

FINAL REGISTRATION REPORT

Part B

Section 8

Environmental Fate

Detailed summary of the risk assessment

Product code: CHR/F/SCORPIO 325 SC

Product name(s): Clapton 325 SC, Scarp 325 SC

Chemical active substance(s):

Difenoconazole, 125 g/L

Azoxystrobin, 200 g/L

Central Zone

Zonal Rapporteur Member State: Poland

CORE ASSESSMENT

Applicant: Innvigo Sp. z o.o.

Submission date:

MS Finalisation date: 11/2025

This document describes the acceptable use conditions required for registration according to Art. 34 and Art. 33 of Regulation 1107/2009 of CHR/F/SCORPIO 325 SC containing azoxystrobin and difenoconazole in POLAND.

Scorpion 325 SC is the original product to which Innvigo Sp. z o.o. would like to refer. 10 years for registration data of Scorpion 325 SC was expired in Poland. Thus, the data protection of studies provided in registration report of Scorpion 325 SC has expired. Innvigo Sp. z o.o. refers to above mentioned studies within this document.

Version history

When	What
07/2025	Draft zRMS evaluation of dRR
11/2025	Final RR

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zRMS comments:

The text highlighted in grey was provided by the zRMS.

The updated evaluation and autocorrection (November 2025)

8 Fate and behaviour in the environment (KCP 9)

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	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 (day s)	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 or kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min/max			Groundwater
Zonal uses (field or outdoor uses, certain types of protected crops)														
1	PL	Winter oilseed rape (BRSNW)	F	Phoma lingam, Alternaria brassicae, Verticillium longisporum	Spray, medium sprayer	Autumn, spring BBCH 14- 29 -BBCH 31-55	a)1 b)2	min. 90/120	a) 0.9-1.0 l/ha b) 1.8-2.0 l/ha	a) 0.2925-0.325 kg a.s./ha (AZX0.18- 0.2 kg a.s./ha + DIF 0.1125-0.125 kg a.s/ha) b) 0.585-0.65 kg a.s./ha (AZX0.36- 0.4 kg a.s./ha + DIF 0.225-0.25 kg a.s/ha)	200-400	n/a		
2	PL	Winter oilseed rape (BRSNW)	F	Sclerotinia sclerotiorum, Botryotina fuckeliana, Alternaria brassicae	Spray, medium sprayer	Spring BBCH 61- 69	a)1 b)1	n/a	a) 0.9-1.0 l/ha b) 0.9-1.0 l/ha	a) 0.2925-0.325 kg a.s./ha (AZX0.18- 0.2 kg a.s./ha + DIF 0.1125-0.125 kg a.s/ha) b) 0.2925-0.325 kg a.s./ha (AZX0.18- 0.2 kg a.s./ha + DIF 0.1125-0.125 kg a.s/ha)	200-400	n/a		
3	PL	Sugar beet (BEAVX)	F	Cercospora beticola, Ramularia beticola, Erysiphe betae.	Spray, medium sprayer	Spring BBCH 39- 49	a)1 b)1	n/a	a) 0.8-1.0 l/ha b) 0.8-1.0 l/ha	a) 0.26-0.325 kg a.s./ha (AZX0.16- 0.2 kg a.s./ha + DIF 0.1-0.125 kg a.s/ha) b) 0.26-0.325 kg a.s./ha (AZX0.16-	200-400	n/a		

										0.2 kg a.s./ha + DIF 0.1-0.125 kg a.s/ha)				
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)														
4														
5														
Minor uses according to Article 51 (zonal uses)														
6	PL	<i>Spring oilseed rape (BRSNS),</i>	F	<i>Sclerotinia sclerotiorum, Alternaria brassicace, Leptosphaeria maculans, Alternaria brassicicola, Botrytis cinerea, Fusarium sp., Fusarium oxysporum, Septoria glycines, Cercospora sojina, Alternaria helianthin, Diaporthe helianthin, Golovinomyces cichoracearum, Alternaria alternata, Golovinomyces orontii, Melampsora lini, Septoria cannabidis,</i>	Spray, medium sprayer	Autumn, spring BBCH 14-69	a)1 b)2	min. 90/120	a) 0.9-1.0 l/ha b) 1.8-2.0 l/ha	a) 0.2925-0.325 kg a.s./ha (AZX0.18-0.2 kg a.s./ha + DIF 0.1125-0.125 kg a.s/ha) b) 0.585-0.65 kg a.s./ha (AZX0.36-0.4 kg a.s./ha + DIF 0.225-0.25 kg a.s/ha)	200-400	n/a		
7	PL	<i>Sinapis alba (SINAL)</i>	F	<i>Sclerotinia sclerotiorum, Alternaria brassicace, Leptosphaeria maculans, Alternaria brassicicola, Botrytis cinerea, Fusarium sp., Fusarium oxysporum, Septoria glycines, Cercospora sojina, Alternaria helianthin, Diaporthe helianthin, Golovinomyces cichoracearum, Alternaria alternata, Golovinomyces orontii, Melampsora lini, Septoria cannabidis,</i>	Spray, medium sprayer	Autumn, spring BBCH 14-69	a)1 b)2	min. 90/120	a) 0.9-1.0 l/ha b) 1.8-2.0 l/ha	a) 0.2925-0.325 kg a.s./ha (AZX0.18-0.2 kg a.s./ha + DIF 0.1125-0.125 kg a.s/ha) b) 0.585-0.65 kg a.s./ha (AZX0.36-0.4 kg a.s./ha + DIF 0.225-0.25 kg a.s/ha)	200-400	n/a		
8	PL	<i>Papaver somniferum (PAPSO)</i>	F	<i>Sclerotinia sclerotiorum, Alternaria brassicace, Leptosphaeria maculans, Alternaria brassicicola, Botrytis cinerea, Fusarium sp., Fusarium oxysporum, Septoria glycines, Cercospora sojina, Alternaria helianthin, Diaporthe helianthin, Golovinomyces cichoracearum, Alternaria alternata, Golovinomyces orontii, Melampsora lini, Septoria</i>	Spray, medium sprayer	Autumn, spring BBCH 14-69	a)1 b)2	min. 90/120	a) 0.9-1.0 l/ha b) 1.8-2.0 l/ha	a) 0.2925-0.325 kg a.s./ha (AZX0.18-0.2 kg a.s./ha + DIF 0.1125-0.125 kg a.s/ha) b) 0.585-0.65 kg a.s./ha (AZX0.36-0.4 kg a.s./ha + DIF 0.225-0.25 kg a.s/ha)	200-400	n/a		

				<i>cannabis</i> ,										
9	PL	<i>Glycine max</i> (GLXMA),	F	<i>Sclerotinia sclerotiorum</i> , <i>Alternaria brassicace</i> , <i>Leptosphaeria maculans</i> , <i>Alternaria brassicicola</i> , <i>Botrytis cinerea</i> , <i>Fusarium sp.</i> , <i>Fusarium oxysporum</i> , <i>Septoria glycines</i> , <i>Cercospora sojina</i> , <i>Alternaria helianthin</i> , <i>Diaporthe helianthin</i> , <i>Golovinomyces cichoracearum</i> , <i>Alternaria alternata</i> , <i>Golovinomyces orontii</i> , <i>Melampsora lini</i> , <i>Septoria cannabis</i> ,	Spray, medium sprayer	Autumn, spring BBCH 14-69	a)1 b)2	min. 90/120	a) 0.9-1.0 l/ha b) 1.8-2.0 l/ha	a) 0.2925-0.325 kg a.s./ha (AZX0.18-0.2 kg a.s./ha + DIF 0.1125-0.125 kg a.s/ha) b) 0.585-0.65 kg a.s./ha (AZX0.36-0.4 kg a.s./ha + DIF 0.225-0.25 kg a.s/ha)	200-400	n/a		
10	PL	<i>Helianthus annuus</i> (HELAN),	F	<i>Sclerotinia sclerotiorum</i> , <i>Alternaria brassicace</i> , <i>Leptosphaeria maculans</i> , <i>Alternaria brassicicola</i> , <i>Botrytis cinerea</i> , <i>Fusarium sp.</i> , <i>Fusarium oxysporum</i> , <i>Septoria glycines</i> , <i>Cercospora sojina</i> , <i>Alternaria helianthin</i> , <i>Diaporthe helianthin</i> , <i>Golovinomyces cichoracearum</i> , <i>Alternaria alternata</i> , <i>Golovinomyces orontii</i> , <i>Melampsora lini</i> , <i>Septoria cannabis</i> ,	Spray, medium sprayer	Autumn, spring BBCH 14-69	a)1 b)2	min. 90/120	a) 0.9-1.0 l/ha b) 1.8-2.0 l/ha	a) 0.2925-0.325 kg a.s./ha (AZX0.18-0.2 kg a.s./ha + DIF 0.1125-0.125 kg a.s/ha) b) 0.585-0.65 kg a.s./ha (AZX0.36-0.4 kg a.s./ha + DIF 0.225-0.25 kg a.s/ha)	200-400	n/a		
11	PL	<i>Cucurbita pepo</i> (CUUPE) (seed production only),	F	<i>Sclerotinia sclerotiorum</i> , <i>Alternaria brassicace</i> , <i>Leptosphaeria maculans</i> , <i>Alternaria brassicicola</i> , <i>Botrytis cinerea</i> , <i>Fusarium sp.</i> , <i>Fusarium oxysporum</i> , <i>Septoria glycines</i> , <i>Cercospora sojina</i> , <i>Alternaria helianthin</i> , <i>Diaporthe helianthin</i> , <i>Golovinomyces cichoracearum</i> , <i>Alternaria alternata</i> , <i>Golovinomyces orontii</i> , <i>Melampsora lini</i> , <i>Septoria cannabis</i> ,	Spray, medium sprayer	Autumn, spring BBCH 14-69	a)1 b)2	min. 90/120	a) 0.9-1.0 l/ha b) 1.8-2.0 l/ha	a) 0.2925-0.325 kg a.s./ha (AZX0.18-0.2 kg a.s./ha + DIF 0.1125-0.125 kg a.s/ha) b) 0.585-0.65 kg a.s./ha (AZX0.36-0.4 kg a.s./ha + DIF 0.225-0.25 kg a.s/ha)	200-400	n/a		
12	PL	<i>Linum usitatissimum</i> (LIUUT) - technical and seed production	F	<i>Sclerotinia sclerotiorum</i> , <i>Alternaria brassicace</i> , <i>Leptosphaeria maculans</i> , <i>Alternaria brassicicola</i> , <i>Botrytis cinerea</i> , <i>Fusarium sp.</i> , <i>Fusarium oxysporum</i> , <i>Septoria glycines</i> , <i>Cercospora sojina</i> , <i>Alternaria helianthin</i> , <i>Diaporthe helianthin</i> ,	Spray, medium sprayer	Autumn, spring BBCH 14-69	a)1 b)2	min. 90/120	a) 0.9-1.0 l/ha b) 1.8-2.0 l/ha	a) 0.2925-0.325 kg a.s./ha (AZX0.18-0.2 kg a.s./ha + DIF 0.1125-0.125 kg a.s/ha) b) 0.585-0.65 kg a.s./ha (AZX0.36-0.4 kg a.s./ha +	200-400	n/a		

				<i>Golovinomyces cichoracearum</i> , <i>Alternaria alternata</i> , <i>Golovinomyces orontii</i> , <i>Melampsora lini</i> , <i>Septoria cannabis</i> ,						DIF 0.225-0.25 kg a.s/ha)				
13	PL	<i>Cannabis sativa</i> CNISA) - technical and seed production	F	<i>Sclerotinia sclerotiorum</i> , <i>Alternaria brassicace</i> , <i>Leptosphaeria maculans</i> , <i>Alternaria brassicicola</i> , <i>Botrytis cinerea</i> , <i>Fusarium sp.</i> , <i>Fusarium oxysporum</i> , <i>Septoria glycines</i> , <i>Cercospora sojina</i> , <i>Alternaria helianthin</i> , <i>Diaporthe helianthin</i> , <i>Golovinomyces cichoracearum</i> , <i>Alternaria alternata</i> , <i>Golovinomyces orontii</i> , <i>Melampsora lini</i> , <i>Septoria cannabis</i> ,	Spray, medium sprayer	Autumn, spring BBCH 14-69	a)1 b)2	min. 90/120	a) 0.9-1.0 l/ha b) 1.8-2.0 l/ha	a) 0.2925-0.325 kg a.s./ha (AZX0.18-0.2 kg a.s./ha + DIF 0.1125-0.125 kg a.s/ha) b) 0.585-0.65 kg a.s./ha (AZX0.36-0.4 kg a.s./ha + DIF 0.225-0.25 kg a.s/ha)	200-400	n/a		
14	PL	<i>Brassica napus</i> subsp. <i>rapifera</i> (BRSNA) (roots only)	F	<i>Alternaria sp</i> , <i>Erysiphe heraclei</i> , <i>Sclerotinia sclerotiorum</i> , <i>Septoria apiicola</i> , <i>Botrytis cinerea</i> , <i>Erysiphe betae</i> , <i>Cercospora beticola</i> <i>Uromyces beticola</i> , <i>Alternaria brassicicola</i> , <i>Erysiphe cruciferarum</i> , Turnip mosaic virus, <i>Albugo candida</i> , <i>Leptosphaeria maculans</i> , <i>Botryotinia fuckeliana</i> , <i>Alternaria radicina</i>	Spray, medium sprayer	Spring BBCH 39-49	a)1 b)1	n/a	a) 0.8-1.0 l/ha b) 0.8-1.0 l/ha	a) 0.26-0.325 kg a.s./ha (AZX0.16-0.2 kg a.s./ha + DIF 0.1-0.125 kg a.s/ha) b) 0.26-0.325 kg a.s./ha (AZX0.16-0.2 kg a.s./ha + DIF 0.1-0.125 kg a.s/ha)	200-400	n/a		
15	PL	<i>Cichorium intybus</i> (CICIN) (roots only)	F	<i>Alternaria sp</i> , <i>Erysiphe heraclei</i> , <i>Sclerotinia sclerotiorum</i> , <i>Septoria apiicola</i> , <i>Botrytis cinerea</i> , <i>Erysiphe betae</i> , <i>Cercospora beticola</i> <i>Uromyces beticola</i> , <i>Alternaria brassicicola</i> , <i>Erysiphe cruciferarum</i> , Turnip mosaic virus, <i>Albugo candida</i> , <i>Leptosphaeria maculans</i> , <i>Botryotinia fuckeliana</i> , <i>Alternaria radicina</i>	Spray, medium sprayer	Spring BBCH 39-49	a)1 b)1	n/a	a) 0.8-1.0 l/ha b) 0.8-1.0 l/ha	a) 0.26-0.325 kg a.s./ha (AZX0.16-0.2 kg a.s./ha + DIF 0.1-0.125 kg a.s/ha) b) 0.26-0.325 kg a.s./ha (AZX0.16-0.2 kg a.s./ha + DIF 0.1-0.125 kg a.s/ha)	200-400	n/a		
16	PL	<i>Beta vulgaris</i> subsp. <i>vulgaris</i> (BEAVD)	F	<i>Alternaria sp</i> , <i>Erysiphe heraclei</i> , <i>Sclerotinia sclerotiorum</i> , <i>Septoria apiicola</i> , <i>Botrytis cinerea</i> , <i>Erysiphe betae</i> , <i>Cercospora beticola</i> <i>Uromyces</i>	Spray, medium sprayer	Spring BBCH 39-49	a)1 b)1	n/a	a) 0.8-1.0 l/ha b) 0.8-1.0 l/ha	a) 0.26-0.325 kg a.s./ha (AZX0.16-0.2 kg a.s./ha + DIF 0.1-0.125 kg a.s/ha)	200-400	n/a		

				<i>beticola</i> , <i>Alternaria brassicicola</i> , <i>Erysiphe cruciferarum</i> , Turnip mosaic virus, <i>Albugo candida</i> , <i>Leptosphaeria maculans</i> , <i>Botryotinia fuckeliana</i> , <i>Alternaria radicina</i>						b) 0.26-0.325 kg a.s./ha (AZX0.16-0.2 kg a.s./ha + DIF 0.1-0.125 kg a.s./ha)				
17	PL	<i>Brassica napus</i> subsp. <i>rapifera</i> (BRSNA),	F	<i>Alternaria</i> sp, <i>Erysiphe heraclei</i> , <i>Sclerotinia sclerotiorum</i> , <i>Septoria apiicola</i> , <i>Botrytis cinerea</i> , <i>Erysiphe betae</i> , <i>Cercospora beticola</i> <i>Uromyces beticola</i> , <i>Alternaria brassicicola</i> , <i>Erysiphe cruciferarum</i> , Turnip mosaic virus, <i>Albugo candida</i> , <i>Leptosphaeria maculans</i> , <i>Botryotinia fuckeliana</i> , <i>Alternaria radicina</i>	Spray, medium sprayer	Spring BBCH 39-49	a)1 b)1	n/a	a) 0.8-1.0 l/ha b) 0.8-1.0 l/ha	a) 0.26-0.325 kg a.s./ha (AZX0.16-0.2 kg a.s./ha + DIF 0.1-0.125 kg a.s./ha) b) 0.26-0.325 kg a.s./ha (AZX0.16-0.2 kg a.s./ha + DIF 0.1-0.125 kg a.s./ha)	200-400	n/a		
18	PL	<i>Armoracia rusticana</i> (ARWLA)	F	<i>Alternaria</i> sp, <i>Erysiphe heraclei</i> , <i>Sclerotinia sclerotiorum</i> , <i>Septoria apiicola</i> , <i>Botrytis cinerea</i> , <i>Erysiphe betae</i> , <i>Cercospora beticola</i> <i>Uromyces beticola</i> , <i>Alternaria brassicicola</i> , <i>Erysiphe cruciferarum</i> , Turnip mosaic virus, <i>Albugo candida</i> , <i>Leptosphaeria maculans</i> , <i>Botryotinia fuckeliana</i> , <i>Alternaria radicina</i>	Spray, medium sprayer	Spring BBCH 39-49	a)1 b)1	n/a	a) 0.8-1.0 l/ha b) 0.8-1.0 l/ha	a) 0.26-0.325 kg a.s./ha (AZX0.16-0.2 kg a.s./ha + DIF 0.1-0.125 kg a.s./ha) b) 0.26-0.325 kg a.s./ha (AZX0.16-0.2 kg a.s./ha + DIF 0.1-0.125 kg a.s./ha)	200-400	n/a		
19	PL	<i>Apium graveolens</i> var. <i>rapaceum</i> (APUGR)	F	<i>Alternaria</i> sp, <i>Erysiphe heraclei</i> , <i>Sclerotinia sclerotiorum</i> , <i>Septoria apiicola</i> , <i>Botrytis cinerea</i> , <i>Erysiphe betae</i> , <i>Cercospora beticola</i> <i>Uromyces beticola</i> , <i>Alternaria brassicicola</i> , <i>Erysiphe cruciferarum</i> , Turnip mosaic virus, <i>Albugo candida</i> , <i>Leptosphaeria maculans</i> , <i>Botryotinia fuckeliana</i> , <i>Alternaria radicina</i>	Spray, medium sprayer	Spring BBCH 39-49	a)1 b)1	n/a	a) 0.8-1.0 l/ha b) 0.8-1.0 l/ha	a) 0.26-0.325 kg a.s./ha (AZX0.16-0.2 kg a.s./ha + DIF 0.1-0.125 kg a.s./ha) b) 0.26-0.325 kg a.s./ha (AZX0.16-0.2 kg a.s./ha + DIF 0.1-0.125 kg a.s./ha)	200-400	n/a		
20	PL	Ornamental nursery plants,	F	<i>Podosphaera</i> sp., <i>Gymnosporangium</i> sp.,	Spray, medium sprayer	Spring the first	a)1 b)2	14	a) 1.0 l/ha b) 2.0 l/ha	a) 0.325 kg a.s./ha (AZX 0.2 kg	300-1200	n/a		

		forest nursery plants, renewals, afforestation and plantations of forest trees		<i>leaf spot, Lophodermium seditiosum, Diplocarpon rosae, Colletotrichum gloeosporioides, diseases caused by soil pathogens</i>		symptoms of infection				a.s./ha + DIF 0.125 kg a.s./ha) b) 0.65 kg a.s./ha (AZX 0.4 kg a.s./ha + DIF 0.25 kg a.s./ha)				
21	PL	Energetic plants	F	<i>Podosphaeras p., Gymnosporangium sp., leaf spot, Lophodermium seditiosum, Diplocarpon rosae, Colletotrichum gloeosporioides, diseases caused by soil pathogens</i>	Spray, medium sprayer	Spring the first symptoms of infection	a)1 b)2	14	a) 0.8 l/ha b) 1.6 l/ha	a) 0.260 kg a.s./ha (AZX 0.16 kg a.s./ha + DIF 0.100 kg a.s./ha) b) 0.52 kg a.s./ha (AZX 0.32 kg a.s./ha + DIF 0.200 kg a.s./ha)	300-1200	n/a		
22	PL	<i>Salix viminalis (SAXVI),</i>	F	<i>Podosphaeras p., Gymnosporangium sp., leaf spot, Lophodermium seditiosum, Diplocarpon rosae, Colletotrichum gloeosporioides, diseases caused by soil pathogens</i>	Spray, medium sprayer	Spring the first symptoms of infection	a)1 b)2	14	a) 0.8 l/ha b) 1.6 l/ha	a) 0.260 kg a.s./ha (AZX 0.16 kg a.s./ha + DIF 0.100 kg a.s./ha) b) 0.52 kg a.s./ha (AZX 0.32 kg a.s./ha + DIF 0.200 kg a.s./ha)	300-1200	n/a		
23	PL	<i>Wicker (ISAXG)</i>	F	<i>Podosphaeras p., Gymnosporangium sp., leaf spot, Lophodermium seditiosum, Diplocarpon rosae, Colletotrichum gloeosporioides, diseases caused by soil pathogens</i>	Spray, medium sprayer	Spring the first symptoms of infection	a)1 b)2	14	a) 0.8 l/ha b) 1.6 l/ha	a) 0.260 kg a.s./ha (AZX 0.16 kg a.s./ha + DIF 0.100 kg a.s./ha) b) 0.52 kg a.s./ha (AZX 0.32 kg a.s./ha + DIF 0.200 kg a.s./ha)	300-1200	n/a		
24	PL	<i>Nicotiana tabacum (NIOTA)</i>	F	<i>Alternaria spp., Golovinomyces cichoracearum</i>	Spray, medium sprayer	Spring the first symptoms of infection	a)1 b)2	14	a) 1.0 l/ha b) 2.0 l/ha	a) 0.325 kg a.s./ha (AZX 0.2 kg a.s./ha + DIF 0.125 kg a.s./ha) b) 0.65 kg a.s./ha (AZX 0.4 kg a.s./ha + DIF 0.25 kg a.s./ha)	300-1200	n/a		

* Use number(s) in accordance with the list of all intended GAPs in Part B, Section 0 should be given in column 1

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

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

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Use- No. *	Member state(s)	Crop and/or situation (crop destination / purpose of crop)	F, Fn, 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: (m)
					Method / Kind	Timing / Growth stage of crop & season	Number Min - max	Min. interval between applications (days)	kg as/hL min-max	Kg as/ha min - max	Water L/ha min/max		
1	EU (N/S)	Pome fruit	F	<i>Podosphaera leucotricha</i> <i>Venturia inaequalis</i>	High vol spray or mist blower	Spray programme beginning at flowering (BBCH 61)	1-4	10-14	0.00375	0.01875 0.05625	500 1500	28	EU(N) [I] [IV] [V] [VI]
									0.0075	0.0375 0.0750	500 1500	14	EU (S) [I] [II] [IV] [V] [VI]
2	EU (N/S)	Carrot	F	<i>Alternaria dauci</i> <i>Erysiphe heraclei</i>	High vol spray	First application at BBCH 42/43	1-3	14	-	0.125	100 500	14	[I] [II] [IV] [V] [VI]
3	EU (N/S)	Wheat	F	<i>Fusarium spp. Tilletia spp</i>	Seed treatment	BBCH 00	1	-	0.03-0.06 kg as/tonne	0.005 0.012	-	-	kg as/ha rate depends on seeding rate [I] [II] [III] [IV] [V] [VI]
4	EU (N/S)	Barley	F	<i>Pyrenophoma granimeae</i>	Seed treatment	BBCH 00	1	-	0.03-0.06 kg as/tonne	0.005 0.012	-	-	kg as/ha rate depends on seeding rate [I] [II] [III] [IV] [V] [VI]
5	EU (N/S)	Triticale	F	<i>Fusarium spp. Tilletia spp.</i>	Seed treatment	BBCH 00	1	-	0.03-0.06 kg as/tonne	0.005 0.012	-	-	kg as/ha rate depends on seeding rate [I] [II] [III] [IV] [V] [VI]
6	EU (N/S)	Rye	F	<i>Fusarium spp. Urocystis occulata</i>	Seed treatment	BBCH 00	1	-	0.03-0.06 kg as/tonne	0.005 0.012	-	-	kg as/ha rate depends on seeding rate [I] [II] [III] [IV] [V] [VI]
7	EU (N/S)	Oats	F	<i>Ustilago avenae</i> <i>Pyrenophora avenae</i> <i>Cochliobolus sativum</i> <i>Fusarium culmorum</i>	Seed treatment	BBCH 00	1	-	0.03-0.06 kg as/tonne	0.005 0.012	-	-	kg as/ha rate depends on seeding rate [I] [II] [III] [IV] [V] [VI]

				<i>Gibberella avenacea</i> <i>Pythium ultimum</i>									
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[I] The groundwater exposure assessment for metabolites that may be formed in soil was not finalised.

[II] The risk assessment to soil dwelling organisms from exposure to difenoconazole under southern European conditions was not finalised.

[III] The chronic risk assessment to sediment dwelling organisms from the exposure to difenoconazole could not be finalised for the representative uses on cereals.

[IV] The chronic risk of difenoconazole to earthworms could not be finalised.

[V] The consumer risk assessment has to be considered provisional since the possible contribution of the TDM metabolites to the overall consumer exposure was not considered.

[VI] Possible impact on the toxicity, the consumer risk assessment, worker exposure and the environment of the variable isomer ratio in the technical and of the potential enantio-selective biologically mediated metabolism/degradation/transformation in plants, animals, and the environment needs to be addressed.

* Use number(s) in accordance with the list of all intended GAPs in Part B, Section 0 should be given in column 1

** 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 Azoxystrobin concerning the Section Environmental Fate

1	2	3	4	5	6	7	8	9	10	11	12	13	14
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: (m)
					Method / Kind	Timing / Growth stage of crop & season	Number Min - max	Min. interval between applications (days)	kg as/hL min-max	Kg as/ha min - max	Water L/ha min/max		
1	EU	Broccoli	F	Albugo candida, Alternaria brassicae, Mycosphaerella brassicicola, Peronospora parasitica	Foliar spray	BBCH 35 - 39	1-2	12	0.042 – 0.125	0.250	200- 600	14	[1]
2	EU	Cauliflower	F	Albugo candida, Alternaria brassicae, Mycosphaerella brassicicola, Peronospora parasitica	Foliar spray	BBCH 35 - 39	1-2	12	0.042 – 0.125	0.250	200- 600	14	[1]
3	N EU	Brussels sprouts	F	Albugo candida, Alternaria brassicae, Mycosphaerella brassicicola,	Foliar spray	BBCH 35 - 39	1-2	12	0.042 – 0.125	0.250	200- 600	14	[1]

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				Peronospora parasitica									
4	EU	Kale	F	Albugo candida, Alternaria brassicae, Mycosphaerella brassicicola, Peronospora parasitica	Foliar spray	BBCH 35 - 39	1-2	12	0.042 – 0.125	0.250	200- 600	14	[1]
5	EU	Barley	F	Pyrenophora teres Puccinia hordei Rhynchosporium secalis Gaeumannomyces graminis var. Tritici Barley spotting	Foliar spray	BBCH 31 - 59	1-2	14	0.083 – 0.250	0.250	100- 300	35*	*Timing of applications determined primarily by growth stage; 1st no later than BBCH39, 2nd no later than BBCH59. [1]
6	EU	Wheat	F	Septoria tritici Septoria nodorum Puccinia striiformis Puccinia recondita Gaeumannomyces graminis var. tritici	Foliar spray	BBCH 31 - 69	1-2	14	0.083 – 0.250	0.250	100- 300	35**	**Timing of applications determined primarily by growth stage; 1st application no later than BBCH39, 2nd application no later than BBCH69 [1]

* Use number(s) in accordance with the list of all intended GAPs in Part B, Section 0 should be given in column 1

** 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

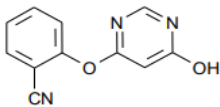
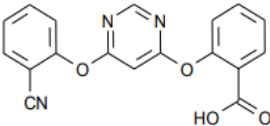
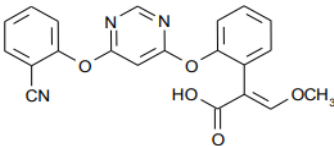
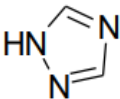
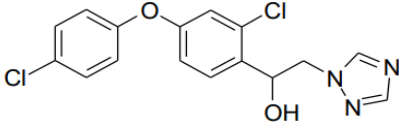
Metabolite	Molar mass	Chemical structure	Maximum observed occurrence in compartments	Exposure assessment required due to
R401553	213.2		Water/Sediment: 8.9% Soil: 17%	PECgw PECsoil PECsw
R402173	333.3		Water/Sediment: 2.4 Soil: 17%	PECsw
R234886	389.4		Water/Sediment: 17.7% Soil: 28.8%	PECgw PECsoil PECsw

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

Metabolite	Molar mass	Chemical structure	Maximum observed occurrence in compartments	Exposure assessment required due to
CGA 71019	69.0		Water/Sediment: 9.6 (worst case assumption calc. by RMS) Soil: 23.4	PECgw PECsoil PECsw
CGA 205375	350.0		Water/Sediment: 11.6 Soil: 9.7	PECgw PECsoil PECsw

8.3 Rate of degradation in soil (KCP 9.1.1)

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

8.3.1 Aerobic degradation in soil (KCP 9.1.1.1)

8.3.1.1 Azoxystrobin and its metabolites

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

Azoxystrobin, Laboratory studies, aerobic conditions									
Soil name	Soil type	pH	t.°C MWHC %	DT50 (d)	DT90 (d)	DT50 (d) 20°C pF2/10kPa	Chi2 (%)	Kinetic model	Evaluated on EU level/ Reference
18 Acres (Tummon, 1995)	Sandy clay loam	6.4	20 °C / 40%	56.4	187	35.2	3.70	SFO	EFSA Journal 2010; 8(4):154, Yes
East Anglia	Sand	7.9	20 °C / 40%	66.9	222	57.2	5.34	SFO	EFSA Journal 2010; 8(4):154, Yes
Wisborough Green	Silty clay loam	5.9	20 °C / 40%	94.1	313	54.1	5.60	SFO	EFSA Journal 2010; 8(4):154, Yes
18 Acres (Warinton, 1996)	Sandy clay loam	7	75% 1/3 bar moisture 20 °C	87.0	289	65.2	2.06	SFO	EFSA Journal 2010; 8(4):154, Yes
Hyde Farm	Sandy clay loam	7	75% 1/3 bar moisture 20 °C	72.8	242	48.5	7.10	SFO	EFSA Journal 2010; 8(4):154, Yes
Visalia	Sandy loam	8.4	75% 1/3 bar moisture 20 °C	141.6	470	79.9	2.97	SFO	EFSA Journal 2010; 8(4):154, Yes
Derbyshire	Clay loam	7.5	Field capacity 20 °C	118.4	393	118.4	4.84	SFO	EFSA Journal 2010; 8(4):154, Yes
Holland	Sandy loam	8.2	Field capacity 20 °C	153.4	510	153.4	1.92	SFO	EFSA Journal 2010; 8(4):154, Yes
Licolsnshire	Sandy loam	7.4	Field capacity 20 °C	248	824	248	7.5	SFO	EFSA Journal 2010; 8(4):154, Yes
Geometric mean				109.4/363.3a		84.5a			

^a = True geometric mean (geometric mean of 18 Acres soils taken first)

Table 8.3-2: Summary of aerobic degradation rates for R234886, R401553, R401553 - laboratory studies - laboratory studies

