

REGISTRATION REPORT
Part B
Section 3
Efficacy Data and Information
Concise summary

Product code: A22773A
Product name: ORONDIS EVO
Chemical active substances:
Azoxystrobin, 250 g/L
Oxathiapiprolin, 12 g/L

Interzonal
Zonal Rapporteur Member State: Poland

CORE ASSESSMENT
(New authorisation)

Applicant: Syngenta
Submission date: November 2021
MS Finalisation date: June 2022 (initial Core Assessment)
April 2023 (final Core Assessment)

Version history

When	What
November 2021	Initial dRR – Syngenta
June 2022	Initial izRMS assessment The report in the dRR format has been prepared by the Applicant, therefore all comments, additional evaluations and conclusions of the zRMS are presented in grey commenting boxes. Minor changes are introduced directly in the text and highlighted in grey. Not agreed or not relevant information are struck through and shaded for transparency .
April 2023	Final report (Core Assessment updated following the commenting period) Additional information/assessments included by the zRMS in the report in response to comments received from the cMS and the Applicant are highlighted in yellow.

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Applicants wishing to avail of information in this registration report should seek advice from the regulatory authority to which the application is made concerning the requirements in their country.

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3 Efficacy Data and Information (including Value Data) on the Plant Protection Product (KCP 6)

Transformation of the dRR (applicant version) into the RR (zRMS version)

Comments of zRMS:

Conclusions from the assessment were prepared using grey commenting boxes placed at the end of each chapter. Textual changes were done using grey highlights in the text. The parts of the text amended or added by the zRMS evaluator are highlighted in grey, whereas the parts struck off are visibly marked with the grey font.

3.1 Summary and conclusions of zRMS on Section 3: Efficacy (KCP 6)

Abstract

Abstract of the evaluation, by the cMS PL:

This application has been submitted for the authorization of new product A22773A (Orondis Evo) in Poland, Belgium, Bulgaria, Croatia, Czech Republic, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Portugal, Romania, Slovenia and Spain. A22773A contains two active substances: azoxystrobin (250 g/L) and oxathiapiprolin (12 g/L). This product is intended to control of disease pathogens on vegetables (lettuce, cucumber, squash, pumpkin, tomato, zucchini, bell pepper, salad plants, watermelon, melon, eggplant) under protected conditions.

GAP Table

The differences between water volume in efficacy trials and intended in the GAP table have been observed. The cMSs are kindly asked to consider these amounts on the national level. The below table presents both water volumes.

Crop	Water volume in efficacy trials	Water volume in the GAP table
Tomato	120-1050 l/ha	200-1500 l/ha
Lettuce	300-800 l/ha	200-800 l/ha
Cucurbits	100-1145 l/ha	200-1000 l/ha

MED

Based on the submitted trial results, it can be considered the dose rate of 1 l pr/ha (0,5 l pr/10000 m² LWA) as minimum effective dose to control of intended disease pathogens in vegetable crop under protected conditions.

Efficacy

A22773A applied at dose rate of 1 l pr/ha is effective to control of *Pseudoperonospora cubensis* and *Didymella bryoniae* on cucurbits, *Bremia lactucae* on lettuce, *Phytophthora infestans*, *Leveillula taurica*, *Alternaria* sp. and *Oidium neolycopersici* on tomato. No efficacy trials have been submitted for squash/pumpkin, bell pepper, salad plants, watermelon and eggplant. The cMSs are kindly asked to consider these uses on the national level.

Selectivity

No adverse effect on vegetable crops was noted in the efficacy and selectivity trials after application of A22773A. Moreover, no negative impact on the yield was observed. It can be concluded that the test product is safe for cucurbits, tomato and lettuce.

Resistance risk

The resistance management strategy for A22773A is based on limitation of number of applications (two applications per crop) and use of alternation with products from different cross resistance groups. The general anti-resistance recommendations are presented in the chapter 3.3.

Table 3.1-1: Acceptability of intended uses (and respective fall-back GAPs, if applicable)

Table 3.1: Acceptability of intended uses (and respective risk back GRAS) if applicable															
1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	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: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
Zonal uses (field or outdoor uses, certain types of protected crops)															
n/a															
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)															
BE-12	Belgium	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	maximum 2 application per year on the same field	A
BG-59	Bulgaria	bell pepper (CPSAN)	G	<i>Phytophthora capsici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	C
BG-81	Bulgaria	bell pepper (CPSAN)	G	<i>Phytophthora capsici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	C
BG-74	Bulgaria	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	A
BG-75	Bulgaria	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	A
BG-76	Bulgaria	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	A
BG-96	Bulgaria	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	A
BG-97	Bulgaria	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	A
BG-98	Bulgaria	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	A
BG-77	Bulgaria	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	C

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	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: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
BG-78	Bulgaria	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	C
BG-99	Bulgaria	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	C
BG-100	Bulgaria	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	C
HR-57	Croatia	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	A
HR-58	Croatia	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	A
HR-59	Croatia	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	A
HR-73	Croatia	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	A
HR-74	Croatia	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	A
HR-75	Croatia	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	A
CZ-18	Czech Republic	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		A
CZ-19	Czech Republic	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		C
CZ-20	Czech Republic	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	maximum 2 application per year on the same field	A

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
CZ- 21	Czech Republic	squash, pumpkin (CUUPE)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		C
CZ- 22	Czech Republic	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		A
CZ- 23	Czech Republic	tomato (LYPES)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		C
CZ- 24	Czech Republic	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		A
CZ- 25	Czech Republic	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		A
CZ- 26	Czech Republic	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		C
CZ- 27	Czech Republic	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		C
CZ- 28	Czech Republic	bell pepper (CPSAN)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		C
CZ- 32	Czech Republic	salad plants	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	maximum 2 application per year on the same field	C
FR- 40	France	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	A
FR- 91	France	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	A
FR- 43	France	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	non drained soil max 2 application per year on same field	A

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	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: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
FR-95	France	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	drained soil	A
FR-44	France	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	A
FR-45	France	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	N
FR-96	France	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	A
FR-97	France	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	N
FR-47	France	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	A
FR-102	France	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	A
FR-50	France	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	A
FR-105	France	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	A
DE-11	Germany	lettuce (LACSA LACSS)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	max 2 application per year on same field only in crops grown in original soils culture methods on sealed surfaces	A
GR-54	Greece	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	A

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
GR-55	Greece	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	A
GR-73	Greece	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	A
GR-74	Greece	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	A
GR-59	Greece	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 4 2	7	a) 1 b) 4 2	a) 12 b) 48 24	a) 250 b) 1000 500	200- 800	14	non drained soil	A
GR-78	Greece	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	drained soil	A
GR-60	Greece	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	A
GR-61	Greece	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	A
GR-79	Greece	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	A
GR-80	Greece	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	A
GR-66	Greece	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	A
GR-67	Greece	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	A
GR-68	Greece	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	A

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
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					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
GR-85	Greece	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	A
GR-86	Greece	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	A
GR-87	Greece	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	A
GR-69	Greece	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	A
GR-70	Greece	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	A
GR-88	Greece	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	A
GR-89	Greece	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	A
GR-71	Greece	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	A
GR-72	Greece	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	A
GR-90	Greece	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	A
GR-91	Greece	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	A
HU-19	Hungary	bell pepper (CPSAN)	G	<i>Phytophthora capsici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		N

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	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: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
HU-20	Hungary	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000 1200	3		A
HU-21	Hungary	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000 1200	3		C
HU-27	Hungary	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		A
HU-28	Hungary	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		A
HU-29	Hungary	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		A
HU-30	Hungary	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000 1200	3		C
HU-31	Hungary	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000 1200	3		C
IE-7	Ireland	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	maximum 2 application per year on the same field	A
IT-56	Italy	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	non drained soil max 2 application per year on same field	A
IT-73	Italy	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	drained soil	A
IT-57	Italy	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	A

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
IT-58	Italy	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	C
IT-74	Italy	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	A
IT-75	Italy	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	C
IT-61	Italy	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	A
IT-62	Italy	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	A
IT-63	Italy	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	A
IT-78	Italy	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	A
IT-79	Italy	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	A
IT-80	Italy	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	A
IT-66	Italy	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	C
IT-67	Italy	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	C
IT-83	Italy	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	C
IT-84	Italy	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	C

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
NL- 12	Netherlands	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	max 2 application on the same field Use includes also walk-in tunnels	A
PL- 43	Poland	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		A
PL- 47	Poland	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		A
PL- 59	Poland	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500 1050	3		A
PL- 61	Poland	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500 1050	3		A
PL- 62	Poland	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500 1050	3		A
PT- 46	Portugal	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 4 2	7	a) 1 b) 4 2	a) 12 b) 48 24	a) 250 b) 1000 500	200- 800	14	non drained soil	A
PT- 62	Portugal	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	drained soil	A
PT- 49	Portugal	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	A
PT- 50	Portugal	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	A
PT- 51	Portugal	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	A

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
PT-65	Portugal	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	A
PT-66	Portugal	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	A
PT-67	Portugal	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	A
RO-19	Romania	bell pepper (CPSAN)	G	<i>Phytophthora capsici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		C
RO-20	Romania	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		A
RO-21	Romania	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		C
RO-27	Romania	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		A
RO-28	Romania	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		A
RO-29	Romania	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		A
RO-30	Romania	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		C
RO-31	Romania	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		C
SI-24	Slovenia	bell pepper (CPSAN)	G	<i>Phytophthora capsici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		C
SI-25	Slovenia	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		A

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
SI- 26	Slovenia	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		C
SI- 27	Slovenia	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		C
SI- 28	Slovenia	eggplant (SOLME)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		C
SI- 29	Slovenia	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		C
SI- 30	Slovenia	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	maximum 2 application per year on the same field	A
SI- 31	Slovenia	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		A
SI- 32	Slovenia	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		C
SI- 33	Slovenia	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		A
SI- 34	Slovenia	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		A
SI- 35	Slovenia	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		A
SI- 36	Slovenia	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		C
SI- 37	Slovenia	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		C
SI- 38	Slovenia	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		C

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
SI-39	Slovenia	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		C
ES-56	Spain	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	non drained soil max 2 application per year on same field	A
ES-75	Spain	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	drained soil	A
ES-57	Spain	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	A
ES-58	Spain	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	C
ES-76	Spain	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	A
ES-77	Spain	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	C
ES-61	Spain	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	A
ES-62	Spain	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	A
ES-63	Spain	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	A
ES-80	Spain	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	A
ES-81	Spain	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	A

