st	1.21	Drift	1.21	Drift
	R2	stream 2nd	1.20	Drift	1.20	Drift
	R3	stream 1st	1.99	Runoff	1.28	Drift
	R3	stream 2nd	2.54	Runoff	1.33	Runoff
	R4	stream 1st	3.24	Runoff	1.70	Runoff
	R4	stream 2nd	3.15	Runoff	1.65	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 114: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, leafy using 5 m VFS mod, BBCH 11 – 49

Mitigation options						
Vegetative strip (m)			5 VFS mod			
No spray buffer (m)			0			
Nozzle reduction (%)			0			
Application scenario	**Scenario**	**Water body**	**Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d**		**Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d**	
			PEC_{SW} (µg/L)	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	-	-	-	-
	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.055	Drift	0.055	Drift
	R1	pond 2nd	0.055	Drift	0.055	Drift
	R1	stream 1st	1.04	Drift	1.04	Drift
	R1	stream 2nd	1.05	Drift	1.05	Drift
	R2	stream 1st	1.38	Drift	1.38	Drift
	R2	stream 2nd	1.40	Drift	1.40	Drift
	R3	stream 1st	1.47	Drift	1.47	Drift
	R3	stream 2nd	1.47	Drift	1.47	Drift
	R4	stream 1st	1.04	Drift	1.04	Drift
	R4	stream 2nd	1.04	Drift	1.04	Drift
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	-	-	-	-
	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.083	Drift	0.083	Drift
	R1	pond 2nd	0.088	Runoff	0.085	Runoff
	R1	stream 1st	0.903	Drift	0.903	Drift
	R1	stream 2nd	0.906	Drift	0.906	Drift
	R2	stream 1st	1.19	Drift	1.19	Drift
	R2	stream 2nd	1.21	Drift	1.21	Drift
	R3	stream 1st	1.61	Runoff	1.61	Runoff
	R3	stream 2nd	1.28	Drift	1.28	Drift

	R4	stream 1st	0.904	Drift	0.904	Drift
	R4	stream 2nd	0.897	Drift	0.897	Drift
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	-	-	-	-
	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.172	Runoff	0.171	Runoff
	R1	pond 2nd	0.075	Runoff	0.074	Runoff
	R1	stream 1st	1.05	Drift	1.05	Drift
	R1	stream 2nd	1.05	Drift	1.05	Drift
	R2	stream 1st	1.40	Drift	1.40	Drift
	R2	stream 2nd	1.39	Drift	1.39	Drift
	R3	stream 1st	1.48	Drift	1.48	Drift
	R3	stream 2nd	1.47	Drift	1.47	Drift
	R4	stream 1st	1.02	Drift	1.02	Drift
	R4	stream 2nd	1.05	Drift	1.05	Drift
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	-	-	-	-
	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.234	Runoff	0.231	Runoff
	R1	pond 2nd	0.171	Runoff	0.169	Runoff
	R1	stream 1st	0.906	Drift	0.906	Drift
	R1	stream 2nd	0.906	Drift	0.906	Drift
	R2	stream 1st	1.21	Drift	1.21	Drift
	R2	stream 2nd	1.20	Drift	1.20	Drift
	R3	stream 1st	1.28	Drift	1.28	Drift
	R3	stream 2nd	1.45	Runoff	1.45	Runoff
	R4	stream 1st	0.904	Drift	0.904	Drift
	R4	stream 2nd	0.906	Drift	0.906	Drift

Table A 115: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, fruiting, BBCH 11 – 89 – Option 1

Mitigation options						
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)						
		Vegetative strip (m)	10 – 12[a]		18 - 20[b]	
		No spray buffer (m)	0		0	
		Nozzle reduction (%)	0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-
	R2	stream	1.38	Drift	1.38	Drift
	R3	stream	1.80	Runoff	1.47	Drift
	R4	stream	2.60	Runoff	1.36	Runoff
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-
	R2	stream	1.20	Drift	1.20	Drift
	R3	stream	1.92	Runoff	1.28	Drift
	R4	stream	3.86	Runoff	2.02	Runoff
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-
	R2	stream	1.40	Drift	1.40	Drift
	R3	stream	1.48	Drift	1.48	Drift
	R4	stream	1.36	Runoff	1.02	Drift
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-
	R2	stream	1.21	Drift	1.21	Drift
	R3	stream	2.53	Runoff	1.33	Runoff
	R4	stream	3.37	Runoff	1.76	Runoff
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-
	R2	stream	1.40	Drift	1.40	Drift
	R3	stream	1.48	Drift	1.48	Drift
	R4	stream	1.70	Runoff	1.05	Drift
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-
	R2	stream	1.21	Drift	1.21	Drift
	R3	stream	2.50	Runoff	1.31	Runoff
	R4	stream	3.01	Runoff	1.58	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 116: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, fruiting, BBCH 11 – 89 – Option 2

Mitigation options						
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)						
		Vegetative strip (m)	10 – 12[a]		18 - 20[b]	
		No spray buffer (m)	0		0	
		Nozzle reduction (%)	0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-
	R2	stream	1.38	Drift	1.38	Drift
	R3	stream	1.80	Runoff	1.47	Drift
	R4	stream	2.60	Runoff	1.36	Runoff
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-
	R2	stream	1.20	Drift	1.20	Drift
	R3	stream	1.92	Runoff	1.28	Drift
	R4	stream	3.86	Runoff	2.02	Runoff
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-
	R2	stream	1.40	Drift	1.40	Drift
	R3	stream	1.48	Drift	1.48	Drift
	R4	stream	1.36	Runoff	1.02	Drift
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-
	R2	stream	1.21	Drift	1.21	Drift
	R3	stream	2.53	Runoff	1.33	Runoff
	R4	stream	3.37	Runoff	1.76	Runoff
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-
	R2	stream	1.40	Drift	1.40	Drift
	R3	stream	1.48	Drift	1.48	Drift
	R4	stream	1.70	Runoff	1.05	Drift
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-
	R2	stream	1.21	Drift	1.21	Drift
	R3	stream	2.50	Runoff	1.31	Runoff
	R4	stream	3.01	Runoff	1.58	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 117: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, fruiting using 5 m VFS mod, BBCH 11 – 89

Mitigation options						
Vegetative strip (m)			5 VFS mod			
No spray buffer (m)			0			
Nozzle reduction (%)			0			
Application scenario	**Scenario**	**Water body**	**Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d**		**Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d**	
			PEC_{SW} (µg/L)	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-
	R2	stream	1.38	Drift	1.38	Drift
	R3	stream	1.47	Drift	1.47	Drift
	R4	stream	1.04	Drift	1.04	Drift
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-
	R2	stream	1.20	Drift	1.20	Drift
	R3	stream	1.28	Drift	1.28	Drift
	R4	stream	0.903	Drift	0.903	Drift
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-
	R2	stream	1.40	Drift	1.40	Drift
	R3	stream	1.48	Drift	1.48	Drift
	R4	stream	1.02	Drift	1.02	Drift
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-
	R2	stream	1.21	Drift	1.21	Drift
	R3	stream	1.28	Drift	1.28	Drift
	R4	stream	0.906	Drift	0.906	Drift
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-
	R2	stream	1.40	Drift	1.40	Drift
	R3	stream	1.48	Drift	1.48	Drift
	R4	stream	1.05	Drift	1.05	Drift
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-
	R2	stream	1.21	Drift	1.21	Drift
	R3	stream	1.28	Drift	1.28	Drift
	R4	stream	0.906	Drift	0.906	Drift

Table A 118: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, bulb, BBCH 11 – 49 – Option 1

Mitigation options						
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)						
Vegetative strip (m)			10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0	
Nozzle reduction (%)			0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb, 1 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.109	Runoff	0.072	Runoff
	R1	stream	1.04	Drift	1.04	Drift
	R2	stream	1.38	Drift	1.38	Drift
	R3	stream	1.53	Runoff	1.47	Drift
	R4	stream	2.58	Runoff	1.35	Runoff
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.236	Runoff	0.149	Runoff
	R1	stream	2.50	Runoff	1.31	Runoff
	R2	stream	1.50	Drift	1.35	Drift
	R3	stream	2.05	Runoff	1.27	Drift
	R4	stream	2.83	Runoff	1.48	Runoff
Vegetables, bulb, 1 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.058	Runoff	0.055	Drift
	R1	stream	1.03	Drift	1.03	Drift
	R2	stream	1.40	Drift	1.40	Drift
	R3	stream	1.50	Runoff	1.47	Drift
	R4	stream	2.01	Runoff	1.05	Runoff

Mitigation options						
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)						
Vegetative strip (m)			10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0	
Nozzle reduction (%)			0		0	
Application scenario	**Scenario**	**Water body**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.134	Runoff	0.080	Runoff
	R1	stream	1.29	Runoff	0.906	Drift
	R2	stream	1.21	Drift	1.21	Drift
	R3	stream	2.29	Runoff	1.28	Drift
	R4	stream	2.92	Runoff	1.52	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 119: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, bulb, BBCH 11 – 49 – Option 2

Mitigation options						
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)						
Vegetative strip (m)			10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0	
Nozzle reduction (%)			0		0	
Application scenario	**Scenario**	**Water body**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb, 1 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.107	Runoff	0.071	Runoff
	R1	stream	1.04	Drift	1.04	Drift
	R2	stream	1.38	Drift	1.38	Drift
	R3	stream	1.53	Runoff	1.47	Drift

Mitigation options						
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)						
Vegetative strip (m)			10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0	
Nozzle reduction (%)			0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	R4	stream	2.58	Runoff	1.35	Runoff
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.233	Runoff	0.147	Runoff
	R1	stream	2.50	Runoff	1.31	Runoff
	R2	stream	1.50	Drift	1.35	Drift
	R3	stream	2.05	Runoff	1.27	Drift
	R4	stream	2.83	Runoff	1.48	Runoff
Vegetables, bulb, 1 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.056	Runoff	0.055	Drift
	R1	stream	1.03	Drift	1.03	Drift
	R2	stream	1.40	Drift	1.40	Drift
	R3	stream	1.50	Runoff	1.47	Drift
	R4	stream	2.01	Runoff	1.05	Runoff
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.130	Runoff	0.077	Runoff
	R1	stream	1.29	Runoff	0.906	Drift
	R2	stream	1.21	Drift	1.21	Drift
	R3	stream	2.29	Runoff	1.28	Drift
	R4	stream	2.92	Runoff	1.52	Runoff

[a] equivalent to 60% runoff mitigation

[b] equivalent to 80% runoff mitigation

Table A 120: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, bulb using 5 m VFS mod, BBCH 11 – 49

Mitigation options						
Vegetative strip (m)			5 VFS mod			
No spray buffer (m)			0			
Nozzle reduction (%)			0			
Application scenario	**Scenario**	**Water body**	**Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d**		**Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d**	
			PEC_{SW} (µg/L)	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb, 1 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-		-	
	R1	pond	0.055	Drift	0.055	Drift
	R1	stream	1.04	Drift	1.04	Drift
	R2	stream	1.38	Drift	1.38	Drift
	R3	stream	1.47	Drift	1.47	Drift
	R4	stream	1.03	Drift	1.03	Drift
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.081	Drift	0.080	Drift
	R1	stream	0.902	Drift	0.902	Drift
	R2	stream	1.19	Drift	1.19	Drift
	R3	stream	1.60	Runoff	1.60	Runoff
	R4	stream	0.897	Drift	0.897	Drift
Vegetables, bulb, 1 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.055	Drift	0.055	Drift

Mitigation options						
Vegetative strip (m)			5 VFS mod			
No spray buffer (m)			0			
Nozzle reduction (%)			0			
Application scenario	**Scenario**	**Water body**	**Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d**		**Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d**	
			PEC_{SW} (µg/L)	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	R1	stream	1.03	Drift	1.03	Drift
	R2	stream	1.40	Drift	1.40	Drift
	R3	stream	1.47	Drift	1.47	Drift
	R4	stream	1.01	Drift	1.01	Drift
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.077	Drift	0.075	Drift
	R1	stream	0.906	Drift	0.906	Drift
	R2	stream	1.21	Drift	1.21	Drift
	R3	stream	1.28	Drift	1.28	Drift
	R4	stream	0.897	Drift	0.897	Drift

Table A 121: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to hops, BBCH 21 – 89 – Option 1

Mitigation options																
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)																
Vegetative strip (m)			0		0		0		0		0		0		0	
No spray buffer (m)			10		10		10		15		15		15		20	
Nozzle reduction (%)			0		75		90		0		50		75		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Hops, 1 × 250 g a.s./ha; BBCH 21	R1	pond	0.421	Drift	0.105	Drift	0.042	Drift	0.236	Drift	0.118	Drift	0.059	Drift	0.131	Drift
	R1	stream	4.02	Drift	1.00	Drift	0.693	Runoff	2.65	Drift	1.33	Drift	0.693	Runoff	1.21	Drift
Hops, 2 × 250 g a.s./ha; BBCH 21	R1	pond	0.525	Drift	0.143	Drift	0.066	Drift	0.295	Drift	0.155	Drift	0.085	Drift	0.171	Drift
	R1	stream	2.81	Drift	1.25	Runoff	1.25	Runoff	1.72	Drift	1.25	Runoff	1.25	Runoff	1.25	Runoff
Hops, 1 × 250 g a.s./ha; BBCH 51	R1	pond	0.421	Drift	0.105	Drift	0.042	Drift	0.236	Drift	0.118	Drift	0.059	Drift	0.131	Drift
	R1	stream	3.92	Drift	0.979	Drift	0.572	Runoff	2.59	Drift	1.29	Drift	0.646	Drift	1.18	Drift
Hops, 2 × 250 g a.s./ha; BBCH 51	R1	pond	0.508	Drift	0.128	Drift	0.052	Drift	0.279	Drift	0.140	Drift	0.071	Drift	0.156	Drift
	R1	stream	2.81	Drift	0.703	Drift	0.572	Runoff	1.72	Drift	0.860	Drift	0.572	Runoff	0.785	Drift
Hops, 1 × 250 g a.s./ha; BBCH 89	R1	pond	0.421	Drift	0.105	Drift	0.042	Drift	0.236	Drift	0.118	Drift	0.059	Drift	0.131	Drift
	R1	stream	4.03	Drift	1.01	Drift	0.403	Drift	2.66	Drift	1.33	Drift	0.664	Drift	1.21	Drift
Hops,	R1	pond	0.496	Drift	0.123	Drift	0.049	Drift	0.271	Drift	0.135	Drift	0.067	Drift	0.150	Drift

Mitigation options																
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)																
2 × 250 g a.s./ha; BBCH 89	R1	stream	2.89	Drift	0.723	Drift	0.289	Drift	1.77	Drift	0.884	Drift	0.442	Drift	0.807	Drift

Table A 122: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to hops, BBCH 21 – 89 – Option 2

Mitigation options																
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)																
Vegetative strip (m)			0		0		0		0		0		0		0	
No spray buffer (m)			10		10		10		15		15		15		20	
Nozzle reduction (%)			0		75		90		0		50		75		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Hops, 1 × 250 g a.s./ha; BBCH 21	R1	pond	0.421	Drift	0.105	Drift	0.042	Drift	0.236	Drift	0.118	Drift	0.059	Drift	0.131	Drift
	R1	stream	4.02	Drift	1.00	Drift	0.693	Runoff	2.65	Drift	1.33	Drift	0.693	Runoff	1.21	Drift
Hops, 2 × 250 g a.s./ha; BBCH 21	R1	pond	0.521	Drift	0.142	Drift	0.066	Drift	0.292	Drift	0.154	Drift	0.085	Drift	0.169	Drift
	R1	stream	2.81	Drift	1.24	Runoff	1.24	Runoff	1.72	Drift	1.24	Runoff	1.24	Runoff	1.24	Runoff
Hops, 1 × 250 g a.s./ha; BBCH 51	R1	pond	0.421	Drift	0.105	Drift	0.042	Drift	0.236	Drift	0.118	Drift	0.059	Drift	0.131	Drift
	R1	stream	3.92	Drift	0.979	Drift	0.572	Runoff	2.59	Drift	1.29	Drift	0.646	Drift	1.18	Drift

Mitigation options																	
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)																	
Hops, 2 × 250 g a.s./ha; BBCH 51	R1	pond	0.501	Drift	0.126	Drift	0.052	Drift	0.275	Drift	0.138	Drift	0.070	Drift	0.154	Drift
	R1	stream	2.81	Drift	0.703	Drift	0.572	Runoff	1.72	Drift	0.860	Drift	0.572	Runoff	0.785	Drift
Hops, 1 × 250 g a.s./ha; BBCH 89	R1	pond	0.421	Drift	0.105	Drift	0.042	Drift	0.236	Drift	0.118	Drift	0.059	Drift	0.131	Drift
	R1	stream	4.03	Drift	1.01	Drift	0.403	Drift	2.66	Drift	1.33	Drift	0.664	Drift	1.21	Drift
Hops, 2 × 250 g a.s./ha; BBCH 89	R1	pond	0.487	Drift	0.121	Drift	0.048	Drift	0.267	Drift	0.133	Drift	0.066	Drift	0.148	Drift
	R1	stream	2.89	Drift	0.723	Drift	0.289	Drift	1.77	Drift	0.884	Drift	0.442	Drift	0.807	Drift

Table A 123: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, leafy, BBCH 11 – 49 – Maximum over Option 1 and Option 2

Mitigation options						
		Vegetative strip (m)	10 – 12[a]		18 - 20[b]	
		No spray buffer (m)	0		0	
		Nozzle reduction (%)	0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	-	-	-	-
	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.111	Runoff	0.073	Runoff
	R1	pond 2nd	0.096	Runoff	0.062	Runoff
	R1	stream 1st	1.04	Drift	1.04	Drift
	R1	stream 2nd	1.05	Drift	1.05	Drift
	R2	stream 1st	1.38	Drift	1.38	Drift
	R2	stream 2nd	1.40	Drift	1.40	Drift
	R3	stream 1st	1.52	Runoff	1.47	Drift
	R3	stream 2nd	1.53	Runoff	1.47	Drift
	R4	stream 1st	1.04	Drift	1.04	Drift
	R4	stream 2nd	2.45	Runoff	1.28	Runoff
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	-	-	-	-
	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.217	Runoff	0.139	Runoff
	R1	pond 2nd	0.191	Runoff	0.121	Runoff
	R1	stream 1st	2.22	Runoff	1.16	Runoff
	R1	stream 2nd	1.94	Runoff	1.02	Runoff
	R2	stream 1st	1.19	Drift	1.19	Drift
	R2	stream 2nd	1.21	Drift	1.21	Drift
	R3	stream 1st	1.99	Runoff	1.27	Drift
	R3	stream 2nd	2.63	Runoff	1.38	Runoff
	R4	stream 1st	2.93	Runoff	1.54	Runoff
	R4	stream 2nd	3.87	Runoff	2.03	Runoff
Vegetables, leafy,	D3	ditch 1st	-	-	-	-

Mitigation options						
		Vegetative strip (m)	10 – 12[a]		18 - 20[b]	
		No spray buffer (m)	0		0	
		Nozzle reduction (%)	0		0	
Application scenario	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**
1 × 250 g a.s./ha, BBCH 49	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.272	Runoff	0.157	Runoff
	R1	pond 2nd	0.136	Runoff	0.079	Runoff
	R1	stream 1st	1.05	Runoff	1.05	Drift
	R1	stream 2nd	1.05	Drift	1.05	Drift
	R2	stream 1st	1.40	Drift	1.40	Drift
	R2	stream 2nd	1.39	Drift	1.39	Drift
	R3	stream 1st	1.48	Drift	1.48	Drift
	R3	stream 2nd	1.47	Drift	1.47	Drift
	R4	stream 1st	1.47	Runoff	1.02	Drift
	R4	stream 2nd	1.54	Runoff	1.05	Drift
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	-	-	-	-
	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.407	Runoff	0.240	Runoff
	R1	pond 2nd	0.323	Runoff	0.182	Runoff
	R1	stream 1st	2.22	Runoff	1.16	Runoff
	R1	stream 2nd	1.71	Runoff	0.906	Drift
	R2	stream 1st	1.21	Drift	1.21	Drift
	R2	stream 2nd	1.20	Drift	1.20	Drift
	R3	stream 1st	1.99	Runoff	1.28	Drift
	R3	stream 2nd	2.54	Runoff	1.33	Runoff
	R4	stream 1st	3.24	Runoff	1.70	Runoff
	R4	stream 2nd	3.15	Runoff	1.65	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 124: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, leafy using 5 m VFS mod, BBCH 11 – 49 – Maximum over Option 1 and Option 2

Mitigation options				
		Vegetative strip (m)	5 VFS mod	
		No spray buffer (m)	0	
		Nozzle reduction (%)	0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	-	-
	D3	ditch 2nd	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	R1	pond 1st	0.055	Drift
	R1	pond 2nd	0.055	Drift
	R1	stream 1st	1.04	Drift
	R1	stream 2nd	1.05	Drift
	R2	stream 1st	1.38	Drift
	R2	stream 2nd	1.40	Drift
	R3	stream 1st	1.47	Drift
	R3	stream 2nd	1.47	Drift
	R4	stream 1st	1.04	Drift
	R4	stream 2nd	1.04	Drift
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	-	-
	D3	ditch 2nd	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	R1	pond 1st	0.083	Drift
	R1	pond 2nd	0.088	Runoff
	R1	stream 1st	0.903	Drift
	R1	stream 2nd	0.906	Drift
	R2	stream 1st	1.19	Drift
	R2	stream 2nd	1.21	Drift
	R3	stream 1st	1.61	Runoff
	R3	stream 2nd	1.28	Drift
	R4	stream 1st	0.904	Drift
	R4	stream 2nd	0.897	Drift
Vegetables, leafy,	D3	ditch 1st	-	-

Mitigation options				
		Vegetative strip (m)	5 VFS mod	
		No spray buffer (m)	0	
		Nozzle reduction (%)	0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
1 × 250 g a.s./ha, BBCH 49	D3	ditch 2nd	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	R1	pond 1st	0.172	Runoff
	R1	pond 2nd	0.075	Runoff
	R1	stream 1st	1.05	Drift
	R1	stream 2nd	1.05	Drift
	R2	stream 1st	1.40	Drift
	R2	stream 2nd	1.39	Drift
	R3	stream 1st	1.48	Drift
	R3	stream 2nd	1.47	Drift
	R4	stream 1st	1.02	Drift
	R4	stream 2nd	1.05	Drift
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	-	-
	D3	ditch 2nd	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	R1	pond 1st	0.234	Runoff
	R1	pond 2nd	0.171	Runoff
	R1	stream 1st	0.906	Drift
	R1	stream 2nd	0.906	Drift
	R2	stream 1st	1.21	Drift
	R2	stream 2nd	1.20	Drift
	R3	stream 1st	1.28	Drift
	R3	stream 2nd	1.45	Runoff
	R4	stream 1st	0.904	Drift
	R4	stream 2nd	0.906	Drift

Table A 125: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, fruiting, BBCH 11 – 89 – Maximum over Option 1 and Option 2

Mitigation options						
		Vegetative strip (m)	10 – 12[a]		18 - 20[b]	
		No spray buffer (m)	0		0	
		Nozzle reduction (%)	0		0	
Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SW} (µg/L)	Dominant Route of Entry
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-
	R2	stream	1.38	Drift	1.38	Drift
	R3	stream	1.80	Runoff	1.47	Drift
	R4	stream	2.60	Runoff	1.36	Runoff
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-
	R2	stream	1.20	Drift	1.20	Drift
	R3	stream	1.92	Runoff	1.28	Drift
	R4	stream	3.86	Runoff	2.02	Runoff
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-
	R2	stream	1.40	Drift	1.40	Drift
	R3	stream	1.48	Drift	1.48	Drift
	R4	stream	1.36	Runoff	1.02	Drift
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-
	R2	stream	1.21	Drift	1.21	Drift
	R3	stream	2.53	Runoff	1.33	Runoff
	R4	stream	3.37	Runoff	1.76	Runoff
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-
	R2	stream	1.40	Drift	1.40	Drift
	R3	stream	1.48	Drift	1.48	Drift
	R4	stream	1.70	Runoff	1.05	Drift
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-
	R2	stream	1.21	Drift	1.21	Drift
	R3	stream	2.50	Runoff	1.31	Runoff
	R4	stream	3.01	Runoff	1.58	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 126: FOCUS Step 4 PEC_{SW} azoxystrobin following application to vegetables, fruiting using 5 m VFS mod, BBCH 11 – 49 – Maximum over Option 1 and Option 2

Mitigation options				
		Vegetative strip (m)	5 VFS mod	
		No spray buffer (m)	0	
		Nozzle reduction (%)	0	
Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-
	R2	stream	1.38	Drift
	R3	stream	1.47	Drift
	R4	stream	1.04	Drift
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-
	R2	stream	1.20	Drift
	R3	stream	1.28	Drift
	R4	stream	0.903	Drift
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-
	R2	stream	1.40	Drift
	R3	stream	1.48	Drift
	R4	stream	1.02	Drift
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-
	R2	stream	1.21	Drift
	R3	stream	1.28	Drift
	R4	stream	0.906	Drift
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-
	R2	stream	1.40	Drift
	R3	stream	1.48	Drift
	R4	stream	1.05	Drift
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-
	R2	stream	1.21	Drift
	R3	stream	1.28	Drift
	R4	stream	0.906	Drift

Table A 127: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, bulb, BBCH 11 – 49 – Maximum over Option 1 and Option 2

Mitigation options						
		Vegetative strip (m)	10 – 12[a]		18 - 20[b]	
		No spray buffer (m)	0		0	
		Nozzle reduction (%)	0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb, 1 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.109	Runoff	0.072	Runoff
	R1	stream	1.04	Drift	1.04	Drift
	R2	stream	1.38	Drift	1.38	Drift
	R3	stream	1.53	Runoff	1.47	Drift
	R4	stream	2.58	Runoff	1.35	Runoff
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.236	Runoff	0.149	Runoff
	R1	stream	2.50	Runoff	1.31	Runoff
	R2	stream	1.50	Drift	1.35	Drift
	R3	stream	2.05	Runoff	1.27	Drift
	R4	stream	2.83	Runoff	1.48	Runoff
Vegetables, bulb, 1 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.058	Runoff	0.055	Drift
	R1	stream	1.03	Drift	1.03	Drift
	R2	stream	1.40	Drift	1.40	Drift
	R3	stream	1.50	Runoff	1.47	Drift
	R4	stream	2.01	Runoff	1.05	Runoff
Vegetables, bulb,	D3	ditch	-	-	-	-

Mitigation options						
		Vegetative strip (m)	10 – 12[a]		18 - 20[b]	
		No spray buffer (m)	0		0	
		Nozzle reduction (%)	0		0	
Application scenario	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**
2 × 250 g a.s./ha, BBCH 49	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.134	Runoff	0.080	Runoff
	R1	stream	1.29	Runoff	0.906	Drift
	R2	stream	1.21	Drift	1.21	Drift
	R3	stream	2.29	Runoff	1.28	Drift
	R4	stream	2.92	Runoff	1.52	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 128: FOCUS Step 4 PEC$_{SW}$ azoxystrobin following application to vegetables, bulb using 5 m VFS mod, BBCH 11 – 49 – Maximum over Option 1 and Option 2

Mitigation options				
		Vegetative strip (m)	5 VFS mod	
		No spray buffer (m)	0	
		Nozzle reduction (%)	0	
Application scenario	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb, 1 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch 1st	-	-
	D6	ditch 2nd	-	
	R1	pond	0.055	Drift
	R1	stream	1.04	Drift
	R2	stream	1.38	Drift
	R3	stream	1.47	Drift
	R4	stream	1.03	Drift
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch 1st	-	-

Mitigation options				
		Vegetative strip (m)	5 VFS mod	
		No spray buffer (m)	0	
		Nozzle reduction (%)	0	
Application scenario	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**
	D6	ditch 2nd	-	-
	R1	pond	0.081	Drift
	R1	stream	0.902	Drift
	R2	stream	1.19	Drift
	R3	stream	1.60	Runoff
	R4	stream	0.897	Drift
Vegetables, bulb, 1 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch 1st	-	-
	D6	ditch 2nd	-	-
	R1	pond	0.055	Drift
	R1	stream	1.03	Drift
	R2	stream	1.40	Drift
	R3	stream	1.47	Drift
	R4	stream	1.01	Drift
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch 1st	-	-
	D6	ditch 2nd	-	-
	R1	pond	0.077	Drift
	R1	stream	0.906	Drift
	R2	stream	1.21	Drift
	R3	stream	1.28	Drift
	R4	stream	0.897	Drift

Table A 129: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to hops, BBCH 21 – 89 – Maximum over Option 1 and Option 2

Mitigation options																
		Vegetative strip (m)	0		0		0		0		0		0		0	
		No spray buffer (m)	10		10		10		15		15		15		20	
		Nozzle reduction (%)	0		75		90		0		50		75		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Hops, 1 × 250 g a.s./ha; BBCH 21	R1	pond	0.421	Drift	0.105	Drift	0.042	Drift	0.236	Drift	0.118	Drift	0.059	Drift	0.131	Drift
	R1	stream	4.02	Drift	1.00	Drift	0.693	Runoff	2.65	Drift	1.33	Drift	0.693	Runoff	1.21	Drift
Hops, 2 × 250 g a.s./ha; BBCH 21	R1	pond	0.525	Drift	0.143	Drift	0.066	Drift	0.295	Drift	0.155	Drift	0.085	Drift	0.171	Drift
	R1	stream	2.81	Drift	1.25	Runoff	1.25	Runoff	1.72	Drift	1.25	Runoff	1.25	Runoff	1.25	Runoff
Hops, 1 × 250 g a.s./ha; BBCH 51	R1	pond	0.421	Drift	0.105	Drift	0.042	Drift	0.236	Drift	0.118	Drift	0.059	Drift	0.131	Drift
	R1	stream	3.92	Drift	0.979	Drift	0.572	Runoff	2.59	Drift	1.29	Drift	0.646	Drift	1.18	Drift
Hops, 2 × 250 g a.s./ha; BBCH 51	R1	pond	0.508	Drift	0.128	Drift	0.052	Drift	0.279	Drift	0.140	Drift	0.071	Drift	0.156	Drift
	R1	stream	2.81	Drift	0.703	Drift	0.572	Runoff	1.72	Drift	0.860	Drift	0.572	Runoff	0.785	Drift
Hops, 1 × 250 g a.s./ha; BBCH 89	R1	pond	0.421	Drift	0.105	Drift	0.042	Drift	0.236	Drift	0.118	Drift	0.059	Drift	0.131	Drift
	R1	stream	4.03	Drift	1.01	Drift	0.403	Drift	2.66	Drift	1.33	Drift	0.664	Drift	1.21	Drift
Hops,	R1	pond	0.496	Drift	0.123	Drift	0.049	Drift	0.271	Drift	0.135	Drift	0.067	Drift	0.150	Drift

Mitigation options																		
2 × 250 g a.s./ha; BBCH 89	R1	stream	2.89	Drift	0.723	Drift	0.289	Drift	1.77	Drift	0.884	Drift	0.442	Drift	0.807	Drift

Table A 130: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to vegetables, leafy – Maximum over single and multiple applications

			Mitigation options			
		Vegetative strip (m)	10 – 12[a]		18 - 20[b]	
		No spray buffer (m)	0		0	
		Nozzle reduction (%)	0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	-	-	-	-
	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.217	Runoff	0.139	Runoff
	R1	pond 2nd	0.191	Runoff	0.121	Runoff
	R1	stream 1st	2.22	Runoff	1.16	Runoff
	R1	stream 2nd	1.94	Runoff	1.05*	Drift
	R2	stream 1st	1.38*	Drift	1.38*	Drift
	R2	stream 2nd	1.40*	Drift	1.40*	Drift
	R3	stream 1st	1.99	Runoff	1.47*	Drift
	R3	stream 2nd	2.63	Runoff	1.47*	Drift
	R4	stream 1st	2.93	Runoff	1.54	Runoff
	R4	stream 2nd	3.87	Runoff	2.03	Runoff
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	-	-	-	-
	D3	ditch 2nd	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond 1st	0.407	Runoff	0.240	Runoff
	R1	pond 2nd	0.323	Runoff	0.182	Runoff
	R1	stream 1st	2.22	Runoff	1.16	Runoff
	R1	stream 2nd	1.71	Runoff	1.05*	Drift
	R2	stream 1st	1.40*	Drift	1.40*	Drift
	R2	stream 2nd	1.39*	Drift	1.39*	Drift
	R3	stream 1st	1.99	Runoff	1.48*	Drift
	R3	stream 2nd	2.54	Runoff	1.47*	Drift
	R4	stream 1st	3.24	Runoff	1.70	Runoff
	R4	stream 2nd	3.15	Runoff	1.65	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 131: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to vegetables, leafy using 5 m VFS mod, BBCH 11 – 49 – Maximum over single and multiple applications

Mitigation options				
		Vegetative strip (m)	5 VFS mod	
		No spray buffer (m)	0	
		Nozzle reduction (%)	0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	-	-
	D3	ditch 2nd	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	R1	pond 1st	0.083	Drift
	R1	pond 2nd	0.088	Runoff
	R1	stream 1st	1.04*	Drift
	R1	stream 2nd	1.05*	Drift
	R2	stream 1st	1.38*	Drift
	R2	stream 2nd	1.40*	Drift
	R3	stream 1st	1.61	Runoff
	R3	stream 2nd	1.47*	Drift
	R4	stream 1st	1.04*	Drift
	R4	stream 2nd	1.04*	Drift
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	-	-
	D3	ditch 2nd	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	R1	pond 1st	0.234	Runoff
	R1	pond 2nd	0.171	Runoff
	R1	stream 1st	1.05*	Drift
	R1	stream 2nd	1.05*	Drift
	R2	stream 1st	1.40*	Drift
	R2	stream 2nd	1.39*	Drift
	R3	stream 1st	1.48*	Drift
	R3	stream 2nd	1.47*	Drift

Mitigation options				
		Vegetative strip (m)	5 VFS mod	
		No spray buffer (m)	0	
		Nozzle reduction (%)	0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	R4	stream 1st	1.02*	Drift
	R4	stream 2nd	1.05*	Drift

Table A 132: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to vegetables, fruiting – Maximum over single and multiple applications

Mitigation options						
		Vegetative strip (m)	10 – 12[a]		18 - 20[b]	
		No spray buffer (m)	0		0	
		Nozzle reduction (%)	0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-
	R2	stream	1.38*	Drift	1.38*	Drift
	R3	stream	1.92	Runoff	1.47*	Drift
	R4	stream	3.86	Runoff	2.02	Runoff
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-
	R2	stream	1.40*	Drift	1.40*	Drift
	R3	stream	2.53	Runoff	1.48*	Drift
	R4	stream	3.37	Runoff	1.76	Runoff
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-
	R2	stream	1.40*	Drift	1.40*	Drift
	R3	stream	2.50	Runoff	1.48*	Drift
	R4	stream	3.01	Runoff	1.58	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 133: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to vegetables, fruiting using 5 m VFS mod, BBCH 11 – 49 – Maximum over single and multiple applications

Mitigation options				
		Vegetative strip (m)	5 VFS mod	
		No spray buffer (m)	0	
		Nozzle reduction (%)	0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-
	R2	stream	1.38*	Drift
	R3	stream	1.47*	Drift
	R4	stream	1.04*	Drift
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-
	R2	stream	1.40*	Drift
	R3	stream	1.48*	Drift
	R4	stream	1.02*	Drift
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-
	R2	stream	1.40*	Drift
	R3	stream	1.48*	Drift
	R4	stream	1.05*	Drift

Table A 134: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to vegetables, bulb – Maximum over single and multiple applications

Mitigation options						
		Vegetative strip (m)	10 – 12[a]		18 - 20[b]	
		No spray buffer (m)	0		0	
		Nozzle reduction (%)	0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.236	Runoff	0.149	Runoff
	R1	stream	2.50	Runoff	1.31	Runoff
	R2	stream	1.50	Drift	1.38*	Drift
	R3	stream	2.05	Runoff	1.47*	Drift
	R4	stream	2.83	Runoff	1.48	Runoff
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch 1st	-	-	-	-
	D6	ditch 2nd	-	-	-	-
	R1	pond	0.134	Runoff	0.080	Runoff
	R1	stream	1.29	Runoff	1.03*	Drift
	R2	stream	1.40*	Drift	1.40*	Drift
	R3	stream	2.29	Runoff	1.47*	Drift
	R4	stream	2.92	Runoff	1.52	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 135: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to vegetables, bulb using 5 m VFS mod, BBCH 11 – 49 – Maximum over single and multiple applications

Mitigation options				
		Vegetative strip (m)	5 VFS mod	
		No spray buffer (m)	0	
		Nozzle reduction (%)	0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	D6 2nd	ditch	-	-
	R1	pond	0.081	Drift
	R1	stream	1.04*	Drift
	R2	stream	1.38*	Drift
	R3	stream	1.60	Runoff
	R4	stream	1.03*	Drift
Vegetables, bulb, 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	D6 2nd	ditch	-	-
	R1	pond	0.077	Drift
	R1	stream	1.03*	Drift
	R2	stream	1.40*	Drift
	R3	stream	1.47*	Drift
	R4	stream	1.01*	Drift

Table A 136: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to hops – Maximum over single and multiple applications

Mitigation options																
Vegetative strip (m)			0		0		0		0		0		0		0	
No spray buffer (m)			10		10		10		15		15		15		20	
Nozzle reduction (%)			0		75		90		0		50		75		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Hops, 2 × 250 g a.s./ha; BBCH 21	R1	pond	0.525	Drift	0.143	Drift	0.066	Drift	0.295	Drift	0.155	Drift	0.085	Drift	0.171	Drift
	R1	stream	4.02*	Drift	1.25	Runoff	1.25	Runoff	2.65*	Drift	1.33*	Drift	1.25	Runoff	1.25	Runoff
Hops, 2 × 250 g a.s./ha; BBCH 51	R1	pond	0.508	Drift	0.128	Drift	0.052	Drift	0.279	Drift	0.140	Drift	0.071	Drift	0.156	Drift
	R1	stream	3.92*	Drift	0.979*	Drift	0.572*	Runoff	2.59*	Drift	1.29*	Drift	0.646*	Drift	1.18*	Drift
Hops, 2 × 250 g a.s./ha; BBCH 89	R1	pond	0.496	Drift	0.123	Drift	0.049	Drift	0.271	Drift	0.135	Drift	0.067	Drift	0.150	Drift
	R1	stream	4.03*	Drift	1.01*	Drift	0.403*	Drift	2.66*	Drift	1.33*	Drift	0.664*	Drift	1.21*	Drift

Greenhouse uses

Table A 137: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy – 0.1% drift

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	0.082	Drift	0.047	0.082	Drift	0.047
	D3	ditch 2nd	0.082	Drift	0.050	0.082	Drift	0.050
	D4	pond	0.655	Drainage	4.21	0.648	Drainage	4.25
	D4	stream	0.644	Drainage	1.66	0.644	Drainage	1.69
	D6	ditch	2.58	Drainage	2.48	2.58	Drainage	2.62
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	0.082	Drift	0.064	0.082	Drift	0.064
	D3	ditch 2nd	0.082	Drift	0.066	0.082	Drift	0.066
	D4	pond	1.37	Drainage	8.32	1.36	Drainage	8.40
	D4	stream	1.33	Drainage	3.26	1.33	Drainage	3.33
	D6	ditch	5.66	Drainage	5.24	5.66	Drainage	5.53
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	0.082	Drift	0.048	0.082	Drift	0.048
	D3	ditch 2nd	0.082	Drift	0.034	0.082	Drift	0.034
	D4	pond	0.390	Drainage	2.66	0.386	Drainage	2.68
	D4	stream	0.612	Drainage	0.964	0.612	Drainage	0.974
	D6	ditch	5.12	Drainage	5.63	5.12	Drainage	5.95
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	0.082	Drift	0.064	0.082	Drift	0.064
	D3	ditch 2nd	0.082	Drift	0.048	0.082	Drift	0.049
	D4	pond	1.39	Drainage	8.25	1.38	Drainage	8.27
	D4	stream	1.68	Drainage	3.29	1.68	Drainage	3.32
	D6	ditch	12.0	Drainage	13.3	12.0	Drainage	14.1

Table A 138: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – 0.1% drift

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 11	D6	ditch	0.349	Drainage	0.376	0.349	Drainage	0.403
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11	D6	ditch	0.717	Drainage	0.780	0.717	Drainage	0.834
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 51	D6	ditch	0.442	Drainage	0.485	0.442	Drainage	0.518
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.971	Drainage	1.08	0.971	Drainage	1.14
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 89	D6	ditch	1.96	Drainage	1.51	1.96	Drainage	1.61
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.67	Drainage	3.06	3.67	Drainage	3.28

Table A 139: FOCUS Step 3 Summary Table, Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy - maximum over option 1 and option 2 – 0.1% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	0.082	Drift	0.047
	D3	ditch 2nd	0.082	Drift	0.050
	D4	pond	0.655	Drainage	4.25
	D4	stream	0.644	Drainage	1.69
	D6	ditch	2.58	Drainage	2.62
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 11	D3	ditch 1st	0.082	Drift	0.064
	D3	ditch 2nd	0.082	Drift	0.066
	D4	pond	1.37	Drainage	8.40
	D4	stream	1.33	Drainage	3.33
	D6	ditch	5.66	Drainage	5.53
Vegetables, leafy, 1 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	0.082	Drift	0.048
	D3	ditch 2nd	0.082	Drift	0.034
	D4	pond	0.390	Drainage	2.68
	D4	stream	0.612	Drainage	0.974
	D6	ditch	5.12	Drainage	5.95
Vegetables, leafy, 2 × 250 g a.s./ha, BBCH 49	D3	ditch 1st	0.082	Drift	0.064
	D3	ditch 2nd	0.082	Drift	0.049
	D4	pond	1.39	Drainage	8.27
	D4	stream	1.68	Drainage	3.32
	D6	ditch	12.0	Drainage	14.1

[a] maximum over option 1 and 2

Table A 140: FOCUS Step 3 Summary Table, Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – maximum over option 1 and option 2 – 0.1% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 11	D6	ditch	0.349	Drainage	0.403
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 11	D6	ditch	0.717	Drainage	0.834
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 51	D6	ditch	0.442	Drainage	0.518
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.971	Drainage	1.14
Vegetables, fruiting, 1 × 250 g a.s./ha, BBCH 89	D6	ditch	1.96	Drainage	1.61
Vegetables, fruiting, 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.67	Drainage	3.28

[a] maximum over option 1 and 2

A 3.11 KCP 9.2.5: Anagu, I. & Langa Peñalba, 2021, Azoxystrobin PEC_{SW} following application to various crops - Arithmetic Mean Sorption Endpoints

Comments of zRMS:	All input parameters and presented PEC_{sw} for azoxystrobin were considered acceptable.

Reference:	KCP 9.2.5
Report	Azoxystrobin - A European Environmental Fate Assessment Using the FOCUS Surface Water Models at Steps 3 to 4 Following Spray Application to Various Crops Using Arithmetic Mean Sorption Endpoints Report No. 116223-3, (Syngenta File No VV-911782)
Guideline(s):	EFSA (2014). EFSA Guidance Document on clustering and ranking of emissions of active substances of plant protection products and transformation products of these active substances from protected crops (greenhouses and crops grown under cover) to relevant environmental compartments. EFSA Journal 2014; 12(3):3615, 43 pp. FOCUS (2001). FOCUS Surface Water Scenarios in the EU Evaluation Process under 91/414/EEC. Report of the FOCUS Working Group on Surface Water Scenarios, EC Document Reference SANCO/4802/2001 rev. 2. FOCUS (2007). Landscape and mitigation factors in aquatic ecological risk assessment. Volume 1. Extended summary and recommendations, the final report of the FOCUS working group on landscape and mitigation factors in ecological risk assessment, EC document reference SANCO/10422/2005, version 2.0, September 2007. FOCUS (2015). Generic Guidance for FOCUS Surface Water Scenarios, version 1.4.
Deviations:	No
GLP:	Not applicable
Acceptability:	Yes/No/Supplementary

A 3.11.1 Materials and methods

This report describes a FOCUS modelling study that examined the potential for azoxystrobin to reach surface water following field (foliar) and greenhouse applications to vegetables (leafy, fruiting and bulb) and hops. The FOCUS tool SWASH (v 5.3), including the operational models FOCUS-MACRO (v 5.5.4), FOCUS-PRZM (v 4.3.1) and FOCUS-TOXSWA (v 5.5.3), were used in the modelling study for Step 3 simulations. The ECPA tool SWAN (v 5.0.0) was used to implement mitigation options at Step 4.

Twofold applications at the rate of 250 g a.s./ha, were considered. Applications starting from approximately BBCH 11 were considered for vegetables with an interval of 7 days between applications for vegetables, leafy and fruiting as well as 12 days for vegetables, bulb. For hops, applications from approximately BBCH 21 with an interval of 12 days between applications were considered. Due to the wide BBCH range, simulations were carried out for possible applications at early (BBCH 11 or 21), intermediate (BBCH 51) and late (BBCH 49 or 89) stages, depending on the crop. The input parameters relating to application are shown below.

Table A 141: Input parameters related to application for $PEC_{SW/SED}$ calculations

Use numbers	PL-54	PL-59	-	-
Crop	Vegetables, leafy	Vegetables, fruiting	Vegetables, bulb	Hops
Application rate (g a.s./ha)	250	250	250	250
Number of applications/interval (d)	2 / 7	2 / 7	2 / 12	2 / 12
BBCH growth stage	11 – 49	11 – 89	11 – 89	21 – 89
Application method	Ground spray	Ground spray	Ground spray	Airblast
CAM (Chemical application method)	2 (application foliar linear)			
Soil depth (cm)	4 (default)			
Models used for calculation	FOCUS SWASH v5.3, FOCUS PRZM v4.3.1, FOCUS MACRO v5.5.4, FOCUS TOXWA v5.5.3, SWAN v5.0.0			

Ground spray application (foliar spray) was considered as the application method in the simulations for vegetables (leafy, fruiting and bulb) while air blast was considered as the application method in the simulations for hops. Crop interception at Step 3 is calculated internally by the model on the basis of the maximum interception capacity and the actual leaf area index.

An application window has to be specified from which the Pesticide Application Timer (PAT), internal to the model, determines actual application dates which were set generically for all scenarios. The application dates for the early and intermediate applications were selected with the tool AppDate (v3.06) based on BBCH growth stages given in the recommended GAP. For the late applications, the end of the application window was set to the harvest date. Simulations were carried out using the FOCUS standard crops ‘vegetables, leafy’, ‘vegetables, fruiting’, ‘vegetables, bulb’ and ‘hops’. Application windows are presented in **Table A 142**, below.

Table A 142: FOCUS Step 3 Scenario related input parameters for $PEC_{SW/SED}$ calculations for the application of azoxystrobin to vegetables, leafy, vegetables, fruiting, hops and vegetables, bulb

Crop	Rationale	Scenario	Azoxystrobin – Application window used in modelling – Single application – Start of Window	Single application – End of Window	Multiple applications – Start of Window	Multiple applications – End of Window
Vegetables, leafy, BBCH 11 – 49 2 × 250 g a.s./ha; 7 days interval, BBCH 11	Start of window at BBCH 11 (AppDate 3.06)	D3	30-Apr (120)	30-May (150)	30-Apr (120)	6-Jun (157)
		D3	10-Aug (222)	9-Sep (252)	10-Aug (222)	16-Sep (259)
		D4	18-May (138)	17-Jun (168)	18-May (138)	24-Jun (175)
		D6	21-Aug (233)	20-Sep (263)	21-Aug (233)	27-Sep (270)
		R1	25-Apr (115)	25-May (145)	25-Apr (115)	1-Jun (152)
		R1	5-Aug (217)	4-Sep (247)	5-Aug (217)	11-Sep (254)
		R2	9-Mar (68)	8-Apr (98)	9-Mar (68)	15-Apr (105)
		R2	4-Aug (216)	3-Sep (246)	4-Aug (216)	10-Sep (253)
		R3	8-Mar (67)	7-Apr (97)	8-Mar (67)	14-Apr (104)
		R3	22-Jun (173)	22-Jul (203)	22-Jun (173)	29-Jul (210)
		R4	8-Mar (67)	7-Apr (97)	8-Mar (67)	14-Apr (104)
		R4	22-Jun (173)	22-Jul (203)	22-Jun (173)	29-Jul (210)
Vegetables, leafy, BBCH 11 – 49 2 × 250 g a.s./ha; 7 days interval, BBCH 49	End of window at harvest	D3	20-Jun (171)	20-Jul (201)	13-Jun (164)	20-Jul (201)
		D3	20-Sep (263)	20-Oct (293)	13-Sep (256)	20-Oct (293)
		D4	27-Aug (239)	26-Sep (269)	20-Aug (232)	26-Sep (269)
		D6	31-Oct (304)	30-Nov (334)	24-Oct (297)	30-Nov (334)
		R1	15-Jun (166)	15-Jul (196)	8-Jun (159)	15-Jul (196)
		R1	15-Sep (258)	15-Oct (288)	8-Sep (251)	15-Oct (288)
		R2	1-Jun (152)	1-Jul (182)	25-May (145)	1-Jul (182)
		R2	16-Oct (289)	15-Nov (319)	9-Oct (282)	15-Nov (319)
		R3	2-May (122)	1-Jun (152)	25-Apr (115)	1-Jun (152)
		R3	16-Aug (228)	15-Sep (258)	9-Aug (221)	15-Sep (258)
		R4	2-May (122)	1-Jun (152)	25-Apr (115)	1-Jun (152)
		R4	16-Aug (228)	15-Sep (258)	9-Aug (221)	15-Sep (258)
Vegetables, fruiting, BBCH 11 –89 2 × 250 g a.s./ha; 7 days interval, BBCH 11	Start of window at BBCH 11 (AppDate 3.06)	D6	13-Apr (103)	13-May (133)	13-Apr (103)	20-May (140)
		R2	19-Mar (78)	18-Apr (108)	19-Mar (78)	25-Apr (115)
		R3	13-May (133)	12-Jun (163)	13-May (133)	19-Jun (170)
		R4	23-Apr (113)	23-May (143)	23-Apr (113)	30-May (150)
Vegetables, fruiting,	Start of window at	D6	15-May (135)	14-Jun (165)	15-May (135)	21-Jun (172)
		R2	19-May (139)	18-Jun (169)	19-May (139)	25-Jun (176)

Crop	Rationale	Scenario	Azoxystrobin			
			Application window used in modelling			
			Single application		Multiple applications	
			Start of Window	End of Window	Start of Window	End of Window
BBCH 11 – 89 2 × 250 g a.s./ha; 7 days interval, BBCH 51	BBCH 51 (AppDate 3.06)	R3	15-Jun (166)	15-Jul (196)	15-Jun (166)	22-Jul (203)
		R4	26-May (146)	25-Jun (176)	26-May (146)	2-Jul (183)
Vegetables, fruiting, BBCH 11 – 89 2 × 250 g a.s./ha; 7 days interval, BBCH 89	End of window at harvest	D6	11-Jul (192)	10-Aug (222)	4-Jul (185)	10-Aug (222)
		R2	1-Aug (213)	31-Aug (243)	25-Jul (206)	31-Aug (243)
		R3	26-Jul (207)	25-Aug (237)	19-Jul (200)	25-Aug (237)
		R4	15-Jun (166)	15-Jul (196)	8-Jun (159)	15-Jul (196)
Vegetables, bulb, BBCH 11 - 49 2 × 250 g a.s./ha; 12 days interval, BBCH 11	Start of window at BBCH 11 (AppDate 3.06)	D3	3-May (123)	2-Jun (153)	3-May (123)	14-Jun (165)
		D4	2-May (122)	1-Jun (152)	2-May (122)	13-Jun (164)
		D6	16-May (136)	15-Jun (166)	16-May (136)	27-Jun (178)
		D6	4-Nov (308)	4-Dec (338)	4-Nov (308)	16-Dec (350)
		R1	28-Apr (118)	28-May (148)	28-Apr (118)	9-Jun (160)
		R2	9-Mar (68)	8-Apr (98)	9-Mar (68)	20-Apr (110)
		R3	9-Mar (68)	8-Apr (98)	9-Mar (68)	20-Apr (110)
		R4	9-Mar (68)	8-Apr (98)	9-Mar (68)	20-Apr (110)
Vegetables, bulb, BBCH 11 - 49 2 × 250 g a.s./ha; 12 days interval, BBCH 49	End of window at harvest	D3	2-Aug (214)	1-Sep (244)	21-Jul (202)	1-Sep (244)
		D4	14-Aug (226)	13-Sep (256)	2-Aug (214)	13-Sep (256)
		D6	1-Jul (182)	31-Jul (212)	19-Jun (170)	31-Jul (212)
		D6	11-Mar (70)	10-Apr (100)	27-Feb (58)	10-Apr (100)
		R1	26-Jul (207)	25-Aug (237)	14-Jul (195)	25-Aug (237)
		R2	1-May (121)	31-May (151)	19-Apr (109)	31-May (151)
		R3	1-May (121)	31-May (151)	19-Apr (109)	31-May (151)
		R4	1-May (121)	31-May (151)	19-Apr (109)	31-May (151)
Hops BBCH 21 - 89 2 × 250 g a.s./ha; 12 days interval, BBCH 21	Start of window at BBCH 21 (AppDate 3.06)	R1	15-May (135)	14-Jun (165)	15-May (135)	26-Jun (177)
Hops BBCH 21 - 89 2 × 250 g a.s./ha; 12 days interval, BBCH 51	Start of window at BBCH 51 (AppDate 3.06)	R1	7-Jul (188)	6-Aug (218)	7-Jul (188)	18-Aug (230)

Crop	Rationale	Scenario	Azoxystrobin			
			Application window used in modelling			
			Single application		Multiple applications	
			Start of Window	End of Window	Start of Window	End of Window
Hops BBCH 21 - 89 2 × 250 g a.s./ha; 12 days interval, BBCH 89	End of window at harvest	R1	2-Aug (214)	1-Sep (244)	21-Jul (202)	1-Sep (244)

Numbers in brackets are the corresponding 'Julian Day' numbers

Step 4 calculations were carried out for all the scenarios with the following mitigation methods:

- spray drift reduction by 50%, 75% and 90% drift reduction nozzles for hops only
- spray drift reduction by non-sprayed buffer strips of 10 m, 20 m and runoff reduction using vegetated buffer strips of 10 m and 20 m using runoff and erosion reduction values as given by the FOCUS Working Group on Landscape and Mitigation Factors (2007)
- runoff/erosion reduction of 60/85% for 10 m, and 80/95% for 20 m
- runoff reduction considering 5 m and 15 vegetated filter strip (Austrian-specific reduction measures (BAES, 2020)) in combination with spray drift reduction considering a non-sprayed buffer strip of 5 m and 15 m respectively
- Runoff reduction considering 5 m VFSmod

In order to simulate conditions in greenhouses, drift entries to surface water were amended with drift rates of 0.1% and 0.2% of the dose rate at Step 3 (EFSA, 2014). As entry via runoff is not expected to occur in greenhouses, only the FOCUS D scenarios were considered.

The input parameters for azoxystrobin used in the modelling are shown in **Table A 143**. In accordance with FOCUS guidance (FOCUS 2015), since the K_{FOC} value of azoxystrobin is between 100 – 2000 mL/g calculations were run twice with two different parameter sets for degradation in water and sediment. In Option 1 the measured whole system DT_{50} was used to describe the degradation in sediment together with the default value of 1000 days for water. In Option 2 these DT_{50} values were reversed.

Table A 143: Input parameters related to active substance azoxystrobin for $PEC_{SW/SED}$ calculations

Compound	Azoxystrobin	Value in accordance with EU endpoint / Reference
Molar mass (g/mol)	403.4	Yes / EFSA, 2010
Water solubility (mg/L)	6.0 (20°C)	Yes / EFSA, 2010
Saturated vapour pressure (Pa)	1.1×10^{-10} (20 °C)	Yes / EFSA, 2010
K_{FOC} / K_{FOM} (mL/g)	423 / 245 (arithmetic mean, n = 6)	Yes / EFSA, 2010 $K_{FOM} = K_{FOC}/1.724$
Freundlich Exponent 1/n	0.86 (arithmetic mean, n = 6)	Yes / EFSA, 2010
Plant Uptake	0.5	* Yes / DAR 2014 & Weinfurtner, 2013
$DT_{50,soil}$ (d)	78[a] (geometric mean field , n = 13)	Yes / EFSA, 2010
$DT_{50,water}$ (d)	**Option 1:** 1000* b **Option 2:** 205**b (geometric mean, total system, n = 2)	*FOCUS default **Yes / EFSA, 2010
$DT_{50,sed}$ (d)	**Option 1:** 205*b (geometric mean, total system, n = 2) **Option 2:** 1000**b	*Yes / EFSA, 2010 **FOCUS default

[a] calculated from the geometric mean of the soil incorporated field studies (80.2 days, n = 3) and the slow phase of the non-incorporated studies (75.9 days, n = 10)
[b] for compounds with K_{OC} between 100 and 2000 mL/g , the FOCUS kinetics advice regarding running simulations with both combinations for ascribing the whole system DT_{50} and default and selecting the results that give the highest concentrations for the risk assessment was followed.

A 3.11.2 Results and discussions

Predicted environmental concentrations in surface water (PEC_{SW}) and sediment (PEC_{SED}) were calculated for the use of azoxystrobin on vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops in Europe in accordance with FOCUS guidelines.

The results are presented in the tables below in the following order:

Field uses:

FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Option 1 and Option 2

FOCUS Application dates and global maximum timing

FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Maximum over Option 1 and Option 2

FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Maximum over single and multiple applications

FOCUS Step 4 PEC_{SW} and PEC_{SED} for azoxystrobin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Option 1 and Option 2

FOCUS Step 4 PEC_{SW} and PEC_{SED} for azoxystrobin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Maximum over Option 1 and Option 2

FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Maximum over single and multiple applications

Greenhouse uses:

FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following applications to vegetables, leafy and vegetables, fruiting, Option 1 and Option 2 – 0.1% drift

FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following applications to vegetables, leafy and vegetables, fruiting, Option 1 and Option 2 – 0.2% drift

Field uses:

Table A 144: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58	Drift	0.795	1.58	Drift	0.795
	D3 2nd	ditch	1.59	Drift	0.851	1.59	Drift	0.851
	D4	pond	0.649	Drainage	4.23	0.642	Drainage	4.28
	D4	stream	1.26	Drift	1.64	1.26	Drift	1.67
	D6	ditch	2.55	Drainage	2.47	2.55	Drainage	2.61
	R1	pond	0.216	Runoff	1.46	0.214	Runoff	1.47
	R1 2nd	pond	0.198	Runoff	1.56	0.193	Runoff	1.56
	R1	stream	2.21	Runoff	0.851	2.21	Runoff	0.855
	R1 2nd	stream	1.83	Runoff	0.946	1.83	Runoff	0.948
	R2	stream	1.38	Drift	2.19	1.38	Drift	2.20
	R2 2nd	stream	1.40	Drift	1.53	1.40	Drift	1.55
	R3	stream	3.33	Runoff	1.20	3.33	Runoff	1.21
	R3 2nd	stream	3.31	Runoff	2.51	3.31	Runoff	2.52
	R4	stream	1.69	Runoff	0.813	1.69	Runoff	0.814
	R4 2nd	stream	5.36	Runoff	2.62	5.36	Runoff	2.62
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	1.39	Drift	0.931	1.39	Drift	0.935
	D3 2nd	ditch	1.39	Drift	0.957	1.39	Drift	0.962
	D4	pond	1.35	Drainage	8.29	1.34	Drainage	8.37
	D4	stream	1.31	Drainage	3.22	1.31	Drainage	3.28
	D6	ditch	5.58	Drainage	5.21	5.58	Drainage	5.50
	R1	pond	0.435	Runoff	2.63	0.431	Runoff	2.65
	R1 2nd	pond	0.399	Runoff	3.03	0.388	Runoff	3.02
	R1	stream	4.73	Runoff	1.75	4.73	Runoff	1.75
	R1 2nd	stream	4.18	Runoff	2.15	4.18	Runoff	2.15
	R2	stream	2.50	Runoff	5.16	2.50	Runoff	5.18
	R2 2nd	stream	1.27	Runoff	2.81	1.27	Runoff	2.82
	R3	stream	4.23	Runoff	2.61	4.23	Runoff	2.62
	R3 2nd	stream	5.69	Runoff	4.79	5.69	Runoff	4.84
	R4	stream	6.36	Runoff	3.09	6.36	Runoff	3.09
	R4 2nd	stream	8.41	Runoff	4.75	8.41	Runoff	4.77
Vegetables, leafy	D3	ditch	1.59	Drift	0.808	1.59	Drift	0.808

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
1 × 250 g a.s./ha, BBCH 49	D3 2nd	ditch	1.58	Drift	0.593	1.58	Drift	0.593
	D4	pond	0.395	Drainage	2.75	0.391	Drainage	2.76
	D4	stream	1.13	Drift	0.960	1.13	Drift	0.970
	D6	ditch	5.12	Drainage	5.63	5.11	Drainage	5.96
	R1	pond	0.604	Runoff	3.29	0.595	Runoff	3.23
	R1 2nd	pond	0.289	Runoff	1.85	0.286	Runoff	1.85
	R1	stream	2.30	Runoff	2.85	2.30	Runoff	2.86
	R1 2nd	stream	1.41	Runoff	0.567	1.41	Runoff	0.577
	R2	stream	1.40	Drift	2.28	1.40	Drift	2.43
	R2 2nd	stream	1.39	Drift	3.28	1.39	Drift	3.31
	R3	stream	2.58	Runoff	2.44	2.58	Runoff	2.50
	R3 2nd	stream	2.50	Runoff	2.37	2.50	Runoff	2.47
	R4	stream	3.24	Runoff	2.32	3.24	Runoff	2.33
	R4 2nd	stream	3.39	Runoff	2.30	3.39	Runoff	2.30
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.39	Drift	0.930	1.39	Drift	0.935
	D3 2nd	ditch	1.38	Drift	0.718	1.38	Drift	0.720
	D4	pond	1.40	Drainage	8.34	1.38	Drainage	8.36
	D4	stream	1.68	Drainage	3.28	1.68	Drainage	3.31
	D6	ditch	12.0	Drainage	13.4	12.0	Drainage	14.1
	R1	pond	0.892	Runoff	5.33	0.882	Runoff	5.23
	R1 2nd	pond	0.705	Runoff	4.14	0.697	Runoff	4.15
	R1	stream	4.83	Runoff	4.88	4.83	Runoff	4.91
	R1 2nd	stream	3.73	Runoff	1.45	3.73	Runoff	1.46
	R2	stream	1.74	Runoff	4.53	1.74	Runoff	4.54
	R2 2nd	stream	1.41	Runoff	4.84	1.41	Runoff	4.92
	R3	stream	4.33	Runoff	2.92	4.33	Runoff	2.99
	R3 2nd	stream	5.55	Runoff	7.79	5.55	Runoff	7.86
	R4	stream	7.10	Runoff	3.91	7.10	Runoff	3.93
	R4 2nd	stream	6.90	Runoff	4.73	6.90	Runoff	4.75

Table A 145: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	1.56	Drift	0.429	1.56	Drift	0.436
	R2	stream	1.38	Drift	2.15	1.38	Drift	2.16
	R3	stream	3.96	Runoff	1.55	3.96	Runoff	1.55
	R4	stream	5.71	Runoff	2.84	5.71	Runoff	2.84
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	1.37	Drift	0.771	1.37	Drift	0.837
	R2	stream	1.70	Runoff	2.15	1.70	Runoff	2.20
	R3	stream	4.11	Runoff	2.70	4.11	Runoff	2.73
	R4	stream	8.46	Runoff	4.62	8.46	Runoff	4.63
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	1.58	Drift	0.580	1.58	Drift	0.593
	R2	stream	1.40	Drift	1.84	1.40	Drift	1.85
	R3	stream	2.27	Runoff	1.96	2.27	Runoff	1.96
	R4	stream	2.93	Runoff	1.42	2.93	Runoff	1.42
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	1.38	Drift	1.08	1.38	Drift	1.16
	R2	stream	1.89	Runoff	3.90	1.89	Runoff	3.90
	R3	stream	5.55	Runoff	4.41	5.55	Runoff	4.42
	R4	stream	7.31	Runoff	3.50	7.31	Runoff	3.50
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	1.95	Drainage	1.53	1.95	Drainage	1.63
	R2	stream	1.40	Drift	2.80	1.40	Drift	2.89
	R3	stream	2.58	Runoff	2.61	2.58	Runoff	2.71
	R4	stream	3.73	Runoff	2.10	3.73	Runoff	2.12
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.64	Drainage	3.08	3.64	Drainage	3.30
	R2	stream	1.21	Drift	5.34	1.21	Drift	5.51
	R3	stream	5.46	Runoff	5.64	5.46	Runoff	5.70
	R4	stream	6.57	Runoff	3.80	6.57	Runoff	3.82

Table A 146: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, bulb

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58	Drift	0.799	1.58	Drift	0.799
	D4	pond	0.605	Drainage	3.96	0.598	Drainage	4.00
	D4	stream	1.22	Drift	1.53	1.22	Drift	1.56
	D6	ditch	1.60	Drift	1.30	1.60	Drift	1.33
	D6 2nd	ditch	4.56	Drainage	3.97	4.56	Drainage	4.47
	R1	pond	0.210	Runoff	1.23	0.208	Runoff	1.24
	R1	stream	2.16	Runoff	0.933	2.16	Runoff	0.936
	R2	stream	1.38	Drift	2.19	1.38	Drift	2.20
	R3	stream	3.35	Runoff	1.20	3.35	Runoff	1.20
	R4	stream	5.69	Runoff	2.75	5.69	Runoff	2.75
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	1.39	Drift	0.916	1.39	Drift	0.921
	D4	pond	1.27	Drainage	7.83	1.26	Drainage	7.91
	D4	stream	1.22	Drainage	3.03	1.22	Drainage	3.09
	D6	ditch	2.34	Drainage	2.30	2.34	Drainage	2.56
	D6 2nd	ditch	12.7	Drainage	13.0	12.7	Drainage	14.1
	R1	pond	0.479	Runoff	2.59	0.474	Runoff	2.60
	R1	stream	5.37	Runoff	2.18	5.37	Runoff	2.18
	R2	stream	2.41	Runoff	3.93	2.41	Runoff	3.95
	R3	stream	4.33	Runoff	2.62	4.33	Runoff	2.63
	R4	stream	6.17	Runoff	3.47	6.17	Runoff	3.49
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 49	D3	ditch	1.59	Drift	0.809	1.59	Drift	0.809
	D4	pond	0.487	Drainage	3.29	0.482	Drainage	3.31
	D4	stream	1.13	Drift	1.16	1.13	Drift	1.17
	D6	ditch	1.60	Drift	2.34	1.60	Drift	2.37
	D6 2nd	ditch	1.61	Drift	1.56	1.61	Drift	1.57
	R1	pond	0.112	Runoff	0.874	0.110	Runoff	0.876
	R1	stream	1.03	Drift	0.353	1.03	Drift	0.354
	R2	stream	1.40	Drift	2.85	1.40	Drift	2.86
	R3	stream	3.30	Runoff	1.36	3.30	Runoff	1.36
	R4	stream	4.45	Runoff	2.50	4.45	Runoff	2.51
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.39	Drift	0.916	1.39	Drift	0.921
	D4	pond	1.34	Drainage	8.23	1.33	Drainage	8.28
	D4	stream	1.59	Drainage	3.09	1.59	Drainage	3.14

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
	D6	ditch	1.72	Drainage	3.39	1.72	Drainage	3.49
	D6 2nd	ditch	1.46	Drift	1.94	1.46	Drift	2.15
	R1	pond	0.267	Runoff	1.89	0.262	Runoff	1.89
	R1	stream	2.72	Runoff	0.952	2.72	Runoff	0.955
	R2	stream	1.86	Runoff	4.03	1.86	Runoff	4.05
	R3	stream	4.98	Runoff	2.14	4.98	Runoff	2.15
	R4	stream	6.40	Runoff	3.87	6.40	Runoff	3.89

Table A 147: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to hops

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Hops 1 × 250 g a.s./ha, BBCH 21	R1	pond	0.657	Drift	2.65	0.657	Drift	2.62
	R1	stream	9.44	Drift	1.25	9.44	Drift	1.25
Hops 2 × 250 g a.s./ha, BBCH 21	R1	pond	0.847	Drift	3.72	0.841	Drift	3.72
	R1	stream	7.82	Drift	1.07	7.82	Drift	1.08
Hops 1 × 250 g a.s./ha, BBCH 51	R1	pond	0.657	Drift	2.70	0.657	Drift	2.64
	R1	stream	9.21	Drift	0.722	9.21	Drift	0.722
Hops 2 × 250 g a.s./ha, BBCH 51	R1	pond	0.828	Drift	3.81	0.817	Drift	3.71
	R1	stream	7.81	Drift	0.755	7.81	Drift	0.759
Hops 1 × 250 g a.s./ha, BBCH 89	R1	pond	0.657	Drift	2.82	0.657	Drift	2.76
	R1	stream	9.46	Drift	1.33	9.46	Drift	1.33
Hops 2 × 250 g a.s./ha, BBCH 89	R1	pond	0.809	Drift	3.89	0.796	Drift	3.79
	R1	stream	8.03	Drift	1.22	8.03	Drift	1.22

Table A 148: FOCUS Application dates and global maximum timing for vegetables, leafy

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	04-May-92	-	04-May-92	04-May-92
	D3 2nd	ditch	18-Aug-92	-	18-Aug-92	18-Aug-92
	D4	pond	18-May-85	-	29-Dec-85	29-Dec-85
	D4	stream	18-May-85	-	18-May-85	18-May-85
	D6	ditch	25-Aug-86	-	29-Oct-86	29-Oct-86
	R1	pond	26-Apr-84	-	30-May-84	30-May-84
	R1 2nd	pond	20-Aug-78	-	31-Dec-78	31-Dec-78
	R1	stream	26-Apr-84	-	20-May-84	20-May-84
	R1 2nd	stream	20-Aug-78	-	17-Sep-78	17-Sep-78
	R2	stream	22-Mar-77	-	22-Mar-77	22-Mar-77
	R2 2nd	stream	05-Aug-89	-	05-Aug-89	05-Aug-89
	R3	stream	10-Mar-80	-	22-Mar-80	22-Mar-80
	R3 2nd	stream	25-Jun-75	-	01-Jul-75	01-Jul-75
	R4	stream	08-Mar-84	-	12-Apr-84	12-Apr-84
	R4 2nd	stream	23-Jun-85	-	28-Jun-85	28-Jun-85
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	04-May-92	14-May-92	14-May-92	14-May-92
	D3 2nd	ditch	18-Aug-92	26-Aug-92	26-Aug-92	26-Aug-92
	D4	pond	18-May-85	29-May-85	29-Dec-85	29-Dec-85
	D4	stream	18-May-85	29-May-85	07-Dec-85	07-Dec-85
	D6	ditch	25-Aug-86	01-Sep-86	29-Oct-86	29-Oct-86
	R1	pond	26-Apr-84	03-May-84	30-May-84	30-May-84
	R1 2nd	pond	20-Aug-78	02-Sep-78	31-Dec-78	31-Dec-78
	R1	stream	26-Apr-84	03-May-84	20-May-84	20-May-84
	R1 2nd	stream	20-Aug-78	02-Sep-78	17-Sep-78	17-Sep-78
	R2	stream	21-Mar-77	30-Mar-77	03-Apr-77	03-Apr-77
	R2 2nd	stream	05-Aug-89	12-Aug-89	22-Oct-89	22-Oct-89
	R3	stream	10-Mar-80	28-Mar-80	20-Apr-80	20-Apr-80
	R3 2nd	stream	25-Jun-75	06-Jul-75	10-Jul-75	10-Jul-75
	R4	stream	08-Mar-84	03-Apr-84	12-Apr-84	12-Apr-84
	R4 2nd	stream	23-Jun-85	30-Jun-85	05-Jul-85	05-Jul-85
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	04-May-92	-	04-May-92	04-May-92
	D3 2nd	ditch	18-Aug-92	-	18-Aug-92	18-Aug-92
	D4	pond	18-May-85	-	18-May-85	18-May-85
	D4	stream	18-May-85	-	30-Dec-85	30-Dec-85

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
	D6	ditch	25-Aug-86	-	29-Oct-86	29-Oct-86
	R1	pond	26-Apr-84	-	30-May-84	30-May-84
	R1 2nd	pond	20-Aug-78	-	31-Dec-78	31-Dec-78
	R1	stream	26-Apr-84	-	20-May-84	20-May-84
	R1 2nd	stream	20-Aug-78	-	17-Sep-78	17-Sep-78
	R2	stream	22-Mar-77	-	22-Mar-77	22-Mar-77
	R2 2nd	stream	05-Aug-89	-	05-Aug-89	05-Aug-89
	R3	stream	10-Mar-80	-	22-Mar-80	22-Mar-80
	R3 2nd	stream	25-Jun-75	-	01-Jul-75	01-Jul-75
	R4	stream	08-Mar-84	-	12-Apr-84	12-Apr-84
	R4 2nd	stream	23-Jun-85	-	28-Jun-85	28-Jun-85
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	04-May-92	14-May-92	14-May-92	14-May-92
	D3 2nd	ditch	18-Aug-92	26-Aug-92	26-Aug-92	26-Aug-92
	D4	pond	18-May-85	29-May-85	29-Dec-85	29-Dec-85
	D4	stream	18-May-85	29-May-85	07-Dec-85	07-Dec-85
	D6	ditch	25-Aug-86	01-Sep-86	29-Oct-86	29-Oct-86
	R1	pond	26-Apr-84	03-May-84	30-May-84	30-May-84
	R1 2nd	pond	20-Aug-78	02-Sep-78	31-Dec-78	31-Dec-78
	R1	stream	26-Apr-84	03-May-84	20-May-84	20-May-84
	R1 2nd	stream	20-Aug-78	02-Sep-78	17-Sep-78	17-Sep-78
	R2	stream	21-Mar-77	30-Mar-77	03-Apr-77	03-Apr-77
	R2 2nd	stream	05-Aug-89	12-Aug-89	22-Oct-89	22-Oct-89
	R3	stream	10-Mar-80	28-Mar-80	20-Apr-80	20-Apr-80
	R3 2nd	stream	25-Jun-75	06-Jul-75	10-Jul-75	10-Jul-75
	R4	stream	08-Mar-84	03-Apr-84	12-Apr-84	12-Apr-84
	R4 2nd	stream	23-Jun-85	30-Jun-85	05-Jul-85	05-Jul-85