R234886, Laboratory studies, aerobic conditions								
Soil name	Soil type	pH	t.°C / MWHC %	DT50 (d)/ DT90 (d)	DT50 (d) 20°C pF2/10kPa	Chi2 (%)	Kinetic model	Evaluated on EU level / Reference
Frensham	sandy loam	5.4	20°C /pF2	52.5/309(d)	110 ^b	2.4	DFOP	Addendum – Confirmatory Information, September 2014/ Yes
Wisborough Green	clay loam	5.3	20°C /pF2	33.2/259(e)	97.6 ^b	3.4	DFOP	Addendum – Confirmatory Information, September 2014/ Yes
Nuptown	loamy sand	6.2	20°C /pF2	18.3/203	94.9 ^b	6.0	DFOP	Addendum – Confirmatory Information, September 2014/ Yes
Georgia	sandy loam	7.1	20°C /pF2	102/339	102	5.7	SFO	Addendum – Confirmatory Information, September 2014/ Yes
North Dakota	sandy loam	7.8	20°C /pF2	65.4/217	65.4	4.7	SFO	Addendum – Confirmatory Information, September 2014/ Yes
Ohio	sandy clay loam	5.8	20°C /pF2	89.9/299	89.9	5.0	SFO	Addendum – Confirmatory Information, September 2014/ Yes
Gartenacker	loamy sand	7.3	20°C /pF2	25.7/85.3	25.7	3.6	SFO	Addendum – Confirmatory Information, September 2014/ Yes
Vetroz		7.9	20°C /pF2	69.1/229	69.1	2.8	SFO	Addendum – Confirmatory Information, September 2014/ Yes
Pappelacker		7.2	20°C /pF2	47.1/156	47.1	1.4	SFO	Addendum – Confirmatory Information, September 2014/ Yes
East Anglia	loamy sand	7.9	20°C /40% MWHC	56.5/ 188	43.4	3.3	SFO	EFSA Journal 2010; 8(4):154/ Yes
Hyde Farm	sandy clay loam	7.0	20°C / 75% 1/3 bar	31.8/ 105.6	21.2	12.3	SFO	EFSA Journal 2010; 8(4):154/ Yes
18 Acres	sandy	7.0	20°C /	23.7/ 78.8	17.8	5.9	SFO	EFSA Journal 2010;

R234886, Laboratory studies, aerobic conditions								
Soil name	Soil type	pH	t.°C / MWHC %	DT50 (d)/ DT90 (d)	DT50 (d) 20°C pF2/10kPa	Chi2 (%)	Kinetic model	Evaluated on EU level / Reference
	clay loam		75% 1/3 bar					8(4):154/Yes
Arithmetic mean					0.874			

d) = No geometric mean calculated as degradation of R234886 pH dependent

R401553, Laboratory studies, aerobic conditions								
Soil name	Soil type	pH	t.°C / MWHC %	DT50 (d)/ DT90 (d)	DT50 (d) 20°C pF2/10kPa	Chi2 (%)	Kinetic model	Evaluated on EU level Reference
Frensham	Sandy loam	6.6	20°C /40% MWHC	1.36 /4.52	0.9	9.1	SFO	EFSA Journal2010; 8(4):154, Yes
Wisborough Green	silty clay loam	6.4	20°C /40% MWHC	1.59/ 5.29	0.9	10.9	SFO	EFSA Journal2010; 8(4):154, Yes
East Anglia	loamy sand	7.9	20°C /40% MWHC	2.01/ 6.68	1.5	12.3	SFO	EFSA Journal2010; 8(4):154, Yes
Geometric mean				1.63/5.43	1.07			

R401553, Laboratory studies, aerobic conditions								
Soil name	Soil type	pH	t.°C / MWHC %	DT50 (d)/ DT90 (d)	DT50 (d) 20°C pF2/10kPa	Chi2 (%)	Kinetic model	Evaluated on EU level/ Reference
Frensham	sandy loam	6.6	20°C /40% MWHC	8.44/28.0	5.7	8.6	SFO	EFSA Journal2010; 8(4):154, Yes
Wisborough Green	silty clay loam	6.4	20°C /40% MWHC	4.24/ 14.1	2.4	12.3	SFO	EFSA Journal2010; 8(4):154, Yes
East Anglia	loamy sand	7.9	20°C /40% MWHC	9.80/ 32.6	7.5	12.7	SFO	EFSA Journal2010; 8(4):154, Yes
Geometric mean/media				7.05/ 23.43	4.68			

8.3.1.2 Difenoconazole and its metabolites

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

Difenoconazole, Laboratory studies, aerobic conditions							
Soil name Soil type	pH	t.°C MWHC %	DT50 (d) DT90 (d)	DT50 (d) 20°C pF2/10kPa	Chi2 (%)	Kinetic model	Evaluated on EU level/ Reference
loam	7.2	20/40	104/345	64	0.999	SFO	EFSA Journal 2011;9(1):1967/ Yes
loam	7.2	20/40	20/40	72	0.998	SFO	EFSA Journal 2011;9(1):1967/ Yes
Geomean loam (n=2)			111/368	111			EFSA Journal 2011;9(1):1967/ Yes
sandy loam	5.0	20/40	123 ⁴ /409	123	0.913	SFO	EFSA Journal 2011;9(1):1967/ Yes
silt loam	7.2	20/48	456 ⁴ >>273	456	0.892	SFO	EFSA Journal 2011;9(1):1967/ Yes
silt loam	7.2	30/48	175 ² >>178 ²	-	0.977	SFO	EFSA Journal 2011;9(1):1967/ Yes
silt loam	7.2	20/24	709 ^{2,4} / >>281 ²	-	0.855	SFO	EFSA Journal 2011;9(1):1967/ Yes
silt loam	7.2	20/48	345 ⁴ / >>281	345	0.973	SFO	EFSA Journal 2011;9(1):1967/ Yes
silt loam	7.2	10/48	602 ^{2,4} / >>281 ²	-	0.952	SFO	EFSA Journal 2011;9(1):1967/ Yes
silt loam	7.2	20/48	83 / 277	83	0.950	SFO	EFSA Journal 2011;9(1):1967/ Yes
Geoman silt loam (n=3)			235 / >277	235			
loam	7.2	20 / 22	136 ² / 452 ²	-	0.986	SFO	EFSA Journal 2011;9(1):1967/ Yes
loam	7.2	10 / 43	338 ^{2,4} / >1000 ²	-	0.993	SFO	EFSA Journal 2011;9(1):1967/ Yes
loam	7.2	20 / 43	53/175	53	0.995	SFO	EFSA Journal 2011;9(1):1967/ Yes
loam sterile	7.2	20 / 43	>1000 ^{2,4} / >1000 ²	-	-	-	

sandy loam	7.4	20 / 40	149 / 496	136	0.977	SFO	EFSA Journal 2011;9(1):1967/ Yes
sandy loam/loamy sand	7.5	20 / 40	186 / 617	177	0.939	SFO	EFSA Journal 2011;9(1):1967/ Yes
silty clay loam	6.7	20 / 40	187 / 620	151	0.972	SFO	EFSA Journal 2011;9(1):1967/ Yes
Geometric mean (n=7)			136 / > 390	130			
Median (n=7)			149 / ≥ 409	136			

Table 8.3-4: Summary of aerobic degradation rates for CGA 71019 and CGA 205375- laboratory studies - laboratory studies

CGA 71019, Laboratory studies, aerobic conditions							
Soil name Soil type	pH	t.°C MWHC %	DT50 (d) DT90 (d)	DT50 (d) 20°C pF2/10kPa	Chi2 (%)	Kinetic model	Evaluated on EU level/ Reference
sandy loam	6.4	20/40	6.3/21	4.3		SFO	Triazole Derived Metabolite: 1,2,4-Triazole, Proposed revision to DT50 Summary, Scientific Evaluation and Assessment, July 2011, revised September 2011
loamy sand	5.8	20/40	9.9 / 33	7.6		SFO	Triazole Derived Metabolite: 1,2,4-Triazole, Proposed revision to DT50 Summary, Scientific Evaluation and Assessment, July 2011, revised September 2011
silt loam	6.7	20/40	12 / 41	7.5		SFO	Triazole Derived Metabolite: 1,2,4-Triazole, Proposed revision to DT50 Summary, Scientific Evaluation and Assessment, July 2011, revised September 2011
Geometric mean			9.1 / 30.5	6.3			
Median			9.9 / 33	7.5			

CGA 205375, Laboratory studies, aerobic conditions							
Soil name Soil type	pH	t.°C MWHC %	DT50 (d)/ DT90 (d)	DT50 (d) 20°C pF2/10kPa	Chi2 (%)	Kinetic model	Evaluated on EU level/ Reference
sandy loam	7.4	20/40	93 / 309	85		SFO	EFSA Journal 2011;9(1):1967/ Yes

sandy loam/loamy sand	7.5	20/40	83 / 275	79		SFO	EFSA Journal 2011;9(1):1967/ Yes
silt loam	5.8	20/40	152 / 504	123		SFO	EFSA Journal 2011;9(1):1967/ Yes
Geometric mean			106 / 350	94			
Median			93 / 309	85			

8.3.2 Anaerobic degradation in soil (KCP 9.1.1.1)

Table 8.3-5: Anaerobic degradation in soil for Azoxystrobin (KCP 9.1.1.1)

Anaerobic degradation ‡

Mineralization after 100 days

0.3-4.7 % after 120 d, (¹⁴C-Cyanophenyl-label)
2.3-2.7 % after 120 d, (¹⁴C-Pyrimidinyl-label)
0.0-3.8 % after 120 d, (¹⁴C-Phenylacrylate-label)

Non-extractable residues after 100 days

3.4-15.3 % after 120 d, (¹⁴C-Cyanophenyl-label)
5.2-9.6 % after 120 d, (¹⁴C-Pyrimidinyl-label)
6.2-9.0 % after 120 d, (¹⁴C-Phenylacrylate-label)

Metabolites that may require further consideration for risk assessment - name and/or code, % of applied (range and maximum)

(E)-2-(2-[6-cyanophenoxy)-pyrimidin-4-yloxy]-phenyl)-3-methoxyacrylic acid (metabolite I, R234886), 67.7% after 181 days.

Soil photolysis ‡

Metabolites that may require further consideration for risk assessment - name and/or code, % of applied (range and maximum)

Greater than 5% at 2 consecutive time points;
R401553 (Compound 28) - 5.0 % (day 9.8) – 5.7 % (day 31.3) - ¹⁴C-pyrimidinyl-label.
R402173 (Compound 30) – 5.4% (day 9.8) – 7.6% (day 31.3) - C-pyrimidinyl label.

Table 8.3-6: Anaerobic degradation in soil for Difenoconazole (KCP 9.1.1.1)

Anaerobic degradation ‡ Mineralization after 100 days	0.1% after 110 d [¹⁴ C-triazole]-label (n=1)
Non-extractable residues after 100 days	11.6% after 110 d [¹⁴ C-triazole]-label (n=1)
Metabolites that may require further consideration for risk assessment - name and/or code, % of applied (range and maximum)	None
Soil photolysis ‡ Metabolites that may require further consideration for risk assessment - name and/or code, % of applied (range and maximum)	None

8.4 Field studies (KCP 9.1.1.2)

Field studies with the formulation were not performed, since it is possible to extrapolate from data obtained with the active substances and evaluated at EFSA Journal 2010; 8(4):1542 for azoxystrobin and EFSA Journal 2011;9(1):1967 for difenoconazole.

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

8.4.1.1 Azoxystrobin and its metabolites

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

Soil type (USDA)	Location	pH	Depth (cm)	DissT50 (d) actual	DT90 (d) actual	St. (x x 2)	Method of calculation	Evaluated on EU level/ Reference
Azoxystrobin applied to bare soil and incorporated								
Sandy clay loam	Spalding, Lincolnshire	7.5 (0-15 cm)	30	261.9	869.9	10.6	SFO	EFSA Journal 2010; 8(4):1542, Yes
Silty clay loam	Nagele, Netherlands	7.9 (0-15 cm)	30	186.4	619.3	10.2	SFO	EFSA Journal 2010; 8(4):1542, Yes
Sandy clay loam (0-20cm depth)	Shirebrook, Derbyshire	6.7 (0-20 cm)	30	120.9	401.7	17.2	SFO	EFSA Journal 2010; 8(4):1542, Yes

Soil type (USDA)	Location	pH	Depth (cm)	DissT50 (d) actual	DT90 (d) actual	St. ($\bar{x}$ $\bar{x}^2$)	Method of calculation	Evaluated on EU level/ Reference
Azoxystrobin applied to soil surface and not incorporated								
Clay loam	Volpedo, Italy	8.2(0-20cm)	30	-	-	-	DFOP	EFSA Journal 2010; 8(4):1542, Yes
Sandy loam	Bienenbuttel-Varendorf, Germany	6.4(0-30cm)	30	-	-	-	DFOP	EFSA Journal 2010; 8(4):1542, Yes
Sandy clay loam	Saxa-Anhalt, Germany	6.6(0-30cm)	30	-	-	-	DFOP	EFSA Journal 2010; 8(4):1542, Yes
Clay loam	Isle/ Sorgue, France	8.5(0-20cm)	30	-	-	-	DFOP	EFSA Journal 2010; 8(4):1542, Yes
Sandy loam	Monteux Vaucluse, France	8.5 (0-20cm)	30	-	-	-	DFOP	EFSA Journal 2010; 8(4):1542, Yes
Silt loam	St Vigor, France	6.1(0-20cm)	30	-	-	-	DFOP	EFSA Journal 2010; 8(4):1542, Yes
Silty clay loam	Massalombarda, France	8.3(0-20cm)	30	-	-	-	DFOP	EFSA Journal 2010; 8(4):1542, Yes
Clay loam	Grisolles, France	7.7(0-20cm)	30	-	-	-	DFOP	EFSA Journal 2010; 8(4):1542, Yes
Clay	Cambridgeshire, UK	8.0 (0-20cm)	30	-	-	-	DFOP	EFSA Journal 2010; 8(4):1542, Yes
Clay	Somerset, UK	8.1(0-20cm)	30	-	-	-	DFOP	EFSA Journal 2010; 8(4):1542, Yes
Geometric mean				180.7	600.4	80.2		

8.4.1.2 Difenoconazole and its metabolites

Table 8.4-2: Summary of aerobic degradation rates for Difenoconazole - field studies: Triggering endpoints

Soil type (USDA)	Location	pH	Depth (cm) ²	DissT50 (d) actual	DT90 (d) actual	St. ($\bar{x}$ $\bar{x}^2$)	Method of calculation	Evaluated on EU level/ Reference
Silt loam bare	Germany	7.4	0-20	160	532	18.9	SFO	EFSA Journal 2011;9(1):1967, Yes
Silt loam	Germany	6.6	0-10	20	68	13.0	SFO	EFSA Journal

Soil type (USDA)	Location	pH	Depth (cm) ²	DissT50 (d) actual	DT90 (d) actual	St. (x x ²)	Method of calculation	Evaluated on EU level/ Reference
Bare								2011;9(1):1967, Yes
Loamy sand Bare	Germany	6.2	0-10	59	195	18.3	SFO	EFSA Journal 2011;9(1):1967, Yes
Silt loam Bare	Germany	6.8	0-20	64	211	14.1	SFO	EFSA Journal 2011;9(1):1967, Yes
Loamy sand Bare	Germany	5.6	0-10	61	202	14.8	SFO	EFSA Journal 2011;9(1):1967, Yes
Sandy loam Bare	Germany	6.0	0-20	265	879	18.6	SFO	EFSA Journal 2011;9(1):1967, Yes
Silt loam Bare	Germany	6.0	0-20	242	802	20.9	SFO	EFSA Journal 2011;9(1):1967, Yes
Silt loam Bare	Germany	5.7	0-20	118	394	21.8	SFO	EFSA Journal 2011;9(1):1967, Yes
Clay loam bare	Switzerland	7.3	0-10	83	277	-	SFO	EFSA Journal 2011;9(1):1967, Yes
Geometric mean				92	305			

8.4.2 Soil accumulation testing (KCP 9.1.1.2.2)

Table 8.4-3: Soil accumulation – Azoxystrobin

pH dependence ‡
 (yes / no) (if yes type of dependence)

Soil accumulation and plateau concentration ‡

No

A plateau concentration of 0.646 mg/kg occurred after the seventh year of application. The steady-state concentration (immediately before application) plateaued at 0.246 mg/kg.

Table 8.4-4: Soil accumulation – Difenoconazole

Soil accumulation and plateau concentration ‡

No accumulation observed after up to 10 years use under the following conditions:
10-yr study in Switzerland (sandy loam):
7 years appl. of 125 g/ha to wheat, 2 years appl. of 125 g/ha to rape and 1 year 3x125 g/ha to sugar beet. Taking crop interception (90% by wheat and sugar beet and 80% by rape, FOCUS GW) into account the “effective doses” would have been 12.5 g/ha for 7 years, 25 g/ha for 2 years and 37.5 g/ha for 1 year.
4-yr study in N Italy (sandy loam):
Annual application to pome fruit at 250 g/ha. Assuming standard crop interception (50-65%, FOCUS GW) the annual “effective dose” would have been 87.5-125 g/ha.
4-yr study in N Italy (silt clay):
Annual application to sugar beets at 202-241 g/ha. Assuming crop interception of 90% the “effective dose” would have been within 20-24 g/ha each year.
3-yr study in UK (sandy loam and clay):
3-yr appl. to winter wheat or bare ground, at 75 g/ha and 150 g/ha. Assuming 90% crop interception by wheat the net application rates would have been 7.5 and 15 g/ha. (this study considered as supplementary)

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

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

Azoxystrobin						
Soil type	OC (%)	pH (-)	Kf (mL/g)	Kfoc (mL/g)	1/n (-)	Evaluated on EU level/ Reference
Sandy clay loam	1.7	7.5	7.9	465	0.84	Azoxystrobin – Addendum – Confirmatory Information, yes
Loamy sand A	1.7	7.8	4	235	0.82	Azoxystrobin – Addendum – Confirmatory Information, yes

Azoxystrobin						
Soil type	OC (%)	pH (-)	Kf (mL/g)	Kfoc (mL/g)	1/n (-)	Evaluated on EU level/ Reference
Loamy sand B	3.0	7.9	6.2	207	0.85	Azoxystrobin – Addendum – Confirmatory Information, yes
Sand	0.3	5.5	1.5	500	0.84	Azoxystrobin – Addendum – Confirmatory Information, yes
Silty clay loam	1.6	4.9	9.5	594	0.90	Azoxystrobin – Addendum – Confirmatory Information, yes
Clay loam	2.8	5.5	15	536	0.90	Azoxystrobin – Addendum – Confirmatory Information, yes
Arithmetic mean				423	0.86	
pH-dependency				no		

Table 8.5-2: Summary of soil adsorption/desorption for R401553

R401553						
Soil Type	OC (%)	pH (-)	Kf (mL/g)	Kfoc (mL/g)	1/n (-)	Evaluated on EU level/Reference
Sandy clay loam	1.74	7.5	1.9	110	0.81	EFSA Journal 2010; 8(4):1542, Yes
Loamy sand	0.29	6.8	0.76	260	0.81	EFSA Journal 2010; 8(4):1542, Yes
Sandy loam	2.96	8.5	2.4	81	0.84	EFSA Journal 2010; 8(4):1542, Yes
Silty clay loam	2.15	6.2	11	500	0.89	EFSA Journal 2010; 8(4):1542, Yes
Silty clay loam	2.38	5.6	1.6	66	0.85	EFSA Journal 2010; 8(4):1542, Yes
Clay loam	2.61	5.4	2.9	110	0.92	EFSA Journal 2010; 8(4):1542, Yes
Arithmetic mean				188	0.85	
pH-dependency				no		

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

R402173						
Soil Type	OC (%)	pH (-)	Kf (mL/g)	Kfoc (mL/g)	1/n (-)	Evaluated on EU level/Reference
Sandy clay loam	1.74	7.5	0.65	37	0.96	EFSA Journal 2010; 8(4):1542/ Yes
Loamy sand	0.29	6.8	0.27	93	0.95	EFSA Journal 2010; 8(4):1542/ Yes
Sandy loam	2.96	8.5	0.74	25	0.96	EFSA Journal 2010; 8(4):1542/ Yes
Silty clay loam	2.15	6.2	4.2	200	0.92	EFSA Journal 2010; 8(4):1542/ Yes
Silty clay loam	2.38	5.6	2.0	86	0.93	EFSA Journal 2010; 8(4):1542/ Yes
Clay loam	2.61	5.4	2.9	110	0.96	EFSA Journal 2010; 8(4):1542/ Yes
Arithmetic mean				91.8	0.95	
pH-dependency				yes		

Table 8.5-4: Summary of soil adsorption/desorption for R234886

R234886						
Soil Type	OC (%)	pH (-)	Kf (mL/g)	Kfoc (mL/g)	1/n (-)	Evaluated on EU level/Reference
Loamy sand (Kenny Hill)	2.96	7.5	0.82	28	0.90	Azoxystrobin Addendum – Confirmatory Information, Yes
Clay loam (Picket Piece)	2.78	4.8	10	360	0.89	Azoxystrobin Addendum – Confirmatory Information, Yes
Loamy sand (E Anglia)	1.68	7.3	0.35	21	0.76	Azoxystrobin Addendum – Confirmatory Information, Yes
Sand (Lilly Field)	0.29	4.6	1.4	490	0.79	Azoxystrobin Addendum – Confirmatory Information, Yes
Silty clay loam (Nebo)	1.62	4.2	6.8	420	0.90	Azoxystrobin Addendum – Confirmatory Information, Yes
Silty clay loam (Hyde Farm)	1.74	6.8	0.85	49	0.85	Azoxystrobin Addendum – Confirmatory Information, Yes
Sandy loam (Frensham)	1.84	5.0	1.83	100	0.639*	Azoxystrobin Addendum – Confirmatory Information, Yes

R234886						
Soil Type	OC (%)	pH (-)	Kf (mL/g)	Kfoc (mL/g)	1/n (-)	Evaluated on EU level/Reference
Clay loam (Wisborough Green)	2.40	4.8	2.43	101	0.542*	Azoxystrobin Addendum – Confirmatory Information, Yes
Sandy clay loam (Nuptown)	2.47	5.9	1.53	62	0.705	Azoxystrobin Addendum – Confirmatory Information, Yes
Loamy sand (Georgia)	0.67	6.7	1.22	182	0.832	Azoxystrobin Addendum – Confirmatory Information, Yes
Sandy loam (N Dakota)	2.78	7.4	1.65	59	0.863	Azoxystrobin Addendum – Confirmatory Information, Yes
Loamy sand (Ohio)	1.36	5.3	1.52	112	0.663*	Azoxystrobin Addendum – Confirmatory Information, Yes
Silt loam (Gartenacker)	2.67	7.1	0.87	33	0.820	Azoxystrobin Addendum – Confirmatory Information, Yes
Loam (Vetroz)	2.38	7.9	0.72	30	0.861	Azoxystrobin Addendum – Confirmatory Information, Yes
Sandy loam (Pappelacker)	1.11	7.2	0.42	37	0.803	Azoxystrobin Addendum – Confirmatory Information, Yes
Arithmetic mean				(a)	(a)	
pH-dependency				yes		

* = in the groundwater modelling these values were increased to 0.7.

(a) = No arithmetic means calculated as adsorption is pH depended

8.5.2 Difenoconazole and its metabolites

Table 8.5-5: Summary of soil adsorption/desorption for Difenoconazole

Difenoconazole						
Soil type	OC (%)	pH (-)	Kf (mL/g)	Kfoc (mL/g)	1/n (-)	Evaluated on EU level/ Reference
Sand	0.36	7.9	12.8	3870	0.74	EFSA Journal 2011;9(1):1967, Yes
Sandy loam	1.98	7.8	63.0	3520	0.76	EFSA Journal 2011;9(1):1967, Yes
Silt loam	1.74	6.5	54.8	3470	0.85	EFSA Journal

Difenoconazole						
Soil type	OC (%)	pH (-)	Kf (mL/g)	Kfoc (mL/g)	1/n (-)	Evaluated on EU level/ Reference
						2011;9(1):1967, Yes
Silty clay loam	0.67	6.9	47.2	7730	0.91	EFSA Journal 2011;9(1):1967, Yes
Clay	2.79	5.9	97.8	3470	0.89	EFSA Journal 2011;9(1):1967, Yes
Sand	0.52	6.5	2.1	400	0.80	EFSA Journal 2011;9(1):1967, Yes
Silt loam	0.58	7.5	35.0	5660	0.88	EFSA Journal 2011;9(1):1967, Yes
Sand loam	0.58	8.5	11.5	1960	0.94	EFSA Journal 2011;9(1):1967, Yes
Arithmetic mean				3760	0.85	
pH-dependency				no		

Table 8.5-6: Summary of soil adsorption/desorption for CGA 71019

CGA 71019						
Soil type	OC (%)	pH (-)	Kf (mL/g)	Kfoc (mL/g)	1/n (-)	Evaluated on EU level/ Reference
Silty clay	0.70	8.8	0.83	120	0.90	EFSA Journal 2011;9(1):1967, Yes
Clay loam	1.74	6.9	0.75	43	0.83	EFSA Journal 2011;9(1):1967, Yes
Silty clay loam	0.70	7.0	0.72	104	0.92	EFSA Journal 2011;9(1):1967, Yes
Sandy loam	0.81	6.9	0.72	89	1.02	EFSA Journal 2011;9(1):1967, Yes
Arithmetic mean				0.75	0.91	
pH-dependency				no		

Table 8.5-7: Summary of soil adsorption/desorption for CGA 205375

CGA 205375						
Soil type	OC (%)	pH (-)	Kf (mL/g)	Kfoc (mL/g)	1/n (-)	Evaluated on EU level/ Reference
Loamy sand	2.17	5.7	118	5440	0.81	EFSA Journal 2011;9(1):1967, Yes
Silty clay loam	1.16	6.6	45.5	3920	0.76	EFSA Journal 2011;9(1):1967, Yes

CGA 205375						
Soil type	OC (%)	pH (-)	Kf (mL/g)	Kfoc (mL/g)	1/n (-)	Evaluated on EU level/ Reference
Clay	2.63	6.7	44.1	1680	0.76	EFSA Journal 2011;9(1):1967, Yes
Sandy loam	1.17	6.8	22.6	1930	0.72	EFSA Journal 2011;9(1):1967, Yes
Loam	1.22	7.6	23.6	1930	0.77	EFSA Journal 2011;9(1):1967, Yes
Arithmetic mean				2980	0.76	
pH-dependency				no		

8.5.3 Column leaching (KCP 9.1.2.1)

Table 8.5-8: Column leaching for Azoxystrobin.

Column leaching ‡

No leaching observed

Aged residues leaching ‡

Ageing for 30 d

Lysimeter/ field leaching studies ‡

Not submitted - not required

Table 8.5-9: Column leaching for Difenoconazole.

Column leaching ‡

Elution: 200 mm

Time period: 2 d

Difenoconazole did not move out of the zone of application in any of four soils tested.
 Study used only to support results from adsorption/desorption tests.

Aged residues leaching ‡

Not submitted, not required

Lysimeter/ field leaching studies ‡

Not submitted, not required

8.5.4 Lysimeter studies (KCP 9.1.2.2)

Not submitted – not required.

8.5.5 Field leaching studies (KCP 9.1.2.3)

Not submitted – 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 Degradation in water of Azoxystrobin

Hydrolytic degradation of the active substance and metabolites > 10 % ‡	Hydrolytically stable (pH 5 – 9 at 25°C)
Photolytic degradation of active substance and metabolites above 10 % ‡	DT ₅₀ = 8.7 d (¹⁴ C-pyrimidinyl) 11.9 d (¹⁴ C-phenylacrylate) 13.9 d (¹⁴ C-cyanophenyl) R230310 only degrades greater than 10% (Z-isomer of azoxystrobin) R401553 (8.9%) R402173 (2.4%)
Quantum yield of direct phototransformation in water at λ > 290 nm	No data submitted
Readily biodegradable ‡ (yes/no)	No data submitted

8.6.2 Degradation in water of Difenoconazole

Hydrolytic degradation of the active substance and metabolites > 10 % ‡	Difenoconazole: No degradation observed at pH 5, 7 and 9 (25°C, 30 days)
	CGA 71019: No degradation observed at pH 5, 7 and 9 (25°C, 30 days)
	CGA 205375: No degradation observed at pH 4, 7 and 9 (50°C, 5 days)
Photolytic degradation of active substance and metabolites above 10 % ‡	Difenoconazole: Stable (<10% transformation over 15 days, continuous irradiation)
	CGA 205375: Stable (<10% transformation over 15 days, continuous irradiation)
Quantum yield of direct phototransformation in water at λ > 290 nm	0.0155. Predicted half-lives were between 12 and >10000 years at 52°N latitude depending on season.
	CGA 205375: 0.0266. Predicted half-lives were between 14 and >10000 years at 52°N latitude depending on season.
Readily biodegradable ‡ (yes/no)	No

8.6.3 Azoxystrobin and its metabolites

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

Azoxystrobin Distribution ((max in water 91.2 % AR after 0 d, (Virginia), Max. sed 90.5 % after 0 d (Old Basing))										
Water/sediment system	pH water/sed.	DegT50 whole syst. (d)	DegT90 whole syst. (d)	Kinetic, Fit	DissT50 water (d)	DissT90 water (d)	Kinetic, Fit	DissT50 sed. (d)	Kinetic, Fit	Evaluated on EU level/Reference
Old Basing	7.5/ 7.8	234	777	2.440	-	-	-	-	-	EFSA Journal 2010; 8(4):1542/ Yes
Virginia water	6.4/ 6.9	180	598	4.095	-	-	-	-	-	EFSA Journal 2010; 8(4):1542/ Yes
Geometric mean		205	682							

Table 8.6-2: Summary of degradation in water/sediment of R234886

Metabolite R234886 Distribution (mas in water 10.8% after 152 d., Max. sed 15.6% after 152d)										
Water/sediment system	pH water/sed.	DegT50 whole syst. (d)	DegT90 whole syst. (d)	Kinetic, Fit	DissT50 water (d)	DissT90 water (d)	Kinetic, Fit	DissT50 sed. (d)	Kinetic, Fit	Evaluated on EU level/Reference
Old Basing	7.5/7.8	-*	-*		-*	-*	-	-	-	EFSA Journal 2010; 8(4):1542/ Yes
Virginia water	6.4/6.9	-*	-*		-*	-*	-	-	-	EFSA Journal 2010; 8(4):1542/ Yes
Geometric mean		-	-							

Table 8.6-3: Summary of observed metabolites

R230310 Water/sediment system	Max. in water/sediment 10 %	EFSA Journal 2010; 8(4):1542/ Yes
R401553 Water/sediment system	Max. in water/sediment 8.9 %	EFSA Journal 2010; 8(4):1542/ Yes
R402173 Water/sediment system	Max. in water/sediment 2.4 %	EFSA Journal 2010; 8(4):1542/ Yes

8.6.4 Difenoconazole and its metabolites

Table 8.6-4: Summary of degradation in water/sediment of Difenoconazole

Difenoconazole Distribution ((max in water 91.2 % AR after 0 d, (Virginia), Max. sed 90.5 % after 0 d (Old Basing))										
Water/sedi- ment system	pH water/ sed.	DegT 50 whol e syst. (d)	DegT90 whole syst. (d)	Kinetic, Fit	DissT50 water (d)	DissT90 water (d)	Kinetic, Fit	DissT50 sed. (d)	Kinetic, Fit	Evaluated on EU level/ Reference
Pond	-/6.9	324	1000		1.0	3.3	-	-	SFO	EFSA Journal 2011;9(1):196 7/ Yes
River	-/7.2	307	1000		2.0	6.6	-	-	SFO	EFSA Journal 2011;9(1):196 7/ Yes
Geometric mean		315	1000		1.1	4.6				

Table 8.6-5: Summary of observed metabolites

CGA 205375 Water/sediment system	Max. in water 97/96% day 0. Decreased to Max. in water 97/96% day 0. Decreased to <10% by day 7/14. Max. in sediment 91/87% day 62/28	EFSA Journal 2011;9(1):1967/ Yes
CGA 71019 Water/sediment system	Max. 3.2% in pond system (day 148), max. 14.1% in river system (day 148)	EFSA Journal 2011;9(1):1967/ Yes

8.7 Predicted Environmental Concentrations in soil (PEC_{soil}) (KCP 9.1.3)

zRMS

Comments:

Calculations of PEC_s for both active substances, their metabolites and formulation were accepted.