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	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: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
ES-82	Spain	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	A
ES-64	Spain	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	C
ES-65	Spain	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	C
ES-83	Spain	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	C
ES-84	Spain	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	C
ES-66	Spain	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	C
ES-67	Spain	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	C
ES-85	Spain	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	C
ES-86	Spain	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	C
Minor uses according to Article 51 (zonal uses)															
n/a															
Minor uses according to Article 51 (interzonal uses)															
AT-7	Austria	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	maximum 2 application per year on the same field	n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
BE-13	Belgium	Ornamental Pot plants (NNNZT)	G	<i>Peronosporaceae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	-	Minor use, risk assessment covered by lettuce (risk envelope). maximum 2 application per year on the same field	n.r.
BE-14	Belgium	Ornamental Trees and shrubs 50cm - 150 cm (NNNZG + NNNHB)	G	<i>Peronosporaceae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	-	Downward spraying only. Minor use, risk assessment covered by lettuce (risk envelope). maximum 2 application per year on the same field	n.r.
BE-15	Belgium	Ornamental Trees and shrubs < 50cm (NNNZG + NNNHB)	G	<i>Peronosporaceae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	-	Minor use, risk assessment covered by lettuce (risk envelope). maximum 2 application per year on the same field	n.r.
BG-60	Bulgaria	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
BG-61	Bulgaria	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
BG-82	Bulgaria	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
BG-83	Bulgaria	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
BG-62	Bulgaria	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
BG-63	Bulgaria	eggplant (SOLME)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
BG-64	Bulgaria	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
BG-84	Bulgaria	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
BG-85	Bulgaria	eggplant (SOLME)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
BG-86	Bulgaria	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
BG-65	Bulgaria	endive (CICEN)	G	<i>Sphaerotheca fuliginea</i>	foliar	BBCH 11 - 49	a) 2 b) 4	7	a) 1 b) 4	a) 12 b) 48	a) 250 b) 1000	200- 800	14	non drained soil	n.r.
BG-87	Bulgaria	endive (CICEN)	G	<i>Sphaerotheca fuliginea</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	drained soil	n.r.
BG-66	Bulgaria	gherkin (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
BG-67	Bulgaria	gherkin (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
BG-88	Bulgaria	gherkin (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
BG-89	Bulgaria	gherkin (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
BG-68	Bulgaria	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 4	7	a) 1 b) 4	a) 12 b) 48	a) 250 b) 1000	200- 800	14	non drained soil	n.r.
BG-90	Bulgaria	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	drained soil	n.r.
BG-69	Bulgaria	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
BG-70	Bulgaria	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
BG-91	Bulgaria	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
BG-92	Bulgaria	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
BG-71	Bulgaria	okra (ABMES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
BG-72	Bulgaria	okra (ABMES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
BG-93	Bulgaria	okra (ABMES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
BG-94	Bulgaria	okra (ABMES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
BG-73	Bulgaria	sweet basil (OCIBA)	G	<i>Peronospora belbahrii</i>	foliar	BBCH 11 - 49	a) 2 b) 4	7	a) 1 b) 4	a) 12 b) 48	a) 250 b) 1000	200- 800	14	non drained soil	n.r.
BG-95	Bulgaria	sweet basil (OCIBA)	G	<i>Peronospora belbahrii</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	drained soil	n.r.
BG-79	Bulgaria	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
BG-80	Bulgaria	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
BG-101	Bulgaria	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
BG-102	Bulgaria	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
HR-48	Croatia	bell pepper (CPSAN)	G	<i>Phytophthora capsici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
HR-64	Croatia	bell pepper (CPSAN)	G	<i>Phytophthora capsici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
HR-49	Croatia	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
HR-50	Croatia	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
HR-65	Croatia	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
HR-66	Croatia	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
HR-51	Croatia	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
HR-52	Croatia	eggplant (SOLME)	G	<i>Oidium neolyopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
HR-53	Croatia	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
HR-67	Croatia	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
HR-68	Croatia	eggplant (SOLME)	G	<i>Oidium neolyopersici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
HR-69	Croatia	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
HR-54	Croatia	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	non drained soil max 2 application per year on same field	n.r.
HR-70	Croatia	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	drained soil	n.r.
HR-55	Croatia	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
HR-56	Croatia	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
HR-71	Croatia	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
HR-72	Croatia	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
HR-60	Croatia	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
HR-61	Croatia	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
HR-76	Croatia	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
HR-77	Croatia	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
HR-62	Croatia	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
HR-63	Croatia	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
HR-78	Croatia	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
HR-79	Croatia	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
FR-65	France	Ornamental Pot plants (NNNZT)	G	<i>Peronosporaceae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	-	non drained soil Minor use, risk assessment covered by cucumber (risk envelope).	n.r.
FR-66	France	Ornamental Trees and shrubs 50cm - 150 cm (NNNZG + NNNHB)	G	<i>Peronosporaceae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	-	non drained soil Downward spraying only. Minor use, risk assessment covered by cucumber (risk envelope).	n.r.
FR-67	France	Ornamental Trees and shrubs < 50cm (NNNZG + NNNHB)	G	<i>Peronosporaceae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	-	non drained soil Minor use, risk assessment covered by cucumber (risk envelope).	n.r.
FR-85	France	Ornamental Pot plants (NNNZT)	G	<i>Peronosporaceae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	-	non-drained soil Minor use, risk assessment covered by cucumber (risk envelope).	n.r.
FR-86	France	Ornamental Trees and shrubs 50cm - 150 cm (NNNZG + NNNHB)	G	<i>Peronosporaceae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	-	non-drained soil Downward spraying only. Minor use, risk assessment covered by cucumber (risk envelope).	n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
FR-87	France	Ornamental Trees and shrubs < 50cm (NNNZG + NNNHB)	G	<i>Peronosporaceae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	-	non-drained soil Minor use, risk assessment covered by cucumber (risk envelope).	n.r.
FR-68	France	vegetables for seed production	G	<i>Phytophthora sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil solanacea	n.r.
FR-69	France	vegetables for seed production	G	<i>Peronospora sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil cucurbits	n.r.
FR-70	France	vegetables for seed production	G	<i>Bremia sp.</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	non drained soil leafy vegetables max 2 application per year on same field	n.r.
FR-88	France	vegetables for seed production	G	<i>Phytophthora sp.</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non-drained soil solanacea	n.r.
FR-89	France	vegetables for seed production	G	<i>Peronospora sp.</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non-drained soil cucurbits	n.r.
FR-90	France	vegetables for seed production	G	<i>Bremia sp.</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	non-drained soil leafy vegetables	n.r.
FR-78	France	gherkin (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
FR-92	France	gherkin (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
FR-41	France	eggplant (SOLME)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
FR-42	France	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
FR-93	France	eggplant (SOLME)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
FR-94	France	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
FR-83	France	squash	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
FR-84	France	squash	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
FR-98	France	squash	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
FR-99	France	squash	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
FR-46	France	sweet basil (OCIBA)	G	<i>Peronospora belbahrii</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	non drained soil max 2 application per year on same field	n.r.
FR-101	France	sweet basil (OCIBA)	G	<i>Peronospora belbahrii</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	drained soil	n.r.
FR-48	France	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
FR-49	France	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
FR-103	France	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
FR-104	France	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
DE-12	Germany	Ornamental Pot-plants (NNNZT)	G	<i>Peronosporaceae</i>	foliar	BBCH 11-49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	Minor use, risk assessment covered by lettuce (risk envelope). Max 2 application per year on the same field	n.r.
DE-13	Germany	Ornamental Trees and shrubs 50cm- 150 cm (NNNZG+ NNNHB)	G	<i>Peronosporaceae</i>	foliar	BBCH 11-49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	Downward spraying only. Minor use, risk assessment covered by lettuce (risk envelope). Max 2 application per year on the same field	n.r.
DE-14	Germany	Ornamental Trees and shrubs < 50cm (NNNZG+ NNNHB)	G	<i>Peronosporaceae</i>	foliar	BBCH 11-49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	Minor use, risk assessment covered by lettuce (risk envelope). Max 2 application per year on the same field	n.r.
GR-56	Greece	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
GR-57	Greece	eggplant (SOLME)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
GR-58	Greece	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
GR-75	Greece	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
GR-76	Greece	eggplant (SOLME)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
GR-77	Greece	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
GR-62	Greece	okra (ABMES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
GR-63	Greece	okra (ABMES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
GR-81	Greece	okra (ABMES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
GR-82	Greece	okra (ABMES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
GR-64	Greece	endive (CICEN)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 4	7	a) 1 b) 4	a) 12 b) 48	a) 250 b) 1000	200- 800	14	non drained soil	n.r.
GR-83	Greece	endive (CICEN)	G	<i>Bremia lactucae</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	drained soil	n.r.
GR-65	Greece	sweet basil (OCIBA)	G	<i>Peronospora belbahrii</i>	foliar	BBCH 11 - 49	a) 2 b) 4	7	a) 1 b) 4	a) 12 b) 48	a) 250 b) 1000	200- 800	14	non drained soil	n.r.
GR-84	Greece	sweet basil (OCIBA)	G	<i>Peronospora belbahrii</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	drained soil	n.r.
GR-94	Greece	Bell pepper (CPSAN)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
GR-95	Greece	Bell pepper (CPSAN)	G	<i>Leveillula taurica</i>	foliar	BBCH 11-81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
HU-22	Hungary	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
HU-23	Hungary	eggplant (SOLME)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
HU-24	Hungary	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
HU-25	Hungary	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
HU-26	Hungary	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
HU-32	Hungary	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
HU-33	Hungary	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
IT-51	Italy	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
IT-52	Italy	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
IT-68	Italy	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
IT-69	Italy	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
IT-53	Italy	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
IT-54	Italy	eggplant (SOLME)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
IT-55	Italy	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
IT-70	Italy	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
IT-71	Italy	eggplant (SOLME)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
IT-72	Italy	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
IT-59	Italy	salad plants	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	non drained soil for baby leaf only BBCH 11-19 max 2 application per year on same field	n.r.
IT-76	Italy	salad plants	G	<i>Bremia lactucae</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	drained soil for baby leaf only BBCH 11-19	n.r.
IT-60	Italy	sweet basil (OCIBA)	G	<i>Peronospora belbahrii</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	non drained soil max 2 application per year on same field	n.r.
IT-77	Italy	sweet basil (OCIBA)	G	<i>Peronospora belbahrii</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	drained soil	n.r.
IT-64	Italy	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
IT-65	Italy	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
IT-81	Italy	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
IT-82	Italy	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
NL-13	Netherlands	Ornamental Pot plants (NNNZT)	G	<i>Peronosporaceae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	-	Minor use, risk assessment covered by lettuce (risk envelope). max 2 application on the same field	n.r.
NL-14	Netherlands	Ornamental Trees and shrubs 50cm - 150 cm (NNNZG + NNNHB)	G	<i>Peronosporaceae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	-	Downward spraying only. Minor use, risk assessment covered by lettuce (risk envelope). max 2 application on the same field	n.r.
NL-15	Netherlands	Ornamental Trees and shrubs < 50cm (NNNZG + NNNHB)	G	<i>Peronosporaceae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	-	Minor use, risk assessment covered by lettuce (risk envelope). max 2 application on the same field	n.r.
PL-42	Poland	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
PL-44	Poland	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
PL-45	Poland	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
PL-46	Poland	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
PL-48	Poland	squash, pumpkin	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
PL-49	Poland	squash, pumpkin	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
PL-50	Poland	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
PL-51	Poland	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
PL-52	Poland	salad plants	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	for baby leaf only BBCH 11-19 maximum 2 application per year on the same field	n.r.
PL-53	Poland	salad plants	G	<i>botrytis cinerea</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	for baby leaf only BBCH 11-19 maximum 2 application per year on the same field	n.r.
PL-54	Poland	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	maximum 2 application per year on the same field	n.r.
PL-55	Poland	lettuce (LACSA)	G	<i>botrytis cinerea</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	maximum 2 application per year on the same field	n.r.
PL-66	Poland	spinach and similar leaves	G	<i>Peronospora farinosa f. sp. spinaciae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	maximum 2 application per year on the same field	n.r.
PL-67	Poland	sweet basil (OCIBA)	G	<i>Peronospora belbahrii</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	maximum 2 application per year on the same field	n.r.
PL-68	Poland	sweet basil (OCIBA)	G	<i>Peronospora belbahrii</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	maximum 2 application per year on the same field	n.r.
PL-63	Poland	bell pepper (CPSAN)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
PL-64	Poland	bell pepper (CPSAN)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
PL-65	Poland	bell pepper (CPSAN)	G	<i>Phytophthora capsici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
PL-56	Poland	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
PL-57	Poland	eggplant (SOLME)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
PL-58	Poland	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
PL-60	Poland	tomato (LYPES)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
PL-69	Poland	Ornamentals (Pot plants, Tree and Shrubs < 150 cm)	G	<i>Peronosporaceae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	-	Minor use, risk assessment covered by cucumber (risk envelope).	n.r.
PL-70	Poland	Ornamentals (Pot plants, Tree and Shrubs < 150 cm)	G	<i>Phytophthora sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	-	Minor use, risk assessment covered by cucumber (risk envelope).	n.r.
PT-40	Portugal	bell pepper (CPSAN)	G	<i>Phytophthora capsici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
PT-56	Portugal	bell pepper (CPSAN)	G	<i>Phytophthora capsici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
PT-41	Portugal	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
PT-42	Portugal	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
PT-57	Portugal	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
PT-58	Portugal	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
PT-43	Portugal	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
PT-44	Portugal	eggplant (SOLME)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
PT-45	Portugal	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
PT-59	Portugal	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
PT-60	Portugal	eggplant (SOLME)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
PT-61	Portugal	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
PT-47	Portugal	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
PT-48	Portugal	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
PT-63	Portugal	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
PT-64	Portugal	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
PT-52	Portugal	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
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					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
PT-53	Portugal	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
PT-68	Portugal	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
PT-69	Portugal	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
PT-54	Portugal	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
PT-55	Portugal	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
PT-70	Portugal	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
PT-71	Portugal	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
RO-22	Romania	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
RO-23	Romania	eggplant (SOLME)	G	<i>Oidium neolyopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
RO-24	Romania	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
RO-25	Romania	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
RO-26	Romania	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
RO-32	Romania	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
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					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
RO-33	Romania	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
RO-43	Romania	Lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	maximum 2 application per year on the same field	n.r.
RO-44	Romania	squash, pumpkin	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
RO-45	Romania	squash, pumpkin	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
SK-19	Slovakia	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
SK-20	Slovakia	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
SK-21	Slovakia	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
SK-22	Slovakia	eggplant (SOLME)	G	<i>Oidium neolyopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
SK-23	Slovakia	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
SK-24	Slovakia	lettuce (LACSA)	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	maximum 2 application per year on the same field	n.r.
SK-25	Slovakia	melon (CUMME)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
SK-26	Slovakia	melon (CUMME)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
SK-27	Slovakia	tomato (LYPES)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
SK-28	Slovakia	tomato (LYPES)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
SK-29	Slovakia	tomato (LYPES)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
SK-30	Slovakia	watermelon (CITLA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
SK-31	Slovakia	watermelon (CITLA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
SK-32	Slovakia	zucchini (CUUPG)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
SK-33	Slovakia	zucchini (CUUPG)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3		n.r.
SK-34	Slovakia	bell pepper (CPSAN)	G	<i>Leveillula taurica</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3		n.r.
SK-38	Slovakia	salad plants	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	maximum 2 application per year on the same field	n.r.
SK-40	Slovakia	spinach and similar leaves	G	<i>Peronospora farinosa f. sp. spinaciae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	maximum 2 application per year on the same field	n.r.
ES-49	Spain	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
ES-50	Spain	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
ES-68	Spain	cucumber (CUMSA)	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	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: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
ES-69	Spain	cucumber (CUMSA)	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
ES-51	Spain	cucurbits with edible peel	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
ES-70	Spain	cucurbits with edible peel	G	<i>Pseudoperonospora cubensis</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
ES-52	Spain	cucurbits with edible peel	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	non drained soil	n.r.
ES-71	Spain	cucurbits with edible peel	G	<i>Didymella bryoniae</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1000	3	drained soil	n.r.
ES-53	Spain	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
ES-54	Spain	eggplant (SOLME)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
ES-55	Spain	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 89	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	non drained soil	n.r.
ES-72	Spain	eggplant (SOLME)	G	<i>Alternaria sp.</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
ES-73	Spain	eggplant (SOLME)	G	<i>Oidium neolycopersici</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.
ES-74	Spain	eggplant (SOLME)	G	<i>Phytophthora infestans</i>	foliar	BBCH 11 - 81	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 1500	3	drained soil	n.r.