Table A 149: FOCUS Application dates and global maximum timing for vegetables, fruiting

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	23-Apr-86	-	23-Apr-86	23-Apr-86
	R2	stream	22-Mar-77	-	22-Mar-77	22-Mar-77
	R3	stream	18-May-80	-	23-May-80	23-May-80
	R4	stream	23-Apr-84	-	28-Apr-84	28-Apr-84
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	23-Apr-86	07-May-86	07-May-86	07-May-86
	R2	stream	22-Mar-77	22-Apr-77	05-May-77	05-May-77
	R3	stream	18-May-80	01-Jun-80	22-Jun-80	22-Jun-80
	R4	stream	23-Apr-84	04-May-84	09-May-84	09-May-84
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	19-May-86	-	19-May-86	19-May-86
	R2	stream	20-May-77	-	20-May-77	20-May-77
	R3	stream	18-Jun-75	-	29-Jun-75	29-Jun-75
	R4	stream	27-May-84	-	14-Jun-84	14-Jun-84
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	19-May-86	31-May-86	19-May-86	19-May-86
	R2	stream	20-May-77	27-May-77	10-Jun-77	10-Jun-77
	R3	stream	18-Jun-75	25-Jun-75	29-Jun-75	29-Jun-75
	R4	stream	27-May-84	06-Jun-84	14-Jun-84	14-Jun-84
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	17-Jul-86	-	30-Oct-86	30-Oct-86
	R2	stream	05-Aug-89	-	05-Aug-89	05-Aug-89
	R3	stream	30-Jul-75	-	05-Aug-75	05-Aug-75
	R4	stream	23-Jun-85	-	28-Jun-85	28-Jun-85
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	06-Jul-86	17-Jul-86	30-Oct-86	30-Oct-86
	R2	stream	05-Aug-89	12-Aug-89	12-Aug-89	12-Aug-89
	R3	stream	24-Jul-75	31-Jul-75	05-Aug-75	05-Aug-75
	R4	stream	12-Jun-85	23-Jun-85	28-Jun-85	28-Jun-85

Table A 150: FOCUS Application dates and global maximum timing for vegetables, bulb

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
Vegetables, bulb	D3	ditch	04-May-92	-	04-May-92	04-May-92

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
1 × 250 g a.s./ha, BBCH 11	D4	pond	12-May-85	-	29-Dec-85	29-Dec-85
	D4	stream	12-May-85	-	12-May-85	12-May-85
	D6	ditch	16-May-86	-	16-May-86	16-May-86
	D6 2nd	ditch	06-Nov-86	-	19-Jan-87	19-Jan-87
	R1	pond	28-Apr-84	-	30-May-84	30-May-84
	R1	stream	28-Apr-84	-	20-May-84	20-May-84
	R2	stream	22-Mar-77	-	22-Mar-77	22-Mar-77
	R3	stream	10-Mar-80	-	22-Mar-80	22-Mar-80
	R4	stream	09-Mar-84	-	14-Mar-84	14-Mar-84
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	04-May-92	16-May-92	16-May-92	16-May-92
	D4	pond	12-May-85	24-May-85	29-Dec-85	29-Dec-85
	D4	stream	12-May-85	24-May-85	07-Dec-85	07-Dec-85
	D6	ditch	16-May-86	28-May-86	05-Nov-86	05-Nov-86
	D6 2nd	ditch	01-Dec-86	13-Dec-86	25-Dec-86	25-Dec-86
	R1	pond	28-Apr-84	10-May-84	30-May-84	30-May-84
	R1	stream	28-Apr-84	10-May-84	20-May-84	20-May-84
	R2	stream	14-Mar-77	26-Mar-77	03-Apr-77	03-Apr-77
	R3	stream	10-Mar-80	28-Mar-80	20-Apr-80	20-Apr-80
	R4	stream	09-Mar-84	03-Apr-84	11-Apr-84	11-Apr-84
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 49	D3	ditch	04-Aug-92	-	04-Aug-92	04-Aug (216)
	D4	pond	27-Aug-85	-	30-Dec-85	04-Aug-92
	D4	stream	27-Aug-85	-	27-Aug-85	30-Dec-85
	D6	ditch	01-Jul-86	-	01-Jul-86	27-Aug-85
	D6 2nd	ditch	14-Mar-86	-	14-Mar-86	01-Jul-86
	R1	pond	28-Jul-78	-	31-Dec-78	14-Mar-86
	R1	stream	28-Jul-78	-	28-Jul-78	31-Dec-78
	R2	stream	07-May-77	-	07-May-77	28-Jul-78
	R3	stream	18-May-80	-	23-May-80	07-May-77
	R4	stream	07-May-84	-	12-May-84	23-May-80
Vegetables, bulb	D3	ditch	24-Jul-92	05-Aug-92	05-Aug-92	05-Aug-92

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
2 × 250 g a.s./ha, BBCH 49	D4	pond	27-Aug-85	10-Sep-85	30-Dec-85	30-Dec-85
	D4	stream	27-Aug-85	10-Sep-85	07-Dec-85	07-Dec-85
	D6	ditch	19-Jun-86	01-Jul-86	05-Nov-86	05-Nov-86
	D6 2nd	ditch	27-Feb-86	14-Mar-86	27-Feb-86	27-Feb-86
	R1	pond	28-Jul-78	20-Aug-78	31-Dec-78	31-Dec-78
	R1	stream	28-Jul-78	20-Aug-78	29-Sep-78	29-Sep-78
	R2	stream	22-Apr-77	07-May-77	13-May-77	13-May-77
	R3	stream	22-Apr-80	18-May-80	23-May-80	23-May-80
	R4	stream	20-Apr-84	07-May-84	12-May-84	12-May-84

Table A 151: FOCUS Application dates and global maximum timing for hops

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
Hops 1 × 250 g a.s./ha, BBCH 21	R1	pond	13-Jun-84	-	13-Jun-84	13-Jun-84
	R1	stream	13-Jun-84	-	13-Jun-84	13-Jun-84
Hops 2 × 250 g a.s./ha, BBCH 21	R1	pond	15-May-84	31-May-84	31-May-84	31-May-84
	R1	stream	15-May-84	31-May-84	31-May-84	31-May-84
Hops 1 × 250 g a.s./ha, BBCH 51	R1	pond	11-Jul-78	-	11-Jul-78	11-Jul-78
	R1	stream	11-Jul-78	-	11-Jul-78	11-Jul-78
Hops 2 × 250 g a.s./ha, BBCH 51	R1	pond	11-Jul-78	28-Jul-78	28-Jul-78	28-Jul-78
	R1	stream	11-Jul-78	28-Jul-78	28-Jul-78	28-Jul-78
Hops 1 × 250 g a.s./ha, BBCH 89	R1	pond	20-Aug-78	-	20-Aug-78	20-Aug-78
	R1	stream	20-Aug-78	-	20-Aug-78	20-Aug-78
Hops 2 × 250 g a.s./ha, BBCH 89	R1	pond	28-Jul-78	20-Aug-78	20-Aug-78	20-Aug-78
	R1	stream	28-Jul-78	20-Aug-78	20-Aug-78	20-Aug-78

Table A 152: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy – maximum over option 1 and option 2

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58	Drift	0.795
	D3 2nd	ditch	1.59	Drift	0.851
	D4	pond	0.649	Drainage	4.28
	D4	stream	1.26	Drift	1.67
	D6	ditch	2.55	Drainage	2.61
	R1	pond	0.216	Runoff	1.47
	R1 2nd	pond	0.198	Runoff	1.56
	R1	stream	2.21	Runoff	0.855
	R1 2nd	stream	1.83	Runoff	0.948
	R2	stream	1.38	Drift	2.20
	R2 2nd	stream	1.40	Drift	1.55
	R3	stream	3.33	Runoff	1.21
	R3 2nd	stream	3.31	Runoff	2.52
	R4	stream	1.69	Runoff	0.814
	R4 2nd	stream	5.36	Runoff	2.62
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	1.39	Drift	0.935
	D3 2nd	ditch	1.39	Drift	0.962
	D4	pond	1.35	Drainage	8.37
	D4	stream	1.31	Drainage	3.28
	D6	ditch	5.58	Drainage	5.50
	R1	pond	0.435	Runoff	2.65
	R1 2nd	pond	0.399	Runoff	3.03
	R1	stream	4.73	Runoff	1.75
	R1 2nd	stream	4.18	Runoff	2.15
	R2	stream	2.50	Runoff	5.18
	R2 2nd	stream	1.27	Runoff	2.82
	R3	stream	4.23	Runoff	2.62
	R3 2nd	stream	5.69	Runoff	4.84
	R4	stream	6.36	Runoff	3.09
	R4 2nd	stream	8.41	Runoff	4.77
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	1.59	Drift	0.808
	D3 2nd	ditch	1.58	Drift	0.593
	D4	pond	0.395	Drainage	2.76
	D4	stream	1.13	Drift	0.970
	D6	ditch	5.12	Drainage	5.96
	R1	pond	0.604	Runoff	3.29

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
	R1 2nd	pond	0.289	Runoff	1.85
	R1	stream	2.30	Runoff	2.86
	R1 2nd	stream	1.41	Runoff	0.577
	R2	stream	1.40	Drift	2.43
	R2 2nd	stream	1.39	Drift	3.31
	R3	stream	2.58	Runoff	2.50
	R3 2nd	stream	2.50	Runoff	2.47
	R4	stream	3.24	Runoff	2.33
	R4 2nd	stream	3.39	Runoff	2.30
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.39	Drift	0.935
	D3 2nd	ditch	1.38	Drift	0.720
	D4	pond	1.40	Drainage	8.36
	D4	stream	1.68	Drainage	3.31
	D6	ditch	12.0	Drainage	14.1
	R1	pond	0.892	Runoff	5.33
	R1 2nd	pond	0.705	Runoff	4.15
	R1	stream	4.83	Runoff	4.91
	R1 2nd	stream	3.73	Runoff	1.46
	R2	stream	1.74	Runoff	4.54
	R2 2nd	stream	1.41	Runoff	4.92
	R3	stream	4.33	Runoff	2.99
	R3 2nd	stream	5.55	Runoff	7.86
	R4	stream	7.10	Runoff	3.93
	R4 2nd	stream	6.90	Runoff	4.75

[a] maximum over option 1 and 2

Table A 153: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – maximum over option 1 and option 2

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	1.56	Drift	0.436
	R2	stream	1.38	Drift	2.16
	R3	stream	3.96	Runoff	1.55
	R4	stream	5.71	Runoff	2.84
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	1.37	Drift	0.837
	R2	stream	1.70	Runoff	2.20
	R3	stream	4.11	Runoff	2.73

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
	R4	stream	8.46	Runoff	4.63
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	1.58	Drift	0.593
	R2	stream	1.40	Drift	1.85
	R3	stream	2.27	Runoff	1.96
	R4	stream	2.93	Runoff	1.42
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	1.38	Drift	1.16
	R2	stream	1.89	Runoff	3.90
	R3	stream	5.55	Runoff	4.42
	R4	stream	7.31	Runoff	3.50
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	1.95	Drainage	1.63
	R2	stream	1.40	Drift	2.89
	R3	stream	2.58	Runoff	2.71
	R4	stream	3.73	Runoff	2.12
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.64	Drainage	3.30
	R2	stream	1.21	Drift	5.51
	R3	stream	5.46	Runoff	5.70
	R4	stream	6.57	Runoff	3.82

[a] maximum over option 1 and 2

Table A 154: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, bulb – maximum over option 1 and option 2

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58	Drift	0.799
	D4	pond	0.605	Drainage	4.00
	D4	stream	1.22	Drift	1.56
	D6	ditch	1.60	Drift	1.33
	D6 2[nd]	ditch	4.56	Drainage	4.47
	R1	pond	0.210	Runoff	1.24
	R1	stream	2.16	Runoff	0.936
	R2	stream	1.38	Drift	2.20
	R3	stream	3.35	Runoff	1.20
	R4	stream	5.69	Runoff	2.75
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	1.39	Drift	0.921
	D4	pond	1.27	Drainage	7.91
	D4	stream	1.22	Drainage	3.09
	D6	ditch	2.34	Drainage	2.56

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
	D6 2nd	ditch	12.7	Drainage	14.1
	R1	pond	0.479	Runoff	2.60
	R1	stream	5.37	Runoff	2.18
	R2	stream	2.41	Runoff	3.95
	R3	stream	4.33	Runoff	2.63
	R4	stream	6.17	Runoff	3.49
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 49	D3	ditch	1.59	Drift	0.809
	D4	pond	0.487	Drainage	3.31
	D4	stream	1.13	Drift	1.17
	D6	ditch	1.60	Drift	2.37
	D6 2nd	ditch	1.61	Drift	1.57
	R1	pond	0.112	Runoff	0.876
	R1	stream	1.03	Drift	0.354
	R2	stream	1.40	Drift	2.86
	R3	stream	3.30	Runoff	1.36
	R4	stream	4.45	Runoff	2.51
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.39	Drift	0.921
	D4	pond	1.34	Drainage	8.28
	D4	stream	1.59	Drainage	3.14
	D6	ditch	1.72	Drainage	3.49
	D6 2nd	ditch	1.46	Drift	2.15
	R1	pond	0.267	Runoff	1.89
	R1	stream	2.72	Runoff	0.955
	R2	stream	1.86	Runoff	4.05
	R3	stream	4.98	Runoff	2.15
	R4	stream	6.40	Runoff	3.89

[a] maximum over option 1 and 2

Table A 155: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to hops – maximum over option 1 and option 2

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Hops 1 × 250 g a.s./ha, BBCH 21	R1	pond	0.657	Drift	2.65
	R1	stream	9.44	Drift	1.25
Hops 2 × 250 g a.s./ha, BBCH 21	R1	pond	0.847	Drift	3.72
	R1	stream	7.82	Drift	1.08
Hops	R1	pond	0.657	Drift	2.70

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
1 × 250 g a.s./ha, BBCH 51	R1	stream	9.21	Drift	0.722
Hops 2 × 250 g a.s./ha, BBCH 51	R1	pond	0.828	Drift	3.81
	R1	stream	7.81	Drift	0.759
Hops 1 × 250 g a.s./ha, BBCH 89	R1	pond	0.657	Drift	2.82
	R1	stream	9.46	Drift	1.33
Hops 1 × 250 g a.s./ha, BBCH 89	R1	pond	0.809	Drift	3.89
	R1	stream	8.03	Drift	1.22

[a] maximum over option 1 and 2

Table A 156: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy – maximum over single and multiple application

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58*	Drift	0.935
	D3 2nd	ditch	1.59*	Drift	0.962
	D4	pond	1.35	Drainage	8.37
	D4	stream	1.31	Drainage	3.28
	D6	ditch	5.58	Drainage	5.5
	R1	pond	0.435	Runoff	2.65
	R1 2nd	pond	0.399	Runoff	3.03
	R1	stream	4.73	Runoff	1.75
	R1 2nd	stream	4.18	Runoff	2.15
	R2	stream	2.5	Runoff	5.18
	R2 2nd	stream	1.4*	Drift	2.82
	R3	stream	4.23	Runoff	2.62
	R3 2nd	stream	5.69	Runoff	4.84
	R4	stream	6.36	Runoff	3.09
	R4 2nd	stream	8.41	Runoff	4.77
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.59*	Drift	0.935
	D3 2nd	ditch	1.58*	Drift	0.72
	D4	pond	1.4	Drainage	8.36
	D4	stream	1.68	Drainage	3.31
	D6	ditch	12	Drainage	14.1
	R1	pond	0.892	Runoff	5.33
	R1 2nd	pond	0.705	Runoff	4.15
	R1	stream	4.83	Runoff	4.91

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
	R1 2nd	stream	3.73	Runoff	1.46
	R2	stream	1.74	Runoff	4.54
	R2 2nd	stream	1.41	Runoff	4.92
	R3	stream	4.33	Runoff	2.99
	R3 2nd	stream	5.55	Runoff	7.86
	R4	stream	7.10	Runoff	3.93
	R4 2nd	stream	6.90	Runoff	4.75

[a] values resulting from single applications are marked *

Table A 157: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – maximum over single and multiple application

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	1.56*	Drift	0.837
	R2	stream	1.70	Runoff	2.20
	R3	stream	4.11	Runoff	2.73
	R4	stream	8.46	Runoff	4.63
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	1.58*	Drift	1.16
	R2	stream	1.89	Runoff	3.90
	R3	stream	5.55	Runoff	4.42
	R4	stream	7.31	Runoff	3.50
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.64	Drainage	3.30
	R2	stream	1.40*	Drift	5.51
	R3	stream	5.46	Runoff	5.70
	R4	stream	6.57	Runoff	3.82

[a] values resulting from single applications are marked *

Table A 158: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, bulb – maximum over single and multiple application

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58*	Drift	0.921
	D4	pond	1.27	Drainage	7.91
	D4	stream	1.22*	Drift	3.09
	D6	ditch	2.34	Drainage	2.56
	D6 2nd	ditch	12.7	Drainage	14.1
	R1	pond	0.479	Runoff	2.60
	R1	stream	5.37	Runoff	2.18
	R2	stream	2.41	Runoff	3.95
	R3	stream	4.33	Runoff	2.63
	R4	stream	6.17	Runoff	3.49
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.59*	Drift	0.921
	D4	pond	1.34	Drainage	8.28
	D4	stream	1.59	Drainage	3.14
	D6	ditch	1.72	Drainage	3.49
	D6 2nd	ditch	1.61*	Drift	2.15
	R1	pond	0.267	Runoff	1.89
	R1	stream	2.72	Runoff	0.955
	R2	stream	1.86	Runoff	4.05
	R3	stream	4.98	Runoff	2.15
	R4	stream	6.40	Runoff	3.89

[a] values resulting from single applications are marked *

Table A 159: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to hops – maximum over single and multiple application

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Hops 2 × 250 g a.s./ha, BBCH 21	R1	pond	0.847	Drift	3.72
	R1	stream	9.44*	Drift	1.25*
Hops 2 × 250 g a.s./ha, BBCH 51	R1	pond	0.828	Drift	3.81
	R1	stream	9.21*	Drift	0.759
Hops 2 × 250 g a.s./ha, BBCH 89	R1	pond	0.809	Drift	3.89
	R1	stream	9.46*	Drift	1.33*

[a] values resulting from single applications are marked *

Table A 160: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, leafy, BBCH 11 – 49 – Option 1

Mitigation options																	
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)																	
		Vegetative strip (m)	5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
		No spray buffer (m)	5[a]		0		0		10		10		15[d]		20	
		Nozzle reduction (%)	0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	0.429	Drift	-	-	-	-	0.228	Drift	0.228	Drift	0.156	Drift	0.118	Drift
	D3 2nd	ditch	0.430	Drift	-	-	-	-	0.228	Drift	0.228	Drift	0.156	Drift	0.118	Drift
	D4	pond	0.648	Drainage	-	-	-	-	0.647	Drainage	0.647	Drainage	0.646	Drainage	0.645	Drainage
	D4	stream	0.634	Drainage	-	-	-	-	0.634	Drainage	0.634	Drainage	0.634	Drainage	0.634	Drainage
	D6	ditch	2.55	Drainage	-	-	-	-	2.55	Drainage	2.55	Drainage	2.55	Drainage	2.55	Drainage
	R1	pond	0.140	Runoff	0.108	Runoff	0.072	Runoff	0.203	Runoff	0.095	Runoff	0.072	Runoff	0.051	Runoff
	R1 2nd	pond	0.127	Runoff	0.093	Runoff	0.061	Runoff	0.193	Runoff	0.087	Runoff	0.066	Runoff	0.046	Runoff
	R1	stream	1.44	Runoff	1.04	Drift	1.04	Drift	2.21	Runoff	1.00	Runoff	0.769	Runoff	0.524	Runoff
	R1 2nd	stream	1.19	Runoff	1.05	Drift	1.05	Drift	1.83	Runoff	0.832	Runoff	0.639	Runoff	0.436	Runoff
	R2	stream	0.729	Runoff	1.38	Drift	1.38	Drift	1.12	Runoff	0.507	Runoff	0.389	Runoff	0.265	Runoff
	R2 2nd	stream	0.513	Drift	1.40	Drift	1.40	Drift	0.585	Runoff	0.272	Drift	0.204	Runoff	0.141	Drift
	R3	stream	2.16	Runoff	1.50	Runoff	1.47	Drift	3.33	Runoff	1.50	Runoff	1.15	Runoff	0.784	Runoff
	R3 2nd	stream	2.16	Runoff	1.51	Runoff	1.47	Drift	3.31	Runoff	1.51	Runoff	1.16	Runoff	0.791	Runoff
	R4	stream	1.10	Runoff	1.04	Drift	1.04	Drift	1.69	Runoff	0.770	Runoff	0.591	Runoff	0.404	Runoff
	R4 2nd	stream	3.50	Runoff	2.43	Runoff	1.28	Runoff	5.36	Runoff	2.43	Runoff	1.87	Runoff	1.28	Runoff
Vegetables, leafy	D3	ditch	0.360	Drift	-	-	-	-	0.187	Drift	0.187	Drift	0.126	Drift	0.095	Drift
	D3 2nd	ditch	0.360	Drift	-	-	-	-	0.187	Drift	0.187	Drift	0.126	Drift	0.095	Drift

Mitigation options																
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**
2 × 250 g a.s./ha, BBCH 11	D4	pond	1.35	Drainage	-	-	-	-	1.35	Drainage	1.35	Drainage	1.35	Drainage	1.35	Drainage
	D4	stream	1.31	Drainage	-	-	-	-	1.31	Drainage	1.31	Drainage	1.31	Drainage	1.31	Drainage
	D6	ditch	5.58	Drainage	-	-	-	-	5.58	Drainage	5.58	Drainage	5.58	Drainage	5.58	Drainage
	R1	pond	0.278	Runoff	0.211	Runoff	0.136	Runoff	0.411	Runoff	0.187	Runoff	0.142	Runoff	0.100	Runoff
	R1 2nd	pond	0.255	Runoff	0.185	Runoff	0.120	Runoff	0.389	Runoff	0.174	Runoff	0.133	Runoff	0.091	Runoff
	R1	stream	3.08	Runoff	2.15	Runoff	1.12	Runoff	4.73	Runoff	2.15	Runoff	1.65	Runoff	1.12	Runoff
	R1 2nd	stream	2.73	Runoff	1.90	Runoff	0.996	Runoff	4.18	Runoff	1.90	Runoff	1.46	Runoff	0.996	Runoff
	R2	stream	1.62	Runoff	1.19	Drift	1.19	Drift	2.50	Runoff	1.13	Runoff	0.866	Runoff	0.591	Runoff
	R2 2nd	stream	0.822	Runoff	1.21	Drift	1.21	Drift	1.27	Runoff	0.571	Runoff	0.439	Runoff	0.299	Runoff
	R3	stream	2.76	Runoff	1.93	Runoff	1.27	Drift	4.23	Runoff	1.93	Runoff	1.48	Runoff	1.01	Runoff
	R3 2nd	stream	3.71	Runoff	2.59	Runoff	1.36	Runoff	5.69	Runoff	2.59	Runoff	1.99	Runoff	1.36	Runoff
	R4	stream	4.15	Runoff	2.89	Runoff	1.52	Runoff	6.36	Runoff	2.89	Runoff	2.22	Runoff	1.52	Runoff
	R4 2nd	stream	5.49	Runoff	3.82	Runoff	2.00	Runoff	8.41	Runoff	3.82	Runoff	2.93	Runoff	2.00	Runoff
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	0.430	Drift	-	-	-	-	0.228	Drift	0.228	Drift	0.156	Drift	0.118	Drift
	D3 2nd	ditch	0.428	Drift	-	-	-	-	0.227	Drift	0.227	Drift	0.155	Drift	0.118	Drift
	D4	pond	0.394	Drainage	-	-	-	-	0.390	Drainage	0.390	Drainage	0.388	Drainage	0.387	Drainage
	D4	stream	0.609	Drainage	-	-	-	-	0.609	Drainage	0.609	Drainage	0.609	Drainage	0.609	Drainage
	D6	ditch	5.12	Drainage	-	-	-	-	5.12	Drainage	5.12	Drainage	5.12	Drainage	5.12	Drainage

Mitigation options																
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	R1	pond	0.377	Runoff	0.270	Runoff	0.156	Runoff	0.589	Runoff	0.255	Runoff	0.193	Runoff	0.132	Runoff
	R1 2[nd]	pond	0.184	Runoff	0.133	Runoff	0.077	Runoff	0.282	Runoff	0.126	Runoff	0.096	Runoff	0.066	Runoff
	R1	stream	1.50	Runoff	1.05	Runoff	1.05	Drift	2.30	Runoff	1.05	Runoff	0.805	Runoff	0.550	Runoff
	R1 2[nd]	stream	0.918	Runoff	1.05	Drift	1.05	Drift	1.41	Runoff	0.640	Runoff	0.491	Runoff	0.335	Runoff
	R2	stream	0.524	Runoff	1.40	Drift	1.40	Drift	0.803	Runoff	0.365	Runoff	0.280	Runoff	0.191	Runoff
	R2 2[nd]	stream	0.507	Drift	1.39	Drift	1.39	Drift	0.614	Runoff	0.275	Runoff	0.211	Runoff	0.144	Runoff
	R3	stream	1.68	Runoff	1.48	Drift	1.48	Drift	2.58	Runoff	1.17	Runoff	0.899	Runoff	0.613	Runoff
	R3 2[nd]	stream	1.63	Runoff	1.47	Drift	1.47	Drift	2.50	Runoff	1.14	Runoff	0.874	Runoff	0.597	Runoff
	R4	stream	2.11	Runoff	1.47	Runoff	1.02	Drift	3.24	Runoff	1.47	Runoff	1.13	Runoff	0.768	Runoff
	R4 2[nd]	stream	2.22	Runoff	1.54	Runoff	1.05	Drift	3.39	Runoff	1.54	Runoff	1.19	Runoff	0.809	Runoff
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	0.360	Drift	-	-	-	-	0.187	Drift	0.187	Drift	0.126	Drift	0.095	Drift
	D3 2[nd]	ditch	0.358	Drift	-	-	-	-	0.186	Drift	0.186	Drift	0.126	Drift	0.095	Drift
	D4	pond	1.39	Drainage	-	-	-	-	1.39	Drainage	1.39	Drainage	1.38	Drainage	1.38	Drainage
	D4	stream	1.68	Drainage	-	-	-	-	1.68	Drainage	1.68	Drainage	1.68	Drainage	1.68	Drainage
	D6	ditch	12.0	Drainage	-	-	-	-	12.0	Drainage	12.0	Drainage	12.0	Drainage	12.0	Drainage
	R1	pond	0.559	Runoff	0.405	Runoff	0.239	Runoff	0.864	Runoff	0.377	Runoff	0.285	Runoff	0.196	Runoff
	R1 2[nd]	pond	0.446	Runoff	0.317	Runoff	0.178	Runoff	0.692	Runoff	0.303	Runoff	0.230	Runoff	0.157	Runoff
	R1	stream	3.15	Runoff	2.19	Runoff	1.15	Runoff	4.83	Runoff	2.19	Runoff	1.68	Runoff	1.15	Runoff

Mitigation options																
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	R1 2nd	stream	2.43	Runoff	1.70	Runoff	0.906	Drift	3.73	Runoff	1.70	Runoff	1.30	Runoff	0.887	Runoff
	R2	stream	1.14	Runoff	1.21	Drift	1.21	Drift	1.74	Runoff	0.791	Runoff	0.608	Runoff	0.415	Runoff
	R2 2nd	stream	0.909	Runoff	1.20	Drift	1.20	Drift	1.41	Runoff	0.631	Runoff	0.483	Runoff	0.329	Runoff
	R3	stream	2.82	Runoff	1.97	Runoff	1.28	Drift	4.33	Runoff	1.97	Runoff	1.51	Runoff	1.03	Runoff
	R3 2nd	stream	3.63	Runoff	2.53	Runoff	1.33	Runoff	5.55	Runoff	2.53	Runoff	1.94	Runoff	1.33	Runoff
	R4	stream	4.62	Runoff	3.22	Runoff	1.68	Runoff	7.10	Runoff	3.22	Runoff	2.47	Runoff	1.68	Runoff
	R4 2nd	stream	4.50	Runoff	3.14	Runoff	1.65	Runoff	6.90	Runoff	3.14	Runoff	2.41	Runoff	1.65	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)

Table A 161: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, leafy, BBCH 11 – 49 – Option 2

Mitigation options																
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	0.429	Drift	-	-	-	-	0.228	Drift	0.228	Drift	0.156	Drift	0.118	Drift
	D3 2nd	ditch	0.430	Drift	-	-	-	-	0.228	Drift	0.228	Drift	0.156	Drift	0.118	Drift
	D4	pond	0.642	Drainage	-	-	-	-	0.640	Drainage	0.640	Drainage	0.639	Drainage	0.639	Drainage
	D4	stream	0.634	Drainage	-	-	-	-	0.634	Drainage	0.634	Drainage	0.634	Drainage	0.634	Drainage
	D6	ditch	2.55	Drainage	-	-	-	-	2.55	Drainage	2.55	Drainage	2.55	Drainage	2.55	Drainage
	R1	pond	0.138	Runoff	0.107	Runoff	0.070	Runoff	0.201	Runoff	0.094	Runoff	0.071	Runoff	0.050	Runoff
	R1 2nd	pond	0.124	Runoff	0.090	Runoff	0.059	Runoff	0.188	Runoff	0.085	Runoff	0.064	Runoff	0.045	Runoff
	R1	stream	1.44	Runoff	1.04	Drift	1.04	Drift	2.21	Runoff	1.00	Runoff	0.769	Runoff	0.524	Runoff
	R1 2nd	stream	1.19	Runoff	1.05	Drift	1.05	Drift	1.83	Runoff	0.832	Runoff	0.639	Runoff	0.436	Runoff
	R2	stream	0.729	Runoff	1.38	Drift	1.38	Drift	1.12	Runoff	0.507	Runoff	0.389	Runoff	0.265	Runoff
	R2 2nd	stream	0.513	Drift	1.40	Drift	1.40	Drift	0.585	Runoff	0.272	Drift	0.204	Runoff	0.141	Drift
	R3	stream	2.16	Runoff	1.50	Runoff	1.47	Drift	3.33	Runoff	1.50	Runoff	1.15	Runoff	0.784	Runoff
	R3 2nd	stream	2.16	Runoff	1.51	Runoff	1.47	Drift	3.31	Runoff	1.51	Runoff	1.16	Runoff	0.791	Runoff
	R4	stream	1.10	Runoff	1.04	Drift	1.04	Drift	1.69	Runoff	0.770	Runoff	0.591	Runoff	0.404	Runoff
	R4 2nd	stream	3.50	Runoff	2.43	Runoff	1.28	Runoff	5.36	Runoff	2.43	Runoff	1.87	Runoff	1.28	Runoff
Vegetables, leafy	D3	ditch	0.360	Drift	-	-	-	-	0.187	Drift	0.187	Drift	0.126	Drift	0.095	Drift
	D3 2nd	ditch	0.360	Drift	-	-	-	-	0.187	Drift	0.187	Drift	0.126	Drift	0.095	Drift

Mitigation options																
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
2 × 250 g a.s./ha, BBCH 11	D4	pond	1.34	Drainage	-	-	-	-	1.34	Drainage	1.34	Drainage	1.33	Drainage	1.33	Drainage
	D4	stream	1.31	Drainage	-	-	-	-	1.31	Drainage	1.31	Drainage	1.31	Drainage	1.31	Drainage
	D6	ditch	5.58	Drainage	-	-	-	-	5.58	Drainage	5.58	Drainage	5.58	Drainage	5.58	Drainage
	R1	pond	0.275	Runoff	0.208	Runoff	0.133	Runoff	0.408	Runoff	0.185	Runoff	0.141	Runoff	0.098	Runoff
	R1 2[nd]	pond	0.248	Runoff	0.179	Runoff	0.118	Runoff	0.379	Runoff	0.169	Runoff	0.129	Runoff	0.088	Runoff
	R1	stream	3.08	Runoff	2.15	Runoff	1.12	Runoff	4.73	Runoff	2.15	Runoff	1.65	Runoff	1.12	Runoff
	R1 2[nd]	stream	2.73	Runoff	1.90	Runoff	0.996	Runoff	4.18	Runoff	1.90	Runoff	1.46	Runoff	0.996	Runoff
	R2	stream	1.62	Runoff	1.19	Drift	1.19	Drift	2.50	Runoff	1.13	Runoff	0.865	Runoff	0.591	Runoff
	R2 2[nd]	stream	0.822	Runoff	1.21	Drift	1.21	Drift	1.27	Runoff	0.571	Runoff	0.438	Runoff	0.299	Runoff
	R3	stream	2.76	Runoff	1.93	Runoff	1.27	Drift	4.23	Runoff	1.93	Runoff	1.48	Runoff	1.01	Runoff
	R3 2[nd]	stream	3.71	Runoff	2.59	Runoff	1.36	Runoff	5.69	Runoff	2.59	Runoff	1.99	Runoff	1.36	Runoff
	R4	stream	4.15	Runoff	2.89	Runoff	1.52	Runoff	6.36	Runoff	2.89	Runoff	2.22	Runoff	1.52	Runoff
	R4 2[nd]	stream	5.49	Runoff	3.82	Runoff	2.00	Runoff	8.41	Runoff	3.82	Runoff	2.93	Runoff	2.00	Runoff
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	0.430	Drift	-	-	-	-	0.228	Drift	0.228	Drift	0.156	Drift	0.118	Drift
	D3 2[nd]	ditch	0.428	Drift	-	-	-	-	0.227	Drift	0.227	Drift	0.155	Drift	0.118	Drift
	D4	pond	0.389	Drainage	-	-	-	-	0.386	Drainage	0.386	Drainage	0.384	Drainage	0.383	Drainage
	D4	stream	0.609	Drainage	-	-	-	-	0.609	Drainage	0.609	Drainage	0.609	Drainage	0.609	Drainage
	D6	ditch	5.11	Drainage	-	-	-	-	5.11	Drainage	5.11	Drainage	5.11	Drainage	5.11	Drainage

Mitigation options																	
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)																	
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**
	R1	pond	0.371	Runoff	0.266	Runoff	0.153	Runoff	0.580	Runoff	0.251	Runoff	0.190	Runoff	0.130	Runoff
	R1 2nd	pond	0.182	Runoff	0.131	Runoff	0.076	Runoff	0.279	Runoff	0.124	Runoff	0.094	Runoff	0.065	Runoff
	R1	stream	1.50	Runoff	1.05	Runoff	1.05	Drift	2.30	Runoff	1.05	Runoff	0.805	Runoff	0.550	Runoff
	R1 2nd	stream	0.918	Runoff	1.05	Drift	1.05	Drift	1.41	Runoff	0.640	Runoff	0.491	Runoff	0.335	Runoff
	R2	stream	0.524	Runoff	1.40	Drift	1.40	Drift	0.803	Runoff	0.365	Runoff	0.280	Runoff	0.191	Runoff
	R2 2nd	stream	0.507	Drift	1.39	Drift	1.39	Drift	0.614	Runoff	0.275	Runoff	0.211	Runoff	0.144	Runoff
	R3	stream	1.68	Runoff	1.48	Drift	1.48	Drift	2.58	Runoff	1.17	Runoff	0.899	Runoff	0.613	Runoff
	R3 2nd	stream	1.63	Runoff	1.47	Drift	1.47	Drift	2.50	Runoff	1.14	Runoff	0.874	Runoff	0.597	Runoff
	R4	stream	2.11	Runoff	1.47	Runoff	1.02	Drift	3.24	Runoff	1.47	Runoff	1.13	Runoff	0.768	Runoff
	R4 2nd	stream	2.22	Runoff	1.54	Runoff	1.05	Drift	3.39	Runoff	1.54	Runoff	1.19	Runoff	0.809	Runoff
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	0.360	Drift	-	-	-	-	0.187	Drift	0.187	Drift	0.126	Drift	0.095	Drift
	D3 2nd	ditch	0.358	Drift	-	-	-	-	0.186	Drift	0.186	Drift	0.126	Drift	0.095	Drift
	D4	pond	1.38	Drainage	-	-	-	-	1.37	Drainage	1.37	Drainage	1.37	Drainage	1.37	Drainage
	D4	stream	1.68	Drainage	-	-	-	-	1.68	Drainage	1.68	Drainage	1.68	Drainage	1.68	Drainage
	D6	ditch	12.0	Drainage	-	-	-	-	12.0	Drainage	12.0	Drainage	12.0	Drainage	12.0	Drainage
	R1	pond	0.552	Runoff	0.400	Runoff	0.236	Runoff	0.855	Runoff	0.372	Runoff	0.282	Runoff	0.194	Runoff
	R1 2nd	pond	0.441	Runoff	0.313	Runoff	0.175	Runoff	0.685	Runoff	0.300	Runoff	0.227	Runoff	0.155	Runoff
	R1	stream	3.15	Runoff	2.19	Runoff	1.15	Runoff	4.83	Runoff	2.19	Runoff	1.68	Runoff	1.15	Runoff

Mitigation options																
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	R1 2nd	stream	2.43	Runoff	1.70	Runoff	0.906	Drift	3.73	Runoff	1.70	Runoff	1.30	Runoff	0.887	Runoff
	R2	stream	1.14	Runoff	1.21	Drift	1.21	Drift	1.74	Runoff	0.791	Runoff	0.608	Runoff	0.415	Runoff
	R2 2nd	stream	0.909	Runoff	1.20	Drift	1.20	Drift	1.41	Runoff	0.631	Runoff	0.483	Runoff	0.329	Runoff
	R3	stream	2.82	Runoff	1.97	Runoff	1.28	Drift	4.33	Runoff	1.97	Runoff	1.51	Runoff	1.03	Runoff
	R3 2nd	stream	3.63	Runoff	2.53	Runoff	1.33	Runoff	5.55	Runoff	2.53	Runoff	1.94	Runoff	1.33	Runoff
	R4	stream	4.62	Runoff	3.22	Runoff	1.68	Runoff	7.10	Runoff	3.22	Runoff	2.47	Runoff	1.68	Runoff
	R4 2nd	stream	4.50	Runoff	3.14	Runoff	1.65	Runoff	6.90	Runoff	3.14	Runoff	2.41	Runoff	1.65	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)

Table A 162: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, leafy using 5 m VFS mod, BBCH 11 – 49

Mitigation options						
Vegetative strip (m)			5 VFS mod			
No spray buffer (m)			0			
Nozzle reduction (%)			0			
Use	**Scenario**	**Water body**	**Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d**		**Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d**	
			PEC_{SW} (µg/L)	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-
	D3 2nd	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond	0.055	Drift	0.055	Drift
	R1 2nd	pond	0.055	Drift	0.055	Drift
	R1	stream	1.04	Drift	1.04	Drift
	R1 2nd	stream	1.05	Drift	1.05	Drift
	R2	stream	1.38	Drift	1.38	Drift
	R2 2nd	stream	1.40	Drift	1.40	Drift
	R3	stream	1.47	Drift	1.47	Drift
	R3 2nd	stream	1.47	Drift	1.47	Drift
	R4	stream	1.04	Drift	1.04	Drift
	R4 2nd	stream	1.04	Drift	1.04	Drift
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-
	D3 2nd	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond	0.083	Drift	0.083	Drift
	R1 2nd	pond	0.085	Runoff	0.083	Runoff
	R1	stream	0.903	Drift	0.903	Drift
	R1 2nd	stream	0.906	Drift	0.906	Drift
	R2	stream	1.19	Drift	1.19	Drift
	R2 2nd	stream	1.21	Drift	1.21	Drift
	R3	stream	1.57	Runoff	1.57	Runoff
	R3 2nd	stream	1.28	Drift	1.28	Drift
	R4	stream	0.904	Drift	0.904	Drift

	R4 2nd	stream	0.897	Drift	0.897	Drift
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-
	D3 2nd	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond	0.171	Runoff	0.170	Runoff
	R1 2nd	pond	0.074	Runoff	0.072	Runoff
	R1	stream	1.05	Drift	1.05	Drift
	R1 2nd	stream	1.05	Drift	1.05	Drift
	R2	stream	1.40	Drift	1.40	Drift
	R2 2nd	stream	1.39	Drift	1.39	Drift
	R3	stream	1.48	Drift	1.48	Drift
	R3 2nd	stream	1.47	Drift	1.47	Drift
	R4	stream	1.02	Drift	1.02	Drift
	R4 2nd	stream	1.05	Drift	1.05	Drift
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-
	D3 2nd	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	R1	pond	0.233	Runoff	0.230	Runoff
	R1 2nd	pond	0.168	Runoff	0.166	Runoff
	R1	stream	0.906	Drift	0.906	Drift
	R1 2nd	stream	0.906	Drift	0.906	Drift
	R2	stream	1.21	Drift	1.21	Drift
	R2 2nd	stream	1.20	Drift	1.20	Drift
	R3	stream	1.28	Drift	1.28	Drift
	R3 2nd	stream	1.44	Runoff	1.44	Runoff
	R4	stream	0.904	Drift	0.904	Drift
	R4 2nd	stream	0.906	Drift	0.906	Drift

Table A 163: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, fruiting, BBCH 11 – 89 – Option 1

Mitigation options																
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	0.426	Drift	-	-	-	-	0.336	Drainage	0.336	Drainage	0.336	Drainage	0.336	Drainage
	R2	stream	0.765	Runoff	1.38	Drift	1.38	Drift	1.18	Runoff	0.532	Runoff	0.408	Runoff	0.278	Runoff
	R3	stream	2.57	Runoff	1.79	Runoff	1.47	Drift	3.96	Runoff	1.79	Runoff	1.37	Runoff	0.936	Runoff
	R4	stream	3.72	Runoff	2.60	Runoff	1.36	Runoff	5.71	Runoff	2.60	Runoff	1.99	Runoff	1.36	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	0.688	Drainage	-	-	-	-	0.688	Drainage	0.688	Drainage	0.688	Drainage	0.688	Drainage
	R2	stream	1.10	Runoff	1.20	Drift	1.20	Drift	1.70	Runoff	0.761	Runoff	0.582	Runoff	0.395	Runoff
	R3	stream	2.68	Runoff	1.87	Runoff	1.28	Drift	4.11	Runoff	1.87	Runoff	1.44	Runoff	0.983	Runoff
	R4	stream	5.50	Runoff	3.83	Runoff	2.00	Runoff	8.46	Runoff	3.83	Runoff	2.93	Runoff	2.00	Runoff
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	0.431	Drainage	-	-	-	-	0.431	Drainage	0.431	Drainage	0.431	Drainage	0.431	Drainage
	R2	stream	0.512	Drift	1.40	Drift	1.40	Drift	0.760	Runoff	0.346	Runoff	0.266	Runoff	0.181	Runoff
	R3	stream	1.48	Runoff	1.48	Runoff	1.48	Drift	2.27	Runoff	1.03	Runoff	0.794	Runoff	0.542	Runoff
	R4	stream	1.91	Runoff	1.33	Runoff	1.02	Drift	2.93	Runoff	1.33	Runoff	1.02	Runoff	0.698	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.945	Drainage	-	-	-	-	0.945	Drainage	0.945	Drainage	0.945	Drainage	0.945	Drainage
	R2	stream	1.24	Runoff	1.21	Drift	1.21	Drift	1.89	Runoff	0.862	Runoff	0.662	Runoff	0.452	Runoff
	R3	stream	3.63	Runoff	2.53	Runoff	1.33	Runoff	5.55	Runoff	2.53	Runoff	1.94	Runoff	1.33	Runoff
	R4	stream	4.77	Runoff	3.32	Runoff	1.74	Runoff	7.31	Runoff	3.32	Runoff	2.55	Runoff	1.74	Runoff
Vegetables,	D6	ditch	1.95	Drainage	-	-	-	-	1.95	Drainage	1.95	Drainage	1.95	Drainage	1.95	Drainage

Mitigation options																
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
fruiting 1 × 250 g a.s./ha, BBCH 89	R2	stream	0.513	Drift	1.40	Drift	1.40	Drift	0.346	Runoff	0.272	Drift	0.186	Drift	0.141	Drift
	R3	stream	1.69	Runoff	1.48	Drift	1.48	Drift	2.58	Runoff	1.18	Runoff	0.903	Runoff	0.617	Runoff
	R4	stream	2.43	Runoff	1.70	Runoff	1.05	Drift	3.73	Runoff	1.70	Runoff	1.30	Runoff	0.889	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.64	Drainage	-	-	-	-	3.64	Drainage	3.64	Drainage	3.64	Drainage	3.64	Drainage
	R2	stream	0.609	Runoff	1.21	Drift	1.21	Drift	0.934	Runoff	0.424	Runoff	0.325	Runoff	0.222	Runoff
	R3	stream	3.57	Runoff	2.49	Runoff	1.31	Runoff	5.46	Runoff	2.49	Runoff	1.91	Runoff	1.31	Runoff
	R4	stream	4.28	Runoff	2.99	Runoff	1.57	Runoff	6.57	Runoff	2.99	Runoff	2.29	Runoff	1.57	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)

Table A 164: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, fruiting, BBCH 11 – 89 – Option 2

Mitigation options																
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	0.426	Drift	-	-	-	-	0.336	Drainage	0.336	Drainage	0.336	Drainage	0.336	Drainage
	R2	stream	0.765	Runoff	1.38	Drift	1.38	Drift	1.18	Runoff	0.532	Runoff	0.408	Runoff	0.278	Runoff
	R3	stream	2.57	Runoff	1.79	Runoff	1.47	Drift	3.96	Runoff	1.79	Runoff	1.37	Runoff	0.936	Runoff
	R4	stream	3.72	Runoff	2.60	Runoff	1.36	Runoff	5.71	Runoff	2.60	Runoff	1.99	Runoff	1.36	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	0.688	Drainage	-	-	-	-	0.688	Drainage	0.688	Drainage	0.688	Drainage	0.688	Drainage
	R2	stream	1.10	Runoff	1.20	Drift	1.20	Drift	1.70	Runoff	0.761	Runoff	0.582	Runoff	0.395	Runoff
	R3	stream	2.68	Runoff	1.87	Runoff	1.28	Drift	4.11	Runoff	1.87	Runoff	1.44	Runoff	0.983	Runoff
	R4	stream	5.50	Runoff	3.83	Runoff	2.00	Runoff	8.46	Runoff	3.83	Runoff	2.93	Runoff	2.00	Runoff
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	0.431	Drainage	-	-	-	-	0.431	Drainage	0.431	Drainage	0.431	Drainage	0.431	Drainage
	R2	stream	0.512	Drift	1.40	Drift	1.40	Drift	0.760	Runoff	0.346	Runoff	0.266	Runoff	0.181	Runoff
	R3	stream	1.48	Runoff	1.48	Runoff	1.48	Drift	2.27	Runoff	1.03	Runoff	0.794	Runoff	0.542	Runoff
	R4	stream	1.91	Runoff	1.33	Runoff	1.02	Drift	2.93	Runoff	1.33	Runoff	1.02	Runoff	0.698	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.945	Drainage	-	-	-	-	0.945	Drainage	0.945	Drainage	0.945	Drainage	0.945	Drainage
	R2	stream	1.24	Runoff	1.21	Drift	1.21	Drift	1.89	Runoff	0.862	Runoff	0.662	Runoff	0.452	Runoff
	R3	stream	3.63	Runoff	2.53	Runoff	1.33	Runoff	5.55	Runoff	2.53	Runoff	1.94	Runoff	1.33	Runoff
	R4	stream	4.77	Runoff	3.32	Runoff	1.74	Runoff	7.31	Runoff	3.32	Runoff	2.55	Runoff	1.74	Runoff
Vegetables,	D6	ditch	1.95	Drainage	-	-	-	-	1.95	Drainage	1.95	Drainage	1.95	Drainage	1.95	Drainage

Mitigation options																
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
fruiting 1 × 250 g a.s./ha, BBCH 89	R2	stream	0.513	Drift	1.40	Drift	1.40	Drift	0.346	Runoff	0.272	Drift	0.186	Drift	0.141	Drift
	R3	stream	1.69	Runoff	1.48	Drift	1.48	Drift	2.58	Runoff	1.18	Runoff	0.903	Runoff	0.617	Runoff
	R4	stream	2.43	Runoff	1.70	Runoff	1.05	Drift	3.73	Runoff	1.70	Runoff	1.30	Runoff	0.889	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.64	Drainage	-	-	-	-	3.64	Drainage	3.64	Drainage	3.64	Drainage	3.64	Drainage
	R2	stream	0.609	Runoff	1.21	Drift	1.21	Drift	0.934	Runoff	0.424	Runoff	0.325	Runoff	0.222	Runoff
	R3	stream	3.57	Runoff	2.49	Runoff	1.31	Runoff	5.46	Runoff	2.49	Runoff	1.91	Runoff	1.31	Runoff
	R4	stream	4.28	Runoff	2.99	Runoff	1.57	Runoff	6.57	Runoff	2.99	Runoff	2.29	Runoff	1.57	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)

Table A 165: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, fruiting using 5 m VFS mod, BBCH 11 – 89

Mitigation options						
Vegetative strip (m)			5 VFS mod			
No spray buffer (m)			0			
Nozzle reduction (%)			0			
Application scenario	**Scenario**	**Water body**	**Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d**		**Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d**	
			PEC_{SW} (µg/L)	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-
	R2	stream	1.38	Drift	1.38	Drift
	R3	stream	1.47	Drift	1.47	Drift
	R4	stream	1.04	Drift	1.04	Drift
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-
	R2	stream	1.20	Drift	1.20	Drift
	R3	stream	1.28	Drift	1.28	Drift
	R4	stream	0.903	Drift	0.903	Drift
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-
	R2	stream	1.40	Drift	1.40	Drift
	R3	stream	1.48	Drift	1.48	Drift
	R4	stream	1.02	Drift	1.02	Drift
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-
	R2	stream	1.21	Drift	1.21	Drift
	R3	stream	1.28	Drift	1.28	Drift
	R4	stream	0.906	Drift	0.906	Drift
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-
	R2	stream	1.40	Drift	1.40	Drift
	R3	stream	1.48	Drift	1.48	Drift
	R4	stream	1.05	Drift	1.05	Drift
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-
	R2	stream	1.21	Drift	1.21	Drift
	R3	stream	1.28	Drift	1.28	Drift
	R4	stream	0.906	Drift	0.906	Drift

Table A 166: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, bulb, BBCH 11 – 49 – Option 1

Mitigation options																
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 11	D3	ditch	0.429	Drift	-	-	-	-	0.228	Drift	0.228	Drift	0.156	Drift	0.118	Drift
	D4	pond	0.604	Drainage	-	-	-	-	0.603	Drainage	0.603	Drainage	0.602	Drainage	0.602	Drainage
	D4	stream	0.582	Drainage	-	-	-	-	0.582	Drainage	0.582	Drainage	0.582	Drainage	0.582	Drainage
	D6	ditch	0.918	Drainage	-	-	-	-	0.918	Drainage	0.918	Drainage	0.918	Drainage	0.918	Drainage
	D6 2nd	ditch	4.56	Drainage	-	-	-	-	4.56	Drainage	4.56	Drainage	4.56	Drainage	4.56	Drainage
	R1	pond	0.136	Runoff	0.106	Runoff	0.071	Runoff	0.197	Runoff	0.092	Runoff	0.070	Runoff	0.050	Runoff
	R1	stream	1.41	Runoff	1.04	Drift	1.04	Drift	2.16	Runoff	0.979	Runoff	0.751	Runoff	0.512	Runoff
	R2	stream	0.747	Runoff	1.38	Drift	1.38	Drift	1.15	Runoff	0.519	Runoff	0.398	Runoff	0.271	Runoff
	R3	stream	2.18	Runoff	1.51	Runoff	1.47	Drift	3.35	Runoff	1.51	Runoff	1.16	Runoff	0.790	Runoff
	R4	stream	3.71	Runoff	2.58	Runoff	1.35	Runoff	5.69	Runoff	2.58	Runoff	1.98	Runoff	1.35	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	0.359	Drift	-	-	-	-	0.187	Drift	0.187	Drift	0.126	Drift	0.095	Drift
	D4	pond	1.27	Drainage	-	-	-	-	1.27	Drainage	1.27	Drainage	1.27	Drainage	1.27	Drainage
	D4	stream	1.22	Drainage	-	-	-	-	1.22	Drainage	1.22	Drainage	1.22	Drainage	1.22	Drainage
	D6	ditch	2.34	Drainage	-	-	-	-	2.34	Drainage	2.34	Drainage	2.34	Drainage	2.34	Drainage
	D6 2nd	ditch	12.7	Drainage	-	-	-	-	12.7	Drainage	12.7	Drainage	12.7	Drainage	12.7	Drainage
	R1	pond	0.305	Runoff	0.230	Runoff	0.146	Runoff	0.454	Runoff	0.206	Runoff	0.156	Runoff	0.109	Runoff
	R1	stream	3.50	Runoff	2.43	Runoff	1.27	Runoff	5.37	Runoff	2.43	Runoff	1.87	Runoff	1.27	Runoff

Mitigation options																
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**
	R2	stream	1.56	Runoff	1.50	Drift	1.35	Drift	2.41	Runoff	1.09	Runoff	0.833	Runoff	0.568	Runoff
	R3	stream	2.83	Runoff	1.98	Runoff	1.27	Drift	4.33	Runoff	1.98	Runoff	1.52	Runoff	1.04	Runoff
	R4	stream	4.02	Runoff	2.80	Runoff	1.47	Runoff	6.17	Runoff	2.80	Runoff	2.15	Runoff	1.47	Runoff
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 49	D3	ditch	0.430	Drift	-	-	-	-	0.228	Drift	0.228	Drift	0.156	Drift	0.118	Drift
	D4	pond	0.485	Drainage	-	-	-	-	0.482	Drainage	0.482	Drainage	0.480	Drainage	0.479	Drainage
	D4	stream	0.714	Drainage	-	-	-	-	0.714	Drainage	0.714	Drainage	0.714	Drainage	0.714	Drainage
	D6	ditch	0.595	Drainage	-	-	-	-	0.595	Drainage	0.595	Drainage	0.595	Drainage	0.595	Drainage
	D6 2nd	ditch	0.640	Drainage	-	-	-	-	0.640	Drainage	0.640	Drainage	0.640	Drainage	0.640	Drainage
	R1	pond	0.073	Runoff	0.055	Runoff	0.055	Drift	0.108	Runoff	0.050	Runoff	0.038	Runoff	0.027	Runoff
	R1	stream	0.631	Runoff	1.03	Drift	1.03	Drift	0.973	Runoff	0.438	Runoff	0.335	Runoff	0.228	Runoff
	R2	stream	0.568	Runoff	1.40	Drift	1.40	Drift	0.880	Runoff	0.394	Runoff	0.301	Runoff	0.205	Runoff
	R3	stream	2.15	Runoff	1.49	Runoff	1.47	Drift	3.30	Runoff	1.49	Runoff	1.14	Runoff	0.780	Runoff
	R4	stream	2.89	Runoff	2.01	Runoff	1.05	Runoff	4.45	Runoff	2.01	Runoff	1.54	Runoff	1.05	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	0.359	Drift	-	-	-	-	0.187	Drift	0.187	Drift	0.126	Drift	0.095	Drift
	D4	pond	1.34	Drainage	-	-	-	-	1.33	Drainage	1.33	Drainage	1.33	Drainage	1.32	Drainage
	D4	stream	1.59	Drainage	-	-	-	-	1.59	Drainage	1.59	Drainage	1.59	Drainage	1.59	Drainage
	D6	ditch	1.72	Drainage	-	-	-	-	1.72	Drainage	1.72	Drainage	1.72	Drainage	1.72	Drainage
	D6 2nd	ditch	1.16	Drainage	-	-	-	-	1.16	Drainage	1.16	Drainage	1.16	Drainage	1.16	Drainage

Mitigation options																
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	R1	pond	0.172	Runoff	0.127	Runoff	0.077	Drift	0.259	Runoff	0.118	Runoff	0.090	Runoff	0.062	Runoff
	R1	stream	1.76	Runoff	1.22	Runoff	0.906	Drift	2.72	Runoff	1.22	Runoff	0.935	Runoff	0.637	Runoff
	R2	stream	1.20	Runoff	1.21	Drift	1.21	Drift	1.86	Runoff	0.833	Runoff	0.637	Runoff	0.433	Runoff
	R3	stream	3.24	Runoff	2.25	Runoff	1.28	Drift	4.98	Runoff	2.25	Runoff	1.73	Runoff	1.18	Runoff
	R4	stream	4.16	Runoff	2.89	Runoff	1.51	Runoff	6.40	Runoff	2.89	Runoff	2.22	Runoff	1.51	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)

Table A 167: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, bulb, BBCH 11 – 49 – Option 2

Mitigation options																
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb	D3	ditch	0.429	Drift	-	-	-	-	0.228	Drift	0.228	Drift	0.156	Drift	0.118	Drift
	D4	pond	0.598	Drainage	-	-	-	-	0.597	Drainage	0.597	Drainage	0.596	Drainage	0.596	Drainage

Mitigation options																
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
1 × 250 g a.s./ha, BBCH 11	D4	stream	0.582	Drainage	-	-	-	-	0.582	Drainage	0.582	Drainage	0.582	Drainage	0.582	Drainage
	D6	ditch	0.918	Drainage	-	-	-	-	0.918	Drainage	0.918	Drainage	0.918	Drainage	0.918	Drainage
	D6 2nd	ditch	4.56	Drainage	-	-	-	-	4.56	Drainage	4.56	Drainage	4.56	Drainage	4.56	Drainage
	R1	pond	0.134	Runoff	0.104	Runoff	0.070	Runoff	0.195	Runoff	0.091	Runoff	0.069	Runoff	0.049	Runoff
	R1	stream	1.41	Runoff	1.04	Drift	1.04	Drift	2.16	Runoff	0.979	Runoff	0.751	Runoff	0.512	Runoff
	R2	stream	0.747	Runoff	1.38	Drift	1.38	Drift	1.15	Runoff	0.519	Runoff	0.398	Runoff	0.271	Runoff
	R3	stream	2.18	Runoff	1.51	Runoff	1.47	Drift	3.35	Runoff	1.51	Runoff	1.16	Runoff	0.790	Runoff
	R4	stream	3.71	Runoff	2.58	Runoff	1.35	Runoff	5.69	Runoff	2.58	Runoff	1.98	Runoff	1.35	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	0.359	Drift	-	-	-	-	0.187	Drift	0.187	Drift	0.126	Drift	0.095	Drift
	D4	pond	1.26	Drainage	-	-	-	-	1.26	Drainage	1.26	Drainage	1.26	Drainage	1.26	Drainage
	D4	stream	1.22	Drainage	-	-	-	-	1.22	Drainage	1.22	Drainage	1.22	Drainage	1.22	Drainage
	D6	ditch	2.34	Drainage	-	-	-	-	2.34	Drainage	2.34	Drainage	2.34	Drainage	2.34	Drainage
	D6 2nd	ditch	12.7	Drainage	-	-	-	-	12.7	Drainage	12.7	Drainage	12.7	Drainage	12.7	Drainage
	R1	pond	0.302	Runoff	0.227	Runoff	0.144	Runoff	0.451	Runoff	0.204	Runoff	0.154	Runoff	0.108	Runoff
	R1	stream	3.50	Runoff	2.43	Runoff	1.27	Runoff	5.37	Runoff	2.43	Runoff	1.87	Runoff	1.27	Runoff
	R2	stream	1.56	Runoff	1.50	Drift	1.35	Drift	2.41	Runoff	1.09	Runoff	0.833	Runoff	0.568	Runoff
	R3	stream	2.83	Runoff	1.98	Runoff	1.27	Drift	4.33	Runoff	1.98	Runoff	1.52	Runoff	1.04	Runoff
	R4	stream	4.02	Runoff	2.80	Runoff	1.47	Runoff	6.17	Runoff	2.80	Runoff	2.15	Runoff	1.47	Runoff

Mitigation options																	
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)																	
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 49	D3	ditch	0.430	Drift	-	-	-	-	0.228	Drift	0.228	Drift	0.156	Drift	0.118	Drift
	D4	pond	0.480	Drainage	-	-	-	-	0.477	Drainage	0.477	Drainage	0.475	Drainage	0.474	Drainage
	D4	stream	0.714	Drainage	-	-	-	-	0.714	Drainage	0.714	Drainage	0.714	Drainage	0.714	Drainage
	D6	ditch	0.595	Drainage	-	-	-	-	0.595	Drainage	0.595	Drainage	0.595	Drainage	0.595	Drainage
	D6 2nd	ditch	0.640	Drainage	-	-	-	-	0.640	Drainage	0.640	Drainage	0.640	Drainage	0.640	Drainage
	R1	pond	0.071	Runoff	0.055	Drift	0.055	Drift	0.106	Runoff	0.049	Runoff	0.037	Runoff	0.026	Runoff
	R1	stream	0.631	Runoff	1.03	Drift	1.03	Drift	0.973	Runoff	0.438	Runoff	0.335	Runoff	0.228	Runoff
	R2	stream	0.568	Runoff	1.40	Drift	1.40	Drift	0.880	Runoff	0.394	Runoff	0.301	Runoff	0.205	Runoff
	R3	stream	2.15	Runoff	1.49	Runoff	1.47	Drift	3.30	Runoff	1.49	Runoff	1.14	Runoff	0.779	Runoff
	R4	stream	2.89	Runoff	2.01	Runoff	1.05	Runoff	4.45	Runoff	2.01	Runoff	1.54	Runoff	1.05	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	0.360	Drift	-	-	-	-	0.187	Drift	0.187	Drift	0.126	Drift	0.095	Drift
	D4	pond	1.32	Drainage	-	-	-	-	1.32	Drainage	1.32	Drainage	1.31	Drainage	1.31	Drainage
	D4	stream	1.59	Drainage	-	-	-	-	1.59	Drainage	1.59	Drainage	1.59	Drainage	1.59	Drainage
	D6	ditch	1.72	Drainage	-	-	-	-	1.72	Drainage	1.72	Drainage	1.72	Drainage	1.72	Drainage
	D6 2nd	ditch	1.16	Drainage	-	-	-	-	1.16	Drainage	1.16	Drainage	1.16	Drainage	1.16	Drainage
	R1	pond	0.168	Runoff	0.123	Runoff	0.075	Drift	0.254	Runoff	0.115	Runoff	0.087	Runoff	0.060	Runoff
	R1	stream	1.76	Runoff	1.22	Runoff	0.906	Drift	2.72	Runoff	1.22	Runoff	0.935	Runoff	0.637	Runoff
	R2	stream	1.20	Runoff	1.21	Drift	1.21	Drift	1.86	Runoff	0.833	Runoff	0.637	Runoff	0.433	Runoff

Mitigation options																
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	R3	stream	3.24	Runoff	2.25	Runoff	1.28	Drift	4.98	Runoff	2.25	Runoff	1.73	Runoff	1.18	Runoff
	R4	stream	4.16	Runoff	2.89	Runoff	1.51	Runoff	6.40	Runoff	2.89	Runoff	2.22	Runoff	1.51	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)

Table A 168: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, bulb using 5 m VFS mod, BBCH 11 – 49

Mitigation options						
Vegetative strip (m)			5 VFS mod			
No spray buffer (m)			0			
Nozzle reduction (%)			0			
Application scenario	**Scenario**	**Water body**	**Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d**		**Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d**	
			PEC_{SW} (µg/L)	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	D6 2nd	ditch	-		-	
	R1	pond	0.055	Drift	0.055	Drift
	R1	stream	1.04	Drift	1.04	Drift
	R2	stream	1.38	Drift	1.38	Drift
	R3	stream	1.47	Drift	1.47	Drift
	R4	stream	1.03	Drift	1.03	Drift
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	D6 2nd	ditch	-	-	-	-
	R1	pond	0.081	Drift	0.080	Drift
	R1	stream	0.902	Drift	0.902	Drift
	R2	stream	1.19	Drift	1.19	Drift
	R3	stream	1.55	Runoff	1.55	Runoff
	R4	stream	0.897	Drift	0.897	Drift
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	D6 2nd	ditch	-	-	-	-
	R1	pond	0.055	Drift	0.055	Drift
	R1	stream	1.03	Drift	1.03	Drift
	R2	stream	1.40	Drift	1.40	Drift
	R3	stream	1.47	Drift	1.47	Drift

Mitigation options						
Vegetative strip (m)			5 VFS mod			
No spray buffer (m)			0			
Nozzle reduction (%)			0			
Application scenario	**Scenario**	**Water body**	**Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d**		**Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d**	
			PEC_{SW} (µg/L)	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	R4	stream	1.01	Drift	1.01	Drift
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-
	D4	pond	-	-	-	-
	D4	stream	-	-	-	-
	D6	ditch	-	-	-	-
	D6 2nd	ditch	-	-	-	-
	R1	pond	0.077	Drift	0.075	Drift
	R1	stream	0.906	Drift	0.906	Drift
	R2	stream	1.21	Drift	1.21	Drift
	R3	stream	1.28	Drift	1.28	Drift
	R4	stream	0.897	Drift	0.897	Drift

Table A 169: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to hops, BBCH 21 – 89 – Option 1

Mitigation options													
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)													
Vegetative strip (m)			5[a]		0		10 – 12[b]		15[c]		0		
No spray buffer (m)			5[a]		10		10		15[c]		20		
Nozzle reduction (%)			0		0		0		0		0		
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	
Hops 1 × 250 g a.s./ha; BBCH 21[b]	R1	pond	0.741	Drift	0.421	Drift	0.421	Drift	0.236	Drift	0.131	Drift	
	R1	stream	7.71	Drift	4.02	Drift	4.02	Drift	2.65	Drift	1.21	Drift	
Hops 2 × 250 g a.s./ha; BBCH 21[b]	R1	pond	0.966	Drift	0.525	Drift	0.516	Drift	0.284	Drift	0.170	Drift	
	R1	stream	6.13	Drift	2.81	Drift	2.81	Drift	1.72	Drift	1.24	Runoff	
Hops 1 × 250 g a.s./ha; BBCH 51	R1	pond	0.741	Drift	0.421	Drift	0.421	Drift	0.236	Drift	0.131	Drift	
	R1	stream	7.51	Drift	3.92	Drift	3.92	Drift	2.59	Drift	1.18	Drift	
Hops 2 × 250 g a.s./ha; BBCH 51	R1	pond	0.951	Drift	0.508	Drift	0.507	Drift	0.278	Drift	0.156	Drift	
	R1	stream	6.13	Drift	2.81	Drift	2.81	Drift	1.72	Drift	0.785	Drift	
Hops 1 × 250 g a.s./ha; BBCH 89	R1	pond	0.741	Drift	0.421	Drift	0.421	Drift	0.236	Drift	0.131	Drift	
	R1	stream	7.73	Drift	4.03	Drift	4.03	Drift	2.66	Drift	1.21	Drift	
Hops	R1	pond	0.930	Drift	0.496	Drift	0.496	Drift	0.271	Drift	0.150	Drift	

2 × 250 g a.s./ha; BBCH 89	R1	stream	6.30	Drift	2.89	Drift	2.89	Drift	1.77	Drift	0.807	Drift

Mitigation options								
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)								
Vegetative strip (m)			18 – 20[d]		0		0	
No spray buffer (m)			20		20		30	
Nozzle reduction (%)			0		50		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Hops 1 × 250 g a.s./ha; BBCH 21[b]	R1	pond	0.131	Drift	0.065	Drift	0.055	Drift
	R1	stream	1.21	Drift	0.691	Runoff	0.691	Runoff
Hops 2 × 250 g a.s./ha; BBCH 21[b]	R1	pond	0.158	Drift	0.093	Drift	0.081	Drift
	R1	stream	0.786	Drift	1.24	Runoff	1.24	Runoff
Hops 1 × 250 g a.s./ha; BBCH 51	R1	pond	0.131	Drift	0.065	Drift	0.055	Drift
	R1	stream	1.18	Drift	0.589	Drift	0.571	Runoff
Hops 2 × 250 g a.s./ha; BBCH 51	R1	pond	0.154	Drift	0.079	Drift	0.067	Drift
	R1	stream	0.785	Drift	0.571	Runoff	0.571	Runoff
Hops 1 × 250 g a.s./ha; BBCH 89	R1	pond	0.131	Drift	0.065	Drift	0.055	Drift
	R1	stream	1.21	Drift	0.606	Drift	0.392	Drift

Mitigation options								
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)								
Hops 2 × 250 g a.s./ha; BBCH 89	R1	pond	0.150	Drift	0.075	Drift	0.063	Drift
	R1	stream	0.807	Drift	0.403	Drift	0.263	Drift

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)
[d] equivalent to 80% runoff mitigation

Table A 170: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to hops, BBCH 21 – 89 – Option 2

Mitigation options												
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)												
Vegetative strip (m)			5[a]		0		10 – 12[b]		15[c]		0	
No spray buffer (m)			5[a]		10		10		15[c]		20	
Nozzle reduction (%)			0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Hops 1 × 250 g a.s./ha; BBCH 21[b]	R1	pond	0.741	Drift	0.421	Drift	0.421	Drift	0.236	Drift	0.131	Drift
	R1	stream	7.71	Drift	4.02	Drift	4.02	Drift	2.65	Drift	1.21	Drift
Hops 2 × 250 g a.s./ha; BBCH 21[b]	R1	pond	0.958	Drift	0.521	Drift	0.512	Drift	0.281	Drift	0.169	Drift
	R1	stream	6.13	Drift	2.81	Drift	2.81	Drift	1.72	Drift	1.24	Runoff
Hops	R1	pond	0.741	Drift	0.421	Drift	0.421	Drift	0.236	Drift	0.131	Drift

Mitigation options												
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)												
1 × 250 g a.s./ha; BBCH 51	R1	stream	7.51	Drift	3.92	Drift	3.92	Drift	2.59	Drift	1.18	Drift
Hops 2 × 250 g a.s./ha; BBCH 51	R1	pond	0.938	Drift	0.501	Drift	0.500	Drift	0.274	Drift	0.154	Drift
	R1	stream	6.13	Drift	2.81	Drift	2.81	Drift	1.72	Drift	0.785	Drift
Hops 1 × 250 g a.s./ha; BBCH 89	R1	pond	0.741	Drift	0.421	Drift	0.421	Drift	0.236	Drift	0.131	Drift
	R1	stream	7.73	Drift	4.03	Drift	4.03	Drift	2.66	Drift	1.21	Drift
Hops 2 × 250 g a.s./ha; BBCH 89	R1	pond	0.915	Drift	0.487	Drift	0.487	Drift	0.267	Drift	0.148	Drift
	R1	stream	6.30	Drift	2.89	Drift	2.89	Drift	1.77	Drift	0.807	Drift

Vegetative strip (m)			18 – 20[d]		0		0	
No spray buffer (m)			20		20		30	
Nozzle reduction (%)			0		50		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Hops 1 × 250 g a.s./ha; BBCH 21[b]	R1	pond	0.131	Drift	0.065	Drift	0.055	Drift
	R1	stream	1.21	Drift	0.691	Runoff	0.691	Runoff
Hops 2 × 250 g a.s./ha; BBCH 21[b]	R1	pond	0.157	Drift	0.092	Drift	0.080	Drift
	R1	stream	0.786	Drift	1.24	Runoff	1.24	Runoff

Mitigation options								
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)								
Hops 1 × 250 g a.s./ha; BBCH 51	R1	pond	0.131	Drift	0.065	Drift	0.055	Drift
	R1	stream	1.18	Drift	0.589	Drift	0.571	Runoff
Hops 2 × 250 g a.s./ha; BBCH 51	R1	pond	0.152	Drift	0.078	Drift	0.066	Drift
	R1	stream	0.785	Drift	0.571	Runoff	0.571	Runoff
Hops 1 × 250 g a.s./ha; BBCH 89	R1	pond	0.131	Drift	0.065	Drift	0.055	Drift
	R1	stream	1.21	Drift	0.606	Drift	0.392	Drift
Hops 2 × 250 g a.s./ha; BBCH 89	R1	pond	0.148	Drift	0.074	Drift	0.062	Drift
	R1	stream	0.807	Drift	0.403	Drift	0.263	Drift

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)
[d] equivalent to 80% runoff mitigation

Table A 171: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to hops using 5 m VFS mod, BBCH 21 – 89

Mitigation options							
Vegetative strip (m)			5 VFS mod				
No spray buffer (m)			0				
Nozzle reduction (%)			0				
Application scenario	**Scenario**	**Water body**	**Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d**		**Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d**		
			PEC_{SW} (µg/L)	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	
Hops 1 × 250 g a.s./ha; BBCH 21	R1	pond	0.657	Drift	0.657	Drift	
	R1	stream	9.44	Drift	9.44	Drift	
Hops 2 × 250 g a.s./ha; BBCH 21	R1	pond	0.832	Drift	0.826	Drift	
	R1	stream	7.82	Drift	7.82	Drift	
Hops 1 × 250 g a.s./ha; BBCH 51	R1	pond	0.657	Drift	0.657	Drift	
	R1	stream	9.21	Drift	9.21	Drift	
Hops 2 × 250 g a.s./ha; BBCH 51	R1	pond	0.826	Drift	0.815	Drift	
	R1	stream	7.81	Drift	7.81	Drift	
Hops 1 × 250 g a.s./ha; BBCH 89	R1	pond	0.657	Drift	0.657	Drift	
	R1	stream	9.46	Drift	9.46	Drift	
Hops 2 × 250 g a.s./ha; BBCH 89	R1	pond	0.809	Drift	0.796	Drift	
	R1	stream	8.03	Drift	8.03	Drift	