In PECs assessment the risk envelope approach was used and accepted: the max application rate of 200 g azoxystrobin.ha and 125 g difenoconazole/ha and interception of 20%

Difenoconazole. The used endpoints were agreed at the EU level: DT₅₀ for difenoconazole and its metabolite CGA205375 (EFSA Journal 2011;9(1):1967) and for CGA71019/1,2,4-triazole (EFSA, 2013). The relevant DT₅₀ of 347 d for CGA71019 should be used in PECs assessment.

The maximum PEC_s values for active substance and its metabolites are presented in following table:

Compound	PECs ini mg/kg soil	PECs accum mg/kg soil
Difenoconazole	0.2387	0.3881
CGA205375	0.0227	0.026
CGA71019	0.0100	0.018

Azoxystrobin. The used endpoints were agreed at the EU level, please refer to EFSA Journal 2010; 8(4):1542.

The maximum PEC_s values for active substance and its metabolites were corrected by evaluator and they are presented in following table:

Multiple application

Compound	PECs ini mg/kg soil	PECs accum mg/kg soil
Azoxystrobin	0.3815	0.6160
R401553	0.0192	nr
R402173	0.0300	nr
R234886	0.0930	0.111

Formulation. The submitted PECs of 1.19 mg/kg soil for formulation was accepted.

These values will be used in further risk assessment.

8.7.1 Justification for new endpoints

All endpoints used for PEC soil calculations are EU approved and were evaluated on EU level and presented in: EFSA Journal 2010; 8(4):1542, Azoxystrobin Addendum – Confirmatory Information, September 2014 and EFSA Journal 2011;9(1):1967

Table 8.7-1: Input parameters related to application for PEC_{soil} calculations – the worst case scenario (sunflower)

Use No.	10
---------	----

Crop	Helianthus annus (sunflower)
Application rate	a) 0.2925-0.325 kg a.s./ha (AZX 0.18-0.2 kg a.s./ha + DIF 0.1125-0.125 kg a.s./ha) b) 0.585-0.65 kg a.s./ha (AZX 0.36-0.4 kg a.s./ha + DIF 0.225-0.25 kg a.s./ha)
Number of applications/interval	2/90
Crop interception (%)	20
Depth of soil layer (relevant for plateau concentration) (cm)	5 cm (tillage)

Table 8.7-2: Input parameter for active substance(s) and relevant metabolite(s) for PEC_{soil} calculation

Compound	Molecular weight (g/mol)	Max. occurrence (%)	DT50 (days)	Value in accordance to EU endpoint y/n/ Reference
Azoxystrobin				
Azoxystrobin	403.4	-	262d (maximum, field, SFO)	EFSA Journal 2010; 8(4):1542, Yes
R401553	213.2	17%	1.5 (maximum lab, SFO)	EFSA Journal 2010; 8(4):1542, Yes
R402173	333.3	17%	7.5 (maximum lab, SFO)	EFSA Journal 2010; 8(4):1542, Yes
R234886	389.4	28.8%	110.4d (maximum lab, SFO)	EFSA Journal 2010; 8(4):1542, Yes
Difenoconazole				
Difenoconazole	406.3	-	265	EFSA Journal 2011;9(1):1967
CGA 71019	69.0	23%	60.5 347	EFSA Journal 2011;9(1):1967 Triazole Derived Metabolite: 1,2,4-Triazole Proposed revision to DT50, Summary, Scientific Evaluation and Assessment July 2011, revised September 2011 (after comments from MS and EFSA) and further revised January 2013
CGA 205375	350.0	11.9%	123 152	EFSA Journal 2011;9(1):1967
Difenoconazole	406.3	-	265	EFSA Journal 2011;9(1):1967

8.7.1.1 Azoxystrobin and its metabolites

The PEC soil for active substance and metabolites was calculated for the worst case scenario (sunflower) which cover all intended uses presented in GAP table using sunflower as representative crop with worst case crop interception (20%) and the maximum dose (200g as/ha azoxystrobin).

Table 8.7-3: PEC_{soil} for Azoxystrobin on Sunflower

PEC _{soil} (mg/kg)		Multiple applications	
		Actual	TWA
Initial		0.3815	-
Short term	24h	0.3805	0.3810
	2d	0.3795	0.3805
	4d	0.3775	0.3795
Long term	7d	0.3745	0.3780
	14d	0.3676	0.3745
	21d	0.3609	0.3711
	28d	0.3542	0.3677
	50d	0.3342	0.3573
	100d	0.2928	0.3352
Plateau concentration (5 cm); after year 10		0.2345	-
PEC _{accumulation} (PEC _{act} + PEC _{soil plateau})		0.6160	-

Table 8.7-4: PEC_{soil} for R401553 on Sunflower

PEC _{soil} (mg/kg)		Multiple applications	
		Actual	TWA
Initial		0.0146	-
Short term	24h	0.0146	0.0146
	2d	0.0146	0.0146
	4d	0.0146	0.0146
Long term	7d	0.0146	0.0146
	14d	0.0146	0.0146
	21d	0.0146	0.0146
	28d	0.0145	0.0146
	50d	0.0143	0.0146
	100d	0.0134	0.0145
Plateau concentration (5 cm); after year 10		0.0134	-
PEC _{accumulation} (PEC _{act} + PEC _{soil plateau})		0.0280	-

Corrected by zRMS			
PEC _{soil} (mg/kg)		Multiple applications	
		Actual	TWA
Initial		0.0146	-
Short term	24h	0.0121	0.0153
	2d	0.0076	0.0125
	4d	0.0030	0.0087
Long term	7d	0.0008	0.0057
	14d	0.0000	0.0030
	21d	0.0000	0.0020
	28d	0.0000	0.0015
	50d	0.0000	0.0009
	100d	0.0000	0.0004
Plateau concentration (5 cm); after year 10		nr	-
PEC _{accumulation} (PEC _{act} + PEC _{soil plateau})		nr	-

Table 8.7-5: PEC_{soil} for R402173 on Sunflower

PEC _{soil} (mg/kg)		Multiple applications	
		Actual	TWA
Initial		0.0033	-
Short term	24h	0.0033	0.0033
	2d	0.0033	0.0033
	4d	0.0033	0.0033
Long term	7d	0.0033	0.0033
	14d	0.0033	0.0033
	21d	0.0032	0.0033
	28d	0.0032	0.0033
	50d	0.0030	0.0033
	100d	0.0026	0.0031
Plateau concentration (5 cm); after year 10		0.0021	-
PEC _{accumulation} (PEC _{act} + PEC _{soil plateau})		0.0055	-

Corrected by zRMS

PEC _{soil}	Multiple applications
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(mg/kg)		Actual	TWA
Initial		0.0300	-
Short term	24h	0.0273	0.0286
	2d	0.0249	0.0274
	4d	0.0207	0.0251
Long term	7d	0.0157	0.0221
	14d	0.0082	0.0168
	21d	0.0043	0.0132
	28d	0.0023	0.0107
	50d	0.0004	0.0067
	100d	0.0000	0.0032
Plateau concentration (5 cm); after year 10		nr	-
PEC _{accumulation} (PEC _{act} + PEC _{soil plateau})		nr	-

Table 8.7-6: PEC_{soil} for R234886 on Sunflower

PEC _{soil} (mg/kg)		Multiple applications	
		Actual	TWA
Initial		0.3815	-
Short term	24h	0.3805	0.3810
	2d	0.3795	0.3805
	4d	0.3775	0.3795
Long term	7d	0.3745	0.3780
	14d	0.3676	0.3745
	21d	0.3609	0.3711
	28d	0.3542	0.3677
	50d	0.3342	0.3573
	100d	0.2928	0.3352
Plateau concentration (5 cm); after year 10		0.2345	-
PEC _{accumulation} (PEC _{act} + PEC _{soil plateau})		0.6160	-

Corrected by zRMS

PEC _{soil} (mg/kg)		Multiple applications	
		Actual	TWA
Initial		0.0930	
Short term	24h	0.0924	0.0927

Long term	2d	0.0919	0.0924
	4d	0.0907	0.0919
	7d	0.0890	0.0910
	14d	0.0852	0.0890
	21d	0.0815	0.0871
	28d	0.0780	0.0853
	50d	0.0688	0.0803
	100d	0.0496	0.0691
Plateau concentration (5 cm); after year 10		0.018	
PEC _{accumulation} (PEC _{act} + PEC _{soil plateau})		0.111	

8.7.1.2 Difenoconazole and its metabolites

The PEC soil for active substance and metabolites was calculated for the worst case scenario (sunflower) which cover all intended uses presented in GAP table using sunflower as representative crop with worst case crop interception (20%) and the maximum dose (125 g difenoconazole/ha).

Table 8.7-7: PEC_{soil} for Difenoconazole on Sunflower

PEC _{soil} (mg/kg)		Multiple applications	
		Actual	TWA
Initial		~~0.2381~~ 0.2387	-
Short term	24h	0.2381	0.2384
	2d	0.2375	0.2381
	4d	0.2362	0.2375
Long term	7d	0.2344	0.2365
	14d	0.2301	0.2344
	21d	0.2259	0.2323
	28d	0.2218	0.2302
	50d	0.2094	0.2237
	100d	0.1838	0.2100
Plateau concentration (5 cm); after year 10		0.1494	-
PEC _{accumulation} (PEC _{act} + PEC _{soil plateau})		0.3881	-

Table 8.7-8: PEC_{soil} for CGA 71019 on Sunflower

PEC _{soil} (mg/kg)		Multiple applications	
		Actual	TWA
Initial		0.0015	-
Short term	24h	0.0015	0.0015
	2d	0.0015	0.0015
	4d	0.0015	0.0015
Long term	7d	0.0015	0.0015
	14d	0.0015	0.0015
	21d	0.0015	0.0015
	28d	0.0015	0.0015
	50d	0.0015	0.0015
	100d	0.0014	0.0015
Plateau concentration (5 cm); after year 10		0.0013	-
PEC _{accumulation} (PEC _{act} + PEC _{soil plateau})		0.0028	-

Corrected by zRMS

PEC _{soil} (mg/kg)		Multiple applications	
		Actual	TWA
Initial		0.0096	-
Short term	24h	0.0095	0.0095
	2d	0.0095	0.0095
	4d	0.0095	0.0095
Long term	7d	0.0094	0.0095
	14d	0.0093	0.0094
	21d	0.0092	0.0094
	28d	0.0090	0.0093
	50d	0.0087	0.0091
	100d	0.0078	0.0087
Plateau concentration (5 cm); after year 10		0.0084	-
PEC _{accumulation} (PEC _{act} + PEC _{soil plateau})		0.018	-

Table 8.7-9: PEC_{soil} for CGA 205375 on Sunflower

PEC _{soil} (mg/kg)		Multiple applications	
		Actual	TWA
Initial		0.0051	-

Short term	24h	0.0051	0.0051
	2d	0.0051	0.0051
	4d	0.0051	0.0051
Long term	7d	0.0051	0.0051
	14d	0.0051	0.0051
	21d	0.0051	0.0051
	28d	0.0051	0.0051
	50d	0.0050	0.0051
	100d	0.0048	0.0051
Plateau concentration (5 cm); after year 10		0.0061	-
PEC _{accumulation} (PEC _{act} + PEC _{soil plateau})		0.0112	-

Corrected by zRMS

PEC _{soil} (mg/kg)		Multiple applications	
		Actual	TWA
Initial		0.227	-
Short term	24h	0.0226	0.0227
	2d	0.0225	0.0226
	4d	0.0223	0.0225
Long term	7d	0.0220	0.0224
	14d	0.0213	0.0220
	21d	0.0207	0.0217
	28d	0.0200	0.0213
	50d	0.0183	0.0204
	100d	0.0144	0.0183
Plateau concentration (5 cm); after year 10			-
PEC _{accumulation} (PEC _{act} + PEC _{soil plateau})			-

8.7.1.1 PEC_{soil} of CHR/F/SCORPIO 325 SC/ Clapton 325 SC, Scarp 325 SC

The PEC_{soil} of formulation CHR/F/SCORPIO 325 SC was calculated for the worst case scenario (sunflower) which cover all intended uses presented in GAP table using sunflower as representative crop with worst case crop interception (20% and maximum application rate 1113.4 g/ha):

$$\text{PEC}_{\text{soil of formulation}} = \text{application rate} \cdot (1 - \text{crop interception}) / 100 \cdot d \cdot q$$

Density of formulation: 1.1134 g/cm³

Application rate: 1113.4 g/ha

d: 5 cm

q: 1.5 g/ml

Crop interception: 20%

Table 8.7-10: PEC_{soil} for CHR/F/SCORPIO 325 SC/ Clapton 325 SC, Scarp 325 SC on worst case crop interception- sunflower

Active substance/ reparation	Application rate (g/ha)	PEC _{act} (mg/kg)	PEC _{twa21 d} (mg/kg)	Tillage depth (cm)	PEC _{soil,plateau} (mg/kg)	PEC _{accu} = PEC _{act} + PEC _{soil,plateau} (mg/kg)
CHR/F/SCORPIO 325 SC/ Clapton 325 SC, Scarp 325 SC	1113.4	1.19		5 cm		1.19

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

zRMS Comments:	Calculations of PEC_{gw} for active substance and its metabolites were submitted. The endpoints used for PEC_{gw} assessment were agreed at the EU level. Calculations of PEC_{gw} for both active substances and their relevant metabolites were provided with PUF = 0. No PEC_{gw} assessment for soybean or other pulses was submitted, but a wide range of crops were considered. As a similar PEC_{gw} values were obtained for most of crops the evaluator exceptionally decided to accept the submitted PEC_{gw} assessment. The recommended FOCUS models were used: FOCUS PELMO and FOCUS PEARL. The PEC_{gw} assessment was provided for K_{foc} values included in the List of Endpoints (EFSA, 2010) and using the geometric K_{foc} values, in accordance with FOCUS, 2014. It is worth to emphasize that geometric values, in general, present a worse case. Azoxystrobin. The PEC_{gw} assessment for active substance and its metabolites for particular uses presented in GAP table were accepted. The PEC_{gw} for active substance for proposed uses were below the trigger value of 0.1 µg/L. The typo errors were corrected. Azoxystrobin metabolites: for metabolite R401553 the max PEC_{gw} were below trigger value of 0.1 µg/L. In case of metabolite R402173 the K_{foc} of 25 mL/g (worst case, according to LoEP) was used by the Applicant in PEC_{gw} assessment and these values are considered as relevant. The use of geometric mean of K_{foc} is recommended by FOCUS, 2014, but in this case – the worst case of K_{foc} was accepted; the max PEC_{gw} were below trigger value of 0.1 µg/L. The PEC_{gw} values for metabolite R234886 in acidic soils, the max PEC_{gw} were below trigger value of 0.1 µg/L. In case of alkaline soils – the max PEC_{gw} value is above the trigger value of 0.1 µg/L (5.724 µg/L in Okehampton scenario, ornamentals at h > 50
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	cm) and its relevance of PEC_{gw} will be evaluated in Section 10. Difenoconazole. In PEC_{GW} calculations the factor PUF = 0 for active substance and its relevant metabolites were taken into consideration. The recommended geometric mean of K_{foc} was used in modelling. The maximum PEC_{gw} values for active substance and metabolite CGA 205375 were below the trigger value of 0.1 µg/L in all considered scenarios. Difenoconazole metabolites. The relevant metabolite CGA 71019 was considered. The degradation rate of the this metabolite for use in modelling was evaluated by CRD, 2011: <i>1,2,4-Triazole: LoEP - Revision to DT₅₀, UK CRD, January 2013</i> and results in a bi-phasic degradation DT₅₀ (DFOP) of 60.5 d in the slow phase and a DT₅₀ 1.68 d in the fast phase. Considering the DT₅₀ for slow phase and annual applications – the PEC_{gw} values were above the trigger value of 0.1 µg/L. In accordance with EFSA conclusion considering the PEC_{gw} for 1,2,4-triazole is to be below the 0.1 µg/L. No annual application is allowed. In case of biennial application – the PEC_{gw} values were below the trigger value of 0.1 µg/L for WOSR in autumn and spring application, SOSR, sugar beet, potato, carrot, maize and sunflower. For tobacco, ornamentals, (based on pome fruits and leafy vegetables) the safe use is demonstrated if formulation is applied every third year.
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Risk envelopes used in PEC_{gw} calculations, assuming a maximum application rate of 200 g azoxystrobin/ha and 125 g difenoconazole/ha for every crops, as the worst-case scenario of the formulation:

a) Winter oilseed rape – GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Winter oilseed rape	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	2	90	Autumn, Spring I: BBCH 14-29 II: BBCH 31-55
Winter oilseed rape	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 61-69

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Winter oilseed	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin,	Boom sprayer	1	N/A	Autumn

rape		112.5-125 difenoconazole				BBCH 14-20
Winter oilseed rape	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 21-69

b) Sugar beet – GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Sugar beet	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 39-49

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Sugar beet	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 39-49

c) Spring oilseed rape, Mustard, Breadseed poppy, Pumpkin, Flax, Hemp– GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of application s	Minimum application interval (days)	Application timing
Spring oilseed rape	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin , 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69
Mustard	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin , 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69
Breadseed poppy	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin , 112.5-125	Boom sprayer	1	N/A	Spring BBCH 14-69

		difenoconazole				
Pumpkin	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin , 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69
Flax	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin , 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69
Hemp	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin , 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Spring oilseed rape	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69
Potato as surrogate crop for fruiting vegetables	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69

d) Sunflower – GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Sunflower	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Sunflower	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69
Maize as surrogate crop according to national requirements in Poland	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69

e) Rutabaga, Chicory, Beet root – GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Rutabaga	Azoxystrobin, Difenoconazole	160 –200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 39-49
Chicory	Azoxystrobin, Difenoconazole	160 – 200 azoxystrobin, 112.5 - 125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 39-49
Beet root	Azoxystrobin, Difenoconazole	160 – 200 azoxystrobin, 112.5 - 125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 39-49

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Leafy vegetables	Azoxystrobin, Difenoconazole	160–200 azoxystrobin 100 -125 difenoconazole	Boom sprayer	2	14	Spring, the first symptoms of infection

f) Horseradish, Celery – GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Horseradish	Azoxystrobin, Difenconazole	160–200 azoxystrobin 100 -125 difenconazole	Boom sprayer	1	N/A	Spring BBCH 39-49
Celery	Azoxystrobin, Difenconazole	160–200 azoxystrobin 100 -125 difenconazole	Boom sprayer	1	N/A	Spring BBCH 39-49

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Carrot	Azoxystrobin, Difenconazole	160–200 azoxystrobin 100 - 125 difenconazole	Boom sprayer	1	N/A	Spring BBCH 39-49

g) Tobacco – GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Tobacco	Azoxystrobin, Difenconazole	200 azoxystrobin 125 difenconazole	Boom sprayer	2	14	Spring, the first symptoms of infection

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Leafy vegetables as surrogate crop for tobacco	Azoxystrobin, Difenconazole	200 azoxystrobin 125 difenconazole	Boom sprayer	2	14	Spring, the first symptoms of infection

h) Ornamental nursery plants, forest nursery plants, renewals, afforestation and plantations of forest trees– GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Ornamental nursery plants, forest nursery plants, renewals, afforestation and plantations of forest trees	Azoxystrobin, Difenoconazole	200 azoxystrobin 125 difenoconazole	Boom sprayer	2	14	Spring, the first symptoms of infection

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Leafy vegetables as surrogate crop for tobacco	Azoxystrobin, Difenoconazole	200 azoxystrobin 125 difenoconazole	Boom sprayer	2	14	Spring, the first symptoms of infection
Pome fruit as surrogate crop	Azoxystrobin, Difenoconazole	200 azoxystrobin 125 difenoconazole	Boom sprayer	2	14	Spring, the first symptoms of infection

i) Energetic plants, Salix viminalis, Wicker– GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Energetic plants, Salix viminalis, Wicker	Azoxystrobin, Difenoconazole	160 azoxystrobin 100 difenoconazole	Boom sprayer	2	14	Spring, the first symptoms of infection

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Pome fruit	Azoxystrobin, Difenoconazole	160 azoxystrobin 100 difenoconazole	Boom sprayer	2	14	Spring, the first symptoms of infection

8.8.1 Justification for new endpoints

No new endpoints were established.

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

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

Use No.	1		2	3	4	5
Crop	Winter oilseed rape		Sugar beet	Spring oilseed rape	Potatoes	Carrot
Crop surrogate for:	Winter oilseed rape		Sugar beet Beet root	Spring oilseed rape, Hemp Flax Poppy Mustard	Pumpkin	Horseradish Celeary
Application rate (g as/ha)	Azoxystrobin: 200 Difenoconazole: 125		Azoxystrobin: 200 Difenoconazole: 125	Azoxystrobin: 200 Difenoconazole: 125	Azoxystrobin: 200 Difenoconazole: 125	Azoxystrobin: 200 Difenoconazole: 125
Number of applications/interval (d)	Spring 1/-	Autumn 1/-	1/-	1/-	1/-	1/-
Relative application date	7d after emergence		86d after emergence	6d after emergence	6d after emergence	27d after emergence
Crop interception (%)	40		70	40	15	25
Frequency of application	annual		annual	annual	annual	annual
Models used for calculation	FOCUS PEARLv 5.5.5, FOCUS PELMO v 6.6.4					
Use No.	6		7	8	9	10
Crop	Tobacco		Pome fruit	Leafy vegetables	Maize	Sunflower
Crop surrogate for:	Tobacco		Ornamental nursery plants, forest nursery plants, renewals, afforestation and plantations of forest trees < 50 cm, Energetic plants, Salix viminalis, Wicker	Ornamental nursery plants, forest nursery plants, renewals, afforestation and plantations of forest trees <50 cm Tobacco	Sunflower	Sunflower
Application rate (g as/ha)	Azoxystrobin: 200 Difenoconazole: 125		Azoxystrobin: 200 Difenoconazole: 125	Azoxystrobin: 200 Difenoconazole: 125	Azoxystrobin: 200 Difenoconazole: 125	Azoxystrobin: 200 Difenoconazole: 125

Number of applications/interval (d)	2/14	2/14	2/14	1/-	1/-
Relative application date	Spring- the first symptoms of infection 1d after emergence	Spring- the first symptoms of infection 1d after emergence	28d after emergence	8d after emergence	8d after emergence
Crop interception (%)	50	50	25	15	15
Frequency of application	annual	annual	annual	annual	annual
Models used for calculation	FOCUS PEARLv 5.5.5, FOCUS PELMO v 6.6.4				

8.8.2.1 Azoxystrobin and its metabolites

Table 8.8-2: Input parameters related to active substance Azoxystrobin and metabolites: R401553, R402173, R234886 for PEC_{gw} calculations

Compound	Azoxystrobin	R401553	R402173	R234886	Value in accordance with EU endpoint y/n/ Reference*
Molecular weight (g/mol)	403.4	213.2	333.3	389.4	EFSA Journal 2010; 8(4):1542/ Azoxystrobin Addendum – Confirmatory Information
Water solubility (mg/L):	6.0	560	61	57	EFSA Journal 2010; 8(4):1542/ Azoxystrobin Addendum – Confirmatory Information Regulation (EC) No. 1107/2009 of the European Council and Parliament
Saturated vapour pressure (Pa):	1.1x 10 ⁻¹⁰	1.1x 10 ⁻¹⁰	1.1x 10 ⁻¹⁰	1.1x 10 ⁻¹⁰	EFSA Journal 2010; 8(4):1542
DT ₅₀ in soil (d)	78 (microbial) 3 (photolysis)	1.1	4.7	Acidic: 98.6 days Alkaline: 36.7 days	EFSA Journal 2010; 8(4):1542
Transformation rate	-	0.0034835	0.0034213	0.007767	
K _{foc} (mL/g)	423 (arithmetic mean)	188 (arithmetic mean)	25 (lowest point in study used for calculation s)	Acidic: 228.4 Alkaline: 36.7 (arithmetic mean)	EFSA Journal 2010; 8(4):1542

Compound	Azoxystrobin	R401553	R402173	R234886	Value in accordance with EU endpoint y/n/ Reference*
	391.50 (geomean used for calculations)	142.60 (geomean used for calculations)	73.89 (geomean)	Acidic: 176.59 Alkaline: 34.84 (geomean used for calculations)	
1/n	0.86	0.85	0.96	Acidic: 0.78 Alkaline: 0.83	EFSA Journal 2010; 8(4):1542
Plant uptake factor	0.0	0.0	0.0	0.0	
Formation fraction	-	Formation fraction from parent = 0.392 Formation fraction from R402173 = 0.468	Formation fraction from parent = 0.385	Formation fraction from parent = 0.874	EFSA Journal 2010; 8(4):1542, Addendum – Confirmatory Information, September 2014

* Delete row in case of no pH dependency

The results presented below were obtained by selecting the worst-case scenario for calculations, i.e., the geometric values of K_{foc} for the parent compound, metabolite R401553, and metabolite R234886. Only for metabolite R402173 was the arithmetic value of K_{foc} chosen, as it represented the worst-case scenario.

Table 8.8-3: PEC_{gw} for azoxystrobin and metabolites (with FOCUS PELMO 6.6.4)

Crop	Scenario	80 th Percentile PEC _{gw} at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R401553	R402173	R234886	
					Acid	Alkaline
Winter Oilseed rape Autumn BBCH 14-20	Châteaudun	<0.001	<0.001	0.001	<0.001	0.313
	Hamburg	<0.001	0.001	0.027	0.014	2.059
	Kremsmünster	<0.001	<0.001	0.004	0.004	1.231
	Okehampton	<0.001	<0.001	0.020	0.032	2.030
	Piacenza	<0.001	0.001	0.023	0.004	0.861
	Porto	<0.001	<0.001	0.048	0.015	1.93
Winter Oilseed rape Spring BBCH 21-69	Châteaudun	<0.001	<0.001	<0.001	<0.001	0.148
	Hamburg	<0.001	<0.001	0.010	0.002	0.981
	Kremsmünster	<0.001	<0.001	0.001	<0.001	0.645
	Okehampton	<0.001	<0.001	0.008	0.013	1.286
	Piacenza	<0.001	<0.001	0.007	0.002	0.706

	Porto	<0.001	<0.001	0.011	0.003	0.868
Sugar beet	Châteaudun	<0.001	<0.001	0.001	0.001	0.985
	Hamburg	<0.001	0.001	0.017	0.004	1.644
	Jokioinen	<0.001	<0.001	0.011	<0.001	0.771
	Kremsmünster	<0.001	<0.001	0.005	0.002	1.206
	Okehampton	<0.001	<0.001	0.014	0.015	1.677
	Piacenza	<0.001	<0.001	0.009	0.012	1.322
	Porto	<0.001	<0.001	0.019	0.006	1.158
	Sevilla	<0.001	<0.001	0.002	<0.001	0.085
	Thiva	<0.001	<0.001	0.003	<0.001	0.203
Spring Oilseed rape	Jokioinen	<0.001	<0.001	0.007	<0.001	0.720
	Okehampton	<0.001	<0.001	0.010	0.021	1.550
	Porto	<0.001	<0.001	0.015	0.003	1.086
Potatoes	Châteaudun	<0.001	<0.001	0.001	<0.001	0.526
	Hamburg	<0.001	0.001	0.018	0.005	1.714
	Jokioinen	<0.001	<0.001	0.011	<0.001	0.705
	Kremsmünster	<0.001	<0.001	0.003	0.002	1.233
	Okehampton	<0.001	<0.001	0.012	0.019	1.858
	Piacenza	<0.001	<0.001	0.008	0.011	1.260
	Porto	<0.001	<0.001	0.018	0.003	1.121
	Sevilla	<0.001	<0.001	0.001	<0.001	0.060
	Thiva	<0.001	<0.001	0.001	<0.001	0.139
Carrot	Châteaudun	<0.001	<0.001	0.001	<0.001	0.471
	Hamburg	<0.001	<0.001	0.014	0.006	1.563
	Jokioinen	<0.001	<0.001	0.013	<0.001	0.714
	Kremsmünster	<0.001	<0.001	0.002	0.002	1.119
	Porto	<0.001	<0.001	0.014	0.003	1.050
	Thiva	<0.001	<0.001	0.001	<0.001	0.149
Tobacco	Piacenza	<0.001	<0.001	0.022	0.162	3.532
	Thiva	<0.001	<0.001	0.002	<0.001	0.475
Pome Fruit	Châteaudun	<0.001	<0.001	0.003	0.112	3.732
	Hamburg	<0.001	<0.001	0.039	0.160	5.421
	Jokioinen	<0.001	<0.001	0.018	<0.001	3.270
	Kremsmünster	<0.001	<0.001	0.010	0.091	4.292
	Okehampton	<0.001	<0.001	0.028	0.358	5.724
	Piacenza	<0.001	<0.001	0.020	0.383	3.750
	Porto	<0.001	<0.001	0.027	0.082	2.565
	Sevilla	<0.001	<0.001	0.005	<0.001	1.525

	Thiva	<0.001	<0.001	0.003	0.009	1.767
Leafy vegetables	Châteaudun	<0.001	<0.001	0.002	0.001	1.567
	Hamburg	<0.001	0.001	0.038	0.0076	4.815
	Jokioinen	<0.001	<0.001	0.023	<0.001	2.295
	Kremsmünster	<0.001	<0.001	0.007	0.037	2.846
	Porto	<0.001	<0.001	0.028	0.065	2.719
	Sevilla	<0.001	<0.001	0.002	<0.001	0.205
	Thiva	<0.001	<0.001	0.021	<0.001	0.834
Maize	Châteaudun	<0.001	<0.001	0.001	<0.001	0.647
	Hamburg	<0.001	0.001	0.018	0.010	1.951
	Kremsmünster	<0.001	<0.001	0.003	0.003	1.400
	Okehampton	<0.001	<0.001	0.014	0.029	2.144
	Piacenza	<0.001	<0.001	0.012	0.036	1.703
	Porto	<0.001	<0.001	0.014	0.002	1.073
	Sevilla	<0.001	<0.001	0.001	<0.001	0.048
	Thiva	<0.001	<0.001	0.001	<0.001	0.289
Sunflowers	Piacenza	<0.001	<0.001	0.010	0.048	1.638
	Sevilla	<0.001	<0.001	0.001	<0.000	0.053

PEC_{gw} for azoxystrobin and metabolites – calculations at BBCH 31 (with FOCUS PELMO 6.6.4)

Crop	Scenario	80 th Percentile PEC _{gw} at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R401553	R402173	R234886	
					Acid	Alkaline
Winter Oilseed rape Spring BBCH 31	Châteaudun	<0.001	<0.001	<0.001	<0.001	0.172
	Hamburg	<0.001	0.013	<0.001	0.005	1.317
	Kremsmünster	<0.001	0.002	<0.001	0.001	0.860
	Okehampton	<0.001	0.010	<0.001	0.024	1.488
	Piacenza	<0.001	0.006	<0.001	0.001	0.499
	Porto	<0.001	0.018	<0.001	0.003	1.140
Sugar beet BBCH 31	Châteaudun	<0.001	0.001	<0.001	0.002	1.100
	Hamburg	<0.001	0.014	<0.001	0.003	1.332
	Jokioinen	<0.001	0.008	<0.001	<0.001	0.681
	Kremsmünster	<0.001	0.003	<0.001	0.001	1.187
	Okehampton	<0.001	0.012	<0.001	0.017	1.662
	Piacenza	<0.001	0.008	<0.001	0.016	1.374
	Porto	<0.001	0.014	<0.001	0.004	1.159
	Sevilla	<0.001	0.002	<0.001	<0.001	0.092