1	2	3	4	5	6	7	8	9	10	11	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate				PHI (days)	Remarks: e.g. g safener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g OXTP/ha a) max. rate per appl. b) max. total rate per crop/season	g AZT/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
ES-59	Spain	salad plants	G	<i>Bremia lactucae</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	non drained soil for baby leaf only BBCH 11-19 max 2 application per year on same field Includes endive and wild lettuce	n.r.
ES-78	Spain	salad plants	G	<i>Bremia lactucae</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	drained soil for baby leaf only BBCH 11-19 Includes endive and wild lettuce	n.r.
ES-60	Spain	sweet basil (OCIBA)	G	<i>Peronospora belbahrii</i>	foliar	BBCH 11 - 49	a) 2 b) 2	7	a) 1 b) 2	a) 12 b) 24	a) 250 b) 500	200- 800	14	non drained soil max 2 application per year on same field	n.r.
ES-79	Spain	sweet basil (OCIBA)	G	<i>Peronospora belbahrii</i>	foliar	BBCH 09-13	a) 1 b) 1	-	a) 1 b) 1	a) 12 b) 12	a) 250 b) 250	200- 800	14	drained soil	n.r.

* 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

**Remarks
table
heading:**

- (a) e.g. wettable powder (WP), emulsifiable concentrate (EC), granule (GR)
(b) Catalogue of pesticide formulation types and international coding system CropLife
International Technical Monograph n°2, 6th Edition Revised May 2008
(c) g/kg or g/l

- (d) Select relevant
(e) Use number(s) in accordance with the list of all intended GAPs in Part B, Section 0 should be given in column 1
(f) No authorization possible for uses where the line is highlighted in grey, Use should be crossed out when the notifier no longer supports this use.

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

Column 15: zRMS conclusion.

A	Acceptable
R	Acceptable with further restriction
C	To be confirmed by cMS
N	Not acceptable / evaluation not possible
n.r.	Not relevant for section 3

3.2 Efficacy data (KCP 6)

Introduction

This document summarizes the information related to the efficacy data for the authorization of the plant protection product A22773A containing:

- 250 g/L azoxystrobin, which was included (Directive 1998/47/EC) then renewed (Directive 737/2007/EC) for the inclusion into Annex I of Council Directive 91/414/EEC and approved in accordance with Regulation (EC) No. 1107/2009 by Commission Implementing Regulation (EC) No. 703/2011 (amending Commission Implementing Regulation (EC) No. 540/2011).

The SANCO report for azoxystrobin (SANCO/11027/2011 Rev 2) is considered to provide the relevant review information or a reference to where such information can be found.

The Annex I Inclusion Directive for azoxystrobin (1998/47/EC) and Renewal Directive (737/2007/EC) provides specific provisions under Part B which need to be considered by the applicant in the preparation of their submission and by the MS prior to granting an authorization.

For the implementation of the uniform principles of Annex VI, the conclusions of the review report on the azoxystrobin, and in particular Appendices I and II thereof, as finalized in the Standing Committee on the Food Chain and Animal Health on 17th June 2011 shall be taken into account.

- 12 g/L oxathiapiprolin, which was approved under Regulation 1107/2009 by Regulation No 540/2011 and Regulation 2017/239, in force.

The EFSA Scientific Review for oxathiapiprolin (EFSA Journal 2016;14(7):4504) is considered to provide the relevant review information or a reference to where such information can be found.

The Annex I Inclusion Directive for Oxathiapiprolin (2017/239 of 10th February 2017) provides no specific provisions for oxathiapiprolin which need to be considered by the applicant in the preparation of their submission and by the MS prior to granting an authorisation since none are needed.

For the implementation of the uniform principles of Annex VI, the conclusions of the review report on Oxathiapiprolin, and in particular Appendices I and II thereof, as finalised in the Standing Committee on the Food Chain and Animal Health on 07/12/2016 (SANTE/11169/2016 rev 3 - and updates of 25 March 2021) shall be taken into account. Consideration of active substances for Annex 1 inclusion does not include an evaluation of efficacy. Therefore there are no concerns to address arising from the inclusion directive of Oxathiapiprolin relating to efficacy.

The data presented in this document fully support the registration of A22773A for the control of Peronosporaceae (e.g. *Phytophthora infestans* on tomato, *Bremia lactucae* on lettuce, *Pseudoperonospora cubensis* on cucurbits, *Phytophthora porri* on leek, *Pseudoperonospora humuli* on hop) and other diseases (e.g. powdery mildew of tomato; *Alternaria* spp. on tomato and leek; *Puccinia* spp. on bulb. Vegetables; *Didymella bryoniae* and *Cladosporium cucumerinum* on cucurbits) in greenhouse in cMSs of the EU zone (Austria, Belgium, Bulgaria, Croatia, Czech Republic, France, Germany, Greece, Hungary, Italy, Ireland, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, ~~United Kingdom~~).

The detailed assessment of the individual trial and study data is located in the following report:

Report:	KCP 6 / 01 Biological Assessment Dossier A22773A Syngenta File No. VV-881245
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A22773A is a suspension concentrate (SC) formulation containing 250 g azoxystrobin and 12 g oxathiapiprolin per litre product.

Azoxystrobin is a methoxy-acrylate that belongs to the strobilurins chemical family. The mode of action is that of a Quinone outside inhibitor (QoI) that disrupts the mitochondrial respiration of fungi by binding to the Quinol outer binding site of the cytochrome bc1 complex. The subsequent interference with electron flow through the electron transport chain, which has been demonstrated using isolated fungal mitochondria, causes the inhibition of ATP formation, a fundamental biochemical process in all classes of fungi. Deprivation of ATP hinders cellular processes requiring energy, such as spore germination and mycelial growth. The inhibition of spore germination is a characteristic property of azoxystrobin. The QoI fungicides are classified as Group 11 fungicides (C3: complex III: cytochrome bc1 (ubiquinol oxidase) at Qo site *cyt b gene*) by the FRAC and are considered to be at high risk to the development of fungicide resistance.

Azoxystrobin acts directly at the active site and all the metabolites that have been examined show lower activity on a screen for mitochondrial electron transport inhibition than azoxystrobin itself.

Azoxystrobin is readily absorbed by plant foliage and systemic movement following uptake leads to an even distribution of azoxystrobin throughout the leaves with no evidence for accumulation at either leaf tips or margins. When applied to the base of a leaf or stem it can be demonstrated by both autoradiography and disease bioassay to move from the site of application acropetally (towards the tip) but not basipetally (towards the base); this indicates that the compound moves in the xylem but not in the phloem tissue. As a broad spectrum systemic, translaminar, preventative and protectant fungicide, azoxystrobin inhibits spore germination and development and mycelial growth and sporulation and it is recommended that applications begin when conditions are favourable for disease infection and/or at the first signs of infection. Azoxystrobin will give up to 8 weeks protection against target diseases, depending on the extent of new growth following application.

Oxathiapiprolin is a preventive fungicide with limited curative, and residual activity against oomycete fungi and used for the control of Phytophthora and downy mildews of numerous crops. Oxathiapiprolin belongs to the chemical group Piperidinyl thiazole isoxazolines, mode of action OSBPI oxysterol binding protein homologue inhibition, FRAC code 49. Oxathiapiprolin inhibits an oxysterol binding protein (OSBP) homologue. Oxysterol binding proteins are implicated in the movement of lipids between membranes, among other processes. Inhibiting OSBP may disrupt other processes in the fungal cell, such as signalling, maintaining cell membranes, and the formation of more complex lipids that are essential for the cell to survive.

Mode of action

Table 3.2-1: Details of the active substances

Active substance	Azoxystrobin	Oxathiapiprolin
Concentration (Unit: g/kg or g/L...)	250 g/L	12 g/L
Chemical group	strobilurins	Piperidinyl thiazole isoxazolines
Mode of action	Quinone outside inhibitor (QoI) Systemic, translaminar, preventative and slightly protectant fungicide. It disrupts the mitochondrial respiration of fungi.	OSBPI oxysterol binding protein homologue inhibition Preventative with residual disease control. It acts via an oxysterol binding protein.
Plant translocation	It is readily absorbed by plant foliage and systemic movement following uptake leads to an even distribution of azoxystrobin throughout the leaves with no evidence for accumulation at either leaf tips or margins. It moves from the site of application acropetally (towards the tip) but not basipetally (towards the base); this indicates that the compound moves in the xylem but not in the phloem tissue.	Locally systemic fungicide, translaminar mobility, translocated in the xylem
Biological action	Preventive fungicide with some curative, and residual activity	Preventive fungicide with some curative, and residual activity

Description of the plant protection product

A22773A is a suspension concentrate (SC) formulation containing 250 g azoxystrobin and 12 g oxathiapiprolin per litre product.