Table A 172: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, leafy, BBCH 11 – 49 – Maximum over Option 1 and Option 2

Mitigation options																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	0.429	Drift	-	-	-	-	0.228	Drift	0.228	Drift	0.156	Drift	0.118	Drift
	D3 2nd	ditch	0.430	Drift	-	-	-	-	0.228	Drift	0.228	Drift	0.156	Drift	0.118	Drift
	D4	pond	0.648	Drainage	-	-	-	-	0.647	Drainage	0.647	Drainage	0.646	Drainage	0.645	Drainage
	D4	stream	0.634	Drainage	-	-	-	-	0.634	Drainage	0.634	Drainage	0.634	Drainage	0.634	Drainage
	D6	ditch	2.55	Drainage	-	-	-	-	2.55	Drainage	2.55	Drainage	2.55	Drainage	2.55	Drainage
	R1	pond	0.140	Runoff	0.108	Runoff	0.072	Runoff	0.203	Runoff	0.095	Runoff	0.072	Runoff	0.051	Runoff
	R1 2nd	pond	0.127	Runoff	0.093	Runoff	0.061	Runoff	0.193	Runoff	0.087	Runoff	0.066	Runoff	0.046	Runoff
	R1	stream	1.44	Runoff	1.04	Drift	1.04	Drift	2.21	Runoff	1.00	Runoff	0.769	Runoff	0.524	Runoff
	R1 2nd	stream	1.19	Runoff	1.05	Drift	1.05	Drift	1.83	Runoff	0.832	Runoff	0.639	Runoff	0.436	Runoff
	R2	stream	0.729	Runoff	1.38	Drift	1.38	Drift	1.12	Runoff	0.507	Runoff	0.389	Runoff	0.265	Runoff
	R2 2nd	stream	0.513	Drift	1.40	Drift	1.40	Drift	0.585	Runoff	0.272	Drift	0.204	Runoff	0.141	Drift
	R3	stream	2.16	Runoff	1.50	Runoff	1.47	Drift	3.33	Runoff	1.50	Runoff	1.15	Runoff	0.784	Runoff
	R3 2nd	stream	2.16	Runoff	1.51	Runoff	1.47	Drift	3.31	Runoff	1.51	Runoff	1.16	Runoff	0.791	Runoff
	R4	stream	1.10	Runoff	1.04	Drift	1.04	Drift	1.69	Runoff	0.770	Runoff	0.591	Runoff	0.404	Runoff
	R4 2nd	stream	3.50	Runoff	2.43	Runoff	1.28	Runoff	5.36	Runoff	2.43	Runoff	1.87	Runoff	1.28	Runoff
Vegetables, leafy	D3	ditch	0.360	Drift	-	-	-	-	0.187	Drift	0.187	Drift	0.126	Drift	0.095	Drift
	D3 2nd	ditch	0.360	Drift	-	-	-	-	0.187	Drift	0.187	Drift	0.126	Drift	0.095	Drift

Mitigation options																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**
2 × 250 g a.s./ha, BBCH 11	D4	pond	1.35	Drainage	-	-	-	-	1.35	Drainage	1.35	Drainage	1.35	Drainage	1.35	Drainage
	D4	stream	1.31	Drainage	-	-	-	-	1.31	Drainage	1.31	Drainage	1.31	Drainage	1.31	Drainage
	D6	ditch	5.58	Drainage	-	-	-	-	5.58	Drainage	5.58	Drainage	5.58	Drainage	5.58	Drainage
	R1	pond	0.278	Runoff	0.211	Runoff	0.136	Runoff	0.411	Runoff	0.187	Runoff	0.142	Runoff	0.100	Runoff
	R1 2nd	pond	0.255	Runoff	0.185	Runoff	0.120	Runoff	0.389	Runoff	0.174	Runoff	0.133	Runoff	0.091	Runoff
	R1	stream	3.08	Runoff	2.15	Runoff	1.12	Runoff	4.73	Runoff	2.15	Runoff	1.65	Runoff	1.12	Runoff
	R1 2nd	stream	2.73	Runoff	1.90	Runoff	0.996	Runoff	4.18	Runoff	1.90	Runoff	1.46	Runoff	0.996	Runoff
	R2	stream	1.62	Runoff	1.19	Drift	1.19	Drift	2.50	Runoff	1.13	Runoff	0.866	Runoff	0.591	Runoff
	R2 2nd	stream	0.822	Runoff	1.21	Drift	1.21	Drift	1.27	Runoff	0.571	Runoff	0.439	Runoff	0.299	Runoff
	R3	stream	2.76	Runoff	1.93	Runoff	1.27	Drift	4.23	Runoff	1.93	Runoff	1.48	Runoff	1.01	Runoff
	R3 2nd	stream	3.71	Runoff	2.59	Runoff	1.36	Runoff	5.69	Runoff	2.59	Runoff	1.99	Runoff	1.36	Runoff
	R4	stream	4.15	Runoff	2.89	Runoff	1.52	Runoff	6.36	Runoff	2.89	Runoff	2.22	Runoff	1.52	Runoff
	R4 2nd	stream	5.49	Runoff	3.82	Runoff	2.00	Runoff	8.41	Runoff	3.82	Runoff	2.93	Runoff	2.00	Runoff
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	0.430	Drift	-	-	-	-	0.228	Drift	0.228	Drift	0.156	Drift	0.118	Drift
	D3 2nd	ditch	0.428	Drift	-	-	-	-	0.227	Drift	0.227	Drift	0.155	Drift	0.118	Drift
	D4	pond	0.394	Drainage	-	-	-	-	0.390	Drainage	0.390	Drainage	0.388	Drainage	0.387	Drainage
	D4	stream	0.609	Drainage	-	-	-	-	0.609	Drainage	0.609	Drainage	0.609	Drainage	0.609	Drainage
	D6	ditch	5.12	Drainage	-	-	-	-	5.12	Drainage	5.12	Drainage	5.12	Drainage	5.12	Drainage
	R1	pond	0.377	Runoff	0.270	Runoff	0.156	Runoff	0.589	Runoff	0.255	Runoff	0.193	Runoff	0.132	Runoff

Mitigation options																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**
	R1 2nd	pond	0.184	Runoff	0.133	Runoff	0.077	Runoff	0.282	Runoff	0.126	Runoff	0.096	Runoff	0.066	Runoff
	R1	stream	1.50	Runoff	1.05	Runoff	1.05	Drift	2.30	Runoff	1.05	Runoff	0.805	Runoff	0.550	Runoff
	R1 2nd	stream	0.918	Runoff	1.05	Drift	1.05	Drift	1.41	Runoff	0.640	Runoff	0.491	Runoff	0.335	Runoff
	R2	stream	0.524	Runoff	1.40	Drift	1.40	Drift	0.803	Runoff	0.365	Runoff	0.280	Runoff	0.191	Runoff
	R2 2nd	stream	0.507	Drift	1.39	Drift	1.39	Drift	0.614	Runoff	0.275	Runoff	0.211	Runoff	0.144	Runoff
	R3	stream	1.68	Runoff	1.48	Drift	1.48	Drift	2.58	Runoff	1.17	Runoff	0.899	Runoff	0.613	Runoff
	R3 2nd	stream	1.63	Runoff	1.47	Drift	1.47	Drift	2.50	Runoff	1.14	Runoff	0.874	Runoff	0.597	Runoff
	R4	stream	2.11	Runoff	1.47	Runoff	1.02	Drift	3.24	Runoff	1.47	Runoff	1.13	Runoff	0.768	Runoff
	R4 2nd	stream	2.22	Runoff	1.54	Runoff	1.05	Drift	3.39	Runoff	1.54	Runoff	1.19	Runoff	0.809	Runoff
Vegetables, leafy 2 × 250 g a.s./ha BBCH 11 – 49, BBCH 49	D3	ditch	0.360	Drift	-	-	-	-	0.187	Drift	0.187	Drift	0.126	Drift	0.095	Drift
	D3 2nd	ditch	0.358	Drift	-	-	-	-	0.186	Drift	0.186	Drift	0.126	Drift	0.095	Drift
	D4	pond	1.39	Drainage	-	-	-	-	1.39	Drainage	1.39	Drainage	1.38	Drainage	1.38	Drainage
	D4	stream	1.68	Drainage	-	-	-	-	1.68	Drainage	1.68	Drainage	1.68	Drainage	1.68	Drainage
	D6	ditch	12.0	Drainage	-	-	-	-	12.0	Drainage	12.0	Drainage	12.0	Drainage	12.0	Drainage
	R1	pond	0.559	Runoff	0.405	Runoff	0.239	Runoff	0.864	Runoff	0.377	Runoff	0.285	Runoff	0.196	Runoff
	R1 2nd	pond	0.446	Runoff	0.317	Runoff	0.178	Runoff	0.692	Runoff	0.303	Runoff	0.230	Runoff	0.157	Runoff
	R1	stream	3.15	Runoff	2.19	Runoff	1.15	Runoff	4.83	Runoff	2.19	Runoff	1.68	Runoff	1.15	Runoff
	R1 2nd	stream	2.43	Runoff	1.70	Runoff	0.906	Drift	3.73	Runoff	1.70	Runoff	1.30	Runoff	0.887	Runoff
	R2	stream	1.14	Runoff	1.21	Drift	1.21	Drift	1.74	Runoff	0.791	Runoff	0.608	Runoff	0.415	Runoff

Mitigation options																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**	**PEC_{sw} (µg/L)**	**Dominant Route of Entry**
	R2 2nd	stream	0.909	Runoff	1.20	Drift	1.20	Drift	1.41	Runoff	0.631	Runoff	0.483	Runoff	0.329	Runoff
	R3	stream	2.82	Runoff	1.97	Runoff	1.28	Drift	4.33	Runoff	1.97	Runoff	1.51	Runoff	1.03	Runoff
	R3 2nd	stream	3.63	Runoff	2.53	Runoff	1.33	Runoff	5.55	Runoff	2.53	Runoff	1.94	Runoff	1.33	Runoff
	R4	stream	4.62	Runoff	3.22	Runoff	1.68	Runoff	7.10	Runoff	3.22	Runoff	2.47	Runoff	1.68	Runoff
	R4 2nd	stream	4.50	Runoff	3.14	Runoff	1.65	Runoff	6.90	Runoff	3.14	Runoff	2.41	Runoff	1.65	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)

Table A 173: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, leafy using 5 m VFS mod, BBCH 11 – 49 – Maximum over Option 1 and Option 2

Mitigation options				
		Vegetative strip (m)	5 VFS mod	
		No spray buffer (m)	0	
		Nozzle reduction (%)	0	
Use	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-
	D3 2nd	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	R1	pond	0.055	Drift
	R1 2nd	pond	0.055	Drift
	R1	stream	1.04	Drift
	R1 2nd	stream	1.05	Drift
	R2	stream	1.38	Drift
	R2 2nd	stream	1.40	Drift
	R3	stream	1.47	Drift
	R3 2nd	stream	1.47	Drift
	R4	stream	1.04	Drift
	R4 2nd	stream	1.04	Drift
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-
	D3 2nd	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	R1	pond	0.083	Drift
	R1 2nd	pond	0.085	Runoff
	R1	stream	0.903	Drift
	R1 2nd	stream	0.906	Drift
	R2	stream	1.19	Drift
	R2 2nd	stream	1.21	Drift
	R3	stream	1.57	Runoff
	R3 2nd	stream	1.28	Drift
	R4	stream	0.904	Drift
	R4 2nd	stream	0.897	Drift
Vegetables, leafy	D3	ditch	-	-

Mitigation options				
Vegetative strip (m)			5 VFS mod	
No spray buffer (m)			0	
Nozzle reduction (%)			0	
Use	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**
1 × 250 g a.s./ha, BBCH 49	D3 2nd	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	R1	pond	0.171	Runoff
	R1 2nd	pond	0.074	Runoff
	R1	stream	1.05	Drift
	R1 2nd	stream	1.05	Drift
	R2	stream	1.40	Drift
	R2 2nd	stream	1.39	Drift
	R3	stream	1.48	Drift
	R3 2nd	stream	1.47	Drift
	R4	stream	1.02	Drift
	R4 2nd	stream	1.05	Drift
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-
	D3 2nd	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	R1	pond	0.233	Runoff
	R1 2nd	pond	0.168	Runoff
	R1	stream	0.906	Drift
	R1 2nd	stream	0.906	Drift
	R2	stream	1.21	Drift
	R2 2nd	stream	1.20	Drift
	R3	stream	1.28	Drift
	R3 2nd	stream	1.44	Runoff
	R4	stream	0.904	Drift
	R4 2nd	stream	0.906	Drift

Table A 174: FOCUS Step 4 PEC$_{SW}$ for azoxystrobin following application to vegetables, fruiting, BBCH 11 – 89 – Maximum over Option 1 and Option 2

Mitigation options																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	0.426	Drift	-	-	-	-	0.336	Drainage	0.336	Drainage	0.336	Drainage	0.336	Drainage
	R2	stream	0.765	Runoff	1.38	Drift	1.38	Drift	1.18	Runoff	0.532	Runoff	0.408	Runoff	0.278	Runoff
	R3	stream	2.57	Runoff	1.79	Runoff	1.47	Drift	3.96	Runoff	1.79	Runoff	1.37	Runoff	0.936	Runoff
	R4	stream	3.72	Runoff	2.60	Runoff	1.36	Runoff	5.71	Runoff	2.60	Runoff	1.99	Runoff	1.36	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	0.688	Drainage	-	-	-	-	0.688	Drainage	0.688	Drainage	0.688	Drainage	0.688	Drainage
	R2	stream	1.10	Runoff	1.20	Drift	1.20	Drift	1.70	Runoff	0.761	Runoff	0.582	Runoff	0.395	Runoff
	R3	stream	2.68	Runoff	1.87	Runoff	1.28	Drift	4.11	Runoff	1.87	Runoff	1.44	Runoff	0.983	Runoff
	R4	stream	5.50	Runoff	3.83	Runoff	2.00	Runoff	8.46	Runoff	3.83	Runoff	2.93	Runoff	2.00	Runoff
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	0.431	Drainage	-	-	-	-	0.431	Drainage	0.431	Drainage	0.431	Drainage	0.431	Drainage
	R2	stream	0.512	Drift	1.40	Drift	1.40	Drift	0.760	Runoff	0.346	Runoff	0.266	Runoff	0.181	Runoff
	R3	stream	1.48	Runoff	1.48	Runoff	1.48	Drift	2.27	Runoff	1.03	Runoff	0.794	Runoff	0.542	Runoff
	R4	stream	1.91	Runoff	1.33	Runoff	1.02	Drift	2.93	Runoff	1.33	Runoff	1.02	Runoff	0.698	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.945	Drainage	-	-	-	-	0.945	Drainage	0.945	Drainage	0.945	Drainage	0.945	Drainage
	R2	stream	1.24	Runoff	1.21	Drift	1.21	Drift	1.89	Runoff	0.862	Runoff	0.662	Runoff	0.452	Runoff
	R3	stream	3.63	Runoff	2.53	Runoff	1.33	Runoff	5.55	Runoff	2.53	Runoff	1.94	Runoff	1.33	Runoff
	R4	stream	4.77	Runoff	3.32	Runoff	1.74	Runoff	7.31	Runoff	3.32	Runoff	2.55	Runoff	1.74	Runoff
Vegetables,	D6	ditch	1.95	Drainage	-	-	-	-	1.95	Drainage	1.95	Drainage	1.95	Drainage	1.95	Drainage

Mitigation options																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC$_{sw}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{sw}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{sw}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{sw}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{sw}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{sw}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{sw}$ (µg/L)**	**Dominant Route of Entry**
fruiting 1 × 250 g a.s./ha, BBCH 89	R2	stream	0.513	Drift	1.40	Drift	1.40	Drift	0.346	Runoff	0.272	Drift	0.186	Drift	0.141	Drift
	R3	stream	1.69	Runoff	1.48	Drift	1.48	Drift	2.58	Runoff	1.18	Runoff	0.903	Runoff	0.617	Runoff
	R4	stream	2.43	Runoff	1.70	Runoff	1.05	Drift	3.73	Runoff	1.70	Runoff	1.30	Runoff	0.889	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.64	Drainage	-	-	-	-	3.64	Drainage	3.64	Drainage	3.64	Drainage	3.64	Drainage
	R2	stream	0.609	Runoff	1.21	Drift	1.21	Drift	0.934	Runoff	0.424	Runoff	0.325	Runoff	0.222	Runoff
	R3	stream	3.57	Runoff	2.49	Runoff	1.31	Runoff	5.46	Runoff	2.49	Runoff	1.91	Runoff	1.31	Runoff
	R4	stream	4.28	Runoff	2.99	Runoff	1.57	Runoff	6.57	Runoff	2.99	Runoff	2.29	Runoff	1.57	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)

Table A 175: FOCUS Step 4 PEC_{SW} azoxystrobin following application to vegetables, fruiting using 5 m VFS mod, BBCH 11 – 49 – Maximum over Option 1 and Option 2

Mitigation options				
Vegetative strip (m)			5 VFS mod	
No spray buffer (m)			0	
Nozzle reduction (%)			0	
Use	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-
	R2	stream	1.38	Drift
	R3	stream	1.47	Drift
	R4	stream	1.04	Drift
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-
	R2	stream	1.20	Drift
	R3	stream	1.28	Drift
	R4	stream	0.903	Drift
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-
	R2	stream	1.40	Drift
	R3	stream	1.48	Drift
	R4	stream	1.02	Drift
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-
	R2	stream	1.21	Drift
	R3	stream	1.28	Drift
	R4	stream	0.906	Drift
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-
	R2	stream	1.40	Drift
	R3	stream	1.48	Drift
	R4	stream	1.05	Drift
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-
	R2	stream	1.21	Drift
	R3	stream	1.28	Drift
	R4	stream	0.906	Drift

Table A 176: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, bulb, BBCH 11 – 49 – Maximum over Option 1 and Option 2

Mitigation options																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 11	D3	ditch	0.429	Drift	-	-	-	-	0.228	Drift	0.228	Drift	0.156	Drift	0.118	Drift
	D4	pond	0.604	Drainage	-	-	-	-	0.603	Drainage	0.603	Drainage	0.602	Drainage	0.602	Drainage
	D4	stream	0.582	Drainage	-	-	-	-	0.582	Drainage	0.582	Drainage	0.582	Drainage	0.582	Drainage
	D6	ditch	0.918	Drainage	-	-	-	-	0.918	Drainage	0.918	Drainage	0.918	Drainage	0.918	Drainage
	D6 2[nd]	ditch	4.56	Drainage	-	-	-	-	4.56	Drainage	4.56	Drainage	4.56	Drainage	4.56	Drainage
	R1	pond	0.136	Runoff	0.106	Runoff	0.071	Runoff	0.197	Runoff	0.092	Runoff	0.070	Runoff	0.050	Runoff
	R1	stream	1.41	Runoff	1.04	Drift	1.04	Drift	2.16	Runoff	0.979	Runoff	0.751	Runoff	0.512	Runoff
	R2	stream	0.747	Runoff	1.38	Drift	1.38	Drift	1.15	Runoff	0.519	Runoff	0.398	Runoff	0.271	Runoff
	R3	stream	2.18	Runoff	1.51	Runoff	1.47	Drift	3.35	Runoff	1.51	Runoff	1.16	Runoff	0.790	Runoff
	R4	stream	3.71	Runoff	2.58	Runoff	1.35	Runoff	5.69	Runoff	2.58	Runoff	1.98	Runoff	1.35	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	0.359	Drift	-	-	-	-	0.187	Drift	0.187	Drift	0.126	Drift	0.095	Drift
	D4	pond	1.27	Drainage	-	-	-	-	1.27	Drainage	1.27	Drainage	1.27	Drainage	1.27	Drainage
	D4	stream	1.22	Drainage	-	-	-	-	1.22	Drainage	1.22	Drainage	1.22	Drainage	1.22	Drainage
	D6	ditch	2.34	Drainage	-	-	-	-	2.34	Drainage	2.34	Drainage	2.34	Drainage	2.34	Drainage
	D6 2[nd]	ditch	12.7	Drainage	-	-	-	-	12.7	Drainage	12.7	Drainage	12.7	Drainage	12.7	Drainage
	R1	pond	0.305	Runoff	0.230	Runoff	0.146	Runoff	0.454	Runoff	0.206	Runoff	0.156	Runoff	0.109	Runoff
	R1	stream	3.50	Runoff	2.43	Runoff	1.27	Runoff	5.37	Runoff	2.43	Runoff	1.87	Runoff	1.27	Runoff

Mitigation options																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	R2	stream	1.56	Runoff	1.50	Drift	1.35	Drift	2.41	Runoff	1.09	Runoff	0.833	Runoff	0.568	Runoff
	R3	stream	2.83	Runoff	1.98	Runoff	1.27	Drift	4.33	Runoff	1.98	Runoff	1.52	Runoff	1.04	Runoff
	R4	stream	4.02	Runoff	2.80	Runoff	1.47	Runoff	6.17	Runoff	2.80	Runoff	2.15	Runoff	1.47	Runoff
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 49	D3	ditch	0.430	Drift	-	-	-	-	0.228	Drift	0.228	Drift	0.156	Drift	0.118	Drift
	D4	pond	0.485	Drainage	-	-	-	-	0.482	Drainage	0.482	Drainage	0.480	Drainage	0.479	Drainage
	D4	stream	0.714	Drainage	-	-	-	-	0.714	Drainage	0.714	Drainage	0.714	Drainage	0.714	Drainage
	D6	ditch	0.595	Drainage	-	-	-	-	0.595	Drainage	0.595	Drainage	0.595	Drainage	0.595	Drainage
	D6 2[nd]	ditch	0.640	Drainage	-	-	-	-	0.640	Drainage	0.640	Drainage	0.640	Drainage	0.640	Drainage
	R1	pond	0.073	Runoff	0.055	Runoff	0.055	Drift	0.108	Runoff	0.050	Runoff	0.038	Runoff	0.027	Runoff
	R1	stream	0.631	Runoff	1.03	Drift	1.03	Drift	0.973	Runoff	0.438	Runoff	0.335	Runoff	0.228	Runoff
	R2	stream	0.568	Runoff	1.40	Drift	1.40	Drift	0.880	Runoff	0.394	Runoff	0.301	Runoff	0.205	Runoff
	R3	stream	2.15	Runoff	1.49	Runoff	1.47	Drift	3.30	Runoff	1.49	Runoff	1.14	Runoff	0.780	Runoff
	R4	stream	2.89	Runoff	2.01	Runoff	1.05	Runoff	4.45	Runoff	2.01	Runoff	1.54	Runoff	1.05	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	0.360	Drift	-	-	-	-	0.187	Drift	0.187	Drift	0.126	Drift	0.095	Drift
	D4	pond	1.34	Drainage	-	-	-	-	1.33	Drainage	1.33	Drainage	1.33	Drainage	1.32	Drainage
	D4	stream	1.59	Drainage	-	-	-	-	1.59	Drainage	1.59	Drainage	1.59	Drainage	1.59	Drainage
	D6	ditch	1.72	Drainage	-	-	-	-	1.72	Drainage	1.72	Drainage	1.72	Drainage	1.72	Drainage
	D6 2[nd]	ditch	1.16	Drainage	-	-	-	-	1.16	Drainage	1.16	Drainage	1.16	Drainage	1.16	Drainage
	R1	pond	0.172	Runoff	0.127	Runoff	0.077	Drift	0.259	Runoff	0.118	Runoff	0.090	Runoff	0.062	Runoff

Mitigation options																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**
	R1	stream	1.76	Runoff	1.22	Runoff	0.906	Drift	2.72	Runoff	1.22	Runoff	0.935	Runoff	0.637	Runoff
	R2	stream	1.20	Runoff	1.21	Drift	1.21	Drift	1.86	Runoff	0.833	Runoff	0.637	Runoff	0.433	Runoff
	R3	stream	3.24	Runoff	2.25	Runoff	1.28	Drift	4.98	Runoff	2.25	Runoff	1.73	Runoff	1.18	Runoff
	R4	stream	4.16	Runoff	2.89	Runoff	1.51	Runoff	6.40	Runoff	2.89	Runoff	2.22	Runoff	1.51	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)

Table A 177: FOCUS Step 4 PEC_{SW} azoxystrobin following application to vegetables, bulb using 5 m VFS mod, BBCH 11 – 49 – Maximum over Option 1 and Option 2

Mitigation options				
		Vegetative strip (m)	5 VFS mod	
		No spray buffer (m)	0	
		Nozzle reduction (%)	0	
Use	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	D6 2nd	ditch	-	
	R1	pond	0.055	Drift
	R1	stream	1.04	Drift
	R2	stream	1.38	Drift
	R3	stream	1.47	Drift
	R4	stream	1.03	Drift
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	D6 2nd	ditch	-	-
	R1	pond	0.081	Drift
	R1	stream	0.902	Drift
	R2	stream	1.19	Drift
	R3	stream	1.55	Runoff
	R4	stream	0.897	Drift
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	D6 2nd	ditch	-	-
	R1	pond	0.055	Drift
	R1	stream	1.03	Drift
	R2	stream	1.40	Drift
	R3	stream	1.47	Drift
	R4	stream	1.01	Drift
Vegetables, bulb 2 × 250 g a.s./ha,	D3	ditch	-	-
	D4	pond	-	-

Mitigation options				
Vegetative strip (m)			5 VFS mod	
No spray buffer (m)			0	
Nozzle reduction (%)			0	
Use	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
BBCH 49	D4	stream	-	-
	D6	ditch	-	-
	D6 2nd	ditch	-	-
	R1	pond	0.077	Drift
	R1	stream	0.906	Drift
	R2	stream	1.21	Drift
	R3	stream	1.28	Drift
	R4	stream	0.897	Drift

Table A 178: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to hops, BBCH 21 – 89 – Maximum over Option 1 and Option 2

Mitigation options													
Vegetative strip (m)			5[a]		0		10 – 12[b]		15[c]		0	
No spray buffer (m)			5[a]		10		10		15[c]		20	
Nozzle reduction (%)			0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Hops 1 × 250 g a.s./ha; BBCH 21[b]	R1	pond	0.741	Drift	0.421	Drift	0.421	Drift	0.236	Drift	0.131	Drift
	R1	stream	7.71	Drift	4.02	Drift	4.02	Drift	2.65	Drift	1.21	Drift
Hops 2 × 250 g a.s./ha; BBCH 21[b]	R1	pond	0.966	Drift	0.525	Drift	0.516	Drift	0.284	Drift	0.170	Drift
	R1	stream	6.13	Drift	2.81	Drift	2.81	Drift	1.72	Drift	1.24	Runoff
Hops 1 × 250 g a.s./ha; BBCH 51	R1	pond	0.741	Drift	0.421	Drift	0.421	Drift	0.236	Drift	0.131	Drift
	R1	stream	7.51	Drift	3.92	Drift	3.92	Drift	2.59	Drift	1.18	Drift
Hops 2 × 250 g a.s./ha; BBCH 51	R1	pond	0.951	Drift	0.508	Drift	0.507	Drift	0.278	Drift	0.156	Drift
	R1	stream	6.13	Drift	2.81	Drift	2.81	Drift	1.72	Drift	0.785	Drift
Hops 1 × 250 g a.s./ha; BBCH 89	R1	pond	0.741	Drift	0.421	Drift	0.421	Drift	0.236	Drift	0.131	Drift
	R1	stream	7.73	Drift	4.03	Drift	4.03	Drift	2.66	Drift	1.21	Drift
Hops 2 × 250 g a.s./ha; BBCH 89	R1	pond	0.930	Drift	0.496	Drift	0.496	Drift	0.271	Drift	0.150	Drift
	R1	stream	6.30	Drift	2.89	Drift	2.89	Drift	1.77	Drift	0.807	Drift

Mitigation options								
Vegetative strip (m)			18 – 20[d]		0		0	
No spray buffer (m)			20		20		30	
Nozzle reduction (%)			0		50		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Hops 1 × 250 g a.s./ha; BBCH 21[b]	R1	pond	0.131	Drift	0.065	Drift	0.055	Drift
	R1	stream	1.21	Drift	0.691	Runoff	0.691	Runoff
Hops 2 × 250 g a.s./ha; BBCH 21[b]	R1	pond	0.158	Drift	0.093	Drift	0.081	Drift
	R1	stream	0.786	Drift	1.24	Runoff	1.24	Runoff
Hops 1 × 250 g a.s./ha; BBCH 51	R1	pond	0.131	Drift	0.065	Drift	0.055	Drift
	R1	stream	1.18	Drift	0.589	Drift	0.571	Runoff
Hops 2 × 250 g a.s./ha; BBCH 51	R1	pond	0.154	Drift	0.079	Drift	0.067	Drift
	R1	stream	0.785	Drift	0.571	Runoff	0.571	Runoff
Hops 1 × 250 g a.s./ha; BBCH 89	R1	pond	0.131	Drift	0.065	Drift	0.055	Drift
	R1	stream	1.21	Drift	0.606	Drift	0.392	Drift
Hops 2 × 250 g a.s./ha; BBCH 89	R1	pond	0.150	Drift	0.075	Drift	0.063	Drift
	R1	stream	0.807	Drift	0.403	Drift	0.263	Drift

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation

[c] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)
[d] equivalent to 80% runoff mitigation

Table A 179: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to hops using 5 m VFS mod, BBCH 11 – 49 – Maximum over Option 1 and Option 2

Mitigation options				
		Vegetative strip (m)	5 VFS mod	
		No spray buffer (m)	0	
		Nozzle reduction (%)	0	
Use	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Hops 1 × 250 g a.s./ha; BBCH 21[b]	R1	pond	0.657	Drift
	R1	stream	9.44	Drift
Hops 2 × 250 g a.s./ha; BBCH 21[b]	R1	pond	0.832	Drift
	R1	stream	7.82	Drift
Hops 1 × 250 g a.s./ha; BBCH 51	R1	pond	0.657	Drift
	R1	stream	9.21	Drift
Hops 2 × 250 g a.s./ha; BBCH 51	R1	pond	0.826	Drift
	R1	stream	7.81	Drift
Hops 1 × 250 g a.s./ha; BBCH 89	R1	pond	0.657	Drift
	R1	stream	9.46	Drift
Hops 2 × 250 g a.s./ha; BBCH 89	R1	pond	0.809	Drift
	R1	stream	8.03	Drift

Table A 180: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to vegetables, leafy – Maximum over single and multiple applications

Mitigation options																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	0.429*	Drift	-	-	-	-	0.228*	Drift	0.228*	Drift	0.156*	Drift	0.118*	Drift
	D3 2nd	ditch	0.430*	Drift	-	-	-	-	0.228*	Drift	0.228*	Drift	0.156*	Drift	0.118*	Drift
	D4	pond	1.35	Drainage	-	-	-	-	1.35	Drainage	1.35	Drainage	1.35	Drainage	1.35	Drainage
	D4	stream	1.31	Drainage	-	-	-	-	1.31	Drainage	1.31	Drainage	1.31	Drainage	1.31	Drainage
	D6	ditch	5.58	Drainage	-	-	-	-	5.58	Drainage	5.58	Drainage	5.58	Drainage	5.58	Drainage
	R1	pond	0.278	Runoff	0.211	Runoff	0.136	Runoff	0.411	Runoff	0.187	Runoff	0.142	Runoff	0.100	Runoff
	R1 2nd	pond	0.255	Runoff	0.185	Runoff	0.120	Runoff	0.389	Runoff	0.174	Runoff	0.133	Runoff	0.091	Runoff
	R1	stream	3.08	Runoff	2.15	Runoff	1.12	Runoff	4.73	Runoff	2.15	Runoff	1.65	Runoff	1.12	Runoff
	R1 2nd	stream	2.73	Runoff	1.90	Runoff	1.05*	Drift	4.18	Runoff	1.90	Runoff	1.46	Runoff	0.996	Runoff
	R2	stream	1.62	Runoff	1.38*	Drift	1.38*	Drift	2.50	Runoff	1.13	Runoff	0.866	Runoff	0.591	Runoff
	R2 2nd	stream	0.822	Runoff	1.40*	Drift	1.40*	Drift	1.27	Runoff	0.571	Runoff	0.439	Runoff	0.299	Runoff
	R3	stream	2.76	Runoff	1.93	Runoff	1.47*	Drift	4.23	Runoff	1.93	Runoff	1.48	Runoff	1.01	Runoff
	R3 2nd	stream	3.71	Runoff	2.59	Runoff	1.47*	Drift	5.69	Runoff	2.59	Runoff	1.99	Runoff	1.36	Runoff
	R4	stream	4.15	Runoff	2.89	Runoff	1.52	Runoff	6.36	Runoff	2.89	Runoff	2.22	Runoff	1.52	Runoff
	R4 2nd	stream	5.49	Runoff	3.82	Runoff	2.00	Runoff	8.41	Runoff	3.82	Runoff	2.93	Runoff	2.00	Runoff
Vegetables, leafy	D3	ditch	0.430*	Drift	-	-	-	-	0.228*	Drift	0.228*	Drift	0.156*	Drift	0.118*	Drift
	D3 2nd	ditch	0.428*	Drift	-	-	-	-	0.227*	Drift	0.227*	Drift	0.155*	Drift	0.118*	Drift

Mitigation options																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**
2 × 250 g a.s./ha, BBCH 49	D4	pond	1.39	Drainage	-	-	-	-	1.39	Drainage	1.39	Drainage	1.38	Drainage	1.38	Drainage
	D4	stream	1.68	Drainage	-	-	-	-	1.68	Drainage	1.68	Drainage	1.68	Drainage	1.68	Drainage
	D6	ditch	12.0	Drainage	-	-	-	-	12.0	Drainage	12.0	Drainage	12.0	Drainage	12.0	Drainage
	R1	pond	0.559	Runoff	0.405	Runoff	0.239	Runoff	0.864	Runoff	0.377	Runoff	0.285	Runoff	0.196	Runoff
	R1 2nd	pond	0.446	Runoff	0.317	Runoff	0.178	Runoff	0.692	Runoff	0.303	Runoff	0.230	Runoff	0.157	Runoff
	R1	stream	3.15	Runoff	2.19	Runoff	1.15	Runoff	4.83	Runoff	2.19	Runoff	1.68	Runoff	1.15	Runoff
	R1 2nd	stream	2.43	Runoff	1.70	Runoff	1.05*	Drift	3.73	Runoff	1.70	Runoff	1.30	Runoff	0.887	Runoff
	R2	stream	1.14	Runoff	1.40*	Drift	1.40*	Drift	1.74	Runoff	0.791	Runoff	0.608	Runoff	0.415	Runoff
	R2 2nd	stream	0.909	Runoff	1.39*	Drift	1.39*	Drift	1.41	Runoff	0.631	Runoff	0.483	Runoff	0.329	Runoff
	R3	stream	2.82	Runoff	1.97	Runoff	1.48*	Drift	4.33	Runoff	1.97	Runoff	1.51	Runoff	1.03	Runoff
	R3 2nd	stream	3.63	Runoff	2.53	Runoff	1.47*	Drift	5.55	Runoff	2.53	Runoff	1.94	Runoff	1.33	Runoff
	R4	stream	4.62	Runoff	3.22	Runoff	1.68	Runoff	7.10	Runoff	3.22	Runoff	2.47	Runoff	1.68	Runoff
	R4 2nd	stream	4.50	Runoff	3.14	Runoff	1.65	Runoff	6.90	Runoff	3.14	Runoff	2.41	Runoff	1.65	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)

Table A 181: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to vegetables, leafy using 5 m VFS mod, BBCH 11 – 49 – Maximum over single and multiple applications

Mitigation options				
		Vegetative strip (m)	5 VFS mod	
		No spray buffer (m)	0	
		Nozzle reduction (%)	0	
Use	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-
	D3 2nd	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	R1	pond	0.083	Drift
	R1 2nd	pond	0.085	Runoff
	R1	stream	1.04*	Drift
	R1 2nd	stream	1.05*	Drift
	R2	stream	1.38*	Drift
	R2 2nd	stream	1.40*	Drift
	R3	stream	1.57	Runoff
	R3 2nd	stream	1.47*	Drift
	R4	stream	1.04*	Drift
	R4 2nd	stream	1.04*	Drift
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-
	D3 2nd	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	R1	pond	0.233	Runoff
	R1 2nd	pond	0.168	Runoff
	R1	stream	1.05*	Drift
	R1 2nd	stream	1.05*	Drift
	R2	stream	1.40*	Drift
	R2 2nd	stream	1.39*	Drift
	R3	stream	1.48*	Drift
	R3 2nd	stream	1.47*	Drift
	R4	stream	1.02*	Drift
	R4	stream 2nd	1.05*	Drift

Table A 182: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to vegetables, fruiting – Maximum over single and multiple applications

Mitigation options																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	0.688	Drainage	-	-	-	-	0.688	Drainage	0.688	Drainage	0.688	Drainage	0.688	Drainage
	R2	stream	1.10	Runoff	1.38*	Drift	1.38*	Drift	1.70	Runoff	0.761	Runoff	0.582	Runoff	0.395	Runoff
	R3	stream	2.68	Runoff	1.87	Runoff	1.47*	Drift	4.11	Runoff	1.87	Runoff	1.44	Runoff	0.983	Runoff
	R4	stream	5.50	Runoff	3.83	Runoff	2.00	Runoff	8.46	Runoff	3.83	Runoff	2.93	Runoff	2.00	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.945	Drainage	-	-	-	-	0.945	Drainage	0.945	Drainage	0.945	Drainage	0.945	Drainage
	R2	stream	1.24	Runoff	1.40*	Drift	1.40*	Drift	1.89	Runoff	0.862	Runoff	0.662	Runoff	0.452	Runoff
	R3	stream	3.63	Runoff	2.53	Runoff	1.48*	Drift	5.55	Runoff	2.53	Runoff	1.94	Runoff	1.33	Runoff
	R4	stream	4.77	Runoff	3.32	Runoff	1.74	Runoff	7.31	Runoff	3.32	Runoff	2.55	Runoff	1.74	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.64	Drainage	-	-	-	-	3.64	Drainage	3.64	Drainage	3.64	Drainage	3.64	Drainage
	R2	stream	0.609	Runoff	1.40*	Drift	1.40*	Drift	0.934	Runoff	0.424	Runoff	0.325	Runoff	0.222	Runoff
	R3	stream	3.57	Runoff	2.49	Runoff	1.48*	Drift	5.46	Runoff	2.49	Runoff	1.91	Runoff	1.31	Runoff
	R4	stream	4.28	Runoff	2.99	Runoff	1.57	Runoff	6.57	Runoff	2.99	Runoff	2.29	Runoff	1.57	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)

Table A 183: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to vegetables, fruiting using 5 m VFS mod, BBCH 11 – 49 – Maximum over single and multiple applications

Mitigation options				
		Vegetative strip (m)	5 VFS mod	
		No spray buffer (m)	0	
		Nozzle reduction (%)	0	
Use	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-
	R2	stream	1.38*	Drift
	R3	stream	1.47*	Drift
	R4	stream	1.04*	Drift
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-
	R2	stream	1.40*	Drift
	R3	stream	1.48*	Drift
	R4	stream	1.02*	Drift
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-
	R2	stream	1.40*	Drift
	R3	stream	1.48*	Drift
	R4	stream	1.05*	Drift

Table A 184: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to vegetables, bulb – Maximum over single and multiple applications

Mitigation options																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	0.429*	Drift	-	-	-	-	0.228*	Drift	0.228*	Drift	0.156*	Drift	0.118*	Drift
	D4	pond	1.27	Drainage	-	-	-	-	1.27	Drainage	1.27	Drainage	1.27	Drainage	1.27	Drainage
	D4	stream	1.22	Drainage	-	-	-	-	1.22	Drainage	1.22	Drainage	1.22	Drainage	1.22	Drainage
	D6	ditch	2.34	Drainage	-	-	-	-	2.34	Drainage	2.34	Drainage	2.34	Drainage	2.34	Drainage
	D6 2nd	ditch	12.7	Drainage	-	-	-	-	12.7	Drainage	12.7	Drainage	12.7	Drainage	12.7	Drainage
	R1	pond	0.305	Runoff	0.230	Runoff	0.146	Runoff	0.454	Runoff	0.206	Runoff	0.156	Runoff	0.109	Runoff
	R1	stream	3.50	Runoff	2.43	Runoff	1.27	Runoff	5.37	Runoff	2.43	Runoff	1.87	Runoff	1.27	Runoff
	R2	stream	1.56	Runoff	1.50	Drift	1.38*	Drift	2.41	Runoff	1.09	Runoff	0.833	Runoff	0.568	Runoff
	R3	stream	2.83	Runoff	1.98	Runoff	1.47*	Drift	4.33	Runoff	1.98	Runoff	1.52	Runoff	1.04	Runoff
	R4	stream	4.02	Runoff	2.80	Runoff	1.47	Runoff	6.17	Runoff	2.80	Runoff	2.15	Runoff	1.47	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	0.430*	Drift	-	-	-	-	0.228*	Drift	0.228*	Drift	0.156*	Drift	0.118*	Drift
	D4	pond	1.34	Drainage	-	-	-	-	1.33	Drainage	1.33	Drainage	1.33	Drainage	1.32	Drainage
	D4	stream	1.59	Drainage	-	-	-	-	1.59	Drainage	1.59	Drainage	1.59	Drainage	1.59	Drainage
	D6	ditch	1.72	Drainage	-	-	-	-	1.72	Drainage	1.72	Drainage	1.72	Drainage	1.72	Drainage
	D6 2nd	ditch	1.16	Drainage	-	-	-	-	1.16	Drainage	1.16	Drainage	1.16	Drainage	1.16	Drainage
	R1	pond	0.172	Runoff	0.127	Runoff	0.077	Drift	0.259	Runoff	0.118	Runoff	0.09	Runoff	0.062	Runoff
	R1	stream	1.76	Runoff	1.22	Runoff	1.03*	Drift	2.72	Runoff	1.22	Runoff	0.935	Runoff	0.637	Runoff

Mitigation options																
Vegetative strip (m)			5[a]		10 – 12[b]		18 - 20[c]		0		10 – 12[b]		15[d]		18 - 20[c]	
No spray buffer (m)			5[a]		0		0		10		10		15[d]		20	
Nozzle reduction (%)			0		0		0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**	**PEC$_{SW}$ (µg/L)**	**Dominant Route of Entry**
	R2	stream	1.20	Runoff	1.40*	Drift	1.40*	Drift	1.86	Runoff	0.833	Runoff	0.637	Runoff	0.433	Runoff
	R3	stream	3.24	Runoff	2.25	Runoff	1.47*	Drift	4.98	Runoff	2.25	Runoff	1.73	Runoff	1.18	Runoff
	R4	stream	4.16	Runoff	2.89	Runoff	1.51	Runoff	6.40	Runoff	2.89	Runoff	2.22	Runoff	1.51	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)

Table A 185: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to vegetables, bulb using 5 m VFS mod, BBCH 11 – 49 – Maximum over single and multiple applications

Mitigation options				
		Vegetative strip (m)	5 VFS mod	
		No spray buffer (m)	0	
		Nozzle reduction (%)	0	
Use	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	D6 2nd	ditch	-	-
	R1	pond	0.081	Drift
	R1	stream	1.04*	Drift
	R2	stream	1.38*	Drift
	R3	stream	1.55	Runoff
	R4	stream	1.03*	Drift
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	D6 2nd	ditch	-	-
	R1	pond	0.077	Drift
	R1	stream	1.03*	Drift
	R2	stream	1.40*	Drift
	R3	stream	1.47*	Drift
	R4	stream	1.01*	Drift

Table A 186: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to hops – Maximum over single and multiple applications

Mitigation options												
Vegetative strip (m)			5[a]		0		10 – 12[b]		15[c]		0	
No spray buffer (m)			5[a]		10		10		15[c]		20	
Nozzle reduction (%)			0		0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Hops 2 × 250 g a.s./ha; BBCH 21[b]	R1	pond	0.966	Drift	0.525	Drift	0.516	Drift	0.284	Drift	0.170	Drift
	R1	stream	7.71*	Drift	4.02*	Drift	4.02*	Drift	2.65*	Drift	1.24	Runoff
Hops 2 × 250 g a.s./ha; BBCH 51	R1	pond	0.951	Drift	0.508	Drift	0.507	Drift	0.278	Drift	0.156	Drift
	R1	stream	7.51*	Drift	3.92*	Drift	3.92*	Drift	2.59*	Drift	1.18*	Drift
Hops 2 × 250 g a.s./ha; BBCH 89	R1	pond	0.930	Drift	0.496	Drift	0.496	Drift	0.271	Drift	0.150	Drift
	R1	stream	7.73*	Drift	4.03*	Drift	4.03*	Drift	2.66*	Drift	1.21*	Drift

Vegetative strip (m)			18 – 20[d]		0		0	
No spray buffer (m)			20		20		30	
Nozzle reduction (%)			0		50		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of**	**PEC_{SW} (µg/L)**	**Dominant Route of**	**PEC_{SW} (µg/L)**	**Dominant Route of**

Mitigation options								
				Entry		**Entry**		**Entry**
Hops 2 × 250 g a.s./ha; BBCH 21[b]	R1	pond	0.158	Drift	0.093	Drift	0.081	Drift
	R1	stream	1.21*	Drift	1.24	Runoff	1.24	Runoff
Hops 2 × 250 g a.s./ha; BBCH 51	R1	pond	0.154	Drift	0.079	Drift	0.067	Drift
	R1	stream	1.18*	Drift	0.589*	Drift	0.571*	Runoff
Hops 2 × 250 g a.s./ha; BBCH 89	R1	pond	0.150	Drift	0.075	Drift	0.063	Drift
	R1	stream	1.21*	Drift	0.606*	Drift	0.392*	Drift

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)
[d] equivalent to 80% runoff mitigation

Table A 187: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to hops using 5 m VFS mod, BBCH 11 – 49 – Maximum over single and multiple applications

Mitigation options				
Vegetative strip (m)			5 VFS mod	
No spray buffer (m)			0	
Nozzle reduction (%)			0	
Use	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Hops 2 × 250 g a.s./ha; BBCH 21	R1	pond	0.832	Drift
	R1	stream	9.44*	Drift
Hops 2 × 250 g a.s./ha; BBCH 51	R1	pond	0.826	Drift
	R1	stream	9.21*	Drift
Hops 2 × 250 g a.s./ha; BBCH 89	R1	pond	0.809	Drift
	R1	stream	9.46*	Drift

Greenhouse uses

Table A 188: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy – 0.1% drift

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	0.082	Drift	0.047	0.082	Drift	0.047
	D3 2nd	ditch	0.082	Drift	0.050	0.082	Drift	0.050
	D4	pond	0.646	Drainage	4.16	0.639	Drainage	4.20
	D4	stream	0.634	Drainage	1.64	0.634	Drainage	1.67
	D6	ditch	2.55	Drainage	2.45	2.55	Drainage	2.58
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	0.082	Drift	0.064	0.082	Drift	0.064
	D3 2nd	ditch	0.082	Drift	0.066	0.082	Drift	0.066
	D4	pond	1.35	Drainage	8.20	1.34	Drainage	8.27
	D4	stream	1.31	Drainage	3.21	1.31	Drainage	3.28
	D6	ditch	5.58	Drainage	5.17	5.58	Drainage	5.45
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	0.082	Drift	0.048	0.082	Drift	0.048
	D3 2nd	ditch	0.082	Drift	0.034	0.082	Drift	0.034
	D4	pond	0.388	Drainage	2.65	0.384	Drainage	2.66
	D4	stream	0.609	Drainage	0.958	0.609	Drainage	0.968
	D6	ditch	5.12	Drainage	5.62	5.11	Drainage	5.95
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	0.082	Drift	0.064	0.082	Drift	0.064
	D3 2nd	ditch	0.082	Drift	0.048	0.082	Drift	0.049
	D4	pond	1.39	Drainage	8.22	1.37	Drainage	8.24
	D4	stream	1.68	Drainage	3.28	1.68	Drainage	3.30
	D6	ditch	12.0	Drainage	13.3	12.0	Drainage	14.1

Table A 189: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – 0.1% drift

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	0.336	Drainage	0.364	0.336	Drainage	0.390
Vegetables,	D6	ditch	0.688	Drainage	0.753	0.688	Drainage	0.805

Application scenario	**Scenario**	**Water body**	**Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d**			**Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d**		
			PEC_{SW} (µg/L)	**Dominant Route of Entry**	**PEC_{SED} (µg/kg)**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SED} (µg/kg)**
fruiting 2 × 250 g a.s./ha, BBCH 11								
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	0.431	Drainage	0.475	0.431	Drainage	0.507
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.945	Drainage	1.05	0.945	Drainage	1.12
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	1.95	Drainage	1.51	1.95	Drainage	1.60
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.64	Drainage	3.04	3.64	Drainage	3.25

Table A 190: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy – 0.2% drift

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	0.164	Drift	0.091	0.164	Drift	0.091
	D3 2nd	ditch	0.165	Drift	0.098	0.165	Drift	0.098
	D4	pond	0.649	Drainage	4.22	0.642	Drainage	4.27
	D4	stream	0.634	Drainage	1.64	0.634	Drainage	1.67
	D6	ditch	2.55	Drainage	2.45	2.55	Drainage	2.58
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	0.165	Drift	0.123	0.165	Drift	0.124
	D3 2nd	ditch	0.165	Drift	0.127	0.165	Drift	0.127
	D4	pond	1.36	Drainage	8.31	1.34	Drainage	8.40
	D4	stream	1.31	Drainage	3.21	1.31	Drainage	3.28
	D6	ditch	5.58	Drainage	5.17	5.58	Drainage	5.46
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	0.164	Drift	0.093	0.164	Drift	0.093
	D3 2nd	ditch	0.164	Drift	0.067	0.164	Drift	0.067
	D4	pond	0.394	Drainage	2.73	0.390	Drainage	2.74
	D4	stream	0.609	Drainage	0.958	0.609	Drainage	0.969
	D6	ditch	5.12	Drainage	5.62	5.11	Drainage	5.95
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	0.165	Drift	0.123	0.165	Drift	0.124
	D3 2nd	ditch	0.164	Drift	0.094	0.164	Drift	0.094
	D4	pond	1.40	Drainage	8.37	1.39	Drainage	8.40
	D4	stream	1.68	Drainage	3.28	1.68	Drainage	3.30
	D6	ditch	12.0	Drainage	13.3	12.0	Drainage	14.1

Table A 191: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – 0.2% drift

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	0.336	Drainage	0.365	0.336	Drainage	0.391
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	0.688	Drainage	0.755	0.688	Drainage	0.807

Application scenario	**Scenario**	**Water body**	**Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d**			**Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d**		
			PEC_{SW} (µg/L)	**Dominant Route of Entry**	**PEC_{SED} (µg/kg)**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SED} (µg/kg)**
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	0.431	Drainage	0.476	0.431	Drainage	0.508
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.945	Drainage	1.05	0.945	Drainage	1.12
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	1.95	Drainage	1.51	1.95	Drainage	1.61
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.64	Drainage	3.04	3.64	Drainage	3.25

Table A 192: FOCUS Step 3 Summary Table, Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy - maximum over option 1 and option 2 – 0.1% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	0.082	Drift	0.047
	D3 2nd	ditch	0.082	Drift	0.050
	D4	pond	0.646	Drainage	4.20
	D4	stream	0.634	Drainage	1.67
	D6	ditch	2.55	Drainage	2.58
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	0.082	Drift	0.064
	D3 2nd	ditch	0.082	Drift	0.066
	D4	pond	1.35	Drainage	8.27
	D4	stream	1.31	Drainage	3.28
	D6	ditch	5.58	Drainage	5.45
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	0.082	Drift	0.048
	D3 2nd	ditch	0.082	Drift	0.034
	D4	pond	0.388	Drainage	2.66
	D4	stream	0.609	Drainage	0.968
	D6	ditch	5.12	Drainage	5.95
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	0.082	Drift	0.064
	D3 2nd	ditch	0.082	Drift	0.049
	D4	pond	1.39	Drainage	8.24
	D4	stream	1.68	Drainage	3.30
	D6	ditch	12.0	Drainage	14.1

[a] maximum over option 1 and 2

Table A 193: FOCUS Step 3 Summary Table, Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – maximum over option 1 and option 2 – 0.1% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	0.336	Drainage	0.390
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	0.688	Drainage	0.805
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	0.431	Drainage	0.507
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.945	Drainage	1.12

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	1.95	Drainage	1.60
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.64	Drainage	3.25

[a] maximum over option 1 and 2

Table A 194: FOCUS Step 3 Summary Table, PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy - maximum over option 1 and option 2 – 0.2% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	0.164	Drift	0.091
	D3 2nd	ditch	0.165	Drift	0.098
	D4	pond	0.649	Drainage	4.27
	D4	stream	0.634	Drainage	1.67
	D6	ditch	2.55	Drainage	2.58
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	0.165	Drift	0.124
	D3 2nd	ditch	0.165	Drift	0.127
	D4	pond	1.36	Drainage	8.40
	D4	stream	1.31	Drainage	3.28
	D6	ditch	5.58	Drainage	5.46
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	0.164	Drift	0.093
	D3 2nd	ditch	0.164	Drift	0.067
	D4	pond	0.394	Drainage	2.74
	D4	stream	0.609	Drainage	0.969
	D6	ditch	5.12	Drainage	5.95
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	0.165	Drift	0.124
	D3 2nd	ditch	0.164	Drift	0.094
	D4	pond	1.40	Drainage	8.40
	D4	stream	1.68	Drainage	3.30
	D6	ditch	12.0	Drainage	14.1

[a] maximum over option 1 and 2

Table A 195: FOCUS Step 3 Summary Table, Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – maximum over option 1 and option 2 – 0.2% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	0.336	Drainage	0.391
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	0.688	Drainage	0.807
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	0.431	Drainage	0.508
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.945	Drainage	1.12
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	1.95	Drainage	1.61
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.64	Drainage	3.25

[a] maximum over option 1 and 2

A 3.12 KCP 9.2.5: Anagu, I. & Langa Peñalba, 2021, Azoxystrobin PEC$_{SW}$ following application to various crops - Geometric Mean Sorption Endpoints

Comments of zRMS:	All input parameters and presented PEC$_{sw}$ for azoxystrobin were considered acceptable.

Reference:	KCP 9.2.5.
Report	Azoxystrobin - A European Environmental Fate Assessment Using the FOCUS Surface Water Models at Steps 3 to 4 Following Spray Application to Various Crops Using Geometric Mean Sorption Endpoints Report No. 116223-4, (Syngenta File No VV-911804)
Guideline(s):	EFSA (2014). EFSA Guidance Document on clustering and ranking of emissions of active substances of plant protection products and transformation products of these active substances from protected crops (greenhouses and crops grown under cover) to relevant environmental compartments. EFSA Journal 2014; 12(3):3615, 43 pp. FOCUS (2001). FOCUS Surface Water Scenarios in the EU Evaluation Process under 91/414/EEC. Report of the FOCUS Working Group on Surface Water Scenarios, EC Document Reference SANCO/4802/2001 rev. 2. FOCUS (2007). Landscape and mitigation factors in aquatic ecological risk assessment. Volume 1. Extended summary and recommendations, the final report of the FOCUS working group on landscape and mitigation factors in ecological risk assessment, EC document reference SANCO/10422/2005, version 2.0, September 2007. FOCUS (2015). Generic Guidance for FOCUS Surface Water Scenarios, version 1.4.
Deviations:	No
GLP:	Not applicable
Acceptability:	Yes/No/Supplementary

A 3.12.1 Materials and methods

This report describes a FOCUS modelling study that examined the potential for azoxystrobin to reach surface water following field (foliar) and greenhouse applications to vegetables (leafy, fruiting and bulb) and hops. The FOCUS tool SWASH (v 5.3), including the operational models FOCUS-MACRO (v 5.5.4), FOCUS-PRZM (v 4.3.1) and FOCUS-TOXSWA (v 5.5.3), were used in the modelling study for Step 3 simulations. The ECPA tool SWAN (v 5.0.0) was used to implement mitigation options at Step 4.

Twofold applications at the rate of 250 g a.s./ha were considered. Applications starting from approximately BBCH 11 with an interval of 7 days between applications were considered for vegetables, leafy. A single application at the rate of 250 g a.s./ha from approximately BBCH 09 was additionally considered for vegetables, leafy. Applications were considered to take place from approximately BBCH 11 with an interval of 7 days between applications for vegetables, fruiting and 12 days for vegetables, bulb. For hops, applications from approximately BBCH 21 with an interval of 12 days between applications were considered. Due to the wide BBCH range, simulations were carried out for possible applications at early

(BBCH 09, 11 or 21), middle (BBCH 41, 51 or 53) and late (BBCH 49, 81 or 89) stages, depending on the crop. The input parameters relating to applications are shown below.

Table A 196: Input parameters related to application for $PEC_{SW/SED}$ calculations

Use numbers	ES-75	ES-56 (covers BG-68)	ES-61	ES-80	-	-	-
Crop	Vegetables, leafy	Vegetables, leafy	Vegetables, fruiting	Vegetables, fruiting	Vegetables, bulb	Vegetables, bulb	Hops[a]
Application rate (g a.s./ha)	250	250	250	250	250	250	250
Number of applications/ interval (d)	1 / -	2 / 7	2 / 7	2 / 7	2 / 12	2 / 7	2 / 12
BBCH growth stage	9 – 13	11 – 49	11 – 89	11 – 81	11 – 89	41 – 49	21 – 89
Application method	Ground spray	Ground spray	Ground spray	Ground spray	Ground spray	Ground spray	Airblast
CAM (Chemical application method)	2 (application foliar linear)						
Soil depth (cm)	4 (default)						
Models used for calculation	FOCUS SWASH v5.3, FOCUS PRZM v4.3.1, FOCUS MACRO v5.5.4, FOCUS TOXWA v5.5.3, SWAN v5.0.0						

[a] Vines, late was used as a surrogate crop for the R3 and R4 scenarios to fulfil the national requirements for Italy

Ground spray application (foliar spray) was considered as the application method in the simulations for vegetables (leafy, fruiting and bulb) while air blast was considered as the application method in the simulations for hops. Crop interception at Step 3 is calculated internally by the model on the basis of the maximum interception capacity and the actual leaf area index.

An application window has to be specified from which the Pesticide Application Timer (PAT), internal to the model, determines actual application dates which were set generically for all scenarios. The application dates for the early and intermediate applications were selected with the tool AppDate (v3.06) based on BBCH growth stages given in the recommended GAP. For the late applications, the end of the application window was set to the harvest date. Simulations were carried out using the FOCUS standard crops 'vegetables, leafy', 'vegetables, fruiting', 'vegetables, bulb', 'hops'. For hops, 'vines, late' was additionally used as a surrogate crop for the R3 and R4 scenarios in accordance with the national requirements for Italy. Application windows are presented in **Table A 197**, below.

Table A 197: FOCUS Step 3 Scenario related input parameters for $PEC_{SW/SED}$ calculations for the application of azoxystrobin to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops

Crop	Rationale	Scenario	Azoxystrobin			
			Application window used in modelling			
			Single application		Multiple applications	
			Start of Window	End of Window	Start of Window	End of Window
Vegetables, leafy, BBCH 9 – 13 1 x 250 g a.s./ha, BBCH 9	Start of window at BBCH 9 (AppDate 3.06)	D3	25-Apr (115)	25-May (145)	-	-
		D3	5-Aug (217)	4-Sep (247)	-	-
		D4	10-May (130)	9-Jun (160)	-	-
		D6	15-Aug (227)	14-Sep (257)	-	-
		R1	20-Apr (110)	20-May (140)	-	-
		R1	31-Jul (212)	30-Aug (242)	-	-
		R2	28-Feb (59)	30-Mar (89)	-	-
		R2	31-Jul (212)	30-Aug (242)	-	-
		R3	1-Mar (60)	31-Mar (90)	-	-
		R3	15-Jun (166)	15-Jul (196)	-	-
		R4	1-Mar (60)	31-Mar (90)	-	-
		R4	15-Jun (166)	15-Jul (196)	-	-
Vegetables, leafy, BBCH 11 – 49 2 x 250 g a.s./ha; 7 days interval, BBCH 11	Start of window at BBCH 11 (AppDate 3.06)	D3	30-Apr (120)	30-May (150)	30-Apr (120)	6-Jun (157)
		D3	10-Aug (222)	9-Sep (252)	10-Aug (222)	16-Sep (259)
		D4	18-May (138)	17-Jun (168)	18-May (138)	24-Jun (175)
		D6	21-Aug (233)	20-Sep (263)	21-Aug (233)	27-Sep (270)
		R1	25-Apr (115)	25-May (145)	25-Apr (115)	1-Jun (152)
		R1	5-Aug (217)	4-Sep (247)	5-Aug (217)	11-Sep (254)
		R2	9-Mar (68)	8-Apr (98)	9-Mar (68)	15-Apr (105)
		R2	4-Aug (216)	3-Sep (246)	4-Aug (216)	10-Sep (253)
		R3	8-Mar (67)	7-Apr (97)	8-Mar (67)	14-Apr (104)
		R3	22-Jun (173)	22-Jul (203)	22-Jun (173)	29-Jul (210)
		R4	8-Mar (67)	7-Apr (97)	8-Mar (67)	14-Apr (104)
		R4	22-Jun (173)	22-Jul (203)	22-Jun (173)	29-Jul (210)
Vegetables, leafy, BBCH 11 – 49 2 × 250 g a.s./ha; 7 days interval, BBCH 49	End of window at harvest	D3	20-Jun (171)	20-Jul (201)	13-Jun (164)	20-Jul (201)
		D3	20-Sep (263)	20-Oct (293)	13-Sep (256)	20-Oct (293)
		D4	27-Aug (239)	26-Sep (269)	20-Aug (232)	26-Sep (269)
		D6	31-Oct (304)	30-Nov (334)	24-Oct (297)	30-Nov (334)
		R1	15-Jun (166)	15-Jul (196)	8-Jun (159)	15-Jul (196)
		R1	15-Sep (258)	15-Oct (288)	8-Sep (251)	15-Oct (288)
		R2	1-Jun (152)	1-Jul (182)	25-May (145)	1-Jul (182)

Crop	Rationale	Scenario	Azoxystrobin			
			Application window used in modelling			
			Single application		Multiple applications	
			Start of Window	End of Window	Start of Window	End of Window
		R2	16-Oct (289)	15-Nov (319)	9-Oct (282)	15-Nov (319)
		R3	2-May (122)	1-Jun (152)	25-Apr (115)	1-Jun (152)
		R3	16-Aug (228)	15-Sep (258)	9-Aug (221)	15-Sep (258)
		R4	2-May (122)	1-Jun (152)	25-Apr (115)	1-Jun (152)
		R4	16-Aug (228)	15-Sep (258)	9-Aug (221)	15-Sep (258)
Vegetables, fruiting, BBCH 11 – 81/89 2 × 250 g a.s./ha; 7 days interval, BBCH 11	Start of window at BBCH 11 (AppDate 3.06)	D6	13-Apr (103)	13-May (133)	13-Apr (103)	20-May (140)
		R2	19-Mar (78)	18-Apr (108)	19-Mar (78)	25-Apr (115)
		R3	13-May (133)	12-Jun (163)	13-May (133)	19-Jun (170)
		R4	23-Apr (113)	23-May (143)	23-Apr (113)	30-May (150)
Vegetables, fruiting, BBCH 11 – 81/89 2 × 250 g a.s./ha; 7 days interval, BBCH 51	Start of window at BBCH 51 (AppDate 3.06)	D6	15-May (135)	14-Jun (165)	15-May (135)	21-Jun (172)
		R2	19-May (139)	18-Jun (169)	19-May (139)	25-Jun (176)
		R3	15-Jun (166)	15-Jul (196)	15-Jun (166)	22-Jul (203)
		R4	26-May (146)	25-Jun (176)	26-May (146)	2-Jul (183)
Vegetables, fruiting, BBCH 11 – 81/89 2 × 250 g a.s./ha; 7 days interval, BBCH 81	End of window at BBCH 81 (AppDate 3.06)	D6	19-Jun (170)	19-Jul (200)	12-Jun (163)	19-Jul (200)
		R2	9-Jul (190)	8-Aug (220)	2-Jul (183)	8-Aug (220)
		R3	9-Jul (190)	8-Aug (220)	2-Jul (183)	8-Aug (220)
		R4	5-Jun (156)	5-Jul (186)	29-May (149)	5-Jul (186)
Vegetables, fruiting, BBCH 11 – 81/89 2 × 250 g a.s./ha; 7 days interval, BBCH 89	End of window at harvest	D6	11-Jul (192)	10-Aug (222)	4-Jul (185)	10-Aug (222)
		R2	1-Aug (213)	31-Aug (243)	25-Jul (206)	31-Aug (243)
		R3	26-Jul (207)	25-Aug (237)	19-Jul (200)	25-Aug (237)
		R4	15-Jun (166)	15-Jul (196)	8-Jun (159)	15-Jul (196)
Vegetables, bulb, BBCH 11 - 49 2 × 250 g a.s./ha; 12 days interval, BBCH 11	Start of window at BBCH 11 (AppDate 3.06)	D3	3-May (123)	2-Jun (153)	3-May (123)	14-Jun (165)
		D4	2-May (122)	1-Jun (152)	2-May (122)	13-Jun (164)
		D6	16-May (136)	15-Jun (166)	16-May (136)	27-Jun (178)
		D6	4-Nov (308)	4-Dec (338)	4-Nov (308)	16-Dec (350)
		R1	28-Apr (118)	28-May (148)	28-Apr (118)	9-Jun (160)
		R2	9-Mar (68)	8-Apr (98)	9-Mar (68)	20-Apr (110)
		R3	9-Mar (68)	8-Apr (98)	9-Mar (68)	20-Apr (110)
		R4	9-Mar (68)	8-Apr (98)	9-Mar (68)	20-Apr (110)
Vegetables, bulb, BBCH 11 - 49	End of window at harvest	D3	2-Aug (214)	1-Sep (244)	21-Jul (202)	1-Sep (244)
		D4	14-Aug (226)	13-Sep (256)	2-Aug (214)	13-Sep (256)
		D6	1-Jul (182)	31-Jul (212)	19-Jun (170)	31-Jul (212)

Crop	Rationale	Scenario	Azoxystrobin			
			Application window used in modelling			
			Single application		Multiple applications	
			Start of Window	End of Window	Start of Window	End of Window
2 × 250 g a.s./ha; 12 days interval, BBCH 49		D6	11-Mar (70)	10-Apr (100)	27-Feb (58)	10-Apr (100)
		R1	26-Jul (207)	25-Aug (237)	14-Jul (195)	25-Aug (237)
		R2	1-May (121)	31-May (151)	19-Apr (109)	31-May (151)
		R3	1-May (121)	31-May (151)	19-Apr (109)	31-May (151)
		R4	1-May (121)	31-May (151)	19-Apr (109)	31-May (151)
Vegetables, bulb, BBCH 41 - 49 2 × 250 g a.s./ha; 12 days interval, BBCH 41	Start of window at BBCH 41 (AppDate 3.06)	D3	6-Jul (187)	5-Aug (217)	6-Jul (187)	17-Aug (229)
		D4	17-Jul (198)	16-Aug (228)	17-Jul (198)	28-Aug (240)
		D6	3-Jul (184)	2-Aug (214)	3-Jul (184)	14-Aug (226)
		D6	13-Mar (72)	12-Apr (102)	13-Mar (72)	24-Apr (114)
		R1	1-Jul (182)	31-Jul (212)	1-Jul (182)	12-Aug (224)
		R2	17-May (137)	16-Jun (167)	17-May (137)	28-Jun (179)
		R3	17-May (137)	16-Jun (167)	17-May (137)	28-Jun (179)
		R4	17-May (137)	16-Jun (167)	17-May (137)	28-Jun (179)
Hops BBCH 21 - 89 2 × 250 g a.s./ha; 12 days interval, BBCH 21	Start of window at BBCH 21[a] (AppDate 3.06)	R1	15-May (135)	14-Jun (165)	15-May (135)	26-Jun (177)
		R3[b]	8-May (128)	7-Jun (158)	8-May (128)	19-Jun (170)
		R4[b]	19-Apr (109)	19-May (139)	19-Apr (109)	31-May (151)
Hops BBCH 21 - 89 2 × 250 g a.s./ha; 12 days interval, BBCH 51	Start of window at BBCH 51 (AppDate 3.06)	R1	7-Jul (188)	6-Aug (218)	7-Jul (188)	18-Aug (230)
		R3[b]	24-May (144)	23-Jun (174)	24-May (144)	5-Jul (186)
		R4[b]	7-May (127)	6-Jun (157)	7-May (127)	18-Jun (169)
Hops BBCH 21 - 89 2 × 250 g a.s./ha; 12 days interval, BBCH 89	End of window at harvest	R1	2-Aug (214)	1-Sep (244)	21-Jul (202)	1-Sep (244)
		R3[b]	2-Oct (275)	01-Nov (305)	20-Sep (263)	01-Nov (305)
		R4[b]	21-Aug (233)	20-Sep (263)	09-Aug (221)	20-Sep (263)

Numbers in brackets are the corresponding 'Julian Day' numbers
[a] BBCH 19 was used as BBCH 21 is not listed in the AppDate Tool
[b] vines was used as the surrogate crop in R3 and R4 scenarios

Due to the statistical nature of the drift implementation at Step 3 (FOCUS, 2001, 2015), the loading to the water body for a single application is higher than the loading from an individual event from a multiple application pattern, which can therefore generate a higher global maximum PEC_{SW} value. All values are presented but where the single application results in a higher instantaneous PEC, this is highlighted in the summary table.

As the surrogate crop for hops, the drift rates for vines, late were manually adjusted to those of hops at Step 3 and Step 4.

Step 4 calculations were carried out for all the scenarios with the following mitigation methods:

- spray drift reduction by non-sprayed buffer strips of 10 m, 20 m and runoff reduction using vegetated buffer strips of 10 m and 20 m using runoff and erosion reduction values as given by the FOCUS Working Group on Landscape and Mitigation Factors (2007)
- runoff/erosion reduction of 60/85% for 10 m, and 80/95% for 20 m

In order to simulate conditions in greenhouses, drift entries to surface water were amended with drift rates of 0.1% and 0.2% of the dose rate at Step 3 (EFSA, 2014a). As entry via runoff is not expected to occur in greenhouses, only the FOCUS D scenarios were considered.

The input parameters for azoxystrobin used in the modelling are shown in **Table A 198**. In accordance with FOCUS guidance (FOCUS 2015), since the K_{FOC} value of azoxystrobin is between 100 – 2000 mL/g calculations were run twice with two different parameter sets for degradation in water and sediment. In Option 1 the measured whole system DT_{50} was used to describe the degradation in sediment together with the default value of 1000 days for water. In Option 2 these DT_{50} values were reversed.

Table A 198: Input parameters related to active substance azoxystrobin for $PEC_{SW/SED}$ calculations

Compound	Azoxystrobin	Value in accordance with EU endpoint / Reference
Molar mass (g/mol)	403.4	Yes / EFSA, 2010
Water solubility (mg/L)	6.0 (20°C)	Yes / EFSA, 2010
Saturated vapour pressure (Pa)	1.1×10^{-10} (20 °C)	Yes / EFSA, 2010
K_{FOC} (mL/g)	392 (geometric mean, n = 6)	No[a] / EFSA, 2010 K_{FOM} calculated from K_{FOC} $K_{FOM} = K_{FOC}$ / 1.724
Freundlich Exponent 1/n	0.86 (arithmetic mean, n = 6)	Yes / EFSA, 2010
Plant Uptake	0.5	* Yes / DAR 2014 & Weinfurtner, 2013
$DT_{50,soil}$ (d)	78[b] (geometric mean field , n = 13)	Yes / EFSA, 2010
$DT_{50,water}$ (d)	**Option 1:** 1000*c **Option 2:** 205**c (geometric mean, total system, n = 2)	*FOCUS default **Yes / EFSA, 2010
$DT_{50,sed}$ (d)	**Option 1:** 205*c (geometric mean, total system, n = 2) **Option 2:** 1000**c	*Yes / EFSA, 2010 **FOCUS default

[a] differs from the EFSA conclusion as the latest guideline (EFSA Journal 2014;12(5):3662) recommends the use of the geometric mean instead of the arithmetic mean or median. The individual values from which the geometric mean is calculated, are those established in azoxystrobin, EFSA Journal 2010; 8(4):1542 and DAR (2014)
[b] calculated from the geometric mean of the soil incorporated field studies (80.2 days, n = 3) and the slow phase of the non-incorporated studies (75.9 days, n = 10)
[c] for compounds with K_{OC} between 100 and 2000 mL/g , the FOCUS kinetics advice regarding running simulations with both combinations for ascribing the whole system DT_{50} and default and selecting the results that give the highest concentrations for the risk assessment should be followed

A 1.1.1 Results and discussions

Predicted environmental concentrations in surface water (PEC_{SW}) and sediment (PEC_{SED}) were calculated for the use of azoxystrobin on vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops in Europe in accordance with FOCUS guidelines.