	Thiva	<0.001	0.002	<0.001	<0.001	0.241
Spring Oilseed Rape BBCH 31	Jokioinen	<0.001	0.007	<0.001	<0.001	0.703
	Okehampton	<0.001	0.008	<0.001	0.012	1.445
	Porto	<0.001	0.012	<0.001	0.002	0.869
Potatoes BBCH 31	Châteaudun	<0.001	0.001	<0.001	<0.001	0.418
	Hamburg	<0.001	0.016	<0.001	0.003	1.484
	Jokioinen	<0.001	0.010	<0.001	<0.001	0.561
	Kremsmünster	<0.001	0.003	<0.001	0.001	0.975
	Okehampton	<0.001	0.011	<0.001	0.011	1.546
	Piacenza	<0.001	0.007	<0.001	0.007	1.107
	Porto	<0.001	0.016	<0.001	0.002	1.002
	Sevilla	<0.001	0.001	<0.001	<0.001	0.048
	Thiva	<0.001	0.001	<0.001	<0.001	0.131
Pome Fruit BBCH 31	Châteaudun	<0.001	0.003	<0.001	0.095	3.643
	Hamburg	<0.001	0.039	0.001	0.132	5.279
	Jokioinen	<0.001	0.019	<0.001	<0.001	3.294
	Kremsmünster	<0.001	0.010	<0.001	0.076	3.952
	Okehampton	<0.001	0.026	<0.001	0.296	5.206
	Piacenza	<0.001	0.020	0.001	0.296	3.589
	Porto	<0.001	0.026	<0.001	0.065	2.406
	Sevilla	<0.001	0.005	<0.001	<0.001	1.359
	Thiva	<0.001	0.003	<0.001	0.007	1.693
Maize BBCH 31	Châteaudun	<0.001	0.001	<0.001	<0.001	0.561
	Hamburg	<0.001	0.016	<0.001	0.005	1.647
	Kremsmünster	<0.001	0.003	<0.001	0.002	1.218
	Okehampton	<0.001	0.013	<0.001	0.017	1.804
	Piacenza	<0.001	0.012	<0.001	0.034	1.702
	Porto	<0.001	0.013	<0.001	0.001	1.019
	Sevilla	<0.001	0.001	<0.001	<0.001	0.038
	Thiva	<0.001	0.001	<0.001	0.001	0.233
Sunflowers BBCH 31	Piacenza	<0.001	0.009	<0.001	0.035	1.379
	Sevilla	<0.001	0.001	<0.001	<0.001	0.050

Table 8.8-4: PEC_{gw} for azoxystrobin and metabolites (with FOCUS PEARL 5.5.5)

Crop	Scenario	80 th Percentile PEC _{gw} at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R401553	R402173	R234886	
					Acid	Alkaline
Winter Oilseed rape Autumn BBCH 14-20	Châteaudun	<0.0001	<0.0001	0.0003	<0.0001	0.0275
	Hamburg	<0.0001	0.0006	0.0103	0.0105	1.2850
	Kremsmünster	<0.0001	<0.0001	0.0021	0.0013	0.7492
	Okehampton	<0.0001	0.0001	0.0083	0.0073	1.0674
	Piacenza	<0.0001	0.0002	0.0053	0.0011	0.3729
	Porto	<0.0001	0.0001	0.0159	0.0004	0.7456
Winter Oilseed rape Spring BBCH 21-69	Châteaudun	<0.0001	<0.0001	<0.0001	<0.0001	0.0219
	Hamburg	<0.0001	0.0001	0.0014	<0.0001	0.2157
	Kremsmünster	<0.0001	<0.0001	0.0003	<0.0001	0.1297
	Okehampton	<0.0001	<0.0001	0.0014	<0.0001	0.1647
	Piacenza	<0.0001	<0.0001	0.0007	<0.0001	0.0533
	Porto	<0.0001	<0.0001	0.0017	<0.0001	0.0856
Sugar beet	Châteaudun	<0.0001	<0.0001	0.0007	0.0001	0.3373
	Hamburg	<0.0001	0.0002	0.0036	0.0003	0.4394
	Jokioinen	<0.0001	<0.0001	0.0014	<0.0001	0.1475
	Kremsmünster	<0.0001	<0.0001	0.0011	<0.0001	0.2540
	Okehampton	<0.0001	<0.0001	0.0042	0.0001	0.3406
	Piacenza	<0.0001	0.0001	0.0018	0.0001	0.1944
	Porto	<0.0001	<0.0001	0.0034	<0.0001	0.1889
	Sevilla	<0.0001	<0.0001	0.0002	<0.0001	0.0098
	Thiva	<0.0001	<0.0001	0.0003	<0.0001	0.0560
Spring Oilseed rape	Jokioinen	<0.0001	<0.0001	0.0021	<0.0001	0.3883
	Okehampton	<0.0001	<0.0001	0.0053	0.0035	0.8145
	Porto	<0.0001	<0.0001	0.0047	<0.0001	0.3607
Potatoes	Châteaudun	<0.0001	<0.0001	0.0007	<0.0001	0.5378
	Hamburg	<0.0001	0.0003	0.0060	0.0133	1.5421
	Jokioinen	<0.0001	<0.0001	0.0025	<0.0001	0.5838
	Kremsmünster	<0.0001	<0.0001	0.0016	0.0021	1.0302
	Okehampton	<0.0001	<0.0001	0.0060	0.0116	1.3810
	Piacenza	<0.0001	<0.0001	0.0034	0.0085	0.9011
	Porto	<0.0001	<0.0001	0.0035	0.0001	0.4655
	Sevilla	<0.0001	<0.0001	0.0003	<0.0001	0.0367
	Thiva	<0.0001	<0.0001	0.0004	<0.0001	0.1412

Carrot	Châteaudun	<0.0001	<0.0001	0.0006	<0.0001	0.4627
	Hamburg	<0.0001	0.0004	0.0074	0.0082	1.2388
	Jokioinen	<0.0001	<0.0001	0.0036	<0.0001	0.4705
	Kremsmünster	<0.0001	<0.0001	0.0016	0.0013	0.7609
	Porto	<0.0001	<0.0001	0.0061	0.0001	0.4722
	Thiva	<0.0001	<0.0001	0.0005	<0.0001	0.1233
Tobacco	Piacenza	<0.0001	0.0006	0.0147	0.0300	1.5632
	Thiva	<0.0001	<0.0001	0.0018	<0.0001	0.3362
Pome Fruit	Châteaudun	<0.0001	<0.0001	0.0020	0.0209	1.9797
	Hamburg	0.0001	0.0009	0.0219	0.1100	4.0500
	Jokioinen	<0.0001	<0.0001	0.0062	<0.0001	1.5643
	Kremsmünster	<0.0001	<0.0001	0.0041	0.0242	1.8097
	Okehampton	<0.0001	0.0001	0.0110	0.0443	2.0695
	Piacenza	<0.0001	0.0003	0.0066	0.0314	1.5824
	Porto	<0.0001	<0.0001	0.0086	0.0051	0.9311
	Sevilla	<0.0001	<0.0001	0.0023	0.0061	1.5488
	Thiva	<0.0001	<0.0001	0.0019	0.0109	1.2947
Leafy vegetables	Châteaudun	<0.0001	<0.0001	0.0018	0.0010	1.3182
	Hamburg	<0.0001	0.0011	0.0228	0.0938	3.6088
	Jokioinen	<0.0001	<0.0001	0.0083	<0.0001	1.7750
	Kremsmünster	<0.0001	<0.0001	0.0054	0.0274	2.1713
	Porto	<0.0001	<0.0001	0.0145	0.0078	1.4186
	Sevilla	<0.0001	<0.0001	0.0015	<0.0001	0.2088
	Thiva	<0.0001	0.0001	0.0076	<0.0001	0.5749
Maize	Châteaudun	<0.0001	<0.0001	0.0009	0.0002	0.7894
	Hamburg	<0.0001	0.0006	0.0112	0.0222	1.9200
	Kremsmünster	<0.0001	<0.0001	0.0026	0.0042	1.1450
	Okehampton	<0.0001	0.0001	0.0114	0.0232	1.7617
	Piacenza	<0.0001	0.0003	0.0074	0.0169	1.2181
	Porto	<0.0001	<0.0001	0.0077	0.0005	0.7262
	Sevilla	<0.0001	<0.0001	0.0009	<0.0001	0.0634
	Thiva	<0.0001	<0.0001	0.0006	<0.0001	0.2605
Sunflowers	Piacenza	<0.0001	0.0002	0.0053	0.0124	1.0125
	Sevilla	<0.0001	<0.0001	0.0007	<0.0001	0.0623

PEC_{gw} for azoxystrobin and metabolites – calculations at BBCH 31 (with FOCUS PEARL 5.5.5)

Crop	Scenario	80 th Percentile PEC _{gw} at 1 m Soil Depth (µg/L)				
		Azoxystrobin	R401553	R402173	R234886	
					Acid	Alkaline
Winter Oilseed rape Spring BBCH 31	Châteaudun	<0.0001	<0.0001	<0.0001	<0.0001	0.0227
	Hamburg	<0.0001	0.0001	0.0015	<0.0001	0.2195
	Kremsmünster	<0.0001	<0.0001	0.0003	<0.0001	0.1284
	Okehampton	<0.0001	<0.0001	0.0015	<0.0001	0.1727
	Piacenza	<0.0001	<0.0001	0.0007	<0.0001	0.0528
	Porto	<0.0001	<0.0001	0.0017	<0.0001	0.0795
Sugar beet BBCH 31	Châteaudun	<0.0001	<0.0001	0.0007	0.0001	0.3534
	Hamburg	<0.0001	0.0001	0.0030	0.0002	0.4045
	Jokioinen	<0.0001	<0.0001	0.0012	<0.0001	0.1421
	Kremsmünster	<0.0001	<0.0001	0.0008	<0.0001	0.2455
	Okehampton	<0.0001	<0.0001	0.0032	0.0001	0.3053
	Piacenza	<0.0001	0.0001	0.0014	0.0001	0.1911
	Porto	<0.0001	<0.0001	0.0026	<0.0001	0.1479
	Sevilla	<0.0001	<0.0001	0.0003	<0.0001	0.0127
	Thiva	<0.0001	<0.0001	0.0002	<0.0001	0.0479
Spring Oilseed Rape BBCH 31	Jokioinen	<0.0001	<0.0001	0.0005	<0.0001	0.0519
	Okehampton	<0.0001	<0.0001	0.0014	<0.0001	0.1486
	Porto	<0.0001	<0.0001	0.0014	<0.0001	0.0698
Potatoes BBCH 31	Châteaudun	<0.0001	<0.0001	0.0003	<0.0001	0.1427
	Hamburg	<0.0001	0.0002	0.0038	0.0005	0.5311
	Jokioinen	<0.0001	<0.0001	0.0016	<0.0001	0.1589
	Kremsmünster	<0.0001	<0.0001	0.0010	<0.0001	0.3380
	Okehampton	<0.0001	<0.0001	0.0038	0.0004	0.4595
	Piacenza	<0.0001	0.0001	0.0022	0.0003	0.2912
	Porto	<0.0001	<0.0001	0.0022	<0.0001	0.1511
	Sevilla	<0.0001	<0.0001	0.0002	<0.0001	0.0103
	Thiva	<0.0001	<0.0001	0.0002	<0.0001	0.0387
Pome Fruit BBCH 31	Châteaudun	<0.0001	<0.0001	0.0014	0.0086	1.4219
	Hamburg	0.0001	0.0007	0.0161	0.0518	2.9380
	Jokioinen	<0.0001	<0.0001	0.0045	<0.0001	1.0562
	Kremsmünster	<0.0001	<0.0001	0.0031	0.0088	1.3154
	Okehampton	<0.0001	0.0001	0.0083	0.0200	1.5009
	Piacenza	<0.0001	0.0002	0.0051	0.0132	1.1071

	Porto	<0.0001	<0.0001	0.0059	0.0017	0.6552
	Sevilla	<0.0001	<0.0001	0.0018	0.0019	1.1072
	Thiva	<0.0001	<0.0001	0.0014	0.0040	0.9237
Maize BBCH 31	Châteaudun	<0.0001	<0.0001	0.0005	<0.0001	0.3350
	Hamburg	<0.0001	0.0003	0.0060	0.0030	0.8842
	Kremsmünster	<0.0001	<0.0001	0.0014	0.0002	0.5403
	Okehampton	<0.0001	0.0001	0.0063	0.0033	0.8147
	Piacenza	<0.0001	<0.0001	0.0002	0.0022	0.6132
	Porto	<0.0001	<0.0001	0.0043	0.0001	0.3416
	Sevilla	<0.0001	<0.0001	0.0005	<0.0001	0.0212
	Thiva	<0.0001	<0.0001	0.0003	<0.0001	0.1044
Sunflowers BBCH 31	Piacenza	<0.0001	<0.0001	0.0004	0.0014	0.4780
	Sevilla	<0.0001	0.0001	0.0029	<0.0001	0.0191

Table 8.8-5: Input parameters related to active substance Difenoconazole and metabolites: CGA 71019 and CGA 205375 for PEC_{gw} calculations

Compound	Difenoconazole	CGA 71019	CGA 205375	Value in accordance with EU endpoint y/n/ Reference*
Molecular weight (g/mol)	406.3	69.0	350	EFSA Journal 2011;9(1):1967, Yes
Water solubility (mg/L):	15	730	100	EFSA Journal 2011;9(1):1967
Saturated vapour pressure (Pa):	0	0	0	EFSA Journal 2011;9(1):1967, Yes
DT ₅₀ in soil (d)	130	1.68 (fast) / 60.5 (slow)	94	EFSA Journal 2011;9(1):1967, Yes, Triazole Derived Metabolite: 1,2,4-Triazole, Proposed revision to DT ₅₀ , Summary, Scientific Evaluation and Assessment, July 2011, revised September 2011 (after comments from MS and EFSA) and further revised January 2013
Transformation rate	-	0.234	0.094	
K _{foc} (mL/g)/K _{fom}	2942.92	83	2661.10	EFSA Journal 2011;9(1):1967, Yes, Triazole Derived Metabolite: 1,2,4-Triazole, Proposed revision to DT ₅₀ , Summary, Scientific Evaluation and Assessment, July 2011, revised September 2011 (after comments from MS and EFSA) and further revised January 2013
1/n	0.85	0.9	0.8	EFSA Journal 2011;9(1):1967, Yes
Plant uptake factor	0	0	0	

Compound	Difenoconazole	CGA 71019	CGA 205375	Value in accordance with EU endpoint y/n/ Reference*
Formation fraction	-	1 from parent	1 from parent	

* Delete row in case of no pH dependency

Table 8.8-6: PEC_{gw} for difenoconazole and metabolites (with FOCUS PELMO 6.6.4)

Crop	Scenario	80 th Percentile PEC_{gw} at 1 m Soil Depth (µg/L)					
		Difenoconazole	CGA 71019				CGA 205375
			FAST	SLOW Slow phase Every 1 year	SLOW Slow phase Every 2 years	SLOW Slow phase Every 3 years	
Winter Oilseed rape Autumn BBCH 14-20	Châteaudun	<0.001	<0.001	0.018	0.006	n/a	<0.001
	Hamburg	<0.001	<0.001	0.119	0.050	n/a	<0.001
	Kremsmünster	<0.001	<0.001	0.081	0.032	n/a	<0.001
	Okehampton	<0.001	<0.001	0.126	0.049	n/a	<0.001
	Piacenza	<0.001	<0.001	0.064	0.025	n/a	<0.001
	Porto	<0.001	<0.001	0.133	0.046	n/a	<0.001
Winter Oilseed rape Spring BBCH 21-69	Châteaudun	<0.001	<0.001	0.011	0.004	n/a	<0.001
	Hamburg	<0.001	<0.001	0.078	0.033	n/a	<0.001
	Kremsmünster	<0.001	<0.001	0.049	0.018	n/a	<0.001
	Okehampton	<0.001	<0.001	0.089	0.040	n/a	<0.001
	Piacenza	<0.001	<0.001	0.054	0.023	n/a	<0.001
	Porto	<0.001	<0.001	0.084	0.025	n/a	<0.001
Sugar beet	Châteaudun	<0.001	<0.001	0.069	0.026	n/a	<0.001
	Hamburg	<0.001	<0.001	0.105	0.039	n/a	<0.001
	Jokioinen	<0.001	<0.001	0.027	0.010	n/a	<0.001
	Kremsmünster	<0.001	<0.001	0.077	0.031	n/a	<0.001
	Okehampton	<0.001	<0.001	0.101	0.042	n/a	<0.001
	Piacenza	<0.001	<0.001	0.084	0.032	n/a	<0.001
	Porto	<0.001	<0.001	0.107	0.042	n/a	<0.001
	Sevilla	<0.001	<0.001	0.001	<0.001	n/a	<0.001
	Thiva	<0.001	<0.001	0.017	0.006	n/a	<0.001
Spring Oilseed rape	Jokioinen	<0.001	<0.001	0.033	0.012	n/a	<0.001
	Okehampton	<0.001	<0.001	0.115	0.046	n/a	<0.001
	Porto	<0.001	<0.001	0.097	0.033	n/a	<0.001
Potatoes	Châteaudun	<0.001	<0.001	0.031	0.011	n/a	<0.001
	Hamburg	<0.001	<0.001	0.112	0.045	n/a	<0.001

	Jokioinen	<0.001	<0.001	0.028	0.011	n/a	<0.001
	Kremsmünster	<0.001	<0.001	0.078	0.029	n/a	<0.001
	Okehampton	<0.001	<0.001	0.119	0.049	n/a	<0.001
	Piacenza	<0.001	<0.001	0.087	0.036	n/a	<0.001
	Porto	<0.001	<0.001	0.095	0.034	n/a	<0.001
	Sevilla	<0.001	<0.001	0.001	<0.001	n/a	<0.001
	Thiva	<0.001	<0.001	0.012	0.004	n/a	<0.001
Carrot	Châteaudun	<0.001	<0.001	0.034	0.012	n/a	<0.001
	Hamburg	<0.001	<0.001	0.115	0.024	n/a	<0.001
	Jokioinen	<0.001	<0.001	0.029	0.011	n/a	<0.001
	Kremsmünster	<0.001	<0.001	0.078	0.030	n/a	<0.001
	Porto	<0.001	<0.001	0.091	0.033	n/a	<0.001
	Thiva	<0.001	<0.001	0.013	0.004	n/a	<0.001
Tobacco	Piacenza	<0.001	<0.001	0.224	0.105	0.063	<0.001
	Thiva	<0.001	<0.001	0.033	0.012	0.007	<0.001
Pome Fruit	Châteaudun	<0.001	<0.001	0.270	0.112	0.073	<0.001
	Hamburg	<0.001	<0.001	0.377	0.157	0.089	<0.001
	Jokioinen	<0.001	<0.001	0.155	0.58	0.033	<0.001
	Kremsmünster	<0.001	<0.001	0.285	0.112	0.067	<0.001
	Okehampton	<0.001	<0.001	0.414	0.177	0.072	<0.001
	Piacenza	<0.001	<0.001	0.311	0.136	0.084	<0.001
	Porto	<0.001	<0.001	0.237	0.098	0.054	<0.001
	Sevilla	<0.001	<0.001	0.086	0.030	0.017	<0.001
	Thiva	<0.001	<0.001	0.139	0.054	0.033	<0.001
Leafy vegetables	Châteaudun	<0.001	<0.001	0.095	0.034	0.019	<0.001
	Hamburg	<0.001	<0.001	0.293	0.125	0.067	<0.001
	Jokioinen	<0.001	<0.001	0.095	0.036	0.019	<0.001
	Kremsmünster	<0.001	<0.001	0.197	0.075	0.042	<0.001
	Porto	<0.001	<0.001	0.222	0.085	0.052	<0.001
	Sevilla	<0.001	<0.001	0.006	0.001	0.001	<0.001
	Thiva	<0.001	<0.001	0.048	0.015	0.008	<0.001
Maize	Châteaudun	<0.001	<0.001	0.041	0.014	n/a	<0.001
	Hamburg	<0.001	<0.001	0.135	0.056	n/a	<0.001
	Kremsmünster	<0.001	<0.001	0.090	0.036	n/a	<0.001
	Okehampton	<0.001	<0.001	0.140	0.057	n/a	<0.001
	Piacenza	<0.001	<0.001	0.125	0.055	n/a	<0.001
	Porto	<0.001	<0.001	0.088	0.030	n/a	<0.001
	Sevilla	<0.001	<0.001	0.001	<0.001	n/a	<0.001

	Thiva	<0.001	<0.001	0.020	0.008	n/a	<0.001
Sunflowers	Piacenza	<0.001	<0.001	0.125	0.056	n/a	<0.001
	Sevilla	<0.001	<0.001	0.001	<0.001	n/a	<0.001

PEC_{gw} for difenoconazole and metabolites – calculations at BBCH 31 (with FOCUS PELMO 6.6.4)

Crop	Scenario	80 th Percentile PEC _{gw} at 1 m Soil Depth (µg/L)					
		Difenoconazole	CGA 71019				CGA 205375
			FAST	SLOW Slow phase Every 1 year	SLOW Slow phase Every 2 years	SLOW Slow phase Every 3 years	
Winter Oilseed rape Spring BBCH 21-69	Châteaudun	<0.001	<0.001	0.012	0.004	n/a	<0.001
	Hamburg	<0.001	<0.001	0.092	0.035	n/a	<0.001
	Kremsmünster	<0.001	<0.001	0.058	0.024	n/a	<0.001
	Okehampton	<0.001	<0.001	0.112	0.045	n/a	<0.001
	Piacenza	<0.001	<0.001	0.037	0.016	n/a	<0.001
	Porto	<0.001	<0.001	0.083	0.032	n/a	<0.001
Sugar beet	Châteaudun	<0.001	<0.001	0.078	0.029	n/a	<0.001
	Hamburg	<0.001	<0.001	0.086	0.035	n/a	<0.001
	Jokioinen	<0.001	<0.001	0.031	0.011	n/a	<0.001
	Kremsmünster	<0.001	<0.001	0.074	0.031	n/a	<0.001
	Okehampton	<0.001	<0.001	0.110	0.046	n/a	<0.001
	Piacenza	<0.001	<0.001	0.102	0.039	n/a	<0.001
	Porto	<0.001	<0.001	0.102	0.037	n/a	<0.001
	Sevilla	<0.001	<0.001	0.002	0.001	n/a	<0.001
	Thiva	<0.001	<0.001	0.020	0.007	n/a	<0.001
Spring Oilseed rape	Jokioinen	<0.001	<0.001	0.033	n/a	n/a	<0.001
	Okehampton	<0.001	<0.001	0.099	n/a	n/a	<0.001
	Porto	<0.001	<0.001	0.087	n/a	n/a	<0.001
Potatoes	Châteaudun	<0.001	<0.001	0.027	n/a	n/a	<0.001
	Hamburg	<0.001	<0.001	0.094	n/a	n/a	<0.001
	Jokioinen	<0.001	<0.001	0.024	n/a	n/a	<0.001
	Kremsmünster	<0.001	<0.001	0.066	n/a	n/a	<0.001
	Okehampton	<0.001	<0.001	0.096	n/a	n/a	<0.001
	Piacenza	<0.001	<0.001	0.076	n/a	n/a	<0.001
	Porto	<0.001	<0.001	0.088	n/a	n/a	<0.001
	Sevilla	<0.001	<0.001	0.001	n/a	n/a	<0.001
	Thiva	<0.001	<0.001	0.011	n/a	n/a	<0.001

Pome Fruit	Châteaudun	<0.001	<0.001	0.269	0.109	0.067	<0.001
	Hamburg	<0.001	<0.001	0.328	0.141	0.080	<0.001
	Jokioinen	<0.001	<0.001	0.152	0.055	0.030	<0.001
	Kremsmünster	<0.001	<0.001	0.262	0.109	0.063	<0.001
	Okehampton	<0.001	<0.001	0.379	0.169	0.097	<0.001
	Piacenza	<0.001	<0.001	0.289	0.122	0.074	<0.001
	Porto	<0.001	<0.001	0.223	0.088	0.051	<0.001
	Sevilla	<0.001	<0.001	0.078	0.027	0.014	<0.001
	Thiva	<0.001	<0.001	0.132	0.053	0.031	<0.001
Maize	Châteaudun	<0.001	<0.001	0.037	0.013	n/a	<0.001
	Hamburg	<0.001	<0.001	0.103	0.046	n/a	<0.001
	Kremsmünster	<0.001	<0.001	0.082	0.032	n/a	<0.001
	Okehampton	<0.001	<0.001	0.123	0.047	n/a	<0.001
	Piacenza	<0.001	<0.001	0.126	0.056	n/a	<0.001
	Porto	<0.001	<0.001	0.080	0.030	n/a	<0.001
	Sevilla	<0.001	<0.001	0.001	<0.001	n/a	<0.001
	Thiva	<0.001	<0.001	0.017	0.007	n/a	<0.001
Sunflowers	Piacenza	<0.001	<0.001	0.110	0.051	n/a	<0.001
	Sevilla	<0.001	<0.001	0.001	<0.001	n/a	<0.001

Table 8.8-7: PEC_{gw} for difenoconazole and metabolites (with FOCUS PEARL 5.5.5)

Crop	Scenario	80 th Percentile PEC _{gw} at 1 m Soil Depth (µg/L)					
		Difenoconazole	CGA 71019				CGA 205375
			FAST	SLOW Slow phase Every 1 year	SLOW Slow phase Every 2 years	SLOW Slow phase Every 3 years	
Winter Oilseed rape Autumn BBCH 14-20	Châteaudun	<0.0001	<0.0001	0.0200	n/a	n/a	<0.0001
	Hamburg	<0.0001	<0.0001	0.0832	n/a	n/a	<0.0001
	Kremsmünster	<0.0001	<0.0001	0.0520	n/a	n/a	<0.0001
	Okehampton	<0.0001	<0.0001	0.0773	n/a	n/a	<0.0001
	Piacenza	<0.0001	<0.0001	0.0341	n/a	n/a	<0.0001
	Porto	<0.0001	<0.0001	0.0481	n/a	n/a	<0.0001
Winter Oilseed rape Spring BBCH 21-69	Châteaudun	<0.0001	<0.0001	0.0034	n/a	n/a	<0.0001
	Hamburg	<0.0001	<0.0001	0.0188	n/a	n/a	<0.0001
	Kremsmünster	<0.0001	<0.0001	0.0117	n/a	n/a	<0.0001
	Okehampton	<0.0001	<0.0001	0.0173	n/a	n/a	<0.0001
	Piacenza	<0.0001	<0.0001	0.0082	n/a	n/a	<0.0001

	Porto	<0.0001	<0.0001	0.0096	n/a	n/a	<0.0001
Sugar beet	Châteaudun	<0.0001	<0.0001	0.0300	n/a	n/a	<0.0001
	Hamburg	<0.0001	<0.0001	0.0300	n/a	n/a	<0.0001
	Jokioinen	<0.0001	<0.0001	0.0083	n/a	n/a	<0.0001
	Kremsmünster	<0.0001	<0.0001	0.0189	n/a	n/a	<0.0001
	Okehampton	<0.0001	<0.0001	0.0277	n/a	n/a	<0.0001
	Piacenza	<0.0001	<0.0001	0.0230	n/a	n/a	<0.0001
	Porto	<0.0001	<0.0001	0.0184	n/a	n/a	<0.0001
	Sevilla	<0.0001	<0.0001	0.0005	n/a	n/a	<0.0001
	Thiva	<0.0001	<0.0001	0.0064	n/a	n/a	<0.0001
Spring Oilseed rape	Jokioinen	<0.0001	<0.0001	0.0201	n/a	n/a	<0.0001
	Okehampton	<0.0001	<0.0001	0.0661	n/a	n/a	<0.0001
	Porto	<0.0001	<0.0001	0.0358	n/a	n/a	<0.0001
Potatoes	Châteaudun	<0.0001	<0.0001	0.0373	0.0135	n/a	<0.0001
	Hamburg	<0.0001	<0.0001	0.1069	0.0427	n/a	<0.0001
	Jokioinen	<0.0001	<0.0001	0.0265	0.0094	n/a	<0.0001
	Kremsmünster	<0.0001	<0.0001	0.0674	0.0266	n/a	<0.0001
	Okehampton	<0.0001	<0.0001	0.0993	0.0409	n/a	<0.0001
	Piacenza	<0.0001	<0.0001	0.0726	0.0309	n/a	<0.0001
	Porto	<0.0001	<0.0001	0.0425	0.0154	n/a	<0.0001
	Sevilla	<0.0001	<0.0001	0.0023	0.0007	n/a	<0.0001
	Thiva	<0.0001	<0.0001	0.0146	0.0045	n/a	<0.0001
Carrot	Châteaudun	<0.0001	<0.0001	0.0355	n/a	n/a	<0.0001
	Hamburg	<0.0001	<0.0001	0.0924	n/a	n/a	<0.0001
	Jokioinen	<0.0001	<0.0001	0.0210	n/a	n/a	<0.0001
	Kremsmünster	<0.0001	<0.0001	0.0544	n/a	n/a	<0.0001
	Porto	<0.0001	<0.0001	0.0453	n/a	n/a	<0.0001
	Thiva	<0.0001	<0.0001	0.0125	n/a	n/a	<0.0001
Tobacco	Piacenza	<0.0001	<0.0001	0.1142	0.0459	n/a	<0.0001
	Thiva	<0.0001	<0.0001	0.0268	0.0087	n/a	<0.0001
Pome Fruit	Châteaudun	<0.0001	<0.0001	0.2092	0.0854	0.0517	<0.0001
	Hamburg	<0.0001	<0.0001	0.4296	0.1762	0.0900	<0.0001
	Jokioinen	<0.0001	<0.0001	0.1214	0.0462	0.0257	<0.0001
	Kremsmünster	<0.0001	<0.0001	0.1995	0.0797	0.0460	<0.0001
	Okehampton	<0.0001	<0.0001	0.2277	0.0945	0.0546	<0.0001
	Piacenza	<0.0001	<0.0001	0.2079	0.0901	0.0512	<0.0001
	Porto	<0.0001	<0.0001	0.1228	0.0475	0.0261	<0.0001
	Sevilla	<0.0001	<0.0001	0.1564	0.0614	0.0378	<0.0001

	Thiva	<0.0001	<0.0001	0.1689	0.0660	0.0408	<0.0001
Leafy vegetables	Châteaudun	<0.0001	<0.0001	0.0877	0.0311	n/a	<0.0001
	Hamburg	<0.0001	<0.0001	0.2260	0.0917	n/a	<0.0001
	Jokioinen	<0.0001	<0.0001	0.0733	0.0276	n/a	<0.0001
	Kremsmünster	<0.0001	<0.0001	0.1409	0.0568	n/a	<0.0001
	Porto	<0.0001	<0.0001	0.1269	0.0476	n/a	<0.0001
	Sevilla	<0.0001	<0.0001	0.0093	0.0028	n/a	<0.0001
	Thiva	<0.0001	<0.0001	0.0345	0.0108	n/a	<0.0001
Maize	Châteaudun	<0.0001	<0.0001	0.0526	0.0203	n/a	<0.0001
	Hamburg	<0.0001	<0.0001	0.1357	0.0570	n/a	<0.0001
	Kremsmünster	<0.0001	<0.0001	0.0783	0.0321	n/a	<0.0001
	Okehampton	<0.0001	<0.0001	0.1248	0.0517	n/a	<0.0001
	Piacenza	<0.0001	<0.0001	0.0992	0.0429	n/a	<0.0001
	Porto	<0.0001	<0.0001	0.0656	0.0235	n/a	<0.0001
	Sevilla	<0.0001	<0.0001	0.0018	0.0003	n/a	<0.0001
	Thiva	<0.0001	<0.0001	0.0266	0.0096	n/a	<0.0001
Sunflowers	Piacenza	<0.0001	<0.0001	0.0949	n/a	n/a	<0.0001
	Sevilla	<0.0001	<0.0001	0.0028	n/a	n/a	<0.0001

PEC_{gw} for difenoconazole and metabolites – calculations at BBCH 31 (with FOCUS PEARL 5.5.5)

Crop	Scenario	80 th Percentile PEC _{gw} at 1 m Soil Depth (µg/L)					
		Difenoconazole	CGA 71019				CGA 205375
			FAST	SLOW Slow phase Every 1 year	SLOW Slow phase Every 2 years	SLOW Slow phase Every 3 years	
Winter Oilseed rape Spring BBCH 21-69	Châteaudun	<0.0001	<0.0001	0.0032	n/a	n/a	<0.0001
	Hamburg	<0.0001	<0.0001	0.0175	n/a	n/a	<0.0001
	Kremsmünster	<0.0001	<0.0001	0.0116	n/a	n/a	<0.0001
	Okehampton	<0.0001	<0.0001	0.0174	n/a	n/a	<0.0001
	Piacenza	<0.0001	<0.0001	0.0076	n/a	n/a	<0.0001
	Porto	<0.0001	<0.0001	0.0087	n/a	n/a	<0.0001
Sugar beet	Châteaudun	<0.0001	<0.0001	0.0572	n/a	n/a	<0.0001
	Hamburg	<0.0001	<0.0001	0.0626	n/a	n/a	<0.0001
	Jokioinen	<0.0001	<0.0001	0.0172	n/a	n/a	<0.0001
	Kremsmünster	<0.0001	<0.0001	0.0353	n/a	n/a	<0.0001
	Okehampton	<0.0001	<0.0001	0.0503	n/a	n/a	<0.0001
	Piacenza	<0.0001	<0.0001	0.0391	n/a	n/a	<0.0001