In all the crops, for the use against all the target pathogens, the proposed maximum rate of A22773A is 1 L PR/ha with a maximum of 2 applications per season, which will deliver each 250 g azoxystrobin and 12 g oxathiapiprolin per hectare. In order to support the proposed use of A22773A, data are presented from **trials conducted over 3 seasons 2018, 2019 and 2020 in a wide range of European countries in the EU zone**. The combination of azoxystrobin and oxathiapiprolin in A22773A will provide high control against Peronosporaceae and other disease with good crop safety and intrinsic resistance management strategy.

Table 3.2-2: Simplified table of requested uses for the product code – EU zone – interzonal use under protected conditions

USES		Member State	(and major minor status)	Requested registered uses (e.g. rates + no. applications)	Comments/other relevant details on the GAPS	Interzonal use
Crop(s)	Target(s)					
DOWNY MILDEW						
Solanaceae	Phytophthora spp.	Bulgaria	MAJOR	1 L PR/ha max. 2 appl.s	7 days minimum interval	Greenhouse
		Croatia	Minor			
		Czech Republic	Minor			
		France	MAJOR			
		Greece	MAJOR			
		Hungary	MAJOR			
		Italy	MAJOR			
		Poland	Minor			
		Portugal	MAJOR			
		Romania	MAJOR			
		Slovakia	Minor			
		Slovenia	Minor			
Spain	MAJOR					
okra	Phytophthora spp.	Bulgaria	Minor	1 L PR/ha max. 2 appl.s	7 days minimum interval	Greenhouse
		Greece	Minor			
lettuce	Bremia lactucae	Austria	Minor	1 L PR/ha max. 2 appl.s	7 days minimum interval	Greenhouse
		Belgium	Minor			
		Croatia	Minor			
		Czech Republic	Minor			
		France	MAJOR			
		United Kingdom	Minor			
		Germany	Minor			
		Ireland	Minor			
		Italy	MAJOR			
		Netherlands	Minor			
		Portugal	MAJOR			
		Slovakia	Minor			
Slovenia	Minor					
lettuce, endive, wild lettuce, garden purslane	Bremia lactucae	Greece	MAJOR	1 L PR/ha max. 2 appl.s	7 days minimum interval	Greenhouse
		Poland	Minor			
		Spain	MAJOR			
cucurbits (edible and inedible peel)	Pseudoperonospora cubensis	Bulgaria	Minor	1 L PR/ha max. 2 appl.s	7 days minimum interval	Greenhouse
		Croatia	Minor			
		Czech Republic	Minor			
		France	MAJOR			
		Greece	MAJOR			
		Hungary	MAJOR			
		Italy	MAJOR			
		Poland	Minor			
		Portugal	Minor			
		Romania	MAJOR			
		Slovakia	Minor			
		Slovenia	Minor			
Spain	MAJOR					
pot plants, trees and shrubs (<50cm; 50-150 cm)	Pseudonosperaceae	Belgium	Minor	1 L PR/ha max. 2 appl.s	7 days minimum interval	Greenhouse
		France	Minor			
		United Kingdom	Minor			
		Germany	Minor			
		Netherlands	Minor			
		Poland	Minor			
OTHER DISEASES						
cucurbits (edible and inedible peel)	Didymella bryoniae	Bulgaria	Minor	1 L PR/ha max. 2 appl.s	7 days minimum interval	Greenhouse
		Bulgaria	Minor			
		Croatia	Minor			

USES		Member State	(and major minor status)	Requested registered uses (e.g. rates + no. applications)	Comments/other relevant details on the GAPS	Interzonal use
Crop(s)	Target(s)					
		Czech Republic	Minor			
		France	Minor			
		Greece	Minor			
		Hungary	Minor			
		Italy	Minor			
		Poland	Minor			
		Portugal	Minor			
		Romania	Minor			
		Slovakia	Minor			
		Slovenia	Minor			
		Spain	Minor			
eggplant	<i>Alternaria</i> sp.	Bulgaria	Minor	1 L PR/ha max. 2 appl.s	7 days minimum interval	Greenhouse
		Croatia	Minor			
		Greece	Minor			
		Hungary	Minor			
		Italy	Minor			
		Portugal	Minor			
		Romania	Minor			
		Slovakia	Minor			
		Slovenia	Minor			
		Spain	Minor			
endive	<i>Sphaerotheca fuliginea</i>	Bulgaria	Minor	1 L PR/ha max. 2 appl.s	7 days minimum interval	Greenhouse
lettuce, endive, wild lettuce, garden purslane	<i>Botrytis cinerea</i>	Poland	Minor	1 L PR/ha max. 2 appl.s	7 days minimum interval	Greenhouse
okra	<i>Oidium neolycopersici</i>	Bulgaria	Minor	1 L PR/ha max. 2 appl.s	7 days minimum interval	Greenhouse
		Greece	Minor			
solanaceae	<i>Leveillula taurica</i>	Bulgaria	MAJOR	1 L PR/ha max. 2 appl.s	7 days minimum interval	Greenhouse
		Croatia	Minor			
		Czech Republic	Minor			
		Greece	MAJOR			
		Hungary	MAJOR			
		Italy	MAJOR			
		Poland	Minor			
		Portugal	MAJOR			
		Romania	MAJOR			
		Slovakia	Minor			
		Slovenia	Minor			
		Spain	MAJOR			
solanaceae	<i>Oidium neolycopersici</i>	Bulgaria	MAJOR	1 L PR/ha max. 2 appl.s	7 days minimum interval	Greenhouse
		Croatia	Minor			
		Czech Republic	Minor			
		France	MAJOR			
		Greece	MAJOR			
		Hungary	MAJOR			
		Italy	MAJOR			
		Poland	Minor			
		Portugal	MAJOR			
		Romania	MAJOR			
		Slovakia	Minor			
		Slovenia	Minor			
		Spain	MAJOR			
tomato	<i>Alternaria</i> sp.	Czech Republic	Minor	1 L PR/ha max. 2 appl.s	7 days minimum interval	Greenhouse

USES		Member State	(and major minor status)	Requested registered uses (e.g. rates + no. applications)	Comments/other relevant details on the GAPs	Interzonal use
Crop(s)	Target(s)					
tomato, pepper, eggplant	<i>Alternaria</i> sp.	Poland	Minor	1 L PR/ha max. 2 appl.s	7 days minimum interval	Greenhouse

According to EPPO PP 1/239 Dose expression and to SANCO 10055/2013:

A22773A applied at 0.5 L PR/ 10000m² Leaf Wall Area (LWA) in single trial reports for crops with vertical growing systems correspond to 1 L PR/ha (multiplication coefficient = 2).

Further details are in the table “All intended uses” in Part B - Section 0.

Description of the target pests

Table 3.2-3: Glossary of pests mentioned in the dossier

EPPO code	Scientific name	Common name
PHYTIN	<i>Phytophthora infestans</i>	Late blight
BREMLA	<i>Bremia lactucae</i>	Downy mildew of lettuce
PSPECU	<i>Pseudoperonospora cubensis</i>	Downy mildew of cucurbits
PHYTPQ	<i>Phytophthora porri</i>	Downy mildew of leek
PSPEHU	<i>Pseudoperonospora humuli</i>	Downy mildew of hop
LEVETA	<i>Leveillula taurica</i>	Powdery mildew of tomato
OIDINL	<i>Oidium neolycopersici</i>	Powdery mildew of tomato
ALTEAL	<i>Alternaria alternata</i>	-
ALTESO	<i>Alternaria solani</i>	Early blight
DIDYBR	<i>Didymella bryoniae</i> (preferred: <i>Stagonosporopsis cucurbitacearum</i>)	leaf spot of cucurbits
CLADCU	<i>Cladosporium cucumerinum</i>	seab of cucumber
PUCAL	<i>Puccinia allii</i>	rust of garlic
PUCCPO	<i>Puccinia porri</i>	rust of leek

Tomato – Late blight (*Phytophthora infestans*)

Late blight can be a devastating disease of tomato and potato. Although tomato is generally an intensively-cultivated crop and farmers therefore justify the expense of fungicides, several factors make late blight a particularly difficult problem. First, there is very little resistance available in commercial tomato cultivars, which means that with favourable weather conditions it is difficult to manage the disease even with fungicides. Second, unlike potato, the edible portion of tomato is directly exposed to fungicide applications. This complicates management practices near harvest time. Finally, pathogen populations from tomato and potato appear to be separate and adapted only to one host.

The symptoms of late blight on tomatoes may vary, depending on the age of the lesion and the immediately preceding environment. Very young lesions on tomato foliage appear as irregularly shaped, small (2-10 mm) lesions with or without a small surrounding area of collapsed but still green

tissue. Lesions later turn brown. Older lesions are larger and assume a circular appearance unless delimited by the leaflet margin. They are usually not delimited by the veins. Older lesions are typically surrounded by a zone of collapsed tissue that is not yet necrotic. The non-necrotic tissue may also appear somewhat chlorotic. If there are many lesions on a single leaflet, the entire leaves can turn chlorotic. On tomato fruits, lesions are firm, large, irregular, brownish-green blotches; the lesion surface has a greasy, rough appearance.

Sporulation may be evident on the collapsed tissue and on the outermost portions of the necrotic areas of a lesion if it has been in a saturated atmosphere (100% RH) for more than 7 or 8 h. The length of time required for sporulation is dependent on temperature and host resistance. On resistant cultivars, sporulation might not appear until some hours after it would appear on a susceptible cultivar. Optimal temperature for sporulation is usually regarded to be 15-20°C. Temperatures above or below this range will reduce the rate of pathogen growth and thus extend the time required for sporulation. Under optimal conditions for sporulation it is easily visible as a noticeable fuzzy white growth on lesion margins. Sporulation occurs from lesions whether they are on leaflets or on stems.

Where *P. infestans* exists as an asexual organism it is essentially an obligate parasite. It requires a living host (crop debris or solanaceous weeds) for long-term survival. Whereas sporangia may survive days or weeks in soil, they cannot overwinter or over season. Mycelium of the fungus cannot survive in the absence of a living host cell. However, in locations where sexual reproduction occurs, the resulting oospore can survive for months or years in the absence of living hosts.

Infections usually start from sporangia which germinate either directly via a germ tube or indirectly via zoospores. At higher temperatures (over 20 °C), the sporangia germinate by producing a single germination tube rather than zoospores. Zoospores can swim for some minutes, after which time they encyst and germinate. A germ tube penetrates a living host and establishes a near-biotrophic relationship for the first few days in a compatible interaction. Under optimal conditions (18-22°C), infections can be visible in less than 3 days. Germination and infection always require water on the leaf surface.

Within a day or two after the lesion first becomes visible, the fungus is capable of sporulation. Moderate temperatures (10-25°C) and very wet conditions (leaf wetness or 100% RH) are required for sporulation. Sporangia are borne on sporangiophores within 8-12 h during favourable conditions. Sporangia secede during changing relative humidity and can be captured in air currents; they can also be splash dispersed. They can survive for hours in unsaturated atmospheres when protected from solar radiation, so dispersal distances of hundreds of meters or kilometres are possible. Sporangia landing on a host can germinate and penetrate living cells within 2 h under favourable conditions. In most cases, however, germination and penetration require more than 2 h. Under favourable conditions, large numbers of sporangia can be produced from a single lesion (more than 100, 000 sporangia per lesion); the disease can thus progress rapidly under cool, wet conditions.

When individuals of opposite mating type (A1 and A2) come into physical contact, sexual structures (antheridia and oogonia) are produced by each thallus. Meiosis is gametangial. After fertilization, the oogonium develops into an oospore which can survive adverse conditions better than the hyphae or sporangia. After a period of dormancy (weeks or months), oospores become capable of germination. Germination in the laboratory can occur on water agar at 18°C in the presence of blue light. It is clear that oospores can survive winter in northern temperate zones, but the precise conditions stimulating germination are not yet known. Oospores germinate via a germ sporangium. This sporangium can then germinate via zoospores or via a germ tube. If the fungus contacts a host plants, it can initiate the asexual phase.

Bremia lactucae in lettuce

Bremia lactucae causes the most serious disease of lettuce under protected cultivation. It persists as oospores in soil, and is air-dispersed as sporangia. Lettuce plants can be infected at the seedling stage

and all the way through the growing period. Lesions on leaves are first discoloured, and finally rot after sporulation of the pathogen.