The results are presented in the tables below in the following order:

Field uses:

FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Option 1 and Option 2

FOCUS Application dates and global maximum timing

FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Maximum over Option 1 and Option 2

FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Maximum over single and multiple applications

FOCUS Step 4 PEC_{SW} and PEC_{SED} for azoxystrobin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Option 1 and Option 2

FOCUS Step 4 PEC_{SW} and PEC_{SED} for azoxystrobin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Maximum over Option 1 and Option 2

FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – Maximum over single and multiple applications

Greenhouse uses:

FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following applications to vegetables, leafy and vegetables, fruiting, Option 1 and Option 2 – 0.1% drift

FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following applications to vegetables, leafy and vegetables, fruiting, Option 1 and Option 2 – 0.2% drift

Field uses:

Table A 199: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 9	D3	ditch	1.58	Drift	0.774	1.58	Drift	0.775
	D3 2nd	ditch	1.59	Drift	0.828	1.59	Drift	0.828
	D4	pond	0.656	Drainage	4.10	0.649	Drainage	4.14
	D4	stream	1.25	Drift	1.58	1.25	Drift	1.61
	D6	ditch	2.14	Drainage	2.17	2.14	Drainage	2.31
	R1	pond	0.218	Runoff	1.35	0.216	Runoff	1.36
	R1 2nd	pond	0.184	Runoff	1.45	0.179	Runoff	1.44
	R1	stream	2.29	Runoff	0.850	2.29	Runoff	0.851
	R1 2nd	stream	1.92	Runoff	0.960	1.92	Runoff	0.961
	R2	stream	1.37	Drift	0.747	1.37	Drift	0.762
	R2 2nd	stream	1.40	Drift	1.44	1.40	Drift	1.45
	R3	stream	4.61	Runoff	1.85	4.61	Runoff	1.85
	R3 2nd	stream	3.92	Runoff	2.62	3.92	Runoff	2.62
	R4	stream	1.59	Runoff	0.752	1.59	Runoff	0.753
	R4 2nd	stream	5.63	Runoff	2.67	5.63	Runoff	2.67
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58	Drift	0.774	1.58	Drift	0.775
	D3 2nd	ditch	1.59	Drift	0.828	1.59	Drift	0.828
	D4	pond	0.666	Drainage	4.16	0.659	Drainage	4.20
	D4	stream	1.26	Drift	1.60	1.26	Drift	1.64
	D6	ditch	2.51	Drainage	2.41	2.51	Drainage	2.55
	R1	pond	0.218	Runoff	1.35	0.216	Runoff	1.36
	R1 2nd	pond	0.184	Runoff	1.45	0.179	Runoff	1.45
	R1	stream	2.29	Runoff	0.850	2.29	Runoff	0.851
	R1 2nd	stream	1.92	Runoff	0.960	1.92	Runoff	0.961
	R2	stream	1.38	Drift	2.07	1.38	Drift	2.07
	R2 2nd	stream	1.40	Drift	1.44	1.40	Drift	1.45
	R3	stream	3.50	Runoff	1.23	3.50	Runoff	1.23
	R3 2nd	stream	3.51	Runoff	2.49	3.51	Runoff	2.50
	R4	stream	1.61	Runoff	0.760	1.61	Runoff	0.761
	R4 2nd	stream	5.63	Runoff	2.67	5.63	Runoff	2.67
Vegetables, leafy	D3	ditch	1.39	Drift	0.905	1.39	Drift	0.908

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
2 × 250 g a.s./ha, BBCH 11	D3 2nd	ditch	1.39	Drift	0.929	1.39	Drift	0.934
	D4	pond	1.38	Drainage	8.13	1.37	Drainage	8.20
	D4	stream	1.33	Drainage	3.16	1.33	Drainage	3.23
	D6	ditch	5.43	Drainage	4.98	5.43	Drainage	5.27
	R1	pond	0.435	Runoff	2.44	0.431	Runoff	2.46
	R1 2nd	pond	0.372	Runoff	2.82	0.361	Runoff	2.81
	R1	stream	4.87	Runoff	1.75	4.87	Runoff	1.75
	R1 2nd	stream	4.40	Runoff	2.18	4.40	Runoff	2.19
	R2	stream	2.70	Runoff	4.91	2.70	Runoff	4.92
	R2 2nd	stream	1.36	Runoff	2.66	1.36	Runoff	2.67
	R3	stream	4.31	Runoff	2.57	4.31	Runoff	2.58
	R3 2nd	stream	5.96	Runoff	4.73	5.96	Runoff	4.78
	R4	stream	6.49	Runoff	3.07	6.49	Runoff	3.07
	R4 2nd	stream	8.69	Runoff	4.75	8.69	Runoff	4.78
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	1.59	Drift	0.787	1.59	Drift	0.787
	D3 2nd	ditch	1.58	Drift	0.581	1.58	Drift	0.581
	D4	pond	0.496	Drainage	3.17	0.491	Drainage	3.18
	D4	stream	1.13	Drift	1.19	1.13	Drift	1.20
	D6	ditch	5.96	Drainage	6.06	5.96	Drainage	6.39
	R1	pond	0.626	Runoff	3.23	0.616	Runoff	3.16
	R1 2nd	pond	0.275	Runoff	1.70	0.272	Runoff	1.71
	R1	stream	2.39	Runoff	2.74	2.39	Runoff	2.75
	R1 2nd	stream	1.46	Runoff	0.529	1.46	Runoff	0.533
	R2	stream	1.40	Drift	2.02	1.40	Drift	2.16
	R2 2nd	stream	1.39	Drift	2.80	1.39	Drift	2.83
	R3	stream	2.77	Runoff	2.18	2.77	Runoff	2.24
	R3 2nd	stream	2.67	Runoff	2.29	2.67	Runoff	2.29
	R4	stream	3.43	Runoff	2.22	3.43	Runoff	2.23
	R4 2nd	stream	3.58	Runoff	2.32	3.58	Runoff	2.32
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.39	Drift	0.903	1.39	Drift	0.908
	D3 2nd	ditch	1.38	Drift	0.699	1.38	Drift	0.701
	D4	pond	1.69	Drainage	9.35	1.67	Drainage	9.38
	D4	stream	1.83	Drainage	3.73	1.83	Drainage	3.76
	D6	ditch	12.9	Drainage	13.3	12.9	Drainage	14.1

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
	R1	pond	0.929	Runoff	5.20	0.919	Runoff	5.09
	R1 2nd	pond	0.677	Runoff	3.85	0.669	Runoff	3.86
	R1	stream	5.04	Runoff	4.64	5.04	Runoff	4.67
	R1 2nd	stream	3.91	Runoff	1.41	3.91	Runoff	1.42
	R2	stream	1.87	Runoff	4.38	1.87	Runoff	4.39
	R2 2nd	stream	1.50	Runoff	4.18	1.50	Runoff	4.24
	R3	stream	4.54	Runoff	2.69	4.54	Runoff	2.73
	R3 2nd	stream	5.85	Runoff	7.52	5.85	Runoff	7.59
	R4	stream	7.35	Runoff	3.93	7.35	Runoff	3.94
	R4 2nd	stream	7.15	Runoff	4.72	7.15	Runoff	4.74

Table A 200: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	1.56	Drift	0.422	1.56	Drift	0.429
	R2	stream	1.38	Drift	2.02	1.38	Drift	2.03
	R3	stream	4.22	Runoff	1.60	4.22	Runoff	1.60
	R4	stream	5.99	Runoff	2.89	5.99	Runoff	2.89
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	1.37	Drift	0.760	1.37	Drift	0.310
	R2	stream	1.81	Runoff	2.02	1.81	Runoff	0.321
	R3	stream	4.24	Runoff	2.68	4.24	Runoff	0.551
	R4	stream	8.73	Runoff	4.63	8.73	Runoff	1.30
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	1.58	Drift	0.569	1.58	Drift	0.582
	R2	stream	1.40	Drift	1.77	1.40	Drift	1.77
	R3	stream	2.42	Runoff	1.95	2.42	Runoff	1.96
	R4	stream	3.01	Runoff	1.42	3.01	Runoff	1.42
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	1.38	Drift	1.04	1.38	Drift	1.12
	R2	stream	2.03	Runoff	3.74	2.03	Runoff	3.74
	R3	stream	5.91	Runoff	4.40	5.91	Runoff	4.40
	R4	stream	7.56	Runoff	3.52	7.56	Runoff	3.52
Vegetables, fruiting	D6	ditch	1.58	Drift	1.04	1.58	Drift	1.11
	R2	stream	1.40	Drift	3.74	1.40	Drift	3.86

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
1 × 250 g a.s./ha, BBCH 81	R3	stream	4.29	Runoff	3.46	4.29	Runoff	3.47
	R4	stream	6.24	Runoff	3.03	6.24	Runoff	3.04
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 81	D6	ditch	2.44	Drainage	2.38	2.44	Drainage	2.51
	R2	stream	1.21	Drift	3.86	1.21	Drift	3.98
	R3	stream	5.90	Runoff	5.29	5.90	Runoff	5.40
	R4	stream	7.81	Runoff	3.62	7.81	Runoff	3.63
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	2.07	Drainage	1.65	2.07	Drainage	1.76
	R2	stream	1.40	Drift	2.42	1.40	Drift	2.50
	R3	stream	2.75	Runoff	2.46	2.75	Runoff	2.55
	R4	stream	3.94	Runoff	2.09	3.94	Runoff	2.11
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.66	Drainage	3.19	3.66	Drainage	3.43
	R2	stream	1.21	Drift	4.60	1.21	Drift	4.76
	R3	stream	5.76	Runoff	5.53	5.76	Runoff	5.59
	R4	stream	6.77	Runoff	3.80	6.77	Runoff	3.81

Table A 201: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, bulb

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58	Drift	0.779	1.58	Drift	0.779
	D4	pond	0.617	Drainage	3.87	0.611	Drainage	3.91
	D4	stream	1.22	Drift	1.48	1.22	Drift	1.51
	D6	ditch	1.61	Drift	1.29	1.61	Drift	1.32
	D6 2nd	ditch	4.52	Drainage	4.27	4.52	Drainage	4.80
	R1	pond	0.211	Runoff	1.17	0.208	Runoff	1.18
	R1	stream	2.22	Runoff	0.935	2.22	Runoff	0.938
	R2	stream	1.38	Drift	2.06	1.38	Drift	2.07
	R3	stream	3.51	Runoff	1.23	3.51	Runoff	1.23
	R4	stream	5.98	Runoff	2.80	5.98	Runoff	2.80
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	1.39	Drift	0.890	1.39	Drift	0.895
	D4	pond	1.30	Drainage	7.65	1.28	Drainage	7.72
	D4	stream	1.24	Drainage	2.95	1.24	Drainage	3.01

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
	D6	ditch	2.53	Drainage	2.32	2.53	Drainage	2.59
	D6 2nd	ditch	13.1	Drainage	13.3	13.1	Drainage	14.4
	R1	pond	0.482	Runoff	2.47	0.477	Runoff	2.48
	R1	stream	5.57	Runoff	2.19	5.57	Runoff	2.19
	R2	stream	2.57	Runoff	3.75	2.57	Runoff	3.76
	R3	stream	4.40	Runoff	2.57	4.40	Runoff	2.58
	R4	stream	6.32	Runoff	3.45	6.32	Runoff	3.47
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 49	D3	ditch	1.59	Drift	0.788	1.59	Drift	0.789
	D4	pond	0.630	Drainage	3.93	0.624	Drainage	3.95
	D4	stream	1.13	Drift	1.46	1.13	Drift	1.48
	D6	ditch	1.60	Drift	2.27	1.60	Drift	2.30
	D6 2nd	ditch	1.61	Drift	1.54	1.61	Drift	1.55
	R1	pond	0.099	Runoff	0.769	0.096	Runoff	0.769
	R1	stream	1.03	Drift	0.349	1.03	Drift	0.350
	R2	stream	1.40	Drift	2.58	1.40	Drift	2.59
	R3	stream	3.53	Runoff	1.40	3.53	Runoff	1.41
	R4	stream	4.69	Runoff	2.39	4.69	Runoff	2.40
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.39	Drift	0.890	1.39	Drift	0.895
	D4	pond	1.58	Drainage	9.18	1.56	Drainage	9.24
	D4	stream	1.72	Drainage	3.51	1.72	Drainage	3.58
	D6	ditch	1.90	Drainage	3.30	1.90	Drainage	3.41
	D6 2nd	ditch	1.47	Drift	1.94	1.47	Drift	2.17
	R1	pond	0.236	Runoff	1.67	0.230	Runoff	1.67
	R1	stream	2.76	Runoff	0.951	2.76	Runoff	0.953
	R2	stream	2.01	Runoff	3.65	2.01	Runoff	3.67
	R3	stream	5.21	Runoff	2.17	5.21	Runoff	2.17
	R4	stream	6.57	Runoff	3.85	6.57	Runoff	3.86
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 41	D3	ditch	1.58	Drift	0.773	1.58	Drift	0.773
	D4	pond	1.05	Drainage	6.03	1.04	Drainage	6.06
	D4	stream	1.12	Drift	2.38	1.12	Drift	2.40
	D6	ditch	1.60	Drift	2.27	1.60	Drift	2.31
	D6 2nd	ditch	1.61	Drift	1.54	1.61	Drift	1.55
	R1	pond	0.141	Runoff	0.864	0.140	Runoff	0.857
	R1	stream	2.75	Runoff	1.18	2.75	Runoff	1.18

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
	R2	stream	1.40	Drift	4.89	1.40	Drift	4.90
	R3	stream	3.53	Runoff	1.40	3.53	Runoff	1.41
	R4	stream	1.01	Drift	0.505	1.01	Drift	0.507
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 41	D3	ditch	1.39	Drift	0.839	1.39	Drift	0.845
	D4	pond	2.06	Drainage	11.5	2.04	Drainage	11.6
	D4	stream	2.06	Drainage	4.46	2.06	Drainage	4.53
	D6	ditch	1.75	Drainage	3.30	1.75	Drainage	3.43
	D6 2nd	ditch	1.45	Drift	2.16	1.45	Drift	2.38
	R1	pond	0.158	Drift	1.37	0.155	Drift	1.37
	R1	stream	2.75	Runoff	1.18	2.75	Runoff	1.18
	R2	stream	2.49	Runoff	15.2	2.49	Runoff	15.2
	R3	stream	3.53	Runoff	1.39	3.53	Runoff	1.39
	R4	stream	3.96	Runoff	1.85	3.96	Runoff	1.85

Table A 202: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to hops

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Hops 1 × 250 g a.s./ha, BBCH 21[a]	R1	pond	0.657	Drift	2.57	0.657	Drift	2.54
	R1	stream	9.44	Drift	1.24	9.44	Drift	1.24
	R3[b]	stream	11.0	Drift	1.78	11.0	Drift	1.78
	R4[b]	stream	7.73	Drift	1.53	7.73	Drift	1.54
Hops 2 × 250 g a.s./ha, BBCH 21[a]	R1	pond	0.849	Drift	3.60	0.843	Drift	3.60
	R1	stream	7.82	Drift	1.06	7.82	Drift	1.06
	R3[b]	stream	9.43	Drift	2.34	9.43	Drift	2.34
	R4[b]	stream	6.56	Drift	1.52	6.56	Drift	1.52
Hops 1 × 250 g a.s./ha, BBCH 51	R1	pond	0.657	Drift	2.62	0.657	Drift	2.55
	R1	stream	9.21	Drift	0.718	9.21	Drift	0.718
	R3[b]	stream	11.1	Drift	2.42	11.1	Drift	2.42
	R4[b]	stream	7.73	Drift	1.64	7.73	Drift	1.65
Hops 2 × 250 g a.s./ha, BBCH 51	R1	pond	0.830	Drift	3.69	0.819	Drift	3.59
	R1	stream	7.81	Drift	0.748	7.81	Drift	0.752
	R3[b]	stream	9.43	Drift	2.44	9.43	Drift	2.45

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
	R4[b]	stream	6.56	Drift	1.63	6.56	Drift	1.63
Hops 1 × 250 g a.s./ha, BBCH 89	R1	pond	0.657	Drift	2.74	0.657	Drift	2.67
	R1	stream	9.46	Drift	1.32	9.46	Drift	1.32
	R3[b]	stream	11.1	Drift	2.42	11.1	Drift	2.42
	R4[b]	stream	7.89	Drift	1.44	7.89	Drift	1.45
Hops 2 × 250 g a.s./ha, BBCH 89	R1	pond	0.811	Drift	3.77	0.797	Drift	3.68
	R1	stream	8.03	Drift	1.21	8.03	Drift	1.21
	R3[b]	stream	9.43	Drift	4.83	9.43	Drift	4.85
	R4[b]	stream	6.69	Drift	2.71	6.69	Drift	2.73

[a] BBCH 19 was used as BBCH 21 is not listed in the AppDate Tool
[b] vines, late was used as the surrogate crop for the R3 and R4 scenarios to fulfil the national requirements for Italy

Table A 203: FOCUS Application dates and global maximum timing for vegetables, leafy

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 9	D3	ditch	04-May-92	-	04-May-92	04-May-92
	D3 2nd	ditch	18-Aug-92	-	18-Aug-92	18-Aug-92
	D4	pond	16-May-85	-	29-Dec-85	29-Dec-85
	D4	stream	16-May-85	-	16-May-85	16-May-85
	D6	ditch	19-Aug-86	-	29-Oct-86	29-Oct-86
	R1	pond	26-Apr-84	-	30-May-84	30-May-84
	R1 2nd	pond	20-Aug-78	-	31-Dec-78	31-Dec-78
	R1	stream	26-Apr-84	-	20-May-84	20-May-84
	R1 2nd	stream	20-Aug-78	-	17-Sep-78	17-Sep-78
	R2	stream	06-Mar-78	-	06-Mar-78	06-Mar-78
	R2 2nd	stream	05-Aug-89	-	05-Aug-89	05-Aug-89
	R3	stream	01-Mar-80	-	08-Mar-80	08-Mar-80
	R3 2nd	stream	15-Jun-75	-	23-Jun-75	23-Jun-75
	R4	stream	05-Mar-84	-	12-Apr-84	12-Apr-84
	R4 2nd	stream	23-Jun-85	-	28-Jun-85	28-Jun-85
Vegetables, leafy 1 × 250 g a.s./ha,	D3	ditch	04-May-92	-	04-May-92	04-May-92
	D3 2nd	ditch	18-Aug-92	-	18-Aug-92	18-Aug-92

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
BBCH 11	D4	pond	18-May-85	-	29-Dec-85	29-Dec-85
	D4	stream	18-May-85	-	18-May-85	18-May-85
	D6	ditch	25-Aug-86	-	29-Oct-86	29-Oct-86
	R1	pond	26-Apr-84	-	30-May-84	30-May-84
	R1 2nd	pond	20-Aug-78	-	31-Dec-78	31-Dec-78
	R1	stream	26-Apr-84	-	20-May-84	20-May-84
	R1 2nd	stream	20-Aug-78	-	17-Sep-78	17-Sep-78
	R2	stream	22-Mar-77	-	22-Mar-77	22-Mar-77
	R2 2nd	stream	05-Aug-89	-	05-Aug-89	05-Aug-89
	R3	stream	10-Mar-80	-	22-Mar-80	22-Mar-80
	R3 2nd	stream	25-Jun-75	-	01-Jul-75	01-Jul-75
	R4	stream	08-Mar-84	-	12-Apr-84	12-Apr-84
	R4 2nd	stream	23-Jun-85	-	28-Jun-85	28-Jun-85
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	04-May-92	14-May-92	14-May-92	14-May-92
	D3 2nd	ditch	18-Aug-92	26-Aug-92	26-Aug-92	26-Aug-92
	D4	pond	18-May-85	29-May-85	29-Dec-85	28-Dec-85
	D4	stream	18-May-85	29-May-85	07-Dec-85	07-Dec-85
	D6	ditch	25-Aug-86	01-Sep-86	29-Oct-86	29-Oct-86
	R1	pond	26-Apr-84	03-May-84	30-May-84	30-May-84
	R1 2nd	pond	20-Aug-78	02-Sep-78	31-Dec-78	31-Dec-78
	R1	stream	26-Apr-84	03-May-84	20-May-84	20-May-84
	R1 2nd	stream	20-Aug-78	02-Sep-78	17-Sep-78	17-Sep-78
	R2	stream	21-Mar-77	30-Mar-77	03-Apr-77	03-Apr-77
	R2 2nd	stream	05-Aug-89	12-Aug-89	22-Oct-89	22-Oct-89
	R3	stream	10-Mar-80	28-Mar-80	20-Apr-80	20-Apr-80
	R3 2nd	stream	25-Jun-75	06-Jul-75	10-Jul-75	10-Jul-75
	R4	stream	08-Mar-84	03-Apr-84	12-Apr-84	12-Apr-84
	R4 2nd	stream	23-Jun-85	30-Jun-85	05-Jul-85	05-Jul-85
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	25-Jun-92	-	25-Jun-92	25-Jun-92
	D3 2nd	ditch	19-Sep-92	-	19-Sep-92	19-Sep-92
	D4	pond	27-Aug-85	-	31-Dec-85	31-Dec-85
	D4	stream	27-Aug-85	-	27-Aug-85	27-Aug-85
	D6	ditch	31-Oct-86	-	23-Dec-86	23-Dec-86
	R1	pond	29-Jun-78	-	18-Jul-78	18-Jul-78

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
	R1 2nd	pond	19-Sep-78	-	31-Dec-78	31-Dec-78
	R1	stream	29-Jun-78	-	09-Jul-78	09-Jul-78
	R1 2nd	stream	19-Sep-78	-	25-Oct-78	25-Oct-78
	R2	stream	04-Jun-89	-	04-Jun-89	04-Jun-89
	R2 2nd	stream	24-Oct-77	-	24-Oct-77	24-Oct-77
	R3	stream	18-May-80	-	23-May-80	23-May-80
	R3 2nd	stream	28-Aug-75	-	02-Sep-75	02-Sep-75
	R4	stream	04-May-84	-	10-May-84	10-May-84
	R4 2nd	stream	19-Aug-85	-	24-Aug-85	24-Aug-85
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	14-Jun-92	25-Jun-92	25-Jun-92	25-Jun-92
	D3 2nd	ditch	17-Sep-92	24-Sep-92	24-Sep-92	24-Sep-92
	D4	pond	27-Aug-85	10-Sep-85	30-Dec-85	30-Dec-85
	D4	stream	27-Aug-85	10-Sep-85	07-Dec-85	07-Dec-85
	D6	ditch	25-Oct-86	01-Nov-86	05-Nov-86	05-Nov-86
	R1	pond	29-Jun-78	11-Jul-78	18-Jul-78	18-Jul-78
	R1 2nd	pond	19-Sep-78	06-Oct-78	31-Dec-78	31-Dec-78
	R1	stream	29-Jun-78	11-Jul-78	18-Jul-78	18-Jul-78
	R1 2nd	stream	19-Sep-78	06-Oct-78	25-Oct-78	25-Oct-78
	R2	stream	25-May-77	03-Jun-77	10-Jun-77	10-Jun-77
	R2 2nd	stream	11-Oct-77	24-Oct-77	06-Nov-77	06-Nov-77
	R3	stream	25-Apr-80	18-May-80	23-May-80	23-May-80
	R3 2nd	stream	12-Aug-75	19-Aug-75	23-Aug-75	23-Aug-75
	R4	stream	25-Apr-84	04-May-84	10-May-84	10-May-84
	R4 2nd	stream	12-Aug-85	19-Aug-85	24-Aug-85	24-Aug-85

Table A 204: FOCUS Application dates and global maximum timing for vegetables, fruiting

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
Vegetables, fruiting	D6	ditch	23-Apr-86	-	23-Apr-86	23-Apr-86

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
1 × 250 g a.s./ha, BBCH 11	R2	stream	22-Mar-77	-	22-Mar-77	22-Mar-77
	R3	stream	18-May-80	-	23-May-80	23-May-80
	R4	stream	23-Apr-84	-	28-Apr-84	28-Apr-84
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	23-Apr-86	07-May-86	07-May-86	07-May-86
	R2	stream	22-Mar-77	22-Apr-77	05-May-77	05-May-77
	R3	stream	18-May-80	01-Jun-80	22-Jun-80	22-Jun-80
	R4	stream	23-Apr-84	04-May-84	09-May-84	09-May-84
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	19-May-86	-	19-May-86	19-May-86
	R2	stream	20-May-77	-	20-May-77	20-May-77
	R3	stream	18-Jun-75	-	29-Jun-75	29-Jun-75
	R4	stream	27-May-84	-	14-Jun-84	14-Jun-84
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	19-May-86	31-May-86	19-May-86	19-May-86
	R2	stream	20-May-77	27-May-77	10-Jun-77	10-Jun-77
	R3	stream	18-Jun-75	25-Jun-75	29-Jun-75	29-Jun-75
	R4	stream	27-May-84	06-Jun-84	14-Jun-84	14-Jun-84
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 81	D6	ditch	24-Jun-86	-	24-Jun-86	24-Jun-86
	R2	stream	05-Aug-89	-	05-Aug-89	05-Aug-89
	R3	stream	11-Jul-75	-	15-Jul-75	15-Jul-75
	R4	stream	05-Jun-85	-	10-Jun-85	10-Jun-85
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 81	D6	ditch	24-Jun-86	06-Jul-86	30-Oct-86	30-Oct-86
	R2	stream	31-Jul-89	07-Aug-89	07-Aug-89	07-Aug-89
	R3	stream	11-Jul-75	18-Jul-75	22-Jul-75	22-Jul-75
	R4	stream	29-May-84	06-Jun-84	14-Jun-84	14-Jun-84
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	23-Jun-85	-	28-Jun-85	30-Oct-86
	R2	stream	17-Jul-86	-	30-Oct-86	05-Aug-89
	R3	stream	05-Aug-89	-	05-Aug-89	05-Aug-75
	R4	stream	30-Jul-75	-	05-Aug-75	28-Jun-85
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	06-Jul-86	17-Jul-86	30-Oct-86	30-Oct-86
	R2	stream	05-Aug-89	12-Aug-89	12-Aug-89	12-Aug-89
	R3	stream	24-Jul-75	31-Jul-75	05-Aug-75	05-Aug-75
	R4	stream	12-Jun-85	23-Jun-85	28-Jun-85	28-Jun-85

Table A 205: FOCUS Application dates and global maximum timing for vegetables, bulb

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 11	D3	ditch	04-May-92	-	04-May-92	04-May-92
	D4	pond	12-May-85	-	29-Dec-85	29-Dec-85
	D4	stream	12-May-85	-	12-May-85	12-May-85
	D6	ditch	16-May-86	-	16-May-86	16-May-86
	D6 2nd	ditch	06-Nov-86	-	19-Jan-87	19-Jan-87
	R1	pond	28-Apr-84	-	30-May-84	30-May-84
	R1	stream	28-Apr-84	-	20-May-84	20-May-84
	R2	stream	22-Mar-77	-	22-Mar-77	22-Mar-77
	R3	stream	10-Mar-80	-	22-Mar-80	22-Mar-80
	R4	stream	09-Mar-84	-	14-Mar-84	14-Mar-84
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	04-May-92	16-May-92	16-May-92	16-May-92
	D4	pond	12-May-85	24-May-85	28-Dec-85	28-Dec-85
	D4	stream	12-May-85	24-May-85	09-Dec-85	09-Dec-85
	D6	ditch	16-May-86	28-May-86	05-Nov-86	05-Nov-86
	D6 2nd	ditch	01-Dec-86	13-Dec-86	25-Dec-86	25-Dec-86
	R1	pond	28-Apr-84	10-May-84	30-May-84	30-May-84
	R1	stream	28-Apr-84	10-May-84	20-May-84	20-May-84
	R2	stream	14-Mar-77	26-Mar-77	03-Apr-77	03-Apr-77
	R3	stream	10-Mar-80	28-Mar-80	20-Apr-80	20-Apr-80
	R4	stream	09-Mar-84	03-Apr-84	11-Apr-84	11-Apr-84
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 49	D3	ditch	04-Aug-92	-	04-Aug-92	04-Aug-92
	D4	pond	27-Aug-85	-	31-Dec-85	30-Dec-85
	D4	stream	27-Aug-85	-	27-Aug-85	27-Aug-85
	D6	ditch	01-Jul-86	-	01-Jul-86	01-Jul-86
	D6 2nd	ditch	14-Mar-86	-	14-Mar-86	14-Mar-86
	R1	pond	28-Jul-78	-	31-Dec-78	31-Dec-78
	R1	stream	28-Jul-78	-	28-Jul-78	28-Jul-78
	R2	stream	07-May-77	-	07-May-77	07-May-77
	R3	stream	18-May-80	-	23-May-80	23-May-80
	R4	stream	07-May-84	-	12-May-84	12-May-84
Vegetables, bulb	D3	ditch	24-Jul-92	05-Aug-92	05-Aug-92	05-Aug-92

Application scenario	**Scenario**	**Water body**	**1st Application date**	**2nd Application date**	**Date of global maximum Option 1**	**Date of global maximum Option 2**
2 × 250 g a.s./ha, BBCH 49	D4	pond	27-Aug-85	10-Sep-85	30-Dec-85	30-Dec-85
	D4	stream	27-Aug-85	10-Sep-85	07-Dec-85	07-Dec-85
	D6	ditch	19-Jun-86	01-Jul-86	05-Nov-86	05-Nov-86
	D6 2nd	ditch	27-Feb-86	14-Mar-86	27-Feb-86	27-Feb-86
	R1	pond	28-Jul-78	20-Aug-78	31-Dec-78	31-Dec-78
	R1	stream	28-Jul-78	20-Aug-78	29-Sep-78	29-Sep-78
	R2	stream	22-Apr-77	07-May-77	13-May-77	13-May-77
	R3	stream	22-Apr-80	18-May-80	23-May-80	23-May-80
	R4	stream	20-Apr-84	07-May-84	12-May-84	12-May-84
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 41	D3	ditch	08-Jul-92	-	08-Jul-92	08-Jul-92
	D4	pond	18-Jul-85	-	29-Dec-85	29-Dec-85
	D4	stream	18-Jul-85	-	18-Jul-85	18-Jul-85
	D6	ditch	03-Jul-86	-	03-Jul-86	03-Jul-86
	D6 2nd	ditch	14-Mar-86	-	14-Mar-86	14-Mar-86
	R1	pond	11-Jul-78	-	18-Jul-78	18-Jul-78
	R1	stream	11-Jul-78	-	18-Jul-78	18-Jul-78
	R2	stream	20-May-77	-	20-May-77	20-May-77
	R3	stream	18-May-80	-	23-May-80	23-May-80
	R4	stream	27-May-84	-	27-May-84	27-May-84
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 41	D3	ditch	08-Jul-92	24-Jul-92	24-Jul-92	24-Jul-92
	D4	pond	18-Jul-85	27-Aug-85	29-Dec-85	29-Dec-85
	D4	stream	18-Jul-85	27-Aug-85	07-Dec-85	07-Dec-85
	D6	ditch	03-Jul-86	15-Jul-86	05-Nov-86	05-Nov-86
	D6 2nd	ditch	14-Mar-86	01-Apr-86	01-Apr-86	01-Apr-86
	R1	pond	11-Jul-78	28-Jul-78	28-Jul-78	28-Jul-78
	R1	stream	11-Jul-78	28-Jul-78	18-Jul-78	18-Jul-78
	R2	stream	20-May-77	03-Jun-77	10-Jun-77	10-Jun-77
	R3	stream	18-May-80	01-Jun-80	23-May-80	23-May-80
	R4	stream	19-May-84	31-May-84	25-May-84	25-May-84

Table A 206: FOCUS Application dates and global maximum timing for hops

Application scenario	Scenario	Water body	1st Application date	2nd Application date	Date of global maximum Option 1	Date of global maximum Option 2
Hops 1 × 250 g a.s./ha, BBCH 21[a]	R1	pond	13-Jun-84	-	13-Jun-84	13-Jun-84
	R1	stream	13-Jun-84	-	13-Jun-84	13-Jun-84
	R3[b]	stream	18-May-80	-	18-May-80	18-May-80
	R4[b]	stream	4-May-84	-	4-May-84	4-May-84
Hops 2 × 250 g a.s./ha, BBCH 21[a]	R1	pond	15-May-84	31-May-84	31-May-84	31-May-84
	R1	stream	15-May-84	31-May-84	31-May-84	31-May-84
	R3[b]	stream	18-May-80	1-Jun-80	1-Jun-80	1-Jun-80
	R4[b]	stream	04-May-84	27-May-84	27-May-84	27-May-84
Hops 1 × 250 g a.s./ha, BBCH 51	R1	pond	11-Jul-78	-	11-Jul-78	11-Jul-78
	R1	stream	11-Jul-78	-	11-Jul-78	11-Jul-78
	R3[b]	stream	1-Jun-80	-	1-Jun-80	1-Jun-80
	R4[b]	stream	7-May-84	-	7-May-84	7-May-84
Hops 2 × 250 g a.s./ha, BBCH 51	R1	pond	11-Jul-78	28-Jul-78	28-Jul-78	28-Jul-78
	R1	stream	11-Jul-78	28-Jul-78	28-Jul-78	28-Jul-78
	R3[b]	stream	01-Jun-80	16-Jun-80	16-Jun-80	16-Jun-80
	R4[b]	stream	07-May-84	27-May-84	27-May-84	27-May-84
Hops 1 × 250 g a.s./ha, BBCH 89	R1	pond	20-Aug-78	-	20-Aug-78	20-Aug-78
	R1	stream	20-Aug-78	-	20-Aug-78	20-Aug-78
	R3[b]	stream	02-Oct-80	-	02-Oct-80	02-Oct-80
	R4[b]	stream	21-Aug-85	-	21-Aug-85	21-Aug-85
Hops 2 × 250 g a.s./ha, BBCH 89	R1	pond	28-Jul-78	20-Aug-78	20-Aug-78	20-Aug-78
	R1	stream	28-Jul-78	20-Aug-78	20-Aug-78	20-Aug-78
	R3[b]	stream	23-Sep-75	22-Oct-75	23-Sep-75	23-Sep-75
	R4[b]	stream	09-Aug-85	18-Sep-85	18-Sep-85	18-Sep-85

[a] BBCH 19 was used as BBCH 21 is not listed in the AppDate Tool
[b] vines, late was used as the surrogate crop for the R3 and R4 scenarios to fulfil the national requirements for Italy

Table A 207: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy – maximum over option 1 and option 2

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 9	D3	ditch	1.58	Drift	0.775
	D3 2nd	ditch	1.59	Drift	0.828
	D4	pond	0.656	Drainage	4.14
	D4	stream	1.25	Drift	1.61

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
	D6	ditch	2.14	Drainage	2.31
	R1	pond	0.218	Runoff	1.36
	R1 2nd	pond	0.184	Runoff	1.45
	R1	stream	2.29	Runoff	0.851
	R1 2nd	stream	1.92	Runoff	0.961
	R2	stream	1.37	Drift	0.762
	R2 2nd	stream	1.40	Drift	1.45
	R3	stream	4.61	Runoff	1.85
	R3 2nd	stream	3.92	Runoff	2.62
	R4	stream	1.59	Runoff	0.753
	R4 2nd	stream	5.63	Runoff	2.67
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58	Drift	0.775
	D3 2nd	ditch	1.59	Drift	0.828
	D4	pond	0.666	Drainage	4.20
	D4	stream	1.26	Drift	1.64
	D6	ditch	2.51	Drainage	2.55
	R1	pond	0.218	Runoff	1.36
	R1 2nd	pond	0.184	Runoff	1.45
	R1	stream	2.29	Runoff	0.851
	R1 2nd	stream	1.92	Runoff	0.961
	R2	stream	1.38	Drift	2.07
	R2 2nd	stream	1.40	Drift	1.45
	R3	stream	3.50	Runoff	1.23
	R3 2nd	stream	3.51	Runoff	2.50
	R4	stream	1.61	Runoff	0.761
	R4 2nd	stream	5.63	Runoff	2.67
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	1.39	Drift	0.908
	D3 2nd	ditch	1.39	Drift	0.934
	D4	pond	1.38	Drainage	8.20
	D4	stream	1.33	Drainage	3.23
	D6	ditch	5.43	Drainage	5.27
	R1	pond	0.435	Runoff	2.46
	R1 2nd	pond	0.372	Runoff	2.82
	R1	stream	4.87	Runoff	1.75
	R1 2nd	stream	4.40	Runoff	2.19
	R2	stream	2.70	Runoff	4.92
	R2 2nd	stream	1.36	Runoff	2.67

Application scenario	Scenario	Water body	PEC$_{SW}$ (µg/L)[a]	Dominant Route of Entry	PEC$_{SED}$ (µg/kg)[a]
	R3	stream	4.31	Runoff	2.58
	R3 2nd	stream	5.96	Runoff	4.78
	R4	stream	6.49	Runoff	3.07
	R4 2nd	stream	8.69	Runoff	4.78
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	1.59	Drift	0.787
	D3 2nd	ditch	1.58	Drift	0.581
	D4	pond	0.496	Drainage	3.18
	D4	stream	1.13	Drift	1.20
	D6	ditch	5.96	Drainage	6.39
	R1	pond	0.626	Runoff	3.23
	R1 2nd	pond	0.275	Runoff	1.71
	R1	stream	2.39	Runoff	2.75
	R1 2nd	stream	1.46	Runoff	0.533
	R2	stream	1.40	Drift	2.16
	R2 2nd	stream	1.39	Drift	2.83
	R3	stream	2.77	Runoff	2.24
	R3 2nd	stream	2.67	Runoff	2.29
	R4	stream	3.43	Runoff	2.23
	R4 2nd	stream	3.58	Runoff	2.32
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.39	Drift	0.908
	D3 2nd	ditch	1.38	Drift	0.701
	D4	pond	1.69	Drainage	9.38
	D4	stream	1.83	Drainage	3.76
	D6	ditch	12.9	Drainage	14.1
	R1	pond	0.929	Runoff	5.20
	R1 2nd	pond	0.677	Runoff	3.86
	R1	stream	5.04	Runoff	4.67
	R1 2nd	stream	3.91	Runoff	1.42
	R2	stream	1.87	Runoff	4.39
	R2 2nd	stream	1.50	Runoff	4.24
	R3	stream	4.54	Runoff	2.73
	R3 2nd	stream	5.85	Runoff	7.59
	R4	stream	7.35	Runoff	3.94
	R4 2nd	stream	7.15	Runoff	4.74

[a] maximum over option 1 and 2

Table A 208: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – maximum over option 1 and option 2

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	1.56	Drift	0.429
	R2	stream	1.38	Drift	2.03
	R3	stream	4.22	Runoff	1.60
	R4	stream	5.99	Runoff	2.89
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	1.37	Drift	0.760
	R2	stream	1.81	Runoff	2.02
	R3	stream	4.24	Runoff	2.68
	R4	stream	8.73	Runoff	4.63
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	1.58	Drift	0.582
	R2	stream	1.40	Drift	1.77
	R3	stream	2.42	Runoff	1.96
	R4	stream	3.01	Runoff	1.42
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	1.38	Drift	1.12
	R2	stream	2.03	Runoff	3.74
	R3	stream	5.91	Runoff	4.40
	R4	stream	7.56	Runoff	3.52
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 81	D6	ditch	1.58	Drift	1.11
	R2	stream	1.40	Drift	3.86
	R3	stream	4.29	Runoff	3.47
	R4	stream	6.24	Runoff	3.04
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 81	D6	ditch	2.44	Drainage	2.51
	R2	stream	1.21	Drift	3.98
	R3	stream	5.90	Runoff	5.40
	R4	stream	7.81	Runoff	3.63
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	2.07	Drainage	1.76
	R2	stream	1.40	Drift	2.50
	R3	stream	2.75	Runoff	2.55
	R4	stream	3.94	Runoff	2.11
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.66	Drainage	3.43
	R2	stream	1.21	Drift	4.76
	R3	stream	5.76	Runoff	5.59
	R4	stream	6.77	Runoff	3.81

[a] maximum over option 1 and 2

Table A 209: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, bulb – maximum over option 1 and option 2

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58	Drift	0.779
	D4	pond	0.617	Drainage	3.91
	D4	stream	1.22	Drift	1.51
	D6	ditch	1.61	Drift	1.32
	D6 2nd	ditch	4.52	Drainage	4.80
	R1	pond	0.211	Runoff	1.18
	R1	stream	2.22	Runoff	0.938
	R2	stream	1.38	Drift	2.07
	R3	stream	3.51	Runoff	1.23
	R4	stream	5.98	Runoff	2.80
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	1.39	Drift	0.895
	D4	pond	1.30	Drainage	7.72
	D4	stream	1.24	Drainage	3.01
	D6	ditch	2.53	Drainage	2.59
	D6 2nd	ditch	13.1	Drainage	14.4
	R1	pond	0.482	Runoff	2.48
	R1	stream	5.57	Runoff	2.19
	R2	stream	2.57	Runoff	3.76
	R3	stream	4.40	Runoff	2.58
	R4	stream	6.32	Runoff	3.47
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 49	D3	ditch	1.59	Drift	0.789
	D4	pond	0.630	Drainage	3.95
	D4	stream	1.13	Drift	1.48
	D6	ditch	1.60	Drift	2.30
	D6 2nd	ditch	1.61	Drift	1.55
	R1	pond	0.099	Runoff	0.769
	R1	stream	1.03	Drift	0.350
	R2	stream	1.40	Drift	2.59
	R3	stream	3.53	Runoff	1.41
	R4	stream	4.69	Runoff	2.40
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.39	Drift	0.895
	D4	pond	1.58	Drainage	9.24
	D4	stream	1.72	Drainage	3.58
	D6	ditch	1.90	Drainage	3.41
	D6 2nd	ditch	1.47	Drift	2.17
	R1	pond	0.236	Runoff	1.67

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
	R1	stream	2.76	Runoff	0.953
	R2	stream	2.01	Runoff	3.67
	R3	stream	5.21	Runoff	2.17
	R4	stream	6.57	Runoff	3.86
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 41	D3	ditch	1.58	Drift	0.773
	D4	pond	1.05	Drainage	6.06
	D4	stream	1.12	Drift	2.40
	D6	ditch	1.60	Drift	2.31
	D6 2nd	ditch	1.61	Drift	1.55
	R1	pond	0.141	Runoff	0.864
	R1	stream	2.75	Runoff	1.18
	R2	stream	1.40	Drift	4.90
	R3	stream	3.53	Runoff	1.41
	R4	stream	1.01	Drift	0.507
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 41	D3	ditch	1.39	Drift	0.845
	D4	pond	2.06	Drainage	11.6
	D4	stream	2.06	Drainage	4.53
	D6	ditch	1.75	Drainage	3.43
	D6 2nd	ditch	1.45	Drift	2.38
	R1	pond	0.158	Drift	1.37
	R1	stream	2.75	Runoff	1.18
	R2	stream	2.49	Runoff	15.2
	R3	stream	3.53	Runoff	1.39
	R4	stream	3.96	Runoff	1.85

[a] maximum over option 1 and 2

Table A 210: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to hops – maximum over option 1 and option 2

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Hops 1 × 250 g a.s./ha, BBCH 21	R1	pond	0.657	Drift	2.57
	R1	stream	9.44	Drift	1.24
	R3[b]	stream	11.0	Drift	1.78
	R4[b]	stream	7.73	Drift	1.54
Hops 2 × 250 g a.s./ha, BBCH 21	R1	pond	0.849	Drift	3.60
	R1	stream	7.82	Drift	1.06
	R3[b]	stream	9.43	Drift	2.34

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
	R4[b]	stream	6.56	Drift	1.52
Hops 1 × 250 g a.s./ha, BBCH 51	R1	pond	0.657	Drift	2.62
	R1	stream	9.21	Drift	0.718
	R3[b]	stream	11.1	Drift	2.42
	R4[b]	stream	7.73	Drift	1.65
Hops 2 × 250 g a.s./ha, BBCH 51	R1	pond	0.830	Drift	3.69
	R1	stream	7.81	Drift	0.752
	R3[b]	stream	9.43	Drift	2.45
	R4[b]	stream	6.56	Drift	1.63
Hops 1 × 250 g a.s./ha, BBCH 89	R1	pond	0.657	Drift	2.74
	R1	stream	9.46	Drift	1.32
	R3[b]	stream	11.1	Drift	2.42
	R4[b]	stream	7.89	Drift	1.45
Hops 2 × 250 g a.s./ha, BBCH 89	R1	pond	0.811	Drift	3.77
	R1	stream	8.03	Drift	1.21
	R3[b]	stream	9.43	Drift	4.85
	R4[b]	stream	6.69	Drift	2.73

[a] maximum over option 1 and 2
[b] vines, late was used as surrogate crop for the R3 and R4 scenarios to fulfil the national requirements for Italy

Table A 211: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy – maximum over single and multiple application

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58*	Drift	0.908
	D3 2nd	ditch	1.59*	Drift	0.934
	D4	pond	1.38	Drainage	8.20
	D4	stream	1.33	Drainage	3.23
	D6	ditch	5.43	Drainage	5.27
	R1	pond	0.435	Runoff	2.46
	R1 2nd	pond	0.372	Runoff	2.82
	R1	stream	4.87	Runoff	1.75
	R1 2nd	stream	4.40	Runoff	2.19
	R2	stream	2.70	Runoff	4.92
	R2 2nd	stream	1.40*	Drift	2.67
	R3	stream	4.31	Runoff	2.58
	R3 2nd	stream	5.96	Runoff	4.78

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
	R4	stream	6.49	Runoff	3.07
	R4 2nd	stream	8.69	Runoff	4.78
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.59*	Drift	0.908
	D3 2nd	ditch	1.58*	Drift	0.701
	D4	pond	1.69	Drainage	9.38
	D4	stream	1.83	Drainage	3.76
	D6	ditch	12.9	Drainage	14.1
	R1	pond	0.929	Runoff	5.20
	R1 2nd	pond	0.677	Runoff	3.86
	R1	stream	5.04	Runoff	4.67
	R1 2nd	stream	3.91	Runoff	1.42
	R2	stream	1.87	Runoff	4.39
	R2 2nd	stream	1.50	Runoff	4.24
	R3	stream	4.54	Runoff	2.73
	R3 2nd	stream	5.85	Runoff	7.59
	R4	stream	7.35	Runoff	3.94
	R4 2nd	stream	7.15	Runoff	4.74

* values resulting from single applications are marked

Table A 212: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – maximum over single and multiple application

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	1.56*	Drift	0.760
	R2	stream	1.81	Runoff	2.03*
	R3	stream	4.24	Runoff	2.68
	R4	stream	8.73	Runoff	4.63
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	1.58*	Drift	1.12
	R2	stream	2.03	Runoff	3.74
	R3	stream	5.91	Runoff	4.40
	R4	stream	7.56	Runoff	3.52
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 81	D6	ditch	2.44	Drainage	2.51
	R2	stream	1.40*	Drift	3.98
	R3	stream	5.90	Runoff	5.40
	R4	stream	7.81	Runoff	3.63
Vegetables, fruiting 2 × 250 g a.s./ha,	D6	ditch	3.66	Drainage	3.43
	R2	stream	1.40*	Drift	4.76

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
BBCH 89	R3	stream	5.76	Runoff	5.59
	R4	stream	6.77	Runoff	3.81

* values resulting from single applications are marked

Table A 213: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, bulb – maximum over single and multiple application

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	1.58*	Drift	0.895
	D4	pond	1.30	Drainage	7.72
	D4	stream	1.24	Drainage	3.01
	D6	ditch	2.53	Drainage	2.59
	D6 2nd	ditch	13.1	Drainage	14.4
	R1	pond	0.482	Runoff	2.48
	R1	stream	5.57	Runoff	2.19
	R2	stream	2.57	Runoff	3.76
	R3	stream	4.40	Runoff	2.58
	R4	stream	6.32	Runoff	3.47
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	1.59*	Drift	0.895
	D4	pond	1.58	Drainage	9.24
	D4	stream	1.72	Drainage	3.58
	D6	ditch	1.90	Drainage	3.41
	D6 2nd	ditch	1.61*	Drift	2.17
	R1	pond	0.236	Runoff	1.67
	R1	stream	2.76	Runoff	0.953
	R2	stream	2.01	Runoff	3.67
	R3	stream	5.21	Runoff	2.17
	R4	stream	6.57	Runoff	3.86
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 41	D3	ditch	1.58*	Drift	0.845
	D4	pond	2.06	Drainage	11.6
	D4	stream	2.06	Drainage	4.53
	D6	ditch	1.75	Drainage	3.43
	D6 2nd	ditch	1.61*	Drift	2.38
	R1	pond	0.158	Drift	1.37
	R1	stream	2.75*	Runoff	1.18*
	R2	stream	2.49	Runoff	15.2
	R3	stream	3.53*	Runoff	1.41*

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
	R4	stream	3.96	Runoff	1.85

* values resulting from single applications are marked

Table A 214: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to hops – maximum over single and multiple application

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Hops 2 × 250 g a.s./ha, BBCH 21	R1	pond	0.849	Drift	3.60
	R1	stream	9.44*	Drift	1.24*
	R3[b]	stream	11.0*	Drift	2.34
	R4[b]	stream	7.73*	Drift	1.54*
Hops 2 × 250 g a.s./ha, BBCH 51	R1	pond	0.830	Drift	3.69
	R1	stream	9.21*	Drift	0.752
	R3[b]	stream	11.1*	Drift	2.45
	R4[b]	stream	7.73*	Drift	1.65*
Hops 2 × 250 g a.s./ha, BBCH 89	R1	pond	0.811	Drift	3.77
	R1	stream	9.46*	Drift	1.32*
	R3[b]	stream	11.1*	Drift	4.85
	R4[b]	stream	7.89*	Drift	2.73

[a] values resulting from single applications are marked *
[b] vines, late was used as the surrogate crop for the R3 and R4 scenarios to fulfil the national requirements for Italy

Table A 215: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, leafy – Option 1

Mitigation options										
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)										
Vegetative strip (m)			10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 9	D3	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D3 2nd	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D4	pond	-	-	-	-	0.654	Drainage	0.652	Drainage
	D4	stream	-	-	-	-	0.634	Drainage	0.634	Drainage
	D6	ditch	-	-	-	-	2.14	Drainage	2.14	Drainage
	R1	pond	0.109	Runoff	0.072	Runoff	0.096	Runoff	0.052	Runoff
	R1 2nd	pond	0.087	Runoff	0.062	Runoff	0.081	Runoff	0.043	Runoff
	R1	stream	1.04	Drift	1.04	Drift	1.04	Runoff	0.542	Runoff
	R1 2nd	stream	1.05	Drift	1.05	Drift	0.872	Runoff	0.457	Runoff
	R2	stream	1.37	Drift	1.37	Drift	0.527	Runoff	0.274	Runoff
	R2 2nd	stream	1.40	Drift	1.40	Drift	0.283	Runoff	0.148	Runoff
	R3	stream	2.09	Runoff	1.47	Drift	2.09	Runoff	1.09	Runoff
	R3 2nd	stream	1.79	Runoff	1.47	Drift	1.79	Runoff	0.937	Runoff
	R4	stream	1.04	Drift	1.04	Drift	0.725	Runoff	0.380	Runoff
	R4 2nd	stream	2.56	Runoff	1.34	Runoff	2.56	Runoff	1.34	Runoff
Vegetables, leafy 1 × 250 g a.s./ha,	D3	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D3 2nd	ditch	-	-	-	-	0.228	Drift	0.118	Drift

Mitigation options										
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)										
		Vegetative strip (m)	10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
		No spray buffer (m)	0		0		10		20	
		Nozzle reduction (%)	0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
BBCH 11	D4	pond	-	-	-	-	0.664	Drainage	0.663	Drainage
	D4	stream	-	-	-	-	0.642	Drainage	0.642	Drainage
	D6	ditch	-	-	-	-	2.51	Drainage	2.51	Drainage
	R1	pond	0.109	Runoff	0.072	Runoff	0.096	Runoff	0.052	Runoff
	R1 2nd	pond	0.087	Runoff	0.062	Runoff	0.081	Runoff	0.043	Runoff
	R1	stream	1.04	Drift	1.04	Drift	1.04	Runoff	0.542	Runoff
	R1 2nd	stream	1.05	Drift	1.05	Drift	0.872	Runoff	0.457	Runoff
	R2	stream	1.38	Drift	1.38	Drift	0.545	Runoff	0.285	Runoff
	R2 2nd	stream	1.40	Drift	1.40	Drift	0.283	Runoff	0.148	Runoff
	R3	stream	1.58	Runoff	1.47	Drift	1.58	Runoff	0.822	Runoff
	R3 2nd	stream	1.60	Runoff	1.47	Drift	1.60	Runoff	0.839	Runoff
	R4	stream	1.04	Drift	1.04	Drift	0.732	Runoff	0.384	Runoff
	R4 2nd	stream	2.56	Runoff	1.34	Runoff	2.56	Runoff	1.34	Runoff
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-	0.187	Drift	0.095	Drift
	D3 2nd	ditch	-	-	-	-	0.187	Drift	0.095	Drift
	D4	pond	-	-	-	-	1.38	Drainage	1.38	Drainage
	D4	stream	-	-	-	-	1.33	Drainage	1.33	Drainage
	D6	ditch	-	-	-	-	5.43	Drainage	5.43	Drainage
	R1	pond	0.211	Runoff	0.136	Runoff	0.188	Runoff	0.100	Runoff

Mitigation options										
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)										
Vegetative strip (m)			10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	R1 2nd	pond	0.179	Runoff	0.123	Runoff	0.164	Runoff	0.086	Runoff
	R1	stream	2.21	Runoff	1.16	Runoff	2.21	Runoff	1.16	Runoff
	R1 2nd	stream	2.00	Runoff	1.05	Runoff	2.00	Runoff	1.05	Runoff
	R2	stream	1.22	Runoff	1.19	Drift	1.22	Runoff	0.636	Runoff
	R2 2nd	stream	1.21	Drift	1.21	Drift	0.612	Runoff	0.319	Runoff
	R3	stream	1.97	Runoff	1.27	Drift	1.97	Runoff	1.03	Runoff
	R3 2nd	stream	2.72	Runoff	1.43	Runoff	2.72	Runoff	1.43	Runoff
	R4	stream	2.95	Runoff	1.55	Runoff	2.95	Runoff	1.55	Runoff
	R4 2nd	stream	3.95	Runoff	2.07	Runoff	3.95	Runoff	2.07	Runoff
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D3 2nd	ditch	-	-	-	-	0.227	Drift	0.118	Drift
	D4	pond	-	-	-	-	0.491	Drainage	0.488	Drainage
	D4	stream	-	-	-	-	0.659	Drainage	0.659	Drainage
	D6	ditch	-	-	-	-	5.96	Drainage	5.96	Drainage
	R1	pond	0.279	Runoff	0.161	Runoff	0.264	Runoff	0.137	Runoff
	R1 2nd	pond	0.128	Runoff	0.075	Runoff	0.120	Runoff	0.063	Runoff
	R1	stream	1.09	Runoff	1.05	Drift	1.09	Runoff	0.572	Runoff
	R1 2nd	stream	1.05	Drift	1.05	Drift	0.665	Runoff	0.348	Runoff
	R2	stream	1.40	Drift	1.40	Drift	0.392	Runoff	0.205	Runoff

Mitigation options										
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)										
Vegetative strip (m)			10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**
	R2 2nd	stream	1.39	Drift	1.39	Drift	0.297	Runoff	0.155	Runoff
	R3	stream	1.48	Drift	1.48	Drift	1.26	Runoff	0.659	Runoff
	R3 2nd	stream	1.47	Drift	1.47	Drift	1.22	Runoff	0.639	Runoff
	R4	stream	1.56	Runoff	1.02	Drift	1.56	Runoff	0.814	Runoff
	R4 2nd	stream	1.63	Runoff	1.05	Drift	1.63	Runoff	0.854	Runoff
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-	0.187	Drift	0.095	Drift
	D3 2nd	ditch	-	-	-	-	0.186	Drift	0.095	Drift
	D4	pond	-	-	-	-	1.68	Drainage	1.67	Drainage
	D4	stream	-	-	-	-	1.83	Drainage	1.83	Drainage
	D6	ditch	-	-	-	-	12.9	Drainage	12.9	Drainage
	R1	pond	0.420	Runoff	0.247	Runoff	0.392	Runoff	0.204	Runoff
	R1 2nd	pond	0.306	Runoff	0.173	Runoff	0.292	Runoff	0.152	Runoff
	R1	stream	2.29	Runoff	1.20	Runoff	2.29	Runoff	1.20	Runoff
	R1 2nd	stream	1.78	Runoff	0.932	Runoff	1.78	Runoff	0.932	Runoff
	R2	stream	1.21	Drift	1.21	Drift	0.851	Runoff	0.446	Runoff
	R2 2nd	stream	1.20	Drift	1.20	Drift	0.675	Runoff	0.352	Runoff
	R3	stream	2.06	Runoff	1.28	Drift	2.06	Runoff	1.08	Runoff
	R3 2nd	stream	2.67	Runoff	1.40	Runoff	2.67	Runoff	1.40	Runoff
	R4	stream	3.33	Runoff	1.74	Runoff	3.33	Runoff	1.74	Runoff

Mitigation options											
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)											
Vegetative strip (m)			10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]		
No spray buffer (m)			0		0		10		20		
Nozzle reduction (%)			0		0		0		0		
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	
	R4 2nd	stream	3.25	Runoff	1.71	Runoff	3.25	Runoff	1.71	Runoff	

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 216: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, leafy – Option 2

Mitigation options										
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)										
Vegetative strip (m)			10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 9	D3	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D3 2nd	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D4	pond	-	-	-	-	0.647	Drainage	0.646	Drainage
	D4	stream	-	-	-	-	0.634	Drainage	0.634	Drainage
	D6	ditch	-	-	-	-	2.14	Drainage	2.14	Drainage
	R1	pond	0.107	Runoff	0.071	Runoff	0.094	Runoff	0.051	Runoff
	R1 2nd	pond	0.085	Runoff	0.061	Runoff	0.079	Runoff	0.042	Runoff

Mitigation options										
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)										
Vegetative strip (m)			10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	R1	stream	1.04	Drift	1.04	Drift	1.04	Runoff	0.542	Runoff
	R1 2nd	stream	1.05	Drift	1.05	Drift	0.872	Runoff	0.457	Runoff
	R2	stream	1.37	Drift	1.37	Drift	0.527	Runoff	0.274	Runoff
	R2 2nd	stream	1.40	Drift	1.40	Drift	0.283	Runoff	0.148	Runoff
	R3	stream	2.09	Runoff	1.47	Drift	2.09	Runoff	1.09	Runoff
	R3 2nd	stream	1.79	Runoff	1.47	Drift	1.79	Runoff	0.937	Runoff
	R4	stream	1.04	Drift	1.04	Drift	0.725	Runoff	0.380	Runoff
	R4 2nd	stream	2.56	Runoff	1.34	Runoff	2.56	Runoff	1.34	Runoff
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D3 2nd	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D4	pond	-	-	-	-	0.657	Drainage	0.656	Drainage
	D4	stream	-	-	-	-	0.642	Drainage	0.642	Drainage
	D6	ditch	-	-	-	-	2.51	Drainage	2.51	Drainage
	R1	pond	0.107	Runoff	0.071	Runoff	0.094	Runoff	0.051	Runoff
	R1 2nd	pond	0.085	Runoff	0.061	Runoff	0.079	Runoff	0.042	Runoff
	R1	stream	1.04	Drift	1.04	Drift	1.04	Runoff	0.542	Runoff
	R1 2nd	stream	1.05	Drift	1.05	Drift	0.872	Runoff	0.457	Runoff
	R2	stream	1.38	Drift	1.38	Drift	0.545	Runoff	0.284	Runoff
	R2 2nd	stream	1.40	Drift	1.40	Drift	0.283	Runoff	0.148	Runoff

Mitigation options										
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)										
		Vegetative strip (m)	10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
		No spray buffer (m)	0		0		10		20	
		Nozzle reduction (%)	0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	R3	stream	1.58	Runoff	1.47	Drift	1.58	Runoff	0.822	Runoff
	R3 2nd	stream	1.60	Runoff	1.47	Drift	1.60	Runoff	0.839	Runoff
	R4	stream	1.04	Drift	1.04	Drift	0.732	Runoff	0.384	Runoff
	R4 2nd	stream	2.56	Runoff	1.34	Runoff	2.56	Runoff	1.34	Runoff
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-	0.187	Drift	0.095	Drift
	D3 2nd	ditch	-	-	-	-	0.187	Drift	0.095	Drift
	D4	pond	-	-	-	-	1.36	Drainage	1.36	Drainage
	D4	stream	-	-	-	-	1.33	Drainage	1.33	Drainage
	D6	ditch	-	-	-	-	5.43	Drainage	5.43	Drainage
	R1	pond	0.209	Runoff	0.134	Runoff	0.186	Runoff	0.098	Runoff
	R1 2nd	pond	0.177	Runoff	0.121	Runoff	0.158	Runoff	0.083	Runoff
	R1	stream	2.21	Runoff	1.16	Runoff	2.21	Runoff	1.16	Runoff
	R1 2nd	stream	2.00	Runoff	1.05	Runoff	2.00	Runoff	1.05	Runoff
	R2	stream	1.22	Runoff	1.19	Drift	1.22	Runoff	0.636	Runoff
	R2 2nd	stream	1.21	Drift	1.21	Drift	0.612	Runoff	0.319	Runoff
	R3	stream	1.97	Runoff	1.27	Drift	1.97	Runoff	1.03	Runoff
	R3 2nd	stream	2.72	Runoff	1.43	Runoff	2.72	Runoff	1.43	Runoff
	R4	stream	2.95	Runoff	1.55	Runoff	2.95	Runoff	1.55	Runoff
	R4 2nd	stream	3.95	Runoff	2.07	Runoff	3.95	Runoff	2.07	Runoff

Mitigation options										
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)										
Vegetative strip (m)			10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D3 2nd	ditch	-	-	-	-	0.227	Drift	0.118	Drift
	D4	pond	-	-	-	-	0.486	Drainage	0.483	Drainage
	D4	stream	-	-	-	-	0.659	Drainage	0.659	Drainage
	D6	ditch	-	-	-	-	5.96	Drainage	5.96	Drainage
	R1	pond	0.275	Runoff	0.158	Runoff	0.260	Runoff	0.135	Runoff
	R1 2nd	pond	0.125	Runoff	0.073	Runoff	0.118	Runoff	0.062	Runoff
	R1	stream	1.09	Runoff	1.05	Drift	1.09	Runoff	0.572	Runoff
	R1 2nd	stream	1.05	Drift	1.05	Drift	0.665	Runoff	0.348	Runoff
	R2	stream	1.40	Drift	1.40	Drift	0.392	Runoff	0.205	Runoff
	R2 2nd	stream	1.39	Drift	1.39	Drift	0.297	Runoff	0.155	Runoff
	R3	stream	1.48	Drift	1.48	Drift	1.26	Runoff	0.658	Runoff
	R3 2nd	stream	1.47	Drift	1.47	Drift	1.22	Runoff	0.639	Runoff
	R4	stream	1.56	Runoff	1.02	Drift	1.56	Runoff	0.814	Runoff
	R4 2nd	stream	1.63	Runoff	1.05	Drift	1.63	Runoff	0.854	Runoff
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-	0.187	Drift	0.095	Drift
	D3 2nd	ditch	-	-	-	-	0.186	Drift	0.095	Drift
	D4	pond	-	-	-	-	1.66	Drainage	1.66	Drainage
	D4	stream	-	-	-	-	1.83	Drainage	1.83	Drainage

Mitigation options										
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)										
Vegetative strip (m)			10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	D6	ditch	-	-	-	-	12.9	Drainage	12.9	Drainage
	R1	pond	0.415	Runoff	0.244	Runoff	0.387	Runoff	0.201	Runoff
	R1 2nd	pond	0.301	Runoff	0.170	Runoff	0.289	Runoff	0.150	Runoff
	R1	stream	2.29	Runoff	1.20	Runoff	2.29	Runoff	1.20	Runoff
	R1 2nd	stream	1.78	Runoff	0.932	Runoff	1.78	Runoff	0.932	Runoff
	R2	stream	1.21	Drift	1.21	Drift	0.851	Runoff	0.446	Runoff
	R2 2nd	stream	1.20	Drift	1.20	Drift	0.675	Runoff	0.352	Runoff
	R3	stream	2.06	Runoff	1.28	Drift	2.06	Runoff	1.08	Runoff
	R3 2nd	stream	2.67	Runoff	1.40	Runoff	2.67	Runoff	1.40	Runoff
	R4	stream	3.33	Runoff	1.74	Runoff	3.33	Runoff	1.74	Runoff
	R4 2nd	stream	3.25	Runoff	1.71	Runoff	3.25	Runoff	1.71	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 217: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, fruiting – Option 1

Mitigation options										
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-	0.330	Drainage	0.330	Drainage
	R2	stream	1.38	Drift	1.38	Drift	0.571	Runoff	0.298	Runoff
	R3	stream	1.91	Runoff	1.47	Drift	1.91	Runoff	0.998	Runoff
	R4	stream	2.73	Runoff	1.43	Runoff	2.73	Runoff	1.43	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-	0.677	Drainage	0.677	Drainage
	R2	stream	1.20	Drift	1.20	Drift	0.808	Runoff	0.420	Runoff
	R3	stream	1.93	Runoff	1.28	Drift	1.93	Runoff	1.01	Runoff
	R4	stream	3.95	Runoff	2.06	Runoff	3.95	Runoff	2.06	Runoff
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-	0.415	Drainage	0.415	Drainage
	R2	stream	1.40	Drift	1.40	Drift	0.371	Runoff	0.195	Runoff
	R3	stream	1.48	Drift	1.48	Drift	1.10	Runoff	0.577	Runoff
	R4	stream	1.37	Runoff	1.02	Drift	1.37	Runoff	0.716	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-	0.915	Drainage	0.915	Drainage
	R2	stream	1.21	Drift	1.21	Drift	0.922	Runoff	0.483	Runoff
	R3	stream	2.69	Runoff	1.41	Runoff	2.69	Runoff	1.41	Runoff
	R4	stream	3.44	Runoff	1.80	Runoff	3.44	Runoff	1.80	Runoff
Vegetables, fruiting	D6	ditch	-	-	-	-	1.01	Drainage	1.01	Drainage

Mitigation options										
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
1 × 250 g a.s./ha, BBCH 81	R2	stream	1.40	Drift	1.40	Drift	0.335	Runoff	0.175	Runoff
	R3	stream	1.96	Drift	1.48	Drift	1.96	Runoff	1.03	Runoff
	R4	stream	2.84	Runoff	1.49	Runoff	2.84	Runoff	1.49	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 81	D6	ditch	-	-	-	-	2.44	Drainage	2.44	Drainage
	R2	stream	1.21	Drift	1.21	Drift	0.345	Runoff	0.181	Runoff
	R3	stream	2.69	Runoff	1.41	Runoff	2.69	Runoff	1.41	Runoff
	R4	stream	3.55	Runoff	1.86	Runoff	3.55	Runoff	1.86	Runoff
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-	2.07	Drainage	2.07	Drainage
	R2	stream	1.40	Drift	1.40	Drift	0.272	Drift	0.141	Drift
	R3	stream	1.48	Runoff	1.48	Drift	1.26	Runoff	0.659	Runoff
	R4	stream	1.79	Runoff	1.05	Drift	1.79	Runoff	0.940	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-	3.66	Drainage	3.66	Drainage
	R2	stream	1.21	Drift	1.21	Drift	0.454	Runoff	0.238	Runoff
	R3	stream	2.63	Runoff	1.38	Runoff	2.63	Runoff	1.38	Runoff
	R4	stream	3.08	Runoff	1.62	Runoff	3.08	Runoff	1.62	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 218: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, fruiting – Option 2

Mitigation options										
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)										
		Vegetative strip (m)	10 – 12[a]		18 - 20[b]		10 – 12[a]		18 – 20[b]	
		No spray buffer (m)	0		0		10		20	
		Nozzle reduction (%)	0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-	0.330	Drainage	0.330	Drainage
	R2	stream	1.38	Drift	1.38	Drift	0.571	Runoff	0.298	Runoff
	R3	stream	1.91	Runoff	1.47	Drift	1.91	Runoff	0.998	Runoff
	R4	stream	2.73	Runoff	1.43	Runoff	2.73	Runoff	1.43	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-	0.677	Drainage	0.677	Drainage
	R2	stream	1.20	Drift	1.20	Drift	0.808	Runoff	0.420	Runoff
	R3	stream	1.93	Runoff	1.28	Drift	1.93	Runoff	1.01	Runoff
	R4	stream	3.95	Runoff	2.06	Runoff	3.95	Runoff	2.06	Runoff
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-	0.415	Drainage	0.415	Drainage
	R2	stream	1.40	Drift	1.40	Drift	0.371	Runoff	0.195	Runoff
	R3	stream	1.48	Drift	1.48	Drift	1.10	Runoff	0.577	Runoff
	R4	stream	1.37	Runoff	1.02	Drift	1.37	Runoff	0.716	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-	0.915	Drainage	0.915	Drainage
	R2	stream	1.21	Drift	1.21	Drift	0.922	Runoff	0.483	Runoff
	R3	stream	2.69	Runoff	1.41	Runoff	2.69	Runoff	1.41	Runoff
	R4	stream	3.44	Runoff	1.80	Runoff	3.44	Runoff	1.80	Runoff
Vegetables, fruiting	D6	ditch	-	-	-	-	1.01	Drainage	1.01	Drainage

Mitigation options										
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
1 × 250 g a.s./ha, BBCH 81	R2	stream	1.40	Drift	1.40	Drift	0.335	Runoff	0.175	Runoff
	R3	stream	1.96	Drift	1.48	Drift	1.96	Runoff	1.03	Runoff
	R4	stream	2.84	Runoff	1.49	Runoff	2.84	Runoff	1.49	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 81	D6	ditch	-	-	-	-	2.44	Drainage	2.44	Drainage
	R2	stream	1.21	Drift	1.21	Drift	0.345	Runoff	0.181	Runoff
	R3	stream	2.69	Runoff	1.41	Runoff	2.69	Runoff	1.41	Runoff
	R4	stream	3.55	Runoff	1.86	Runoff	3.55	Runoff	1.86	Runoff
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-	2.07	Drainage	2.07	Drainage
	R2	stream	1.40	Drift	1.40	Drift	0.272	Drift	0.141	Drift
	R3	stream	1.48	Runoff	1.48	Drift	1.26	Runoff	0.658	Runoff
	R4	stream	1.79	Runoff	1.05	Drift	1.79	Runoff	0.939	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-	3.66	Drainage	3.66	Drainage
	R2	stream	1.21	Drift	1.21	Drift	0.454	Runoff	0.238	Runoff
	R3	stream	2.63	Runoff	1.38	Runoff	2.63	Runoff	1.38	Runoff
	R4	stream	3.08	Runoff	1.61	Runoff	3.08	Runoff	1.61	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 219: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, bulb – Option 1

Mitigation options										
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)										
Vegetative strip (m)			10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D4	pond	-	-	-	-	0.615	Drainage	0.614	Drainage
	D4	stream	-	-	-	-	0.589	Drainage	0.589	Drainage
	D6	ditch	-	-	-	-	1.07	Drainage	1.07	Drainage
	D6 2nd	ditch	-	-	-	-	4.52	Drainage	4.52	Drainage
	R1	pond	0.106	Runoff	0.071	Runoff	0.093	Runoff	0.050	Runoff
	R1	stream	1.04	Drift	1.04	Drift	1.01	Runoff	0.527	Runoff
	R2	stream	1.38	Drift	1.38	Drift	0.557	Runoff	0.291	Runoff
	R3	stream	1.59	Runoff	1.47	Drift	1.59	Runoff	0.827	Runoff
	R4	stream	2.71	Runoff	1.42	Runoff	2.71	Runoff	1.42	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-	0.187	Drift	0.095	Drift
	D4	pond	-	-	-	-	1.29	Drainage	1.29	Drainage
	D4	stream	-	-	-	-	1.24	Drainage	1.24	Drainage
	D6	ditch	-	-	-	-	2.53	Drainage	2.53	Drainage
	D6 2nd	ditch	-	-	-	-	13.1	Drainage	13.1	Drainage
	R1	pond	0.232	Runoff	0.147	Runoff	0.207	Runoff	0.110	Runoff
	R1	stream	2.52	Runoff	1.32	Runoff	2.52	Runoff	1.32	Runoff

Mitigation options										
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)										
Vegetative strip (m)			10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	R2	stream	1.53	Drift	1.36	Drift	1.16	Runoff	0.605	Runoff
	R3	stream	2.01	Runoff	1.27	Drift	2.01	Runoff	1.05	Runoff
	R4	stream	2.87	Runoff	1.50	Runoff	2.87	Runoff	1.50	Runoff
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D4	pond	-	-	-	-	0.625	Drainage	0.622	Drainage
	D4	stream	-	-	-	-	0.798	Drainage	0.798	Drainage
	D6	ditch	-	-	-	-	0.697	Drainage	0.697	Drainage
	D6 2nd	ditch	-	-	-	-	0.617	Drainage	0.617	Drainage
	R1	pond	0.055	Drift	0.055	Drift	0.045	Runoff	0.024	Runoff
	R1	stream	1.03	Drift	1.03	Drift	0.441	Runoff	0.230	Runoff
	R2	stream	1.40	Drift	1.40	Drift	0.426	Runoff	0.222	Runoff
	R3	stream	1.60	Runoff	1.47	Drift	1.60	Runoff	0.834	Runoff
	R4	stream	2.12	Runoff	1.11	Runoff	2.12	Runoff	1.11	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-	0.187	Drift	0.095	Drift
	D4	pond	-	-	-	-	1.57	Drainage	1.57	Drainage
	D4	stream	-	-	-	-	1.72	Drainage	1.72	Drainage
	D6	ditch	-	-	-	-	1.90	Drainage	1.90	Drainage
	D6 2nd	ditch	-	-	-	-	1.23	Drainage	1.23	Drainage
	R1	pond	0.114	Runoff	0.077	Drift	0.105	Runoff	0.055	Runoff