	Porto	<0.0001	<0.0001	0.0322	n/a	n/a	<0.0001
	Sevilla	<0.0001	<0.0001	0.0012	n/a	n/a	<0.0001
	Thiva	<0.0001	<0.0001	0.0128	n/a	n/a	<0.0001
Spring Oilseed rape	Jokioinen	<0.0001	<0.0001	0.0037	n/a	n/a	<0.0001
	Okehampton	<0.0001	<0.0001	0.0157	n/a	n/a	<0.0001
	Porto	<0.0001	<0.0001	0.0081	n/a	n/a	<0.0001
Potatoes	Châteaudun	<0.0001	<0.0001	0.0126	n/a	n/a	<0.0001
	Hamburg	<0.0001	<0.0001	0.0384	n/a	n/a	<0.0001
	Jokioinen	<0.0001	<0.0001	0.0083	n/a	n/a	<0.0001
	Kremsmünster	<0.0001	<0.0001	0.0244	n/a	n/a	<0.0001
	Okehampton	<0.0001	<0.0001	0.0371	n/a	n/a	<0.0001
	Piacenza	<0.0001	<0.0001	0.0280	n/a	n/a	<0.0001
	Porto	<0.0001	<0.0001	0.0147	n/a	n/a	<0.0001
	Sevilla	<0.0001	<0.0001	0.0006	n/a	n/a	<0.0001
	Thiva	<0.0001	<0.0001	0.0043	n/a	n/a	<0.0001
Pome Fruit	Châteaudun	<0.0001	<0.0001	0.1088	0.0443	n/a	<0.0001
	Hamburg	<0.0001	<0.0001	0.2292	0.0949	n/a	<0.0001
	Jokioinen	<0.0001	<0.0001	0.0609	0.0230	n/a	<0.0001
	Kremsmünster	<0.0001	<0.0001	0.1050	0.0416	n/a	<0.0001
	Okehampton	<0.0001	<0.0001	0.1217	0.0497	n/a	<0.0001
	Piacenza	<0.0001	<0.0001	0.1106	0.0475	n/a	<0.0001
	Porto	<0.0001	<0.0001	0.0651	0.0250	n/a	<0.0001
	Sevilla	<0.0001	<0.0001	0.0801	0.0316	n/a	<0.0001
	Thiva	<0.0001	<0.0001	0.0881	0.0341	n/a	<0.0001
Maize	Châteaudun	<0.0001	<0.0001	0.0248	n/a	n/a	<0.0001
	Hamburg	<0.0001	<0.0001	0.0675	n/a	n/a	<0.0001
	Kremsmünster	<0.0001	<0.0001	0.0383	n/a	n/a	<0.0001
	Okehampton	<0.0001	<0.0001	0.0632	n/a	n/a	<0.0001
	Piacenza	<0.0001	<0.0001	0.0511	n/a	n/a	<0.0001
	Porto	<0.0001	<0.0001	0.0317	n/a	n/a	<0.0001
	Sevilla	<0.0001	<0.0001	0.0006	n/a	n/a	<0.0001
	Thiva	<0.0001	<0.0001	0.0123	n/a	n/a	<0.0001
Sunflowers	Piacenza	<0.0001	<0.0001	0.0456	n/a	n/a	<0.0001
	Sevilla	<0.0001	<0.0001	0.0010	n/a	n/a	<0.0001

8.9 Predicted Environmental Concentrations in surface water (PEC_{sw}) (KCP 9.2.5)

zRMS Comments:	The PEC_{sw} and PEC_{sed} calculations were submitted. The proposed approach considering the surrogate crops was accepted. Calculations of PEC_{sw}/sed for both active substances and their relevant metabolites were provided. No PEC_{sw} assessment for soybean or other pulses was submitted, but a wide range of crops were considered. The evaluator exceptionally decided to accept the submitted PEC_{sw} assessment for other crops As the worst case the leafy vegetables were used as a surrogate crop. This approach could be considered at cMS level. The recommended FOCUS models were used: FOCUS Step 1 & 2, Step 3 and Step 4. Most of used endpoints for active substances and their metabolites were agreed at the EU level. In accordance with EU FOCUS requirements the geometric mean of K_{foc} should be used in PEC_{sw} assessment. <table border="1" data-bbox="619 909 1206 1137"> <thead> <tr> <th>Parameter</th><th>Geom. mean, K_{FOC} [mL/g]</th></tr> </thead> <tbody> <tr> <td>Difenoconazole</td><td>2943</td></tr> <tr> <td>CGA 205375</td><td>2661</td></tr> <tr> <td>1,2,4-triazole (CGA 71019)</td><td>96.5</td></tr> </tbody> </table> D1 and D2 scenarios are not relevant for Central Zone and were not taken into consideration. Azoxystrobin. The PEC_{sw} assessment for active substance and its metabolites for particular uses presented in GAP table using the geometric mean of K_{foc} were accepted as a worse case. Azoxystrobin metabolites. In case of metabolite R402173 the K_{foc} of 25 mL/g (worst case, according to LoEP) was used by the Applicant in first PEC_{sw} assessment and these values are considered as relevant. The use of geometric mean of K_{foc} is recommended by FOCUS, 2014, but in this case – the worst case of K_{foc} was accepted. For metabolite R234886 the K_{foc} value of of 176.59 mL/g and 34.84 mL/g for acidic and alkaline soils, respectively, should be used (for consistency with PEC_{gw} assessment). For alkaline soils the missing data should be provided. Considering a wide formulation application range, the following surrogate crops were used in PEC_{sw} assessment to fulfil the national (PL) requirements: • mustard, bread seed poppy, pumpkin, flax, hemp: spring OSR; • sunflower: maize • rutabaga, chicory, beet root as leaves: leafy vegetable; • horseradish, celery: sugar beet; • tobacco, ornamental nursery plants, forest nursery plants, renewals, afforestation and plantations of forest trees, energetic plants, <i>Salix viminalis</i>, wicker – all at h<50 cm: leafy vegetables; • tobacco, ornamental nursery plants, forest nursery plants, renewals, afforestation and plantations of forest trees, energetic plants, <i>Salix viminalis</i>, wicker – all at	Parameter	Geom. mean, K _{FOC} [mL/g]	Difenoconazole	2943	CGA 205375	2661	1,2,4-triazole (CGA 71019)	96.5
Parameter	Geom. mean, K _{FOC} [mL/g]								
Difenoconazole	2943								
CGA 205375	2661								
1,2,4-triazole (CGA 71019)	96.5								

	h>50 cm: pome fruits.						
	The following mitigation measures were proposed for each crop:						
	Crop	Vegetative strip (m)	No spray buffer (m)	Central Zone Max PEC _{sw} (µg/l)	Vegetative strip (m)	No spray buffer (m)	Poland
	winter oilseed rape BBCH 14	none Step 3		3.102 R3 stream	none		1.553 D4 stream
	winter oilseed rape BBCH 21	10	10	2.095 R3 stream	none		1.264 D3 ditch
	winter oilseed rape BBCH 31	10	10	2.370 R3 stream	none		1.264 D3 ditch
	spring oilseed rape BBCH 14	none		1.545 R1 stream	none		1.545 R1 stream
	spring oilseed rape BBCH 31	none		2.629 R1 stream	none		2.629 R1 stream
	sugar beet BBCH 31	none		2.815 R3 stream	none		2.205 R1 stream
	sugar beet BBCH 39	none		1.967 R3 stream	none		1.871 R1 stream
	carrot BBCH 39	none		3.180 R4 stream	none		1.886 R1 stream
	potato BBCH14	10	5	1.509 R3 stream	none		2.929 R1 stream
	potato BBCH31	none		2.718 R3 stream	none		1.982 R1 stream
	leafy vegetables* BBCH 14	20	20	1.573 R4 stream	20	20	1.173 R1 stream
	leafy vegetables BBCH 31	results are not available					
	tobacco*	10	5	2.589 R3 stream	20	20	1.097 D4 stream
		20		1.359 R3 stream			
	pome fruits BBCH 10	20	20	1.232 R3 stream	20	20	1.097 D4 stream
	pome fruits BBCH 31	20	20	1.968 R3 stream	20	20	1.801 D4 stream
	maize**	10	10	2.040	none		2.452

	BBCH14			R4 stream		R1 stream	
	maize** BBCH31	10	10	1.904 R4 stream	none	2.467 R1 stream	
	sunflower BBCH 14	10	10	1.990 R4 stream	none	2.942 R1 stream	
	sunflower BBCH 31	10	5	1.655 R4 stream	none	2.122 R1 stream	
* leafy vegetables as a surrogate crop tobacco and soybean							
** for PL as a surrogate crop for sunflower							
Difenoconazole. The following mitigation measures were proposed for each crop:							
	Crop	Vegetative strip (m)	No spray buffer (m)	Central Zone Max PEC _{sw} (µg/l)	Vegetative strip (m)	No spray buffer (m)	Poland
	winter oilseed rape BBCH 14	10	10	0.1421 D5 stream	10	10	0.1317 D4 stream
	winter oilseed rape BBCH 21	10	10	0.1183 D4 stream	10	10	0.1183 D4 stream
	winter oilseed rape BBCH 31	10	5	0.2655 R3 stream	10	5	0.2143 D4 stream
	spring oilseed rape BBCH 14	10	10	0.1248 D4 stream	10	10	0.1248 D4 stream
	spring oilseed rape BBCH 31	10	5	0.2501 D5 stream	10	5	0.2354 D4 stream
	sugar beet BBCH 31	10	5	0.2679 R3 stream	10	5	0.2129 D3 ditch
	sugar beet BBCH 39	10	10	0.1416 R3 stream	10	10	0.1127 D3 ditch
	carrot BBCH 39	10	10	0.1420 R3 stream	10	10	0.1128 D3 ditch
	potato BBCH14	10	10	0.1418 R3 stream	10	10	0.1129 D3 ditch
	potato BBCH31	10	5	0.2670 R3 stream	10	5	0.2130 D3 ditch
	leafy vegetables BBCH 14	10	10	0.4300 R4 stream ¹	10	10	0.2757 R1 stream
	leafy vegetables* BBCH 14	20	10	0.1719 R4 stream ¹	10	10	0.1112 R1 stream

	leafy vegetables BBCH 31	results are not available					
	~~tobacco~~ BBCH 14	~~none~~	~~none~~	~~0.5035~~ ~~R3 stream~~	-	-	-
	tobacco BBCH 14	20	5	0.2239 R3 stream	10	10	0.1112 R1 stream
	tobacco BBCH 31	results are not available					
	pome fruits* BBCH 10	20	20 + 75% DRT	0.3055 R3 stream	20	20 + 50% DRT	0.5447 D4 stream
	pome fruits* BBCH 31	20	20 + 75% DRT	0.3054 R3 stream	20	20 + 50% DRT	0.5592 D4 stream
	maize** BBCH14	10	10	0.1414 R4 stream	10	10	0.1129 D3 ditch
	maize** BBCH31	10	5	0.2679 R3 stream	10	5	0.2426 D4 stream
	sunflower BBCH 14	10	10	0.1417 R3 stream	10	10	0.1129 D3 ditch
	sunflower BBCH 31	10	5	0.2665 R3 stream	10	5	0.2426 D4 stream

* leafy vegetables as a surrogate crop for tobacco and soybean
 ** maize as a surrogate crop for sunflower

The relevant mitigation measure will be recommended in ecotoxicological section.

Metabolites of active substances. The relevant PEC_{sw} and PEC_{sd} values are presented in Tables 8.9-4 to 8.9-6 (azoxystrobin) and Tables 8.9-9 and 8.9-10 (difenoconazole).

Risk envelopes used in PEC_{sw} calculations with maximum app rate 200 g azoxystrobin/ha and 125 g difenoconazole/ha for every crops as worst case scenario:

a) Winter oilseed rape – GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Winter oilseed rape	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	2	90	Autumn, Spring I: BBCH 14-29 II: BBCH 31-55
Winter oilseed rape	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 61-69

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Winter oilseed rape	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Autumn BBCH 14-20
Winter oilseed rape	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 21-69

b) Sugar beet – GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Sugar beet	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 39-49

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Sugar beet	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 39-49

c) Spring oilseed rape, Mustard, Breadseed poppy, Pumpkin, Flax, Hemp– GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Spring oilseed rape	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69
Mustard	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69

Breadseed poppy	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin , 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69
Pumpkin	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin , 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69
Flax	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin , 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69
Hemp	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin , 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Spring oilseed rape	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69
Potato as surrogate crop for fruiting vegetables	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69

d) Sunflower – GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Sunflower	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Sunflower	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69
Maize as surrogate crop according to national requirements in Poland	Azoxystrobin, Difenoconazole	180 – 200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 14-69

e) Rutabaga, Chicory, Beet root – GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Rutabaga	Azoxystrobin, Difenoconazole	160 –200 azoxystrobin, 112.5-125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 39-49
Chicory	Azoxystrobin, Difenoconazole	160 – 200 azoxystrobin, 112.5 - 125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 39-49
Beet root	Azoxystrobin, Difenoconazole	160 – 200 azoxystrobin, 112.5 - 125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 39-49

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Leafy vegetables	Azoxystrobin, Difenoconazole	160–200 azoxystrobin 100 -125 difenoconazole	Boom sprayer	2	14	Spring, the first symptoms of infection

f) Horseradish, Celery – GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Horseradish	Azoxystrobin, Difenoconazole	160–200 azoxystrobin 100 -125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 39-49
Celery	Azoxystrobin, Difenoconazole	160–200 azoxystrobin 100 -125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 39-49

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Carrot	Azoxystrobin, Difenoconazole	160–200 azoxystrobin 100 - 125 difenoconazole	Boom sprayer	1	N/A	Spring BBCH 39-49

g) Tobacco – GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Tobacco	Azoxystrobin, Difenoconazole	200 azoxystrobin 125 difenoconazole	Boom sprayer	2	14	Spring, the first symptoms of infection

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Leafy vegetables as surrogate crop for tobacco	Azoxystrobin, Difenoconazole	200 azoxystrobin 125 difenoconazole	Boom sprayer	2	14	Spring, the first symptoms of infection

h) Ornamental nursery plants, forest nursery plants, renewals, afforestation and plantations of forest trees– GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
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Ornamental nursery plants, forest nursery plants, renewals, afforestation and plantations of forest trees	Azoxystrobin, Difenoconazole	200 azoxystrobin 125 difenoconazole	Boom sprayer	2	14	Spring, the first symptoms of infection
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Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Leafy vegetables as surrogate crop for tobacco	Azoxystrobin, Difenoconazole	200 azoxystrobin 125 difenoconazole	Boom sprayer	2	14	Spring, the first symptoms of infection
Pome fruit as surrogate crop	Azoxystrobin, Difenoconazole	200 azoxystrobin 125 difenoconazole	Boom sprayer	2	14	Spring, the first symptoms of infection

i) Energetic plants, Salix viminalis, Wicker– GAP – defined uses:

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Energetic plants, Salix viminalis, Wicker	Azoxystrobin, Difenoconazole	160 azoxystrobin 100 difenoconazole	Boom sprayer	2	14	Spring, the first symptoms of infection

Identifies representative use (risk envelope):

Use	Active substance	Application rate (g a.s /ha)	Application method	Number of applications	Minimum application interval (days)	Application timing
Pome fruit	Azoxystrobin, Difenoconazole	160 azoxystrobin 100 difenoconazole	Boom sprayer	2	14	Spring, the first symptoms of infection

8.9.1 Justification for new endpoints

All endpoints used for PEC surface water calculations are EU approved and were evaluated on EU level.

8.9.2 Active substance(s), relevant metabolite(s) and the formulation (KCP 9.2.5)

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

Plant protection product	CHR/F/SCORPIO 325 SC/ Clapton 325 SC, Scarp 325 SC				
Use No.	1	2	3	4	5
Crop	Winter oilseed rape	Sugar beet	Spring oilseed rape	Potatoes	Carrot
Crop surrogate:	Winter oilseed rape	Sugar beet Beet root	Spring oilseed rape, Hemp, Flax Poppy Mustard	Pumpkin	Horseradish Celeary
Application rate (kg as/ha)	Azoxystrobin: 200 Difenoconazole: 125	Azoxystrobin: 200 Difenoconazole: 125	Azoxystrobin: 200 Difenoconazole: 125	Azoxystrobin: 200 Difenoconazole: 125	Azoxystrobin: 200 Difenoconazole: 125
Number of applications/interval (d)	Spring 1/- Autumn 1/-	1/-	1/-	1/-	1/-
Application method	Boom spray	Boom spray	Boom spray	Boom spray	Boom spray
Soil depth (cm)	5	5	5	5	5
Models used for calculation	FOCUS SWASH 5_3, FOCUS PRZM v3.3.1, FOCUS MACRO v5.5.3, FOCUS TOXWA v4.3.3				
Use No.	6	7	8	9	10
Crop	Tobacco	Pome fruit	Leafy vegetables	Maize	Sunflower
Crop surrogate:	Tobacco	Ornamental nursery plants, forest nursery plants, renewals, afforestation and plantations of forest trees < 50 cm, Energetic plants, Salix viminalis, Wicker Tobacco > 50 cm	Ornamental nursery plants, forest nursery plants, renewals, afforestation and plantations of forest trees < 50 cm Tobacco < 50 cm	Sunflower	Sunflower
Application rate (kg as/ha)	Azoxystrobin: 200 Difenoconazole: 125	Azoxystrobin: 200 Difenoconazole: 125	Azoxystrobin: 200 Difenoconazole: 125	Azoxystrobin: 200 Difenoconazole: 125	Azoxystrobin: 200 Difenoconazole: 125
Number of applications /interval (d)	2/14	2/14	2/14	1/-	1/-
Application method	Boom spray	Boom spray	Boom spray	Boom spray	Boom spray
Soil depth (cm)	5	5	5	5	5
Models used for	FOCUS SWASH 5_3, FOCUS PRZM v3.3.1,				

calculation	FOCUS MACRO v5.5.3, FOCUS TOXWA v4.3.3
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8.9.3 FOCUS Step 3 Scenario related input parameters for PEC_{sw/sed} calculations for the application of CHR/F/SCORPIO 325 SC/ Clapton 325 SC, Scarp 325 SC

Related input parameters are presented in table 8.9-2 for azoxystrobin and table 8.9-7 for difenoconazole.

Crop	Scenario	Waterbody	Application window used in modelling
Winter oilseed rape (BBCH 14)	D3	ditch	9 Sep – 9 Oct
	D4	pond	10 Sep – 10 Oct
	D4	stream	
	D5	pond	27 Sep – 27 Oct
	D5	stream	
	R1	pond	11 Sep – 11 Oct
	R1	stream	
	R3	stream	11 Sep – 11 Oct
Winter oilseed rape (BBCH 21)	D3	ditch	12 Feb – 13 Mar
	D4	pond	20 Feb – 22 Mar
	D4	stream	
	D5	pond	20 Feb – 22 Mar
	D5	stream	
	R1	pond	6 Apr – 6 May
	R1	stream	
	R3	stream	26 Feb – 28 Mar
Sugar beet	D3	ditch	21 Jul – 20 Aug
	D4	pond	24 Jul – 23 Aug
	D4	stream	
	R1	pond	11 Jul – 10 Aug
	R1	stream	
	R3	stream	20 Jun – 20 Jul
Spring Oilseed Rape	D3	ditch	18 Apr – 18 May
	D4	pond	7 May – 6 Jun
	D4	stream	
	D5	pond	23 Mar – 22 Apr
	D5	stream	
	R1	pond	11 May – 10 Jun
	R1	stream	
Potatoes	D3	ditch	18 May – 17 Jun
	D4	pond	1 Jun – 1 Jul
	D4	stream	
	R1	pond	11 May – 10 Jun
	R1	stream	
	R3	stream	16 Apr – 16 May
Carrot	D3	ditch	5 Jul – 4 Aug
	R1	pond	19 Jun – 19 Jul
	R1	stream	
	R3	stream	18 Apr – 18 May
	R4	stream	10 Apr – 10 May
~~Tabacco~~ Tobacco	R3	stream	21 May – 04 Jul
Pomefruit	D3	ditch	16 Apr – 30 May

	D4	pond	21 Apr – 04 Jun
	D4	stream	
	D5	pond	02 Apr – 16 May
	D5	stream	
	R1	pond	16 Apr – 30 May
	R1	stream	
	R3	stream	02 Apr – 16 May
	R4	stream	16 Mar – 29 Apr
Leafy Vegetables	D3	ditch	26 Apr – 09 Jun
	D3	ditch	5 Aug – 18 Sep
	D4	pond	10 May – 23 Jun
	D4	stream	
	R1	pond	20 Apr – 03 Jun
	R1	stream	
	R1	pond	31 Jul – 13 Sep
	R1	stream	
	R3	stream	01 Mar – 14 Apr
	R3	stream	15 Jun – 29 Jul
	R4	stream	01 Mar – 14 Apr
	R4	stream	15 Jun – 29 Jul
Maize	D3	ditch	19 May – 2 Jul
	D4	pond	24 May – 7 Jul
	D4	stream	
	D5	pond	20 May – 19 Jun
	D5	stream	
	R1	pond	17 May – 16 Jun
	R1	stream	
	R3	stream	13 May – 12 Jun
Sunflower	R4	stream	20 Apr – 20 May
	D5	pond	11 May – 10 Jun
	D5	stream	
	R1	pond	11 May – 10 Jun
	R1	stream	
	R3	stream	25 Apr – 25 May
	R4	stream	11 Apr – 11 May

FOCUS Step 3 Scenario related input parameters for PEC_{sw/sed} calculations at BBCH 31

Crop	Scenario	Waterbody	Application window used in modelling
Winter oilseed rape (BBCH 31)	D3	ditch	26 Feb – 28 Mar
	D4	pond	6 Mar – 5 Apr
	D4	stream	
	R3	stream	9 Mar – 8 Apr
Sugar beet (BBCH 31)	D3	ditch	15 Jun – 15 Jul
	R3	stream	13 May – 12 Jun
Spring Oilseed Rape (BBCH 31)	D3	ditch	15 May – 14 Jun
	D4	pond	26 May – 25 Jun
	D4	stream	
	D5	pond	22 Apr – 22 May
	D5	stream	

Potatoes (BBCH 31)	D3	ditch	17 Jun – 17 Jul
	R3	stream	07 May – 06 Jun
Pomefruit (BBCH 31)	D3	ditch	07 May – 06 Jun
	D4	pond	12 May – 11 Jun
	D4	stream	
	D5	pond	18 Apr – 18 May
	D5	stream	
	R1	pond	07 May – 06 Jun
	R1	stream	
	R3	stream	18 Apr – 18 May
	R4	stream	06 Apr – 06 May
Maize (BBCH 31)	D5	pond	06 Jun – 07 Jul
	D5	stream	
	R1	pond	08 Jun – 08 Jul
	R1	stream	
	R3	stream	02 Jun – 02 Jul
	R4	stream	05 May – 04 Jun
Sunflower (BBCH 31)	R3	stream	05 Apr – 05 May
	R4	stream	20 Mar – 19 Apr

8.9.2.1 Azoxystrobin and its metabolites

Table 8.9-2: Input parameters related to active substance Azoxystrobin and metabolites R401553, R402173 and R2344886 for PEC_{sw}/sed calculations STEP 1/2 and 3/(4) (if necessary)

Compound	Azoxystrobin	R401553	R402173	R234886	Value in accordance to EU endpoint y/n/ Reference
Molecular weight (g/mol)	403.4	213.2	333.3	389.4	EFSA Journal 2010; 8(4):1542, Yes
Saturated vapour pressure (Pa)	1.1×10^{-10}	1.1×10^{-10}	1.1×10^{-10}	1.1×10^{-10}	EFSA Journal 2010; 8(4):1542, Yes
Water solubility (mg/L)	6.0	560	61	57	EFSA Journal 2010; 8(4):1542, Yes
Diffusion coefficient in water (m ² /d)	not required for Step 1+2/ 4.3×10^{-5}	not required for Step 1+2/ 4.3×10^{-5}	not required for Step 1+2/ 4.3×10^{-5}	not required for Step 1+2/ 4.3×10^{-5}	EFSA Journal 2010; 8(4):1542, Yes
Diffusion coefficient in air (m ² /d)	not required for Step 1+2/0.43	not required for Step 1+2/0.43	not required for Step 1+2/0.43	not required for Step 1+2/0.43	EFSA Journal 2010; 8(4):1542, Yes
K _{foc} (mL/g)	Arithmetic mean: 423	Arithmetic mean: 188	Arithmetic mean: 25 (for water) 200 (for	Arithmetic mean: 21 (for water) 490 (for sediment)	EFSA Journal 2010; 8(4):1542, Yes

Compound	Azoxystrobin	R401553	R402173	R234886	Value in accordance to EU endpoint y/n/ Reference
	Geometric mean: 391.50	Geometric mean: 142.60	sediment) Geometric mean: 73.89	Geometric mean: 113.47	
Freundlich Exponent 1/n	0.86	0.85	0.96	Acidic 0.78 Alcaline 0.83	EFSA Journal 2010; 8(4):1542, Yes
Plant Uptake	0.00	0.00	0.00	0.00	
Wash-Off factor from Crop (1/mm)	not required for Step 1+2/ 0.05 (MACRO) 0.50 (PRZM)	not required for Step 1+2/ 0.05 (MACRO) 0.50 (PRZM)	not required for Step 1+2/ 0.05 (MACRO) 0.50 (PRZM)	not required for Step 1+2/ 0.05 (MACRO) 0.50 (PRZM)	
DT _{50,soil} (d)	78	1.1	4.7	112.1 days (note the correct DT50 soil to be used for conservative 1st tier modelling is 110.4 d)	EFSA Journal 2010; 8(4):1542, Yes
DT _{50,water} (d)	1000	1000	1000	1000	EFSA Journal 2010; 8(4):1542, Yes
DT _{50,sed} (d)	205	1000	1000	1000	EFSA Journal 2010; 8(4):1542, Yes
DT _{50,whole system} (d)	205	1000	1000	1000	EFSA Journal 2010; 8(4):1542, Yes
Maximum occurrence observed (% molar basis with respect to the parent)	-	Water/Sediment: 8.9%	Water/Sediment: 2.4%	Water/Sediment: 17.7% (whole system)	EFSA Journal 2010; 8(4):1542, Yes
Formation fraction in soil:	-	Formation fraction from parent = 0.392 Formation fraction from R402173 = 0.468	Formation fraction from parent = 0.385	Formation fraction from parent = 0.874	EFSA Journal 2010; 8(4):1542, Addendum – Confirmatory Information, September 2014

The results presented below were obtained by selecting the worst-case scenario for calculations, i.e., the geometric values of K_{foc} for the parent compound and metabolite R401553 and metabolite R234886. For metabolite R402173 and metabolite R234886 was the arithmetic value of K_{foc} chosen, as it represented the worst-case scenario. The adsorption of R402173 and R234886 is pH dependent. Therefore as a worst case approach the lower values are used for surface water PEC calculations and the higher values are used for sediment PEC calculations.

PEC_{sw/sed}

Table 8.9-3: FOCUS Step 1,2 and 3 PEC_{sw} and PEC_{sed} for azoxystrobin following single/multiple application(s) of CHR/F/SCORPIO 325 SC/ Clapton 325 SC, Scarp 325

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Winter oilseed rape (BBCH 14 – 20)					
Step 1	---	45.64	drainage/run off	43.46	175.62
Step 2					
Northern Europe	Oct-Feb	7.70	drainage/run off	7.43	29.43
Step 3					
D2	ditch	12.15	drainage	4.623	28.84
D2	stream	7.655	drainage	2.609	17.26
D3	ditch	1.279	drainage	0.2104	1.239
D4	pond	1.403	drainage	1.352	6.761
D4	stream	1.553	drainage	0.9306	3.108
D5	pond	0.5230	drainage	0.4777	2.824
D5	stream	1.182	drainage	0.1491	0.9129
R1	pond	0.06110	runoff and erosion	0.05304	0.4008
R1	stream	1.232	runoff and erosion	0.02440	0.3758
R3	stream	3.102	runoff and erosion	0.1838	1.882
Step 4	10 m vegetative strip, 10 m no spray buffer				
D2	Scenarios D2 are not relevant for Central Zone				
D3	ditch	0.1838	drainage	0.03002	0.1993
D4	stream	1.553	drainage	0.1491	0.9027
D5	stream	1.077	drainage	0.9306	3.099
R1	stream	0.5404	runoff and erosion	0.01086	0.1682
R3	stream	1.412	runoff and erosion	0.07892	0.7707
Winter oilseed rape (BBCH 21 – 69)					
Step 1	---	45.64	drainage/run off	43.46	175.62
Step 2					
Northern Europe	Oct-Feb	3.47	drainage/run off	3.27	12.94
Step 3					
D2	ditch	5.105	drainage	2.018	10.52

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
D2	stream	3.195	drainage	1.144	5.678
D3	ditch	1.264	drainage	0.05000	0.5080
D4	pond	0.3702	drainage	0.3560	2.012
D4	stream	0.9840	drainage	0.2445	0.9330
D5	pond	0.1352	drainage	0.1185	0.6907
D5	stream	0.8408	drainage	0.04962	0.2086
R1	pond	0.1294	runoff and erosion	0.1097	0.6235
R1	stream	1.238	runoff and erosion	0.08044	0.5971
R3	stream	2.095	runoff and erosion	0.06926	0.7048
Step 4	10 m vegetative strip, 10 m no spray buffer				
D2	Scenarios D2 are not relevant for Central Zone				
D3	ditch	0.1816	drainage	0.007177	0.07868
D4	stream	0.4112	drainage	0.2445	0.9326
D5	stream	0.1791	drainage	0.04962	0.2086
R1	stream	0.5615	runoff and erosion	0.03587	0.2485
R3	stream	0.9253	runoff and erosion	0.02520	0.2922
Sugar beet					
Step 1	---	45.64	drainage/run off	43.46	175.62
Step 2					
Northern Europe	June-Sep.	3.47	drainage/run off	3.27	12.94
Step 3					
D3	ditch	1.049	drainage	0.05851	0.5276
D4	pond	0.5990	drainage	0.5752	3.150
D4	stream	0.8744	drainage	0.4024	1.519
R1	pond	0.1321	runoff and erosion	0.1072	0.5874
R1	stream	1.871	runoff and erosion	0.05503	1.051
R3	stream	1.967	runoff and erosion	0.2130	1.944
Step4	10 m vegetative strip, 10 m no spray buffer				
D3	ditch	0.1822	drainage	0.01015	0.09912
D4	stream	0.6845	drainage	0.4024	1.518
R1	stream	0.8493	runoff and erosion	0.02368	0.3618
R3	stream	0.8963	runoff and erosion	0.09771	0.6754
Spring oilseed rape					
Step 1	---	45.64	drainage/run off	43.46	175.62
Step 2					

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Northern Europe	Mar-May.	3.89	drainage/run off	3.68	14.59
Step 3					
D1	ditch	2.696	drainage	2.396	14.72
D1	stream	1.690	drainage	1.489	8.587
D3	ditch	1.269	drainage	0.07817	0.6714
D4	pond	0.3753	drainage	0.3613	2.079
D4	stream	1.049	drainage	0.2425	0.9351
D5	pond	0.1686	drainage	0.1635	0.9109
D5	stream	1.109	drainage	0.08523	0.3397
R1	pond	0.1683	runoff and erosion	0.1378	0.7234
R1	stream	1.545	runoff and erosion	0.06941	1.535
Step 4	10 m vegetative strip, 10 m no spray buffer				
D3	ditch	0.1823	drainage	0.01121	0.1056
D4	stream	0.4394	drainage	0.2425	0.9337
D5	stream	0.2530	drainage	0.08523	0.3397
R1	stream	0.7025	runoff and erosion	0.02947	0.4677
Potatoes					
Step 1	---	45.64	drainage/run off	43.46	175.62
Step 2					
Northern Europe	Mar-May	8.54	drainage/run off	8.26	32.73
Step 3					
D3	ditch	1.049	drainage	0.05964	0.5342
D4	pond	0.5800	drainage	0.5598	3.097
D4	stream	0.8757	drainage	0.3837	1.402
D6	ditch	1.038	drainage	0.06479	0.3368
R1	pond	0.2592	runoff and erosion	0.2180	1.068
R1	stream	2.929	runoff and erosion	0.1673	1.279
R2	stream	0.9596	runoff and erosion	0.03741	0.7043
R3	stream	3.309	runoff and erosion	0.1743	2.245
Step 4	10 m vegetative strip, 5 m no spray buffer				
D3	ditch	0.3437	drainage	0.01953	0.1843
D4	stream	0.5815	drainage	0.3837	1.402
R1	stream	1.326	runoff and erosion	0.07481	0.4970
R3	stream	1.509	runoff and erosion	0.07939	0.9032