Basic strategy:

The treatments applied to seedling compost or soil against fungi are not very effective against *B. lactucae* oospores. If possible, soils in which significant downy mildew was seen on a previous lettuce crop should be avoided. Treatment of seedlings is essential, usually with sprays of dithiocarbamates (zineb or mancozeb, which will be withdrawn in EU) and continues after planting out. Because the dithiocarbamates are the fungicides most likely to present residue problems, it is most usual to use them alone on seedlings, or in the first 2 weeks after planting, then use a systemic fungicide on the crop. Lettuce cultivars with resistance to *B. lactucae* are available. This is often through the combination of several vertical resistance genes, but numerous corresponding pathotypes of *B. lactucae* exist. It is not advised to use a resistant cultivar, without chemical treatment, relying on the absence of the matching pathotype, as the pathotypes which occur on the crop may not correspond to the resistance of the plant. However, under such circumstances, the number of treatments could be reduced, if no downy mildew is seen.

Cucurbits - Downy mildew (*Pseudoperonospora cubensis*)

In Germany, Bulgaria, Czech Republic, Austria and the Ukraine downy mildew is frequently rated as one of the most important diseases of cucumber. Under favourable conditions the epidemic development is very fast, but it can be halted by a sudden change to unfavourable (i.e., hot and dry) weather.

P. cubensis is an obligate parasite. Sporangia serve as primary inoculum, originating from local or very distant sources, as well as secondary inoculum, spreading within a field by air currents or rain splash. In the presence of free moisture, the sporangia release zoospores, which must encyst on stomata for infection to occur. Encysted zoospores germinate via a germ tube, which penetrates the stomatal openings and produces intercellular hyphae and haustoria.

The incubation period, the time between penetration and the first appearance of symptoms, is 4 to 12 days depending on moisture, temperature, inoculum density, photoperiod and host. High inoculum density will shorten the incubation period and high light intensity will increase disease development. Zoospores remain motile in water for 10 min. to 18 h; high temperatures induce rapid encystment. The optimum temperature for cyst germination is 25°C.

Sporangiophores emerge from stomatal openings and form sporangia at their tips. A minimum of 6 h at 100% RH is required for sporangium production. This can occur at 5 to 30°C, but is optimal at 15 to 20°C. A relatively short period of dryness (1 h) is required for sporangia to release. Maximum release normally occurs between 08.00 and 10.00 h. The length of sporangial survival depends on temperature and relative humidity.

Fungal colonization progresses more rapidly at relatively low temperatures (15-25°C), while relatively high temperatures favour symptom development. Chlorosis generally appears 1 week after inoculation and sporulation is higher on chlorotic tissue than on green or necrotic tissue. Sporangium production lasts about 2 weeks.

Although oospores have been found on cucumber their role as overwintering structures is uncertain. Circumstantial evidence supports the widely held view that the fungus is introduced each year in field-grown crops from areas where it can survive winters on wild or cultivated cucurbits or from greenhouses.

The level of damage caused by the disease depends on the host and its stage of development when disease occurs as well as the intensity of disease. If the disease strikes early, conditions remain favourable and no fungicides are applied, complete crop loss can result. Downy Mildew causes the infection and fast death of plant leaves, abscission of ovaries, and yellowing and withering of fruits.

As a result, the yield can be reduced by 30 to 100%.

Early blight (*Alternaria solani*, *A.alternata*) - Solanaceae crops

Early blight is caused by *Alternaria solani*, a fungus that may attack Solanaceous crops including Tomato. The fungus may be on or in seed, but internal infection is rare in seed produced commercially. The fungus can survive on infected plant debris in soil or overwinter on Solanaceous plants. Infection is favoured by temperatures of 23 to 28°C, high moisture, and low soil fertility.

Small, irregular, blackish brown spots usually first appear on older leaves. Spots enlarge to 0.25 to 0.5 inch in diameter, and they commonly show ridged concentric rings in a target pattern. Leaf tissue around the spots turns yellow. If spots are numerous, the entire leaf will be yellowed. Some spotting may be on older leaves early in the season, but the greatest injury usually is as fruit begins to mature. Defoliation may be severe if environmental conditions are favourable, exposing the fruit to sun scald.

Older fruit develop dark, leathery, sunken spots that may be quite large with concentric markings similar to those on diseased leaves. The dark, dry decay may extend some depth into the fruit. Infected mature or immature fruit frequently fall from the plant.

Seedlings may have circular or elongated lesions with concentric markings on the stem, which will girdle the plant. This symptom is known as collar rot.

Owing to premature drying and dropping of leaves the yield of Tomato is sometimes reduced by 20-50%.

Alternaria alternata, although it can affect the whole aerial part of the plant, tends to attack the fruits already altered by other causes: excess turgor, sunburn and apical rot, with the development of black mould with a velvety appearance consisting of the organs of agamic reproduction.

Powdery mildews (*Leveillula taurica*, *Oidium neolycopersici*) - Solanaceae crops

Crops suffer significant losses due to *Leveillula* powdery mildew when attack starts at younger growth stages and develops fully at stages before ripening of fruits. The epidemics develop well in dry and warm regions. The potential for losses is greater in crops that are irrigated. On tomatoes, crop losses of 40% have been reported.

L. taurica penetrates the interior leaf tissues and symptoms are usually apparent on the ventral side as powdery, whitish spots that gradually expand. On the dorsal side, yellow spots of varying intensity develop opposite the spotted ventral side. On the dorsal side, powdery spots may also develop. Spots may later become necrotic.

Airborne conidia of *L. taurica* infect hosts that grow under warm conditions. The susceptibility of hosts increases with increasing age. Generally young plants aged 1 month or less are not susceptible. Conidia originate from previous, neighbouring crops or from weeds. Conidia produced on host organs are the major source of inoculum for further infection and development of an epidemic. The epidemic is polycyclic. Providing conditions are suitable, germination and penetration occurs within a few hours. Under optimum conditions, germination and invasion takes 3 hours. Conidia are discharged to the air with any slight movement and are transmitted through air.

The disease results in a decrease of assimilating surface of leaves reduction of tomato yield by 40-50%.

Gummy stem blight (*Stagonosporopsis cucurbitacearum*)

Gummy stem blight, caused by the fungus *Stagonosporopsis cucurbitacearum* (also commonly known as *Didymella bryoniae*) as the sexual stage (perithecia giving rise to ascospores) and *Phoma cucurbitacearum* as the asexual stage (pycnidia producing conidia), is a common disease of all major

cucurbits and is present wherever they are grown. Once infected, young seedbeds are quickly hit by die-off. On older plants, leaf symptoms take the form of circular, dark beige to black spots surrounded by a yellow halo. Over time, these injuries dry out, crack and fall off; this phenomenon is often referred to as "wormhole". The infection begins with a wilt on the leaf edges and progresses towards the centre, until the leaves dry out. Infested stems can develop cancers that produce a typical red or brown rubbery exudate. Severely infected stems can be wrapped, resulting in the death of the tendril. Small black fruiting bodies (pycnidia or pseudothecia) can develop inside the infected tissues of the leaves or the stem. On fruits, symptoms range from small oval or circular dropsy spots to large necrotic areas. Black fruiting bodies can develop within the lesions. The infection can lead to the softening of the floral apex, which is brown or green in colour. When the pedicel is contaminated, the fruit can be aborted.

Both temperature and moisture are critical for germination, sporulation, penetration of conidia, and subsequent symptom development, but moisture (relative humidity over 85%, rainfall and duration of leaf wetness from 1 to 10 hours) has the greatest influence. The optimal temperature for symptom development varies depending on the cucurbit; for watermelon 23 – 24 °C is optimal, for cucumber 24 - 25°C and for muskmelon 18 - 19°C. The optimal temperature for muskmelon reportedly is lower because its resistance increases at high temperatures. This can be significant to determine when early-season disease scouting should be initiated for future control. Penetration by conidia is probably direct and does not need to occur through stomates or wounds.

In open field the fungus hibernates on infected plant residues of cucurbits. This pathogen can also be carried by seeds. Wounds from pruning, insects, or farm work can be important entry points for this fungal pathogen. The disease is most severe in open field production during periods of moderate temperatures and humid climates.

In protected culture, cool night temperatures and high humidity levels favour the development of the disease. Infection of the opening flowers can cause serious problems in the quality of the fruits, making them unmarketable.

Scab of cucurbits (*Cladosporium cucumerinum*)

Scab is caused by the fungus *Cladosporium cucumerinum*. The disease is widespread in North America and Europe and can occur every year if moisture or rainfall is plentiful and if temperatures are below normal. The spores, or conidia, of the fungus are formed in long, branched chains and are borne on fairly long conidiophores, thus enabling spores to be dislodged easily. Spores can be blown long distances even in moist air.

The scab fungus can attack any aboveground portion of the plant including leaves and petioles stems and fruit. On leaves and runners, pale-green water-soaked areas are the first sign of the disease. These spots gradually turn grey to white and become angular shaped. A chlorotic halo may appear around the lesion. If weather conditions are favourable, scab can deform young leaves, and the apical runners of young plants like melons can be killed. Sporulation on leaves tends to be sparse. On fruit, scab can produce the greatest damage, especially if they are infected when young. Spots first appear as small sunken areas similar to insect stings, about 3 mm in diameter. A sticky substance may ooze from the infected area. The spots become darker with age and may create a cavity in summer squash fruit, which are very susceptible. The cavities may be lined with a dark olive green, velvety layer of spores. Secondary soft rotting bacteria may also invade the cavities and lead to foul-smelling decay. On highly resistant cucurbit fruits, spores are more difficult to detect, and lesions may remain quite superficial. The time when fruits are infected may determine the relative severity of symptoms.

The fungus causing scab overwinters mainly in vines, but may also be seedborne. Spores are produced in the spring and are readily spread. They germinate and enter susceptible tissue within 9 hours. A spot may appear on leaves within 3 days, and a new production of spores is present by the 4th day. The most favourable weather conditions for disease development are wet weather (fogs, heavy dews and

light rains) and temperatures near or below 21 °C). At 17 °C growing tips of young plants are killed.

Table 3.2-4: Major / minor status of intended uses (for all cMS and zRMS)

Crop group	Crop and/or situation	Crop status		Pests or group of pests controlled	Pest status	
		Major	minor		Major	Minor
Solanaceae	tomato	BG, HR, EL, HU, IT, PT, RO, ES	CZ, PL, SK, SI	<i>Alternaria</i> sp.	-	BG, HR, EL, HU, IT, PT, RO, ES, CZ, PL, SK, SI
				<i>Leveillula taurica</i>	-	BG, HR, EL, HU, IT, PT, RO, ES, CZ, PL, SK, SI
				<i>Oidium neolycopersici</i>	-	BG, HR, EL, HU, IT, PT, RO, ES, CZ, PL, SK, SI
				<i>Phytophthora infestans</i>	BG, HR, EL, HU, IT, PT, RO, ES, CZ, PL, SK, SI	-
		FR	-	<i>Alternaria</i> sp.	-	FR
				<i>Phytophthora infestans</i>	FR	-
	bell pepper	BG, HU, RO	HR, PL, PT, SI	<i>Phytophthora infestans/capsica</i>	BG, HR, PL, PT, SI	
				<i>Alternaria</i> sp.	-	PL
				<i>Oidium neolycopersici</i>	-	PL
	aubergine	-	BG, HR, FR, EL, HU, IT, PL, PT, RO, SK, SI, ES	<i>Alternaria</i> sp.	-	BG, HR, FR, EL, HU, IT, PL, PT, RO, SK, SI, ES
				<i>Oidium neolycopersici</i>	-	BG, HR, FR, EL, HU, IT, PL, PT, RO, SK, SI, ES
				<i>Phytophthora infestans</i>	BG, HR, FR, EL, HU, IT, PL, PT, RO, SK, SI, ES	-
Leafy veg.	lettuce	-	PL	<i>Botrytis cinerea</i>	-	PL
		FR, ES, PT, IT, EL	AT, BE, HR, CZ, UK; DE, IE, NL, PL, SK, SI	<i>Bremia lactucae</i>	FR, ES, PT, IT, EL, AT, BE, HR, CZ, UK; DE, IE, NL, PL, SK, SI	-
	wild lettuce	-	BG	<i>Alternaria</i> sp.	-	BG
	endive	-	BG	<i>Sphaerotheca fuliginea</i>	-	BG
	endive, garden purslane	-	BG	<i>Alternaria</i> sp.	-	BG
	endive, garden purslane	-	PL	<i>botrytis cinerea</i>	-	PL
	endive, wild lettuce, garden purslane	-	EL, PL, ES	<i>Bremia lactucae</i>	EL, PL, ES	-
Cucurbitaceae	cucumber	FR, EL, HU, RO	BG, HR, CZ, IT, PL, PT, SK, SI, ES	<i>Cladosporium</i> sp.	-	FR, EL, HU, RO, BG, HR, CZ, IT, PL, PT, SK, SI, ES
				<i>Didymella bryoniae</i>	-	FR, EL, HU, RO, BG, HR, CZ, IT, PL, PT, SK, SI, ES
				<i>Pseudoperonospora cubensis</i>	FR, EL, HU, RO, BG, HR, CZ, IT, PL, PT, SK, SI, ES	
	courgette/zucchini	ES, IT, EL	BG, HR, CZ, HU, PL, PT, RO, SK, SI	<i>Cladosporium</i> sp.		ES, IT, EL, BG, HR, CZ, HU, PL, PT, RO, SK, SI