Mitigation options										
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)										
Vegetative strip (m)			10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	R1	stream	1.24	Runoff	0.906	Drift	1.24	Runoff	0.648	Runoff
	R2	stream	1.22	Drift	1.21	Drift	0.897	Runoff	0.467	Runoff
	R3	stream	2.36	Runoff	1.28	Drift	2.36	Runoff	1.23	Runoff
	R4	stream	2.97	Runoff	1.55	Runoff	2.97	Runoff	1.55	Runoff
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 41	D3	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D4	pond	-	-	-	-	1.05	Drainage	1.05	Drainage
	D4	stream	-	-	-	-	1.01	Drainage	1.01	Drainage
	D6	ditch	-	-	-	-	0.710	Drainage	0.710	Drainage
	D6 2nd	ditch	-	-	-	-	0.617	Drainage	0.617	Drainage
	R1	pond	0.085	Runoff	0.066	Runoff	0.067	Runoff	0.038	Runoff
	R1	stream	1.24	Runoff	1.03	Drift	1.24	Runoff	0.649	Runoff
	R2	stream	1.40	Drift	1.40	Drift	0.373	Runoff	0.196	Runoff
	R3	stream	1.60	Runoff	1.47	Drift	1.60	Runoff	0.834	Runoff
	R4	stream	1.01	Drift	1.01	Drift	0.317	Runoff	0.166	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 41	D3	ditch	-	-	-	-	0.187	Drift	0.095	Drift
	D4	pond	-	-	-	-	2.05	Drainage	2.05	Drainage
	D4	stream	-	-	-	-	2.06	Drainage	2.06	Drainage
	D6	ditch	-	-	-	-	1.75	Drainage	1.75	Drainage
	D6 2nd	ditch	-	-	-	-	1.39	Drainage	1.39	Drainage

Mitigation options										
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)										
Vegetative strip (m)			10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	R1	pond	0.110	Drift	0.095	Drift	0.080	Drift	0.047	Drift
	R1	stream	1.24	Runoff	0.889	Drift	1.24	Runoff	0.649	Runoff
	R2	stream	1.21	Drift	1.21	Drift	1.13	Runoff	0.594	Runoff
	R3	stream	1.60	Runoff	1.28	Drift	1.60	Runoff	0.834	Runoff
	R4	stream	1.77	Runoff	0.917	Runoff	1.77	Runoff	0.917	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 220: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, bulb – Option 2

Mitigation options										
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)										
Vegetative strip (m)			10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D4	pond	-	-	-	-	0.609	Drainage	0.608	Drainage
	D4	stream	-	-	-	-	0.589	Drainage	0.589	Drainage

Mitigation options										
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)										
Vegetative strip (m)			10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
	D6	ditch	-	-	-	-	1.07	Drainage	1.07	Drainage
	D6 2nd	ditch	-	-	-	-	4.52	Drainage	4.52	Drainage
	R1	pond	0.105	Runoff	0.070	Runoff	0.092	Runoff	0.049	Runoff
	R1	stream	1.04	Drift	1.04	Drift	1.01	Runoff	0.527	Runoff
	R2	stream	1.38	Drift	1.38	Drift	0.557	Runoff	0.291	Runoff
	R3	stream	1.59	Runoff	1.47	Drift	1.59	Runoff	0.827	Runoff
	R4	stream	2.71	Runoff	1.42	Runoff	2.71	Runoff	1.42	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-	0.187	Drift	0.095	Drift
	D4	pond	-	-	-	-	1.28	Drainage	1.28	Drainage
	D4	stream	-	-	-	-	1.24	Drainage	1.24	Drainage
	D6	ditch	-	-	-	-	2.53	Drainage	2.53	Drainage
	D6 2nd	ditch	-	-	-	-	13.1	Drainage	13.1	Drainage
	R1	pond	0.229	Runoff	0.145	Runoff	0.205	Runoff	0.108	Runoff
	R1	stream	2.52	Runoff	1.32	Runoff	2.52	Runoff	1.32	Runoff
	R2	stream	1.53	Drift	1.36	Drift	1.16	Runoff	0.605	Runoff
	R3	stream	2.01	Runoff	1.27	Drift	2.01	Runoff	1.05	Runoff
	R4	stream	2.87	Runoff	1.50	Runoff	2.87	Runoff	1.50	Runoff
Vegetables, bulb 1 × 250 g a.s./ha,	D3	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D4	pond	-	-	-	-	0.619	Drainage	0.616	Drainage

Mitigation options										
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)										
Vegetative strip (m)			10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
BBCH 49	D4	stream	-	-	-	-	0.798	Drainage	0.798	Drainage
	D6	ditch	-	-	-	-	0.697	Drainage	0.697	Drainage
	D6 2nd	ditch	-	-	-	-	0.617	Drainage	0.617	Drainage
	R1	pond	0.055	Drift	0.055	Drift	0.043	Runoff	0.023	Runoff
	R1	stream	1.03	Drift	1.03	Drift	0.441	Runoff	0.230	Runoff
	R2	stream	1.40	Drift	1.40	Drift	0.426	Runoff	0.222	Runoff
	R3	stream	1.60	Runoff	1.47	Drift	1.60	Runoff	0.833	Runoff
	R4	stream	2.12	Runoff	1.11	Runoff	2.12	Runoff	1.11	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-	0.187	Drift	0.095	Drift
	D4	pond	-	-	-	-	1.56	Drainage	1.55	Drainage
	D4	stream	-	-	-	-	1.72	Drainage	1.72	Drainage
	D6	ditch	-	-	-	-	1.90	Drainage	1.90	Drainage
	D6 2nd	ditch	-	-	-	-	1.23	Drainage	1.23	Drainage
	R1	pond	0.110	Runoff	0.076	Drift	0.102	Runoff	0.054	Runoff
	R1	stream	1.24	Runoff	0.906	Drift	1.24	Runoff	0.648	Runoff
	R2	stream	1.22	Drift	1.21	Drift	0.897	Runoff	0.467	Runoff
	R3	stream	2.36	Runoff	1.28	Drift	2.36	Runoff	1.23	Runoff
	R4	stream	2.97	Runoff	1.55	Runoff	2.97	Runoff	1.55	Runoff
Vegetables, bulb	D3	ditch	-	-	-	-	0.228	Drift	0.118	Drift

Mitigation options										
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)										
Vegetative strip (m)			10 – 12[a]		18 – 20[b]		10 – 12[a]		18 – 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
1 × 250 g a.s./ha, BBCH 41	D4	pond	-	-	-	-	1.04	Drainage	1.04	Drainage
	D4	stream	-	-	-	-	1.01	Drainage	1.01	Drainage
	D6	ditch	-	-	-	-	0.710	Drainage	0.710	Drainage
	D6 2nd	ditch	-	-	-	-	0.617	Drainage	0.617	Drainage
	R1	pond	0.084	Runoff	0.065	Runoff	0.066	Runoff	0.038	Runoff
	R1	stream	1.24	Runoff	1.03	Drift	1.24	Runoff	0.649	Runoff
	R2	stream	1.40	Drift	1.40	Drift	0.373	Runoff	0.196	Runoff
	R3	stream	1.60	Runoff	1.47	Drift	1.60	Runoff	0.833	Runoff
	R4	stream	1.01	Drift	1.01	Drift	0.317	Runoff	0.166	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 41	D3	ditch	-	-	-	-	0.187	Drift	0.095	Drift
	D4	pond	-	-	-	-	2.03	Drainage	2.03	Drainage
	D4	stream	-	-	-	-	2.06	Drainage	2.06	Drainage
	D6	ditch	-	-	-	-	1.75	Drainage	1.75	Drainage
	D6 2nd	ditch	-	-	-	-	1.39	Drainage	1.39	Drainage
	R1	pond	0.109	Drift	0.093	Drift	0.078	Drift	0.047	Drift
	R1	stream	1.24	Runoff	0.889	Drift	1.24	Runoff	0.649	Runoff
	R2	stream	1.21	Drift	1.21	Drift	1.13	Runoff	0.594	Runoff
	R3	stream	1.60	Runoff	1.28	Drift	1.60	Runoff	0.833	Runoff
	R4	stream	1.77	Runoff	0.917	Runoff	1.77	Runoff	0.917	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 221: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to hops – Option 1

Mitigation options										
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)										
Vegetative strip (m)			0		10 – 12[a]		0		18 – 20[b]	
No spray buffer (m)			10		10		20		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**
Hops 1 × 250 g a.s./ha, BBCH 21	R1	pond	0.421	Drift	0.421	Drift	0.131	Drift	0.131	Drift
	R1	stream	4.02	Drift	4.02	Drift	1.21	Drift	1.21	Drift
	R3[c]	stream	1.16	Drift	5.62	Drift	0.406	Drift	1.69	Drift
	R4[c]	stream	2.30	Runoff	3.95	Drift	2.30	Runoff	1.19	Drift
Hops 2 × 250 g a.s./ha, BBCH 21	R1	pond	0.527	Drift	0.517	Drift	0.171	Drift	0.158	Drift
	R1	stream	2.81	Drift	2.81	Drift	1.32	Drift	0.786	Drift
	R3[c]	stream	1.02	Drift	4.07	Drift	0.355	Drift	1.14	Drift
	R4[c]	stream	2.30	Runoff	2.84	Drift	2.30	Runoff	0.791	Drift
Hops 1 × 250 g a.s./ha, BBCH 51	R1	pond	0.421	Drift	0.421	Drift	0.131	Drift	0.131	Drift
	R1	stream	3.92	Drift	3.92	Drift	1.18	Drift	1.18	Drift
	R3[c]	stream	1.17	Drift	5.68	Drift	0.410	Drift	1.71	Drift
	R4[c]	stream	2.46	Runoff	3.95	Drift	2.46	Runoff	1.19	Drift
Hops 2 × 250 g a.s./ha, BBCH 51	R1	pond	0.510	Drift	0.508	Drift	0.156	Drift	0.154	Drift
	R1	stream	2.81	Drift	2.81	Drift	0.785	Drift	0.785	Drift
	R3[c]	stream	1.02	Drift	4.07	Drift	0.355	Drift	1.14	Drift
	R4[c]	stream	2.46	Runoff	2.84	Drift	2.46	Runoff	0.791	Drift
Hops 1 × 250 g a.s./ha, BBCH 89	R1	pond	0.421	Drift	0.421	Drift	0.131	Drift	0.131	Drift
	R1	stream	4.03	Drift	4.03	Drift	1.21	Drift	1.21	Drift
	R3[c]	stream	1.93	Runoff	5.68	Drift	1.93	Runoff	1.71	Drift
	R4[c]	stream	3.59	Runoff	4.03	Drift	3.59	Runoff	1.21	Drift
Hops 2 × 250 g a.s./ha, BBCH 89	R1	pond	0.497	Drift	0.497	Drift	0.151	Drift	0.151	Drift
	R1	stream	2.89	Drift	2.89	Drift	0.807	Drift	0.807	Drift
	R3[c]	stream	1.61	Runoff	4.07	Drift	1.61	Runoff	1.14	Drift

Mitigation options											
Option 1 (Water DT_{50} = 1000 d, Sediment DT_{50} = 205 d)											
Vegetative strip (m)			0		10 – 12[a]		0		18 – 20[b]		
No spray buffer (m)			10		10		20		20		
Nozzle reduction (%)			0		0		0		0		
Application scenario	**Scenario**	**Water body**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**	
	R4[c]	stream	3.57	Runoff	2.89	Drift	3.57	Runoff	0.807	Drift	

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation
[c] vines, late was used as the surrogate crop for the R3 and R4 scenarios to fulfil the national requirements for Italy

Table A 222: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to hops – Option 2

Mitigation options										
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)										
Vegetative strip (m)			0		10 – 12[a]		0		18 – 20[b]	
No spray buffer (m)			10		10		20		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**	**PEC_{SW} (µg/L)**	**Dominant Route of Entry**
Hops 1 × 250 g a.s./ha, BBCH 21	R1	pond	0.421	Drift	0.421	Drift	0.131	Drift	0.131	Drift
	R1	stream	4.02	Drift	4.02	Drift	1.21	Drift	1.21	Drift
	R3[c]	stream	1.16	Drift	5.62	Drift	0.406	Drift	1.69	Drift
	R4[c]	stream	2.30	Runoff	3.95	Drift	2.30	Runoff	1.19	Drift
Hops 2 × 250 g a.s./ha, BBCH 21	R1	pond	0.523	Drift	0.513	Drift	0.170	Drift	0.157	Drift
	R1	stream	2.81	Drift	2.81	Drift	1.32	Drift	0.786	Drift
	R3[c]	stream	1.02	Drift	4.07	Drift	0.355	Drift	1.14	Drift
	R4[c]	stream	2.30	Runoff	2.84	Drift	2.30	Runoff	0.791	Drift
Hops 1 × 250 g a.s./ha, BBCH 51	R1	pond	0.421	Drift	0.421	Drift	0.131	Drift	0.131	Drift
	R1	stream	3.92	Drift	3.92	Drift	1.18	Drift	1.18	Drift
	R3[c]	stream	1.17	Drift	5.68	Drift	0.410	Drift	1.71	Drift
	R4[c]	stream	2.46	Runoff	3.95	Drift	2.46	Runoff	1.19	Drift
Hops 2 × 250 g a.s./ha, BBCH 51	R1	pond	0.503	Drift	0.501	Drift	0.154	Drift	0.152	Drift
	R1	stream	2.81	Drift	2.81	Drift	0.785	Drift	0.785	Drift
	R3[c]	stream	1.02	Drift	4.07	Drift	0.355	Drift	1.14	Drift
	R4[c]	stream	2.46	Runoff	2.84	Drift	2.46	Runoff	0.791	Drift
Hops 1 × 250 g a.s./ha, BBCH 89	R1	pond	0.421	Drift	0.421	Drift	0.131	Drift	0.131	Drift
	R1	stream	4.03	Drift	4.03	Drift	1.21	Drift	1.21	Drift
	R3[c]	stream	1.93	Runoff	5.68	Drift	1.93	Runoff	1.71	Drift
	R4[c]	stream	3.59	Runoff	4.03	Drift	3.59	Runoff	1.21	Drift
Hops 2 × 250 g a.s./ha, BBCH 89	R1	pond	0.488	Drift	0.488	Drift	0.148	Drift	0.148	Drift
	R1	stream	2.89	Drift	2.89	Drift	0.807	Drift	0.807	Drift
	R3[c]	stream	1.61	Runoff	4.07	Drift	1.61	Runoff	1.14	Drift

Mitigation options										
Option 2 (Water DT_{50} = 205 d, Sediment DT_{50} = 1000 d)										
Vegetative strip (m)			0		10 – 12[a]		0		18 – 20[b]	
No spray buffer (m)			10		10		20		20	
Nozzle reduction (%)			0		0		0		0	
Application scenario	**Scenario**	**Water body**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**	**PECsw (µg/L)**	**Dominant Route of Entry**
	R4[c]	stream	3.57	Runoff	2.89	Drift	3.57	Runoff	0.807	Drift

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation
[c] vines, late was used as the surrogate crop for the R3 and R4 scenarios to fulfil the national requirements for Italy

Table A 223: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, leafy – Maximum over Option 1 and Option 2

Mitigation options										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 9	D3	ditch		-		-	0.228	Drift	0.118	Drift
	D3 2nd	ditch		-		-	0.228	Drift	0.118	Drift
	D4	pond		-		-	0.654	Drainage	0.652	Drainage
	D4	stream		-		-	0.634	Drainage	0.634	Drainage
	D6	ditch		-		-	2.14	Drainage	2.14	Drainage
	R1	pond	0.109	Runoff	0.072	Runoff	0.096	Runoff	0.052	Runoff
	R1 2nd	pond	0.087	Runoff	0.062	Runoff	0.081	Runoff	0.043	Runoff
	R1	stream	1.04	Drift	1.04	Drift	1.04	Runoff	0.542	Runoff
	R1 2nd	stream	1.05	Drift	1.05	Drift	0.872	Runoff	0.457	Runoff
	R2	stream	1.37	Drift	1.37	Drift	0.527	Runoff	0.274	Runoff
	R2 2nd	stream	1.40	Drift	1.40	Drift	0.283	Runoff	0.148	Runoff
	R3	stream	2.09	Runoff	1.47	Drift	2.09	Runoff	1.09	Runoff
	R3 2nd	stream	1.79	Runoff	1.47	Drift	1.79	Runoff	0.937	Runoff
	R4	stream	1.04	Drift	1.04	Drift	0.725	Runoff	0.380	Runoff
	R4 2nd	stream	2.56	Runoff	1.34	Runoff	2.56	Runoff	1.34	Runoff
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch		-		-	0.228	Drift	0.118	Drift
	D3 2nd	ditch		-		-	0.228	Drift	0.118	Drift
	D4	pond		-		-	0.664	Drainage	0.663	Drainage

Mitigation options										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**
	D4	stream		-		-	0.642	Drainage	0.642	Drainage
	D6	ditch		-		-	2.51	Drainage	2.51	Drainage
	R1	pond	0.109	Runoff	0.072	Runoff	0.096	Runoff	0.052	Runoff
	R1 2nd	pond	0.087	Runoff	0.062	Runoff	0.081	Runoff	0.043	Runoff
	R1	stream	1.04	Drift	1.04	Drift	1.04	Runoff	0.542	Runoff
	R1 2nd	stream	1.05	Drift	1.05	Drift	0.872	Runoff	0.457	Runoff
	R2	stream	1.38	Drift	1.38	Drift	0.545	Runoff	0.285	Runoff
	R2 2nd	stream	1.40	Drift	1.40	Drift	0.283	Runoff	0.148	Runoff
	R3	stream	1.58	Runoff	1.47	Drift	1.58	Runoff	0.822	Runoff
	R3 2nd	stream	1.60	Runoff	1.47	Drift	1.60	Runoff	0.839	Runoff
	R4	stream	1.04	Drift	1.04	Drift	0.732	Runoff	0.384	Runoff
	R4 2nd	stream	2.56	Runoff	1.34	Runoff	2.56	Runoff	1.34	Runoff
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch		-		-	0.187	Drift	0.095	Drift
	D3 2nd	ditch		-		-	0.187	Drift	0.095	Drift
	D4	pond		-		-	1.38	Drainage	1.38	Drainage
	D4	stream		-		-	1.33	Drainage	1.33	Drainage
	D6	ditch		-		-	5.43	Drainage	5.43	Drainage
	R1	pond	0.211	Runoff	0.136	Runoff	0.188	Runoff	0.100	Runoff
	R1 2nd	pond	0.179	Runoff	0.123	Runoff	0.164	Runoff	0.086	Runoff

Mitigation options										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
	R1	stream	2.21	Runoff	1.16	Runoff	2.21	Runoff	1.16	Runoff
	R1 2nd	stream	2.00	Runoff	1.05	Runoff	2.00	Runoff	1.05	Runoff
	R2	stream	1.22	Runoff	1.19	Drift	1.22	Runoff	0.636	Runoff
	R2 2nd	stream	1.21	Drift	1.21	Drift	0.612	Runoff	0.319	Runoff
	R3	stream	1.97	Runoff	1.27	Drift	1.97	Runoff	1.03	Runoff
	R3 2nd	stream	2.72	Runoff	1.43	Runoff	2.72	Runoff	1.43	Runoff
	R4	stream	2.95	Runoff	1.55	Runoff	2.95	Runoff	1.55	Runoff
	R4 2nd	stream	3.95	Runoff	2.07	Runoff	3.95	Runoff	2.07	Runoff
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch		-		-	0.228	Drift	0.118	Drift
	D3 2nd	ditch		-		-	0.227	Drift	0.118	Drift
	D4	pond		-		-	0.491	Drainage	0.488	Drainage
	D4	stream		-		-	0.659	Drainage	0.659	Drainage
	D6	ditch		-		-	5.96	Drainage	5.96	Drainage
	R1	pond	0.279	Runoff	0.161	Runoff	0.264	Runoff	0.137	Runoff
	R1 2nd	pond	0.128	Runoff	0.075	Runoff	0.120	Runoff	0.063	Runoff
	R1	stream	1.09	Runoff	1.05	Drift	1.09	Runoff	0.572	Runoff
	R1 2nd	stream	1.05	Drift	1.05	Drift	0.665	Runoff	0.348	Runoff
	R2	stream	1.40	Drift	1.40	Drift	0.392	Runoff	0.205	Runoff
	R2 2nd	stream	1.39	Drift	1.39	Drift	0.297	Runoff	0.155	Runoff

Mitigation options										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
	R3	stream	1.48	Drift	1.48	Drift	1.26	Runoff	0.659	Runoff
	R3 2nd	stream	1.47	Drift	1.47	Drift	1.22	Runoff	0.639	Runoff
	R4	stream	1.56	Runoff	1.02	Drift	1.56	Runoff	0.814	Runoff
	R4 2nd	stream	1.63	Runoff	1.05	Drift	1.63	Runoff	0.854	Runoff
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch		-		-	0.187	Drift	0.095	Drift
	D3 2nd	ditch		-		-	0.186	Drift	0.095	Drift
	D4	pond		-		-	1.68	Drainage	1.67	Drainage
	D4	stream		-		-	1.83	Drainage	1.83	Drainage
	D6	ditch		-		-	12.9	Drainage	12.9	Drainage
	R1	pond	0.420	Runoff	0.247	Runoff	0.392	Runoff	0.204	Runoff
	R1 2nd	pond	0.306	Runoff	0.173	Runoff	0.292	Runoff	0.152	Runoff
	R1	stream	2.29	Runoff	1.20	Runoff	2.29	Runoff	1.20	Runoff
	R1 2nd	stream	1.78	Runoff	0.932	Runoff	1.78	Runoff	0.932	Runoff
	R2	stream	1.21	Drift	1.21	Drift	0.851	Runoff	0.446	Runoff
	R2 2nd	stream	1.20	Drift	1.20	Drift	0.675	Runoff	0.352	Runoff
	R3	stream	2.06	Runoff	1.28	Drift	2.06	Runoff	1.08	Runoff
	R3 2nd	stream	2.67	Runoff	1.40	Runoff	2.67	Runoff	1.40	Runoff
	R4	stream	3.33	Runoff	1.74	Runoff	3.33	Runoff	1.74	Runoff
	R4 2nd	stream	3.25	Runoff	1.71	Runoff	3.25	Runoff	1.71	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 224: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, fruiting – Maximum over Option 1 and Option 2

Mitigation options										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-	0.330	Drainage	0.330	Drainage
	R2	stream	1.38	Drift	1.38	Drift	0.571	Runoff	0.298	Runoff
	R3	stream	1.91	Runoff	1.47	Drift	1.91	Runoff	0.998	Runoff
	R4	stream	2.73	Runoff	1.43	Runoff	2.73	Runoff	1.43	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-	0.677	Drainage	0.677	Drainage
	R2	stream	1.20	Drift	1.20	Drift	0.808	Runoff	0.420	Runoff
	R3	stream	1.93	Runoff	1.28	Drift	1.93	Runoff	1.01	Runoff
	R4	stream	3.95	Runoff	2.06	Runoff	3.95	Runoff	2.06	Runoff
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-	0.415	Drainage	0.415	Drainage
	R2	stream	1.40	Drift	1.40	Drift	0.371	Runoff	0.195	Runoff
	R3	stream	1.48	Drift	1.48	Drift	1.10	Runoff	0.577	Runoff
	R4	stream	1.37	Runoff	1.02	Drift	1.37	Runoff	0.716	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-	0.915	Drainage	0.915	Drainage
	R2	stream	1.21	Drift	1.21	Drift	0.922	Runoff	0.483	Runoff
	R3	stream	2.69	Runoff	1.41	Runoff	2.69	Runoff	1.41	Runoff
	R4	stream	3.44	Runoff	1.80	Runoff	3.44	Runoff	1.80	Runoff
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH	D6	ditch	-	-	-	-	1.01	Drainage	1.01	Drainage
	R2	stream	1.40	Drift	1.40	Drift	0.335	Runoff	0.175	Runoff

Mitigation options										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
81	R3	stream	1.96	Drift	1.48	Drift	1.96	Runoff	1.03	Runoff
	R4	stream	2.84	Runoff	1.49	Runoff	2.84	Runoff	1.49	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 81	D6	ditch	-	-	-	-	2.44	Drainage	2.44	Drainage
	R2	stream	1.21	Drift	1.21	Drift	0.345	Runoff	0.181	Runoff
	R3	stream	2.69	Runoff	1.41	Runoff	2.69	Runoff	1.41	Runoff
	R4	stream	3.55	Runoff	1.86	Runoff	3.55	Runoff	1.86	Runoff
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-	2.07	Drainage	2.07	Drainage
	R2	stream	1.40	Drift	1.40	Drift	0.272	Drift	0.141	Drift
	R3	stream	1.48	Runoff	1.48	Drift	1.26	Runoff	0.659	Runoff
	R4	stream	1.79	Runoff	1.05	Drift	1.79	Runoff	0.940	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-	3.66	Drainage	3.66	Drainage
	R2	stream	1.21	Drift	1.21	Drift	0.454	Runoff	0.238	Runoff
	R3	stream	2.63	Runoff	1.38	Runoff	2.63	Runoff	1.38	Runoff
	R4	stream	3.08	Runoff	1.62	Runoff	3.08	Runoff	1.62	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 225: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to vegetables, bulb – Maximum over Option 1 and Option 2

Mitigation options										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D4	pond	-	-	-	-	0.615	Drainage	0.614	Drainage
	D4	stream	-	-	-	-	0.589	Drainage	0.589	Drainage
	D6	ditch	-	-	-	-	1.07	Drainage	1.07	Drainage
	D6 2[nd]	ditch	-	-	-	-	4.52	Drainage	4.52	Drainage
	R1	pond	0.106	Runoff	0.071	Runoff	0.093	Runoff	0.050	Runoff
	R1	stream	1.04	Drift	1.04	Drift	1.01	Runoff	0.527	Runoff
	R2	stream	1.38	Drift	1.38	Drift	0.557	Runoff	0.291	Runoff
	R3	stream	1.59	Runoff	1.47	Drift	1.59	Runoff	0.827	Runoff
	R4	stream	2.71	Runoff	1.42	Runoff	2.71	Runoff	1.42	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-	0.187	Drift	0.095	Drift
	D4	pond	-	-	-	-	1.29	Drainage	1.29	Drainage
	D4	stream	-	-	-	-	1.24	Drainage	1.24	Drainage
	D6	ditch	-	-	-	-	2.53	Drainage	2.53	Drainage
	D6 2[nd]	ditch	-	-	-	-	13.1	Drainage	13.1	Drainage
	R1	pond	0.232	Runoff	0.147	Runoff	0.207	Runoff	0.110	Runoff
	R1	stream	2.52	Runoff	1.32	Runoff	2.52	Runoff	1.32	Runoff
	R2	stream	1.53	Drift	1.36	Drift	1.16	Runoff	0.605	Runoff

Mitigation options										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**
	R3	stream	2.01	Runoff	1.27	Drift	2.01	Runoff	1.05	Runoff
	R4	stream	2.87	Runoff	1.50	Runoff	2.87	Runoff	1.50	Runoff
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D4	pond	-	-	-	-	0.625	Drainage	0.622	Drainage
	D4	stream	-	-	-	-	0.798	Drainage	0.798	Drainage
	D6	ditch	-	-	-	-	0.697	Drainage	0.697	Drainage
	D6 2nd	ditch	-	-	-	-	0.617	Drainage	0.617	Drainage
	R1	pond	0.055	Drift	0.055	Drift	0.045	Runoff	0.024	Runoff
	R1	stream	1.03	Drift	1.03	Drift	0.441	Runoff	0.230	Runoff
	R2	stream	1.40	Drift	1.40	Drift	0.426	Runoff	0.222	Runoff
	R3	stream	1.60	Runoff	1.47	Drift	1.60	Runoff	0.834	Runoff
	R4	stream	2.12	Runoff	1.11	Runoff	2.12	Runoff	1.11	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-	0.187	Drift	0.095	Drift
	D4	pond	-	-	-	-	1.57	Drainage	1.57	Drainage
	D4	stream	-	-	-	-	1.72	Drainage	1.72	Drainage
	D6	ditch	-	-	-	-	1.90	Drainage	1.90	Drainage
	D6 2nd	ditch	-	-	-	-	1.23	Drainage	1.23	Drainage
	R1	pond	0.114	Runoff	0.077	Drift	0.105	Runoff	0.055	Runoff
	R1	stream	1.24	Runoff	0.906	Drift	1.24	Runoff	0.648	Runoff

Mitigation options										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**
	R2	stream	1.22	Drift	1.21	Drift	0.897	Runoff	0.467	Runoff
	R3	stream	2.36	Runoff	1.28	Drift	2.36	Runoff	1.23	Runoff
	R4	stream	2.97	Runoff	1.55	Runoff	2.97	Runoff	1.55	Runoff
Vegetables, bulb 1 × 250 g a.s./ha, BBCH 41	D3	ditch	-	-	-	-	0.228	Drift	0.118	Drift
	D4	pond	-	-	-	-	1.05	Drainage	1.05	Drainage
	D4	stream	-	-	-	-	1.01	Drainage	1.01	Drainage
	D6	ditch	-	-	-	-	0.710	Drainage	0.710	Drainage
	D6 2nd	ditch	-	-	-	-	0.617	Drainage	0.617	Drainage
	R1	pond	0.085	Runoff	0.066	Runoff	0.067	Runoff	0.038	Runoff
	R1	stream	1.24	Runoff	1.03	Drift	1.24	Runoff	0.649	Runoff
	R2	stream	1.40	Drift	1.40	Drift	0.373	Runoff	0.196	Runoff
	R3	stream	1.60	Runoff	1.47	Drift	1.60	Runoff	0.834	Runoff
	R4	stream	1.01	Drift	1.01	Drift	0.317	Runoff	0.166	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 41	D3	ditch	-	-	-	-	0.187	Drift	0.095	Drift
	D4	pond	-	-	-	-	2.05	Drainage	2.05	Drainage
	D4	stream	-	-	-	-	2.06	Drainage	2.06	Drainage
	D6	ditch	-	-	-	-	1.75	Drainage	1.75	Drainage
	D6 2nd	ditch	-	-	-	-	1.39	Drainage	1.39	Drainage
	R1	pond	0.110	Drift	0.095	Drift	0.080	Drift	0.047	Drift

Mitigation options										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
	R1	stream	1.24	Runoff	0.889	Drift	1.24	Runoff	0.649	Runoff
	R2	stream	1.21	Drift	1.21	Drift	1.13	Runoff	0.594	Runoff
	R3	stream	1.60	Runoff	1.28	Drift	1.60	Runoff	0.834	Runoff
	R4	stream	1.77	Runoff	0.917	Runoff	1.77	Runoff	0.917	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 226: FOCUS Step 4 PEC_{SW} for azoxystrobin following application to hops – Maximum over Option 1 and Option 2

Mitigation options										
Vegetative strip (m)			0		10 – 12[a]		0		18 – 20[b]	
No spray buffer (m)			10		10		20		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Hops 1 × 250 g a.s./ha, BBCH 21	R1	pond	0.421	Drift	0.421	Drift	0.131	Drift	0.131	Drift
	R1	stream	4.02	Drift	4.02	Drift	1.21	Drift	1.21	Drift
	R3[c]	stream	1.16	Drift	5.62	Drift	0.406	Drift	1.69	Drift
	R4[c]	stream	2.30	Runoff	3.95	Drift	2.30	Runoff	1.19	Drift
Hops 2 × 250 g a.s./ha, BBCH 21	R1	pond	0.527	Drift	0.517	Drift	0.171	Drift	0.158	Drift
	R1	stream	2.81	Drift	2.81	Drift	1.32	Drift	0.786	Drift
	R3[c]	stream	1.02	Drift	4.07	Drift	0.355	Drift	1.14	Drift
	R4[c]	stream	2.30	Runoff	2.84	Drift	2.30	Runoff	0.791	Drift
Hops 1 × 250 g a.s./ha, BBCH 51	R1	pond	0.421	Drift	0.421	Drift	0.131	Drift	0.131	Drift
	R1	stream	3.92	Drift	3.92	Drift	1.18	Drift	1.18	Drift
	R3[c]	stream	1.17	Drift	5.68	Drift	0.410	Drift	1.71	Drift
	R4[c]	stream	2.46	Runoff	3.95	Drift	2.46	Runoff	1.19	Drift
Hops 2 × 250 g a.s./ha, BBCH 51	R1	pond	0.510	Drift	0.508	Drift	0.156	Drift	0.154	Drift
	R1	stream	2.81	Drift	2.81	Drift	0.785	Drift	0.785	Drift
	R3[c]	stream	1.02	Drift	4.07	Drift	0.355	Drift	1.14	Drift
	R4[c]	stream	2.46	Runoff	2.84	Drift	2.46	Runoff	0.791	Drift
Hops 1 × 250 g a.s./ha,	R1	pond	0.421	Drift	0.421	Drift	0.131	Drift	0.131	Drift
	R1	stream	4.03	Drift	4.03	Drift	1.21	Drift	1.21	Drift

Mitigation options										
Vegetative strip (m)			0		10 – 12[a]		0		18 – 20[b]	
No spray buffer (m)			10		10		20		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
BBCH 89	R3[c]	stream	1.93	Runoff	5.68	Drift	1.93	Runoff	1.71	Drift
	R4[c]	stream	3.59	Runoff	4.03	Drift	3.59	Runoff	1.21	Drift
Hops 2 × 250 g a.s./ha, BBCH 89	R1	pond	0.497	Drift	0.497	Drift	0.151	Drift	0.151	Drift
	R1	stream	2.89	Drift	2.89	Drift	0.807	Drift	0.807	Drift
	R3[c]	stream	1.61	Runoff	4.07	Drift	1.61	Runoff	1.14	Drift
	R4[c]	stream	3.57	Runoff	2.89	Drift	3.57	Runoff	0.807	Drift

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation
[c] vines, late was used as the surrogate crop for the R3 and R4 scenarios to fulfil the national requirements for Italy

Table A 227: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to vegetables, leafy – Maximum over single and multiple applications

Mitigation options										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-	0.228*	Drift	0.118*	Drift
	D3 2nd	ditch	-	-	-	-	0.228*	Drift	0.118*	Drift
	D4	pond	-	-	-	-	1.38	Drainage	1.38	Drainage
	D4	stream	-	-	-	-	1.33	Drainage	1.33	Drainage
	D6	ditch	-	-	-	-	5.43	Drainage	5.43	Drainage
	R1	pond	0.211	Runoff	0.136	Runoff	0.188	Runoff	0.100	Runoff
	R1 2nd	pond	0.179	Runoff	0.123	Runoff	0.164	Runoff	0.086	Runoff
	R1	stream	2.21	Runoff	1.16	Runoff	2.21	Runoff	1.16	Runoff
	R1 2nd	stream	2.00	Runoff	1.05*	Drift	2.00	Runoff	1.05	Runoff
	R2	stream	1.38*	Drift	1.38*	Drift	1.22	Runoff	0.636	Runoff
	R2 2nd	stream	1.40*	Drift	1.40*	Drift	0.612	Runoff	0.319	Runoff
	R3	stream	1.97	Runoff	1.47*	Drift	1.97	Runoff	1.03	Runoff
	R3 2nd	stream	2.72	Runoff	1.47*	Drift	2.72	Runoff	1.43	Runoff
	R4	stream	2.95	Runoff	1.55	Runoff	2.95	Runoff	1.55	Runoff
	R4 2nd	stream	3.95	Runoff	2.07	Runoff	3.95	Runoff	2.07	Runoff
Vegetables, leafy 2 × 250 g a.s./ha, BBCH	D3	ditch	-	-	-	-	0.228*	Drift	0.118*	Drift
	D3 2nd	ditch	-	-	-	-	0.227*	Drift	0.118*	Drift

Mitigation options										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**
49	D4	pond	-	-	-	-	1.68	Drainage	1.67	Drainage
	D4	stream	-	-	-	-	1.83	Drainage	1.83	Drainage
	D6	ditch	-	-	-	-	12.9	Drainage	12.9	Drainage
	R1	pond	0.420	Runoff	0.247	Runoff	0.392	Runoff	0.204	Runoff
	R1 2nd	pond	0.306	Runoff	0.173	Runoff	0.292	Runoff	0.152	Runoff
	R1	stream	2.29	Runoff	1.20	Runoff	2.29	Runoff	1.20	Runoff
	R1 2nd	stream	1.78	Runoff	1.05*	Drift	1.78	Runoff	0.932	Runoff
	R2	stream	1.40*	Drift	1.40*	Drift	0.851	Runoff	0.446	Runoff
	R2 2nd	stream	1.39*	Drift	1.39*	Drift	0.675	Runoff	0.352	Runoff
	R3	stream	2.06	Runoff	1.48*	Drift	2.06	Runoff	1.08	Runoff
	R3 2nd	stream	2.67	Runoff	1.47*	Drift	2.67	Runoff	1.40	Runoff
	R4	stream	3.33	Runoff	1.74	Runoff	3.33	Runoff	1.74	Runoff
	R4 2nd	stream	3.25	Runoff	1.71	Runoff	3.25	Runoff	1.71	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation
[c] values resulting from single applications are marked *

Table A 228: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to vegetables, fruiting – Maximum over single and multiple applications

Mitigation options										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	-	-	-	-	0.677	Drainage	0.677	Drainage
	R2	stream	1.38*	Drift	1.38*	Drift	0.808	Runoff	0.420	Runoff
	R3	stream	1.93	Runoff	1.47*	Drift	1.93	Runoff	1.01	Runoff
	R4	stream	3.95	Runoff	2.06	Runoff	3.95	Runoff	2.06	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	-	-	-	-	0.915	Drainage	0.915	Drainage
	R2	stream	1.40*	Drift	1.40*	Drift	0.922	Runoff	0.483	Runoff
	R3	stream	2.69	Runoff	1.48*	Drift	2.69	Runoff	1.41	Runoff
	R4	stream	3.44	Runoff	1.80	Runoff	3.44	Runoff	1.80	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 81	D6	ditch	-	-	-	-	2.44	Drainage	2.44	Drainage
	R2	stream	1.40*	Drift	1.40*	Drift	0.345	Runoff	0.181	Runoff
	R3	stream	2.69	Runoff	1.48*	Drift	2.69	Runoff	1.41	Runoff
	R4	stream	3.55	Runoff	1.86	Runoff	3.55	Runoff	1.86	Runoff
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	-	-	-	-	3.66	Drainage	3.66	Drainage
	R2	stream	1.40*	Drift	1.40*	Drift	0.454	Runoff	0.238	Runoff
	R3	stream	2.63	Runoff	1.48*	Drift	2.63	Runoff	1.38	Runoff
	R4	stream	3.08	Runoff	1.62	Runoff	3.08	Runoff	1.62	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

[c] values resulting from single applications are marked *

Table A 229: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to vegetables, bulb – Maximum over single and multiple applications

Mitigation options										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 11	D3	ditch	-	-	-	-	0.228*	Drift	0.118*	Drift
	D4	pond	-	-	-	-	1.29	Drainage	1.29	Drainage
	D4	stream	-	-	-	-	1.24	Drainage	1.24	Drainage
	D6	ditch	-	-	-	-	2.53	Drainage	2.53	Drainage
	D6 2nd	ditch	-	-	-	-	13.1	Drainage	13.1	Drainage
	R1	pond	0.232	Runoff	0.147	Runoff	0.207	Runoff	0.110	Runoff
	R1	stream	2.52	Runoff	1.32	Runoff	2.52	Runoff	1.32	Runoff
	R2	stream	1.53	Drift	1.38*	Drift	1.16	Runoff	0.605	Runoff
	R3	stream	2.01	Runoff	1.47*	Drift	2.01	Runoff	1.05	Runoff
	R4	stream	2.87	Runoff	1.50	Runoff	2.87	Runoff	1.50	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 49	D3	ditch	-	-	-	-	0.228*	Drift	0.118*	Drift
	D4	pond	-	-	-	-	1.57	Drainage	1.57	Drainage
	D4	stream	-	-	-	-	1.72	Drainage	1.72	Drainage
	D6	ditch	-	-	-	-	1.90	Drainage	1.90	Drainage
	D6 2nd	ditch	-	-	-	-	1.23	Drainage	1.23	Drainage
	R1	pond	0.114	Runoff	0.077	Drift	0.105	Runoff	0.055	Runoff
	R1	stream	1.24	Runoff	1.03*	Drift	1.24	Runoff	0.648	Runoff

Mitigation options										
Vegetative strip (m)			10 – 12[a]		18 - 20[b]		10 – 12[a]		18 - 20[b]	
No spray buffer (m)			0		0		10		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**
	R2	stream	1.40*	Drift	1.40*	Drift	0.897	Runoff	0.467	Runoff
	R3	stream	2.36	Runoff	1.47*	Drift	2.36	Runoff	1.23	Runoff
	R4	stream	2.97	Runoff	1.55	Runoff	2.97	Runoff	1.55	Runoff
Vegetables, bulb 2 × 250 g a.s./ha, BBCH 41	D3	ditch	-	-	-	-	0.228*	Drift	0.118*	Drift
	D4	pond	-	-	-	-	2.05	Drainage	2.05	Drainage
	D4	stream	-	-	-	-	2.06	Drainage	2.06	Drainage
	D6	ditch	-	-	-	-	1.75	Drainage	1.75	Drainage
	D6 2nd	ditch	-	-	-	-	1.39	Drainage	1.39	Drainage
	R1	pond	0.110	Drift	0.095	Drift	0.080	Drift	0.047	Drift
	R1	stream	1.24*	Runoff	1.03*	Drift	1.24*	Runoff	0.649*	Runoff
	R2	stream	1.40*	Drift	1.40*	Drift	1.13	Runoff	0.594	Runoff
	R3	stream	1.60*	Runoff	1.47*	Drift	1.60*	Runoff	0.834*	Runoff
	R4	stream	1.77	Runoff	1.01*	Drift	1.77	Runoff	0.917	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation
[c] values resulting from single applications are marked *

Table A 230: FOCUS Step 4 Global Maximum PEC_{SW} for azoxystrobin following application to hops – Maximum over single and multiple applications

Mitigation options										
Vegetative strip (m)			0		10 – 12[a]		0		18 – 20[b]	
No spray buffer (m)			10		10		20		20	
Nozzle reduction (%)			0		0		0		0	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**
Hops 2 × 250 g a.s./ha, BBCH 21	R1	pond	0.527	Drift	0.517	Drift	0.171	Drift	0.158	Drift
	R1	stream	4.02*	Drift	4.02*	Drift	1.32	Drift	1.21*	Drift
	R3[d]	stream	1.16*	Drift	5.62*	Drift	0.406*	Drift	1.69*	Drift
	R4[d]	stream	2.30*	Runoff	3.95*	Drift	2.30*	Runoff	1.19*	Drift
Hops 2 × 250 g a.s./ha, BBCH 51	R1	pond	0.510	Drift	0.508	Drift	0.156	Drift	0.154	Drift
	R1	stream	3.92*	Drift	3.92*	Drift	1.18*	Drift	1.18*	Drift
	R3[d]	stream	1.17*	Drift	5.68*	Drift	0.410*	Drift	1.71*	Drift
	R4[d]	stream	2.46*	Runoff	3.95*	Drift	2.46*	Runoff	1.19*	Drift
Hops 2 × 250 g a.s./ha, BBCH 89	R1	pond	0.497	Drift	0.497	Drift	0.151	Drift	0.151	Drift
	R1	stream	4.03*	Drift	4.03*	Drift	1.21*	Drift	1.21*	Drift
	R3[d]	stream	1.93*	Runoff	5.68*	Drift	1.93*	Runoff	1.71*	Drift
	R4[d]	stream	3.59*	Runoff	4.03*	Drift	3.59*	Runoff	1.21*	Drift

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation
[c] values resulting from single applications are marked *
[d] vines, late was used as the surrogate crop for the R3 and R4 scenarios to fulfil the national requirements for Italy

Greenhouse uses

Table A 231: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy – 0.1% drift

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 9	D3	ditch	0.082	Drift	0.046	0.082	Drift	0.046
	D3 2nd	ditch	0.082	Drift	0.049	0.082	Drift	0.049
	D4	pond	0.652	Drainage	4.03	0.646	Drainage	4.07
	D4	stream	0.634	Drainage	1.58	0.634	Drainage	1.61
	D6	ditch	2.14	Drainage	2.15	2.14	Drainage	2.29
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	0.082	Drift	0.046	0.082	Drift	0.046
	D3 2nd	ditch	0.082	Drift	0.049	0.082	Drift	0.049
	D4	pond	0.663	Drainage	4.08	0.656	Drainage	4.12
	D4	stream	0.642	Drainage	1.60	0.642	Drainage	1.63
	D6	ditch	2.51	Drainage	2.39	2.51	Drainage	2.52
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	0.082	Drift	0.062	0.082	Drift	0.062
	D3 2nd	ditch	0.082	Drift	0.064	0.082	Drift	0.064
	D4	pond	1.38	Drainage	8.03	1.36	Drainage	8.10
	D4	stream	1.33	Drainage	3.15	1.33	Drainage	3.22
	D6	ditch	5.43	Drainage	4.94	5.43	Drainage	5.22
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	0.082	Drift	0.047	0.082	Drift	0.047
	D3 2nd	ditch	0.082	Drift	0.033	0.082	Drift	0.033
	D4	pond	0.489	Drainage	3.08	0.484	Drainage	3.09
	D4	stream	0.659	Drainage	1.18	0.659	Drainage	1.20
	D6	ditch	5.96	Drainage	6.05	5.96	Drainage	6.39
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	0.082	Drift	0.062	0.082	Drift	0.062
	D3 2nd	ditch	0.082	Drift	0.047	0.082	Drift	0.047
	D4	pond	1.68	Drainage	9.23	1.66	Drainage	9.26
	D4	stream	1.83	Drainage	3.72	1.83	Drainage	3.75
	D6	ditch	12.9	Drainage	13.3	12.9	Drainage	14.1

Table A 232: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – 0.1% drift

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	0.330	Drainage	0.361	0.330	Drainage	0.387
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	0.677	Drainage	0.743	0.677	Drainage	0.794
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	0.415	Drainage	0.464	0.415	Drainage	0.495
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.915	Drainage	1.02	0.915	Drainage	1.08
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 81	D6	ditch	1.01	Drainage	1.02	1.01	Drainage	1.08
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 81	D6	ditch	2.44	Drainage	2.34	2.44	Drainage	2.46
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	2.07	Drainage	1.63	2.07	Drainage	1.73
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.66	Drainage	3.16	3.66	Drainage	3.38

Table A 233: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy – 0.2% drift

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy	D3	ditch	0.164	Drift	0.089	0.164	Drift	0.089

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
1 × 250 g a.s./ha, BBCH 9	D3 2nd	ditch	0.165	Drift	0.095	0.165	Drift	0.096
	D4	pond	0.655	Drainage	4.09	0.648	Drainage	4.13
	D4	stream	0.634	Drainage	1.58	0.634	Drainage	1.61
	D6	ditch	2.14	Drainage	2.16	2.14	Drainage	2.29
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	0.164	Drift	0.089	0.164	Drift	0.089
	D3 2nd	ditch	0.165	Drift	0.095	0.165	Drift	0.096
	D4	pond	0.666	Drainage	4.14	0.659	Drainage	4.19
	D4	stream	0.642	Drainage	1.60	0.642	Drainage	1.63
	D6	ditch	2.51	Drainage	2.39	2.51	Drainage	2.53
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	0.165	Drift	0.120	0.165	Drift	0.120
	D3 2nd	ditch	0.165	Drift	0.123	0.165	Drift	0.124
	D4	pond	1.38	Drainage	8.15	1.37	Drainage	8.23
	D4	stream	1.33	Drainage	3.15	1.33	Drainage	3.22
	D6	ditch	5.43	Drainage	4.95	5.43	Drainage	5.23
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	0.164	Drift	0.090	0.164	Drift	0.091
	D3 2nd	ditch	0.164	Drift	0.065	0.164	Drift	0.065
	D4	pond	0.495	Drainage	3.16	0.490	Drainage	3.17
	D4	stream	0.659	Drainage	1.18	0.659	Drainage	1.20
	D6	ditch	5.96	Drainage	6.05	5.96	Drainage	6.39
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	0.165	Drift	0.120	0.165	Drift	0.120
	D3 2nd	ditch	0.164	Drift	0.092	0.164	Drift	0.092
	D4	pond	1.69	Drainage	9.38	1.68	Drainage	9.41
	D4	stream	1.83	Drainage	3.72	1.83	Drainage	3.75
	D6	ditch	12.9	Drainage	13.3	12.9	Drainage	14.1

Table A 234: FOCUS Step 3 PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – 0.2% drift

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	0.330	Drainage	0.362	0.330	Drainage	0.388
Vegetables,	D6	ditch	0.677	Drainage	0.744	0.677	Drainage	0.795

Application scenario	Scenario	Water body	Option 1 Water DT_{50} = 1000 d Sediment DT_{50} = 205 d			Option 2 Water DT_{50} = 205 d Sediment DT_{50} = 1000 d		
			PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
fruiting 2 × 250 g a.s./ha, BBCH 11								
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	0.415	Drainage	0.465	0.415	Drainage	0.496
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.915	Drainage	1.02	0.915	Drainage	1.08
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 81	D6	ditch	1.01	Drainage	1.02	1.01	Drainage	1.09
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 81	D6	ditch	2.44	Drainage	2.35	2.44	Drainage	2.46
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	2.07	Drainage	1.63	2.07	Drainage	1.74
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.66	Drainage	3.16	3.66	Drainage	3.38

Table A 235: FOCUS Step 3 Summary Table, Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy - maximum over option 1 and option 2 – 0.1% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 9	D3	ditch	0.082	Drift	0.046
	D3 2nd	ditch	0.082	Drift	0.049
	D4	pond	0.652	Drainage	4.07
	D4	stream	0.634	Drainage	1.61
	D6	ditch	2.14	Drainage	2.29
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	0.082	Drift	0.046
	D3 2nd	ditch	0.082	Drift	0.049
	D4	pond	0.663	Drainage	4.12
	D4	stream	0.642	Drainage	1.63

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
	D6	ditch	2.51	Drainage	2.52
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	0.082	Drift	0.062
	D3 2nd	ditch	0.082	Drift	0.064
	D4	pond	1.38	Drainage	8.10
	D4	stream	1.33	Drainage	3.22
	D6	ditch	5.43	Drainage	5.22
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	0.082	Drift	0.047
	D3 2nd	ditch	0.082	Drift	0.033
	D4	pond	0.489	Drainage	3.09
	D4	stream	0.659	Drainage	1.20
	D6	ditch	5.96	Drainage	6.39
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	0.082	Drift	0.062
	D3 2nd	ditch	0.082	Drift	0.047
	D4	pond	1.68	Drainage	9.26
	D4	stream	1.83	Drainage	3.75
	D6	ditch	12.9	Drainage	14.1

[a] maximum over option 1 and 2

Table A 236: FOCUS Step 3 Summary Table, Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – maximum over option 1 and option 2 – 0.1% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	0.330	Drainage	0.387
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	0.677	Drainage	0.794
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	0.415	Drainage	0.495
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.915	Drainage	1.08
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 81	D6	ditch	1.01	Drainage	1.08
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 81	D6	ditch	2.44	Drainage	2.46
Vegetables, fruiting 1 × 250 g a.s./ha,	D6	ditch	2.07	Drainage	1.73

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
BBCH 89					
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.66	Drainage	3.38

[a] maximum over option 1 and 2

Table A 237: FOCUS Step 3 Summary Table, PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, leafy - maximum over option 1 and option 2 – 0.2% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 9	D3	ditch	0.164	Drift	0.089
	D3 2nd	ditch	0.165	Drift	0.096
	D4	pond	0.655	Drainage	4.13
	D4	stream	0.634	Drainage	1.61
	D6	ditch	2.14	Drainage	2.29
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 11	D3	ditch	0.164	Drift	0.089
	D3 2nd	ditch	0.165	Drift	0.096
	D4	pond	0.666	Drainage	4.19
	D4	stream	0.642	Drainage	1.63
	D6	ditch	2.51	Drainage	2.53
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 11	D3	ditch	0.165	Drift	0.120
	D3 2nd	ditch	0.165	Drift	0.124
	D4	pond	1.38	Drainage	8.23
	D4	stream	1.33	Drainage	3.22
	D6	ditch	5.43	Drainage	5.23
Vegetables, leafy 1 × 250 g a.s./ha, BBCH 49	D3	ditch	0.164	Drift	0.091
	D3 2nd	ditch	0.164	Drift	0.065
	D4	pond	0.495	Drainage	3.17
	D4	stream	0.659	Drainage	1.20
	D6	ditch	5.96	Drainage	6.39
Vegetables, leafy 2 × 250 g a.s./ha, BBCH 49	D3	ditch	0.165	Drift	0.120
	D3 2nd	ditch	0.164	Drift	0.092
	D4	pond	1.69	Drainage	9.41
	D4	stream	1.83	Drainage	3.75
	D6	ditch	12.9	Drainage	14.1

[a] maximum over option 1 and 2

Table A 238: FOCUS Step 3 Summary Table, Global Maximum PEC_{SW} and PEC_{SED} for azoxystrobin following application to vegetables, fruiting – maximum over option 1 and option 2 – 0.2% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)[a]	Dominant Route of Entry	PEC_{SED} (µg/kg)[a]
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 11	D6	ditch	0.330	Drainage	0.388
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 11	D6	ditch	0.677	Drainage	0.795
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 51	D6	ditch	0.415	Drainage	0.496
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 51	D6	ditch	0.915	Drainage	1.08
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 81	D6	ditch	1.01	Drainage	1.09
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 81	D6	ditch	2.44	Drainage	2.46
Vegetables, fruiting 1 × 250 g a.s./ha, BBCH 89	D6	ditch	2.07	Drainage	1.74
Vegetables, fruiting 2 × 250 g a.s./ha, BBCH 89	D6	ditch	3.66	Drainage	3.38

[a] maximum over option 1 and 2

A 3.13 KCP 9.2.5: Oxathiapiprolin - FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} Using Arithmetic Mean Sorption Endpoints

Comments of zRMS:	All input parameters for oxathiapiprolin and its metabolites were considered acceptable as they followed the EFSA conclusion and LoEP or corresponded to standard default values. Thus, the zRMS considers the presented PEC_{sw} calculations acceptable for the parent and its metabolites.

Results below outline detailed FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for all crops and all uses outlined in the GAP

Table A 239: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	21 d - $PEC_{SW,twa}$ (µg/L)[a]	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 6242.3 mL/g)				
-	-	0.539	0.401	27.3
Step 1 (K_{FOC} = 45586 mL/g)				
-	-	0.175	0.063	30.0
Step 2 (K_{FOC} = 6242.3 mL/g)				
Northern Europe	Mar-May	0.110	0.068	4.65
Northern Europe	Jun-Sep	0.110	0.068	4.65
Northern Europe	Oct-Feb	0.174	0.165	10.5
Southern Europe	Mar-May	0.143	0.134	8.58
Southern Europe	Jun-Sep	0.112	0.104	6.62
Southern Europe	Oct-Feb	0.143	0.134	8.58
Step 2 (K_{FOC} = 45586 mL/g)				
Northern Europe	Mar-May	0.110	0.015	5.13
Northern Europe	Jun-Sep	0.110	0.015	5.13
Northern Europe	Oct-Feb	0.110	0.026	11.6
Southern Europe	Mar-May	0.110	0.023	9.46
Southern Europe	Jun-Sep	0.110	0.019	7.29
Southern Europe	Oct-Feb	0.110	0.023	9.46

[a] twa-time as required by ecotox

Table A 240: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	21 d - $PEC_{SW,twa}$ (µg/L)[a]	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 6242.3 mL/g)				
-	-	1.08	0.801	54.5

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	21 d - $PEC_{SW,twa}$ (µg/L)[a]	Max PEC_{SED} (µg/kg)
Step 2 (K_{FOC} = 45586 mL/g)				
-	-	0.350	0.125	60.1
Step 2 (K_{FOC} = 6242.3 mL/g)				
Northern Europe	Mar-May	0.153	0.140	8.97
Northern Europe	Jun-Sep	0.153	0.140	8.97
Northern Europe	Oct-Feb	0.338	0.321	20.5
Southern Europe	Mar-May	0.276	0.261	16.7
Southern Europe	Jun-Sep	0.215	0.201	12.8
Southern Europe	Oct-Feb	0.276	0.261	16.7
Step 2 (K_{FOC} = 45586 mL/g)				
Northern Europe	Mar-May	0.100	0.023	9.90
Northern Europe	Jun-Sep	0.100	0.023	9.90
Northern Europe	Oct-Feb	0.100	0.046	22.6
Southern Europe	Mar-May	0.100	0.038	18.4
Southern Europe	Jun-Sep	0.100	0.031	14.1
Southern Europe	Oct-Feb	0.100	0.038	18.4

[a] twa-time as required by ecotox

Table A 241: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	21 d - $PEC_{SW,twa}$ (µg/L)[a]	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 6242.3 mL/g)				
-	-	0.539	0.401	27.3
Step 1 (K_{FOC} = 45586 mL/g)				
-	-	0.175	0.063	30.0
Step 2 (K_{FOC} = 6242.3 mL/g)				
Northern Europe	Mar-May	0.110	0.068	4.65
Northern Europe	Jun-Sep	0.110	0.068	4.65
Southern Europe	Mar-May	0.143	0.134	8.58
Southern Europe	Jun-Sep	0.112	0.104	6.62
Step 2 (K_{FOC} = 45586 mL/g)				
Northern Europe	Mar-May	0.110	0.015	5.13
Northern Europe	Jun-Sep	0.110	0.015	5.13
Southern Europe	Mar-May	0.110	0.023	9.46
Southern Europe	Jun-Sep	0.110	0.019	7.29

[a] twa-time as required by ecotox

Table A 242: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days))

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	21 d - $PEC_{sw,twa}$ (µg/L)[a]	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 6242.3 mL/g)				
-	-	1.08	0.801	54.5
Step 1 (K_{FOC} = 45586 mL/g)				
-	-	0.350	0.125	60.1
Step 2 (K_{FOC} = 6242.3 mL/g)				
Northern Europe	Mar-May	0.153	0.140	8.97
Northern Europe	Jun-Sep	0.153	0.140	8.97
Southern Europe	Mar-May	0.276	0.261	16.7
Southern Europe	Jun-Sep	0.215	0.201	12.8
Step 2 (K_{FOC} = 45586 mL/g)				
Northern Europe	Mar-May	0.100	0.023	9.90
Northern Europe	Jun-Sep	0.100	0.023	9.90
Southern Europe	Mar-May	0.100	0.038	18.4
Southern Europe	Jun-Sep	0.100	0.031	14.1

[a] twa-time as required by ecotox

Table A 243: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, bulb, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	21 d - $PEC_{sw,twa}$ (µg/L)[a]	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 6242.3 mL/g)				
-	-	0.539	0.401	27.3
Step 1 (K_{FOC} = 45586 mL/g)				
-	-	0.175	0.063	30.0
Step 2 (K_{FOC} = 6242.3 mL/g)				
Northern Europe	Mar-May	0.110	0.078	5.44
Northern Europe	Jun-Sep	0.110	0.078	5.44
Northern Europe	Oct-Feb	0.206	0.196	12.5
Southern Europe	Mar-May	0.168	0.159	10.2
Southern Europe	Jun-Sep	0.130	0.122	7.79
Southern Europe	Oct-Feb	0.168	0.159	10.2
Step 2 (K_{FOC} = 45586 mL/g)				
Northern Europe	Mar-May	0.110	0.016	6.00
Northern Europe	Jun-Sep	0.110	0.016	6.00
Northern Europe	Oct-Feb	0.110	0.030	13.8

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	21 d - $PEC_{sw,twa}$ (µg/L)[a]	Max PEC_{SED} (µg/kg)
Southern Europe	Mar-May	0.110	0.026	11.2
Southern Europe	Jun-Sep	0.110	0.021	8.59
Southern Europe	Oct-Feb	0.110	0.026	11.2

[a] twa-time as required by ecotox

Table A 244: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, bulb, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 12 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	21 d - $PEC_{sw,twa}$ (µg/L)[a]	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 6242.3 mL/g)				
-	-	1.08	0.801	54.5
Step 1 (K_{FOC} = 45586 mL/g)				
-	-	0.350	0.125	60.1
Step 2 (K_{FOC} = 6242.3 mL/g)				
Northern Europe	Mar-May	0.175	0.162	10.4
Northern Europe	Jun-Sep	0.175	0.162	10.4
Northern Europe	Oct-Feb	0.394	0.376	24.0
Southern Europe	Mar-May	0.321	0.305	19.5
Southern Europe	Jun-Sep	0.248	0.234	14.9
Southern Europe	Oct-Feb	0.321	0.305	19.5
Step 2 (K_{FOC} = 45586 mL/g)				
Northern Europe	Mar-May	0.100	0.026	11.5
Northern Europe	Jun-Sep	0.100	0.026	11.5
Northern Europe	Oct-Feb	0.100	0.053	26.5
Southern Europe	Mar-May	0.100	0.044	21.5
Southern Europe	Jun-Sep	0.100	0.035	16.5
Southern Europe	Oct-Feb	0.100	0.044	21.5

[a] twa-time as required by ecotox

Table A 245: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RDT31 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.151	1.77
Step 2			
Northern Europe	Mar-May	0.022	0.261
Northern Europe	Jun-Sep	0.022	0.261

Northern Europe	Oct-Feb	0.056	0.652
Southern Europe	Mar-May	0.045	0.521
Southern Europe	Jun-Sep	0.034	0.391
Southern Europe	Oct-Feb	0.045	0.521

Table A 246: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RDT31 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	**Period/ Waterbody**	**Max PEC_{SW} (µg/L)**	**Max PEC_{SED} (µg/kg)**
Step 1			
-	-	0.303	3.54
Step 2			
Northern Europe	Mar-May	0.044	0.514
Northern Europe	Jun-Sep	0.044	0.514
Northern Europe	Oct-Feb	0.110	1.28
Southern Europe	Mar-May	0.088	1.03
Southern Europe	Jun-Sep	0.066	0.771
Southern Europe	Oct-Feb	0.088	1.03

Table A 247: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RDT31 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	**Period/ Waterbody**	**Max PEC_{SW} (µg/L)**	**Max PEC_{SED} (µg/kg)**
Step 1			
-	-	0.151	1.77
Step 2			
Northern Europe	Mar-May	0.022	0.261
Northern Europe	Jun-Sep	0.022	0.261
Southern Europe	Mar-May	0.045	0.521
Southern Europe	Jun-Sep	0.034	0.391

Table A 248: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RDT31 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	**Period/ Waterbody**	**Max PEC_{SW} (µg/L)**	**Max PEC_{SED} (µg/kg)**
Step 1			
-	-	0.303	3.54
Step 2			
Northern Europe	Mar-May	0.044	0.514
Northern Europe	Jun-Sep	0.044	0.514
Southern Europe	Mar-May	0.088	1.03
Southern Europe	Jun-Sep	0.066	0.771

Table A 249: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RDT31 following application to vegetables, bulb, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	**Period/ Waterbody**	**Max PEC_{SW} (µg/L)**	**Max PEC_{SED} (µg/kg)**
Step 1			
-	-	0.151	1.77
Step 2			
Northern Europe	Mar-May	0.027	0.313
Northern Europe	Jun-Sep	0.027	0.313
Northern Europe	Oct-Feb	0.067	0.782
Southern Europe	Mar-May	0.054	0.626
Southern Europe	Jun-Sep	0.040	0.469
Southern Europe	Oct-Feb	0.054	0.626

Table A 250: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RDT31 following application to vegetables, bulb, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 12 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.303	3.54
Step 2			
Northern Europe	Mar-May	0.052	0.610
Northern Europe	Jun-Sep	0.052	0.610
Northern Europe	Oct-Feb	0.131	1.53
Southern Europe	Mar-May	0.104	1.22
Southern Europe	Jun-Sep	0.078	0.915
Southern Europe	Oct-Feb	0.104	1.22

Table A 251: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RAB06 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.596	2.93
Step 2			
Northern Europe	Mar-May	0.092	0.452
Northern Europe	Jun-Sep	0.092	0.452
Northern Europe	Oct-Feb	0.219	1.08
Southern Europe	Mar-May	0.177	0.871
Southern Europe	Jun-Sep	0.135	0.661
Southern Europe	Oct-Feb	0.177	0.871

Table A 252: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RAB06 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	1.19	5.86
Step 2			
Northern Europe	Mar-May	0.178	0.870
Northern Europe	Jun-Sep	0.178	0.870
Northern Europe	Oct-Feb	0.424	2.09
Southern Europe	Mar-May	0.342	1.68
Southern Europe	Jun-Sep	0.260	1.28
Southern Europe	Oct-Feb	0.342	1.68

Table A 253: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RAB06 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	**Period/ Waterbody**	**Max PEC_{SW} (µg/L)**	**Max PEC_{SED} (µg/kg)**
Step 1			
-	-	0.596	2.93
Step 2			
Northern Europe	Mar-May	0.092	0.452
Northern Europe	Jun-Sep	0.092	0.452
Southern Europe	Mar-May	0.177	0.871
Southern Europe	Jun-Sep	0.135	0.661

Table A 254: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RAB06 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	**Period/ Waterbody**	**Max PEC_{SW} (µg/L)**	**Max PEC_{SED} (µg/kg)**
Step 1			
-	-	1.19	5.86
Step 2			
Northern Europe	Mar-May	0.178	0.870
Northern Europe	Jun-Sep	0.178	0.870
Southern Europe	Mar-May	0.342	1.68
Southern Europe	Jun-Sep	0.260	1.28

Table A 255: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RAB06 following application to vegetables, bulb, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	**Period/ Waterbody**	**Max PEC_{SW} (µg/L)**	**Max PEC_{SED} (µg/kg)**
Step 1			
-	-	0.596	2.93
Step 2			
Northern Europe	Mar-May	0.109	0.536
Northern Europe	Jun-Sep	0.109	0.536
Northern Europe	Oct-Feb	0.261	1.29
Southern Europe	Mar-May	0.211	1.04
Southern Europe	Jun-Sep	0.160	0.787
Southern Europe	Oct-Feb	0.211	1.04

Table A 256: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RAB06 following application to vegetables, bulb, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 12 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	1.19	5.86
Step 2			
Northern Europe	Mar-May	0.206	1.01
Northern Europe	Jun-Sep	0.206	1.01
Northern Europe	Oct-Feb	0.495	2.44
Southern Europe	Mar-May	0.399	1.97
Southern Europe	Jun-Sep	0.302	1.49
Southern Europe	Oct-Feb	0.399	1.97

Table A 257: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-QPS10 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.030	1.47
Step 2			
Northern Europe	Mar-May	0.005	0.219
Northern Europe	Jun-Sep	0.005	0.219
Northern Europe	Oct-Feb	0.011	0.547
Southern Europe	Mar-May	0.009	0.437
Southern Europe	Jun-Sep	0.007	0.328
Southern Europe	Oct-Feb	0.009	0.437

Table A 258: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-QPS10 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.060	2.93
Step 2			
Northern Europe	Mar-May	0.009	0.436
Northern Europe	Jun-Sep	0.009	0.436
Northern Europe	Oct-Feb	0.022	1.09
Southern Europe	Mar-May	0.018	0.871
Southern Europe	Jun-Sep	0.013	0.653
Southern Europe	Oct-Feb	0.018	0.871

Table A 259: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-QPS10 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.030	1.47
Step 2			
Northern Europe	Mar-May	0.005	0.219
Northern Europe	Jun-Sep	0.005	0.219
Southern Europe	Mar-May	0.009	0.437
Southern Europe	Jun-Sep	0.007	0.328

Table A 260: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-QPS10 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.060	2.93
Step 2			
Northern Europe	Mar-May	0.009	0.436
Northern Europe	Jun-Sep	0.009	0.436
Southern Europe	Mar-May	0.018	0.871
Southern Europe	Jun-Sep	0.013	0.653

Table A 261: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-QPS10 following application to vegetables, bulb, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.030	1.47
Step 2			
Northern Europe	Mar-May	0.005	0.262
Northern Europe	Jun-Sep	0.005	0.262
Northern Europe	Oct-Feb	0.013	0.656
Southern Europe	Mar-May	0.011	0.525
Southern Europe	Jun-Sep	0.008	0.394
Southern Europe	Oct-Feb	0.011	0.525

Table A 262: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-QPS10 following application to vegetables, bulb, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 12 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
-	-	0.060	2.93
Step 2			
Northern Europe	Mar-May	0.011	0.521
Northern Europe	Jun-Sep	0.011	0.521
Northern Europe	Oct-Feb	0.027	1.30
Southern Europe	Mar-May	0.021	1.04
Southern Europe	Jun-Sep	0.016	0.782
Southern Europe	Oct-Feb	0.021	1.04

Table A 263: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-E8S72 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.136	0.010
Step 2			
Northern Europe	Mar-May	0.020	0.002
Northern Europe	Jun-Sep	0.020	0.002
Northern Europe	Oct-Feb	0.051	0.004
Southern Europe	Mar-May	0.041	0.003
Southern Europe	Jun-Sep	0.030	0.002
Southern Europe	Oct-Feb	0.041	0.003

Table A 264: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-E8S72 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.272	0.020
Step 2			
Northern Europe	Mar-May	0.040	0.003
Northern Europe	Jun-Sep	0.040	0.003
Northern Europe	Oct-Feb	0.100	0.007
Southern Europe	Mar-May	0.080	0.006
Southern Europe	Jun-Sep	0.060	0.004
Southern Europe	Oct-Feb	0.080	0.006

Table A 265: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-E8S72 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.136	0.010
Step 2			
Northern Europe	Mar-May	0.020	0.002
Northern Europe	Jun-Sep	0.020	0.002
Southern Europe	Mar-May	0.041	0.003
Southern Europe	Jun-Sep	0.030	0.002

Table A 266: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-E8S72 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.272	0.020
Step 2			
Northern Europe	Mar-May	0.040	0.003
Northern Europe	Jun-Sep	0.040	0.003
Southern Europe	Mar-May	0.080	0.006
Southern Europe	Jun-Sep	0.060	0.004

Table A 267: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-E8S72 following application to vegetables, bulb, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.136	0.010
Step 2			
Northern Europe	Mar-May	0.024	0.002
Northern Europe	Jun-Sep	0.024	0.002
Northern Europe	Oct-Feb	0.061	0.005
Southern Europe	Mar-May	0.049	0.004
Southern Europe	Jun-Sep	0.036	0.003
Southern Europe	Oct-Feb	0.049	0.004

Table A 268: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-E8S72 following application to vegetables, bulb, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 12 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
-	-	0.272	0.020
Step 2			
Northern Europe	Mar-May	0.048	0.004
Northern Europe	Jun-Sep	0.048	0.004
Northern Europe	Oct-Feb	0.120	0.009
Southern Europe	Mar-May	0.096	0.007
Southern Europe	Jun-Sep	0.072	0.005
Southern Europe	Oct-Feb	0.096	0.007

Table A 269: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-S2K66 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.346	0.035
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.033	2.44
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.059	0.006
Northern Europe	Jun-Sep	0.059	0.006
Northern Europe	Oct-Feb	0.133	0.013
Southern Europe	Mar-May	0.108	0.011
Southern Europe	Jun-Sep	0.083	0.008
Southern Europe	Oct-Feb	0.108	0.011
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.009	0.414
Northern Europe	Jun-Sep	0.009	0.414
Northern Europe	Oct-Feb	0.010	0.937
Southern Europe	Mar-May	0.009	0.762
Southern Europe	Jun-Sep	0.009	0.588
Southern Europe	Oct-Feb	0.009	0.762

Table A 270: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-S2K66 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.692	0.069

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.066	4.89
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.113	0.011
Northern Europe	Jun-Sep	0.113	0.011
Northern Europe	Oct-Feb	0.258	0.026
Southern Europe	Mar-May	0.210	0.021
Southern Europe	Jun-Sep	0.162	0.016
Southern Europe	Oct-Feb	0.210	0.021
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.009	0.799
Northern Europe	Jun-Sep	0.009	0.799
Northern Europe	Oct-Feb	0.019	1.82
Southern Europe	Mar-May	0.015	1.48
Southern Europe	Jun-Sep	0.012	1.14
Southern Europe	Oct-Feb	0.015	1.48

Table A 271: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-S2K66 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.346	0.035
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.033	2.44
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.059	0.006
Northern Europe	Jun-Sep	0.059	0.006
Southern Europe	Mar-May	0.108	0.011
Southern Europe	Jun-Sep	0.083	0.008
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.009	0.414
Northern Europe	Jun-Sep	0.009	0.414
Southern Europe	Mar-May	0.009	0.762
Southern Europe	Jun-Sep	0.009	0.588

Table A 272: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-S2K66 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.692	0.069
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.066	4.89
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.113	0.011
Northern Europe	Jun-Sep	0.113	0.011
Southern Europe	Mar-May	0.210	0.021
Southern Europe	Jun-Sep	0.162	0.016
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.009	0.799
Northern Europe	Jun-Sep	0.009	0.799
Southern Europe	Mar-May	0.015	1.48
Southern Europe	Jun-Sep	0.012	1.14

Table A 273: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-S2K66 following application to vegetables, bulb, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.346	0.035
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.033	2.44
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.069	0.007
Northern Europe	Jun-Sep	0.069	0.007
Northern Europe	Oct-Feb	0.157	0.016
Southern Europe	Mar-May	0.128	0.013
Southern Europe	Jun-Sep	0.098	0.010
Southern Europe	Oct-Feb	0.128	0.013
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.009	0.484
Northern Europe	Jun-Sep	0.009	0.484
Northern Europe	Oct-Feb	0.012	1.11
Southern Europe	Mar-May	0.009	0.902
Southern Europe	Jun-Sep	0.009	0.693

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Southern Europe	Oct-Feb	0.009	0.902

Table A 274: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-S2K66 following application to vegetables, bulb, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 12 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.692	0.069
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.066	4.89
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.131	0.013
Northern Europe	Jun-Sep	0.131	0.013
Northern Europe	Oct-Feb	0.303	0.030
Southern Europe	Mar-May	0.245	0.025
Southern Europe	Jun-Sep	0.188	0.019
Southern Europe	Oct-Feb	0.245	0.025
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.010	0.924
Northern Europe	Jun-Sep	0.010	0.924
Northern Europe	Oct-Feb	0.022	2.14
Southern Europe	Mar-May	0.018	1.73
Southern Europe	Jun-Sep	0.014	1.33
Southern Europe	Oct-Feb	0.018	1.73