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Carrot					
Step 1	---	45.64	drainage/run off	43.46	175.62
Step 2					
Northern Europe	Oct-Feb	7.70	drainage/run off	7.43	29.43
Step 3					
D3	ditch	1.267	drainage	0.06651	0.6080
D6	ditch	1.252	drainage	0.03094	0.3420
R1	pond	0.4477	runoff and erosion	0.3824	1.482
R1	stream	1.886	runoff and erosion	0.1793	2.104
R2	stream	1.106	runoff and erosion	0.02941	1.102
R3	stream	2.075	runoff and erosion	0.1203	1.528
R4	stream	3.180	runoff and erosion	0.2695	1.732
Step 4	10 m vegetative strip, 10 m no spray buffer				
D3	ditch	0.1821	drainage	0.009541	0.09513
R1	stream	0.8588	runoff and erosion	0.07811	0.6992
R3	stream	0.9470	runoff and erosion	0.04980	0.5820
R4	stream	1.445	runoff and erosion	0.1207	0.7523
~~Tabacco~~ Tobacco					
Step 1	---	91.28	drainage/run off	86.93	351.24
Step 2					
Northern Europe	Mar-May	7.15	drainage/run off	6.78	26.84
Step 3					
R3	stream	5.682	runoff and erosion	0.4886	3.522
Step 4	10 m vegetative, 5 m no spray buffer				
R3	stream	2.589	runoff and erosion	0.2242	1.401
Step 4	20 m vegetative, 5 m no spray buffer				
R3	stream	1.359	runoff and erosion	0.1179	0.7198
Pome Fruit					
Step 1	---	126.53	drainage/run off	109.57	441.61
Step 2					
Northern Europe	Mar-May	34.45	drainage/run off	31.15	123.23
Step 3					
D3	ditch	8.353	drainage	0.9546	4.894

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
D4	pond	0.8233	drainage	0.7073	3.257
D4	stream	8.445	drainage	0.09435	0.6734
D5	pond	0.9950	drainage	0.8737	3.939
D5	stream	8.950	drainage	0.06572	0.7119
R1	pond	0.9133	runoff and erosion	0.7723	3.131
R1	stream	6.698	runoff and erosion	0.09488	0.7769
R2	stream	8.886	runoff and erosion	0.05389	0.6751
R3	stream	9.483	runoff and erosion	0.3617	2.578
R4	stream	6.737	runoff and erosion	0.1003	1.001
Step 4	20 m vegetative strip, 20 m no spray buffer				
D3	ditch	0.9850	drainage	0.1123	0.6491
D4	stream	1.097	drainage	0.09435	0.4036
D5	stream	1.163	drainage	0.06572	0.2411
R1	stream	0.8696	runoff and erosion	0.01406	0.1074
R2	Scenarios R2 are not relevant for Central Zone				
R3	stream	1.232	runoff and erosion	0.05452	0.4118
R4	stream	0.8747	runoff and erosion	0.01586	0.1390
Step 4	20 m vegetative strip, 20 m no spray buffer, 75% nozzle reduction				
D3	ditch	0.2463	drainage	0.02802	0.1743
D4	stream	0.2740	drainage	0.09435	0.4017
D5	stream	0.2911	drainage	0.06572	0.2411
R1	stream	0.2173	runoff and erosion	0.01006	0.08991
R3	stream	0.3524	runoff and erosion	0.02635	0.2158
R4	stream	0.2342	runoff and erosion	0.01361	0.1129
Leafy Vegetables					
Step 1	---	91.28	drainage/run off	14.32	351.24
Step 2					
Northern Europe	Mar-May	14.32	drainage/run off	13.83	54.80
Step 3					
D3	ditch	1.108	drainage	0.1214	0.6869
D4	pond	1.072	drainage	1.036	5.465
D4	stream	1.074	drainage	0.7117	2.492
D6	ditch	4.657	drainage	0.9862	4.010
R1	pond	0.4254	runoff and erosion	0.3601	1.744
R1	stream	4.942	runoff and erosion	0.2742	1.807

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
R2	stream	1.626	runoff and erosion	0.1648	1.459
R3	stream	3.680	runoff and erosion	0.1868	2.279
R4	stream	6.599	runoff and erosion	0.4456	3.107
Step4	10 m vegetative strip, 10 m no spray buffer				
D3	ditch	0.1494	drainage	0.008909	0.08623
D4	stream	1.075	drainage	0.7121	2.494
D6	Scenarios D6 are not relevant for Central Zone				
R1	stream	2.241	runoff and erosion	0.1231	0.7827
R2	Scenarios R2 are not relevant for Central Zone				
R3	stream	1.869	runoff and erosion	0.1795	1.300
R4	stream	3.001	runoff and erosion	0.2027	1.386
Step 4	20 m vegetative strip, 10 m no spray buffer				
R1	stream	1.173	runoff and erosion	0.06414	0.4149
R4	stream	1.573	runoff and erosion	0.1062	0.7401
Maize					
Step 1	---	45.64	drainage/run off	43.46	175.62
Step 2					
Northern Europe	Mar-May	7.70	drainage/run off	7.43	29.43
Step 3					
D3	ditch	1.049	drainage	0.06038	0.5374
D4	pond	0.5208	drainage	0.5020	2.792
D4	stream	0.8992	drainage	0.3399	1.256
D5	pond	0.4003	drainage	0.3874	1.877
D5	stream	0.9419	drainage	0.2032	0.7408
D6	ditch	1.052	drainage	0.08857	0.7268
R1	pond	0.1828	runoff and erosion	0.1496	0.7051
R1	stream	2.452	runoff and erosion	0.1045	1.692
R2	stream	0.9719	runoff and erosion	0.04908	1.710
R3	stream	3.317	runoff and erosion	0.1530	1.261
R4	stream	4.489	runoff and erosion	0.2827	2.181
Step4	10 m vegetative strip, 10 m no spray buffer				
D3	ditch	0.1822	drainage	0.01047	0.1011
D4	stream	0.5887	drainage	0.3399	1.256
D5	stream	0.5464	drainage	0.2032	0.7408
R1	stream	1.114	runoff and erosion	0.04582	0.6246

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
R3	stream	1.496	runoff and erosion	0.06467	0.5477
R4	stream	2.040	runoff and erosion	0.1281	0.9582
Sunflower					
Step 1	---	45.64	drainage/run off	43.46	175.62
Step 2					
Northern Europe	Mar-May	7.70	drainage/run off	7.43	29.43
Step 3					
D5	pond	0.2448	drainage	0.2372	1.212
D5	stream	0.8970	drainage	0.1239	0.4683
R1	pond	0.2822	runoff and erosion	0.2382	1.193
R1	stream	2.942	runoff and erosion	0.1723	1.350
R3	stream	1.929	runoff and erosion	0.1503	0.8387
R4	stream	4.377	runoff and erosion	0.2417	2.135
Step4	10 m vegetative strip, 10 m no spray buffer				
D5	stream	0.3654	drainage	0.1239	0.4683
R1	stream	1.332	runoff and erosion	0.07622	0.5058
R3	stream	0.8447	runoff and erosion	0.06691	0.3786
R4	stream	1.990	runoff and erosion	0.1098	0.9391

* single applications should be marked.

** twa-time as required by ecotox

FOCUS Step 1,2 and 3 PEC_{sw} and PEC_{sed} for azoxystrobin – calculations at BBCH 31

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Winter oilseed rape (BBCH 31)					
Step 1	---	45.64	drainage/run off	43.46	175.62
Step 2					
Northern Europe	Oct-Feb	3.89	drainage/run off	3.68	14.59
Step 3					
D2	ditch	5.389	drainage	2.116	10.99
D2	stream	3.377	drainage	1.205	5.881
D3	ditch	1.264	drainage	0.0500	0.5080
D4	pond	0.3678	drainage	0.3536	2.007

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
D4	stream	0.9459	drainage	0.2416	0.9305
D5	pond	0.1292	drainage	0.1145	0.7285
D5	stream	1.017	drainage	0.05319	0.2222
R1	pond	0.1294	runoff and erosion	0.1097	0.6235
R1	stream	1.238	runoff and erosion	0.08044	0.5971
R3	stream	2.370	runoff and erosion	0.07770	0.8412
Step 4	10 m vegetative strip, 5 m no spray buffer				
D2	Scenarios D2 are not relevant for Central Zone				
D3	ditch	0.3426	drainage	0.01354	0.1450
D4	stream	0.4159	drainage	0.2416	0.9302
D5	stream	0.3764	drainage	0.05319	0.2222
R1	stream	0.5615	runoff and erosion	0.03587	0.2510
R3	stream	1.065	runoff and erosion	0.03375	0.3796
Sugar beet (BBCH 31)					
Step 1	---	45.64	drainage/run off	43.46	175.62
Step 2					
Northern Europe	June-Sep.	3.89	drainage/run off	3.68	14.59
Step 3					
D3	ditch	1.047	drainage	0.04985	0.4766
D4	pond	0.5952	drainage	0.5730	3.128
D4	stream	0.8470	drainage	0.4075	1.477
R1	pond	0.3510	runoff and erosion	0.3042	1.431
R1	stream	2.205	runoff and erosion	0.1483	2.052
R3	stream	2.815	runoff and erosion	0.1452	1.131
Step 4	10 m vegetative strip, 5 m no spray buffer				
D3	ditch	0.3432	drainage	0.01632	0.1638
D4	stream	0.6300	drainage	0.4075	1.477
R1	stream	1.005	runoff and erosion	0.06686	0.6464
R3	stream	1.277	runoff and erosion	0.06450	0.4959
Spring oilseed rape (BBCH 31)					
Step 1	---	45.64	drainage/run off	43.46	175.62
Step 2					
Northern Europe	Mar-May.	3.89	drainage/run off	3.68	14.59
Step 3					

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
D1	ditch	2.695	drainage	2.395	14.51
D1	stream	1.690	drainage	1.489	8.471
D3	ditch	1.268	drainage	0.07673	0.6630
D4	pond	0.3746	drainage	0.3607	2.075
D4	stream	1.038	drainage	0.2424	0.9311
D5	pond	0.1594	drainage	0.1546	0.9176
D5	stream	1.105	drainage	0.08053	0.3217
R1	pond	0.2417	runoff and erosion	0.1718	0.2392
R1	stream	2.629	runoff and erosion	0.1688	1.324
Step 4	10 m vegetative strip, 5 m no spray buffer				
D3	ditch	0.3439	drainage	0.02078	0.1912
D4	stream	0.4385	drainage	0.2424	0.9302
D5	stream	0.4052	drainage	0.08053	0.3217
R1	stream	1.194	runoff and erosion	0.07550	0.5126
Potatoes (BBCH 31)					
Step 1	---	45.64	drainage/run off	43.46	175.62
Step 2					
Northern Europe	Mar-May	3.89	drainage/run off	3.68	14.59
Step 3					
D3	ditch	1.048	drainage	0.05273	0.4948
D4	pond	0.8453	drainage	0.8148	4.326
D4	stream	0.8518	drainage	0.5577	1.983
D6	ditch	1.046	drainage	0.07257	0.4492
R1	pond	2.422 0.3027	runoff and erosion	0.4385	1.882
R1	stream	1.982	runoff and erosion	0.1293	1.471
R2	stream	0.9596	runoff and erosion	0.04225	0.7271
R3	stream	2.718	runoff and erosion	0.1442	1.107
Step4	10 m vegetative strip, 5 m no spray buffer				
D3	ditch	0.3434	drainage	0.01727	0.1702
D4	stream	0.8518	drainage	0.5577	1.983
D5 R1	stream	0.9022	drainage	0.05828	0.5245
R1 R3	stream	1.234	runoff and erosion	0.06412	0.4811
Pome Fruit (BBCH 31)					
Step 1	---	126.53	drainage/run off	109.57	441.61

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Step 2					
Northern Europe	Mar-May	34.45	drainage/run off	31.15	123.23
Step 3					
D3	ditch	13.38	drainage	1.701	8.095
D4	pond	1.452	drainage	1.249	5.016
D4	stream	13.87	drainage	0.2744	1.791
D5	pond	1.562	drainage	1.362	6.092
D5	stream	14.40	drainage	0.1300	1.272
R1	pond	1.302	runoff and erosion	1.097	4.578
R1	stream	10.78	runoff and erosion	0.1935	1.614
R2	stream	14.45	runoff and erosion	0.1275	1.196
R3	stream	15.16	runoff and erosion	0.2321	3.009
R4	stream	10.78	runoff and erosion	0.2718	1.972
Step 4	20 m vegetative strip, 20 m no spray buffer				
D3	ditch	1.577	drainage	0.1999	1.078
D4	stream	1.801	drainage	0.2744	1.073
D5	stream	1.871	drainage	0.1207	0.4622
R1	stream	1.400	runoff and erosion	0.03324	0.3294
R2	Scenarios R2 are not relevant for Central Zone				
R3	stream	1.968	runoff and erosion	0.03011	0.4152
R4	stream	1.400	runoff and erosion	0.05478	0.4093
Step4	20 m vegetative strip, 20 m no spray buffer, 75% nozzle reduction				
D3	ditch	0.3942	drainage	0.04986	0.2905
D4	pond	0.4211	drainage	0.4047	2.340
D4	stream	0.5203	drainage	0.2744	1.067
D5	pond	0.2388	drainage	0.2314	1.311
D5	stream	0.4688	drainage	0.1207	0.4622
R1	pond	0.06290	runoff and erosion	0.05396	0.2773
R1	stream	0.5392	runoff and erosion	0.02322	0.2876
R3	stream	0.4919	runoff and erosion	0.007522	0.1076
R4	stream	0.7445	runoff and erosion	0.04892	0.3621
Maize (BBCH 31)					
Step 1	---	45.64	drainage/run off	43.46	175.62
Step 2					
Northern	Mar-May	5.59	drainage/run off	5.35	21.18

Scenario	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
FOCUS					
Europe					
Step 3					
D3	ditch	1.047	drainage	0.04803	0.4661
D4	pond	0.5924	drainage	0.5707	3.128
D4	stream	0.9284	drainage	0.3867	1.420
D5	pond	0.4210	drainage	0.4074	1.966
D5	stream	0.9912	drainage	0.2127	0.7837
D6	ditch	1.044	drainage	0.03909	0.4184
R1	pond	0.3823	runoff and erosion	0.3297	1.527
R1	stream	2.467	runoff and erosion	0.1630	2.098
R2	stream	0.9747	runoff and erosion	0.04983	1.479
R3	stream	2.646	runoff and erosion	0.1504	2.974
R4	stream	4.205	runoff and erosion	0.3579	1.988
Step4	10 m vegetative strip, 5 m no spray buffer				
D3	ditch	0.3431	drainage	0.01573	0.1600
D4	stream	0.6541	drainage	0.3867	1.418
D5	stream	0.5655	drainage	0.2127	0.7837
R1	stream	1.123	runoff and erosion	0.07343	0.6915
R3	stream	1.208	runoff and erosion	0.06831	0.9144
R4	stream	1.904	runoff and erosion	0.1616	0.8645
Sunflower (BBCH 31)					
Step 1	---	45.64	drainage/run off	43.46	175.62
Step 2					
Northern Europe	Mar-May	5.59	drainage/run off	5.35	21.18
Step 3					
D5	pond	0.3636	drainage	0.3521	1.726
D5	stream	0.9431	drainage	0.1829	0.6950
R1	pond	0.2000	runoff and erosion	0.1635	0.9537
R1	stream	2.122	runoff and erosion	0.09101	1.692
R3	stream	3.012	runoff and erosion	0.1538	1.233
R4	stream	3.679	runoff and erosion	0.3210	2.282
Step4	10 m vegetative strip, 5 m no spray buffer				
D5	stream	0.4859	drainage	0.1829	0.6950
R1	stream	0.9651	runoff and erosion	0.04117	0.5811
R3	stream	1.371	runoff and erosion	0.06877	0.5285

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
R4	stream	1.655	runoff and erosion	0.1450	0.9952

* single applications should be marked.

** twa-time as required by ecotox

Metabolite of azoxystrobinna

Table 8.9-4: FOCUS Step 1, 2 and 3 PEC_{sw} and PEC_{sed} for R401553 following single/multiple application(s) of CHR/F/SCORPIO 325 SC/ Clapton 325 SC, Scarp 325

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Winter oilseed rape (BBCH 14 – 20)					
Step 1	---	2.72	drainage/run off	2.69	3.86
Step 2					
Northern Europe	Oct-Feb	0.46	drainage/run off	0.45	0.65
Winter oilseed rape (BBCH 21 – 69)					
Step 1	---	2.72	drainage/run off	2.69	3.86
Step 2					
Northern Europe	Oct-Feb	0.20	drainage/run off	0.20	0.28
Sugar beet					
Step 1	---	2.72	drainage/run off	2.69	3.86
Step 2					
Northern Europe	June-Sep.	0.20	drainage/run off	0.20	0.28
Spring oilseed rape					
Step 1	---	2.72	drainage/run off	2.69	3.86
Step 2					
Northern Europe	Mar-May.	0.23	drainage/run off	0.22	0.32
Potatoes					
Step 1	---	2.72	drainage/run off	2.69	3.86
Step 2					
Northern Europe	Mar-May	0.51	drainage/run off	0.50	0.72
Carrot					

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, tva} (µg/L)**	Max PEC _{sed} (µg/kg)*
Step 1	---	2.72	drainage/run off	2.69	3.86
Step 2					
Northern Europe	Oct-Feb	0.46	drainage/run off	0.45	0.65
~~Tabacco~~ Tobacco					
Step 1	---	5.44	drainage/run off	5.38	7.72
Step 2					
Northern Europe	Mar-May	0.42	drainage/run off	0.41	0.59
Pome Fruit					
Step 1	---	7.10	drainage/run off	6.77	9.70
Step 2					
Northern Europe	Mar-May	1.98	drainage/run off	1.90	2.72
Leafy Vegetables					
Step 1	---	5.44	drainage/run off	5.38	7.72
Step 2					
Northern Europe	Mar-May	0.85	drainage/run off	0.84	1.21
Maize					
Step 1	---	2.72	drainage/run off	2.70	3.86
Step 2					
Northern Europe	Mar-May	0.46	drainage/run off	0.45	0.65
Sunflower					
Step 1	---	2.72	drainage/run off	2.70	3.86
Step 2					
Northern Europe	Mar-May	0.46	drainage/run off	0.45	0.65

* single applications should be marked.

** twa-time as required by ecotox

FOCUS Step 1, 2 and 3 PEC_{sw} and PEC_{sed} for R401553 – calculations at BBCH 31

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, tva} (µg/L)**	Max PEC _{sed} (µg/kg)*
Winter oilseed rape (BBCH 31)					
Step 1	---	2.72	drainage/run off	2.69	3.86

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, tva} (µg/L)**	Max PEC _{sed} (µg/kg)*
Step 2					
Northern Europe	Oct-Feb	0.46	drainage/run off	0.45	0.65
Sugar beet (BBCH 31)					
Step 1	---	2.72	drainage/run off	2.69	3.86
Step 2					
Northern Europe	June-Sep.	0.23	drainage/run off	0.22	0.32
Spring oilseed rape (BBCH 31)					
Step 1	---	2.72	drainage/run off	2.69	3.86
Step 2					
Northern Europe	Mar-May.	0.23	drainage/run off	0.22	0.32
Potatoes (BBCH 31)					
Step 1	---	2.72	drainage/run off	2.69	3.86
Step 2					
Northern Europe	Mar-May	0.33	drainage/run off	0.32	0.47
Pome Fruit (BBCH 31)					
Step 1	---	7.10	drainage/run off	6.77	9.70
Step 2					
Northern Europe	Mar-May	1.98	drainage/run off	1.90	2.72
Maize (BBCH 31)					
Step 1	---	2.72	drainage/run off	2.69	3.86
Step 2					
Northern Europe	Mar-May	0.33	drainage/run off	0.32	0.47
Sunflower (BBCH 31)					
Step 1	---	2.72	drainage/run off	2.69	3.86
Step 2					
Northern Europe	Mar-May	0.33	drainage/run off	0.32	0.47

* single applications should be marked.

** two-time as required by ecotox

Table 8.9-5: FOCUS Step 1, 2 and 3 PEC_{sw} and PEC_{sed} for R402173 following single/multiple application(s) of CHR/F/SCORPIO 325 SC/ Clapton 325 SC, Scarp 325

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Winter oilseed rape (BBCH 14 – 20)					
Step 1	---	1.32	drainage/run off	1.31	2.14
Step 2					
Northern Europe	Oct-Feb	0.22	drainage/run off	0.22	0.36
Winter oilseed rape (BBCH 21 – 69)					
Step 1	---	1.31	drainage/run off	1.31	2.14
Step 2					
Northern Europe	Oct-Feb	0.10	drainage/run off	0.10	0.16
R4	stream		runoff and erosion		
Sugar beet					
Step 1	---	1.32	drainage/run off	1.31	2.14
Step 2					
Northern Europe	June-Sep.	0.10	drainage/run off	0.10	0.16
Spring oilseed rape					
Step 1	---	1.32	drainage/run off	1.31	2.14
Step 2					
Northern Europe	Mar-May.	0.11	drainage/run off	0.11	0.18
Potatoes					
Step 1	---	1.32	drainage/run off	1.31	2.14
Step 2					
Northern Europe	Mar-May	0.25	drainage/run off	0.24	0.40
Carrot					
Step 1	---	1.32	drainage/run off	1.31	2.14
Step 2					
Northern Europe	Oct-Feb	0.22	drainage/run off	0.22	0.36
~~Tabacco~~ Tobacco					
Step 1	---	2.63	drainage/run off	2.61	4.29
Step 2					

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Northern Europe	Mar-May	0.20	drainage/run off	0.20	0.33
Pome Fruit					
Step 1	---	3.33	drainage/run off	3.28	5.39
Step 2					
Northern Europe	Mar-May	0.93	drainage/run off	0.23	1.51
Leafy Vegetables					
Step 1	---	2.63	drainage/run off	2.61	4.29
Step 2					
Northern Europe	Mar-May	0.41	drainage/run off	0.10	0.67
Maize					
Step 1	---	1.32	drainage/run off	1.31	2.14
Step 2					
Northern Europe	Mar-May	0.22	drainage/run off	0.22	0.36
Sunflower					
Step 1	---	1.32	drainage/run off	1.31	2.14
Step 2					
Northern Europe	Mar-May	0.23	drainage/run off	0.23	0.38

* single applications should be marked.

** two-time as required by ecotox

FOCUS Step 1, 2 and 3 PEC_{sw} and PEC_{sed} for R402173 – calculations at BBCH 31

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Winter oilseed rape (BBCH 31)					
Step 1	---	1.32	drainage/run off	1.31	2.14
Step 2					
Northern Europe	Oct-Feb	0.22	drainage/run off	0.22	0.36
Sugar beet (BBCH 31)					
Step 1	---	1.32	drainage/run off	1.31	2.14
Step 2					
Northern	June-Sep.	0.11	drainage/run off	0.11	0.18

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, tva} (µg/L)**	Max PEC _{sed} (µg/kg)*
Europe					
Spring oilseed rape (BBCH 31)					
Step 1	---	1.32	drainage/run off	1.31	2.14
Step 2					
Northern Europe	Mar-May	0.11	drainage/run off	0.11	0.18
Potatoes (BBCH 31)					
Step 1	---	1.32	drainage/run off	1.31	2.14
Step 2					
Northern Europe	Mar-May	0.16	drainage/run off	0.16	0.26
Pome Fruit (BBCH 31)					
Step 1	---	3.33	drainage/run off	3.28	5.39
Step 2					
Northern Europe	Mar-May	0.93	drainage/run off	0.92	1.51
Maize (BBCH 31)					
Step 1	---	1.32	drainage/run off	1.31	2.14
Step 2					
Northern Europe	Mar-May	0.16	drainage/run off	0.16	0.26
Sunflower (BBCH 31)					
Step 1	---	1.32	drainage/run off	1.31	2.14
Step 2					
Northern Europe	Mar-May	0.16	drainage/run off	0.16	0.26

* single applications should be marked.

** two-time as required by ecotox

Table 8.9-6: FOCUS Step 1, 2 and 3 PEC_{sw} and PEC_{sed} for R234886 following single/multiple application(s) of CHR/F/SCORPIO 325 SC/ Clapton 325 SC, Scarp 325

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, tva} (µg/L)**	Max PEC _{sed} (µg/kg)*
Winter oilseed rape (BBCH 14 – 20)					
Step 1	---	11.40	drainage/run off	11.30	34.67

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Step 2					
Northern Europe	Oct-Feb	1.91	drainage/run off	1.90	5.81
Winter oilseed rape (BBCH 21 – 69)					
Step 1	---	11.40	drainage/run off	11.30	34.67
Step 2					
Northern Europe	Oct-Feb	0.84	drainage/run off	0.83	2.56
Sugar beet					
Step 1	---	11.40	drainage/run off	11.30	34.67
Step 2					
Northern Europe	June-Sep.	0.84	drainage/run off	0.83	2.56
Spring oilseed rape					
Step 1	---	11.40	drainage/run off	11.30	34.67
Step 2					
Northern Europe	Mar-May.	0.95	drainage/run off	0.94	2.88
Potatoes					
Step 1	---	11.40	drainage/run off	11.30	34.67
Step 2					
Northern Europe	Mar-May	2.13	drainage/run off	2.11	6.46
Carrot					
Step 1	---	11.40	drainage/run off	11.30	34.67
Step 2					
Northern Europe	Oct-Feb	1.91	drainage/run off	1.90	5.81
~~Tabacco~~ Tobacco					
Step 1	---	22.79	drainage/run off	22.61	69.33
Step 2					
Northern Europe	Mar-May	1.75	drainage/run off	1.73	5.31
Pome Fruit					
Step 1	---	28.81	drainage/run off	28.43	87.17
Step 2					
Northern	Mar-May	8.08	drainage/run off	7.97	24.45

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Europe					
Leafy Vegetables					
Step 1	---	22.79	drainage/run off	22.61	69.33
Step 2					
Northern Europe	Mar-May	3.56	drainage/run off	3.53	10.83
Maize					
Step 1	---	11.40	drainage/run off	11.30	34.67
Step 2					
Northern Europe	Mar-May	1.91	drainage/run off	1.90	5.81
Sunflower					
Step 1	---	11.40	drainage/run off	11.30	34.67
Step 2					
Northern Europe	Mar-May	2.02	drainage/run off	2.00	6.14

* single applications should be marked.

** two-time as required by ecotox

FOCUS Step 1, 2 and 3 PEC_{sw} and PEC_{sed} for R234886 following – calculations at BBCH 31

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Winter oilseed rape (BBCH 31)					
Step 1	---	11.40	drainage/run off	11.30	34.67
Step 2					
Northern Europe	Oct-Feb	1.91	drainage/run off	1.90	5.81
Sugar beet (BBCH 31)					
Step 1	---	11.40	drainage/run off	11.30	34.67
Step 2					
Northern Europe	June-Sep.	0.95	drainage/run off	0.94	2.88
Spring oilseed rape (BBCH 31)					
Step 1	---	11.40	drainage/run off	11.30	34.67
Step 2					
Northern	Mar-May.	0.95	drainage/run off	0.94	2.88

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Europe					
Potatoes (BBCH 31)					
Step 1	---	11.40	drainage/run off	11.30	34.67
Step 2					
Northern Europe	Mar-May	1.38	drainage/run off	1.36	4.18
Pome Fruit (BBCH 31)					
Step 1	---	28.81	drainage/run off	28.43	87.17
Step 2					
Northern Europe	Mar-May	8.08	drainage/run off	7.97	24.45
Maize (BBCH 31)					
Step 1	---	11.40	drainage/run off	11.30	34.67
Step 2					
Northern Europe	Mar-May	1.38	drainage/run off	1.36	4.18
Sunflower (BBCH 31)					
Step 1	---	11.40	drainage/run off	11.30	2.39
Step 2					
Northern Europe	Mar-May	1.38	drainage/run off	1.36	0.29

* single applications should be marked.

** two-time as required by ecotox

Conclusions:

For intended uses of product CHR/F/SCORPIO 325 SC are necessary to maintain:

- 20 m vegetative strip and 20 m no-spray buffer in pome fruit for Poland,
- 10 m vegetative strip and 10 m no-spray buffer in leafy vegetables for Poland,

Other crops do not require the use of buffer zones for Poland.

For Ireland, Hungary, Austria the content of the product CHR/F/SCORPIO 325 SC in surface water is acceptable with using 10 m vegetative strip and 5 m no spray buffer in potatoes.

For Ireland, Hungary, Austria the content of the product CHR/F/SCORPIO 325 SC in surface water is acceptable with using 5 m no-spray buffer in ~~tabacco~~ Tobacco.

For Ireland, Hungary, Austria the content of the product CHR/F/SCORPIO 325 SC in surface water is acceptable with using 10 m vegetative strip and 10 no-spray buffer in maize and sunflower.

For all metabolites PEC sw/sed values were below RAC values.

8.9.2.2 Difenoconazole and its metabolites

Table 8.9-7: Input parameters related to active substance Difenoconazole and metabolites CGA 71019, CGA 205375 for $PEC_{sw/sed}$ calculations STEP 1-2 and 3-4.