Crop group	Crop and/or situation	Crop status		Pests or group of pests controlled	Pest status	
		Major	minor		Major	Minor
				<i>Pseudoperon ospora cubensis</i>	ES, IT, EL, BG, HR, CZ, HU, PL, PT, RO, SK, SI	
				<i>Didymella bryoniae</i>	-	ES, IT, EL, BG, HR, CZ, HU, PL, PT, RO, SK, SI
		-	FR	<i>Pseudoperon ospora cubensis</i>	FR	-
	gherkin	BG		<i>Pseudoperon ospora cubensis</i>	BG	-
				<i>Didymella bryoniae</i>	BG	-
	cucurbits edible peel	ES*	ES	<i>Cladosporium</i> sp.	-	ES
				<i>Didymella bryoniae</i>	-	ES
				<i>Pseudoperon ospora cubensis</i>	ES	-
	melon	FR, ES, IT, EL	BG, HR, HU, PL, PT, RO, SK, SI	<i>Cladosporium</i> sp.	-	FR, ES, IT, EL, BG, HR, HU, PL, PT, RO, SK, SI
				<i>Pseudoperon ospora cubensis</i>	FR, ES, IT, EL, BG, HR, HU, PL, PT, RO, SK, SI	-
				<i>Didymella bryoniae</i>	-	FR, ES, IT, EL, BG, HR, HU, PL, PT, RO, SK, SI
		PL	PL	<i>Alternaria cucumerina</i>	-	PL
	watermelon	ES, EL, BG, HU, RO	HR, FR, IT; PL, PT, SK, SI	<i>Cladosporium</i> sp.		ES, EL, BG, HU, RO, HR, FR, IT; PL, PT, SK, SI
				<i>Pseudoperon ospora cubensis</i>	ES, EL, BG, HU, RO, HR, FR, IT; PL, PT, SK, SI	
				<i>Didymella bryoniae</i>		ES, EL, BG, HU, RO, HR, FR, IT; PL, PT, SK, SI
	squash/pumpkin	-	CZ, PL	<i>Cladosporium</i> sp.	-	CZ, PL
				<i>Pseudoperon ospora cubensis</i>	CZ, PL	-
				<i>Didymella bryoniae</i>	-	CZ, PL
Pot plants	Pot plants	-	BL, FR, UK, DE, NL, PL	<i>Pseudoperon osporaceae</i>	-	BL, FR, UK, DE, NL, PL
Trees and shrubs	height > 150 cm	-	BL, FR, UK, DE, NL, PL	<i>Pseudoperon osporaceae</i>	BL, FR, UK, DE, NL, PL	-
	height 50cm - 150 cm	-	BL, FR, UK, DE, NL, PL	<i>Pseudoperon osporaceae</i>	BL, FR, UK, DE, NL, PL	-
	height < 50cm	-	BL, FR, UK, DE, NL, PL	<i>Pseudoperon osporaceae</i>	BL, FR, UK, DE, NL, PL	-
Okra	okra	-	BG, EL	<i>Alternaria</i> sp.	-	BG, EL
				<i>Oidium neolycopersici</i>	-	BG, EL

Crop group	Crop and/or situation	Crop status		Pests or group of pests controlled	Pest status	
		Major	minor		Major	Minor
					-	BG, EL

*only zucchini

Compliance with the Uniform Principles

The experiments were carried out by contractor companies all of which follow the EPPO standards and are officially recognized by the competent authorities to carry out registration trials in accordance with the principles of Good Experimental Practice (GEP).

All the trials were conducted according to GEP and EPPO-guidelines and the specifications of the trial plan. All assessments and applications were done according to instructions of the protocol unless otherwise specified.

Information on trials submitted (3.1 Efficacy data)

Table 3.2-5: Presentation of trials (efficacy trials, preliminary trials...)

Crop(s) *	Target(s)*	Country	Years	Type of trial**	Number of trials (number of valid trials)	GEP, non-GEP, official***	Comments (any other relevant information)
					Interzonal use		
Tomato (vertical grown) [LYPES]	<i>Phytophthora infestans</i>	ES	2019	E	6(6)	GEP	greenhouse
			2020	P + MED + E	1(1)	GEP	greenhouse
		EL	2019	E	3(3)	GEP	greenhouse
			2020	P + MED + E	2(2)	GEP	greenhouse
		IT	2019	E	2(2)	GEP	greenhouse
			2020	P + MED + E	1(1)	GEP	greenhouse
		PL	2020	E	2(2)	GEP	greenhouse
			2020	P + MED + E	2(2)	GEP	greenhouse
	TOTAL	-	2020	-	19(19)	-	-
Lettuce [LACSA]	<i>Bremia lactucae</i> [BREMLA]	BE	2018	P + E	1(1)	GEP	greenhouse
			2019-2020	P + MED + E	4(4)	GEP	greenhouse
		ES	2019	P + E	1(1)	GEP	greenhouse
			2019-2020	P + MED + E	3(3)	GEP	greenhouse
		IT	2019	P + E	3(3)	GEP	greenhouse
			2019	P + MED + E	1(1)	GEP	greenhouse
		PT	2019-2020	P + MED + E	3(3)	GEP	greenhouse
	TOTAL	-	2018-2020	-	16(16)	-	-
Cucurbits, horizontal grown (including zucchini, cucumber, melon, watermelon)	<i>Pseudoperonospora cubensis</i> [PSPECU]	ES	2019-2020	P + MED + E	3(3)	GEP	greenhouse
						GEP	greenhouse
		EL	2019	P + MED + E	1(1)	GEP	greenhouse
		IT	2019-2020	P + MED + E	4(4)	GEP	greenhouse
	TOTAL	-	2019-2020	-	8(8)	-	-
Cucurbits (vertical grown)	<i>Pseudoperonospora cubensis</i> [PSPECU]	ES	2020	MED + E	6(6)	GEP	greenhouse
			2019-2020	P + MED + E	2(2)	GEP	greenhouse
		EL	2020	MED + E	2(2)	GEP	greenhouse
			2019-2020	MED + E	4(4)	GEP	greenhouse
		IT	2020	P + MED + E	2(2)	GEP	greenhouse
						GEP	greenhouse
	TOTAL	-	2019-2020	-	16(16)	-	-
Tomato (vertical grown) [LYPES]	Powdery mildew (including <i>Oidium neolycopersici</i> and	ES	2020	E	3	GEP	greenhouse
		IT	2020	E	3	GEP	greenhouse

Crop(s) *	Target(s)*	Country	Years	Type of trial**	Number of trials (number of valid trials)	GEP, non-GEP, official***	Comments (any other relevant information)
					Interzonal use		
	<i>Leveillula taurica</i>						
	TOTAL	-	2020	-	6(6)	-	-
Cucurbits (including melon, watermelon)	<i>Didymella</i> sp. [DIDYSP]	ES	2019-2020	E	5	GEP	greenhouse
	TOTAL	-	2019-2020	-	5(5)	-	-
TOTAL		-	2018-2020	-	70(70)	-	-

A range of appropriate standards was included in the different trials and were in general applied at the registered rate. These standards were chosen for their well know efficacy against the target. In order to assess the efficacy of the test product under similar conditions, a single standard was chosen from the reference products for this dossier depending on the frequency of the standard availability in the different trials and on the registration status in one or few of the most important country for this use. These reference products are indicated in the following table. It is to note that additional standards are available in the single trials reports and are not mentioned in this document. In the data tables provided in the dossier, the tested product is consistently referred to A22773A while the key chosen reference standards are referred as reported in single trial report.

Table 3.2-6: Presentation of reference standards used in trials (efficacy trials, preliminary trials...) – against *Phytophthora infestans* on TOMATO (vertical grown – greenhouse)

Crop(s)	Reference standard	Country(ies) where the product is registered (1)	Authorization number	Active substance(s)	Formulation		Registered application rate(3)	Application rate in trials (per treatment)	Remark(4)
					Type(2)	Concentration of a.s.			
Tomato, vertical grown (GH)	Revus Top SC	EL	60881	difenoconazole + mandipropamid	SC	500 g/L	0.6 L PR/ha	0.6 L PR/ha	A14576A
	-	PL		metalaxyl-M + copper	WG	16.19%	-	5 kg PR/ha	A15605D not registered in Poland
	Ridomil Gold R WG	IT	14642				5 kg PR/ha	5 kg PR/ha	A15605D
	Ranman Top	ES	25450	cyazofamid	SC	160 g/L	0.6 L PR/ha	0.6 L PR/ha	-
	Revus	ES	25186	mandipropamid	SC	250 g/L	0.4 - 0.6 L PR/ha	0.6 L PR/ha	A12946B
	Revus 250 SC	PL	R-12/2009				0.6 L PR/ha	0.6 L PR/ha	

(1) only on use(s) applied for (with the test product).

(2) e.g. WP (wetttable powder), EC (emulsifiable concentrate), etc.

(3) dose(s) / dose range authorized on that use in the country.

(4) Other relevant information (e.g. uses, number of applications, spray volume, method of application, etc.).

Table 3.2-7: Presentation of reference standards used in trials (efficacy trials, preliminary trials...) – against *Bremia lactucae* on LETTUCE

Crop(s)	Reference standard	Country(ies) where the product is registered ⁽¹⁾	Authorization number	Active substance(s)	Formulation		Registered application rate(3)	Application rate in trials (per treatment)	Remark ⁽⁴⁾
					Type(2)	Concentration of a.s.			
Lettuce	Revus	BE	9604P/B; 1386P/P	mandipropamid	SC	250 g/L	0.6 L PR/ha	0.6 L PR/ha	A12946B
	Pergado V		11058P/B						
	Revus	DE	026221-00						
	Revus	FR	2080098						

(1) only on use(s) applied for (with the test product).

(2) e.g. WP (wetable powder), EC (emulsifiable concentrate), etc.

(3) dose(s) / dose range authorized on that use in the country.

(4) Other relevant information (e.g. uses, number of applications, spray volume, method of application, etc.).