Table A 275: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RSE01 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.399	0.040
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.038	2.82
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.068	0.007
Northern Europe	Jun-Sep	0.068	0.007
Northern Europe	Oct-Feb	0.153	0.015

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Southern Europe	Mar-May	0.125	0.012
Southern Europe	Jun-Sep	0.096	0.010
Southern Europe	Oct-Feb	0.125	0.012
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.011	0.478
Northern Europe	Jun-Sep	0.011	0.478
Northern Europe	Oct-Feb	0.011	1.08
Southern Europe	Mar-May	0.011	0.880
Southern Europe	Jun-Sep	0.011	0.679
Southern Europe	Oct-Feb	0.011	0.880

Table A 276: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RSE01 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.799	0.080
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.077	5.64
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.131	0.013
Northern Europe	Jun-Sep	0.131	0.013
Northern Europe	Oct-Feb	0.298	0.030
Southern Europe	Mar-May	0.242	0.024
Southern Europe	Jun-Sep	0.186	0.019
Southern Europe	Oct-Feb	0.242	0.024
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.011	0.922
Northern Europe	Jun-Sep	0.011	0.922
Northern Europe	Oct-Feb	0.022	2.11
Southern Europe	Mar-May	0.018	1.71
Southern Europe	Jun-Sep	0.014	1.32
Southern Europe	Oct-Feb	0.018	1.71

Table A 277: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RSE01 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			

-	-	0.399	0.040
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.038	2.82
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.068	0.007
Northern Europe	Jun-Sep	0.068	0.007
Southern Europe	Mar-May	0.125	0.012
Southern Europe	Jun-Sep	0.096	0.010
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.011	0.478
Northern Europe	Jun-Sep	0.011	0.478
Southern Europe	Mar-May	0.011	0.880
Southern Europe	Jun-Sep	0.011	0.679

Table A 278: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RSE01 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days))

Scenario FOCUS	**Period/ Waterbody**	**Max PEC_{SW} (µg/L)**	**Max PEC_{SED} (µg/kg)**
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.799	0.080
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.077	5.64
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.131	0.013
Northern Europe	Jun-Sep	0.131	0.013
Southern Europe	Mar-May	0.242	0.024
Southern Europe	Jun-Sep	0.186	0.019
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.011	0.922
Northern Europe	Jun-Sep	0.011	0.922
Southern Europe	Mar-May	0.018	1.71
Southern Europe	Jun-Sep	0.014	1.32

Table A 279: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RSE01 following application to vegetables, bulb, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	**Period/ Waterbody**	**Max PEC_{SW} (µg/L)**	**Max PEC_{SED} (µg/kg)**
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.399	0.040
Step 1 (K_{FOC} = 10000 mL/g)			

Scenario FOCUS	**Period/ Waterbody**	**Max PEC$_{SW}$ (µg/L)**	**Max PEC$_{SED}$ (µg/kg)**
-	-	0.038	2.82
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.079	0.008
Northern Europe	Jun-Sep	0.079	0.008
Northern Europe	Oct-Feb	0.182	0.018
Southern Europe	Mar-May	0.147	0.015
Southern Europe	Jun-Sep	0.113	0.011
Southern Europe	Oct-Feb	0.147	0.015
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.011	0.558
Northern Europe	Jun-Sep	0.011	0.558
Northern Europe	Oct-Feb	0.013	1.28
Southern Europe	Mar-May	0.011	1.04
Southern Europe	Jun-Sep	0.011	0.800
Southern Europe	Oct-Feb	0.011	1.04

Table A 280: FOCUS Step 1 and 2 PEC$_{SW}$ and PEC$_{SED}$ for IN-RSE01 following application to vegetables, bulb, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 12 days)

Scenario FOCUS	**Period/ Waterbody**	**Max PEC$_{SW}$ (µg/L)**	**Max PEC$_{SED}$ (µg/kg)**
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.799	0.080
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.077	5.64
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.151	0.015
Northern Europe	Jun-Sep	0.151	0.015
Northern Europe	Oct-Feb	0.349	0.035
Southern Europe	Mar-May	0.283	0.028
Southern Europe	Jun-Sep	0.217	0.022
Southern Europe	Oct-Feb	0.283	0.028
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.011	1.07
Northern Europe	Jun-Sep	0.011	1.07
Northern Europe	Oct-Feb	0.025	2.47
Southern Europe	Mar-May	0.021	2.00

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Southern Europe	Jun-Sep	0.016	1.53
Southern Europe	Oct-Feb	0.021	2.00

Table A 281: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RYJ52 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.655	0.066
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.063	4.63
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.111	0.011
Northern Europe	Jun-Sep	0.111	0.011
Northern Europe	Oct-Feb	0.251	0.025
Southern Europe	Mar-May	0.205	0.020
Southern Europe	Jun-Sep	0.158	0.016
Southern Europe	Oct-Feb	0.205	0.020
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.018	0.784
Northern Europe	Jun-Sep	0.018	0.784
Northern Europe	Oct-Feb	0.019	1.78
Southern Europe	Mar-May	0.018	1.44
Southern Europe	Jun-Sep	0.018	1.11
Southern Europe	Oct-Feb	0.018	1.44

Table A 282: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RYJ52 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	1.31	0.131
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.126	9.26
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.214	0.021
Northern Europe	Jun-Sep	0.214	0.021
Northern Europe	Oct-Feb	0.489	0.049

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Southern Europe	Mar-May	0.398	0.040
Southern Europe	Jun-Sep	0.306	0.031
Southern Europe	Oct-Feb	0.398	0.040
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.017	1.51
Northern Europe	Jun-Sep	0.017	1.51
Northern Europe	Oct-Feb	0.036	3.46
Southern Europe	Mar-May	0.029	2.81
Southern Europe	Jun-Sep	0.023	2.16
Southern Europe	Oct-Feb	0.029	2.81

Table A 283: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RYJ52 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.655	0.066
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.063	4.63
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.111	0.011
Northern Europe	Jun-Sep	0.111	0.011
Southern Europe	Mar-May	0.205	0.020
Southern Europe	Jun-Sep	0.158	0.016
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.018	0.784
Northern Europe	Jun-Sep	0.018	0.784
Southern Europe	Mar-May	0.018	1.44
Southern Europe	Jun-Sep	0.018	1.11

Table A 284: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RYJ52 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	1.31	0.131
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.126	9.26
Step 2 (K_{FOC} = 10 mL/g)			

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Northern Europe	Mar-May	0.214	0.021
Northern Europe	Jun-Sep	0.214	0.021
Southern Europe	Mar-May	0.398	0.040
Southern Europe	Jun-Sep	0.306	0.031
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.017	1.51
Northern Europe	Jun-Sep	0.017	1.51
Southern Europe	Mar-May	0.029	2.81
Southern Europe	Jun-Sep	0.023	2.16

Table A 285: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RYJ52 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.655	0.066
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.063	4.63
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.130	0.013
Northern Europe	Jun-Sep	0.130	0.013
Northern Europe	Oct-Feb	0.298	0.030
Southern Europe	Mar-May	0.242	0.024
Southern Europe	Jun-Sep	0.186	0.019
Southern Europe	Oct-Feb	0.242	0.024
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.018	0.916
Northern Europe	Jun-Sep	0.018	0.916
Northern Europe	Oct-Feb	0.022	2.11
Southern Europe	Mar-May	0.018	1.71
Southern Europe	Jun-Sep	0.018	1.31
Southern Europe	Oct-Feb	0.018	1.71

Table A 286: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RYJ52 following application to vegetables, bulb, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 12 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	1.31	0.131
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.126	9.26
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.248	0.025
Northern Europe	Jun-Sep	0.248	0.025
Northern Europe	Oct-Feb	0.573	0.057
Southern Europe	Mar-May	0.465	0.046
Southern Europe	Jun-Sep	0.356	0.036
Southern Europe	Oct-Feb	0.465	0.046
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.019	1.75
Northern Europe	Jun-Sep	0.019	1.75
Northern Europe	Oct-Feb	0.042	4.05
Southern Europe	Mar-May	0.034	3.28
Southern Europe	Jun-Sep	0.026	2.52
Southern Europe	Oct-Feb	0.034	3.28

Table A 287: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-Q7D41 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.477	0.048
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.046	3.37
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.081	0.008
Northern Europe	Jun-Sep	0.081	0.008
Northern Europe	Oct-Feb	0.183	0.018
Southern Europe	Mar-May	0.149	0.015
Southern Europe	Jun-Sep	0.115	0.012
Southern Europe	Oct-Feb	0.149	0.015
Step 2 (K_{FOC} = 10000 mL/g)			

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Northern Europe	Mar-May	0.013	0.571
Northern Europe	Jun-Sep	0.013	0.571
Northern Europe	Oct-Feb	0.013	1.29
Southern Europe	Mar-May	0.013	1.05
Southern Europe	Jun-Sep	0.013	0.811
Southern Europe	Oct-Feb	0.013	1.05

Table A 288: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-Q7D41 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.954	0.095
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.092	6.74
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.156	0.016
Northern Europe	Jun-Sep	0.156	0.016
Northern Europe	Oct-Feb	0.356	0.036
Southern Europe	Mar-May	0.289	0.029
Southern Europe	Jun-Sep	0.223	0.022
Southern Europe	Oct-Feb	0.289	0.029
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.013	1.10
Northern Europe	Jun-Sep	0.013	1.10
Northern Europe	Oct-Feb	0.026	2.52
Southern Europe	Mar-May	0.021	2.04
Southern Europe	Jun-Sep	0.017	1.57
Southern Europe	Oct-Feb	0.021	2.04

Table A 289: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-Q7D41 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.477	0.048
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.046	3.37
Step 2 (K_{FOC} = 10 mL/g)			

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Northern Europe	Mar-May	0.081	0.008
Northern Europe	Jun-Sep	0.081	0.008
Southern Europe	Mar-May	0.149	0.015
Southern Europe	Jun-Sep	0.115	0.012
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.013	0.571
Northern Europe	Jun-Sep	0.013	0.571
Southern Europe	Mar-May	0.013	1.05
Southern Europe	Jun-Sep	0.013	0.811

Table A 290: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-Q7D41 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.954	0.095
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.092	6.74
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.156	0.016
Northern Europe	Jun-Sep	0.156	0.016
Southern Europe	Mar-May	0.289	0.029
Southern Europe	Jun-Sep	0.223	0.022
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.013	1.10
Northern Europe	Jun-Sep	0.013	1.10
Southern Europe	Mar-May	0.021	2.04
Southern Europe	Jun-Sep	0.017	1.57

Table A 291: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-Q7D41 following application to vegetables, bulb, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.477	0.048
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.046	3.37
Step 2 (K_{FOC} = 10 mL/g)			

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Northern Europe	Mar-May	0.095	0.009
Northern Europe	Jun-Sep	0.095	0.009
Northern Europe	Oct-Feb	0.217	0.022
Southern Europe	Mar-May	0.176	0.018
Southern Europe	Jun-Sep	0.135	0.014
Southern Europe	Oct-Feb	0.176	0.018
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.013	0.667
Northern Europe	Jun-Sep	0.013	0.667
Northern Europe	Oct-Feb	0.016	1.53
Southern Europe	Mar-May	0.013	1.24
Southern Europe	Jun-Sep	0.013	0.955
Southern Europe	Oct-Feb	0.013	1.24

Table A 292: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-Q7D41 following application to vegetables, bulb, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 12 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.954	0.095
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.092	6.74
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.180	0.018
Northern Europe	Jun-Sep	0.180	0.018
Northern Europe	Oct-Feb	0.417	0.042
Southern Europe	Mar-May	0.338	0.034
Southern Europe	Jun-Sep	0.259	0.026
Southern Europe	Oct-Feb	0.338	0.034
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.014	1.27
Northern Europe	Jun-Sep	0.014	1.27
Northern Europe	Oct-Feb	0.030	2.95
Southern Europe	Mar-May	0.025	2.39
Southern Europe	Jun-Sep	0.019	1.83
Southern Europe	Oct-Feb	0.025	2.39

Table A 293: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-P3X26 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 0.1 mL/g)			
-	-	0.429	< 0.001
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.041	2.99
Step 2 (K_{FOC} = 0.1 mL/g)			
Northern Europe	Mar-May	0.073	< 0.001
Northern Europe	Jun-Sep	0.073	< 0.001
Northern Europe	Oct-Feb	0.165	< 0.001
Southern Europe	Mar-May	0.134	< 0.001
Southern Europe	Jun-Sep	0.103	< 0.001
Southern Europe	Oct-Feb	0.134	< 0.001
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.012	0.507
Northern Europe	Jun-Sep	0.012	0.507
Northern Europe	Oct-Feb	0.012	1.15
Southern Europe	Mar-May	0.012	0.934
Southern Europe	Jun-Sep	0.012	0.721
Southern Europe	Oct-Feb	0.012	0.934

Table A 294: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-P3X26 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 0.1 mL/g)			
-	-	0.858	< 0.001
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.081	5.99
Step 2 (K_{FOC} = 0.1 mL/g)			
Northern Europe	Mar-May	0.140	< 0.001
Northern Europe	Jun-Sep	0.140	< 0.001
Northern Europe	Oct-Feb	0.320	< 0.001
Southern Europe	Mar-May	0.260	< 0.001
Southern Europe	Jun-Sep	0.200	< 0.001
Southern Europe	Oct-Feb	0.260	< 0.001
Step 2 (K_{FOC} = 10000 mL/g)			

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Northern Europe	Mar-May	0.011	0.978
Northern Europe	Jun-Sep	0.011	0.978
Northern Europe	Oct-Feb	0.023	2.23
Southern Europe	Mar-May	0.019	1.82
Southern Europe	Jun-Sep	0.015	1.40
Southern Europe	Oct-Feb	0.019	1.82

Table A 295: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-P3X26 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 0.1 mL/g)			
-	-	0.429	< 0.001
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.041	2.99
Step 2 (K_{FOC} = 0.1 mL/g)			
Northern Europe	Mar-May	0.073	< 0.001
Northern Europe	Jun-Sep	0.073	< 0.001
Southern Europe	Mar-May	0.134	< 0.001
Southern Europe	Jun-Sep	0.103	< 0.001
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.012	0.507
Northern Europe	Jun-Sep	0.012	0.507
Southern Europe	Mar-May	0.012	0.934
Southern Europe	Jun-Sep	0.012	0.721

Table A 296: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-P3X26 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 0.1 mL/g)			
-	-	0.858	< 0.001
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.081	5.99
Step 2 (K_{FOC} = 0.1 mL/g)			
Northern Europe	Mar-May	0.140	< 0.001
Northern Europe	Jun-Sep	0.140	< 0.001
Southern Europe	Mar-May	0.260	< 0.001
Southern Europe	Jun-Sep	0.200	< 0.001

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.011	0.978
Northern Europe	Jun-Sep	0.011	0.978
Southern Europe	Mar-May	0.019	1.82
Southern Europe	Jun-Sep	0.015	1.40

Table A 297: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-P3X26 following application to vegetables, bulb, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 0.1 mL/g)			
-	-	0.429	< 0.001
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.041	2.99
Step 2 (K_{FOC} = 0.1 mL/g)			
Northern Europe	Mar-May	0.085	< 0.001
Northern Europe	Jun-Sep	0.085	< 0.001
Northern Europe	Oct-Feb	0.195	< 0.001
Southern Europe	Mar-May	0.158	< 0.001
Southern Europe	Jun-Sep	0.122	< 0.001
Southern Europe	Oct-Feb	0.158	< 0.001
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.012	0.592
Northern Europe	Jun-Sep	0.012	0.592
Northern Europe	Oct-Feb	0.014	1.36
Southern Europe	Mar-May	0.012	1.11
Southern Europe	Jun-Sep	0.012	0.849
Southern Europe	Oct-Feb	0.012	1.11

Table A 298: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-P3X26 following application to vegetables, bulb, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 12 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 0.1 mL/g)			
-	-	0.858	< 0.001
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.081	5.99
Step 2 (K_{FOC} = 0.1 mL/g)			

Northern Europe	Mar-May	0.162	< 0.001
Northern Europe	Jun-Sep	0.162	< 0.001
Northern Europe	Oct-Feb	0.375	< 0.001
Southern Europe	Mar-May	0.304	< 0.001
Southern Europe	Jun-Sep	0.233	< 0.001
Southern Europe	Oct-Feb	0.304	< 0.001
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.012	1.13
Northern Europe	Jun-Sep	0.012	1.13
Northern Europe	Oct-Feb	0.027	2.62
Southern Europe	Mar-May	0.022	2.12
Southern Europe	Jun-Sep	0.017	1.63
Southern Europe	Oct-Feb	0.022	2.12

A 3.14 KCP 9.2.5: Oxathiapiprolin - FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} Using Geometric Mean Sorption Endpoints

Results below outline detailed FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for all crops and all uses outlined in the GAP

Comments of zRMS:	All input parameters for oxathiapiprolin and its metabolites were considered acceptable. Thus, the zRMS considers the presented PEC_{sw} calculations acceptable for the parent and its metabolites.

Table A 299: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy, BBCH 09 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	21 d - $PEC_{sw,twa}$ (µg/L)[a]	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 6128 mL/g)				
-	-	0.547	0.407	27.2
Step 1 (K_{FOC} = 45586 mL/g)				
-	-	0.175	0.063	30.0
Step 2 (K_{FOC} = 6128 mL/g)				
Northern Europe	Mar-May	0.110	0.086	5.95
Northern Europe	Jun-Sep	0.110	0.086	5.95
Northern Europe	Oct-Feb	0.231	0.220	13.8
Southern Europe	Mar-May	0.188	0.178	11.2
Southern Europe	Jun-Sep	0.145	0.136	8.56
Southern Europe	Oct-Feb	0.188	0.178	11.2
Step 2 (K_{FOC} = 45586 mL/g)				
Northern Europe	Mar-May	0.110	0.017	6.57
Northern Europe	Jun-Sep	0.110	0.017	6.57
Northern Europe	Oct-Feb	0.110	0.033	15.2
Southern Europe	Mar-May	0.110	0.028	12.3
Southern Europe	Jun-Sep	0.110	0.023	9.46
Southern Europe	Oct-Feb	0.110	0.028	12.3

[a] twa-time as required by ecotox

Table A 300: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	21 d - $PEC_{sw,twa}$ (µg/L)[a]	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 6128 mL/g)				
-	-	0.547	0.407	27.2
Step 1 (K_{FOC} = 45586 mL/g)				
-	-	0.175	0.063	30.0

Step 2 (K_{FOC} = 6128 mL/g)				
Northern Europe	Mar-May	0.110	0.069	4.64
Northern Europe	Jun-Sep	0.110	0.069	4.64
Northern Europe	Oct-Feb	0.177	0.168	10.5
Southern Europe	Mar-May	0.145	0.136	8.56
Southern Europe	Jun-Sep	0.113	0.105	6.60
Southern Europe	Oct-Feb	0.145	0.136	8.56
Step 2 (K_{FOC} = 45586 mL/g)				
Northern Europe	Mar-May	0.110	0.015	5.13
Northern Europe	Jun-Sep	0.110	0.015	5.13
Northern Europe	Oct-Feb	0.110	0.026	11.6
Southern Europe	Mar-May	0.110	0.023	9.46
Southern Europe	Jun-Sep	0.110	0.019	7.29
Southern Europe	Oct-Feb	0.110	0.023	9.46

[a] twa-time as required by ecotox

Table A 301: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	21 d - $PEC_{sw,twa}$ (µg/L)[a]	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 6128 mL/g)				
-	-	1.09	0.814	54.4
Step 2 (K_{FOC} = 45586 mL/g)				
-	-	0.350	0.125	60.1
Step 2 (K_{FOC} = 6128 mL/g)				
Northern Europe	Mar-May	0.155	0.143	8.96
Northern Europe	Jun-Sep	0.155	0.143	8.96
Northern Europe	Oct-Feb	0.343	0.326	20.5
Southern Europe	Mar-May	0.281	0.265	16.6
Southern Europe	Jun-Sep	0.218	0.204	12.8
Southern Europe	Oct-Feb	0.281	0.265	16.6
Step 2 (K_{FOC} = 45586 mL/g)				
Northern Europe	Mar-May	0.100	0.023	9.90
Northern Europe	Jun-Sep	0.100	0.023	9.90
Northern Europe	Oct-Feb	0.100	0.046	22.6
Southern Europe	Mar-May	0.100	0.038	18.4
Southern Europe	Jun-Sep	0.100	0.031	14.1

Scenario FOCUS	**Period/ Waterbody**	**Max PEC_{SW} (µg/L)**	**21 d - $PEC_{sw,twa}$ (µg/L)[a]**	**Max PEC_{SED} (µg/kg)**
Southern Europe	Oct-Feb	0.100	0.038	18.4

[a] twa-time as required by ecotox

Table A 302: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	**Period/ Waterbody**	**Max PEC_{SW} (µg/L)**	**21 d - $PEC_{sw,twa}$ (µg/L)[a]**	**Max PEC_{SED} (µg/kg)**
Step 1 (K_{FOC} = 6128 mL/g)				
-	-	0.547	0.407	27.2
Step 1 (K_{FOC} = 45586 mL/g)				
-	-	0.175	0.063	30.0
Step 2 (K_{FOC} = 6128 mL/g)				
Northern Europe	Mar-May	0.110	0.069	4.64
Northern Europe	Jun-Sep	0.110	0.069	4.64
Southern Europe	Mar-May	0.145	0.136	8.56
Southern Europe	Jun-Sep	0.113	0.105	6.60
Step 2 (K_{FOC} = 45586 mL/g)				
Northern Europe	Mar-May	0.110	0.015	5.13
Northern Europe	Jun-Sep	0.110	0.015	5.13
Southern Europe	Mar-May	0.110	0.023	9.46
Southern Europe	Jun-Sep	0.110	0.019	7.29

[a] twa-time as required by ecotox

Table A 303: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days))

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	21 d - $PEC_{sw,twa}$ (µg/L)[a]	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 6128 mL/g)				
-	-	1.09	0.814	54.4
Step 1 (K_{FOC} = 45586 mL/g)				
-	-	0.350	0.125	60.1
Step 2 (K_{FOC} = 6128 mL/g)				
Northern Europe	Mar-May	0.155	0.143	8.96
Northern Europe	Jun-Sep	0.155	0.143	8.96
Southern Europe	Mar-May	0.281	0.265	16.6
Southern Europe	Jun-Sep	0.218	0.204	12.8
Step 2 (K_{FOC} = 45586 mL/g)				
Northern Europe	Mar-May	0.100	0.023	9.90
Northern Europe	Jun-Sep	0.100	0.023	9.90
Southern Europe	Mar-May	0.100	0.038	18.4
Southern Europe	Jun-Sep	0.100	0.031	14.1

[a] twa-time as required by ecotox

Table A 304: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RDT31 following application to vegetables, leafy, BBCH 09(1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.165	1.67
Step 2			
Northern Europe	Mar-May	0.032	0.328
Northern Europe	Jun-Sep	0.032	0.328
Northern Europe	Oct-Feb	0.081	0.820
Southern Europe	Mar-May	0.065	0.656
Southern Europe	Jun-Sep	0.049	0.492
Southern Europe	Oct-Feb	0.065	0.656

Table A 305: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RDT31 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.165	1.67
Step 2			
Northern Europe	Mar-May	0.024	0.246
Northern Europe	Jun-Sep	0.024	0.246
Northern Europe	Oct-Feb	0.061	0.615
Southern Europe	Mar-May	0.049	0.492
Southern Europe	Jun-Sep	0.036	0.369
Southern Europe	Oct-Feb	0.049	0.492

Table A 306: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RDT31 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.330	3.34
Step 2			
Northern Europe	Mar-May	0.048	0.484
Northern Europe	Jun-Sep	0.048	0.484
Northern Europe	Oct-Feb	0.120	1.21
Southern Europe	Mar-May	0.096	0.969
Southern Europe	Jun-Sep	0.072	0.727
Southern Europe	Oct-Feb	0.096	0.969

Table A 307: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RDT31 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.165	1.67
Step 2			
Northern Europe	Mar-May	0.024	0.246
Northern Europe	Jun-Sep	0.024	0.246
Southern Europe	Mar-May	0.049	0.492
Southern Europe	Jun-Sep	0.036	0.369

Table A 308: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RDT31 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.330	3.34
Step 2			
Northern Europe	Mar-May	0.048	0.484
Northern Europe	Jun-Sep	0.048	0.484
Southern Europe	Mar-May	0.096	0.969
Southern Europe	Jun-Sep	0.072	0.727

Table A 309: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RAB06 following application to vegetables, leafy, BBCH 09 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.600	2.90
Step 2			
Northern Europe	Mar-May	0.121	0.585
Northern Europe	Jun-Sep	0.121	0.585
Northern Europe	Oct-Feb	0.292	1.41
Southern Europe	Mar-May	0.235	1.14
Southern Europe	Jun-Sep	0.178	0.862
Southern Europe	Oct-Feb	0.235	1.14

Table A 310: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RAB06 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.600	2.90
Step 2			
Northern Europe	Mar-May	0.093	0.447
Northern Europe	Jun-Sep	0.093	0.447
Northern Europe	Oct-Feb	0.221	1.07
Southern Europe	Mar-May	0.178	0.862
Southern Europe	Jun-Sep	0.136	0.654
Southern Europe	Oct-Feb	0.178	0.862

Table A 311: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RAB06 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	1.20	5.80
Step 2			
Northern Europe	Mar-May	0.179	0.861
Northern Europe	Jun-Sep	0.179	0.861
Northern Europe	Oct-Feb	0.426	2.07
Southern Europe	Mar-May	0.344	1.67
Southern Europe	Jun-Sep	0.261	1.26
Southern Europe	Oct-Feb	0.344	1.67

Table A 312: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RAB06 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.600	2.90
Step 2			
Northern Europe	Mar-May	0.093	0.447
Northern Europe	Jun-Sep	0.093	0.447
Southern Europe	Mar-May	0.178	0.862
Southern Europe	Jun-Sep	0.136	0.654

Table A 313: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RAB06 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	1.20	5.80
Step 2			
Northern Europe	Mar-May	0.179	0.861
Northern Europe	Jun-Sep	0.179	0.861
Southern Europe	Mar-May	0.344	1.67
Southern Europe	Jun-Sep	0.261	1.26

Table A 314: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-QPS10 following application to vegetables, leafy, BBCH 09 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.040	1.39
Step 2			
Northern Europe	Mar-May	0.008	0.277
Northern Europe	Jun-Sep	0.008	0.277
Northern Europe	Oct-Feb	0.020	0.692
Southern Europe	Mar-May	0.016	0.554
Southern Europe	Jun-Sep	0.012	0.415
Southern Europe	Oct-Feb	0.016	0.554

Table A 315: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-QPS10 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.040	1.39
Step 2			
Northern Europe	Mar-May	0.006	0.208
Northern Europe	Jun-Sep	0.006	0.208
Northern Europe	Oct-Feb	0.015	0.519
Southern Europe	Mar-May	0.012	0.415

Southern Europe	Jun-Sep	0.009	0.311
Southern Europe	Oct-Feb	0.012	0.415

Table A 316: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-QPS10 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.080	2.78
Step 2			
Northern Europe	Mar-May	0.012	0.413
Northern Europe	Jun-Sep	0.012	0.413
Northern Europe	Oct-Feb	0.030	1.03
Southern Europe	Mar-May	0.024	0.827
Southern Europe	Jun-Sep	0.018	0.620
Southern Europe	Oct-Feb	0.024	0.827

Table A 317: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-QPS10 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.040	1.39
Step 2			
Northern Europe	Mar-May	0.006	0.208
Northern Europe	Jun-Sep	0.006	0.208
Southern Europe	Mar-May	0.012	0.415
Southern Europe	Jun-Sep	0.009	0.311

Table A 318: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-QPS10 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.080	2.78
Step 2			
Northern Europe	Mar-May	0.012	0.413

Northern Europe	Jun-Sep	0.012	0.413
Southern Europe	Mar-May	0.024	0.827
Southern Europe	Jun-Sep	0.018	0.620

Table A 319: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-E8S72 following application to vegetables, leafy, BBCH 09 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.136	0.009
Step 2			
Northern Europe	Mar-May	0.027	0.002
Northern Europe	Jun-Sep	0.027	0.002
Northern Europe	Oct-Feb	0.068	0.005
Southern Europe	Mar-May	0.054	0.004
Southern Europe	Jun-Sep	0.041	0.003
Southern Europe	Oct-Feb	0.054	0.004

Table A 320: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-E8S72 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.136	0.009
Step 2			
Northern Europe	Mar-May	0.020	0.001
Northern Europe	Jun-Sep	0.020	0.001
Northern Europe	Oct-Feb	0.051	0.004
Southern Europe	Mar-May	0.041	0.003
Southern Europe	Jun-Sep	0.030	0.002
Southern Europe	Oct-Feb	0.041	0.003

Table A 321: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-E8S72 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)

Step 1			
-	-	0.273	0.019
Step 2			
Northern Europe	Mar-May	0.040	0.003
Northern Europe	Jun-Sep	0.040	0.003
Northern Europe	Oct-Feb	0.101	0.007
Southern Europe	Mar-May	0.080	0.006
Southern Europe	Jun-Sep	0.060	0.004
Southern Europe	Oct-Feb	0.080	0.006

Table A 322: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-E8S72 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.136	0.009
Step 2			
Northern Europe	Mar-May	0.020	0.001
Northern Europe	Jun-Sep	0.020	0.001
Southern Europe	Mar-May	0.041	0.003
Southern Europe	Jun-Sep	0.030	0.002

Table A 323: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-E8S72 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1			
-	-	0.273	0.019
Step 2			
Northern Europe	Mar-May	0.040	0.003
Northern Europe	Jun-Sep	0.040	0.003
Southern Europe	Mar-May	0.080	0.006
Southern Europe	Jun-Sep	0.060	0.004

Table A 324: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-S2K66 following application to vegetables, leafy, BBCH 09 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.346	0.035
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.033	2.44
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.075	0.008
Northern Europe	Jun-Sep	0.075	0.008
Northern Europe	Oct-Feb	0.174	0.017
Southern Europe	Mar-May	0.141	0.014
Southern Europe	Jun-Sep	0.108	0.011
Southern Europe	Oct-Feb	0.141	0.014
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.009	0.530
Northern Europe	Jun-Sep	0.009	0.530
Northern Europe	Oct-Feb	0.013	1.23
Southern Europe	Mar-May	0.010	0.995
Southern Europe	Jun-Sep	0.009	0.762
Southern Europe	Oct-Feb	0.010	0.995

Table A 325: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-S2K66 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.346	0.035
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.033	2.44
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.059	0.006
Northern Europe	Jun-Sep	0.059	0.006
Northern Europe	Oct-Feb	0.133	0.013
Southern Europe	Mar-May	0.108	0.011
Southern Europe	Jun-Sep	0.083	0.008
Southern Europe	Oct-Feb	0.108	0.011
Step 2 (K_{FOC} = 10000 mL/g)			

Northern Europe	Mar-May	0.009	0.414
Northern Europe	Jun-Sep	0.009	0.414
Northern Europe	Oct-Feb	0.010	0.937
Southern Europe	Mar-May	0.009	0.762
Southern Europe	Jun-Sep	0.009	0.588
Southern Europe	Oct-Feb	0.009	0.762

Table A 326: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-S2K66 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.692	0.069
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.066	4.89
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.113	0.011
Northern Europe	Jun-Sep	0.113	0.011
Northern Europe	Oct-Feb	0.258	0.026
Southern Europe	Mar-May	0.210	0.021
Southern Europe	Jun-Sep	0.162	0.016
Southern Europe	Oct-Feb	0.210	0.021
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.009	0.799
Northern Europe	Jun-Sep	0.009	0.799
Northern Europe	Oct-Feb	0.019	1.82
Southern Europe	Mar-May	0.015	1.48
Southern Europe	Jun-Sep	0.012	1.14
Southern Europe	Oct-Feb	0.015	1.48

Table A 327: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-S2K66 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.346	0.035
Step 1 (K_{FOC} = 10000 mL/g)			

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
-	-	0.033	2.44
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.059	0.006
Northern Europe	Jun-Sep	0.059	0.006
Southern Europe	Mar-May	0.108	0.011
Southern Europe	Jun-Sep	0.083	0.008
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.009	0.414
Northern Europe	Jun-Sep	0.009	0.414
Southern Europe	Mar-May	0.009	0.762
Southern Europe	Jun-Sep	0.009	0.588

Table A 328: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-S2K66 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.692	0.069
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.066	4.89
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.113	0.011
Northern Europe	Jun-Sep	0.113	0.011
Southern Europe	Mar-May	0.210	0.021
Southern Europe	Jun-Sep	0.162	0.016
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.009	0.799
Northern Europe	Jun-Sep	0.009	0.799
Southern Europe	Mar-May	0.015	1.48
Southern Europe	Jun-Sep	0.012	1.14

Table A 329: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RSE01 following application to vegetables, leafy, BBCH 09 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
-	-	0.399	0.040
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.038	2.82
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.087	0.009
Northern Europe	Jun-Sep	0.087	0.009
Northern Europe	Oct-Feb	0.201	0.020
Southern Europe	Mar-May	0.163	0.016
Southern Europe	Jun-Sep	0.125	0.012
Southern Europe	Oct-Feb	0.163	0.016
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.011	0.612
Northern Europe	Jun-Sep	0.011	0.612
Northern Europe	Oct-Feb	0.015	1.42
Southern Europe	Mar-May	0.012	1.15
Southern Europe	Jun-Sep	0.011	0.880
Southern Europe	Oct-Feb	0.012	1.15

Table A 330: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RSE01 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.399	0.040
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.038	2.82
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.068	0.007
Northern Europe	Jun-Sep	0.068	0.007
Northern Europe	Oct-Feb	0.153	0.015
Southern Europe	Mar-May	0.125	0.012
Southern Europe	Jun-Sep	0.096	0.010
Southern Europe	Oct-Feb	0.125	0.012
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.011	0.478
Northern Europe	Jun-Sep	0.011	0.478
Northern Europe	Oct-Feb	0.011	1.08

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Southern Europe	Mar-May	0.011	0.880
Southern Europe	Jun-Sep	0.011	0.679
Southern Europe	Oct-Feb	0.011	0.880

Table A 331: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RSE01 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.799	0.080
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.077	5.64
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.131	0.013
Northern Europe	Jun-Sep	0.131	0.013
Northern Europe	Oct-Feb	0.298	0.030
Southern Europe	Mar-May	0.242	0.024
Southern Europe	Jun-Sep	0.186	0.019
Southern Europe	Oct-Feb	0.242	0.024
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.011	0.922
Northern Europe	Jun-Sep	0.011	0.922
Northern Europe	Oct-Feb	0.022	2.11
Southern Europe	Mar-May	0.018	1.71
Southern Europe	Jun-Sep	0.014	1.32
Southern Europe	Oct-Feb	0.018	1.71

Table A 332: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RSE01 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.399	0.040
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.038	2.82
Step 2 (K_{FOC} = 10 mL/g)			

Northern Europe	Mar-May	0.068	0.007
Northern Europe	Jun-Sep	0.068	0.007
Southern Europe	Mar-May	0.125	0.012
Southern Europe	Jun-Sep	0.096	0.010
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.011	0.478
Northern Europe	Jun-Sep	0.011	0.478
Southern Europe	Mar-May	0.011	0.880
Southern Europe	Jun-Sep	0.011	0.679

Table A 333: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RSE01 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days))

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.799	0.080
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.077	5.64
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.131	0.013
Northern Europe	Jun-Sep	0.131	0.013
Southern Europe	Mar-May	0.242	0.024
Southern Europe	Jun-Sep	0.186	0.019
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.011	0.922
Northern Europe	Jun-Sep	0.011	0.922
Southern Europe	Mar-May	0.018	1.71
Southern Europe	Jun-Sep	0.014	1.32

Table A 334: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RYJ52 following application to vegetables, leafy, BBCH 09 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.655	0.066
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.063	4.63

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.142	0.014
Northern Europe	Jun-Sep	0.142	0.014
Northern Europe	Oct-Feb	0.329	0.033
Southern Europe	Mar-May	0.267	0.027
Southern Europe	Jun-Sep	0.205	0.020
Southern Europe	Oct-Feb	0.267	0.027
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.018	1.00
Northern Europe	Jun-Sep	0.018	1.00
Northern Europe	Oct-Feb	0.024	2.33
Southern Europe	Mar-May	0.020	1.89
Southern Europe	Jun-Sep	0.018	1.44
Southern Europe	Oct-Feb	0.020	1.89

Table A 335: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RYJ52 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.655	0.066
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.063	4.63
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.111	0.011
Northern Europe	Jun-Sep	0.111	0.011
Northern Europe	Oct-Feb	0.251	0.025
Southern Europe	Mar-May	0.205	0.020
Southern Europe	Jun-Sep	0.158	0.016
Southern Europe	Oct-Feb	0.205	0.020
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.018	0.784
Northern Europe	Jun-Sep	0.018	0.784
Northern Europe	Oct-Feb	0.019	1.78
Southern Europe	Mar-May	0.018	1.44
Southern Europe	Jun-Sep	0.018	1.11
Southern Europe	Oct-Feb	0.018	1.44

Table A 336: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RYJ52 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	1.31	0.131
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.126	9.26
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.214	0.021
Northern Europe	Jun-Sep	0.214	0.021
Northern Europe	Oct-Feb	0.489	0.049
Southern Europe	Mar-May	0.398	0.040
Southern Europe	Jun-Sep	0.306	0.031
Southern Europe	Oct-Feb	0.398	0.040
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.017	1.51
Northern Europe	Jun-Sep	0.017	1.51
Northern Europe	Oct-Feb	0.036	3.46
Southern Europe	Mar-May	0.029	2.81
Southern Europe	Jun-Sep	0.023	2.16
Southern Europe	Oct-Feb	0.029	2.81

Table A 337: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RYJ52 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.655	0.066
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.063	4.63
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.111	0.011
Northern Europe	Jun-Sep	0.111	0.011
Southern Europe	Mar-May	0.205	0.020
Southern Europe	Jun-Sep	0.158	0.016

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.018	0.784
Northern Europe	Jun-Sep	0.018	0.784
Southern Europe	Mar-May	0.018	1.44
Southern Europe	Jun-Sep	0.018	1.11

Table A 338: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RYJ52 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	1.31	0.131
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.126	9.26
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.214	0.021
Northern Europe	Jun-Sep	0.214	0.021
Southern Europe	Mar-May	0.398	0.040
Southern Europe	Jun-Sep	0.306	0.031
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.017	1.51
Northern Europe	Jun-Sep	0.017	1.51
Southern Europe	Mar-May	0.029	2.81
Southern Europe	Jun-Sep	0.023	2.16

Table A 339: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-RYJ52 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.655	0.066
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.063	4.63
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.130	0.013
Northern Europe	Jun-Sep	0.130	0.013

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Northern Europe	Oct-Feb	0.298	0.030
Southern Europe	Mar-May	0.242	0.024
Southern Europe	Jun-Sep	0.186	0.019
Southern Europe	Oct-Feb	0.242	0.024
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.018	0.916
Northern Europe	Jun-Sep	0.018	0.916
Northern Europe	Oct-Feb	0.022	2.11
Southern Europe	Mar-May	0.018	1.71
Southern Europe	Jun-Sep	0.018	1.31
Southern Europe	Oct-Feb	0.018	1.71

Table A 340: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-Q7D41 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.477	0.048
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.046	3.37
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.104	0.010
Northern Europe	Jun-Sep	0.104	0.010
Northern Europe	Oct-Feb	0.240	0.024
Southern Europe	Mar-May	0.194	0.019
Southern Europe	Jun-Sep	0.149	0.015
Southern Europe	Oct-Feb	0.194	0.019
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.013	0.731
Northern Europe	Jun-Sep	0.013	0.731
Northern Europe	Oct-Feb	0.017	1.69
Southern Europe	Mar-May	0.014	1.37
Southern Europe	Jun-Sep	0.013	1.05
Southern Europe	Oct-Feb	0.014	1.37

Table A 341: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-Q7D41 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.477	0.048
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.046	3.37
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.081	0.008
Northern Europe	Jun-Sep	0.081	0.008
Northern Europe	Oct-Feb	0.183	0.018
Southern Europe	Mar-May	0.149	0.015
Southern Europe	Jun-Sep	0.115	0.012
Southern Europe	Oct-Feb	0.149	0.015
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.013	0.571
Northern Europe	Jun-Sep	0.013	0.571
Northern Europe	Oct-Feb	0.013	1.29
Southern Europe	Mar-May	0.013	1.05
Southern Europe	Jun-Sep	0.013	0.811
Southern Europe	Oct-Feb	0.013	1.05

Table A 342: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-Q7D41 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.954	0.095
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.092	6.74
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.156	0.016
Northern Europe	Jun-Sep	0.156	0.016
Northern Europe	Oct-Feb	0.356	0.036
Southern Europe	Mar-May	0.289	0.029
Southern Europe	Jun-Sep	0.223	0.022
Southern Europe	Oct-Feb	0.289	0.029

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.013	1.10
Northern Europe	Jun-Sep	0.013	1.10
Northern Europe	Oct-Feb	0.026	2.52
Southern Europe	Mar-May	0.021	2.04
Southern Europe	Jun-Sep	0.017	1.57
Southern Europe	Oct-Feb	0.021	2.04

Table A 343: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-Q7D41 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.477	0.048
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.046	3.37
Step 2 (K_{FOC} = 10 mL/g)			
Northern Europe	Mar-May	0.081	0.008
Northern Europe	Jun-Sep	0.081	0.008
Southern Europe	Mar-May	0.149	0.015
Southern Europe	Jun-Sep	0.115	0.012
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.013	0.571
Northern Europe	Jun-Sep	0.013	0.571
Southern Europe	Mar-May	0.013	1.05
Southern Europe	Jun-Sep	0.013	0.811

Table A 344: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-Q7D41 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 10 mL/g)			
-	-	0.954	0.095
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.092	6.74
Step 2 (K_{FOC} = 10 mL/g)			

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Northern Europe	Mar-May	0.156	0.016
Northern Europe	Jun-Sep	0.156	0.016
Southern Europe	Mar-May	0.289	0.029
Southern Europe	Jun-Sep	0.223	0.022
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.013	1.10
Northern Europe	Jun-Sep	0.013	1.10
Southern Europe	Mar-May	0.021	2.04
Southern Europe	Jun-Sep	0.017	1.57

Table A 345: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-P3X26 following application to vegetables, leafy, BBCH 09 (1 × 12 g a.s./ha

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 0.1 mL/g)			
-	-	0.429	<0.001
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.041	2.99
Step 2 (K_{FOC} = 0.1 mL/g)			
Northern Europe	Mar-May	0.093	<0.001
Northern Europe	Jun-Sep	0.093	<0.001
Northern Europe	Oct-Feb	0.216	<0.001
Southern Europe	Mar-May	0.175	<0.001
Southern Europe	Jun-Sep	0.134	<0.001
Southern Europe	Oct-Feb	0.175	<0.001
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.012	0.649
Northern Europe	Jun-Sep	0.012	0.649
Northern Europe	Oct-Feb	0.016	1.50
Southern Europe	Mar-May	0.013	1.22
Southern Europe	Jun-Sep	0.012	0.934
Southern Europe	Oct-Feb	0.013	1.22

Table A 346: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-P3X26 following application to vegetables, leafy, BBCH 11-49 (1 × 12 g a.s./ha

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)

Step 1 (K_{FOC} = 0.1 mL/g)			
-	-	0.429	< 0.001
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.041	2.99
Step 2 (K_{FOC} = 0.1 mL/g)			
Northern Europe	Mar-May	0.073	< 0.001
Northern Europe	Jun-Sep	0.073	< 0.001
Northern Europe	Oct-Feb	0.165	< 0.001
Southern Europe	Mar-May	0.134	< 0.001
Southern Europe	Jun-Sep	0.103	< 0.001
Southern Europe	Oct-Feb	0.134	< 0.001
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.012	0.507
Northern Europe	Jun-Sep	0.012	0.507
Northern Europe	Oct-Feb	0.012	1.15
Southern Europe	Mar-May	0.012	0.934
Southern Europe	Jun-Sep	0.012	0.721
Southern Europe	Oct-Feb	0.012	0.934

Table A 347: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-P3X26 following application to vegetables, leafy, BBCH 11-49 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 0.1 mL/g)			
-	-	0.858	< 0.001
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.081	5.99
Step 2 (K_{FOC} = 0.1 mL/g)			
Northern Europe	Mar-May	0.140	< 0.001
Northern Europe	Jun-Sep	0.140	< 0.001
Northern Europe	Oct-Feb	0.320	< 0.001
Southern Europe	Mar-May	0.260	< 0.001
Southern Europe	Jun-Sep	0.200	< 0.001
Southern Europe	Oct-Feb	0.260	< 0.001
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.011	0.978
Northern Europe	Jun-Sep	0.011	0.978

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Northern Europe	Oct-Feb	0.023	2.23
Southern Europe	Mar-May	0.019	1.82
Southern Europe	Jun-Sep	0.015	1.40
Southern Europe	Oct-Feb	0.019	1.82

Table A 348: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-P3X26 following application to vegetables, fruiting, BBCH 11-89 (1 × 12 g a.s./ha)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 0.1 mL/g)			
-	-	0.429	< 0.001
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.041	2.99
Step 2 (K_{FOC} = 0.1 mL/g)			
Northern Europe	Mar-May	0.073	< 0.001
Northern Europe	Jun-Sep	0.073	< 0.001
Southern Europe	Mar-May	0.134	< 0.001
Southern Europe	Jun-Sep	0.103	< 0.001
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.012	0.507
Northern Europe	Jun-Sep	0.012	0.507
Southern Europe	Mar-May	0.012	0.934
Southern Europe	Jun-Sep	0.012	0.721

Table A 349: FOCUS Step 1 and 2 PEC_{SW} and PEC_{SED} for IN-P3X26 following application to vegetables, fruiting, BBCH 11-89 (2 × 12 g a.s./ha, with application interval of 7 days)

Scenario FOCUS	Period/ Waterbody	Max PEC_{SW} (µg/L)	Max PEC_{SED} (µg/kg)
Step 1 (K_{FOC} = 0.1 mL/g)			
-	-	0.858	< 0.001
Step 1 (K_{FOC} = 10000 mL/g)			
-	-	0.081	5.99
Step 2 (K_{FOC} = 0.1 mL/g)			
Northern Europe	Mar-May	0.140	< 0.001
Northern Europe	Jun-Sep	0.140	< 0.001
Southern Europe	Mar-May	0.260	< 0.001

Scenario FOCUS	**Period/ Waterbody**	**Max PEC_{SW} (µg/L)**	**Max PEC_{SED} (µg/kg)**
Southern Europe	Jun-Sep	0.200	< 0.001
Step 2 (K_{FOC} = 10000 mL/g)			
Northern Europe	Mar-May	0.011	0.978
Northern Europe	Jun-Sep	0.011	0.978
Southern Europe	Mar-May	0.019	1.82
Southern Europe	Jun-Sep	0.015	1.40

A 3.15 KCP 9.2.5: Anagu, I. & Bo, Y., 2021, Oxathiapiprolin PEC_{SW} following application to various crops- Arithmetic Mean Sorption Endpoints

Comments of zRMS:	All input parameters for oxathiapiprolin were considered acceptable as they followed the EFSA conclusion and LoEP or corresponded to standard default values. Thus, the zRMS considers the presented PEC_{sw} calculations acceptable for the active substance.

Reference:	KCP 9.2.5:.
Report	Oxathiapiprolin - A European Environmental Fate Assessment for Parent Using the FOCUS Surface Water Models at Step 3 to 4 Following Spray Application to Various Crops Using Arithmetic Mean Sorption Endpoints Report No. 116223-7 (Syngenta File No VV-911814)
Guideline(s):	EFSA (2014). EFSA Guidance Document on clustering and ranking of emissions of active substances of plant protection products and transformation products of these active substances from protected crops (greenhouses and crops grown under cover) to relevant environmental compartments. EFSA Journal 2014;12(3):3615, 43 pp. FOCUS (2001). FOCUS surface water scenarios in the EU evaluation process under 91/414/EEC. Report of the FOCUS working group on surface water scenarios, EC document reference SANCO/4802/2001 rev. 2. FOCUS (2007). Landscape and mitigation factors in aquatic ecological risk assessment. Volume 1. Extended summary and recommendations, the final report of the FOCUS working group on landscape and mitigation factors in ecological risk assessment, EC document reference SANCO/10422/2005, version 2.0, September 2007. FOCUS (2015). Generic guidance for FOCUS surface water scenarios, version 1.4.
Deviations:	No
GLP:	Not applicable
Acceptability:	Yes/No/Supplementary

A 3.15.1 Materials and methods

This report describes a FOCUS modelling study that examined the potential for oxathiapiprolin to reach surface water following field (foliar) and greenhouse application to vegetables (leafy, fruiting and bulb) and hops. The FOCUS tool SWASH (v 5.3), including the operational models FOCUS-MACRO (v 5.5.4), FOCUS-PRZM (v 4.3.1) and FOCUS-TOXSWA (v 5.5.3), were used in the modelling study for Step 3 simulations. The ECPA tool SWAN (v 5.0.0) was used to implement mitigation options at Step 4.

Twofold applications at the rate of 12 g a.s./ha, were considered. Applications starting from approximately BBCH 11 were considered for vegetables with an interval of 7 days between applications for vegetables, leafy and fruiting as well as 12 days for vegetables, bulb. For hops, applications from approximately BBCH 21 with an interval of 12 days between applications were considered. Due to the wide BBCH range, simulations were carried out for possible applications at early (BBCH 11 or 21), intermediate (BBCH 51) and late (BBCH 49 or 89) stages, depending on the crop. The input parameters relating to application are shown below.

Table A 350: Input parameters related to application for $PEC_{SW/SED}$ calculations

Use numbers	PL-54	PL-59	-	-
Crop	Vegetables, leafy	Vegetables, fruiting	Vegetables, bulb	Hops
Application rate (g a.s./ha)	12	12	12	12
Number of applications / interval (d)	2 / 7	2 / 7	2 / 12	2 / 12
BBCH growth stage	11 - 49	11 - 89	11 - 49	21 - 89
Application method	Ground spray	Ground spray	Ground spray	Air blast
CAM (Chemical application method)	2 (application foliar linear)			
Soil depth (cm)	4 (default)			
Models used for calculation	FOCUS SWASH v5.3, FOCUS PRZM v4.3.1, FOCUS MACRO v5.5.4, FOCUS TOXWA v5.5.3, SWAN v5.0.0			

Ground spray application (foliar spray) was considered as the application method in the simulations for vegetables (leafy, fruiting and bulb) while air blast was considered as the application method in the simulations for hops. Crop interception at Step 3 is calculated internally by the model on the basis of the maximum interception capacity and the actual leaf area index.

An application window has to be specified from which the Pesticide Application Timer (PAT), internal to the model, determines actual application dates which were set generically for all scenarios. The application dates for the early and intermediate applications were selected with the tool AppDate (v3.06) based on BBCH growth stages given in the recommended GAP. For the late applications, the end of the application window was set to the harvest date. Simulations were carried out using the FOCUS standard crops ‘vegetables, leafy’, ‘vegetables, fruiting’, ‘vegetables, bulb’, and ‘hops’. Application windows are presented in **Table A 351**, below.

Table A 351: FOCUS Step 3 Scenario related input parameters for $PEC_{SW/SED}$ calculations for the application of oxathiapiprolin

Crop	Rationale	Scenario	Oxathiapiprolin			
			Application window used in modelling			
			Single application		Multiple applications	
			Start of Window	End of Window	Start of Window	End of Window
Vegetables, leafy, BBCH 11 - 49 2 × 12 g a.s./ha 7 days interval BBCH 11	Start of window at BBCH 11 (AppDate v3.06)	D3 1st	30-Apr (120)	30-May (150)	30-Apr (120)	6-Jun (157)
		D3 2nd	10-Aug (222)	9-Sep (252)	10-Aug (222)	16-Sep (259)
		D4	18-May (138)	17-Jun (168)	18-May (138)	24-Jun (175)
		D6	21-Aug (233)	20-Sep (263)	21-Aug (233)	27-Sep (270)
		R1 1st	25-Apr (115)	25-May (145)	25-Apr (115)	1-Jun (152)
		R1 2nd	5-Aug (217)	4-Sep (247)	5-Aug (217)	11-Sep (254)
		R2 1st	9-Mar (68)	8-Apr (98)	9-Mar (68)	15-Apr (105)
		R2 2nd	4-Aug (216)	3-Sep (246)	4-Aug (216)	10-Sep (253)

Crop	Rationale	Scenario	Oxathiapiprolin			
			Application window used in modelling			
			Single application		Multiple applications	
			Start of Window	End of Window	Start of Window	End of Window
		R3 1st	8-Mar (67)	7-Apr (97)	8-Mar (67)	14-Apr (104)
		R3 2nd	22-Jun (173)	22-Jul (203)	22-Jun (173)	29-Jul (210)
		R4 1st	8-Mar (67)	7-Apr (97)	8-Mar (67)	14-Apr (104)
		R4 2nd	22-Jun (173)	22-Jul (203)	22-Jun (173)	29-Jul (210)
Vegetables, leafy, BBCH 11 - 49 2 × 12 g a.s./ha 7 days interval BBCH 49	End of window at harvest	D3 1st	20-Jun (171)	20-Jul (201)	13-Jun (164)	20-Jul (201)
		D3 2nd	20-Sep (263)	20-Oct (293)	13-Sep (256)	20-Oct (293)
		D4	27-Aug (239)	26-Sep (269)	20-Aug (232)	26-Sep (269)
		D6	31-Oct (304)	30-Nov (334)	24-Oct (297)	30-Nov (334)
		R1 1st	15-Jun (166)	15-Jul (196)	8-Jun (159)	15-Jul (196)
		R1 2nd	15-Sep (258)	15-Oct (288)	8-Sep (251)	15-Oct (288)
		R2 1st	1-Jun (152)	1-Jul (182)	25-May (145)	1-Jul (182)
		R2 2nd	16-Oct (289)	15-Nov (319)	9-Oct (282)	15-Nov (319)
		R3 1st	2-May (122)	1-Jun (152)	25-Apr (115)	1-Jun (152)
		R3 2nd	16-Aug (228)	15-Sep (258)	9-Aug (221)	15-Sep (258)
		R4 1st	2-May (122)	1-Jun (152)	25-Apr (115)	1-Jun (152)
		R4 2nd	16-Aug (228)	15-Sep (258)	9-Aug (221)	15-Sep (258)
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11 - 89 7 days interval BBCH 11	Start of window at BBCH 11 (AppDate v3.06)	D6	13-Apr (103)	13-May (133)	13-Apr (103)	20-May (140)
		R2	19-Mar (78)	18-Apr (108)	19-Mar (78)	25-Apr (115)
		R3	13-May (133)	12-Jun (163)	13-May (133)	19-Jun (170)
		R4	23-Apr (113)	23-May (143)	23-Apr (113)	30-May (150)
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11 - 89 7 days interval BBCH 51	Start of window at BBCH 51 (AppDate v3.06)	D6	15-May (135)	14-Jun (165)	15-May (135)	21-Jun (172)
		R2	19-May (139)	18-Jun (169)	19-May (139)	25-Jun (176)
		R3	15-Jun (166)	15-Jul (196)	15-Jun (166)	22-Jul (203)
		R4	26-May (146)	25-Jun (176)	26-May (146)	2-Jul (183)
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11 - 89 7 days interval BBCH 89	End of window at harvest	D6	11-Jul (192)	10-Aug (222)	4-Jul (185)	10-Aug (222)
		R2	1-Aug (213)	31-Aug (243)	25-Jul (206)	31-Aug (243)
		R3	26-Jul (207)	25-Aug (237)	19-Jul (200)	25-Aug (237)
		R4	15-Jun (166)	15-Jul (196)	8-Jun (159)	15-Jul (196)
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 11 - 49 12 days interval BBCH 11	Start of window at BBCH 11 (AppDate v3.06)	D3	3-May (123)	2-Jun (153)	3-May (123)	14-Jun (165)
		D4	2-May (122)	1-Jun (152)	2-May (122)	13-Jun (164)
		D6 1st	16-May (136)	15-Jun (166)	16-May (136)	27-Jun (178)
		D6 2nd	4-Nov (308)	4-Dec (338)	4-Nov (308)	16-Dec (350)
		R1	28-Apr (118)	28-May (148)	28-Apr (118)	9-Jun (160)

Crop	Rationale	Scenario	Oxathiapiprolin			
			Application window used in modelling			
			Single application		Multiple applications	
			Start of Window	End of Window	Start of Window	End of Window
		R2	9-Mar (68)	8-Apr (98)	9-Mar (68)	20-Apr (110)
		R3	9-Mar (68)	8-Apr (98)	9-Mar (68)	20-Apr (110)
		R4	9-Mar (68)	8-Apr (98)	9-Mar (68)	20-Apr (110)
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 11 - 49 12 days interval BBCH 49	End of window at harvest	D3	2-Aug (214)	1-Sep (244)	21-Jul (202)	1-Sep (244)
		D4	14-Aug (226)	13-Sep (256)	2-Aug (214)	13-Sep (256)
		D6 1st	1-Jul (182)	31-Jul (212)	19-Jun (170)	31-Jul (212)
		D6 2nd	11-Mar (70)	10-Apr (100)	27-Feb (58)	10-Apr (100)
		R1	26-Jul (207)	25-Aug (237)	14-Jul (195)	25-Aug (237)
		R2	1-May (121)	31-May (151)	19-Apr (109)	31-May (151)
		R3	1-May (121)	31-May (151)	19-Apr (109)	31-May (151)
		R4	1-May (121)	31-May (151)	19-Apr (109)	31-May (151)
Hops, 2 × 12 g a.s./ha BBCH 21 - 89 12 days interval BBCH 21	Start of window at BBCH 21 (AppDate v3.06)	R1	15-May (135)	14-Jun (165)	15-May (135)	26-Jun (177)
Hops, 2 × 12 g a.s./ha BBCH 21 - 89 12 days interval BBCH 51	Start of window at BBCH 51 (AppDate v3.06)	R1	7-Jul (188)	6-Aug (218)	7-Jul (188)	18-Aug (230)
Hops, 2 × 12 g a.s./ha BBCH 21 - 89 12 days interval BBCH 89	End of window at harvest	R1	2-Aug (214)	1-Sep (244)	21-Jul (202)	1-Sep (244)

Due to the statistical nature of the drift implementation at Step 3 (FOCUS, 2001, 2015), the loading to the water body for a single application is higher than the loading from an individual event from a multiple application pattern, which can therefore generate a higher global maximum PEC_{SW} value. All values are presented but where the single application results in a higher instantaneous PEC, this is highlighted in the summary table.

Step 4 calculations were carried out for all the scenarios with the following mitigation methods:

- spray drift reduction by 50%, 75% and 90% drift reducing nozzles
- spray drift reduction by non-sprayed buffer strips of 10 m, 20 m and 30 m and runoff reduction using vegetated buffer strips of 10 m and 20 m using runoff and erosion reduction values as given by the FOCUS Working Group on Landscape and Mitigation Factors (2007) – runoff/erosion reduction of 60/85% for 10 m, and 80/95% for 20 m
- runoff reduction considering 5 m and 15 m vegetated filter strip (Austrian-specific reduction measures (BAES, 2020)) in combination with spray drift reduction considering a non-sprayed buffer strip of 5 m and 15 m respectively

- Runoff reduction considering 5 m VFSmod

In order to simulate conditions in greenhouses, drift entries to surface water were amended with drift rates of 0.1% and 0.2% of the dose rate at Step 3 (EFSA, 2014). As entry via runoff is not expected to occur in greenhouses, only the FOCUS D scenarios were considered.

The input parameters for oxathiapiprolin as used in the modelling are shown in **Table A 352**.

Table A 352: Input parameters related to oxathiapiprolin for $PEC_{SW/SED}$ calculations

Compound	Oxathiapiprolin	Value in accordance to EU endpoint / Reference
Molar mass (g/mol)	539.53	Yes / EFSA, 2016
Water solubility (mg/L)	0.1844 (20°C)	Yes / EFSA, 2016
Saturated vapour pressure (Pa)	1.141×10^{-6} (20°C)	Yes / EFSA, 2016
K_{FOC} / K_{FOM} (mL/g)	6242.6 / 3621 (arithmetic mean, n = 5)	Yes / EFSA, 2016 $K_{FOM} = K_{FOC}/1.724$
Freundlich Exponent 1/n	0.97 (arithmetic mean, n = 5)	Yes / EFSA, 2016
Plant Uptake	0	Worst-case assumption
$DT_{50,soil}$ (d)	121.2 (geometric mean lab, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 6)	Yes / EFSA, 2016
$DT_{50,water}$ (d)	70.3 (geometric mean, total system, n = 2)	Yes / EFSA, 2016
$DT_{50,sed}$ (d)	1000 (FOCUS default)	Yes / EFSA, 2016

A 3.15.2 Results and discussions

Predicted environmental concentrations in surface water (PEC_{SW}) and sediment (PEC_{SED}) were calculated for the use of oxathiapiprolin on vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops in Europe in accordance with FOCUS guidelines.

The results are presented in the tables below in the following order:

Field uses:

FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops

FOCUS Application dates and global maximum timing

FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – maximum over single and multiple applications

FOCUS Step 4 PEC_{SW} and PEC_{SED} for oxathiapiprolin following applications to single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops

FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – maximum over single and multiple applications

Greenhouse uses:

FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following single/multiple applications to vegetables, leafy and vegetables, fruiting – 0.1% drift

FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following applications to vegetables, leafy and vegetables, fruiting – 0.2% drift

Field uses:

Table A 353: FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.076	Drift	0.055
	D3 2nd	ditch	0.076	Drift	0.060
	D4	pond	0.003	Drift	0.020
	D4	stream	0.060	Drift	0.004
	D6	ditch	0.074	Drift	0.018
	R1 1st	pond	0.007	Runoff	0.180
	R1 2nd	pond	0.008	Runoff	0.188
	R1 1st	stream	0.050	Drift	1.06
	R1 2nd	stream	0.050	Drift	0.567
	R2 1st	stream	0.066	Drift	1.37
	R2 2nd	stream	0.067	Drift	2.93
	R3 1st	stream	0.070	Drift	0.917
	R3 2nd	stream	0.070	Drift	0.491
	R4 1st	stream	0.050	Drift	0.214
	R4 2nd	stream	0.050	Drift	0.193
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.066	Drift	0.077
	D3 2nd	ditch	0.066	Drift	0.081
	D4	pond	0.004	Drift	0.035
	D4	stream	0.053	Drift	0.007
	D6	ditch	0.065	Drift	0.030
	R1 1st	pond	0.015	Runoff	0.358

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
	R1 2nd	pond	0.016	Runoff	0.371
	R1 1st	stream	0.043	Drift	2.02
	R1 2nd	stream	0.043	Drift	1.10
	R2 1st	stream	0.057	Drift	2.76
	R2 2nd	stream	0.058	Drift	5.55
	R3 1st	stream	0.061	Drift	2.02
	R3 2nd	stream	0.061	Drift	1.03
	R4 1st	stream	0.056	Runoff	0.516
	R4 2nd	stream	0.061	Runoff	0.382
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.076	Drift	0.056
	D3 2nd	ditch	0.075	Drift	0.038
	D4	pond	0.003	Drift	0.022
	D4	stream	0.054	Drift	0.002
	D6	ditch	0.072	Drift	0.007
	R1 1st	pond	0.007	Runoff	0.187
	R1 2nd	pond	0.009	Runoff	0.208
	R1 1st	stream	0.050	Drift	0.841
	R1 2nd	stream	0.050	Drift	0.650
	R2 1st	stream	0.067	Drift	2.17
	R2 2nd	stream	0.066	Drift	3.24
	R3 1st	stream	0.070	Drift	2.98
	R3 2nd	stream	0.070	Drift	1.43
	R4 1st	stream	0.049	Drift	0.588
	R4 2nd	stream	0.050	Drift	0.825
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.066	Drift	0.077
	D3 2nd	ditch	0.066	Drift	0.056
	D4	pond	0.004	Drift	0.038
	D4	stream	0.052	Drift	0.004
	D6	ditch	0.066	Drift	0.033
	R1 1st	pond	0.015	Runoff	0.365
	R1 2nd	pond	0.017	Runoff	0.392
	R1 1st	stream	0.043	Drift	1.65
	R1 2nd	stream	0.043	Drift	1.58
	R2 1st	stream	0.058	Drift	3.21
	R2 2nd	stream	0.057	Drift	6.44
	R3 1st	stream	0.061	Drift	4.34

Application scenario	Scenario	Water body	PEC$_{SW}$ (µg/L)	Dominant Route of Entry	PEC$_{SED}$ (µg/kg)
	R3 2nd	stream	0.061	Drift	2.32
	R4 1st	stream	0.051	Runoff	1.04
	R4 2nd	stream	0.051	Runoff	1.39

Table A 354: FOCUS Step 3 PEC$_{SW}$ and PEC$_{SED}$ for oxathiapiprolin following application to vegetables, fruiting

Application scenario	Scenario	Water body	PEC$_{SW}$ (µg/L)	Dominant Route of Entry	PEC$_{SED}$ (µg/kg)
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 11	D6	ditch	0.074	Drift	0.020
	R2	stream	0.066	Drift	1.09
	R3	stream	0.070	Drift	0.345
	R4	stream	0.050	Drift	0.315
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	0.065	Drift	0.028
	R2	stream	0.057	Drift	2.13
	R3	stream	0.061	Drift	0.746
	R4	stream	0.064	Runoff	0.658
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 51	D6	ditch	0.075	Drift	0.030
	R2	stream	0.067	Drift	1.21
	R3	stream	0.070	Drift	0.520
	R4	stream	0.049	Drift	0.288
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	0.066	Drift	0.034
	R2	stream	0.058	Drift	2.58
	R3	stream	0.061	Drift	1.15
	R4	stream	0.052	Runoff	0.628
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 89	D6	ditch	0.075	Drift	0.024
	R2	stream	0.067	Drift	2.65
	R3	stream	0.070	Drift	0.999
	R4	stream	0.050	Drift	0.356
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	0.066	Drift	0.035
	R2	stream	0.058	Drift	6.17
	R3	stream	0.061	Drift	1.96
	R4	stream	0.053	Runoff	0.593

Table A 355: FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, bulb

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 11	D3	ditch	0.076	Drift	0.056
	D4	pond	0.003	Drift	0.020
	D4	stream	0.058	Drift	0.004
	D6 1st	ditch	0.076	Drift	0.080
	D6 2nd	ditch	0.073	Drift	0.012
	R1	pond	0.004	Runoff	0.122
	R1	stream	0.050	Drift	0.278
	R2	stream	0.066	Drift	1.14
	R3	stream	0.070	Drift	0.097
	R4	stream	0.049	Drift	0.183
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 11	D3	ditch	0.066	Drift	0.075
	D4	pond	0.004	Drift	0.034
	D4	stream	0.050	Drift	0.007
	D6 1st	ditch	0.067	Drift	0.168
	D6 2nd	ditch	0.070	Drift	0.257
	R1	pond	0.009	Runoff	0.241
	R1	stream	0.043	Drift	0.590
	R2	stream	0.061	Drift	2.18
	R3	stream	0.061	Drift	0.216
	R4	stream	0.062	Runoff	0.437
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 49	D3	ditch	0.076	Drift	0.057
	D4	pond	0.003	Drift	0.023
	D4	stream	0.054	Drift	0.002
	D6 1st	ditch	0.076	Drift	0.205
	D6 2nd	ditch	0.076	Drift	0.109
	R1	pond	0.007	Runoff	0.143
	R1	stream	0.049	Drift	0.418
	R2	stream	0.067	Drift	1.40
	R3	stream	0.070	Drift	0.171
	R4	stream	0.048	Drift	0.389

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 49	D3	ditch	0.066	Drift	0.075
	D4	pond	0.004	Drift	0.040
	D4	stream	0.051	Drift	0.006
	D6 1st	ditch	0.074	Drift	0.314
	D6 2nd	ditch	0.066	Drift	0.107
	R1	pond	0.016	Runoff	0.306
	R1	stream	0.043	Drift	1.06
	R2	stream	0.058	Drift	2.48
	R3	stream	0.061	Drift	0.257
	R4	stream	0.056	Runoff	0.640

Table A 356: FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to hops

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Hops, 1 × 12 g a.s./ha BBCH 21	R1	pond	0.031	Drift	0.221
	R1	stream	0.451	Drift	0.068
Hops, 2 × 12 g a.s./ha BBCH 21	R1	pond	0.036	Drift	0.320
	R1	stream	0.373	Drift	0.059
Hops, 1 × 12 g a.s./ha BBCH 51	R1	pond	0.032	Drift	0.220
	R1	stream	0.440	Drift	0.040
Hops, 2 × 12 g a.s./ha BBCH 51	R1	pond	0.036	Drift	0.315
	R1	stream	0.373	Drift	0.048
Hops, 1 × 12 g a.s./ha BBCH 89	R1	pond	0.031	Drift	0.233
	R1	stream	0.452	Drift	0.073
Hops, 2 × 12 g a.s./ha BBCH 89	R1	pond	0.034	Drift	0.324
	R1	stream	0.383	Drift	0.074

Table A 357: FOCUS Application dates and global maximum timing of vegetables, leafy

Application scenario	Scenario	Water body	Application date		Date of global maximum
			1st application	2nd application	
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 11	D3 1st	ditch	4-May-92	-	4-May-92
	D3 2nd	ditch	18-Aug-92	-	18-Aug-92
	D4	pond	18-May-85	-	18-May-85
	D4	stream	18-May-85	-	18-May-85
	D6	ditch	25-Aug-86	-	25-Aug-86
	R1 1st	pond	26-Apr-84	-	14-Sep-84
	R1 2nd	pond	20-Aug-78	-	31-Dec-78
	R1 1st	stream	26-Apr-84	-	26-Apr-84
	R1 2nd	stream	20-Aug-78	-	20-Aug-78
	R2 1st	stream	22-Mar-77	-	22-Mar-77
	R2 2nd	stream	5-Aug-89	-	5-Aug-89
	R3 1st	stream	10-Mar-80	-	10-Mar-80
	R3 2nd	stream	25-Jun-75	-	25-Jun-75
	R4 1st	stream	8-Mar-84	-	8-Mar-84
	R4 2nd	stream	23-Jun-85	-	23-Jun-85
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	4-May-92	14-May-92	14-May-92
	D3 2nd	ditch	18-Aug-92	26-Aug-92	26-Aug-92
	D4	pond	18-May-85	29-May-85	29-May-85
	D4	stream	18-May-85	29-May-85	29-May-85
	D6	ditch	25-Aug-86	1-Sep-86	1-Sep-86
	R1 1st	pond	26-Apr-84	3-May-84	14-Sep-84
	R1 2nd	pond	20-Aug-78	2-Sep-78	31-Dec-78
	R1 1st	stream	26-Apr-84	3-May-84	26-Apr-84
	R1 2nd	stream	20-Aug-78	2-Sep-78	2-Sep-78
	R2 1st	stream	21-Mar-77	30-Mar-77	30-Mar-77
	R2 2nd	stream	5-Aug-89	12-Aug-89	12-Aug-89
	R3 1st	stream	10-Mar-80	28-Mar-80	28-Mar-80
	R3 2nd	stream	25-Jun-75	6-Jul-75	6-Jul-75
	R4 1st	stream	8-Mar-84	3-Apr-84	12-Apr-84
	R4 2nd	stream	23-Jun-85	30-Jun-85	5-Jul-85
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 49	D3 1st	ditch	25-Jun-92	-	25-Jun-92
	D3 2nd	ditch	19-Sep-92	-	19-Sep-92
	D4	pond	27-Aug-85	-	27-Aug-85
	D4	stream	27-Aug-85	-	27-Aug-85
	D6	ditch	31-Oct-86	-	31-Oct-86
	R1 1st	pond	29-Jun-78	-	31-Dec-78

Application scenario	Scenario	Water body	Application date		Date of global maximum
			1st application	2nd application	
	R1 2nd	pond	19-Sep-78	-	31-Dec-78
	R1 1st	stream	29-Jun-78	-	29-Jun-78
	R1 2nd	stream	19-Sep-78	-	19-Sep-78
	R2 1st	stream	4-Jun-89	-	4-Jun-89
	R2 2nd	stream	24-Oct-77	-	24-Oct-77
	R3 1st	stream	18-May-80	-	18-May-80
	R3 2nd	stream	28-Aug-75	-	28-Aug-75
	R4 1st	stream	4-May-84	-	4-May-84
	R4 2nd	stream	19-Aug-85	-	19-Aug-85
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	14-Jun-92	25-Jun-92	25-Jun-92
	D3 2nd	ditch	17-Sep-92	24-Sep-92	24-Sep-92
	D4	pond	27-Aug-85	10-Sep-85	10-Sep-85
	D4	stream	27-Aug-85	10-Sep-85	10-Sep-85
	D6	ditch	25-Oct-86	1-Nov-86	25-Oct-86
	R1 1st	pond	29-Jun-78	11-Jul-78	31-Dec-78
	R1 2nd	pond	19-Sep-78	6-Oct-78	31-Dec-78
	R1 1st	stream	29-Jun-78	11-Jul-78	29-Jun-78
	R1 2nd	stream	19-Sep-78	6-Oct-78	19-Sep-78
	R2 1st	stream	25-May-77	3-Jun-77	3-Jun-77
	R2 2nd	stream	11-Oct-77	24-Oct-77	24-Oct-77
	R3 1st	stream	25-Apr-80	18-May-80	25-Apr-80
	R3 2nd	stream	12-Aug-75	19-Aug-75	19-Aug-75
	R4 1st	stream	25-Apr-84	4-May-84	18-May-84
	R4 2nd	stream	12-Aug-85	19-Aug-85	24-Aug-85