Compound	Difenoconazole	CGA 71019	CGA 205375	Value in accordance to EU endpoint y/n/ Reference
Molecular weight (g/mol)	406	69	350	EFSA Journal 2011;9(1):1967, Yes
Saturated vapour pressure (Pa)	0	0	0	EFSA Journal 2011;9(1):1967, Yes
Water solubility (mg/L)	15	730	100	EFSA Journal 2011;9(1):1967, Yes
Diffusion coefficient in water (m ² /d)	not required for Step 1+2/ 4.3 x 10 ⁻⁵	not required for Step 1+2/ 4.3 x 10 ⁻⁵	not required for Step 1+2/ 4.3 x 10 ⁻⁵	
Diffusion coefficient in air (m ² /d)	not required for Step 1+2/0.43	not required for Step 1+2/0.43	not required for Step 1+2/0.43	
K _{foc} (mL/g)	2942.9	83	2661.1	EFSA Journal 2011;9(1):1967, Yes
Freundlich Exponent 1/n	0.85	0.90	0.80	EFSA Journal 2011;9(1):1967, Yes
Plant Uptake	0.00	0.00	0.00	
Wash-Off factor from Crop (l/mm)	not required for Step 1+2/ 0.05 (MACRO) 0.50 (PRZM)	not required for Step 1+2/ 0.05 (MACRO) 0.50 (PRZM)	not required for Step 1+2/ 0.05 (MACRO) 0.50 (PRZM)	
DT _{50,soil} (d)	130	60.5 (worst case scenario)	94	EFSA Journal 2011;9(1):1967, Yes
DT _{50,water} (d)	315.5	1000	465.5	EFSA Journal 2011;9(1):1967, Yes
DT _{50,sed} (d)	315.5	1000	465.5	EFSA Journal 2011;9(1):1967, Yes
DT _{50,whole system} (d)	315.5	1000	465.5	EFSA Journal 2011;9(1):1967, Yes
Maximum occurrence observed (% molar basis with respect to the parent)	-	Water/Sediment: 9.6 Soil: 23.4	Water/Sediment: 11.6 Soil: 9.7	EFSA Journal 2011;9(1):1967, Yes

Table 8.9-8: FOCUS Step 1,2,3 and 4 PEC_{sw} and PEC_{sed} for Difenconazole following single application of CHR/F/SCORPIO 325 SC/ Clapton 325 SC, Scarp 325

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Winter oilseed rape (BBCH 14 – 20)					
Step 1	---	9.61	drainage/run off	8.52	255.34
Step 2					
Northern Europe	Oct-Feb	1.56	drainage/run off	1.44	43.28
Step 3					
D2	ditch	0.8142	drainage	0.2888	3.668
D2	stream	0.7143	drainage	0.2359	2.884
D3	ditch	0.7904	drainage	0.06761	0.8935
D4	pond	0.02707	drainage	0.02013	0.3482
D4	stream	0.6806	drainage	0.009331	0.1483
D5	pond	0.02713	drainage	0.02033	0.2989
D5	stream	0.7343	drainage	0.01335	0.1029
R1	pond	0.04714	runoff and erosion	0.03735	0.9628
R1	stream	0.5202	runoff and erosion	0.01374	0.8472
R3	stream	0.7276	runoff and erosion	0.02716	3.393
Step4	10 m vegetative strip, 10 m no spray buffer				
D2	Scenarios D2 are not relevant for Central Zone				
D3	ditch	0.1133	drainage	0.009593	0.1321
D4	stream	0.1317	drainage	0.003162	0.05367
D5	stream	0.1421	drainage	0.002580	0.04092
R1	stream	0.1067	runoff and erosion	0.006140	0.2151
R3	stream	0.1408	runoff and erosion	0.01196	0.6503
Winter oilseed rape (BBCH 21 – 69)					
Step 1	---	9.61	drainage/run off	8.52	255.34
Step 2					
Northern Europe	Oct-Feb	1.15	drainage/run off	0.62	18.96
Step 3					
D2	ditch	0.8007	drainage	0.2170	2.542
D2	stream	0.7097	drainage	0.1553	2.085
D3	ditch	0.7851	drainage	0.03047	0.4501
D4	pond	0.02705	drainage	0.02001	0.2738

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
D4	stream	0.6109	drainage	0.001600	0.02609
D5	pond	0.02715	drainage	0.01949	0.2676
D5	stream	0.5097	drainage	0.000392	0.006953
R1	pond	0.03223	runoff and erosion	0.02613	0.5665
R1	stream	0.5173	runoff and erosion	0.01310	1.439
R3	stream	0.7334	runoff and erosion	0.01657	4.374
Step4	10 m vegetative strip, 10 m no spray buffer				
D2	Scenarios D2 are not relevant for Central Zone				
D3	ditch	0.1125	drainage	0.004346	0.06560
D4	stream	0.1183	drainage	0.001600	0.02435
D5	stream	0.09865	drainage	0.000076	0.001752
R1	stream	0.1001	runoff and erosion	0.005838	0.2744
R3	stream	0.1420	runoff and erosion	0.006320	0.7257
Sugar beet					
Step 1	---	9.61	drainage/run off	8.52	255.34
Step 2					
Northern Europe	June-Sep.	1.15	drainage/run off	0.62	18.96
Step 3					
D3	ditch	0.6506	drainage	0.03029	0.4385
D4	pond	0.02616	drainage	0.01876	0.2465
D4	stream	0.5210	drainage	0.002708	0.04199
R1	pond	0.04395	runoff and erosion	0.03812	1.180
R1	stream	0.4511	runoff and erosion	0.01397	2.788
R3	stream	0.6345	runoff and erosion	0.02485	2.409
Step4	10 m vegetative strip, 10 m no spray buffer				
D3	ditch	0.1127	drainage	0.005221	0.07728
D4	stream	0.1169	drainage	0.002267	0.03401
R1	stream	0.1069	runoff and erosion	0.009682	0.9423
R3	stream	0.1416	runoff and erosion	0.01125	0.4723
Spring oilseed rape					
Step 1	---	9.61	drainage/run off	8.52	255.34
Step 2					
Northern Europe	Mar-May	1.15	drainage/run off	0.69	21.39
Step 3					

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
D1	ditch	0.7965	drainage	0.4115	3.504
D1	stream	0.6965	drainage	0.02960	0.4427
D3	ditch	0.7874	drainage	0.04073	0.5825
D4	pond	0.02706	drainage	0.01991	0.2552
D4	stream	0.6448	drainage	0.002840	0.04616
D5	pond	0.02714	drainage	0.02009	0.2711
D5	stream	0.6246	drainage	0.001075	0.01797
R1	pond	0.04047	runoff and erosion	0.03546	1.222
R1	stream	0.5182	runoff and erosion	0.01812	2.229
Step4	10 m vegetative strip, 10 m no spray buffer				
D1	Scenarios D1 are not relevant for Central Zone				
D2	Scenarios D2 are not relevant for Central Zone				
D3	ditch	0.1128	drainage	0.005801	0.08526
D4	stream	0.1248	drainage	0.001582	0.02468
D5	stream	0.1209	drainage	0.000208	0.003784
R1	stream	0.1094	runoff and erosion	0.009196	0.5259
Potatoes					
Step 1	---	9.61	drainage/run off	8.52	255.34
Step 2					
Northern Europe	Mar-May	1.73	drainage/run off	1.60	48.15
Step 3					
D3	ditch	0.6516	drainage	0.03607	0.5121
D4	pond	0.02616	drainage	0.01882	0.2556
D4	stream	0.5407	drainage	0.003820	0.05787
~~D6~~	~~ditch~~	~~0.6416~~	~~drainage~~	~~0.01157~~	~~0.1868~~
D6	ditch	0.6387	drainage	0.009189	0.1483
R1	pond	0.04768	runoff and erosion	0.04162	1.437
R1	stream	0.4426	runoff and erosion	0.02280	2.871
R2	stream	0.5960	runoff and erosion	0.004587	11.41
R3	stream	0.6354	runoff and erosion	0.02398	2.026
Step4	10 m vegetative strip, 5 m no spray buffer				
D3	ditch	0.2132	drainage	0.01176	0.1698
D4	stream	0.2276	drainage	0.003820	0.05610
D6	Scenarios D6 are not relevant for Central Zone				
R1	stream	0.1862	runoff and erosion	0.01010	0.5250

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
R2	Scenarios R2 are not relevant for Central Zone				
R3	stream	0.2674	runoff and erosion	0.01059	0.4233
Carrot					
Step 1	---	9.61	drainage/run off	8.52	255.34
Step 2					
Northern Europe	Oct-Feb	1.56	drainage/run off	1.44	43.28
Step 3					
D3	ditch	0.7872	drainage	0.04032	0.5760
D6	ditch	0.7770	drainage	0.01492	0.2340
R1	pond	0.07223	runoff and erosion	0.05787	1.725
R1	stream	0.5178	runoff and erosion	0.02464	5.412
R2	stream	0.6871	runoff and erosion	0.005179	15.46
R3	stream	0.7334	runoff and erosion	0.02042	1.850
R4	stream	0.5167	runoff and erosion	0.04267	4.438
Step4	10 m vegetative strip, 10 m no spray buffer				
D3	ditch	0.1128	drainage	0.005743	0.08428
D6	Scenarios D6 are not relevant for Central Zone				
R1	stream	0.1055	runoff and erosion	0.009842	0.8910
R2	Scenarios R2 are not relevant for Central Zone				
R3	stream	0.1420	runoff and erosion	0.007078	0.3577
R4	stream	0.1618	runoff and erosion	0.01942	0.9040
~~Tabacco~~ Tobacco					
Step 1	---	19.22	drainage/run off	17.04	510.69
Step 2					
Northern Europe	Mar-May	1.51	drainage/run off	1.33	39.97
Step 3					
R3	stream	0.5035	runoff and erosion	0.05800	11.43
Step4	10 m vegetative strip, 5 m no spray buffer				
R3	stream	0.2241	runoff and erosion	0.02622	1.961
Step4	20 m vegetative strip, 5 m no spray buffer				
R3	stream	0.2239	runoff and erosion	0.01563	0.7492
Pome Fruit					
Step 1	---	41.26	drainage/run off	21.83	642.08

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Step 2					
Northern Europe	Mar-May	13.49	drainage/run off	6.37	180.15
Step 3					
D3	ditch	8.329	drainage	0.9241	9.568
D4	pond	0.7510	drainage	0.6048	8.133
D4	stream	8.411	drainage	0.04301	0.7918
D5	pond	0.8661	drainage	0.7018	8.594
D5	stream	8.913	drainage	0.05359	0.7644
R1	pond	0.8537	runoff and erosion	0.6694	7.797
R1	stream	6.669	runoff and erosion	0.09420	1.117
R2	stream	8.850	runoff and erosion	0.03829	1.093
R3	stream	9.439	runoff and erosion	0.3001	3.525
R4	stream	6.709	runoff and erosion	0.07143	1.648
Step4	20 m vegetative strip, 20 m no spray buffer				
D3	ditch	0.9805	drainage	0.1081	1.219
D4	pond	0.1417	drainage	0.1126	1.691
D4	stream	1.090	drainage	0.005572	0.1055
D5	pond	0.1647	drainage	0.1314	1.785
D5	stream	1.156	drainage	0.006945	0.1022
R1	pond	0.1623	runoff and erosion	0.1253	1.627
R1	stream	0.8646	runoff and erosion	0.01220	0.1545
R2	Scenarios R2 are not relevant for Central Zone				
R3	stream	1.224	runoff and erosion	0.04033	0.4970
R4	stream	0.8697	runoff and erosion	0.01205	0.2814
Step4	20 m vegetative strip, 20 m no spray buffer, 50% nozzle reduction				
D3	ditch	0.4897	drainage	0.05388	0.6234
D4	stream	0.5447	drainage	0.002783	0.05319
D5	stream	0.5772	drainage	0.003468	0.05162
R1	stream	0.4319	runoff and erosion	0.006095	0.09505
R3	stream	0.6113	runoff and erosion	0.02180	0.2798
R4	stream	0.4344	runoff and erosion	0.01204	0.2457
Step4	20 m vegetative strip, 20 m no spray buffer, 75% nozzle reduction				
D3	ditch	0.2448	drainage	0.02688	0.3188
D4	stream	0.2721	drainage	0.001390	0.02684
D5	stream	0.2884	drainage	0.001733	0.02614

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
R1	stream	0.2158	runoff and erosion	0.004084	0.08115
R3	stream	0.3055	runoff and erosion	0.01255	0.1692
R4	stream	0.2170	runoff and erosion	0.01204	0.2270
Leafy Vegetables					
Step 1	---	19.22	drainage/run off	17.04	510.69
Step 2					
Northern Europe	Mar-May	2.95	drainage/run off	2.74	82.18
Step 3					
D3	ditch	0.6892	drainage	0.07326	0.8065
D4	pond	0.03655	drainage	0.02780	0.4904
D4	stream	0.5436	drainage	0.009046	0.1325
R1	pond	0.2037	runoff and erosion	0.1855	4.588
R1	stream	0.6084	runoff and erosion	0.04663	19.81
R2	stream	0.5886	runoff and erosion	0.02427	18.76
R3	stream	0.6306	runoff and erosion	0.03947	17.68
R4	stream	0.9462	runoff and erosion	0.1133	4.814
Step4	10 m vegetative strip, 10 m no spray buffer				
D3	ditch	0.09275	drainage	0.009820	0.1160
D4	stream	0.1252	drainage	0.009046	0.1279
R1	stream	0.2123	runoff and erosion	0.01658	1.805
R2	Scenarios R2 are not relevant for Central Zone				
R3	stream	0.2497	runoff and erosion	0.01752	2.893
R4	stream	0.4300	runoff and erosion	0.05140	1.173
Step4	20 m vegetative strip, 10 m no spray buffer				
R1	stream	0.1112	runoff and erosion	0.008652	0.6741
R4	stream	0.1719	runoff and erosion	0.000153	0.1313
Maize					
Step 1	---	9.61	drainage/run off	8.52	255.34
Step 2					
Northern Europe	Mar-May	1.56	drainage/run off	1.44	43.28
Step 3					
D3	ditch	0.6517	drainage	0.03650	0.5169
D4	pond	0.02617	drainage	0.01923	0.2456
D4	stream	0.5576	drainage	0.002364	0.03847

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
D5	pond	0.02626	drainage	0.01940	0.2537
D5	stream	0.5820	drainage	0.001773	0.02924
D6	ditch	0.6531	drainage	0.05176	0.7184
R1	pond	0.05228	runoff and erosion	0.04529	1.372
R1	stream	0.4511	runoff and erosion	0.01657	3.512
R2	stream	0.6036	runoff and erosion	0.007870	19.53
R3	stream	0.6335	runoff and erosion	0.02346	3.105
R4	stream	0.4498	runoff and erosion	0.06079	2.984
Step4	10 m vegetative strip, 10 m no spray buffer				
D3	~~stream~~ ditch	0.1129	drainage	0.006286	0.09137
D4	stream	0.1244	drainage	0.001748	0.02701
D5	stream	0.1299	drainage	0.000395	0.006830
D6	Scenarios D6 are not relevant for Central Zone				
R1	stream	0.1081	runoff and erosion	0.007474	0.6122
R2	Scenarios R2 are not relevant for Central Zone				
R3	stream	0.1414	runoff and erosion	0.01068	0.5858
R4	stream	0.1963	runoff and erosion	0.02741	0.6993
Sunflower					
Step 1	---	9.61	drainage/run off	8.52	255.34
Step 2					
Northern Europe	Mar-May	1.64	drainage/run off	1.52	45.71
Step 3					
~~D6~~ D5	~~ditch~~ pond	0.02624	drainage	0.01922	0.2519
D5	stream	0.5543		0.001107	0.01845
R1	pond	0.0511	runoff and erosion	0.001107 0.0447	0.01845 1.557
~~R1~~	~~stream~~	~~0.05107~~	~~runoff and erosion~~	~~0.04468~~	~~1.557~~
R1-R2	stream	0.4420	runoff and erosion	0.02365	3.715
R3	stream	0.6349	runoff and erosion	0.02094	2.283
R4	stream	0.4507	runoff and erosion	0.05947	2.897
Step4	10 m vegetative strip, 10 m no spray buffer				
D5	stream	0.1237	drainage	0.000247	0.004384
R1	stream	0.1234	runoff and erosion	0.009960	0.6551
R3	stream	0.1417	runoff and erosion	0.009321	0.4158

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
R4	stream	0.1950	runoff and erosion	0.02685	0.6770

* single applications should be marked.

** two-time as required by ecotox

FOCUS Step 1,2,3 and 4 PEC_{sw} and PEC_{sed} for Difenoconazole – calculations at BBCH 31

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Winter oilseed rape (BBCH 31)					
Step 1	---	9.61	drainage/run off	8.52	255.34
Step 2					
Northern Europe	Oct-Feb	1.15	drainage/run off	0.69	21.39
Step 3					
D2	ditch	0.7983	drainage	0.1411	1.732
D2	stream	0.7093	drainage	0.08453	1.253
D3	ditch	0.7851	drainage	0.03047	0.4501
D4	pond	0.02704	drainage	0.01963	0.2646
D4	stream	0.5870	drainage	0.001216	0.02002
D5	pond	0.02714	drainage	0.02005	0.2742
D5	stream	0.6267	drainage	0.001095	0.01831
R1	pond	0.03121	runoff and erosion	0.02533	0.5562
R1	stream	0.5173	runoff and erosion	0.01252	1.504
R3	stream	0.7273	runoff and erosion	0.000105	0.1949
Step4	10 m vegetative strip, 5 m no spray buffer				
D2	Scenarios D2 are not relevant for Central Zone				
D3	ditch	0.2125	drainage	0.008221	0.1233
D4	stream	0.2143	drainage	0.001216	0.01894
D5	stream	0.2288	drainage	0.000400	0.006927
R1	stream	0.1888	drainage/run off	0.005578	0.2851
R3	stream	0.2655	runoff and erosion	0.005840	0.2329
Sugar beet (BBCH 31)					
Step 1	---	9.61	drainage/run off	8.52	255.34
Step 2					
Northern Europe	June-Sep.	1.15	drainage/run off	0.69	21.39

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Step 3					
D3	ditch	0.6506	drainage	0.03029	0.4385
D4	pond	0.02616	drainage	0.01387	0.5237
D4	stream	0.5237	drainage	0.002267	0.03608
R1	pond	0.07267	runoff and erosion	0.05115	0.07161
R1	stream	0.4515	runoff and erosion	0.000263	0.1917
R3	stream	0.6366	runoff and erosion	0.000604	0.02151
Step4	10 m vegetative strip, 5 m no spray buffer				
D3	ditch	0.2129	drainage	0.009880	0.1451
D4	stream	0.2204	drainage	0.002267	0.03456
R1	stream	0.1900	drainage/run off	0.009682	0.9475
R3	stream	0.2679	runoff and erosion	0.009397	0.5759
Spring oilseed rape (BBCH 31)					
Step 1	---	9.61	drainage/run off	8.52	255.34
Step 2					
Northern Europe	Mar-May	1.15	drainage/run off	0.69	21.39
Step 3					
D1	ditch	0.7965	drainage	0.2436	0.7557
D1	stream	0.6965	drainage	0.02960	0.4414
D3	ditch	0.7882	drainage	0.04637	0.6496
D4	pond	0.02706	drainage	0.01991	0.2552
D4	stream	0.6448	drainage	0.002840	0.04616
D5	pond	0.02713	drainage	0.02023	0.2698
D5	stream	0.6852	drainage	0.002649	0.04341
R1	pond	0.04340	runoff and erosion	0.02859	0.04294
R1	stream	0.5171	runoff and erosion	0.02293	2.992
Step4	10 m vegetative strip, 5 m no spray buffer				
D1	Scenarios D1 are not relevant for Central Zone				
D2	Scenarios D2 are not relevant for Central Zone				
D3	ditch	0.2133	drainage	0.01249	0.1787
D4	stream	0.2354	drainage	0.001163	0.01948
D5	stream	0.2501	drainage	0.000967	0.01605
R1	stream	0.1888	drainage/run off	0.009930	0.5266
Potatoes (BBCH 31)					
Step 1	---	9.61	drainage/run off	8.52	255.34

Scenario	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw,twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
FOCUS					
Step 2					
Northern Europe	Mar-May	1.15	drainage/run off	0.96	31.12
Step 3					
D3	ditch	0.6510	drainage	0.03198	0.4607
D4	pond	0.02614	drainage	0.01800	0.2627
D4	stream	0.4706	drainage	0.003226	0.04813
D6	ditch	0.6474	drainage	0.02150	0.3236
D6	ditch	0.6402	drainage	0.01026	0.1650
R1	pond	0.06833	runoff and erosion	0.05663	1.591
R1	stream	0.4515	runoff and erosion	0.02024	5.008
R2	stream	0.5960	runoff and erosion	0.005303	11.59
R3	stream	0.6345	runoff and erosion	0.02447	2.494
Step4	10 m vegetative strip, 5 m no spray buffer				
D3	ditch	0.2130	drainage	0.01043	0.1526
D4	stream	0.1980	drainage	0.003226	0.04716
R1	stream	0.1900	runoff and erosion	0.009018	0.8618
R3	stream	0.2670	runoff and erosion	0.01108	0.4921
D6	Scenarios D6 are not relevant for Central Zone				
R2	Scenarios R2 are not relevant for Central Zone				
Pome Fruit (BBCH 31)					
Step 1	---	41.26	drainage/run off	21.83	642.08
Step 2					
Northern Europe	Mar-May	13.49	drainage/run off	6.37	180.15
Step 3					
D3	ditch	8.337	drainage	0.01641	6.941
D4	pond	0.8436	drainage	0.6777	8.110
D4	stream	8.635	drainage	0.1154	1.496
D5	pond	0.8403	drainage	0.6809	8.490
D5	stream	8.963	drainage	0.07973	0.9603
R1	pond	0.7498	runoff and erosion	0.5890	7.439
R1	stream	6.710	runoff and erosion	0.07477	1.341
R2	stream	8.992	runoff and erosion	0.07915	1.061
R3	stream	9.438	runoff and erosion	0.1456	2.814
R4	stream	6.709	runoff and erosion	0.1043	2.021

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Step4	20 m vegetative strip, 20 m no spray buffer				
D3	ditch	0.9815	drainage	0.1199	1.325
D4	pond	0.1600	drainage	0.1266	1.685
D4	stream	1.119	drainage	0.01496	0.2022
D5	pond	0.1593	drainage	0.1272	1.766
D5	stream	1.162	drainage	0.01033	0.1316
R1	pond	0.1417	runoff and erosion	0.1099	1.552
R1	stream	0.8699	runoff and erosion	0.01066	0.1829
R2	Scenarios R2 are not relevant for Central Zone				
R3	stream	1.224	runoff and erosion	0.01908	0.3891
R4	stream	0.8697	runoff and erosion	0.000032	0.1719
Step4	20 m vegetative strip, 20 m no spray buffer, 50% nozzle reduction				
D3	ditch	0.4902	drainage	0.05975	0.6782
D4	stream	0.5592	drainage	0.007469	0.1023
D5	stream	0.5805	drainage	0.005160	0.06703
R1	stream	0.4345	runoff and erosion	0.006510	0.1185
R3	stream	0.6112	runoff and erosion	0.009785	0.2002
R4	stream	0.4344	runoff and erosion	0.01582	0.2775
Step4	20 m vegetative strip, 20 m no spray buffer, 75% nozzle reduction				
D3	ditch	0.2451	drainage	0.02980	0.3470
D4	pond	0.03953	drainage	0.03087	0.4482
D4	stream	0.2794	drainage	0.003731	0.05179
D5	pond	0.03938	drainage	0.03105	0.4721
D5	stream	0.2900	drainage	0.002578	0.03420
R1	pond	0.03504	runoff and erosion	0.02707	0.4195
R1	stream	0.2171	runoff and erosion	0.004441	0.08815
R3	stream	0.3054	runoff and erosion	0.005146	0.1040
R4	stream	0.2170	runoff and erosion	0.01461	0.2551
Maize (BBCH 31)					
Step 1	---	9.61	drainage/run off	8.52	255.34
Step 2					
Northern Europe	Mar-May	1.15	drainage/run off	0.96	31.12
Step 3					
D3	ditch	0.6504	drainage	0.02921	0.4248
D4	pond	0.02617	drainage	0.01916	0.2429

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
D4	stream	0.5764	drainage	0.004192	0.06760
D5	pond	0.02626	drainage	0.01524	0.02578
D5	stream	0.6144	drainage	0.004275	0.06898
D6	ditch	0.6476	drainage	0.02111	0.3202
R1	pond	0.07982	runoff and erosion	0.06610	1.882
R1	stream	0.4515	runoff and erosion	0.02351	5.933
R2	stream	0.6053	runoff and erosion	0.01167	38.74
R3	stream	0.6366	runoff and erosion	0.02202	5.679
R4	stream	0.4402	runoff and erosion	0.06998	3.447
Step4	10 m vegetative strip, 5 m no spray buffer				
D3	ditch	0.2128	drainage	0.009527	0.1405
D4	stream	0.2426	drainage	0.001763	0.02849
D5	stream	0.2586	drainage	0.001798	0.02927
D6	Scenarios D6 are not relevant for Central Zone				
R1	stream	0.1900	runoff and erosion	0.01047	1.018
R2	Scenarios R2 are not relevant for Central Zone				
R3	stream	0.2679	runoff and erosion	0.009875	0.9668
R4	stream	0.1853	runoff and erosion	0.03148	0.7713
Sunflower (BBCH 31)					
Step 1	---	9.61	drainage/run off	8.52	255.34
Step 2					
Northern Europe	Mar-May	1.15	drainage/run off	0.96	31.12
Step 3					
D5	pond	0.02626	drainage	0.01940	0.2535
D5	stream	0.5828	drainage	0.000010	0.03771
R1	pond	0.04887	runoff and erosion	0.04325	1.460
R1	stream	0.4509	runoff and erosion	0.01915	4.634
R3	stream	0.6332	runoff and erosion	0.02085	3.557
R4	stream	0.4415	runoff and erosion	0.05467	3.489
Step4	10 m vegetative strip, 5 m no spray buffer				
D5	stream	0.2453	drainage	0.000758	0.01271
R1	stream	0.1897	runoff and erosion	0.008576	0.7841
R3	stream	0.2665	runoff and erosion	0.009087	0.6182
R4	stream	0.1858	runoff and erosion	0.02459	0.7363

* single applications should be marked.

****** twa-time as required by ecotox

Table 8.9-9: FOCUS Step 1,2 and 3 PEC_{sw} and PEC_{sed} for application of CGA 71019 CHR/F/SCORPIO 325 SC/ Clapton 325 SC, Scarp 325

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw,twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Winter oilseed rape (BBCH 14 – 20)					
Step 1	---	2.12	drainage/run off	2.11	1.76
Step 2					
Northern Europe	Oct-Feb	0.32	drainage/run off	0.32	0.27
Winter oilseed rape (BBCH 21 – 69)					
Step 1	---	2.12	drainage/run off	2.11	1.76
Step 2					
Northern Europe	Oct-Feb	0.12	drainage/run off	0.12	0.10
Sugar beet					
Step 1	---	2.12	drainage/run off	2.11	1.76
Step 2					
Northern Europe	June-Sep.	0.12	drainage/run off	0.12	0.10
Spring oilseed rape					
Step 1	---	2.12	drainage/run off	2.11	1.76
Step 2					
Northern Europe	Mar-May.	0.14	drainage/run off	0.14	0.11
Potatoes					
Step 1	---	2.12	drainage/run off	2.11	1.76
Step 2					
Northern Europe	Mar-May	0.36	drainage/run off	0.36	0.30
Carrot					
Step 1	---	2.12	drainage/run off	2.11	1.76
Step 2					
Northern Europe	Oct-Feb	0.32	drainage/run off	0.32	0.27
~~Tabacco~~ Tobacco					
Step 1	---	4.25	drainage/run off	4.21	3.52

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Step 2					
Northern Europe	Mar-May	0.26	drainage/run off	0.25	0.21
Pome Fruit					
Step 1	---	4.60	drainage/run off	4.53	3.79
Step 2					
Northern Europe	Mar-May	0.78	drainage/run off	0.76	0.63
Leafy Vegetables					
Step 1	---	4.25	drainage/run off	4.21	3.52
Step 2					
Northern Europe	Mar-May	0.60	drainage/run off	0.59	0.50
Maize					
Step 1	---	2.12	drainage/run off	2.11	1.76
Step 2					
Northern Europe	Mar-May	0.32	drainage/run off	0.32	0.27
Sunflower					
Step 1	---	2.12	drainage/run off	2.11	1.76
Step 2					
Northern Europe	Mar-May	0.34	drainage/run off	0.34	0.28

* single applications should be marked.

** twa-time as required by ecotox

FOCUS Step 1,2 and 3 PEC_{sw} and PEC_{sed} for application of CGA 71019 – calculations at BBCH 31

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Winter oilseed rape (BBCH 31)					
Step 1	---	2.12	drainage/run off	2.11	1.76
Step 2					
Northern Europe	Oct-Feb	0.14	drainage/run off	0.14	0.11
Sugar beet (BBCH 31)					
Step 1	---	2.12	drainage/run off	2.11	1.76

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Step 2					
Northern Europe	June-Sep.	0.14	drainage/run off	0.14	0.11
Spring oilseed rape (BBCH 31)					
Step 1	---	2.12	drainage/run off	2.11	1.76
Step 2					
Northern Europe	Mar-May.	0.14	drainage/run off	0.14	0.11
Potatoes (BBCH 31)					
Step 1	---	2.12	drainage/run off	2.11	1.76
Step 2					
Northern Europe	Mar-May	0.22	drainage/run off	0.22	0.18
Pome Fruit (BBCH 31)					
Step 1	---	4.60	drainage/run off	4.53	3.79
Step 2					
Northern Europe	Mar-May	0.78	drainage/run off	0.76	0.63
Maize (BBCH 31)					
Step 1	---	2.12	drainage/run off	2.11	1.76
Step 2					
Northern Europe	Mar-May	0.22	drainage/run off	0.22	0.18
Sunflower (BBCH 31)					
Step 1	---	2.12	drainage/run off	2.11	1.76
Step 2					
Northern Europe	Mar-May	0.22	drainage/run off	0.22	0.18

* single applications should be marked.

** two-time as required by ecotox

**Table 8.9-10: FOCUS Step 1,2 and 3 PEC_{sw} and PEC_{sed} for application of CGA 205375
CHR/F/SCORPIO 325 SC/ Clapton 325 SC, Scarp 325**

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Winter oilseed rape (BBCH 14 – 20)					

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Step 1	---	1.80	drainage/run off	1.68	45.37
Step 2					
Northern Europe	Oct-Feb	0.28	drainage/run off	0.27	7.21
Winter oilseed rape (BBCH 21 – 69)					
Step 1	---	1.80	drainage/run off	1.68	45.37
Step 2					
Northern Europe	Oct-Feb	0.12	drainage/run off	0.11	2.85
Sugar beet					
Step 1	---	1.80	drainage/run off	1.68	45.37
Step 2					
Northern Europe	June-Sep.	0.12	drainage/run off	0.10	2.82
Spring oilseed rape					
Step 1	---	1.80	drainage/run off	1.68	45.37
Step 2					
Northern Europe	Mar-May.	0.13	drainage/run off	0.12	3.28
Potatoes					
Step 1	---	1.80	drainage/run off	1.68	45.37
Step 2					
Northern Europe	Mar-May	0.31	drainage/run off	0.30	8.08
Carrot					
Step 1	---	1.80	drainage/run off	1.68	45.37
Step 2					
Northern Europe	Oct-Feb	0.28	drainage/run off	0.27	7.21
~~Tabacco~~ Tobacco					
Step 1	---	3.59	drainage/run off	3.37	90.74
Step 2					
Northern Europe	Mar-May	0.25	drainage/run off	0.23	6.18
Pome Fruit					
Step 1	---	5.80	drainage/run off	3.88	103.61
Step 2					

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Northern Europe	Mar-May	1.37	drainage/run off	0.83	22.25
Leafy Vegetables					
Step 1	---	3.59	drainage/run off	3.37	90.74
Step 2					
Northern Europe	Mar-May	0.53	drainage/run off	0.51	13.70
Maize					
Step 1	---	1.80	drainage/run off	1.68	45.37
Step 2					
Northern Europe	Mar-May	0.28	drainage/run off	0.27	7.21
Sunflower					
Step 1	---	1.80	drainage/run off	1.68	45.37
Step 2					
Northern Europe	Mar-May	0.30	drainage/run off	0.28	7.64

* single applications should be marked.

** two-time as required by ecotox

FOCUS Step 1,2 and 3 PEC_{sw} and PEC_{sed} for application of CGA 205375 – calculations at BBCH 31

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Winter oilseed rape (BBCH 31)					
Step 1	---	1.80	drainage/run off	1.68	45.37
Step 2					
Northern Europe	Oct-Feb	0.13	drainage/run off	0.12	3.28
Sugar beet (BBCH 31)					
Step 1	---	1.80	drainage/run off	1.68	45.37
Step 2					
Northern Europe	June-Sep.	0.13	drainage/run off	0.12	3.25
Spring oilseed rape (BBCH 31)					
Step 1	---	1.80	drainage/run off	1.68	45.37
Step 2					

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Northern Europe	Mar-May	0.13	drainage/run off	0.12	3.28
Potatoes (BBCH 31)					
Step 1	---	1.80	drainage/run off	1.68	45.37
Step 2					
Northern Europe	Mar-May	0.20	drainage/run off	0.19	5.03
Pome Fruit (BBCH 31)					
Step 1	---	5.80	drainage/run off	3.88	103.61
Step 2					
Northern Europe	Mar-May	1.37	drainage/run off	0.83	22.25
Maize (BBCH 31)					
Step 1	---	1.80	drainage/run off	1.68	45.37
Step 2					
Northern Europe	Mar-May	0.20	drainage/run off	0.19	5.03
Sunflower (BBCH 31)					
Step 1	---	1.80	drainage/run off	1.68	45.37
Step 2					
Northern Europe	Mar-May	0.20	drainage/run off	0.19	5.03

To complete the documentation with the missing information, the applicant provides the required details below:

FOCUS Step 4 PEC_{sw} for Difenoconazole – calculations at BBCH 31

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Winter oilseed rape (BBCH 31)					
Step4	10 m vegetative strip, 5 m no spray buffer				
R1	stream	0.1888	drainage/run off	0.005578	0.2851
Sugar beet (BBCH 31)					
Step4	10 m vegetative strip, 5 m no spray buffer				
R1	stream	0.1900	drainage/run off	0.009682	0.9475
Spring oilseed rape (BBCH 31)					

Scenario FOCUS	Waterbody	Max PEC _{sw} (µg/L)*	Dominant entry route	21 d- PEC _{sw, twa} (µg/L)**	Max PEC _{sed} (µg/kg)*
Step4	10 m vegetative strip, 5 m no spray buffer				
R1	stream	0.1888	drainage/run off	0.009930	0.5266

Conclusions:

For intended uses of product CHR/F/SCORPIO 325 SC are necessary:

- to maintain 10 meters of vegetative buffer zone and 10 m no-spray buffer in winter oilseed rape for Poland,
- to maintain 10 meters of vegetative buffer zone and 10 m no-spray buffer in spring oilseed rape for Poland
- to maintain 10 meters of vegetative buffer zone and 10 m no-spray buffer in sugar beet for Poland,
- to maintain 10 meters of vegetative buffer zone and 10 m no-spray buffer in carrot for Poland,
- to maintain 10 meters of vegetative buffer zone and 5 m no-spray buffer in potato for Poland,
- to maintain 20 meters of vegetative buffer zone and 10 m no-spray buffer in leafy vegetables for Poland,
- to maintain 20 meters of vegetative buffer zone, 20 m no-spray buffer and 75% nozzle reduction in pome fruit for Poland,
- to maintain 10 meters of vegetative buffer zone and 10 m no-spray buffer in maize for Poland,
- to maintain 10 meters of vegetative buffer zone and 10 m no-spray buffer in sunflower for Poland.