Table 3.2-8: Presentation of reference standards used in trials (efficacy trials, preliminary trials...) – against *Pseudoperonospora cubensis* on CUCURBITS (horizontal grown – greenhouse)

Crop(s)	Reference standard	Country(ies) where the product is registered ⁽¹⁾	Authorization number	Active substance(s)	Formulation		Registered application rate(3)	Application rate in trials (per treatment)	Remark ⁽⁴⁾
					Type(2)	Concentration of a.s.			
Cucurbits, horizontal grown (GH)	INFINITO 687.5 SC	BG	n.a.	fluopicolide + propamocarb hydrochloride	SC	687.5 g/L		1.6 L PR/ha	
		ES	25351				1.4 - 1.6 L PR/ha	1.6 L PR/ha	registered as VOLARE
		FR	2090136				1.6 L PR/ha	1.6 L PR/ha	
		EL	60321				1.6 L PR/ha	1.6 L PR/ha	
		HU	02.5/421/1/2010				1.6 L PR/ha	1.6 L PR/ha	-
		IT	13592				1.4 - 1.6 L PR/ha	1.6 L PR/ha	registered as VOLARE
		PL	25186				0.4 - 0.6 L PR/ha	0.6 L PR/ha	

(1) only on use(s) applied for (with the test product).

(2) e.g. WP (wetable powder), EC (emulsifiable concentrate), etc.

(3) dose(s) / dose range authorized on that use in the country.

(4) Other relevant information (e.g. uses, number of applications, spray volume, method of application, etc.).

Table 3.2-9: Presentation of reference standards used in trials (efficacy trials, preliminary trials...) – against *Pseudoperonospora cubensis* on CUCURBITS (vertical grown – greenhouse)

Crop(s)	Reference standard	Country(ies) where the product is registered ⁽¹⁾	Authorization number	Active substance(s)	Formulation		Registered application rate(3)	Application rate in trials (per treatment)	Remark ⁽⁴⁾
					Type(2)	Concentration of a.s.			
Cucurbits, vertical grown (GH)	INFINITO 687.5 SC	ES	25351	fluopicolide + propamocarb hydrochloride	SC	687.5 g/L	1.4 - 1.6 L PR/ha	1.6 L PR/ha	-
		EL	60321				1.6 L PR/ha	1.6 L PR/ha	-
		IT	13592				1.6 L PR/ha	1.6 L PR/ha	-
	EQUATION PRO	IT	10119	cymoxanil + famoxadone	WG	52.50%	0.4 kg PR/ha	0.4 kg PR/ha	-
	Ranman Top	ES	25450	cyazofamid	SC	160 g/L	0.5 L PR/ha	0.5 L PR/ha	-
	ORTIVA	ES	22000	azoxystrobin	SC	250 g/L	1 L PR/ha	1 L PR/ha	
	Zorvec Enicade	ES	ES-00563	oxathiapiprolin	OD	100 g/L	0.2 - 0.25 L PR/ha	0.12 L PR/ha	

- (1) only on use(s) applied for (with the test product).
(2) e.g. WP (wetable powder), EC (emulsifiable concentrate), etc.
(3) dose(s) / dose range authorized on that use in the country.
(4) Other relevant information (e.g. uses, number of applications, spray volume, method of application, etc.).

Table 3.2-10: Presentation of reference standards used in trials (efficacy trials, preliminary trials...) – against Powdery mildew on TOMATO (vertical grown – greenhouse)

Crop(s)	Reference standard	Country(ies) where the product is registered ⁽¹⁾	Authorization number	Active substance(s)	Formulation		Registered application rate(3)	Application rate in trials (per treatment)	Remark ⁽⁴⁾
					Type(2)	Concentration of a.s.			
Tomato (GH)	DAGONIS	ES	ES-00554	difenoconazole + fluapyroxad	SC	125 g/L	0.6 – 1 L PR/ha	1 L PR/ha	
	TOPAS	IT	09280	penconazole	EW	200 g/L	0.25 L PR/ha	0.25 L PR/ha	

- (1) only on use(s) applied for (with the test product).
(2) e.g. WP (wetable powder), EC (emulsifiable concentrate), etc.
(3) dose(s) / dose range authorized on that use in the country.
(4) Other relevant information (e.g. uses, number of applications, spray volume, method of application, etc.).

Table 3.2-11: Presentation of reference standards used in trials (efficacy trials, preliminary trials...) – against *Didymella bryoniae* on CUCURBITS (horizontal grown – greenhouse)

Crop(s)	Reference standard	Country(ies) where the product is registered ⁽¹⁾	Authorization number	Active substance(s)	Formulation		Registered application rate(3)	Application rate in trials (per treatment)	Remark ⁽⁴⁾
					Type(2)	Concentration of a.s.			
Cucurbits (GH)	ORTIVA (A12705B)	ES	22000	azoxystrobin	SC	250 g/L	1 L PR/ha	1 L PR/ha	Greenhouse

- (1) only on use(s) applied for (with the test product).
(2) e.g. WP (wetable powder), EC (emulsifiable concentrate), etc.
(3) dose(s) / dose range authorized on that use in the country.

3.2.1 Preliminary tests (KCP 6.1)

Summary and conclusions on the preliminary trials

A total of 34 efficacy trials are summarized for component justification of A22772A:

- On *Phytophthora infestans* on tomato (vertical grown) are presented **6 efficacy trials** assessed for disease incidence and severity on leaf and fruits. These trials were carried out in 2020 **in countries of the EU zone (Greece, Italy, Spain and Poland)**;

- On *Bremia lactucae* on lettuce (horizontal grown) are presented **16 efficacy trials** carried out in greenhouse, assessed for disease incidence and severity on leaf. These trials were carried out between 2018 and 2020 **in countries of the EU zone (Belgium, France, Italy, Portugal and Spain)**;

- On *Pseudoperonospora cubensis* on cucurbits (horizontal grown: including zucchini, cucumber, melon and watermelon, representing cucurbitaceae with both edible and inedible peel) are presented **8 efficacy trials** carried out in greenhouse, assessed for disease incidence and severity on leaf. These trials were carried out between 2019 and 2020 **in countries of the EU zone (Greece, Italy and Spain)**;

- On *Pseudoperonospora cubensis* on cucurbits (vertical grown: including cucumber) are presented **4 efficacy trials** assessed for disease incidence and severity on leaf. These trials were carried out in 2020 **in countries of the EU zone (Italy and Spain)**.

In all the trials on crops with horizontal grown, A22773A was applied at the recommended maximum rate of 1 L PR/ha (delivering 250 g azoxystrobin /ha + 12 g oxathiapiprolin /ha) and compared to the solo active substances at comparable active ingredient content (A12705B applied at its registered rate of 1 L PR/ha delivering 250 gai/ha azoxystrobin; A20941B applied at its registered rate of 0.12-0.15 L PR/ha delivering 12-15 gai/ha oxathiapiprolin).

In all the trials on crops with vertical grown, dose rate were expressed in terms of LWA. A22773A at 0.5 LPR/10000M2LWA (max. 1 L PR/ha, delivering 250 g azoxystrobin /ha + 12 g oxathiapiprolin /ha) was compared to the solo active substances at comparable active ingredient content (A12705B applied at 0.5 LPR/10000M2LWA; A20941B applied at 0.06 LPR/10000M2LWA).

Mixture of azoxystrobin (250 g/L) and oxathiapiprolin (12 g/L) in A22773A provided in general superior (or equivalent) protection compared to solo active ingredients.

A22773A combines the new mode of action of oxathiapiprolin with that of azoxystrobin, providing an **excellent intrinsic resistance strategy** that is the principal benefit of the mixture, with no adverse effect on efficacy, furthermore often resulting in increased disease control.

Summary on efficacy of active substance components in A22773A is summarized in Table 3.2-12 .

Further information in the field trials (Maritime, Mediterranean, North East and South East EPPO zone) can be found in the relative Biological assessment dossier for A22773A_VV-881245.

Comments of zRMS:

The efficacy assessment of components in A22773A was provided on tomato, lettuce and cucurbits. The results of preliminary trials show that the mixture of azoxystrobin and oxathiapiprolin is the most effective to control of disease pathogens compared to the active substances used solo. The test product applied at 1 l pr/ha achieved significant higher effectiveness in control of *Phytophthora infestans* in tomato (89%, PESINC %) and *Pseudoperonospora cubensis* in cucurbits vertical grown (89,3%, PESINC%). The active substance of azoxystrobin used solo was insufficient. The results from objectives treated of A22773A and oxathiapiprolin used solo were on the similar level in lettuce and cucurbits horizontal grown. However, the test product contains two active substances with different mode of action what is necessary tool in anti-resistance strategy. The mixture of azoxystrobin and oxathiapiprolin is justify.

Table 3.2-12: Summary on efficacy of active substance components in A22773A against downy mildew in several crops (greenhouse)

Use	EPPO zone	Rating data type	Plant part	Nr of trials	Spray interval (days)	Infestation		% Efficacy (Untreated Check = 0%)					
						CHECK UNTREATED		A12705B 1 LPR/HA azoxystrobin 250 gai/ha		A20941B 0.12 LPR/HA oxathiapiprolin 12 gai/ha		A22773A 1 LPR/HA azoxystrobin oxathiapiprolin 250 12 gai/ha	
						Mean	min-max	Mean	min-max	Mean	min-max	Mean	min-max
PHITYN /tomato (GH) vertical grown*	interzonal	PESINC, %	LEAF	6	7-10	60	11.2-100	57	17.4-100	75	39.1-100	89	58.7-100
	interzonal	PESSEV, % area	LEAF	6	7-10	25.6	5.9-80.1	82.7	60.6-100	90.4	62-100	93.4	67.8-100
	interzonal	PESINC, %	FRUIT	2	7-10	43.3	19.6-67	95.7	94.2-97.1	99.3	98.6-100	99.9	99.7-100
BREMLA /lettuce (GH)	interzonal	PESINC, %	LEAF	16	7-10	50.3	12.3-99.3	-	-	96.7	77.8-100	97.4	77.8-100
	interzonal	PESSEV, % area	LEAF	16	7-10	27.9	7.5-88.9	-	-	91.2	73.9-100	95	81.8-100
PSPECU /cucurbits (GH) horizontal grown	interzonal	PESINC, %	LEAF/PLAN T	8	7-10	48.2	10-100	67.5	29.4-100	97.9	92.1-100	85.7	59.3-100
	interzonal	PESSEV, % area	LEAF/PLAN T	5	7-10	8.3	5.5-15.9	75.4	31.7-95.8	98.6	96.4-100	96.1	91.4-98.4
PSPECU /cucurbits (GH) vertical grown*	interzonal	PESINC, %	LEAF	4	7-10	47	20.5-100	47.1	9.6-62.8	76.3	62.6-100	89.3	71.7-100
	interzonal	PESSEV, % area	LEAF	4	7-10	10.7	5.1-22.4	76.2	65.3-89.8	87.3	75.1-100	94	87.8-100

* Dose rate applied in single trials reports were expressed in terms of LWA. A22773A at 0.5 LPR/10000M2LWA (max. 1 L PR/ha, delivering 250 g azoxystrobin /ha + 12 g oxathiapiprolin /ha) and compared to the solo active substances at comparable active ingredient content (A12705B applied at 0.5 LPR/10000M2LWA; A20941B applied at 0.06 LPR/10000M2LWA).

3.2.2 Minimum effective dose tests (KCP 6.2)

Summary and conclusions on the minimum effective dose

A total of **41 efficacy trials** are summarized for minimum effective dose of A22772A.

6 efficacy trials have been evaluated to determine the minimum effective dose for the control of *Phytophthora infestans* on tomato (vertical grown in greenhouse). These trials were carried out in 2020 in countries of the EU zone (Greece, Italy, Spain and Poland).

11 efficacy trials have been evaluated to determine the minimum effective dose for the control of *Bremia lactucae* on lettuce (horizontal grown) in greenhouse. These trials were carried out in 2019 and 2020 in countries of the EU zone (Belgium, France, Italy and Portugal);

8 efficacy trials have been evaluated to determine the minimum effective dose for the control of *Pseudoperonospora cubensis* on cucurbits (horizontal grown in greenhouse). These trials were carried out in 2019 and 2020 in countries of the EU zone (Greece, Italy and Spain).

16 efficacy trials have been evaluated to determine the minimum effective dose for the control of *Pseudoperonospora cubensis* on cucurbits (vertical grown in greenhouse). Out of these, 4 efficacy trials tested 7-10 days spray interval and were assessed for disease incidence and severity on leaf. These trials were carried out in 2020 in countries of the EU zone (Italy and Spain). Furthermore, supportive data with treatments applied at 12-15 days spray interval are presented for minimum effective dose assessment on *Pseudoperonospora cubensis* on cucurbits from further 12 efficacy trials performed in 2019 and 2020 in countries of the EU zone (Greece, Italy and Spain).