Table A 358: FOCUS Application dates and global maximum timing of vegetables, fruiting

Application scenario	Scenario	Water body	Application date		Date of global maximum
			1st application	2nd application	
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 11	D6	ditch	23-Apr-86	-	23-Apr-86
	R2	stream	22-Mar-77	-	22-Mar-77
	R3	stream	18-May-80	-	18-May-80
	R4	stream	23-Apr-84	-	23-Apr-84
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	23-Apr-86	7-May-86	7-May-86
	R2	stream	22-Mar-77	22-Apr-77	22-Apr-77
	R3	stream	18-May-80	1-Jun-80	1-Jun-80
	R4	stream	23-Apr-84	4-May-84	9-May-84

Application scenario	Scenario	Water body	Application date		Date of global maximum
			1st application	2nd application	
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 51	D6	ditch	19-May-86	-	19-May-86
	R2	stream	20-May-77	-	20-May-77
	R3	stream	18-Jun-75	-	18-Jun-75
	R4	stream	27-May-84	-	27-May-84
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	19-May-86	31-May-86	19-May-86
	R2	stream	20-May-77	27-May-77	27-May-77
	R3	stream	18-Jun-75	25-Jun-75	25-Jun-75
	R4	stream	27-May-84	6-Jun-84	14-Jun-84
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 89	D6	ditch	17-Jul-86	-	17-Jul-86
	R2	stream	5-Aug-89	-	5-Aug-89
	R3	stream	30-Jul-75	-	30-Jul-75
	R4	stream	23-Jun-85	-	23-Jun-85
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	6-Jul-86	17-Jul-86	6-Jul-86
	R2	stream	5-Aug-89	12-Aug-89	12-Aug-89
	R3	stream	24-Jul-75	31-Jul-75	31-Jul-75
	R4	stream	12-Jun-85	23-Jun-85	28-Jun-85

Table A 359: FOCUS Application dates and global maximum timing of vegetables, bulb

Application scenario	Scenario	Water body	Application date		Date of global maximum
			1st application	2nd application	
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 11	D3	ditch	4-May-92	-	4-May-92
	D4	pond	12-May-85	-	12-May-85
	D4	stream	12-May-85	-	12-May-85
	D6 1st	ditch	16-May-86	-	16-May-86
	D6 2nd	ditch	6-Nov-86	-	6-Nov-86
	R1	pond	28-Apr-84	-	2-Feb-85
	R1	stream	28-Apr-84	-	28-Apr-84
	R2	stream	22-Mar-77	-	22-Mar-77
	R3	stream	10-Mar-80	-	10-Mar-80
	R4	stream	9-Mar-84	-	9-Mar-84
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 11	D3	ditch	4-May-92	16-May-92	16-May-92
	D4	pond	12-May-85	24-May-85	24-May-85
	D4	stream	12-May-85	24-May-85	12-May-85
	D6 1st	ditch	16-May-86	28-May-86	28-May-86
	D6 2nd	ditch	1-Dec-86	13-Dec-86	13-Dec-86
	R1	pond	28-Apr-84	10-May-84	2-Feb-85

Application scenario	Scenario	Water body	Application date		Date of global maximum
			1st application	2nd application	
	R1	stream	28-Apr-84	10-May-84	28-Apr-84
	R2	stream	14-Mar-77	26-Mar-77	26-Mar-77
	R3	stream	10-Mar-80	28-Mar-80	28-Mar-80
	R4	stream	9-Mar-84	3-Apr-84	11-Apr-84
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 49	D3	ditch	4-Aug-92	-	4-Aug-92
	D4	pond	27-Aug-85	-	27-Aug-85
	D4	stream	27-Aug-85	-	27-Aug-85
	D6 1st	ditch	1-Jul-86	-	1-Jul-86
	D6 2nd	ditch	14-Mar-86	-	14-Mar-86
	R1	pond	28-Jul-78	-	31-Dec-78
	R1	stream	28-Jul-78	-	28-Jul-78
	R2	stream	7-May-77	-	7-May-77
	R3	stream	18-May-80	-	18-May-80
	R4	stream	7-May-84	-	7-May-84
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 49	D3	ditch	24-Jul-92	5-Aug-92	5-Aug-92
	D4	pond	27-Aug-85	10-Sep-85	10-Sep-85
	D4	stream	27-Aug-85	10-Sep-85	10-Sep-85
	D6 1st	ditch	19-Jun-86	1-Jul-86	1-Jul-86
	D6 2nd	ditch	27-Feb-86	14-Mar-86	14-Mar-86
	R1	pond	28-Jul-78	20-Aug-78	31-Dec-78
	R1	stream	28-Jul-78	20-Aug-78	20-Aug-78
	R2	stream	22-Apr-77	7-May-77	7-May-77
	R3	stream	22-Apr-80	18-May-80	22-Apr-80
	R4	stream	20-Apr-84	7-May-84	12-May-84

Table A 360: FOCUS Application dates and global maximum timing of hops

Application scenario	Scenario	Water body	Application date		Date of global maximum
			1st application	2nd application	
Hops, 1 × 12 g a.s./ha BBCH 21	R1	pond	13-Jun-84	-	13-Jun-84
	R1	stream	13-Jun-84	-	13-Jun-84
Hops, 2 × 12 g a.s./ha BBCH 21	R1	pond	15-May-84	31-May-84	31-May-84
	R1	stream	15-May-84	31-May-84	31-May-84
Hops, 1 × 12 g a.s./ha BBCH 51	R1	pond	11-Jul-78	-	11-Jul-78
	R1	stream	11-Jul-78	-	11-Jul-78
	R1	pond	11-Jul-78	28-Jul-78	28-Jul-78

Application scenario	Scenario	Water body	Application date		Date of global maximum
			1st application	2nd application	
Hops, 2 × 12 g a.s./ha BBCH 51	R1	stream	11-Jul-78	28-Jul-78	28-Jul-78
Hops, 1 × 12 g a.s./ha BBCH 89	D6	ditch	20-Aug-78	-	20-Aug-78
	R1	pond	20-Aug-78	-	20-Aug-78
Hops, 2 × 12 g a.s./ha BBCH 89	D6	ditch	28-Jul-78	20-Aug-78	20-Aug-78
	R1	pond	28-Jul-78	20-Aug-78	20-Aug-78

Table A 361: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy - maximum over single and multiple applications

Application scenario	Scenario	Water body	Max PEC_{SW} (µg/L)[a]	Dominant entry route	Max PEC_{SED} (µg/kg)[a]
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.076*	Drift	0.077
	D3 2nd	ditch	0.076*	Drift	0.081
	D4	pond	0.004	Drift	0.035
	D4	stream	0.060*	Drift	0.007
	D6	ditch	0.074*	Drift	0.030
	R1 1st	pond	0.015	Runoff	0.358
	R1 2nd	pond	0.016	Runoff	0.371
	R1 1st	stream	0.050*	Drift	2.02
	R1 2nd	stream	0.050*	Drift	1.10
	R2 1st	stream	0.066*	Drift	2.76
	R2 2nd	stream	0.067*	Drift	5.55
	R3 1st	stream	0.070*	Drift	2.02
	R3 2nd	stream	0.070*	Drift	1.03
	R4 1st	stream	0.056	Runoff	0.516
	R4 2nd	stream	0.061	Runoff	0.382
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.076*	Drift	0.077
	D3 2nd	ditch	0.075*	Drift	0.056
	D4	pond	0.004	Drift	0.038
	D4	stream	0.054*	Drift	0.004
	D6	ditch	0.072*	Drift	0.033
	R1 1st	pond	0.015	Runoff	0.365
	R1 2nd	pond	0.017	Runoff	0.392
	R1 1st	stream	0.050*	Drift	1.65
	R1 2nd	stream	0.050*	Drift	1.58

Application scenario	Scenario	Water body	Max PEC_{SW} (µg/L)[a]	Dominant entry route	Max PEC_{SED} (µg/kg)[a]
	R2 1st	stream	0.067*	Drift	3.21
	R2 2nd	stream	0.066*	Drift	6.44
	R3 1st	stream	0.070*	Drift	4.34
	R3 2nd	stream	0.070*	Drift	2.32
	R4 1st	stream	0.051	Runoff	1.04
	R4 2nd	stream	0.051	Runoff	1.39

[a] values resulting from single applications are marked *

Table A 362: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting - maximum over single and multiple applications

Application scenario	Scenario	Water body	Max PEC_{SW} (µg/L)[a]	Dominant entry route	Max PEC_{SED} (µg/kg)[a]
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	0.074*	Drift	0.028
	R2	stream	0.066*	Drift	2.13
	R3	stream	0.070*	Drift	0.746
	R4	stream	0.064	Runoff	0.658
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	0.075*	Drift	0.034
	R2	stream	0.067*	Drift	2.58
	R3	stream	0.070*	Drift	1.15
	R4	stream	0.052	Runoff	0.628
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	0.075*	Drift	0.035
	R2	stream	0.067*	Drift	6.17
	R3	stream	0.070*	Drift	1.96
	R4	stream	0.053	Runoff	0.593

[a] values resulting from single applications are marked *

Table A 363: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, bulb - maximum over single and multiple applications

Application scenario	Scenario	Water body	Max PEC_{SW} (µg/L)[a]	Dominant entry route	Max PEC_{SED} (µg/kg)[a]
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 11	D3	ditch	0.076*	Drift	0.075
	D4	pond	0.004	Drift	0.034
	D4	stream	0.058*	Drift	0.007
	D6 1st	ditch	0.076*	Drift	0.168
	D6 2nd	ditch	0.073*	Drift	0.257
	R1	pond	0.009	Runoff	0.241

Application scenario	Scenario	Water body	Max PEC_{SW} (µg/L)[a]	Dominant entry route	Max PEC_{SED} (µg/kg)[a]
	R1	stream	0.050*	Drift	0.590
	R2	stream	0.066*	Drift	2.18
	R3	stream	0.070*	Drift	0.216
	R4	stream	0.062	Runoff	0.437
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 49	D3	ditch	0.076*	Drift	0.075
	D4	pond	0.004	Drift	0.040
	D4	stream	0.054*	Drift	0.006
	D6 1st	ditch	0.076*	Drift	0.314
	D6 2nd	ditch	0.076*	Drift	0.109*
	R1	pond	0.016	Runoff	0.306
	R1	stream	0.049*	Drift	1.06
	R2	stream	0.067*	Drift	2.48
	R3	stream	0.070*	Drift	0.257
	R4	stream	0.056	Runoff	0.640

[a] values resulting from single applications are marked *

Table A 364: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to hops - maximum over single and multiple applications

Application scenario	Scenario	Water body	Max PEC_{SW} (µg/L)[a]	Dominant entry route	Max PEC_{SED} (µg/kg)[a]
Hops, 2 × 12 g a.s./ha BBCH 21	R1	pond	0.036	Drift	0.320
	R1	stream	0.451*	Drift	0.068*
Hops, 2 × 12 g a.s./ha BBCH 51	R1	pond	0.036	Drift	0.315
	R1	stream	0.440*	Drift	0.048
Hops, 2 × 12 g a.s./ha BBCH 89	R1	pond	0.034	Drift	0.324
	R1	stream	0.452*	Drift	0.074

[a] values resulting from single applications are marked *

Table A 365: FOCUS Step 4 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy

Mitigation options																	
Vegetative strip (m)			5[a]		10-12[b]		-		18-20[c]		10-12[b]		15[d]		18-20[c]	
No spray buffer (m)			5		-		10		-		10		15		20	
Nozzle reduction (%)			-		-		-		-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.020	Drift	-	-	0.011	Drift	-	-	0.011	Drift	0.007	Drift	0.006	Drift
	D3 2nd	ditch	0.021	Drift	-	-	0.011	Drift	-	-	0.011	Drift	0.007	Drift	0.006	Drift
	D4	pond	0.002	Drift	-	-	0.002	Drift	-	-	0.002	Drift	0.001	Drift	0.001	Drift
	D4	stream	0.022	Drift	-	-	0.012	Drift	-	-	0.012	Drift	0.008	Drift	0.006	Drift
	D6	ditch	0.020	Drift	-	-	0.012	Drainage	-	-	0.012	Drainage	0.012	Drainage	0.012	Drainage
	R1 1st	pond	0.005	Runoff	0.003	Runoff	0.007	Runoff	0.003	Drift	0.003	Runoff	0.002	Runoff	0.002	Runoff
	R1 2nd	pond	0.005	Runoff	0.004	Drift	0.008	Runoff	0.003	Drift	0.003	Runoff	0.003	Runoff	0.002	Runoff
	R1 1st	stream	0.018	Drift	0.050	Drift	0.019	Runoff	0.050	Drift	0.010	Drift	0.007	Runoff	0.005	Drift
	R1 2nd	stream	0.018	Drift	0.050	Drift	0.016	Runoff	0.050	Drift	0.010	Drift	0.007	Drift	0.005	Drift
	R2 1st	stream	0.024	Drift	0.066	Drift	0.013	Drift	0.066	Drift	0.013	Drift	0.009	Drift	0.007	Drift
	R2 2nd	stream	0.024	Drift	0.067	Drift	0.013	Drift	0.067	Drift	0.013	Drift	0.009	Drift	0.007	Drift
	R3 1st	stream	0.026	Drift	0.070	Drift	0.020	Runoff	0.070	Drift	0.014	Drift	0.009	Drift	0.007	Drift
	R3 2nd	stream	0.026	Drift	0.070	Drift	0.018	Runoff	0.070	Drift	0.014	Drift	0.009	Drift	0.007	Drift
	R4 1st	stream	0.019	Runoff	0.050	Drift	0.029	Runoff	0.050	Drift	0.013	Runoff	0.010	Runoff	0.007	Runoff
	R4 2nd	stream	0.021	Runoff	0.050	Drift	0.032	Runoff	0.050	Drift	0.015	Runoff	0.011	Runoff	0.008	Runoff
Vegetables,	D3 1st	ditch	0.017	Drift	-	-	0.009	Drift	-	-	0.009	Drift	0.006	Drift	0.005	Drift

Mitigation options																
Vegetative strip (m)			5[a]		10-12[b]		-		18-20[c]		10-12[b]		15[d]		18-20[c]	
No spray buffer (m)			5		-		10		-		10		15		20	
Nozzle reduction (%)			-		-		-		-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
leafy, 2 × 12 g a.s./ha BBCH 11	D3 2nd	ditch	0.017	Drift	-	-	0.009	Drift	-	-	0.009	Drift	0.006	Drift	0.005	Drift
	D4	pond	0.003	Drift	-	-	0.002	Drift	-	-	0.002	Drift	0.002	Drift	0.002	Drainage
	D4	stream	0.019	Drift	-	-	0.010	Drift	-	-	0.010	Drift	0.008	Drainage	0.008	Drainage
	D6	ditch	0.025	Drainage	-	-	0.025	Drainage	-	-	0.025	Drainage	0.025	Drainage	0.025	Drainage
	R1 1st	pond	0.009	Runoff	0.006	Runoff	0.015	Runoff	0.004	Drift	0.006	Runoff	0.005	Runoff	0.003	Runoff
	R1 2nd	pond	0.010	Runoff	0.007	Runoff	0.016	Runoff	0.004	Drift	0.007	Runoff	0.005	Runoff	0.004	Runoff
	R1 1st	stream	0.026	Runoff	0.043	Drift	0.040	Runoff	0.043	Drift	0.018	Runoff	0.014	Runoff	0.009	Runoff
	R1 2nd	stream	0.021	Runoff	0.043	Drift	0.032	Runoff	0.043	Drift	0.014	Runoff	0.011	Runoff	0.008	Runoff
	R2 1st	stream	0.020	Drift	0.057	Drift	0.014	Runoff	0.057	Drift	0.010	Drift	0.007	Drift	0.005	Drift
	R2 2nd	stream	0.020	Drift	0.058	Drift	0.011	Drift	0.058	Drift	0.011	Drift	0.007	Drift	0.005	Drift
	R3 1st	stream	0.023	Runoff	0.061	Drift	0.036	Runoff	0.061	Drift	0.016	Runoff	0.013	Runoff	0.009	Runoff
	R3 2nd	stream	0.022	Runoff	0.061	Drift	0.034	Runoff	0.061	Drift	0.016	Runoff	0.012	Runoff	0.008	Runoff
	R4 1st	stream	0.037	Runoff	0.043	Drift	0.056	Runoff	0.043	Drift	0.026	Runoff	0.020	Runoff	0.013	Runoff
	R4 2nd	stream	0.040	Runoff	0.043	Drift	0.061	Runoff	0.043	Drift	0.028	Runoff	0.021	Runoff	0.015	Runoff
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.021	Drift	-	-	0.011	Drift	-	-	0.011	Drift	0.007	Drift	0.006	Drift
	D3 2nd	ditch	0.020	Drift	-	-	0.011	Drift	-	-	0.011	Drift	0.007	Drift	0.006	Drift
	D4	pond	0.002	Drift	-	-	0.002	Drift	-	-	0.002	Drift	0.001	Drift	0.001	Drift
	D4	stream	0.020	Drift	-	-	0.010	Drift	-	-	0.010	Drift	0.007	Drift	0.005	Drift

Mitigation options																
Vegetative strip (m)			5[a]		10-12[b]		-		18-20[c]		10-12[b]		15[d]		18-20[c]	
No spray buffer (m)			5		-		10		-		10		15		20	
Nozzle reduction (%)			-		-		-		-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
	D6	ditch	0.019	Drift	-	-	0.010	Drift	-	-	0.010	Drift	0.007	Drift	0.007	Drainage
	R1 1st	pond	0.005	Runoff	0.004	Runoff	0.007	Runoff	0.003	Drift	0.003	Runoff	0.002	Runoff	0.002	Runoff
	R1 2nd	pond	0.006	Runoff	0.004	Runoff	0.009	Runoff	0.003	Drift	0.004	Runoff	0.003	Runoff	0.002	Runoff
	R1 1st	stream	0.018	Drift	0.050	Drift	0.019	Runoff	0.050	Drift	0.010	Drift	0.007	Drift	0.005	Drift
	R1 2nd	stream	0.018	Drift	0.050	Drift	0.015	Runoff	0.050	Drift	0.010	Drift	0.007	Drift	0.005	Drift
	R2 1st	stream	0.024	Drift	0.067	Drift	0.013	Drift	0.067	Drift	0.013	Drift	0.009	Drift	0.007	Drift
	R2 2nd	stream	0.024	Drift	0.066	Drift	0.013	Drift	0.066	Drift	0.013	Drift	0.009	Drift	0.007	Drift
	R3 1st	stream	0.026	Drift	0.070	Drift	0.014	Runoff	0.070	Drift	0.014	Drift	0.009	Drift	0.007	Drift
	R3 2nd	stream	0.026	Drift	0.070	Drift	0.014	Runoff	0.070	Drift	0.014	Drift	0.009	Drift	0.007	Drift
	R4 1st	stream	0.018	Drift	0.049	Drift	0.025	Runoff	0.049	Drift	0.011	Runoff	0.009	Runoff	0.006	Runoff
	R4 2nd	stream	0.018	Drift	0.050	Drift	0.025	Runoff	0.050	Drift	0.011	Runoff	0.009	Runoff	0.006	Runoff
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.017	Drift	-	-	0.009	Drift	-	-	0.009	Drift	0.006	Drift	0.005	Drift
	D3 2nd	ditch	0.017	Drift	-	-	0.009	Drift	-	-	0.009	Drift	0.006	Drift	0.005	Drift
	D4	pond	0.003	Drift	-	-	0.002	Drift	-	-	0.002	Drift	0.002	Drift	0.001	Drift
	D4	stream	0.018	Drift	-	-	0.009	Drift	-	-	0.009	Drift	0.006	Drift	0.005	Drift
	D6	ditch	0.020	Drainage	-	-	0.020	Drainage	-	-	0.020	Drainage	0.020	Drainage	0.020	Drainage
	R1 1st	pond	0.009	Runoff	0.006	Runoff	0.015	Runoff	0.005	Drift	0.006	Runoff	0.005	Runoff	0.003	Runoff
	R1 2nd	pond	0.011	Runoff	0.008	Runoff	0.016	Runoff	0.004	Runoff	0.007	Runoff	0.006	Runoff	0.004	Runoff

Mitigation options																	
Vegetative strip (m)			5[a]		10-12[b]		-		18-20[c]		10-12[b]		15[d]		18-20[c]	
No spray buffer (m)			5		-		10		-		10		15		20	
Nozzle reduction (%)			-		-		-		-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
	R1 1st	stream	0.024	Runoff	0.043	Drift	0.037	Runoff	0.043	Drift	0.017	Runoff	0.013	Runoff	0.009	Runoff
	R1 2nd	stream	0.019	Runoff	0.043	Drift	0.028	Runoff	0.043	Drift	0.013	Runoff	0.010	Runoff	0.007	Runoff
	R2 1st	stream	0.020	Drift	0.058	Drift	0.011	Drift	0.058	Drift	0.011	Drift	0.007	Drift	0.005	Drift
	R2 2nd	stream	0.020	Drift	0.057	Drift	0.011	Drift	0.057	Drift	0.011	Drift	0.007	Drift	0.005	Drift
	R3 1st	stream	0.022	Drift	0.061	Drift	0.028	Runoff	0.061	Drift	0.013	Runoff	0.010	Runoff	0.007	Runoff
	R3 2nd	stream	0.022	Runoff	0.061	Drift	0.034	Runoff	0.061	Drift	0.015	Runoff	0.012	Runoff	0.008	Runoff
	R4 1st	stream	0.033	Runoff	0.043	Drift	0.051	Runoff	0.043	Drift	0.023	Runoff	0.018	Runoff	0.012	Runoff
	R4 2nd	stream	0.033	Runoff	0.043	Drift	0.051	Runoff	0.043	Drift	0.023	Runoff	0.018	Runoff	0.012	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)

Table A 366: FOCUS Step 4 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting

Mitigation options																
Vegetative strip (m)			5[a]		10-12[b]		-		18-20[c]		10-12[b]		15[d]		18-20[c]	
No spray buffer (m)			5		-		10		-		10		15		20	
Nozzle reduction (%)			-		-		-		-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 11	D6	ditch	0.020	Drift	-	-	0.011	Drift	-	-	0.011	Drift	0.007	Drift	0.006	Drainage
	R2	stream	0.024	Drift	0.066	Drift	0.013	Drift	0.066	Drift	0.013	Drift	0.009	Drift	0.007	Drift
	R3	stream	0.026	Drift	0.070	Drift	0.020	Runoff	0.070	Drift	0.014	Drift	0.009	Drift	0.007	Drift
	R4	stream	0.023	Runoff	0.050	Drift	0.035	Runoff	0.050	Drift	0.016	Runoff	0.012	Runoff	0.008	Runoff
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	0.017	Drift	-	-	0.012	Drainage	-	-	0.012	Drainage	0.012	Drainage	0.012	Drainage
	R2	stream	0.020	Drift	0.057	Drift	0.011	Runoff	0.057	Drift	0.010	Drift	0.007	Drift	0.005	Drift
	R3	stream	0.022	Runoff	0.061	Drift	0.033	Runoff	0.061	Drift	0.015	Runoff	0.012	Runoff	0.008	Runoff
	R4	stream	0.041	Runoff	0.043	Drift	0.064	Runoff	0.043	Drift	0.029	Runoff	0.022	Runoff	0.015	Runoff
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 51	D6	ditch	0.020	Drift	-	-	0.011	Drift	-	-	0.011	Drift	0.007	Drift	0.006	Drift
	R2	stream	0.024	Drift	0.067	Drift	0.013	Drift	0.067	Drift	0.013	Drift	0.009	Drift	0.007	Drift
	R3	stream	0.026	Drift	0.070	Drift	0.014	Drift	0.070	Drift	0.014	Drift	0.009	Drift	0.007	Drift
	R4	stream	0.018	Drift	0.049	Drift	0.024	Runoff	0.049	Drift	0.011	Runoff	0.009	Runoff	0.006	Runoff
Vegetables, fruiting, 2 × 12	D6	ditch	0.017	Drift	-	-	0.012	Drainage	-	-	0.012	Drainage	0.012	Drainage	0.012	Drainage
	R2	stream	0.020	Drift	0.058	Drift	0.011	Runoff	0.058	Drift	0.011	Drift	0.007	Drift	0.005	Drift
	R3	stream	0.022	Drift	0.061	Drift	0.029	Runoff	0.061	Drift	0.013	Runoff	0.010	Runoff	0.007	Runoff

Mitigation options																
Vegetative strip (m)			5[a]		10-12[b]		-		18-20[c]		10-12[b]		15[d]		18-20[c]	
No spray buffer (m)			5		-		10		-		10		15		20	
Nozzle reduction (%)			-		-		-		-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
g a.s./ha BBCH 51	R4	stream	0.034	Runoff	0.043	Drift	0.052	Runoff	0.043	Drift	0.024	Runoff	0.018	Runoff	0.012	Runoff
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 89	D6	ditch	0.020	Drift	-	-	0.011	Drift	-	-	0.011	Drift	0.007	Drift	0.006	Drainage
	R2	stream	0.024	Drift	0.067	Drift	0.013	Drift	0.067	Drift	0.013	Drift	0.009	Drift	0.007	Drift
	R3	stream	0.026	Drift	0.070	Drift	0.014	Runoff	0.070	Drift	0.014	Drift	0.009	Drift	0.007	Drift
	R4	stream	0.018	Drift	0.050	Drift	0.026	Runoff	0.050	Drift	0.012	Runoff	0.009	Runoff	0.006	Runoff
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	0.017	Drift	-	-	0.013	Drainage	-	-	0.013	Drainage	0.013	Drainage	0.013	Drainage
	R2	stream	0.020	Drift	0.058	Drift	0.011	Drift	0.058	Drift	0.011	Drift	0.007	Drift	0.005	Drift
	R3	stream	0.022	Drift	0.061	Drift	0.031	Runoff	0.061	Drift	0.014	Runoff	0.011	Runoff	0.007	Runoff
	R4	stream	0.035	Runoff	0.043	Drift	0.053	Runoff	0.043	Drift	0.024	Runoff	0.018	Runoff	0.013	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)

Table A 367: FOCUS Step 4 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, bulb

Mitigation options																
Vegetative strip (m)			5[a]		10-12[b]		-		18-20[c]		10-12[b]		15[d]		18-20[c]	
No spray buffer (m)			5		-		10		-		10		15		20	
Nozzle reduction (%)			-		-		-		-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 11	D3	ditch	0.020	Drift	-	-	0.011	Drift	-	-	0.011	Drift	0.007	Drift	0.006	Drift
	D4	pond	0.002	Drift	-	-	0.002	Drift	-	-	0.002	Drift	0.001	Drift	0.001	Drift
	D4	stream	0.021	Drift	-	-	0.011	Drift	-	-	0.011	Drift	0.008	Drift	0.006	Drift
	D6 1st	ditch	0.021	Drift	-	-	0.011	Drift	-	-	0.011	Drift	0.007	Drift	0.007	Drainage
	D6 2nd	ditch	0.020	Drift	-	-	0.018	Drainage	-	-	0.018	Drainage	0.018	Drainage	0.018	Drainage
	R1	pond	0.003	Runoff	0.003	Drift	0.004	Runoff	0.003	Drift	0.002	Runoff	0.001	Drift	0.001	Drift
	R1	stream	0.018	Drift	0.050	Drift	0.021	Runoff	0.050	Drift	0.010	Drift	0.007	Runoff	0.005	Drift
	R2	stream	0.024	Drift	0.066	Drift	0.013	Drift	0.066	Drift	0.013	Drift	0.009	Drift	0.007	Drift
	R3	stream	0.026	Drift	0.070	Drift	0.020	Runoff	0.070	Drift	0.014	Drift	0.009	Drift	0.007	Drift
	R4	stream	0.023	Runoff	0.049	Drift	0.035	Runoff	0.049	Drift	0.016	Runoff	0.012	Runoff	0.008	Runoff
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 11	D3	ditch	0.017	Drift	-	-	0.009	Drift	-	-	0.009	Drift	0.006	Drift	0.005	Drift
	D4	pond	0.003	Drift	-	-	0.002	Drift	-	-	0.002	Drift	0.002	Drainage	0.002	Drainage
	D4	stream	0.018	Drift	-	-	0.009	Drift	-	-	0.009	Drift	0.008	Drainage	0.008	Drainage
	D6 1st	ditch	0.017	Drift	-	-	0.013	Drainage	-	-	0.013	Drainage	0.013	Drainage	0.013	Drainage
	D6 2nd	ditch	0.029	Drainage	-	-	0.029	Drainage	-	-	0.029	Drainage	0.029	Drainage	0.029	Drainage
	R1	pond	0.005	Runoff	0.004	Runoff	0.009	Runoff	0.004	Drift	0.004	Runoff	0.003	Runoff	0.002	Runoff
	R1	stream	0.028	Runoff	0.043	Drift	0.042	Runoff	0.043	Drift	0.019	Runoff	0.015	Runoff	0.010	Runoff

Mitigation options																
Vegetative strip (m)			5[a]		10-12[b]		-		18-20[c]		10-12[b]		15[d]		18-20[c]	
No spray buffer (m)			5		-		10		-		10		15		20	
Nozzle reduction (%)			-		-		-		-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
	R2	stream	0.023	Drift	0.058	Drift	0.015	Drift	0.058	Drift	0.012	Drift	0.008	Drift	0.006	Drift
	R3	stream	0.025	Runoff	0.061	Drift	0.038	Runoff	0.061	Drift	0.017	Runoff	0.013	Runoff	0.009	Runoff
	R4	stream	0.040	Runoff	0.043	Drift	0.062	Runoff	0.043	Drift	0.028	Runoff	0.021	Runoff	0.015	Runoff
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 49	D3	ditch	0.021	Drift	-	-	0.011	Drift	-	-	0.011	Drift	0.007	Drift	0.006	Drift
	D4	pond	0.002	Drift	-	-	0.002	Drift	-	-	0.002	Drift	0.001	Drift	0.001	Drift
	D4	stream	0.020	Drift	-	-	0.010	Drift	-	-	0.010	Drift	0.007	Drift	0.005	Drift
	D6 1st	ditch	0.021	Drift	-	-	0.011	Drift	-	-	0.011	Drift	0.007	Drift	0.006	Drift
	D6 2nd	ditch	0.021	Drift	-	-	0.011	Drift	-	-	0.011	Drift	0.007	Drift	0.007	Drainage
	R1	pond	0.005	Runoff	0.003	Runoff	0.007	Runoff	0.003	Drift	0.003	Runoff	0.002	Runoff	0.002	Runoff
	R1	stream	0.018	Drift	0.049	Drift	0.014	Runoff	0.049	Drift	0.010	Drift	0.006	Drift	0.005	Drift
	R2	stream	0.024	Drift	0.067	Drift	0.013	Drift	0.067	Drift	0.013	Drift	0.009	Drift	0.007	Drift
	R3	stream	0.026	Drift	0.070	Drift	0.017	Runoff	0.070	Drift	0.014	Drift	0.009	Drift	0.007	Drift
	R4	stream	0.019	Runoff	0.048	Drift	0.030	Runoff	0.048	Drift	0.013	Runoff	0.010	Runoff	0.007	Runoff
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 49	D3	ditch	0.017	Drift	-	-	0.009	Drift	-	-	0.009	Drift	0.006	Drift	0.005	Drift
	D4	pond	0.003	Drift	-	-	0.002	Drift	-	-	0.002	Drift	0.002	Drift	0.002	Drainage
	D4	stream	0.018	Drift	-	-	0.009	Drift	-	-	0.009	Drift	0.006	Drift	0.006	Drainage
	D6 1st	ditch	0.019	Drift	-	-	0.010	Drift	-	-	0.010	Drift	0.008	Drainage	0.008	Drainage
	D6 2nd	ditch	0.017	Drift	-	-	0.016	Drainage	-	-	0.016	Drainage	0.016	Drainage	0.016	Drainage

Mitigation options																
Vegetative strip (m)			5[a]		10-12[b]		-		18-20[c]		10-12[b]		15[d]		18-20[c]	
No spray buffer (m)			5		-		10		-		10		15		20	
Nozzle reduction (%)			-		-		-		-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
	R1	pond	0.010	Runoff	0.007	Runoff	0.015	Runoff	0.004	Runoff	0.007	Runoff	0.005	Runoff	0.003	Runoff
	R1	stream	0.019	Runoff	0.043	Drift	0.030	Runoff	0.043	Drift	0.013	Runoff	0.010	Runoff	0.007	Runoff
	R2	stream	0.020	Drift	0.058	Drift	0.011	Runoff	0.058	Drift	0.011	Drift	0.007	Drift	0.005	Drift
	R3	stream	0.021	Drift	0.061	Drift	0.032	Runoff	0.061	Drift	0.014	Runoff	0.011	Runoff	0.008	Runoff
	R4	stream	0.037	Runoff	0.043	Drift	0.056	Runoff	0.043	Drift	0.025	Runoff	0.019	Runoff	0.013	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)

Table A 368: FOCUS Step 4 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to hops

Mitigation options												
Vegetative strip (m)			5[a]		-		10-12[b]		15[c]		-	
No spray buffer (m)			5		10		10		15		20	
Nozzle reduction (%)			-		-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Hops, 1 × 12 g a.s./ha BBCH 21	R1	pond	0.035	Drift	0.020	Drift	0.020	Drift	0.011	Drift	0.006	Drift
	R1	stream	0.368	Drift	0.192	Drift	0.192	Drift	0.127	Drift	0.058	Drift
Hops, 2 × 12 g a.s./ha BBCH 21	R1	pond	0.042	Drift	0.022	Drift	0.022	Drift	0.012	Drift	0.007	Drift
	R1	stream	0.293	Drift	0.134	Drift	0.134	Drift	0.082	Drift	0.038	Drift
Hops, 1 × 12 g a.s./ha BBCH 51	R1	pond	0.036	Drift	0.020	Drift	0.020	Drift	0.011	Drift	0.007	Drift
	R1	stream	0.359	Drift	0.187	Drift	0.187	Drift	0.123	Drift	0.056	Drift
Hops, 2 × 12 g a.s./ha BBCH 51	R1	pond	0.041	Drift	0.022	Drift	0.022	Drift	0.012	Drift	0.007	Drift
	R1	stream	0.293	Drift	0.134	Drift	0.134	Drift	0.082	Drift	0.038	Drift
Hops, 1 × 12 g a.s./ha BBCH 89	R1	pond	0.035	Drift	0.020	Drift	0.020	Drift	0.011	Drift	0.006	Drift
	R1	stream	0.369	Drift	0.192	Drift	0.192	Drift	0.127	Drift	0.058	Drift
Hops, 2 × 12 g a.s./ha BBCH 89	R1	pond	0.039	Drift	0.021	Drift	0.021	Drift	0.011	Drift	0.007	Drift
	R1	stream	0.301	Drift	0.138	Drift	0.138	Drift	0.084	Drift	0.039	Drift

Mitigation options								
Vegetative strip (m)			18-20[d]		-		-	
No spray buffer (m)			20		20		30	
Nozzle reduction (%)			-		50		-	
Crop	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**
Hops, 1 × 12 g a.s./ha BBCH 21	R1	pond	0.006	Drift	0.003	Drift	0.003	Drift
	R1	stream	0.058	Drift	0.029	Drift	0.019	Drift
Hops, 2 × 12 g a.s./ha BBCH 21	R1	pond	0.007	Drift	0.004	Drift	0.003	Drift
	R1	stream	0.037	Drift	0.019	Drift	0.018	Runoff
Hops, 1 × 12 g a.s./ha BBCH 51	R1	pond	0.006	Drift	0.003	Drift	0.003	Drift
	R1	stream	0.056	Drift	0.028	Drift	0.018	Drift
Hops, 2 × 12 g a.s./ha BBCH 51	R1	pond	0.007	Drift	0.004	Drift	0.003	Drift
	R1	stream	0.037	Drift	0.019	Drift	0.017	Runoff
Hops, 1 × 12 g a.s./ha BBCH 89	R1	pond	0.006	Drift	0.003	Drift	0.003	Drift
	R1	stream	0.058	Drift	0.029	Drift	0.019	Drift
Hops, 2 × 12 g a.s./ha BBCH 89	R1	pond	0.006	Drift	0.003	Drift	0.003	Drift
	R1	stream	0.039	Drift	0.019	Drift	0.017	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)
[d] equivalent to 80% runoff mitigation

Table A 369: FOCUS Step 4 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy – VFSMod

Mitigation option				
Vegetative strip (m)			VFSMod-5m	
No spray buffer (m)			-	
Nozzle reduction (%)			-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 11	D3 1st	ditch	-	-
	D3 2nd	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	R1 1st	pond	0.003	Drift
	R1 2nd	pond	0.003	Drift
	R1 1st	stream	0.050	Drift
	R1 2nd	stream	0.050	Drift
	R2 1st	stream	0.066	Drift
	R2 2nd	stream	0.067	Drift
	R3 1st	stream	0.070	Drift
	R3 2nd	stream	0.070	Drift
	R4 1st	stream	0.050	Drift
	R4 2nd	stream	0.050	Drift
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	-	-
	D3 2nd	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	R1 1st	pond	0.004	Drift
	R1 2nd	pond	0.004	Drift
	R1 1st	stream	0.043	Drift
	R1 2nd	stream	0.043	Drift
	R2 1st	stream	0.057	Drift
	R2 2nd	stream	0.058	Drift
	R3 1st	stream	0.061	Drift
	R3 2nd	stream	0.061	Drift
	R4 1st	stream	0.043	Drift
	R4 2nd	stream	0.043	Drift

Mitigation option				
Vegetative strip (m)			VFSMod-5m	
No spray buffer (m)			-	
Nozzle reduction (%)			-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 49	D3 1st	ditch	-	-
	D3 2nd	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	R1 1st	pond	0.003	Drift
	R1 2nd	pond	0.003	Drift
	R1 1st	stream	0.050	Drift
	R1 2nd	stream	0.050	Drift
	R2 1st	stream	0.067	Drift
	R2 2nd	stream	0.066	Drift
	R3 1st	stream	0.070	Drift
	R3 2nd	stream	0.070	Drift
	R4 1st	stream	0.049	Drift
	R4 2nd	stream	0.050	Drift
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	-	-
	D3 2nd	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6	ditch	-	-
	R1 1st	pond	0.005	Drift
	R1 2nd	pond	0.004	Drift
	R1 1st	stream	0.043	Drift
	R1 2nd	stream	0.043	Drift
	R2 1st	stream	0.058	Drift
	R2 2nd	stream	0.057	Drift
	R3 1st	stream	0.061	Drift
	R3 2nd	stream	0.061	Drift
	R4 1st	stream	0.043	Drift
	R4 2nd	stream	0.043	Drift

Table A 370: FOCUS Step 4 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting – VFSMod

Mitigation options				
Vegetative strip (m)			VFSMod-5m	
No spray buffer (m)			-	
Nozzle reduction (%)			-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 11	D6	ditch	-	-
	R2	stream	0.066	Drift
	R3	stream	0.070	Drift
	R4	stream	0.050	Drift
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	-	-
	R2	stream	0.057	Drift
	R3	stream	0.061	Drift
	R4	stream	0.043	Drift
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 51	D6	ditch	-	-
	R2	stream	0.067	Drift
	R3	stream	0.070	Drift
	R4	stream	0.049	Drift
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	-	-
	R2	stream	0.058	Drift
	R3	stream	0.061	Drift
	R4	stream	0.043	Drift
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 89	D6	ditch	-	-
	R2	stream	0.067	Drift
	R3	stream	0.070	Drift
	R4	stream	0.050	Drift
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	-	-
	R2	stream	0.058	Drift
	R3	stream	0.061	Drift
	R4	stream	0.043	Drift

Table A 371: FOCUS Step 4 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, bulb – VFSMod

Mitigation options				
Vegetative strip (m)			VFSMod-5m	
No spray buffer (m)			-	
Nozzle reduction (%)			-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 11	D3	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6 1st	ditch	-	-
	D6 2nd	ditch	-	-
	R1	pond	0.003	Drift
	R1	stream	0.050	Drift
	R2	stream	0.066	Drift
	R3	stream	0.070	Drift
	R4	stream	0.049	Drift
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 11	D3	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6 1st	ditch	-	-
	D6 2nd	ditch	-	-
	R1	pond	0.004	Drift
	R1	stream	0.043	Drift
	R2	stream	0.057	Drift
	R3	stream	0.061	Drift
	R4	stream	0.043	Drift
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 49	D3	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6 1st	ditch	-	-
	D6 2nd	ditch	-	-
	R1	pond	0.003	Drift
	R1	stream	0.049	Drift
	R2	stream	0.067	Drift
	R3	stream	0.070	Drift
	R4	stream	0.048	Drift

Mitigation options				
Vegetative strip (m)			VFSMod-5m	
No spray buffer (m)			-	
Nozzle reduction (%)			-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 49	D3	ditch	-	-
	D4	pond	-	-
	D4	stream	-	-
	D6 1st	ditch	-	-
	D6 2nd	ditch	-	-
	R1	pond	0.004	Drift
	R1	stream	0.043	Drift
	R2	stream	0.058	Drift
	R3	stream	0.061	Drift
	R4	stream	0.043	Drift

Table A 372: FOCUS Step 4 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to hops – VFSMod

Mitigation options				
Vegetative strip (m)			VFSMod-5m	
No spray buffer (m)			-	
Nozzle reduction (%)			-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Hops, 1 × 12 g a.s./ha BBCH 21	R1	pond	0.031	Drift
	R1	stream	0.451	Drift
Hops, 2 × 12 g a.s./ha BBCH 21	R1	pond	0.036	Drift
	R1	stream	0.373	Drift
Hops, 1 × 12 g a.s./ha BBCH 51	R1	pond	0.031	Drift
	R1	stream	0.440	Drift
Hops, 2 × 12 g a.s./ha BBCH 51	R1	pond	0.035	Drift
	R1	stream	0.373	Drift
	R1	pond	0.031	Drift

Mitigation options				
Vegetative strip (m)			VFSMod-5m	
No spray buffer (m)			-	
Nozzle reduction (%)			-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Hops, 1 × 12 g a.s./ha BBCH 89	R1	stream	0.452	Drift
Hops, 2 × 12 g a.s./ha BBCH 89	R1	pond	0.034	Drift
	R1	stream	0.383	Drift

Table A 373: FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy – maximum over single and multiple applications

Mitigation options																	
Vegetative strip (m)			5[a]		10-12[b]		-		18-20[c]		10-12[b]		15[d]		18-20[c]	
No spray buffer (m)			5		-		10		-		10		15		20	
Nozzle reduction (%)			-		-		-		-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.020*	Drift	-	-	0.011*	Drift	-	-	0.011*	Drift	0.007*	Drift	0.006*	Drift
	D3 2nd	ditch	0.021*	Drift	-	-	0.011*	Drift	-	-	0.011*	Drift	0.007*	Drift	0.006*	Drift
	D4	pond	0.003	Drift	-	-	0.002	Drift	-	-	0.002	Drift	0.002	Drift	0.002	Drainage
	D4	stream	0.022*	Drift	-	-	0.012*	Drift	-	-	0.012*	Drift	0.008*	Drift	0.008	Drainage
	D6	ditch	0.025	Drainage	-	-	0.025	Drainage	-	-	0.025	Drainage	0.025	Drainage	0.025	Drainage
	R1 1st	pond	0.009	Runoff	0.006	Runoff	0.015	Runoff	0.004	Drift	0.006	Runoff	0.005	Runoff	0.003	Runoff
	R1 2nd	pond	0.010	Runoff	0.007	Runoff	0.016	Runoff	0.004	Drift	0.007	Runoff	0.005	Runoff	0.004	Runoff
	R1 1st	stream	0.026	Runoff	0.050*	Drift	0.040	Runoff	0.050*	Drift	0.018	Runoff	0.014	Runoff	0.009	Runoff
	R1 2nd	stream	0.021	Runoff	0.050*	Drift	0.032	Runoff	0.050*	Drift	0.014	Runoff	0.011	Runoff	0.008	Runoff
	R2 1st	stream	0.024*	Drift	0.066*	Drift	0.014	Runoff	0.066*	Drift	0.013*	Drift	0.009*	Drift	0.007*	Drift
	R2 2nd	stream	0.024*	Drift	0.067*	Drift	0.013*	Drift	0.067*	Drift	0.013*	Drift	0.009*	Drift	0.007*	Drift
	R3 1st	stream	0.026*	Drift	0.070*	Drift	0.036	Runoff	0.070*	Drift	0.016	Runoff	0.013	Runoff	0.009	Runoff
	R3 2nd	stream	0.026*	Drift	0.070*	Drift	0.034	Runoff	0.070*	Drift	0.016	Runoff	0.012	Runoff	0.008	Runoff
	R4 1st	stream	0.037	Runoff	0.050*	Drift	0.056	Runoff	0.050*	Drift	0.026	Runoff	0.020	Runoff	0.013	Runoff

Mitigation options																
Vegetative strip (m)			5[a]		10-12[b]		-		18-20[c]		10-12[b]		15[d]		18-20[c]	
No spray buffer (m)			5		-		10		-		10		15		20	
Nozzle reduction (%)			-		-		-		-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)[e]**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)[e]**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)[e]**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)[e]**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)[e]**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)[e]**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)[e]**	**Dominant route of entry**
	R4 2nd	stream	0.040	Runoff	0.050*	Drift	0.061	Runoff	0.050*	Drift	0.028	Runoff	0.021	Runoff	0.015	Runoff
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.021*	Drift	-	-	0.011*	Drift	-	-	0.011*	Drift	0.007*	Drift	0.006*	Drift
	D3 2nd	ditch	0.020*	Drift	-	-	0.011*	Drift	-	-	0.011*	Drift	0.007*	Drift	0.006*	Drift
	D4	pond	0.003	Drift	-	-	0.002	Drift	-	-	0.002	Drift	0.002	Drift	0.001	Drift
	D4	stream	0.020*	Drift	-	-	0.010*	Drift	-	-	0.010*	Drift	0.007*	Drift	0.005*	Drift
	D6	ditch	0.020	Drainage	-	-	0.020	Drainage	-	-	0.020	Drainage	0.020	Drainage	0.020	Drainage
	R1 1st	pond	0.009	Runoff	0.006	Runoff	0.015	Runoff	0.005	Drift	0.006	Runoff	0.005	Runoff	0.003	Runoff
	R1 2nd	pond	0.011	Runoff	0.008	Runoff	0.016	Runoff	0.004	Runoff	0.007	Runoff	0.006	Runoff	0.004	Runoff
	R1 1st	stream	0.024	Runoff	0.050*	Drift	0.037	Runoff	0.050*	Drift	0.017	Runoff	0.013	Runoff	0.009	Runoff
	R1 2nd	stream	0.019	Runoff	0.050*	Drift	0.028	Runoff	0.050*	Drift	0.013	Runoff	0.01	Runoff	0.007	Runoff
	R2 1st	stream	0.024*	Drift	0.067*	Drift	0.013*	Drift	0.067*	Drift	0.013*	Drift	0.009*	Drift	0.007*	Drift
	R2 2nd	stream	0.024*	Drift	0.066*	Drift	0.013*	Drift	0.066*	Drift	0.013*	Drift	0.009*	Drift	0.007*	Drift
	R3 1st	stream	0.026*	Drift	0.070*	Drift	0.028	Runoff	0.070*	Drift	0.014*	Drift	0.010	Runoff	0.007*	Drift
	R3 2nd	stream	0.026*	Drift	0.070*	Drift	0.034	Runoff	0.070*	Drift	0.015	Runoff	0.012	Runoff	0.008	Runoff
	R4 1st	stream	0.033	Runoff	0.049*	Drift	0.051	Runoff	0.049*	Drift	0.023	Runoff	0.018	Runoff	0.012	Runoff
	R4 2nd	stream	0.033	Runoff	0.050*	Drift	0.051	Runoff	0.050*	Drift	0.023	Runoff	0.018	Runoff	0.012	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)

[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)
[e] values resulting from single applications are marked *

Table A 374: FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting – maximum over single and multiple applications

Mitigation options																
Vegetative strip (m)			5[a]		10-12[b]		-		18-20[c]		10-12[b]		15[d]		18-20[c]	
No spray buffer (m)			5		-		10		-		10		15		20	
Nozzle reduction (%)			-		-		-		-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	0.020*	Drift	-	-	0.012	Drainage	-	-	0.012	Drainage	0.012	Drainage	0.012	Drainage
	R2	stream	0.024*	Drift	0.066*	Drift	0.013*	Drift	0.066*	Drift	0.013*	Drift	0.009*	Drift	0.007*	Drift
	R3	stream	0.026*	Drift	0.070*	Drift	0.033	Runoff	0.070*	Drift	0.015	Runoff	0.012	Runoff	0.008	Runoff
	R4	stream	0.041	Runoff	0.050*	Drift	0.064	Runoff	0.050*	Drift	0.029	Runoff	0.022	Runoff	0.015	Runoff
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	0.020*	Drift	-	-	0.012	Drainage	-	-	0.012	Drainage	0.012	Drainage	0.012	Drainage
	R2	stream	0.024*	Drift	0.067*	Drift	0.013*	Drift	0.067*	Drift	0.013*	Drift	0.009*	Drift	0.007*	Drift
	R3	stream	0.026*	Drift	0.070*	Drift	0.029	Runoff	0.070*	Drift	0.014*	Drift	0.010	Runoff	0.007*	Drift
	R4	stream	0.034	Runoff	0.049*	Drift	0.052	Runoff	0.049*	Drift	0.024	Runoff	0.018	Runoff	0.012	Runoff
Vegetables, fruiting, 2 × 12	D6	ditch	0.020*	Drift	-	-	0.013	Drainage	-	-	0.013	Drainage	0.013	Drainage	0.013	Drainage
	R2	stream	0.024*	Drift	0.067*	Drift	0.013*	Drift	0.067*	Drift	0.013*	Drift	0.009*	Drift	0.007*	Drift
	R3	stream	0.026*	Drift	0.070*	Drift	0.031	Runoff	0.070*	Drift	0.014	Runoff	0.011	Runoff	0.007	Runoff

g a.s./ha BBCH 89	R4	stream	0.035	Runoff	0.050*	Drift	0.053	Runoff	0.050*	Drift	0.024	Runoff	0.018	Runoff	0.013	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)
[e] values resulting from single applications are marked *

Table A 375: FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, bulb – maximum over single and multiple applications

Mitigation options																
Vegetative strip (m)			5[a]		10-12[b]		-		18-20[c]		10-12[b]		15[d]		18-20[c]	
No spray buffer (m)			5		-		10		-		10		15		20	
Nozzle reduction (%)			-		-		-		-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 11	D3	ditch	0.020*	Drift	-	-	0.011*	Drift	-	-	0.011*	Drift	0.007*	Drift	0.006*	Drift
	D4	pond	0.003	Drift	-	-	0.002	Drift	-	-	0.002	Drift	0.002	Drainage	0.002	Drainage
	D4	stream	0.021*	Drift	-	-	0.011*	Drift	-	-	0.011*	Drift	0.008	Drainage	0.008	Drainage
	D6 1st	ditch	0.021*	Drift	-	-	0.013	Drainage	-	-	0.013	Drainage	0.013	Drainage	0.013	Drainage
	D6 2nd	ditch	0.029	Drainage	-	-	0.029	Drainage	-	-	0.029	Drainage	0.029	Drainage	0.029	Drainage
	R1	pond	0.005	Runoff	0.004	Runoff	0.009	Runoff	0.004	Drift	0.004	Runoff	0.003	Runoff	0.002	Runoff
	R1	stream	0.028	Runoff	0.050*	Drift	0.042	Runoff	0.050*	Drift	0.019	Runoff	0.015	Runoff	0.010	Runoff
	R2	stream	0.024*	Drift	0.066*	Drift	0.015	Drift	0.066*	Drift	0.013*	Drift	0.009*	Drift	0.007*	Drift

Mitigation options																
Vegetative strip (m)			5[a]		10-12[b]		-		18-20[c]		10-12[b]		15[d]		18-20[c]	
No spray buffer (m)			5		-		10		-		10		15		20	
Nozzle reduction (%)			-		-		-		-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**
	R3	stream	0.026*	Drift	0.070*	Drift	0.038	Runoff	0.070*	Drift	0.017	Runoff	0.013	Runoff	0.009	Runoff
	R4	stream	0.040	Runoff	0.049*	Drift	0.062	Runoff	0.049*	Drift	0.028	Runoff	0.021	Runoff	0.015	Runoff
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 49	D3	ditch	0.021*	Drift	-	-	0.011*	Drift	-	-	0.011*	Drift	0.007*	Drift	0.006*	Drift
	D4	pond	0.003	Drift	-	-	0.002	Drift	-	-	0.002	Drift	0.002	Drift	0.002	Drainage
	D4	stream	0.020*	Drift	-	-	0.010*	Drift	-	-	0.010*	Drift	0.007*	Drift	0.006	Drainage
	D6 1st	ditch	0.021*	Drift	-	-	0.011*	Drift	-	-	0.011*	Drift	0.008	Drainage	0.008	Drainage
	D6 2nd	ditch	0.021*	Drift	-	-	0.016	Drainage	-	-	0.016	Drainage	0.016	Drainage	0.016	Drainage
	R1	pond	0.010	Runoff	0.007	Runoff	0.015	Runoff	0.004	Runoff	0.007	Runoff	0.005	Runoff	0.003	Runoff
	R1	stream	0.019	Runoff	0.049*	Drift	0.030	Runoff	0.049*	Drift	0.013	Runoff	0.010	Runoff	0.007	Runoff
	R2	stream	0.024*	Drift	0.067*	Drift	0.013*	Drift	0.067*	Drift	0.013*	Drift	0.009*	Drift	0.007*	Drift
	R3	stream	0.026*	Drift	0.070*	Drift	0.032	Runoff	0.070*	Drift	0.014	Runoff	0.011	Runoff	0.008	Runoff
	R4	stream	0.037	Runoff	0.048*	Drift	0.056	Runoff	0.048*	Drift	0.025	Runoff	0.019	Runoff	0.013	Runoff

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] equivalent to 80% runoff mitigation
[d] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)
[e] values resulting from single applications are marked *

Table A 376: FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to hops – maximum over single and multiple applications

Mitigation options												
Vegetative strip (m)			5[a]		-		10-12[b]		15[c]		-	
No spray buffer (m)			5		10		10		15		20	
Nozzle reduction (%)			-		-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[d]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[d]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[d]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[d]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[d]**	**Dominant route of entry**
Hops, 2 × 12 g a.s./ha BBCH 21	R1	pond	0.042	Drift	0.022	Drift	0.022	Drift	0.012	Drift	0.007	Drift
	R1	stream	0.368*	Drift	0.192*	Drift	0.192*	Drift	0.127*	Drift	0.058*	Drift
Hops, 2 × 12 g a.s./ha BBCH 51	R1	pond	0.041	Drift	0.022	Drift	0.022	Drift	0.012	Drift	0.007*	Drift
	R1	stream	0.359*	Drift	0.187*	Drift	0.187*	Drift	0.123*	Drift	0.056*	Drift
Hops, 2 × 12 g a.s./ha BBCH 89	R1	pond	0.039	Drift	0.021	Drift	0.021	Drift	0.011	Drift	0.007	Drift
	R1	stream	0.369*	Drift	0.192*	Drift	0.192*	Drift	0.127*	Drift	0.058*	Drift

Mitigation options									
Vegetative strip (m)			18-20[e]		-		-		-
No spray buffer (m)			20		20		30		
Nozzle reduction (%)			-		50		-		
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[e]**	**Dominant route of entry**	
	R1	pond	0.007	Drift	0.004	Drift	0.003	Drift	

Hops, 2 × 12 g a.s./ha BBCH 21	R1	stream	0.058*	Drift	0.029*	Drift	0.019*	Drift
Hops, 2 × 12 g a.s./ha BBCH 51	R1	pond	0.007	Drift	0.004	Drift	0.003	Drift
	R1	stream	0.056*	Drift	0.028*	Drift	0.018*	Drift
Hops, 2 × 12 g a.s./ha BBCH 89	R1	pond	0.006	Drift	0.003	Drift	0.003	Drift
	R1	stream	0.058*	Drift	0.029*	Drift	0.019*	Drift

[a] Austrian-specific reduction measures for soil surface runoff and erosion = 40% (BAES, 2020)
[b] equivalent to 60% runoff mitigation
[c] Austrian-specific reduction measures for soil surface runoff and erosion = 70% (BAES, 2020)
[d] values resulting from single applications are marked *
[e] equivalent to 80% runoff mitigation

Table A 377: FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy – VFSMod – maximum over single and multiple applications

Mitigation option					
Vegetative strip (m)			VFSMod-5m		
No spray buffer (m)			-		
Nozzle reduction (%)			-		
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[a]**	**Dominant route of entry**	**PEC_{SED} (µg/L)[a]**
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	-	-	-
	D3 2nd	ditch	-	-	-
	D4	pond	-	-	-
	D4	stream	-	-	-
	D6	ditch	-	-	-
	R1 1st	pond	0.004	Drift	0.068
	R1 2nd	pond	0.004	Drift	0.085
	R1 1st	stream	0.050*	Drift	0.285
	R1 2nd	stream	0.050*	Drift	0.191
	R2 1st	stream	0.066*	Drift	0.047
	R2 2nd	stream	0.067*	Drift	0.268
	R3 1st	stream	0.070*	Drift	0.624
	R3 2nd	stream	0.070*	Drift	0.179
	R4 1st	stream	0.050*	Drift	0.061
	R4 2nd	stream	0.050*	Drift	0.035
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	-	-	-
	D3 2nd	ditch	-	-	-
	D4	pond	-	-	-
	D4	stream	-	-	-
	D6	ditch	-	-	-
	R1 1st	pond	0.005	Drift	0.078
	R1 2nd	pond	0.004	Drift	0.093
	R1 1st	stream	0.05*	Drift	0.255
	R1 2nd	stream	0.05*	Drift	0.286
	R2 1st	stream	0.067*	Drift	0.099*
	R2 2nd	stream	0.066*	Drift	0.215
	R3 1st	stream	0.070*	Drift	1.37
	R3 2nd	stream	0.070*	Drift	0.786
	R4 1st	stream	0.049*	Drift	0.157
	R4 2nd	stream	0.050*	Drift	0.314

[a] values resulting from single applications are marked *

Table A 378: FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting – VFSMod – maximum over single and multiple applications

Mitigation options					
Vegetative strip (m)			VFSMod-5m		
No spray buffer (m)			-		
Nozzle reduction (%)			-		
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[a]**	**Dominant route of entry**	**PEC_{SED} (µg/L)[a]**
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	-	-	-
	R2	stream	0.066*	Drift	0.038
	R3	stream	0.070*	Drift	0.121
	R4	stream	0.050*	Drift	0.088
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	-	-	-
	R2	stream	0.067*	Drift	0.051
	R3	stream	0.070*	Drift	0.211
	R4	stream	0.049*	Drift	0.164
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	-	-	-
	R2	stream	0.067*	Drift	0.272
	R3	stream	0.070*	Drift	0.530
	R4	stream	0.050*	Drift	0.108

[a] values resulting from single applications are marked *

Table A 379: FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, bulb – VFSMod – maximum over single and multiple applications

Mitigation options					
Vegetative strip (m)			VFSMod-5m		
No spray buffer (m)			-		
Nozzle reduction (%)			-		
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[a]**	**Dominant route of entry**	**PEC_{SED} (µg/L)[a]**
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 11	D3	ditch	-	-	-
	D4	pond	-	-	-
	D4	stream	-	-	-
	D6 1[st]	ditch	-	-	-
	D6 2[nd]	ditch	-	-	-

	R1	pond	0.004	Drift	0.044
	R1	stream	0.050*	Drift	0.036
	R2	stream	0.066*	Drift	0.026
	R3	stream	0.070*	Drift	0.054
	R4	stream	0.049*	Drift	0.042
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 49	D3	ditch	-	-	-
	D4	pond	-	-	-
	D4	stream	-	-	-
	D6 1st	ditch	-	-	-
	D6 2nd	ditch	-	-	-
	R1	pond	0.004	Drift	0.072
	R1	stream	0.049*	Drift	0.187
	R2	stream	0.067*	Drift	0.035
	R3	stream	0.070*	Drift	0.061
	R4	stream	0.048*	Drift	0.142

[a] values resulting from single applications are marked *

Table A 380: FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to hops – VFSMod – maximum over single and multiple applications

Mitigation options					
Vegetative strip (m)			VFSMod-5m		
No spray buffer (m)			-		
Nozzle reduction (%)			-		
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[a]**	**Dominant route of entry**	**PEC_{SED} (µg/L)[a]**
Hops, 2 × 12 g a.s./ha BBCH 21	R1	pond	0.036	Drift	0.318
	R1	stream	0.451*	Drift	0.067*
Hops, 2 × 12 g a.s./ha BBCH 51	R1	pond	0.035	Drift	0.310
	R1	stream	0.440*	Drift	0.044
Hops, 2 × 12 g a.s./ha BBCH 89	R1	pond	0.034	Drift	0.319
	R1	stream	0.452*	Drift	0.072*

[a] values resulting from single applications are marked *

Greenhouse uses

Table A 381: FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy – 0.1% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.004	Drift	0.003
	D3 2nd	ditch	0.004	Drift	0.003
	D4	pond	0.001	Drift	0.012
	D4	stream	0.004	Drainage	0.003
	D6	ditch	0.012	Drainage	0.004
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.004	Drift	0.005
	D3 2nd	ditch	0.004	Drift	0.005
	D4	pond	0.002	Drift	0.025
	D4	stream	0.008	Drainage	0.007
	D6	ditch	0.025	Drainage	0.008
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.004	Drift	0.003
	D3 2nd	ditch	0.004	Drift	0.002
	D4	pond	0.001	Drift	0.011
	D4	stream	0.003	Drift	0.002
	D6	ditch	0.007	Drainage	0.002
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.004	Drift	0.005
	D3 2nd	ditch	0.004	Drift	0.003
	D4	pond	0.002	Drift	0.023
	D4	stream	0.004	Drainage	0.003
	D6	ditch	0.020	Drainage	0.005

Table A 382: FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting – 0.1% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 11	D6	ditch	0.006	Drainage	0.002
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	0.012	Drainage	0.004

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 51	D6	ditch	0.006	Drainage	0.002
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	0.012	Drainage	0.003
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 89	D6	ditch	0.006	Drainage	0.002
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	0.013	Drainage	0.004

Table A 383: FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy – 0.2% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.008	Drift	0.006
	D3 2nd	ditch	0.008	Drift	0.006
	D4	pond	0.002	Drift	0.019
	D4	stream	0.007	Drift	0.003
	D6	ditch	0.012	Drainage	0.004
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.008	Drift	0.009
	D3 2nd	ditch	0.008	Drift	0.010
	D4	pond	0.004	Drift	0.037
	D4	stream	0.008	Drainage	0.007
	D6	ditch	0.025	Drainage	0.008
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.008	Drift	0.006
	D3 2nd	ditch	0.008	Drift	0.004
	D4	pond	0.002	Drift	0.020
	D4	stream	0.006	Drift	0.002
	D6	ditch	0.007	Drift	0.002
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.008	Drift	0.009
	D3 2nd	ditch	0.008	Drift	0.007
	D4	pond	0.004	Drift	0.041
	D4	stream	0.007	Drift	0.003
	D6	ditch	0.020	Drainage	0.006

Table A 384: FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting – 0.2% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 11	D6	ditch	0.008	Drift	0.002
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	0.012	Drainage	0.004
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 51	D6	ditch	0.008	Drift	0.003
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	0.012	Drainage	0.004
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 89	D6	ditch	0.008	Drift	0.003
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	0.013	Drainage	0.004

A 3.16 KCP 9.2.5: Anagu, I. & Bo, Y, 2021, Oxathiapiprolin PEC_{SW} following application to various crops crops - Geometric Mean Sorption Endpoints

Comments of zRMS:	All input parameters for oxathiapiprolin were considered acceptable. Thus, the zRMS considers the presented PEC_{sw} calculations acceptable for the active substance.

Reference:	KCP 9.2.5:.
Report	Oxathiapiprolin - A European Environmental Fate Assessment for Parent Using the FOCUS Surface Water Models at Step 3 to 4 Following Spray Application to Various Crops Using Geometric Mean Sorption Endpoints Report No. 116223-8 (Syngenta File No VV-911827)
Guideline(s):	EFSA (2014). EFSA Guidance Document on clustering and ranking of emissions of active substances of plant protection products and transformation products of these active substances from protected crops (greenhouses and crops grown under cover) to relevant environmental compartments. EFSA Journal 2014;12(3):3615, 43 pp. FOCUS (2001). FOCUS surface water scenarios in the EU evaluation process under 91/414/EEC. Report of the FOCUS working group on surface water scenarios, EC document reference SANCO/4802/2001 rev. 2. FOCUS (2007). Landscape and mitigation factors in aquatic ecological risk assessment. Volume 1. Extended summary and recommendations, the final report of the FOCUS working group on landscape and mitigation factors in ecological risk assessment, EC document reference SANCO/10422/2005, version 2.0, September 2007. FOCUS (2015). Generic guidance for FOCUS surface water scenarios, version 1.4.
Deviations:	No
GLP:	Not applicable
Acceptability:	Yes/No/Supplementary

A 3.16.1 Materials and methods

This report describes a FOCUS modelling study that examined the potential for oxathiapiprolin to reach surface water following field (foliar) and greenhouse application to vegetables (leafy, fruiting and bulb) and hops. The FOCUS tool SWASH (v 5.3), including the operational models FOCUS-MACRO (v 5.5.4), FOCUS-PRZM (v 4.3.1) and FOCUS-TOXSWA (v 5.5.3), were used in the modelling study for Step 3 simulations. The ECPA tool SWAN (v 5.0.0) was used to implement mitigation options at Step 4.

Twofold applications at the rate of 12 g a.s./ha, were considered. Applications starting from approximately BBCH 11 with an interval of 7 days between applications were considered for vegetables, leafy. A single application at the rate of 250 g a.s./ha from approximately BBCH 09 was additionally considered for vegetables, leafy. Applications were considered to take place from approximately BBCH 11 with an interval of 7 days between applications for vegetables, fruiting and 12 days for vegetables, bulb. For hops, applications from approximately BBCH 21 with an interval of 12 days between applications were considered. Due to the wide BBCH range, simulations were carried out for possible applications at early

(BBCH 09, 11 or 21), intermediate (BBCH 41, 51 or 53) and late (BBCH 49, 81 or 89) stages, depending on the crop. The input parameters relating to application are shown below.

Table A 385: Input parameters related to application for $PEC_{SW/SED}$ calculations

Use number	ES-75	ES-56 (covers BG-68)	ES-61	ES-80	-	-	-
Crop	Vegetables, leafy	Vegetables, leafy	Vegetables, fruiting	Vegetables, fruiting	Vegetables, bulb	Vegetables, bulb	Hops[a]
Application rate (g a.s./ha)	12	12	12	12	12	12	12
Number of applications / interval (d)	1 / -	2 / 7	2 / 7	2 / 7	2 / 12	2 / 12	2 / 12
BBCH growth stage	09-13	11 - 49	11 - 89	11 - 81	11 - 49	41 - 49	21 - 89
Application method	Ground spray	Ground spray	Ground spray	Ground spray	Ground spray	Ground spray	Air blast
CAM (Chemical application method)	2 (application foliar linear)						
Soil depth (cm)	4 (default)						
Models used for calculation	FOCUS SWASH v5.3, FOCUS PRZM v4.3.1, FOCUS MACRO v5.5.4, FOCUS TOXWA v5.5.3, SWAN v5.0.0						

[a] vines, late was used as a surrogate crop for the R3 and R4 scenarios to fulfil the national requirements for Italy.

Ground spray application (foliar spray) was considered as the application method in the simulations for vegetables (leafy, fruiting and bulb) while air blast was considered as the application method in the simulations for hops. Crop interception at Step 3 is calculated internally by the model on the basis of the maximum interception capacity and the actual leaf area index.

An application window has to be specified from which the Pesticide Application Timer (PAT), internal to the model, determines actual application dates which were set generically for all scenarios. The application dates for the early and intermediate applications were selected with the tool AppDate (v3.06) based on BBCH growth stages given in the recommended GAP. For the late applications, the end of the application window was set to the harvest date. Simulations were carried out using the FOCUS standard crops 'vegetables, leafy', 'vegetables, fruiting', 'vegetables, bulb', and 'hops'. Application windows are presented in **Table A 386**, below.