Other crops do not require the use of buffer zones for Poland.

For other countries in the central zone (Romania, Slovakia, Austria, Hungary, and Ireland), the content of the product CHR/F/SCORPIO 325 SC in surface water is acceptable when a 20-meter vegetative buffer zone, a 20-meter no-spray buffer and 75% nozzle reduction in pome fruit are maintained.

For Hungary the content of the product CHR/F/SCORPIO 325 SC in surface water is acceptable without using vegetative buffer and spray buffer restriction in spring oilseed rape.

For Romania, Slovakia, Czechia the content of the product CHR/F/SCORPIO 325 SC in surface water is acceptable without using vegetative buffer and spray buffer restriction in potatoes and carrots.

For Czechia the content of the product CHR/F/SCORPIO 325 SC in surface water is acceptable without using vegetative buffer and spray buffer restriction in maize.

For all metabolites PEC sw/sed values were below RAC values.

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

Table 8.10-1 Summary of atmospheric degradation and behaviour

Compound	Azoxystrobin	Difenoconazole
Direct photolysis in air	Not studied - no data requested	Not submitted - not required
Quantum yield of direct phototransformation	Not studied - no data requested	Difenoconazole: 0.0155 (in water) CGA 205375: 0.0266 (in water)
Photochemical oxidative degradation in air	DT ₅₀ of 2.7 hours derived by the Atkinson model (AOPWIN version 1.8). OH (12h) concentration assumed = 1.5 x 10 ⁶ cm ⁻³	DT ₅₀ 5 hours derived by the Atkinson method (AOP 1.85). OH (12 h) concentration assumed: 1.5 x 10 ⁶ radicals/cm ³

Volatilisation	No significant tendency for volatilisation was observed from soil and bean leaf surfaces up to 24 hours after the application of radiolabelled azoxystrobin (dose rates: 264 or 291 g as/ha).	Volatilisation from soil: <0.05% after 24 hours (measured as % ¹⁴ C in absorption trap)
		Volatilisation from plants and soil: <9% after 24 hours (measured as % loss).
Metabolites	None	None identified

The vapour pressure at 20°C of the active substance Azoxystrobin is < 10⁵ Pa/between 10⁵ and 10⁴ Pa/> 10⁴ Pa. Hence the 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 be considered.

The vapour pressure for difenoconazole was determined to be 3.32 x 10⁻⁸ Pa at 25°C (extrapolated value). The Henry's Law Constant was determined as 9.0 x 10⁻⁷ Pa m³/mol (25°C, calculated value). Both values indicate a low potential for volatility. No volatilisation of difenoconazole from moist soil surface was observed in experiment with measurement of volatile radioactivity over 24 hours. In study with measurement of volatility as percentage loss of radioactivity from plant and soil only a small loss (<9% of initial radioactivity) was observed over 24 hours. Based on the presented data, no significant volatilisation of difenoconazole is expected. Photochemical oxidative degradation was rapid with a calculated half-life of 5 hours in significant and any residues that may occur in the atmosphere are therefore expected to be rapidly degraded.

Appendix 1 Lists of data considered in support of the evaluation

List of data submitted by the applicant and 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 9.1.3 KCP 9.2.4 KCP 9.2.5	K. Błaszak	2024	ENVIRONMENTAL MODELING REPORT CHR/1/24 Innvigo Sp. z o.o No-GLP Unpublished	N	Innvigo Sp. z.o.o.

List of 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
KIIA 7.2.1/01	Evans PG	2001	Azoxystrobin : Laboratory Degradation Study in Three Soil Types Syngenta Crop Protection AG, Basel, Switzerland Syngenta, Jealott's Hill, United Kingdom, TMJ4569B Not GLP, not published Syngenta File No ICI5504/1154	N	SYN
KIIA 7.2.1/02	Warinton JS, Chalofti I, Harvey BR	1996	ICIA5504: Degradation in Soil Under Aerobic and Anaerobic Laboratory Conditions: Final Report. Zeneca Agrochemicals, Jealott's Hill, United Kingdom Zeneca Agrochemicals, Jealott's Hill, United Kingdom, RJ2007B GLP, not published Syngenta File No ICI5504/0782	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
KIIA 7.2.1 / 03	Harvey B.	2008	Azoxystrobin: Rate of degradation of azoxystrobin in laboratory soils according to FOCUS Kinetics (2006) guidance Syngenta - Jealott's Hill, Bracknell, United Kingdom Syngenta - Jealott's Hill, Bracknell, United Kingdom, RAJ0656B Not GLP, not published Syngenta File No ICI5504_10293	N	SYN
KIIA 7.2.3/ 01	Jones RN, Entwistle K	1998	R401553: Laboratory Degradation in Three Soil Types. Zeneca Agrochemicals, Jealott's Hill, United Kingdom Zeneca Agrochemicals, Jealott's Hill, United Kingdom, RJ2685B GLP, not published Syngenta File No ICI5504/0841	N	SYN
KIIA 7.2.3/ 02	Jones RN, Campbell A	1998	R402173: Laboratory Degradation in Three Soil Types. Zeneca Agrochemicals, Jealott's Hill, United Kingdom Zeneca Agrochemicals, Jealott's Hill, United Kingdom, RJ2684B GLP, not published Syngenta File No ICI5504/0840	N	SYN
KIIA 7.2.3/ 03	Jones RN, Robertson T	1999	R234886: Laboratory Degradation in Three Soil Types. Zeneca Agrochemicals, Jealott's Hill, United Kingdom Zeneca Agrochemicals, Jealott's Hill, United Kingdom, RJ2683B GLP, not published Syngenta File No ICI5504/0842	N	SYN
KIIA 7.2.3/ 04	Harvey B.	2008a	Rate of degradation of azoxystrobin soil degrades according to FOCUS Kinetics (2006) , RAJ0650B Not GLP, not published Syngenta File No R234886/0006	N	SYN
KIIA 7.3.1/ 01	Hardy I, Patel M	2008	Azoxystrobin - Kinetic Modelling Evaluation of Data from Field Soil Residue Studies Conducted in Europe Normalised to 20°C (Q10 2.58) and pF2 Syngenta - Jealott's Hill, Bracknell, United Kingdom Battelle UK Ltd., Ongar, United Kingdom, NC/07/021A Not GLP, not published Syngenta File No ICI5504_10854	N	SYN
KIIA 7.3.1/ 02	Emburey S N, Kay J	2002	Residue Levels in Soil following In - furrow treatment from a trial carried out in the United Kingdom during 2000/2001 Syngenta Crop Protection AG, Basel, Switzerland Syngenta, Jealott's Hill, United Kingdom, RJ3281B GLP, not published Syngenta File No ICI5504/1522	N	SYN
KIIA 7.3.1/ 03	Emburey S N, Poppezijs W F B	2002	Residue Levels in Soil following Infurrow Treatment from a Trial carried out in the Netherlands During 2000/2001 Syngenta Crop Protection AG, Basel, Switzerland Syngenta, Jealott's Hill, United Kingdom,	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
			RJ3282B GLP, not published Syngenta File No ICI5504/1593		
KIIA 7.3.1/ 04	Emburey SN	2002	Residue Levels in Soil following Infurrow Treatment from a Trial carried out in the United Kingdom During 2000/2001 Syngenta Crop Protection AG, Basel, Switzerland Syngenta, Jealott's Hill, United Kingdom, RJ3283B GLP, not published Syngenta File No ICI5504/1560	N	SYN
KIIA 7.3.1/ 05	Jones R.N., Bouwmann J.J	2001	Residue Levels in Soil following Infurrow Treatment from Trials carried out in the Netherlands, during 1999- 2000 Syngenta Crop Protection AG, Basel, Switzerland Syngenta - Jealott's Hill International, Bracknell, Berkshire, United Kingdom, RJ3219B GLP, not published Syngenta File No ICI5504/1297	N	SYN
KIIA 7.3.1/ 06	Hardy I, Patel M	2008a	Azoxystrobin - Kinetic Modelling Analysis of Azoxystrobin from In-furrow Field Soil Residue Studies Conducted in Europe Normalised to 20°C (Q10 2.58) and pF2 Syngenta - Jealott's Hill, Bracknell, United Kingdom Battelle UK Ltd., Ongar, United Kingdom, NC/07/07A Not GLP, not published Syngenta File No ICI5504_10853	N	SYN
KIIA 7.4.2/ 01	Rowe D, Lane MCG	1995	ICIA5504: Adsorption and Desorption Properties in Soil of R401553 Zeneca Agrochemicals, Jealott's Hill, United Kingdom Zeneca Agrochemicals, Jealott's Hill, United Kingdom, RJ1953B GLP, not published Syngenta File No ICI5504/0792	N	SYN
KIIA 7.4.2/ 02	Rowe D, Lane MCG	1995a	ICIA5504: Adsorption and Desorption Properties in Soil of R402173 Zeneca Agrochemicals, Jealott's Hill, United Kingdom Zeneca Agrochemicals, Jealott's Hill, United Kingdom, RJ1850B GLP, not published Syngenta File No ICI5504/0789	N	SYN
KIIA 7.4.2/ 03	Ferguson RE, Muller K, Lane MCG	1994	ICIA5504: Adsorption and Desorption Properties in Soil of R234886 Zeneca Agrochemicals, Jealott's Hill, United Kingdom Zeneca Agrochemicals, Jealott's Hill, United Kingdom, RJ1544B GLP, not published Syngenta File No ICI5504/0783	N	SYN
KIIA 7.8.3/ 01	Harvey B.	2008b	Azoxystrobin: Rate of degradation in laboratory water/sediment systems according to FOCUS Kinetics (2006) guidance Syngenta - Jealott's Hill, Bracknell, United Kingdom Syngenta - Jealott's Hill, Bracknell, United Kingdom, RAJ0655B Not GLP, not published Syngenta File No ICI5504_10132	N	SYN
KIIA 7.8.3/ 02	Jones RN, Lake A	2000	Azoxystrobin: Dissipation in an Outdoor Experimental Pond. Zeneca Agrochemicals, Jealott's Hill, United Kingdom Zeneca Agrochemicals, Jealott's Hill, United Kingdom, RJ3062B GLP, not published Syngenta File No ICI5504/0831	N	SYN
KIIA 7.10/ 01	Hayes, S. E.	1996	Azoxystrobin - Calculation of Half-Life by Reaction with Atmospheric Hydroxyl Radicals Zeneca	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
			Agrochemicals, Jealott's Hill, United Kingdom Zeneca Agrochemicals, Jealott's Hill, United Kingdom, Not GLP, not published Syngenta File No ICI5504/1559		
IIA 7	Harvey, B.	2004a	Difenoconazole. Document M-II, Section 5. Fate and Behaviour in the Environment. ERA5677.	-	SYN
KIIA 7.1.1.1.1/01 and 7.1.1.2.1	xxxx	2000a	Degradation and metabolism of CGA 169374 (14C-Triazole) in one soil incubated under aerobic conditions/ Syngenta Crop protection AG, Basel, Switzerland. xxxxxxxxxx, Report No 738606. GLP Not published Syngenta File N°CGA 169374/2101	Y	SYN
KIIA 7.1.1.1.1/02 and 7.1.1.2.1	xxxxxx	2000b	Degradation and metabolism of CGA 169374 (14C-Chlorophenyl) in one soil incubated under aerobic conditions. Syngenta Crop Protection AG, Basel, Switzerland. xxxxxxxxxxxx, report No 738617. GLP Not Published Syngenta File N°CGA169374/2102	Y	SYN
KIIA 7.1.1.1.1 AND 7.1.1.2.1/01	Gonzalez-Valero, J.	1992a	CGA 169374 Degradation in soil under aerobic conditions at 20°C. Novartis Crop protection AG, Basel, Switzerland. Ciba-Geigy Basel, Oekotoxikologie, Basel, Switzerland, Report No 91-GJ-05 GLP Not Published Syngenta File N° CHA169374/0713	N	SYN
KIIA 7.1.1.1.1 and 7.1.1.2.1/03	xxxxxxxx	2000b	Degradation of CGA 169374 (14C-Triazole) in one soil incubated under various conditions. Syngenta Crop Protection AG, Basel, Switzerland. xxxxxxxxxxxxxx, Report No 738628 GLP Not Published Syngenta File N°CGA169374/2100	Y	SYN
KIIA 7.1.1.1.1 and 7.1.1.2.1/04	xxxxxxxxxxxx	2002	Degradation of CGA169374 [14C-Chlorophenyl] in three Soils incubated under Aerobic Conditions. Syngenta Crop Protection AG, Basel, Switzerland.	Y	TDMG

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
			xxxxxxxxxxxxxx, Report No 775438 GLP Not Published Syngenta File N° CGA169374/2223		
KIIA 7.1.1.1.1 and 7.1.1.2.1/06	xxxxxx	2000	Degradation of 1,2,4-triazole in Three Soil under Aerobic Conditions xxxxxx, report No NOTOX 278336. GLP Not Published Syngenta File N° CGA64250/4345	Y	TDMG
KIIA 7.1.1.1.1, 7.1.1.1.2.1 and 7.1.1.2.1/05	xxxxxx	2002a	Degardation of CGA205375 [14C-triazole] in three soils incubated under aerobic and anaerobic conditions. Syngenta Crop protection AG, Basel, Switzerland. xxxxxx, report No 775451 GLP Not Published Syngenta File N°CGA169374/2240	Y	SYN
KIIA 7.1.1.1.2.1/01	xxxxxx	2000a	Degradation and metabolism of CGA 169374 (14C-Triazole) in one soil incubated under anaerobic conditions Syngenta Crop protection AG, Basel, Switzerland. xxxxxx, Report No 738630 GLP Not Published Syngenta File N°CGA169374/2099	Y	SYN
KIIA 7.1.1.1.2.1/02	xxxxxx	2003	[14C]-CGA71019: Anaerobic soil degradation. Syngenta Crop Protection AG, Basel, Switzerland. xxxxxx, Report No 798660 GLP Not published Syngenta File N° CGA71019/0062	Y	SYN
KIIA 7.1.1.1.2.2/01	Atkins, R.H	1994	CGA 169374, Soil surface photolysis of Phenyl-14C-CGA-169374 under artificial sunlight. Novartis Crop Protection AG, Basel, Switzerland.	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
			PTRL East, Inc., Richmond United States, Report No 791. GLP Not Published Syngenta File N° CGA169374/1184		
KIIA 7.1.1.2.2/01	xxxxxx	2004	Difenoconazole (CGA169374) Summary of degradation rates in European field dissipation and residue trials. xxxxxx Report No RAJ0208B. Not GLP (not applicable) Not Published Syngenta File N° CGA169374/2429	Y	SYN
KIIA 7.1.1.2.2/02 and IIIA 9.1.1.2	Resseler, H	1992a	Field Dissipation of Difenoconazole. Test Report – Field Experiment. Ciba-Geigy GmbH, Frankfurt a.Main, Germany, Report No 96-88 B. Not GLP Not Published Syngenta File N° CGA169374/2302	N	SYN
KIIA 7.1.1.2.2/03 and IIIA 9.1.1.2	Resseler, H	1992b	Field dissipation of difenoconazole. Novartis Crop Protection AG, Basel, Switzerland. Ciba-Geigy GmbH, Frankfurt a.Main, Germany, Report No 43-89B. Not GLP Not Published Syngenta File N° CGA169374/0699	N	SYN
KIIA 7.1.1.2.2/04 and IIIA 9.1.1.2	Resseler, H.	1992c	Field dissipation of difenoconazole. Novartis Crop Protection AG, Basel, Switzerland. Ciba-Geigy GmbH, Frankfurt a.Main, Germany, report No 45-89B. Not GLP Not Published Syngenta File N°CGA169374/0700	N	SYN
KIIA 7.1.1.2.2/05 and IIIA 9.1.1.2	Resseler, H.	1992d	Field dissipation of difenoconazole. Novartis Crop Protection AG, Basel, Switzerland. Ciba-Geigy GmbH, Frankfurt a.Main, Germany, Report No 46-89B. Not GLP	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
			Not Published Syngenta File N° CGA169374/0701		
KIIA 7.1.1.2.2/06 and IIIA 9.1.1.2	xxxxxx	2001a	Field Dissipation of Difenoconazole – Test Report – Field Experiment. xxxxxx, report No 44-89B Not GLP Not Published Syngenta File N° CGA169374/2304	Y	SYN
KIIA 7.1.1.2.2/07 and IIIA 9.1.1.2	xxxxxx	2001b	Field Dissipation of Difenoconazole Test Report – Field Experiment. xxxxxx, Report No 40-90B GLP Not Published Syngenta File N° CGA169374/2306	Y	SYN
KIIA 7.1.1.2.2/08 and IIIA 9.1.1.2	xxxxxx	2001c	Field Dissipation of Difenoconazole Test report – Field Experiment. xxxxxx, report No 41-90B GLP Not Published Syngenta File N° CGA169374/2308	Y	SYN
KIIA 7.1.1.2.2/09 and IIIA 9.1.1.2	xxxxxx	2001d	Field Dissipation of Difenoconazole. Test report – Field Experiment. xxxxxx, Report No 43-90B. GLP Not Published Syngenta File N°CGA169374/2310	Y	SYN
KIIA 7.1.1.2.2/10 and IIIA 9.1.1.2	Walser, M.	1994	Field Dissipation of CGA 169374 after Bareground Application of [Phenyl-14C] CGA 169374 labelled Material. Novartis Crop Protection AG, Basel, Switzerland Ciba-Geigy Ltd., Basel, Switzerland Report No 92CN08 GLP Not Published Syngenta File N°CGA169374/0920	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
KIIA 7.1.1.2.2/11 and IIIA 9.1.1.2	Kühne-Thu, H.	1990a	Determination of residues of parent compound in soil after treatment with ‘Difenaconazole EC 250’ – field experiment. Novartis Crop Protection AG, Basel, Switzerland. Report No RR-2097-89 GLP (analytical phase) Not Published Syngenta File N° CGA169374/0335	N	SYN
KIIA 7.1.1.2.2/12 and IIIA 9.1.1.2	Kühne-Thu, H.	1990b	Determination of residues of parents compound in soil after treatment with ‘Difenoconazole EC 250’ – field experiment. Novartis Crop Protection AG, Basel, Switzerland. Ciba-Geigy Ltd., Base, Switzerland Report No RR-2096-89. GLP (analytical phase) Not Published Syngenta File N°	N	SYN
KIIA 7.1.1.2.2/13 and IIIA 9.1.1.2	Kühne-Thu, H.	1990c	Determination of residues of parent compound in soil after treatment with fungicide ‘CGA169374 EC 250’. Novartis Crop Protection AG, Basel, Switzerland. Ciba-Geigy Ltd., Basel, Switzerland Report No RR-2024-89. GLP (analytical phase) Not Published Syngenta File N° CGA169374/0341	N	SYN
KIIA 7.1.1.2.2/14 and IIIA 9.1.1.2	Kühne-Thu, H.	1990d	Determination of residues of parent compound in soil after treatment with fungicide ‘CGA169374 EC 250’. Novartis Crop Protection AG, Basel, Switzerland. Ciba-Geigy Ltd., Basel, Switzerland, Report No RR-2023-89. GLP (analytical phase_ Not Published Syngenta File N° CGA169374/0342	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
KIIA 7.1.1.2.2/15 and IIIA 9.1.1.2	Kühne-Thu, H.	1991a	Determination of residues of parent compound in soil after treatment with ‘Difenoconazole EC 250’ – Field experiment. Novartis Crop protection AG, Basel, Switzerland, Report No RR-2040-89. GLP (analytical phase) Not Published Syngenta File N° CGA 169374/0337	N	SYN
KIIA 7.1.1.2.2/16 and IIIA 9.1.1.2	Kühne-Thu, H.	1991b	Determination of residues of parent compound in soil after treatment with ‘Difenoconazole EC 250’ – field experiment. Novartis Crop Protection AG, Basel, Switzerland. Ciba-Geigy Ltd., Basel, Switzerland, Report No RR-2039-89. GLP (analytical phase) Not Published Syngenta File N° CGA 169374/0338	N	SYN
KIIA 7.1.1.2.2/17 and IIIA 9.1.1.2	Kühne-Thu, H.	1992a	Determination of residues difenoconazole in asparagus and soil – field trial Italy. Novartis Crop Protection AG, Basel, Switzerland, Report No 2056-90. GLP (analytical phase) Not Published Syngenta File N° CGA169374/0695	N	SYN
KIIA 7.1.1.2.2./18 and IIIA 9.1.1.2	Kühne-Thu, H.	1992b	Determination of residues difenoconazole in soil of sugar beet – field trail – Italy. Novartis Crop Protection AG, Basel, Switzerland. CIBA-Geigy Ltd., Basel, Switzerland, Report No 2054-90. GLP (analytical phase) Not published Syngenta File N° CGA169374/0696	N	SYN
KIIA 7.1.1.2.2/19 and IIIA 9.1.1.2	Kühne-Thu, H.	1992c	Determination of residues difenoconazole in soil of sugar beet field trail – Italy. Novartis Crop Protection AG, Basel, Switzerland, Report No 2149-90. GLP (analytical phase) Not Published Syngenta File N°CGA169374/0694	N	SYN
KIIA	Purdy, J.	1997	Dissipation and leaching movement of CGA 169374 residues in soil after applications as a seed treatment	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
7.1.1.2.2/20 and IIIA 9.1.1.2			on wheat seed. Novartis Crop Protection AG, Basel, Switzerland. Novartis Crop Protection Inc., Mississauga, Canada, Report No CER 05306/94. GLP Not published Syngenta File N° CGA169374/1423		
KIIA 7.1.1.2.2/21	Beidler, W.T.	1991	Stability of CGA 169374 residues in soil under freezer storage conditions for 2 years. Novartis Crop Protection AG, Basel, Switzerland. Ciba-Geigy Corp., Greensboro, United States, Report No ABR-90068 GLP Not Published Syngenta File N° CGA169374/0451	N	SYN
KIIA 7.1.2.2/22	Shadrick, BA, Bloomberg, AM, Helfrich, KK	1999	Freezer Storage Stability of 1H-1,2,4- Triazole [3,5-14C] in Soil. Syngenta Crop Protection AG, Basel, Switzerland, Bayer Corporation, Kansas City, United States, Report No 108303. GLP Not Published Syngenta File N° CGA71019/0068	N	SYN
KIIA 7.1.1.2.2/23 and IIIA 9.1.1.2	Tack, T.J.	1995	The determination of Difenconazole (CGA 169374) residues in soil after successive applications of A7402G 250 EC containing 250 g ai CGA 169374 applied as a foliar application to winter wheat and bare soil for three years. Novartis Crop protection AG, Basel, Switzerland. Ciba-Geigy Ltd., Basel, Switzerland Report No CSTR 01:11. GLP Not Published Syngenta File N° CGA169374/1205	N	SYN
KIIA 7.1.1.2.2/24 and IIIA 9.1.1.2	xxxxxx	2000	Long term study on fate and behaviour of Difenconazole (CGA 169374) in soil in Switzerland. xxxxxx Report No 2031/89-98. GLP Not Published	Y	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
			Syngenta File N° CGA169374/0652		
KIIA 7.1.1.2.2./25 and IIIA 9.1.1.2	xxxxxx	2001	xxxxxx Report No Final report after 4 th year incl. interi. Translation to English: Research into Difenconazole Residue Behaviour in Fruit Growing. Not GLP Not Published Syngenta File N° CGA169374/2043	Y	SYN
KIIA 7.1.1.2.2/26 and IIIA 9.1.1.2	xxxxxx	2002	Soil dissipation of difenconazole (Dissipazione nel suolo del fungicida Difenconazole). xxxxxx Report No CIBA/96/01. GLP Not Published Syngenta File N° CGA169374/2044	Y	SYN
KIIA 7.1.2/01	Atkins, R.H	1991a	CGA 169374, Soil adsorption/desorption of 14C-CGA-169374 by the batch equilibrium method. Novartis Crop Protection AG, Basel, Switzerland. PTRL East Inc., Richmond, United States, Report No 495. GLP Not published Syngenta File N° CGA169374/0477	N	SYN
KIIA 7.1.2/02	Spare, W.C.	1988	CGA 169374, Adsorption/Desorption of 14C-CGA-169374. Novartis Crop Protection AG, Basel, Switzerland. Agrisearch Inc., Fredrick, United States, Report No 12115. GLP Not published Syngenta File N° CGA169374/0476	N	SYN
KIIA 7.1.2/03	xxxxxx	2002b	Adsorption/Desorption of CGA205375 [14C-Triazole] on Soil. xxxxxx, Report No 798647 GLP Not Published Syngenta File N° CGA205375/0013	Y	SYN
KIIA 7.1.2/04	Hawkins, D.R.	1988	Soil adsorption and desorption of 1,2,4-Triazole.	N	TDMG

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
			Novartis Crop protection AG, Basel, Switzerland. Rohm and Haas, Philadelphia, United States, Report No 43S-88-27. GLP Not Published Syngenta File N° CGA71019/0014		
KIIA 7.1.3.1/01	xxxxxx	1991a	Leaching mobil study with 14C-CGA 169374 in four soil under laboratory conditions. xxxxxx, Report No 23-91. GLP Not Published Syngenta File N° CGA169374/0467	Y	SYN
KIIA 7.2.1.1/01	Atkins, R.H	1991b	Hydrolysis of 14C CGA169374 at pH 5,7 and 9. Novartis Crop Protection AG, Basel, Switzerland. PTRL East, Inc., Richmond, United States, Report No 494. GLP Not Published Syngenta File N°CGA169374/0488	N	SYN
KIIA 7.2.1.1/02	xxxxxx	2001	CGA 205375 [14C-Triazole]: hydrolysis at three different pH values. xxxxxx, Report No 798658 GLP Not Published Syngenta File N°CGA205375/00100	Y	SYN
KIIA 7.2.1.1/03	Spare, W.C.	1983	Determination of the hydrolysis rate constants of 1,2,4-H-Triazole (CGA 71019) Novartis Crop protection AG, Basel, Switzerland. Ciba-Geigy Corp., Greensbro, United States, Report No 83-E-074. Not GLP Not Published Syngenta File N° CGA71019/0033	N	TDMG
KIIA 7.2.1.2/01	xxxxxx	2002a	Aqueous Photolysis of CGA169374 [14C-Triazole] under Laboratory Conditions. xxxxxx Report No 815635	Y	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
			GLP Not Published Syngenta File N° CGA169374/2209		
KIIA 7.2.1.2/02	xxxxxx	2002b	Aqueous Photolysis of CGA205375 [14C-Triazole] under Laboratory Conditions. xxxxxx , Report No 815657. GLP Not Published Syngenta File N° CGA205375/0018	Y	SYN
KIIA 7.2.1.2/03	xxxxxx	2002a	Quantum Yield of the photochemical degradation of CGA169374 in aqueous solution. xxxxxx, Report No SYN-001/7-05. GLP Not published Syngenta File N° CGA169374/2208	Y	SYN
KIIA 7.2.1.2/04	xxxxxx	2002b	Quantum yield of the photochemical degradation of CGA205375 in aqueous solution. xxxxxx, Report No SYN-001/7-05. GLP Not Published Syngenta File N° CGA205375/0017	Y	SYN
KIIA 7.2.1.3.1/01	Baumann, W.	1993	Report on the test for ready biodegradability of CGA 169374 tech.in carbon dioxide evolution test. Novartis Crop Protection AG, Basel, Switzerland Report No 933652 GLP Not Published Syngenta File N° CGA169374/0813	N	SYN
KIIA 7.2.1.3.2/01	Gonzalez-Valero, J.	1993	Metabolism of CGA 169374 Under Aerobic Conditions in Aquatic Systems. Novartis Crop Protection AG, Basel, Switzerland. Ciba-Geigy Ltd., Basel, Switzerland Report No 34/92 91GJ04. GLP Not published	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
			Syngenta File N° CGA169374/0746		
KIIA 7.2.1.3.2/02	Ulbrich, R.	1997	Metabolism of 14C labeled CGA 169374 in aquatic systems under aerobic conditions at 8 °C. Novartis Crop Protection AG, Basel, Switzerland. Novartis Crop protection AG, Basel, Switzerland, Report No 94UL03. GLP Not Published Syngenta File N° CGA169374/1357	N	SYN
KIIA 7.2.1.3.2/03	xxxxxx	2002c	CGA205375 [14C-Triazole]: Route and Rate of Degradation in Aerobic Aquatic Systems. xxxxxx Report No 798636, GLP Not Published Syngenta File N° CGA205375/0016	Y	SYN
KIIA 7.2.2/01	Mani, J.	1991b	Volatilization of CGA 169374 from soil under laboratory conditions. Novartis Crop Protection AG, Basel, Switzerland. Ciba-Geigy Ltd., Basel, Switzerland, Report No 13-91. GLP Not published Syngenta File N° CGA169374/0468	N	SYN
KIIA 7.2.2/02 and KIIIA 9.3	Sandmeier, P.	1992	Volatilization of CGA 169374 from plant and soil after postemergent application of 14C triazole) labelled material on wheat under indoor conditions. Novartis Crop protection AG, Basel, Switzerland. Ciba-Geigy Ltd., Basel, Switzerland, Report No 8-92. GLP Not published Syngenta File N° CGA169374/0651	N	SYN
KIIA 7.2.2/03	Stamm, E.	1998	Atmospheric oxidation of Difenconazole CGA 169374 by hydroxyl radicals; rate estimation. Novartis Crop Protection AG, Basel, Switzerland. Novartis Crop protection AG, Basel, Switzerland, report No 98SM18. Not GLP (not applicable) Not published	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
			Syngenta File N° CGA169374/1669		
IIIA 9	Harvey B	2004b	A-7402 T Difenoconazole (SCORE 250 EC). Document M-III, Section 5. Fate and Behaviour in the Environment. ERA5695.	-	SYN
IIIA 9	Harvey B	2004c	A-9142 G Difenoconazole (DIVIDEND 030 FS). Document M-III, Section 5. Fate and Behaviour in the Environment. ERA5713.	-	SYN
KIIIA 9.2.1/01	xxxxxx	2003	Estimation with FOCUS PEARL 2.2.2 of predicted concentrations of difenoconazole and its metabolites CGA205375 abd 1,2,4-triazole in groundwater (PECGW) following application to sugar beet, sunflower, apple and carrot crops. xxxxxx, Report No Modelling Study 03/MOD/040. Not GLP (not applicable) Not Published Syngenta File N° CGA169374/2427	Y	SYN
KIIIA 9.2.3/01	xxxxxx	2003	FOCUS Step 1-3 modeling to estimate predicted environmental concetrations in surface water (PECsw) and sediment (PECsed) for difenoconazole and its metabolites CGA205375 and 1,2,4-triazole following use on sugar beet, apples and carrots. xxxxxx Report No 03/MOD/044. Not GLP (not applicable) Not Published Syngenta File N° CGA169374/2418	Y	SYN
KIII 9.2.3/01	xxxxxx	2006	Difenoconazole (CGA169374): A European Fate Assessment using FOCUS Surface Water Scenarios at Steps 3 and 4 for Carrots and Apples. xxxxxx. Report No RAJ0410B Not published Not GLP (not applicable) Syngenta File No. CGA169374/2821	Y	SYN

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

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

Appendix 2 Detailed evaluation of the new Annex II studies

A 2.1 Study 1

Comments of zRMS:	Comment on study; acceptable or not; deficiencies, corrections, according to recent guidelines or not, used in evaluation or only as additional information
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Reference:	Data point
Report	Title, author(s), year, report No, document No, Authority registration No
Guideline(s):	Yes/No (If yes, give guidelines; If no, give justification, e.g., “ no guidelines available” or “ methods used comparable to guideline(s) xxx”)
Deviations:	Yes/No (If yes, describe deviations from test guidelines)
GLP:	Yes/No (If no, give justification, e.g., state that GLP was not compulsory at the time the study was performed)
Acceptability:	Yes/No/Supplementary

Materials and methods

Results and discussions

Conclusion

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