Table A 386: FOCUS Step 3 Scenario related input parameters for $PEC_{SW/SED}$ calculations for the application of oxathiapiprolin

Crop	Rationale	Scenario	Oxathiapiprolin			
			Application window used in modelling			
			Single application		Multiple applications	
			Start of Window	End of Window	Start of Window	End of Window
		D3	25-Apr (115)	25-May (145)	-	-

Crop	Rationale	Scenario	Oxathiapiprolin			
			Application window used in modelling			
			Single application		Multiple applications	
			Start of Window	End of Window	Start of Window	End of Window
Vegetables, leafy, BBCH 09 - 13 1 × 12 g a.s./ha BBCH 09	Start of window at BBCH 09 (AppDate v3.06)	D3	5-Aug (217)	4-Sep (247)	-	-
		D4	10-May (130)	9-Jun (160)	-	-
		D6	15-Aug (227)	14-Sep (257)	-	-
		R1	20-Apr (110)	20-May (140)	-	-
		R1	31-Jul (212)	30-Aug (242)	-	-
		R2	28-Feb (59)	30-Mar (89)	-	-
		R2	31-Jul (212)	30-Aug (242)	-	-
		R3	1-Mar (60)	31-Mar (90)	-	-
		R3	15-Jun (166)	15-Jul (196)	-	-
		R4	1-Mar (60)	31-Mar (90)	-	-
		R4	15-Jun (166)	15-Jul (196)	-	-
Vegetables, leafy, BBCH 11 - 49 2 × 12 g a.s./ha 7 day interval BBCH 11	Start of window at BBCH 11 (AppDate v3.06)	D3 1st	30-Apr (120)	30-May (150)	30-Apr (120)	6-Jun (157)
		D3 2nd	10-Aug (222)	9-Sep (252)	10-Aug (222)	16-Sep (259)
		D4	18-May (138)	17-Jun (168)	18-May (138)	24-Jun (175)
		D6	21-Aug (233)	20-Sep (263)	21-Aug (233)	27-Sep (270)
		R1 1st	25-Apr (115)	25-May (145)	25-Apr (115)	1-Jun (152)
		R1 2nd	5-Aug (217)	4-Sep (247)	5-Aug (217)	11-Sep (254)
		R2 1st	9-Mar (68)	8-Apr (98)	9-Mar (68)	15-Apr (105)
		R2 2nd	4-Aug (216)	3-Sep (246)	4-Aug (216)	10-Sep (253)
		R3 1st	8-Mar (67)	7-Apr (97)	8-Mar (67)	14-Apr (104)
		R3 2nd	22-Jun (173)	22-Jul (203)	22-Jun (173)	29-Jul (210)
		R4 1st	8-Mar (67)	7-Apr (97)	8-Mar (67)	14-Apr (104)
		R4 2nd	22-Jun (173)	22-Jul (203)	22-Jun (173)	29-Jul (210)
Vegetables, leafy, BBCH 11 - 49 2 × 12 g a.s./ha 7 day interval BBCH 49	End of window at harvest	D3 1st	20-Jun (171)	20-Jul (201)	13-Jun (164)	20-Jul (201)
		D3 2nd	20-Sep (263)	20-Oct (293)	13-Sep (256)	20-Oct (293)
		D4	27-Aug (239)	26-Sep (269)	20-Aug (232)	26-Sep (269)
		D6	31-Oct (304)	30-Nov (334)	24-Oct (297)	30-Nov (334)
		R1 1st	15-Jun (166)	15-Jul (196)	8-Jun (159)	15-Jul (196)
		R1 2nd	15-Sep (258)	15-Oct (288)	8-Sep (251)	15-Oct (288)
		R2 1st	1-Jun (152)	1-Jul (182)	25-May (145)	1-Jul (182)
		R2 2nd	16-Oct (289)	15-Nov (319)	9-Oct (282)	15-Nov (319)
		R3 1st	2-May (122)	1-Jun (152)	25-Apr (115)	1-Jun (152)
		R3 2nd	16-Aug (228)	15-Sep (258)	9-Aug (221)	15-Sep (258)

Crop	Rationale	Scenario	Oxathiapiprolin			
			Application window used in modelling			
			Single application		Multiple applications	
			Start of Window	End of Window	Start of Window	End of Window
		R4 1st	2-May (122)	1-Jun (152)	25-Apr (115)	1-Jun (152)
		R4 2nd	16-Aug (228)	15-Sep (258)	9-Aug (221)	15-Sep (258)
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11 - 89 7 day interval BBCH 11	Start of window at BBCH 11 (AppDate v3.06)	D6	13-Apr (103)	13-May (133)	13-Apr (103)	20-May (140)
		R2	19-Mar (78)	18-Apr (108)	19-Mar (78)	25-Apr (115)
		R3	13-May (133)	12-Jun (163)	13-May (133)	19-Jun (170)
		R4	23-Apr (113)	23-May (143)	23-Apr (113)	30-May (150)
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11 - 89 7 day interval BBCH 51	Start of window at BBCH 51 (AppDate v3.06)	D6	15-May (135)	14-Jun (165)	15-May (135)	21-Jun (172)
		R2	19-May (139)	18-Jun (169)	19-May (139)	25-Jun (176)
		R3	15-Jun (166)	15-Jul (196)	15-Jun (166)	22-Jul (203)
		R4	26-May (146)	25-Jun (176)	26-May (146)	2-Jul (183)
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11 - 81 7 day interval BBCH 81	End of window at harvest	D6	19-Jun (170)	19-Jul (200)	12-Jun (163)	19-Jul (200)
		R2	9-Jul (190)	8-Aug (220)	2-Jul (183)	8-Aug (220)
		R3	9-Jul (190)	8-Aug (220)	2-Jul (183)	8-Aug (220)
		R4	5-Jun (156)	5-Jul (186)	29-May (149)	5-Jul (186)
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11 - 89 7 day interval BBCH 89	End of window at harvest	D6	11-Jul (192)	10-Aug (222)	4-Jul (185)	10-Aug (222)
		R2	1-Aug (213)	31-Aug (243)	25-Jul (206)	31-Aug (243)
		R3	26-Jul (207)	25-Aug (237)	19-Jul (200)	25-Aug (237)
		R4	15-Jun (166)	15-Jul (196)	8-Jun (159)	15-Jul (196)
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 11 - 49 12 day interval BBCH 11	Start of window at BBCH 11 (AppDate v3.06)	D3	3-May (123)	2-Jun (153)	3-May (123)	14-Jun (165)
		D4	2-May (122)	1-Jun (152)	2-May (122)	13-Jun (164)
		D6 1st	16-May (136)	15-Jun (166)	16-May (136)	27-Jun (178)
		D6 2nd	4-Nov (308)	4-Dec (338)	4-Nov (308)	16-Dec (350)
		R1	28-Apr (118)	28-May (148)	28-Apr (118)	9-Jun (160)
		R2	9-Mar (68)	8-Apr (98)	9-Mar (68)	20-Apr (110)
		R3	9-Mar (68)	8-Apr (98)	9-Mar (68)	20-Apr (110)
		R4	9-Mar (68)	8-Apr (98)	9-Mar (68)	20-Apr (110)
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 41 - 49 12 day interval BBCH 41	Start of window at BBCH 41 (AppDate v3.06)	D3	6-Jul (187)	5-Aug (217)	6-Jul (187)	17-Aug (229)
		D4	17-Jul (198)	16-Aug (228)	17-Jul (198)	28-Aug (240)
		D6	3-Jul (184)	2-Aug (214)	3-Jul (184)	14-Aug (226)
		D6	13-Mar (72)	12-Apr (102)	13-Mar (72)	24-Apr (114)
		R1	1-Jul (182)	31-Jul (212)	1-Jul (182)	12-Aug (224)
		R2	17-May (137)	16-Jun (167)	17-May (137)	28-Jun (179)
		R3	17-May (137)	16-Jun (167)	17-May (137)	28-Jun (179)
		R4	17-May (137)	16-Jun (167)	17-May (137)	28-Jun (179)

Crop	Rationale	Scenario	Oxathiapiprolin			
			Application window used in modelling			
			Single application		Multiple applications	
			Start of Window	End of Window	Start of Window	End of Window
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 11 - 49 12 day interval BBCH 49	End of window at harvest	D3	2-Aug (214)	1-Sep (244)	21-Jul (202)	1-Sep (244)
		D4	14-Aug (226)	13-Sep (256)	2-Aug (214)	13-Sep (256)
		D6 1st	1-Jul (182)	31-Jul (212)	19-Jun (170)	31-Jul (212)
		D6 2nd	11-Mar (70)	10-Apr (100)	27-Feb (58)	10-Apr (100)
		R1	26-Jul (207)	25-Aug (237)	14-Jul (195)	25-Aug (237)
		R2	1-May (121)	31-May (151)	19-Apr (109)	31-May (151)
		R3	1-May (121)	31-May (151)	19-Apr (109)	31-May (151)
		R4	1-May (121)	31-May (151)	19-Apr (109)	31-May (151)
Hops, 2 × 12 g a.s./ha BBCH 21 - 89 12 day interval BBCH 21	Start of window at BBCH 21 (AppDate v3.06)	R1	15-May (135)	14-Jun (165)	15-May (135)	26-Jun (177)
Hops, 2 × 12 g a.s./ha BBCH 21 - 89 12 day interval BBCH 51	Start of window at BBCH 51 (AppDate v3.06)	R1	7-Jul (188)	6-Aug (218)	7-Jul (188)	18-Aug (230)
Hops, 2 × 12 g a.s./ha BBCH 21 - 89 12 day interval BBCH 89	End of window at harvest	R1	2-Aug (214)	1-Sep (244)	21-Jul (202)	1-Sep (244)
Vines, late[a], 2 x 12 g a.s./ha BBCH 21 – 89 12 day interval BBCH 21	Start of window at BBCH 19[b] (AppDate 3.06)	R3	8-May (128)	7-Jun (158)	8-May (128)	19-Jun (170)
		R4	19-Apr (109)	19-May (139)	19-Apr (109)	31-May (151)
Vines, late[a], 2 x 12 g a.s./ha BBCH 21 – 89 12 day interval BBCH 51	Start of window at BBCH 53[c] (AppDate 3.06)	R3	24-May (144)	23-Jun (174)	24-May (144)	5-Jul (186)
		R4	7-May (127)	6-Jun (157)	7-May (127)	18-Jun (169)
Vines, late[a], 2 x 12 g a.s./ha BBCH 21 – 89 12 day interval BBCH 89	End of window at harvest	R3	2-Oct (275)	01-Nov (305)	20-Sep (263)	01-Nov (305)
		R4	21-Aug (233)	20-Sep (263)	09-Aug (221)	20-Sep (263)

[a] Vines, late was used as surrogate crop for the R3 and R4 scenarios to fulfil the national requirements for Italy.
[b] BBCH 21 not listed in the AppDate Tool
[c] BBCH 51 not listed in the AppDate Tool

Due to the statistical nature of the drift implementation at Step 3 (FOCUS, 2001, 2015), the loading to the water body for a single application is higher than the loading from an individual event from a multiple application pattern, which can therefore generate a higher global maximum PEC_{SW} value. All values are presented but where the single application results in a higher instantaneous PEC, this is highlighted in the summary table.

As the surrogate crop for hops, the drift rates for vines, late were manually adjusted to those of hops at Step 3 and Step 4.

Step 4 calculations were carried out for all the scenarios with the following mitigation methods:

- spray drift reduction by non-sprayed buffer strips of 10 m and 20 m and runoff reduction using vegetated buffer strips of 10 m and 20 m using runoff and erosion reduction values as given by the FOCUS Working Group on Landscape and Mitigation Factors (2007) – runoff/erosion reduction of 60/85% for 10 m, and 80/95% for 20 m

In order to simulate conditions in greenhouses, drift entries to surface water were amended with drift rates of 0.1% and 0.2% of the dose rate at Step 3 (EFSA, 2014a). As entry via runoff is not expected to occur in greenhouses, only the FOCUS D scenarios were considered.

The input parameters for oxathiapiprolin as used in the modelling are shown in **Table A 387**.

Table A 387: Input parameters related to oxathiapiprolin for $PEC_{SW/SED}$ calculations

Compound	Oxathiapiprolin	Value in accordance to EU endpoint / Reference
Molar mass (g/mol)	539.53	Yes / EFSA, 2016
Water solubility (mg/L)	0.1844 (20°C)	Yes / EFSA, 2016
Saturated vapour pressure (Pa)	1.141×10^{-6} (20°C)	Yes / EFSA, 2016
K_{FOC} / K_{FOM} (mL/g)	6128 / 3554.5 (geometric mean, n = 5)	No[a] / EFSA, 2016 $K_{FOM} = K_{FOC}/1.724$
Freundlich Exponent 1/n	0.97 (arithmetic mean, n = 5)	Yes / EFSA, 2016
Plant Uptake	0	Worst-case assumption
$DT_{50,soil}$ (d)	121.2 (geometric mean lab, normalisation to pF2, 20 °C with Q_{10} of 2.58, n = 6)	Yes / EFSA, 2016
$DT_{50,water}$ (d)	70.3 (geometric mean, total system, n = 2)	Yes / EFSA, 2016
$DT_{50,sed}$ (d)	1000 (FOCUS default)	Yes / EFSA, 2016

[a] differs from the EFSA conclusion as the latest guideline (EFSA Journal 2014, 12 (5):3662) recommends the use of the geometric mean instead of the arithmetic mean. The individual values from which the geometric mean is calculated are those established in EFSA (2016).

A 3.16.2 Results and discussions

Predicted environmental concentrations in surface water (PEC_{SW}) and sediment (PEC_{SED}) were calculated for the use of oxathiapiprolin on vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops in Europe in accordance with FOCUS guidelines.

The results are presented in the tables below in the following order:

Field uses:

FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops

FOCUS Application dates and global maximum timing

FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – maximum over single and multiple applications

FOCUS Step 4 PEC_{SW} and PEC_{SED} for oxathiapiprolin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops

FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following single/multiple applications to vegetables, leafy, vegetables, fruiting, vegetables, bulb and hops – maximum over single and multiple applications

Greenhouse uses:

FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following single/multiple applications to vegetables, leafy and vegetables, fruiting – 0.1% drift

FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following single/multiple applications to vegetables, leafy and vegetables, fruiting – 0.2% drift

Field uses:

Table A 388: FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 09	D3 1st	ditch	0.076	Drift	0.055
	D3 2nd	ditch	0.076	Drift	0.060
	D4	pond	0.003	Drift	0.020
	D4	stream	0.059	Drift	0.004
	D6	ditch	0.074	Drift	0.015
	R1 1st	pond	0.007	Runoff	0.180
	R1 2nd	pond	0.009	Runoff	0.195
	R1 1st	stream	0.050	Drift	1.03
	R1 2nd	stream	0.050	Drift	0.548

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
	R2 1st	stream	0.065	Drift	0.791
	R2 2nd	stream	0.067	Drift	2.87
	R3 1st	stream	0.070	Drift	0.775
	R3 2nd	stream	0.070	Drift	0.474
	R4 1st	stream	0.050	Drift	0.207
	R4 2nd	stream	0.050	Drift	0.190
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.076	Drift	0.055
	D3 2nd	ditch	0.076	Drift	0.060
	D4	pond	0.003	Drift	0.020
	D4	stream	0.060	Drift	0.004
	D6	ditch	0.074	Drift	0.018
	R1 1st	pond	0.007	Runoff	0.180
	R1 2nd	pond	0.008	Runoff	0.187
	R1 1st	stream	0.050	Drift	1.03
	R1 2nd	stream	0.050	Drift	0.551
	R2 1st	stream	0.066	Drift	1.34
	R2 2nd	stream	0.067	Drift	2.87
	R3 1st	stream	0.070	Drift	0.884
	R3 2nd	stream	0.070	Drift	0.482
	R4 1st	stream	0.050	Drift	0.206
	R4 2nd	stream	0.050	Drift	0.191
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.066	Drift	0.077
	D3 2nd	ditch	0.066	Drift	0.081
	D4	pond	0.004	Drift	0.035
	D4	stream	0.053	Drift	0.007
	D6	ditch	0.065	Drift	0.029
	R1 1st	pond	0.015	Runoff	0.356
	R1 2nd	pond	0.017	Runoff	0.371
	R1 1st	stream	0.043	Drift	1.96
	R1 2nd	stream	0.043	Drift	1.07
	R2 1st	stream	0.057	Drift	2.70
	R2 2nd	stream	0.058	Drift	5.43
	R3 1st	stream	0.061	Drift	1.95
	R3 2nd	stream	0.061	Drift	1.01
	R4 1st	stream	0.057	Runoff	0.498
	R4 2nd	stream	0.062	Runoff	0.374

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.076	Drift	0.056
	D3 2nd	ditch	0.075	Drift	0.038
	D4	pond	0.003	Drift	0.022
	D4	stream	0.054	Drift	0.002
	D6	ditch	0.072	Drift	0.007
	R1 1st	pond	0.007	Runoff	0.186
	R1 2nd	pond	0.009	Runoff	0.208
	R1 1st	stream	0.050	Drift	0.824
	R1 2nd	stream	0.050	Drift	0.634
	R2 1st	stream	0.067	Drift	2.14
	R2 2nd	stream	0.066	Drift	3.19
	R3 1st	stream	0.070	Drift	2.93
	R3 2nd	stream	0.070	Drift	1.41
	R4 1st	stream	0.049	Drift	0.570
	R4 2nd	stream	0.050	Drift	0.799
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.066	Drift	0.077
	D3 2nd	ditch	0.066	Drift	0.056
	D4	pond	0.004	Drift	0.037
	D4	stream	0.052	Drift	0.004
	D6	ditch	0.066	Drift	0.033
	R1 1st	pond	0.015	Runoff	0.364
	R1 2nd	pond	0.017	Runoff	0.392
	R1 1st	stream	0.043	Drift	1.61
	R1 2nd	stream	0.043	Drift	1.55
	R2 1st	stream	0.058	Drift	3.16
	R2 2nd	stream	0.057	Drift	6.33
	R3 1st	stream	0.061	Drift	4.26
	R3 2nd	stream	0.061	Drift	2.28
	R4 1st	stream	0.052	Runoff	1.01
	R4 2nd	stream	0.052	Runoff	1.34

Table A 389: FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 11	D6	ditch	0.074	Drift	0.020
	R2	stream	0.066	Drift	1.06
	R3	stream	0.070	Drift	0.338
	R4	stream	0.050	Drift	0.311
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	0.065	Drift	0.028
	R2	stream	0.057	Drift	2.08
	R3	stream	0.061	Drift	0.733
	R4	stream	0.065	Runoff	0.650
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 51	D6	ditch	0.075	Drift	0.029
	R2	stream	0.067	Drift	1.18
	R3	stream	0.070	Drift	0.510
	R4	stream	0.049	Drift	0.277
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	0.066	Drift	0.034
	R2	stream	0.058	Drift	2.52
	R3	stream	0.061	Drift	1.13
	R4	stream	0.053	Runoff	0.605
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 81	D6	ditch	0.075	Drift	0.028
	R2	stream	0.067	Drift	2.57
	R3	stream	0.070	Drift	0.753
	R4	stream	0.050	Drift	0.215
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 81	D6	ditch	0.066	Drift	0.038
	R2	stream	0.058	Drift	4.83
	R3	stream	0.061	Drift	1.30
	R4	stream	0.055	Runoff	0.620
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 89	D6	ditch	0.075	Drift	0.024
	R2	stream	0.067	Drift	2.61
	R3	stream	0.070	Drift	0.980
	R4	stream	0.050	Drift	0.345
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	0.066	Drift	0.035
	R2	stream	0.058	Drift	6.07
	R3	stream	0.061	Drift	1.92
	R4	stream	0.054	Runoff	0.573

Table A 390: FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, bulb

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 11	D3	ditch	0.076	Drift	0.055
	D4	pond	0.003	Drift	0.020
	D4	stream	0.058	Drift	0.004
	D6 1st	ditch	0.076	Drift	0.080
	D6 2nd	ditch	0.073	Drift	0.013
	R1	pond	0.004	Runoff	0.121
	R1	stream	0.050	Drift	0.271
	R2	stream	0.066	Drift	1.12
	R3	stream	0.070	Drift	0.094
	R4	stream	0.049	Drift	0.180
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 11	D3	ditch	0.066	Drift	0.075
	D4	pond	0.004	Drift	0.034
	D4	stream	0.050	Drift	0.008
	D6 1st	ditch	0.067	Drift	0.168
	D6 2nd	ditch	0.070	Drift	0.256
	R1	pond	0.009	Runoff	0.241
	R1	stream	0.043	Drift	0.575
	R2	stream	0.061	Drift	2.13
	R3	stream	0.061	Drift	0.210
	R4	stream	0.063	Runoff	0.430
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 41	D3	ditch	0.076	Drift	0.055
	D4	pond	0.003	Drift	0.019
	D4	stream	0.053	Drift	0.003
	D6 1st	ditch	0.076	Drift	0.204
	D6 2nd	ditch	0.076	Drift	0.108
	R1	pond	0.007	Runoff	0.129
	R1	stream	0.049	Drift	0.339
	R2	stream	0.067	Drift	1.38
	R3	stream	0.070	Drift	0.166
	R4	stream	0.048	Drift	0.818

Application scenario	Scenario	Water body	PEC$_{SW}$ (µg/L)	Dominant Route of Entry	PEC$_{SED}$ (µg/kg)
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 41	D3	ditch	0.066	Drift	0.069
	D4	pond	0.003	Drift	0.037
	D4	stream	0.046	Drift	0.006
	D6 1st	ditch	0.074	Drift	0.312
	D6 2nd	ditch	0.066	Drift	0.098
	R1	pond	0.014	Runoff	0.264
	R1	stream	0.042	Drift	0.717
	R2	stream	0.058	Drift	3.48
	R3	stream	0.061	Drift	0.416
	R4	stream	0.042	Drift	1.43
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 49	D3	ditch	0.076	Drift	0.056
	D4	pond	0.003	Drift	0.023
	D4	stream	0.054	Drift	0.002
	D6 1st	ditch	0.076	Drift	0.204
	D6 2nd	ditch	0.076	Drift	0.108
	R1	pond	0.007	Runoff	0.143
	R1	stream	0.049	Drift	0.405
	R2	stream	0.067	Drift	1.37
	R3	stream	0.070	Drift	0.166
	R4	stream	0.048	Drift	0.376
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 49	D3	ditch	0.066	Drift	0.075
	D4	pond	0.004	Drift	0.040
	D4	stream	0.051	Drift	0.006
	D6 1st	ditch	0.074	Drift	0.312
	D6 2nd	ditch	0.067	Drift	0.107
	R1	pond	0.016	Runoff	0.305
	R1	stream	0.043	Drift	1.03
	R2	stream	0.058	Drift	2.42
	R3	stream	0.061	Drift	0.249
	R4	stream	0.057	Runoff	0.632

Table A 391: FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to hops

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Hops, 1 × 12 g a.s./ha BBCH 21	R1	pond	0.031	Drift	0.219
	R1	stream	0.451	Drift	0.068
	R3[a]	stream	0.525	Drift	0.101
	R4[a]	stream	0.369	Drift	0.098
Hops, 2 × 12 g a.s./ha BBCH 21	R1	pond	0.036	Drift	0.318
	R1	stream	0.373	Drift	0.059
	R3[a]	stream	0.450	Drift	0.160
	R4[a]	stream	0.313	Drift	0.162
Hops, 1 × 12 g a.s./ha BBCH 51	R1	pond	0.032	Drift	0.218
	R1	stream	0.440	Drift	0.040
	R3[a]	stream	0.531	Drift	0.145
	R4[a]	stream	0.369	Drift	0.105
Hops, 2 × 12 g a.s./ha BBCH 51	R1	pond	0.036	Drift	0.313
	R1	stream	0.373	Drift	0.048
	R3[a]	stream	0.450	Drift	0.175
	R4[a]	stream	0.313	Drift	0.165
Hops, 1 × 12 g a.s./ha BBCH 89	R1	pond	0.031	Drift	0.232
	R1	stream	0.452	Drift	0.073
	R3[a]	stream	0.531	Drift	0.144
	R4[a]	stream	0.376	Drift	0.090
Hops, 2 × 12 g a.s./ha BBCH 89	R1	pond	0.034	Drift	0.321
	R1	stream	0.383	Drift	0.074
	R3[a]	stream	0.450	Drift	0.303
	R4[a]	stream	0.319	Drift	0.176

[a] Vines, late was used as surrogate crop for the R3 and R4 scenarios to fulfil the national requirements for Italy.

Table A 392: FOCUS Application dates and global maximum timing of vegetables, leafy

Application scenario	Scenario	Water body	Application date		Date of global maximum
			1st application	2nd application	
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 09	D3 1st	ditch	4-May-92	-	4-May-92
	D3 2nd	ditch	18-Aug-92	-	18-Aug-92
	D4	pond	16-May-85	-	16-May-85
	D4	stream	16-May-85	-	16-May-85
	D6	ditch	19-Aug-86	-	19-Aug-86

Application scenario	Scenario	Water body	Application date		Date of global maximum
			1st application	2nd application	
	R1 1st	pond	26-Apr-84	-	14-Sep-84
	R1 2nd	pond	20-Aug-78	-	31-Dec-78
	R1 1st	stream	26-Apr-84	-	26-Apr-84
	R1 2nd	stream	20-Aug-78	-	20-Aug-78
	R2 1st	stream	6-Mar-78	-	6-Mar-78
	R2 2nd	stream	5-Aug-89	-	5-Aug-89
	R3 1st	stream	1-Mar-80	-	1-Mar-80
	R3 2nd	stream	15-Jun-75	-	15-Jun-75
	R4 1st	stream	5-Mar-84	-	5-Mar-84
	R4 2nd	stream	23-Jun-85	-	23-Jun-85
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 11	D3 1st	ditch	4-May-92	-	4-May-92
	D3 2nd	ditch	18-Aug-92	-	18-Aug-92
	D4	pond	18-May-85	-	18-May-85
	D4	stream	18-May-85	-	18-May-85
	D6	ditch	25-Aug-86	-	25-Aug-86
	R1 1st	pond	26-Apr-84	-	14-Sep-84
	R1 2nd	pond	20-Aug-78	-	31-Dec-78
	R1 1st	stream	26-Apr-84	-	26-Apr-84
	R1 2nd	stream	20-Aug-78	-	20-Aug-78
	R2 1st	stream	22-Mar-77	-	22-Mar-77
	R2 2nd	stream	5-Aug-89	-	5-Aug-89
	R3 1st	stream	10-Mar-80	-	10-Mar-80
	R3 2nd	stream	25-Jun-75	-	25-Jun-75
	R4 1st	stream	8-Mar-84	-	8-Mar-84
	R4 2nd	stream	23-Jun-85	-	23-Jun-85
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	4-May-92	14-May-92	4-May-92
	D3 2nd	ditch	18-Aug-92	26-Aug-92	26-Aug-92
	D4	pond	18-May-85	29-May-85	29-May-85
	D4	stream	18-May-85	29-May-85	29-May-85
	D6	ditch	25-Aug-86	1-Sep-86	1-Sep-86
	R1 1st	pond	26-Apr-84	3-May-84	14-Sep-84
	R1 2nd	pond	20-Aug-78	2-Sep-78	31-Dec-78
	R1 1st	stream	26-Apr-84	3-May-84	26-Apr-84
	R1 2nd	stream	20-Aug-78	2-Sep-78	2-Sep-78
	R2 1st	stream	21-Mar-77	30-Mar-77	30-Mar-77
	R2 2nd	stream	5-Aug-89	12-Aug-89	12-Aug-89
	R3 1st	stream	10-Mar-80	28-Mar-80	28-Mar-80

Application scenario	Scenario	Water body	Application date		Date of global maximum
			1st application	2nd application	
	R3 2nd	stream	25-Jun-75	6-Jul-75	6-Jul-75
	R4 1st	stream	8-Mar-84	3-Apr-84	12-Apr-84
	R4 2nd	stream	23-Jun-85	30-Jun-85	5-Jul-85
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 49	D3 1st	ditch	25-Jun-92	-	25-Jun-92
	D3 2nd	ditch	19-Sep-92	-	19-Sep-92
	D4	pond	27-Aug-85	-	27-Aug-85
	D4	stream	27-Aug-85	-	27-Aug-85
	D6	ditch	31-Oct-86	-	31-Oct-86
	R1 1st	pond	29-Jun-78	-	31-Dec-78
	R1 2nd	pond	19-Sep-78	-	31-Dec-78
	R1 1st	stream	29-Jun-78	-	29-Jun-78
	R1 2nd	stream	19-Sep-78	-	19-Sep-78
	R2 1st	stream	4-Jun-89	-	4-Jun-89
	R2 2nd	stream	24-Oct-77	-	24-Oct-77
	R3 1st	stream	18-May-80	-	18-May-80
	R3 2nd	stream	28-Aug-75	-	28-Aug-75
	R4 1st	stream	4-May-84	-	4-May-84
	R4 2nd	stream	19-Aug-85	-	19-Aug-85
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	14-Jun-92	25-Jun-92	25-Jun-92
	D3 2nd	ditch	17-Sep-92	24-Sep-92	24-Sep-92
	D4	pond	27-Aug-85	10-Sep-85	10-Sep-85
	D4	stream	27-Aug-85	10-Sep-85	10-Sep-85
	D6	ditch	25-Oct-86	1-Nov-86	25-Oct-86
	R1 1st	pond	29-Jun-78	11-Jul-78	31-Dec-78
	R1 2nd	pond	19-Sep-78	6-Oct-78	31-Dec-78
	R1 1st	stream	29-Jun-78	11-Jul-78	29-Jun-78
	R1 2nd	stream	19-Sep-78	6-Oct-78	19-Sep-78
	R2 1st	stream	25-May-77	3-Jun-77	3-Jun-77
	R2 2nd	stream	11-Oct-77	24-Oct-77	24-Oct-77
	R3 1st	stream	25-Apr-80	18-May-80	25-Apr-80
	R3 2nd	stream	12-Aug-75	19-Aug-75	19-Aug-75
	R4 1st	stream	25-Apr-84	4-May-84	18-Apr-84
	R4 2nd	stream	12-Aug-85	19-Aug-85	24-Aug-85

Table A 393: FOCUS Application dates and global maximum timing of vegetables, fruiting

Application scenario	Scenario	Water body	Application date		Date of global maximum
			1st application	2nd application	
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 11	D6	ditch	23-Apr-86	-	23-Apr-86
	R2	stream	22-Mar-77	-	22-Mar-77
	R3	stream	18-May-80	-	18-May-80
	R4	stream	23-Apr-84	-	23-Apr-84
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	23-Apr-86	7-May-86	7-May-86
	R2	stream	22-Mar-77	22-Apr-77	22-Apr-77
	R3	stream	18-May-80	1-Jun-80	1-Jun-80
	R4	stream	23-Apr-84	4-May-84	9-May-84
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 51	D6	ditch	19-May-86	-	19-May-86
	R2	stream	20-May-77	-	20-May-77
	R3	stream	18-Jun-75	-	18-Jun-75
	R4	stream	27-May-84	-	27-May-84
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	19-May-86	31-May-86	19-May-86
	R2	stream	20-May-77	27-May-77	27-May-77
	R3	stream	18-Jun-75	25-Jun-75	25-Jun-75
	R4	stream	27-May-84	6-Jun-84	14-Jun-84
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 81	D6	ditch	24-Jun-86	-	24-Jun-86
	R2	stream	5-Aug-89	-	5-Aug-89
	R3	stream	11-Jul-75	-	11-Jul-75
	R4	stream	5-Jun-85	-	5-Jun-85
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 81	D6	ditch	24-Jun-86	6-Jul-86	6-Jul-86
	R2	stream	31-Jul-89	7-Aug-89	7-Aug-89
	R3	stream	11-Jul-75	18-Jul-75	18-Jul-75
	R4	stream	29-May-84	6-Jun-84	14-Jun-84
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 89	D6	ditch	17-Jul-86	-	17-Jul-86
	R2	stream	5-Aug-89	-	5-Aug-89
	R3	stream	30-Jul-75	-	30-Jul-75
	R4	stream	23-Jun-85	-	23-Jun-85
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	6-Jul-86	17-Jul-86	6-Jul-86
	R2	stream	5-Aug-89	12-Aug-89	12-Aug-89
	R3	stream	24-Jul-75	31-Jul-75	31-Jul-75
	R4	stream	12-Jun-85	23-Jun-85	28-Jun-85

Table A 394: FOCUS Application dates and global maximum timing of vegetables, bulb

Application scenario	Scenario	Water body	Application date		Date of global maximum
			1st application	2nd application	
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 11	D3	ditch	4-May-92	-	4-May-92
	D4	pond	12-May-85	-	12-May-85
	D4	stream	12-May-85	-	12-May-85
	D6 1st	ditch	16-May-86	-	16-May-86
	D6 2nd	ditch	6-Nov-86	-	6-Nov-86
	R1	pond	28-Apr-84	-	2-Feb-85
	R1	stream	28-Apr-84	-	28-Apr-84
	R2	stream	22-Mar-77	-	22-Mar-77
	R3	stream	10-Mar-80	-	10-Mar-80
	R4	stream	9-Mar-84	-	9-Mar-84
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 11	D3	ditch	4-May-92	16-May-92	16-May-92
	D4	pond	12-May-85	24-May-85	24-May-85
	D4	stream	12-May-85	24-May-85	12-May-85
	D6 1st	ditch	16-May-86	28-May-86	28-May-86
	D6 2nd	ditch	1-Dec-86	13-Dec-86	13-Dec-86
	R1	pond	28-Apr-84	10-May-84	2-Feb-85
	R1	stream	28-Apr-84	10-May-84	28-Apr-84
	R2	stream	14-Mar-77	26-Mar-77	26-Mar-77
	R3	stream	10-Mar-80	28-Mar-80	28-Mar-80
	R4	stream	9-Mar-84	3-Apr-84	11-Apr-84
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 41	D3	ditch	8-Jul-92	-	8-Jul-92
	D4	pond	18-Jul-85	-	18-Jul-85
	D4	stream	18-Jul-85	-	18-Jul-85
	D6 1st	ditch	3-Jul-86	-	3-Jul-86
	D6 2nd	ditch	14-Mar-86	-	14-Mar-86
	R1	pond	11-Jul-78	-	31-Dec-78
	R1	stream	11-Jul-78	-	11-Jul-78
	R2	stream	20-May-77	-	20-May-77
	R3	stream	18-May-80	-	18-May-80
	R4	stream	27-May-84	-	27-May-84
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 41	D3	ditch	8-Jul-92	24-Jul-92	24-Jul-92
	D4	pond	18-Jul-85	27-Aug-85	27-Aug-85
	D4	stream	18-Jul-85	27-Aug-85	27-Aug-85
	D6 1st	ditch	3-Jul-86	15-Jul-86	15-Jul-86
	D6 2nd	ditch	14-Mar-86	1-Apr-86	14-Mar-86
	R1	pond	11-Jul-78	28-Jul-78	31-Dec-78

Application scenario	Scenario	Water body	Application date		Date of global maximum
			1st application	2nd application	
	R1	stream	11-Jul-78	28-Jul-78	11-Jul-78
	R2	stream	20-May-77	3-Jun-77	3-Jun-77
	R3	stream	18-May-80	1-Jun-80	1-Jun-80
	R4	stream	19-May-84	31-May-84	31-May-84
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 49	D3	ditch	4-Aug-92	-	4-Aug-92
	D4	pond	27-Aug-85	-	27-Aug-85
	D4	stream	27-Aug-85	-	27-Aug-85
	D6 1st	ditch	1-Jul-86	-	1-Jul-86
	D6 2nd	ditch	14-Mar-86	-	14-Mar-86
	R1	pond	28-Jul-78	-	31-Dec-78
	R1	stream	28-Jul-78	-	28-Jul-78
	R2	stream	7-May-77	-	7-May-77
	R3	stream	18-May-80	-	18-May-80
	R4	stream	7-May-84	-	7-May-84
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 49	D3	ditch	24-Jul-92	5-Aug-92	5-Aug-92
	D4	pond	27-Aug-85	10-Sep-85	10-Sep-85
	D4	stream	27-Aug-85	10-Sep-85	10-Sep-85
	D6 1st	ditch	19-Jun-86	1-Jul-86	1-Jul-86
	D6 2nd	ditch	27-Feb-86	14-Mar-86	14-Mar-86
	R1	pond	28-Jul-78	20-Aug-78	31-Dec-78
	R1	stream	28-Jul-78	20-Aug-78	20-Aug-78
	R2	stream	22-Apr-77	7-May-77	7-May-77
	R3	stream	22-Apr-80	18-May-80	22-Apr-80
	R4	stream	20-Apr-84	7-May-84	12-May-84

Table A 395: FOCUS Application dates and global maximum timing of hops

Application scenario	Scenario	Water body	Application date		Date of global maximum
			1st application	2nd application	
Hops, 1 × 12 g a.s./ha BBCH 21	R1	pond	13-Jun-84	-	13-Jun-84
	R1	stream	13-Jun-84	-	13-Jun-84
	R3[a]	stream	18-May-80	-	18-May-80
	R4[a]	stream	4-May-84	-	4-May-84
Hops, 2 × 12 g a.s./ha BBCH 21	R1	pond	15-May-84	31-May-84	15-May-84
	R1	stream	15-May-84	31-May-84	15-May-84
	R3[a]	stream	18-May-80	1-Jun-80	1-Jun-80
	R4[a]	stream	4-May-84	27-May-84	27-May-84

Application scenario	Scenario	Water body	Application date		Date of global maximum
			1st application	2nd application	
Hops, 1 × 12 g a.s./ha BBCH 51	R1	pond	11-Jul-78	-	11-Jul-78
	R1	stream	11-Jul-78	-	11-Jul-78
	R3[a]	stream	1-Jun-80	-	1-Jun-80
	R4[a]	stream	7-May-84	-	7-May-84
Hops, 2 × 12 g a.s./ha BBCH 51	R1	pond	11-Jul-78	28-Jul-78	11-Jul-78
	R1	stream	11-Jul-78	28-Jul-78	11-Jul-78
	R3[a]	stream	1-Jun-80	16-Jun-80	16-Jun-80
	R4[a]	stream	7-May-84	27-May-84	27-May-84
Hops, 1 × 12 g a.s./ha BBCH 89	D6	ditch	20-Aug-78	-	20-Aug-78
	R1	pond	20-Aug-78	-	20-Aug-78
	R3[a]	stream	2-Oct-80	-	2-Oct-80
	R4[a]	stream	21-Aug-85	-	21-Aug-85
Hops, 2 × 12 g a.s./ha BBCH 89	D6	ditch	28-Jul-78	20-Aug-78	20-Aug-78
	R1	pond	28-Jul-78	20-Aug-78	20-Aug-78
	R3[a]	stream	23-Sep-75	22-Oct-75	23-Sep-75
	R4[a]	stream	9-Aug-85	18-Sep-85	18-Sep-85

[a] Vines, late was used as surrogate crop for the R3 and R4 scenarios to fulfil the national requirements for Italy.

Table A 396: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy - maximum over single and multiple applications

Application scenario	Scenario	Water body	Max PEC_{SW} (µg/L)[a]	Dominant entry route	Max PEC_{SED} (µg/kg)[a]
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.076*	Drift	0.077
	D3 2nd	ditch	0.076*	Drift	0.081
	D4	pond	0.004	Drift	0.035
	D4	stream	0.060*	Drift	0.007
	D6	ditch	0.074*	Drift	0.029
	R1 1st	pond	0.015	Runoff	0.356
	R1 2nd	pond	0.017	Runoff	0.371
	R1 1st	stream	0.050*	Drift	1.96
	R1 2nd	stream	0.050*	Drift	1.07
	R2 1st	stream	0.066*	Drift	2.70
	R2 2nd	stream	0.067*	Drift	5.43
	R3 1st	stream	0.070*	Drift	1.95
	R3 2nd	stream	0.070*	Drift	1.01
	R4 1st	stream	0.057	Runoff	0.498

Application scenario	Scenario	Water body	Max PEC_{SW} (µg/L)[a]	Dominant entry route	Max PEC_{SED} (µg/kg)[a]
	R4 2nd	stream	0.062	Runoff	0.374
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.076*	Drift	0.077
	D3 2nd	ditch	0.075*	Drift	0.056
	D4	pond	0.004	Drift	0.037
	D4	stream	0.054*	Drift	0.004
	D6	ditch	0.072*	Drift	0.033
	R1 1st	pond	0.015	Runoff	0.364
	R1 2nd	pond	0.017	Runoff	0.392
	R1 1st	stream	0.050*	Drift	1.61
	R1 2nd	stream	0.050*	Drift	1.55
	R2 1st	stream	0.067*	Drift	3.16
	R2 2nd	stream	0.066*	Drift	6.33
	R3 1st	stream	0.070*	Drift	4.26
	R3 2nd	stream	0.070*	Drift	2.28
	R4 1st	stream	0.052	Runoff	1.01
	R4 2nd	stream	0.052	Runoff	1.34

[a] values resulting from single applications are marked *

Table A 397: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting - maximum over single and multiple applications

Application scenario	Scenario	Water body	Max PEC_{SW} (µg/L)[a]	Dominant entry route	Max PEC_{SED} (µg/kg)[a]
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	0.074*	Drift	0.028
	R2	stream	0.066*	Drift	2.08
	R3	stream	0.070*	Drift	0.733
	R4	stream	0.065	Runoff	0.650
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	0.075*	Drift	0.034
	R2	stream	0.067*	Drift	2.52
	R3	stream	0.070*	Drift	1.13
	R4	stream	0.053	Runoff	0.605
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 81	D6	ditch	0.075*	Drift	0.038
	R2	stream	0.067*	Drift	4.83
	R3	stream	0.070*	Drift	1.30
	R4	stream	0.055	Runoff	0.620
	D6	ditch	0.075*	Drift	0.035
	R2	stream	0.067*	Drift	6.07

Application scenario	Scenario	Water body	Max PEC_{SW} (µg/L)[a]	Dominant entry route	Max PEC_{SED} (µg/kg)[a]
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	R3	stream	0.070*	Drift	1.92
	R4	stream	0.054	Runoff	0.573

[a] values resulting from single applications are marked *

Table A 398: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, bulb - maximum over single and multiple applications

Application scenario	Scenario	Water body	Max PEC_{SW} (µg/L)[a]	Dominant entry route	Max PEC_{SED} (µg/kg)[a]
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 11	D3	ditch	0.076*	Drift	0.075
	D4	pond	0.004	Drift	0.034
	D4	stream	0.058*	Drift	0.008
	D6 1st	ditch	0.076*	Drift	0.168
	D6 2nd	ditch	0.073*	Drift	0.256
	R1	pond	0.009	Runoff	0.241
	R1	stream	0.050*	Drift	0.575
	R2	stream	0.066*	Drift	2.13
	R3	stream	0.070*	Drift	0.210
	R4	stream	0.063	Runoff	0.430
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 41	D3	ditch	0.076*	Drift	0.069
	D4	pond	0.003	Drift	0.037
	D4	stream	0.053*	Drift	0.006
	D6 1st	ditch	0.076*	Drift	0.312
	D6 2nd	ditch	0.076*	Drift	0.108*
	R1	pond	0.014	Runoff	0.264
	R1	stream	0.049*	Drift	0.717
	R2	stream	0.067*	Drift	3.48
	R3	stream	0.070*	Drift	0.416
	R4	stream	0.048*	Drift	1.43
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 49	D3	ditch	0.076*	Drift	0.075
	D4	pond	0.004	Drift	0.040
	D4	stream	0.054*	Drift	0.006
	D6 1st	ditch	0.076*	Drift	0.312
	D6 2nd	ditch	0.076*	Drift	0.108*
	R1	pond	0.016	Runoff	0.305
	R1	stream	0.049*	Drift	1.03
	R2	stream	0.067*	Drift	2.42

Application scenario	Scenario	Water body	Max PEC_{SW} (µg/L)[a]	Dominant entry route	Max PEC_{SED} (µg/kg)[a]
	R3	stream	0.070*	Drift	0.249
	R4	stream	0.057	Runoff	0.632

[a] values resulting from single applications are marked *

Table A 399: FOCUS Step 3 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to hops - maximum over single and multiple applications

Application scenario	Scenario	Water body	Max PEC_{SW} (µg/L)	Dominant entry route	Max PEC_{SED} (µg/kg)
Hops, 2 × 12 g a.s./ha BBCH 21	R1	pond	0.036	Drift	0.318
	R1	stream	0.451*	Drift	0.068*
	R3[b]	stream	0.525*	Drift	0.160
	R4[b]	stream	0.369*	Drift	0.162
Hops, 2 × 12 g a.s./ha BBCH 51	R1	pond	0.036	Drift	0.313
	R1	stream	0.440*	Drift	0.048
	R3[b]	stream	0.531*	Drift	0.175
	R4[b]	stream	0.369*	Drift	0.165
Hops, 2 × 12 g a.s./ha BBCH 89	R1	pond	0.034	Drift	0.321
	R1	stream	0.452*	Drift	0.074
	R3[b]	stream	0.531*	Drift	0.303
	R4[b]	stream	0.376*	Drift	0.176

[a] values resulting from single applications are marked *
[b] Vines, late was a used as surrogate crop for the R3 and R4 scenarios to fulfil the national requirements for Italy.

Table A 400: FOCUS Step 4 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 09	D3 1st	ditch	-	-	-	-	0.011	Drift	0.006	Drift
	D3 2nd	ditch	-	-	-	-	0.011	Drift	0.006	Drift
	D4	pond	-	-	-	-	0.002	Drift	0.001	Drift
	D4	stream	-	-	-	-	0.011	Drift	0.006	Drift
	D6	ditch	-	-	-	-	0.013	Drainage	0.013	Drainage
	R1 1st	pond	0.003	Runoff	0.003	Drift	0.003	Runoff	0.002	Runoff
	R1 2nd	pond	0.004	Runoff	0.003	Drift	0.004	Runoff	0.002	Runoff
	R1 1st	stream	0.050	Drift	0.050	Drift	0.010	Drift	0.005	Drift
	R1 2nd	stream	0.050	Drift	0.050	Drift	0.010	Drift	0.005	Drift
	R2 1st	stream	0.065	Drift	0.065	Drift	0.013	Drift	0.007	Drift
	R2 2nd	stream	0.067	Drift	0.067	Drift	0.013	Drift	0.007	Drift
	R3 1st	stream	0.070	Drift	0.070	Drift	0.014	Drift	0.007	Drift
	R3 2nd	stream	0.070	Drift	0.070	Drift	0.014	Drift	0.007	Drift
	R4 1st	stream	0.050	Drift	0.050	Drift	0.013	Runoff	0.007	Runoff
	R4 2nd	stream	0.050	Drift	0.050	Drift	0.015	Runoff	0.008	Runoff
Vegetables, leafy,	D3 1st	ditch	-	-	-	-	0.011	Drift	0.006	Drift

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**
1 × 12 g a.s./ha BBCH 11	D3 2nd	ditch	-	-	-	-	0.011	Drift	0.006	Drift
	D4	pond	-	-	-	-	0.002	Drift	0.001	Drift
	D4	stream	-	-	-	-	0.012	Drift	0.006	Drift
	D6	ditch	-	-	-	-	0.013	Drainage	0.013	Drainage
	R1 1st	pond	0.003	Runoff	0.003	Drift	0.003	Runoff	0.002	Runoff
	R1 2nd	pond	0.004	Runoff	0.003	Drift	0.004	Runoff	0.002	Runoff
	R1 1st	stream	0.050	Drift	0.050	Drift	0.010	Drift	0.005	Drift
	R1 2nd	stream	0.050	Drift	0.050	Drift	0.010	Drift	0.005	Drift
	R2 1st	stream	0.066	Drift	0.066	Drift	0.013	Drift	0.007	Drift
	R2 2nd	stream	0.067	Drift	0.067	Drift	0.013	Drift	0.007	Drift
	R3 1st	stream	0.070	Drift	0.070	Drift	0.014	Drift	0.007	Drift
	R3 2nd	stream	0.070	Drift	0.070	Drift	0.014	Drift	0.007	Drift
	R4 1st	stream	0.050	Drift	0.050	Drift	0.013	Runoff	0.007	Runoff
	R4 2nd	stream	0.050	Drift	0.050	Drift	0.015	Runoff	0.008	Runoff
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	-	-	-	-	0.009	Drift	0.005	Drift
	D3 2nd	ditch	-	-	-	-	0.009	Drift	0.005	Drift
	D4	pond	-	-	-	-	0.002	Drift	0.002	Drainage
	D4	stream	-	-	-	-	0.010	Drift	0.008	Drainage

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**
	D6	ditch	-	-	-	-	0.026	Drainage	0.026	Drainage
	R1 1st	pond	0.007	Runoff	0.004	Drift	0.006	Runoff	0.003	Runoff
	R1 2nd	pond	0.007	Runoff	0.004	Drift	0.007	Runoff	0.004	Runoff
	R1 1st	stream	0.043	Drift	0.043	Drift	0.018	Runoff	0.010	Runoff
	R1 2nd	stream	0.043	Drift	0.043	Drift	0.015	Runoff	0.008	Runoff
	R2 1st	stream	0.057	Drift	0.057	Drift	0.010	Drift	0.005	Drift
	R2 2nd	stream	0.058	Drift	0.058	Drift	0.011	Drift	0.005	Drift
	R3 1st	stream	0.061	Drift	0.061	Drift	0.017	Runoff	0.009	Runoff
	R3 2nd	stream	0.061	Drift	0.061	Drift	0.016	Runoff	0.008	Runoff
	R4 1st	stream	0.043	Drift	0.043	Drift	0.026	Runoff	0.014	Runoff
	R4 2nd	stream	0.043	Drift	0.043	Drift	0.028	Runoff	0.015	Runoff
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 49	D3 1st	ditch	-	-	-	-	0.011	Drift	0.006	Drift
	D3 2nd	ditch	-	-	-	-	0.011	Drift	0.006	Drift
	D4	pond	-	-	-	-	0.002	Drift	0.001	Drift
	D4	stream	-	-	-	-	0.010	Drift	0.005	Drift
	D6	ditch	-	-	-	-	0.010	Drift	0.007	Drainage
	R1 1st	pond	0.004	Runoff	0.003	Runoff	0.003	Runoff	0.002	Runoff
	R1 2nd	pond	0.004	Runoff	0.003	Drift	0.004	Runoff	0.002	Runoff

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**
	R1 1st	stream	0.050	Drift	0.050	Drift	0.010	Drift	0.005	Drift
	R1 2nd	stream	0.050	Drift	0.050	Drift	0.010	Drift	0.005	Drift
	R2 1st	stream	0.067	Drift	0.067	Drift	0.013	Drift	0.007	Drift
	R2 2nd	stream	0.066	Drift	0.066	Drift	0.013	Drift	0.007	Drift
	R3 1st	stream	0.070	Drift	0.070	Drift	0.014	Drift	0.007	Drift
	R3 2nd	stream	0.070	Drift	0.070	Drift	0.014	Drift	0.007	Drift
	R4 1st	stream	0.049	Drift	0.049	Drift	0.012	Runoff	0.006	Runoff
	R4 2nd	stream	0.050	Drift	0.050	Drift	0.011	Runoff	0.006	Runoff
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	-	-	-	-	0.009	Drift	0.005	Drift
	D3 2nd	ditch	-	-	-	-	0.009	Drift	0.005	Drift
	D4	pond	-	-	-	-	0.002	Drift	0.001	Drift
	D4	stream	-	-	-	-	0.009	Drift	0.005	Drift
	D6	ditch	-	-	-	-	0.021	Drainage	0.021	Drainage
	R1 1st	pond	0.007	Runoff	0.005	Drift	0.006	Runoff	0.003	Runoff
	R1 2nd	pond	0.008	Runoff	0.004	Runoff	0.007	Runoff	0.004	Runoff
	R1 1st	stream	0.043	Drift	0.043	Drift	0.017	Runoff	0.009	Runoff
	R1 2nd	stream	0.043	Drift	0.043	Drift	0.013	Runoff	0.007	Runoff
	R2 1st	stream	0.058	Drift	0.058	Drift	0.011	Drift	0.005	Drift

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
	R2 2nd	stream	0.057	Drift	0.057	Drift	0.011	Drift	0.005	Drift
	R3 1st	stream	0.061	Drift	0.061	Drift	0.013	Runoff	0.007	Runoff
	R3 2nd	stream	0.061	Drift	0.061	Drift	0.016	Runoff	0.008	Runoff
	R4 1st	stream	0.043	Drift	0.043	Drift	0.024	Runoff	0.012	Runoff
	R4 2nd	stream	0.043	Drift	0.043	Drift	0.024	Runoff	0.012	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 401: FOCUS Step 4 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 11	D6	ditch	-	-	-	-	0.011	Drift	0.006	Drainage
	R2	stream	0.066	Drift	0.066	Drift	0.013	Drift	0.007	Drift
	R3	stream	0.070	Drift	0.070	Drift	0.014	Drift	0.007	Drift

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**
	R4	stream	0.050	Drift	0.050	Drift	0.016	Runoff	0.008	Runoff
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	-	-	-	-	0.012	Drainage	0.012	Drainage
	R2	stream	0.057	Drift	0.057	Drift	0.010	Drift	0.005	Drift
	R3	stream	0.061	Drift	0.061	Drift	0.015	Runoff	0.008	Runoff
	R4	stream	0.043	Drift	0.043	Drift	0.029	Runoff	0.015	Runoff
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 51	D6	ditch	-	-	-	-	0.011	Drift	0.006	Drainage
	R2	stream	0.067	Drift	0.067	Drift	0.013	Drift	0.007	Drift
	R3	stream	0.070	Drift	0.070	Drift	0.014	Drift	0.007	Drift
	R4	stream	0.049	Drift	0.049	Drift	0.011	Runoff	0.006	Runoff
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	-	-	-	-	0.012	Drainage	0.012	Drainage
	R2	stream	0.058	Drift	0.058	Drift	0.011	Drift	0.005	Drift
	R3	stream	0.061	Drift	0.061	Drift	0.013	Runoff	0.007	Runoff
	R4	stream	0.043	Drift	0.043	Drift	0.024	Runoff	0.013	Runoff
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 81	D6	ditch	-	-	-	-	0.011	Drift	0.006	Drainage
	R2	stream	0.067	Drift	0.067	Drift	0.013	Drift	0.007	Drift
	R3	stream	0.070	Drift	0.070	Drift	0.014	Drift	0.007	Drift
	R4	stream	0.050	Drift	0.050	Drift	0.012	Runoff	0.007	Runoff
	D6	ditch	-	-	-	-	0.013	Drainage	0.013	Drainage

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 81	R2	stream	0.058	Drift	0.058	Drift	0.011	Drift	0.005	Drift
	R3	stream	0.061	Drift	0.061	Drift	0.014	Runoff	0.008	Runoff
	R4	stream	0.043	Drift	0.043	Drift	0.025	Runoff	0.013	Runoff
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 89	D6	ditch	-	-	-	-	0.011	Drift	0.006	Drainage
	R2	stream	0.067	Drift	0.067	Drift	0.013	Drift	0.007	Drift
	R3	stream	0.070	Drift	0.070	Drift	0.014	Drift	0.007	Drift
	R4	stream	0.050	Drift	0.050	Drift	0.012	Runoff	0.006	Runoff
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	-	-	-	-	0.013	Drainage	0.013	Drainage
	R2	stream	0.058	Drift	0.058	Drift	0.011	Drift	0.005	Drift
	R3	stream	0.061	Drift	0.061	Drift	0.014	Runoff	0.007	Runoff
	R4	stream	0.043	Drift	0.043	Drift	0.024	Runoff	0.013	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 402: FOCUS Step 4 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, bulb

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 11	D3	ditch	-	-	-	-	0.011	Drainage	0.006	Drift
	D4	pond	-	-	-	-	0.002	Drainage	0.001	Drift
	D4	stream	-	-	-	-	0.011	Drainage	0.006	Drift
	D6 1st	ditch	-	-	-	-	0.011	Drainage	0.007	Drainage
	D6 2nd	ditch	-	-	-	-	0.019	Drainage	0.019	Drainage
	R1	pond	0.003	Drift	0.003	Drift	0.002	Runoff	0.001	Drift
	R1	stream	0.050	Drift	0.050	Drift	0.010	Runoff	0.005	Drift
	R2	stream	0.066	Drift	0.066	Drift	0.013	Runoff	0.007	Drift
	R3	stream	0.070	Drift	0.070	Drift	0.014	Runoff	0.007	Drift
	R4	stream	0.049	Drift	0.049	Drift	0.016	Runoff	0.008	Runoff
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 11	D3	ditch	-	-	-	-	0.009	Drift	0.005	Drift
	D4	pond	-	-	-	-	0.002	Drift	0.002	Drainage
	D4	stream	-	-	-	-	0.009	Drift	0.008	Drainage
	D6 1st	ditch	-	-	-	-	0.013	Drainage	0.013	Drainage
	D6 2nd	ditch	-	-	-	-	0.030	Drainage	0.030	Drainage
	R1	pond	0.004	Runoff	0.004	Drift	0.004	Runoff	0.002	Runoff
	R1	stream	0.043	Drift	0.043	Drift	0.019	Runoff	0.010	Runoff
	R2	stream	0.058	Drift	0.058	Drift	0.012	Drift	0.006	Drift

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**
	R3	stream	0.061	Drift	0.061	Drift	0.018	Runoff	0.009	Runoff
	R4	stream	0.043	Drift	0.043	Drift	0.028	Runoff	0.015	Runoff
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 41	D3	ditch	-	-	-	-	0.011	Drift	0.006	Drift
	D4	pond	-	-	-	-	0.002	Drift	0.001	Drift
	D4	stream	-	-	-	-	0.010	Drift	0.005	Drift
	D6 1st	ditch	-	-	-	-	0.011	Drift	0.006	Drift
	D6 2nd	ditch	-	-	-	-	0.011	Drift	0.007	Drainage
	R1	pond	0.003	Drift	0.003	Drift	0.003	Runoff	0.001	Runoff
	R1	stream	0.049	Drift	0.049	Drift	0.010	Drift	0.005	Drift
	R2	stream	0.067	Drift	0.067	Drift	0.013	Drift	0.007	Drift
	R3	stream	0.070	Drift	0.070	Drift	0.014	Drift	0.007	Drift
	R4	stream	0.048	Drift	0.048	Drift	0.009	Drift	0.005	Drift
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 41	D3	ditch	-	-	-	-	0.009	Drift	0.005	Drift
	D4	pond	-	-	-	-	0.002	Drainage	0.002	Drainage
	D4	stream	-	-	-	-	0.008	Drift	0.007	Drainage
	D6 1st	ditch	-	-	-	-	0.010	Drift	0.008	Drainage
	D6 2nd	ditch	-	-	-	-	0.015	Drainage	0.015	Drainage
	R1	pond	0.006	Runoff	0.004	Drift	0.006	Runoff	0.003	Runoff
	R1	stream	0.042	Drift	0.042	Drift	0.012	Runoff	0.006	Runoff

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
	R2	stream	0.058	Drift	0.058	Drift	0.011	Drift	0.005	Drift
	R3	stream	0.061	Drift	0.061	Drift	0.011	Runoff	0.006	Runoff
	R4	stream	0.042	Drift	0.042	Drift	0.015	Runoff	0.008	Runoff
Vegetables, bulb, 1 × 12 g a.s./ha BBCH 49	D3	ditch	-	-	-	-	0.011	Drift	0.006	Drift
	D4	pond	-	-	-	-	0.002	Drift	0.001	Drift
	D4	stream	-	-	-	-	0.010	Drift	0.005	Drift
	D6 1st	ditch	-	-	-	-	0.011	Drift	0.006	Drift
	D6 2nd	ditch	-	-	-	-	0.011	Drift	0.007	Drainage
	R1	pond	0.003	Runoff	0.003	Drift	0.003	Runoff	0.002	Runoff
	R1	stream	0.049	Drift	0.049	Drift	0.010	Drift	0.005	Drift
	R2	stream	0.067	Drift	0.067	Drift	0.013	Drift	0.007	Drift
	R3	stream	0.070	Drift	0.070	Drift	0.014	Drift	0.007	Drift
	R4	stream	0.048	Drift	0.048	Drift	0.014	Runoff	0.007	Runoff
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 49	D3	ditch	-	-	-	-	0.009	Drift	0.005	Drift
	D4	pond	-	-	-	-	0.002	Drift	0.002	Drainage
	D4	stream	-	-	-	-	0.009	Drift	0.006	Drainage
	D6 1st	ditch	-	-	-	-	0.010	Drift	0.008	Drainage
	D6 2nd	ditch	-	-	-	-	0.017	Drainage	0.017	Drainage
	R1	pond	0.007	Runoff	0.004	Runoff	0.007	Runoff	0.003	Runoff

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**
	R1	stream	0.043	Drift	0.043	Drift	0.014	Runoff	0.007	Runoff
	R2	stream	0.058	Drift	0.058	Drift	0.011	Drift	0.005	Drift
	R3	stream	0.061	Drift	0.061	Drift	0.015	Runoff	0.008	Runoff
	R4	stream	0.043	Drift	0.043	Drift	0.026	Runoff	0.013	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation

Table A 403: FOCUS Step 4 PEC$_{SW}$ and PEC$_{SED}$ for oxathiapiprolin following application to hops

Mitigation options										
Vegetative strip (m)			-		10-12[a]		-		18-20[b]	
No spray buffer (m)			10		10		20		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**
Hops, 1 × 12 g a.s/ha BBCH 21	R1	pond	0.020	Drift	0.020	Drift	0.006	Drift	0.006	Drift
	R1	stream	0.192	Drift	0.192	Drift	0.058	Drift	0.058	Drift
	R3[c]	stream	0.055	Drift	0.268	Drift	0.019	Drift	0.081	Drift
	R4[c]	stream	0.039	Drift	0.189	Drift	0.028	Runoff	0.057	Drift

Mitigation options										
Vegetative strip (m)			-		10-12[a]		-		18-20[b]	
No spray buffer (m)			10		10		20		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)**	**Dominant route of entry**
Hops, 2 × 12 g a.s/ha BBCH 21	R1	pond	0.022	Drift	0.022	Drift	0.007	Drift	0.007	Drift
	R1	stream	0.134	Drift	0.134	Drift	0.038	Drift	0.037	Drift
	R3[c]	stream	0.049	Drift	0.195	Drift	0.017	Drift	0.054	Drift
	R4[c]	stream	0.034	Drift	0.135	Drift	0.031	Runoff	0.038	Drift
Hops, 1 × 12 g a.s/ha BBCH 51	R1	pond	0.020	Drift	0.020	Drift	0.007	Drift	0.006	Drift
	R1	stream	0.187	Drift	0.187	Drift	0.056	Drift	0.056	Drift
	R3[c]	stream	0.056	Drift	0.271	Drift	0.020	Drift	0.081	Drift
	R4[c]	stream	0.039	Drift	0.189	Drift	0.029	Runoff	0.057	Drift
Hops, 2 × 12 g a.s/ha BBCH 51	R1	pond	0.022	Drift	0.022	Drift	0.007	Drift	0.007	Drift
	R1	stream	0.134	Drift	0.134	Drift	0.037	Drift	0.037	Drift
	R3[c]	stream	0.049	Drift	0.195	Drift	0.017	Drift	0.054	Drift
	R4[c]	stream	0.034	Drift	0.135	Drift	0.032	Runoff	0.038	Drift
Hops, 1 × 12 g a.s/ha BBCH 89	R1	pond	0.020	Drift	0.020	Drift	0.006	Drift	0.006	Drift
	R1	stream	0.192	Drift	0.192	Drift	0.058	Drift	0.058	Drift
	R3[c]	stream	0.056	Drift	0.271	Drift	0.020	Drift	0.081	Drift
	R4[c]	stream	0.040	Drift	0.192	Drift	0.027	Runoff	0.058	Drift
	R1	pond	0.021	Drift	0.021	Drift	0.007	Drift	0.006	Drift
	R1	stream	0.138	Drift	0.138	Drift	0.039	Drift	0.039	Drift

Mitigation options										
Vegetative strip (m)			-		10-12[a]		-		18-20[b]	
No spray buffer (m)			10		10		20		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**	**PEC_{SW} (µg/L)**	**Dominant route of entry**
Hops, 2 × 12 g a.s/ha BBCH 89	R3[c]	stream	0.049	Drift	0.195	Drift	0.017	Drift	0.054	Drift
	R4[c]	stream	0.040	Runoff	0.138	Drift	0.040	Runoff	0.039	Drift

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation
[c] Vines, late was used as surrogate crop for the R3 and R4 scenarios to fulfil the national requirements for Italy.

Table A 404: FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy – maximum over single and multiple applications

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	-	-	-	-	0.011*	Drift	0.006*	Drift
	D3 2nd	ditch	-	-	-	-	0.011*	Drift	0.006*	Drift
	D4	pond	-	-	-	-	0.002	Drift	0.002	Drainage
	D4	stream	-	-	-	-	0.012*	Drift	0.008	Drainage

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PECsw (µg/L)[c]**	**Dominant route of entry**	**PECsw (µg/L)[c]**	**Dominant route of entry**	**PECsw (µg/L)[c]**	**Dominant route of entry**	**PECsw (µg/L)[c]**	**Dominant route of entry**
	D6	ditch	-	-	-	-	0.026	Drainage	0.026	Drainage
	R1 1st	pond	0.007	Runoff	0.004	Drift	0.006	Runoff	0.003	Runoff
	R1 2nd	pond	0.007	Runoff	0.004	Drift	0.007	Runoff	0.004	Runoff
	R1 1st	stream	0.050*	Drift	0.050*	Drift	0.018	Runoff	0.010	Runoff
	R1 2nd	stream	0.050*	Drift	0.050*	Drift	0.015	Runoff	0.008	Runoff
	R2 1st	stream	0.066*	Drift	0.066*	Drift	0.013*	Drift	0.007*	Drift
	R2 2nd	stream	0.067*	Drift	0.067*	Drift	0.013*	Drift	0.007*	Drift
	R3 1st	stream	0.070*	Drift	0.070*	Drift	0.017	Runoff	0.009	Runoff
	R3 2nd	stream	0.070*	Drift	0.070*	Drift	0.016	Runoff	0.008	Runoff
	R4 1st	stream	0.050*	Drift	0.050*	Drift	0.026	Runoff	0.014	Runoff
	R4 2nd	stream	0.050*	Drift	0.050*	Drift	0.028	Runoff	0.015	Runoff
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	-	-	-	-	0.011*	Drift	0.006*	Drift
	D3 2nd	ditch	-	-	-	-	0.011*	Drift	0.006*	Drift
	D4	pond	-	-	-	-	0.002	Drift	0.001	Drift
	D4	stream	-	-	-	-	0.010*	Drift	0.005*	Drift
	D6	ditch	-	-	-	-	0.021	Drainage	0.021	Drainage
	R1 1st	pond	0.007	Runoff	0.005	Drift	0.006	Runoff	0.003	Runoff
	R1 2nd	pond	0.008	Runoff	0.004	Runoff	0.007	Runoff	0.004	Runoff

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)[c]**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)[c]**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)[c]**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)[c]**	**Dominant route of entry**
	R1 1st	stream	0.050*	Drift	0.050*	Drift	0.017	Runoff	0.009	Runoff
	R1 2nd	stream	0.050*	Drift	0.050*	Drift	0.013	Runoff	0.007	Runoff
	R2 1st	stream	0.067*	Drift	0.067*	Drift	0.013*	Drift	0.007*	Drift
	R2 2nd	stream	0.066*	Drift	0.066*	Drift	0.013*	Drift	0.007*	Drift
	R3 1st	stream	0.070*	Drift	0.070*	Drift	0.014*	Drift	0.007*	Drift
	R3 2nd	stream	0.070*	Drift	0.070*	Drift	0.016	Runoff	0.008	Runoff
	R4 1st	stream	0.049*	Drift	0.049*	Drift	0.024	Runoff	0.012	Runoff
	R4 2nd	stream	0.050*	Drift	0.050*	Drift	0.024	Runoff	0.012	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation
[c] values resulting from single applications are marked *

Table A 405: FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting – maximum over single and multiple applications

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	-	-	-	-	0.012	Drainage	0.012	Drainage
	R2	stream	0.066*	Drift	0.066*	Drift	0.013*	Drift	0.007*	Drift
	R3	stream	0.070*	Drift	0.070*	Drift	0.015	Runoff	0.008	Runoff
	R4	stream	0.050*	Drift	0.050*	Drift	0.029	Runoff	0.015	Runoff
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	-	-	-	-	0.012	Drainage	0.012	Drainage
	R2	stream	0.067*	Drift	0.067*	Drift	0.013*	Drift	0.007*	Drift
	R3	stream	0.070*	Drift	0.070*	Drift	0.014*	Drift	0.007*	Drift
	R4	stream	0.049*	Drift	0.049*	Drift	0.024	Runoff	0.013	Runoff
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 81	D6	ditch	-	-	-	-	0.013	Drainage	0.013	Drainage
	R2	stream	0.067*	Drift	0.067*	Drift	0.013*	Drift	0.007*	Drift
	R3	stream	0.070*	Drift	0.070*	Drift	0.014	Runoff	0.008	Runoff
	R4	stream	0.050*	Drift	0.050*	Drift	0.025	Runoff	0.013	Runoff
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	-	-	-	-	0.013	Drainage	0.013	Drainage
	R2	stream	0.067*	Drift	0.067*	Drift	0.013*	Drift	0.007*	Drift
	R3	stream	0.070*	Drift	0.070*	Drift	0.014	Runoff	0.007	Runoff
	R4	stream	0.050*	Drift	0.050*	Drift	0.024	Runoff	0.013	Runoff

[a] equivalent to 60% runoff mitigation

[b] equivalent to 80% runoff mitigation
[c] values resulting from single applications are marked *

Table A 406: FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, bulb – maximum over single and multiple applications

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 11	D3	ditch	-	-	-	-	0.011*	Drainage	0.006*	Drift
	D4	pond	-	-	-	-	0.002	Drift	0.002	Drainage
	D4	stream	-	-	-	-	0.011*	Drainage	0.008	Drainage
	D6 1st	ditch	-	-	-	-	0.013	Drainage	0.013	Drainage
	D6 2nd	ditch	-	-	-	-	0.030	Drainage	0.030	Drainage
	R1	pond	0.004	Runoff	0.004	Drift	0.004	Runoff	0.002	Runoff
	R1	stream	0.050*	Drift	0.050*	Drift	0.019	Runoff	0.010	Runoff
	R2	stream	0.066*	Drift	0.066*	Drift	0.013*	Runoff	0.007*	Drift
	R3	stream	0.070*	Drift	0.070*	Drift	0.018	Runoff	0.009	Runoff
	R4	stream	0.049*	Drift	0.049*	Drift	0.028	Runoff	0.015	Runoff
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 41	D3	ditch	-	-	-	-	0.011*	Drift	0.006*	Drift
	D4	pond	-	-	-	-	0.002	Drainage	0.002	Drainage
	D4	stream	-	-	-	-	0.010*	Drift	0.007	Drainage
	D6 1st	ditch	-	-	-	-	0.011*	Drift	0.008	Drainage

Mitigation options										
Vegetative strip (m)			10-12[a]		18-20[b]		10-12[a]		18-20[b]	
No spray buffer (m)			-		-		10		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC$_{SW}$ (µg/L)[c]**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)[c]**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)[c]**	**Dominant route of entry**	**PEC$_{SW}$ (µg/L)[c]**	**Dominant route of entry**
	D6 2nd	ditch	-	-	-	-	0.015	Drainage	0.015	Drainage
	R1	pond	0.006	Runoff	0.004	Drift	0.006	Runoff	0.003	Runoff
	R1	stream	0.049*	Drift	0.049*	Drift	0.012	Runoff	0.006	Runoff
	R2	stream	0.067*	Drift	0.067*	Drift	0.013*	Drift	0.007*	Drift
	R3	stream	0.070*	Drift	0.070*	Drift	0.014*	Drift	0.007*	Drift
	R4	stream	0.048*	Drift	0.048*	Drift	0.015	Runoff	0.008	Runoff
Vegetables, bulb, 2 × 12 g a.s./ha BBCH 49	D3	ditch	-	-	-	-	0.011*	Drift	0.006*	Drift
	D4	pond	-	-	-	-	0.002	Drift	0.002	Drainage
	D4	stream	-	-	-	-	0.010*	Drift	0.006	Drainage
	D6 1st	ditch	-	-	-	-	0.011*	Drift	0.008	Drainage
	D6 2nd	ditch	-	-	-	-	0.017	Drainage	0.017	Drainage
	R1	pond	0.007	Runoff	0.004	Runoff	0.007	Runoff	0.003	Runoff
	R1	stream	0.049*	Drift	0.049*	Drift	0.014	Runoff	0.007	Runoff
	R2	stream	0.067*	Drift	0.067*	Drift	0.013*	Drift	0.007*	Drift
	R3	stream	0.070*	Drift	0.070*	Drift	0.015	Runoff	0.008	Runoff
	R4	stream	0.048*	Drift	0.048*	Drift	0.026	Runoff	0.013	Runoff

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation
[c] values resulting from single applications are marked *

Table A 407: FOCUS Step 4 Global Maximum PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to hops – maximum over single and multiple applications

Mitigation options										
Vegetative strip (m)			-		10-12[a]		-		18-20[b]	
No spray buffer (m)			10		10		20		20	
Nozzle reduction (%)			-		-		-		-	
Crop	**Scenario**	**Water body**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**	**PEC_{SW} (µg/L)[c]**	**Dominant route of entry**
Hops, 2 × 12 g a.s./ha BBCH 21	R1	pond	0.022	Drift	0.022	Drift	0.007	Drift	0.007	Drift
	R1	stream	0.192*	Drift	0.192*	Drift	0.058*	Drift	0.058*	Drift
	R3[d]	stream	0.055*	Drift	0.268*	Drift	0.019*	Drift	0.081*	Drift
	R4[d]	stream	0.039*	Drift	0.189*	Drift	0.031	Runoff	0.057*	Drift
Hops, 2 × 12 g a.s./ha BBCH 51	R1	pond	0.022	Drift	0.022	Drift	0.007	Drift	0.007	Drift
	R1	stream	0.187*	Drift	0.187*	Drift	0.056*	Drift	0.056*	Drift
	R3[d]	stream	0.056*	Drift	0.271*	Drift	0.020*	Drift	0.081*	Drift
	R4[d]	stream	0.039*	Drift	0.189*	Drift	0.032	Runoff	0.057*	Drift
Hops, 2 × 12 g a.s./ha BBCH 89	R1	pond	0.021	Drift	0.021	Drift	0.007	Drift	0.006	Drift
	R1	stream	0.192*	Drift	0.192*	Drift	0.058*	Drift	0.058*	Drift
	R3[d]	stream	0.056*	Drift	0.271*	Drift	0.020*	Drift	0.081*	Drift
	R4[d]	stream	0.040	Runoff	0.192*	Drift	0.040	Runoff	0.058*	Drift

[a] equivalent to 60% runoff mitigation
[b] equivalent to 80% runoff mitigation
[c] values resulting from single applications are marked *
[d] Vines, late was used as surrogate crop for the R3 and R4 scenarios to fulfil the national requirements for Italy

Greenhouse uses

Table A 408: FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy – 0.1% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 09	D3 1st	ditch	0.004	Drift	0.003
	D3 2nd	ditch	0.004	Drift	0.003
	D4	pond	0.001	Drift	0.013
	D4	stream	0.004	Drainage	0.003
	D6	ditch	0.013	Drainage	0.004
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.004	Drift	0.003
	D3 2nd	ditch	0.004	Drift	0.003
	D4	pond	0.001	Drift	0.013
	D4	stream	0.004	Drainage	0.003
	D6	ditch	0.013	Drainage	0.004
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.004	Drift	0.005
	D3 2nd	ditch	0.004	Drift	0.005
	D4	pond	0.002	Drift	0.025
	D4	stream	0.008	Drainage	0.007
	D6	ditch	0.026	Drainage	0.008
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.004	Drift	0.003
	D3 2nd	ditch	0.004	Drift	0.002
	D4	pond	0.001	Drift	0.011
	D4	stream	0.003	Drift	0.002
	D6	ditch	0.007	Drainage	0.002
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.004	Drift	0.005
	D3 2nd	ditch	0.004	Drift	0.003
	D4	pond	0.002	Drift	0.023
	D4	stream	0.004	Drainage	0.004
	D6	ditch	0.021	Drainage	0.006

Table A 409: FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting – 0.1% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 11	D6	ditch	0.006	Drainage	0.002
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	0.012	Drainage	0.004
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 51	D6	ditch	0.006	Drainage	0.002
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	0.012	Drainage	0.004
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 81	D6	ditch	0.006	Drainage	0.002
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 81	D6	ditch	0.013	Drainage	0.004
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 89	D6	ditch	0.006	Drainage	0.002
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	0.013	Drainage	0.004

Table A 410: FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, leafy – 0.2% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 09	D3 1st	ditch	0.008	Drift	0.006
	D3 2nd	ditch	0.008	Drift	0.006
	D4	pond	0.002	Drift	0.019
	D4	stream	0.007	Drift	0.004
	D6	ditch	0.013	Drainage	0.004

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.008	Drift	0.006
	D3 2nd	ditch	0.008	Drift	0.006
	D4	pond	0.002	Drift	0.019
	D4	stream	0.007	Drift	0.003
	D6	ditch	0.013	Drainage	0.004
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 11	D3 1st	ditch	0.008	Drift	0.009
	D3 2nd	ditch	0.008	Drift	0.010
	D4	pond	0.004	Drift	0.037
	D4	stream	0.008	Drainage	0.007
	D6	ditch	0.026	Drainage	0.008
Vegetables, leafy, 1 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.008	Drift	0.006
	D3 2nd	ditch	0.008	Drift	0.004
	D4	pond	0.002	Drift	0.020
	D4	stream	0.006	Drift	0.002
	D6	ditch	0.007	Drift	0.002
Vegetables, leafy, 2 × 12 g a.s./ha BBCH 49	D3 1st	ditch	0.008	Drift	0.009
	D3 2nd	ditch	0.008	Drift	0.007
	D4	pond	0.004	Drift	0.041
	D4	stream	0.007	Drift	0.004
	D6	ditch	0.021	Drainage	0.006

Table A 411: FOCUS Step 3 PEC_{SW} and PEC_{SED} for oxathiapiprolin following application to vegetables, fruiting – 0.2% drift

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 11	D6	ditch	0.008	Drift	0.002
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 11	D6	ditch	0.012	Drainage	0.004
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 51	D6	ditch	0.008	Drift	0.003
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 51	D6	ditch	0.012	Drainage	0.004

Application scenario	Scenario	Water body	PEC_{SW} (µg/L)	Dominant Route of Entry	PEC_{SED} (µg/kg)
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 81	D6	ditch	0.008	Drift	0.003
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 81	D6	ditch	0.013	Drainage	0.005
Vegetables, fruiting, 1 × 12 g a.s./ha BBCH 89	D6	ditch	0.008	Drift	0.003
Vegetables, fruiting, 2 × 12 g a.s./ha BBCH 89	D6	ditch	0.013	Drainage	0.004