A22773A was tested at 50%, 75-80% and 100% rate (delivering max. 1 L PR/ha) in accordance with the EPPO standard PP 1/225 'Minimum effective dose'. A summary of the dose response results is provided in table below.

In general some dose response was demonstrated both in terms of disease incidence and severity.

According to the presented results the dose of A22773A delivering max. 1 L PR/ha provided the optimum overall control (higher efficacy and the lower variability, especially in most challenging conditions (e.g. high disease pressure or longer spray interval) and should be considered as effective against these uses, for which activity of A22773A is claimed. Reduced dosage rate by 20% can still provide useful disease control however with low reliability in several cases. Furthermore, the ready mixture is thought to provide a good intrinsic resistance management against Peronosporaceae, and therefore the full optimum rate of 1 L PR/ha of A22773A (full rate for both actives) has to be considered the minimum effective dose.

As a result, the proposed rate delivering maximum 1 L PR/ha as specified in the GAP should be considered the minimum effective dose to deliver robust control of symptoms and providing significant disease control under a wide range of environmental conditions.

Summary on minimum effective dose for A22773A is summarized in Table 3.2-13 .

Further information in the field trials (Maritime, Mediterranean, North East and South East EPPO zone) can be found in the relative Biological assessment dossier for A22773A_VV-881245.

Comments of zRMS:

6 efficacy trials (Spain, Greece, Italy, Poland) at 7-10 days spray interval were conducted to determine minimum effective dose to control *Phytophthora infestans* on tomato vertical grown. Also 8 trials (Spain, Greece, Italy, Poland) at longer spray interval (12-15 days) have been submitted as supportive data. Based on the observation

of leaves, A22773A applied at full dose rate was effective on a level of 93,4% (7-10 days spray interval) and 93,2% (12-15 days), based on the percent of area of disease on leaves (%PESSEV). The mean efficacy of the lower doses was 87,8%/85,8% for 0,75N and 81,4%/72,4% for 0,5N. The limited number of trials were presented for the observation of fruits (2 trials for 7-10 days spray interval and 4 trials for longer terms). The similar results were achieved between dose rates in trials at shorter spray interval, based on the percent of infected plant part (%PESINC). A22773A at 1 l pr/ha was the most effective to control of PHYTIN in supportive trials but lower rates were still sufficient. These results on leaves and fruits show that the test product applied at full rate (1 l pr/ha or 0,5 l pr/10000 m² LWA) is necessary to control *Phytophthora infestans* on tomato under protected conditions.

11 efficacy trials (Belgium, France, Italy, Portugal) were conducted to determine minimum effective dose to control ***Bremia lactucae* on lettuce** in greenhouse. The highest level of control was achieved after applied of the full target rate. A22773A at 1 l pr/ha gave an effectiveness of 95% (%PESSEV), while the lower doses was slightly worse, however still sufficient (89,8% for 0,75N and 87,9% for 0,5N). Based on the submitted trials, the dose rate of 1 l pr/ha can be determine the minimum effective dose to control BREMLA in lettuce under protected conditions.

8 efficacy trials (1 trial in zucchini, 2 trials in muskmelon, 2 trials in melon and 3 trials in cantaloup melon) were conducted to determine minimum effective dose to control ***Pseudoperonospora cubensis* in cucurbits** horizontal grown in greenhouse. The mean efficacy of the full rate of A22773A was 96,1%, based on PESSEV parameter. No significant differences between the dose rates of 1N and 0,75N were observed. The lower dose of 0,5 l pr/ha was slight worse but still sufficient (85,8%). Furthermore, 4 efficacy trials were carried out in Spain and Italy for determine MED in cucumber vertical grown in greenhouse. The most effective was the full rate of 1 l pr/ha with the result of 94%, based on the PESSEV parameter. The lower comparable effectiveness of the dose rates of 0,75N and 0,5N was still on sufficient level. However in case of higher disease pressure, the full rate is necessary to achieve good control. Moreover, 12 efficacy trials were performed in Greece, Italy and Spain with longer spray interval (12-15 days). The test product applied at full rate was also the most effective. Based on the submitted trials, the dose rate of 1 l pr/ha can be determine the minimum effective dose to control PSPECU in cucurbits under protected conditions.

Table 3.2-13: Summary on Minimum effective dose. Efficacy of A22773A at proposed label rate, at 50% and 75-80% dose rates, against downy mildew in several crops including tomato, lettuce and cucurbits

Use	EPPO zone	Rating data type	Plant part	Nr of trials	Spray interval (days)	Infestation		% Efficacy (Untreated Check = 0%)					
						CHECK UNTREATED		A22773A 0.5 LPR/HA azoxystrobin oxathiapiprolin 125 6 gai/ha 50% full rate		A22773A 0.75-0.8 LPR/HA azoxystrobin oxathiapiprolin 187.5-200 9-9.6 gai/ha 75-80% full rate		A22773A 1 LPR/HA azoxystrobin oxathiapiprolin 250 12 gai/ha 100% full rate	
						Mean	min-max	Mean	min-max	Mean	min-max	Mean	min-max
PHYTIN /tomato (GH) vertical grown*	GH (interzonal)	PESINC, %	LEAF	6	7-10	60	11.2-100	68.4	36.1-100	80.8	53.9-100	89	58.7-100
	GH (interzonal)	PESSEV, % area	LEAF	6	7-10	25.6	5.9-80.1	81.4	53.6-100	87.8	63.9-100	93.4	67.8-100
	GH (interzonal)	PESIN, %	FRUIT	2	7-10	43.3	19.6-67.0	97.3	94.5-100	99.8	99.6-100	99.9	99.7-100
	GH (interzonal)	PESINC, %	LEAF	8	12-15	59.6	11.7-99.8	70.4	34.9-100	78.1	49.2-100	89.2	72.5-100
	Supportive data at longer spray interval												
	GH (interzonal)	PESINC, %	LEAF	8	12-15	59.6	11.7-99.8	70.4	34.9-100	78.1	49.2-100	89.2	72.5-100
	GH (interzonal)	PESSEV, % area	LEAF	8	12-15	24	5.2-60	72.4	28.4-98.2	85.8	68.2-97.1	93.2	82.6-98.9
	GH (interzonal)	PESINC, %	FRUIT	4	12-15	53.8	12.9-79.1	87.1	53.9-100	90.6	62.2-100	92	70.5-100
BREMLA /lettuce (GH) horizontal grown	GH (interzonal)	PESINC, %	LEAF	11	7-10	48.6	17.3-84	94.8	81.5-100	92.3	59.3-100	96.5	77.8-100
	GH (interzonal)	PESSEV, % area	LEAF	11	7-10	19.8	7.5-50	87.9	46.3-100	89.8	59.3-100	95	81.8-100
PSPECU /cucurbits (GH) horizontal grown	GH (interzonal)	PESINC, %	LEAF/PLANT	8	7-10	48.2	10-100	71.2	30.7-100	79.9	54.3-100	85.7	59.3-100
	GH (interzonal)	PESSEV, % area	LEAF/PLANT	5	7-10	8.3	5.5-15.9	85.8	66.6-97.8	91.5	79.4-98.8	96.1	91.4-98.4
PSPECU /cucurbits (GH) vertical grown*	GH (interzonal)	PESINC, %	LEAF	4	7-10	47	20.5-100	66.5	56.7-84.1	82.4	65.3-100	89.3	71.7-100
	GH (interzonal)	PESSEV, % area	LEAF	4	7-10	10.7	5.1-22.4	82.9	68.6-98.3	89.1	77.7-100	94	87.8-100
	Supportive data at longer spray interval												
	GH (interzonal)	PESINC, %	LEAF	11	12-15	62	17.6-100	66.3	2.7-100	79.8	11.9-100	88.9	36.7-100
	GH (interzonal)	PESSEV, % area	LEAF	10	12-15	24.8	5.8-55.5	81.6	61.2-98.5	88.2	67.8-99.8	93.7	80.9-100

* Dose rate applied in single trials reports were expressed in terms of LWA. A22773A at 0.5 LPR/10000M2LWA (corresponds to the full rate delivering max. 1 L PR/ha); A22773A at 0.375-0.4 LPR/10000M2LWA (corresponds to 75-80% of the full rate); A22773A at 0.25 LPR/10000M2LWA (corresponds to 50% of the full rate);

3.2.3 Efficacy tests (KCP 6.2)

Trials in this dossier were carried out by Syngenta organisations, contractor companies and Official Research institutes, all of which follow the EPPO guidelines and are officially recognized by the competent authorities to carry out field registration trials in accordance with the principles of Good Experimental Practice (GEP). The hyperlinks to relevant GEP certificates from the above mentioned official country testing organisations are available under Point 3.7.

On the basis of the EPPO guideline 1/241(1) *Guidance on comparable climates*, the trials included in this dossier have been grouped and summarized by EPPO zones and trial condition. EPPO zones have been defined by taking into account differences between the agro-climatic sub-areas of the EPPO region. As shown in Figure 3.2-1, four agro-climatic zones are appropriate: the Mediterranean zone, the Maritime zone, the North-East zone and the South-East zone.



Figure 3.2-1: Zones of comparable climate in the EPPO region, for the purpose of evaluation of efficacy trials on plant protection products

Trials for efficacy evaluation for uses under protected conditions presented in this dossier have been carried in the following countries: Belgium, France, Greece, Italy, Poland, Portugal and Spain.

Trials were well distributed in several EU countries to represent a wide range of European greenhouse conditions, however for each assessment on a target use these trials were grouped independently from the location (or EPPO zone) since an important climatic factor (rain) for the product performance is not relevant under such conditions and the overall climate in greenhouses is much less divers across the EPPO zones than in the field. Also Article 33 of EC Regulation 1107/2009 considers that in the case of an application for use in greenhouses the whole of the EU area is considered as one authorization zone.

Justification for data outside country of submission

Protected conditions

For the trials conducted in protected conditions, all EPPO climatic zones were grouped together. As advised in guidance EPPO PP 1/278 (1) “Principles of zonal data production and evaluation.” (p. 364), “Article 33 of EC Regulation 1107/2009 considers that in the case of an application for use in greenhouses, as post-harvest treatment, for treatment of empty storage rooms and for seed treatment, the whole of the EU area is considered as one authorization zone”. It can be however pointed out that the protected conditions trials were set up in order to cover a range of climates of relevance with trials

conducted in different countries representing different EPPO zones.

Trials methodology in relation to EPPO

Full details of the sites and applications are provided in Appendix 2 in the Biological assessment dossier for A22773A (VV-881245).

As a general rule, the trial layout was according to the randomized complete block design with four replicates per treatment. All normal crop husbandry measures were applied to the trials area by the grower, according to crop requirements and in accordance with good agricultural practice. Trials included a range of soil types and locations to determine crop tolerance and efficacy on a number of commercially grown varieties, under a range of conditions. All the trials were placed within regions where tomato is commonly grown and data have been presented on diseases which are also indigenous to the area covered. Crop growth stages and disease levels were recorded at the time of application using the appropriate BBCH codes.

Crop growth stages are described using the standard BBCH scale. In all trials, efficacy was assessed according to EPPO guidelines.

Crop phytotoxicity was assessed at various intervals after application. All assessments were on a 0-100 % scale, where 0 % = no damage and 100 % = total crop loss. Individual symptoms were recorded where appropriate. Where no phytotoxicity was observed, this was generally recorded within the individual trial data.

In the trials specifically targeted for this disease, the treatments were applied in a whole season long spray program, therefore exceeding the maximum of 2 applications per year according to the GAP.

Data are considered to be valid based on the fact that in normal commercial practice, A22773A is intended for use as part of multiple applications, season-long spray programs in sequences with other products. Therefore, it is considered appropriate to generate data on multiple applications of A22773A rather than a single timing in order to fully demonstrate efficacy.

Indeed the evaluation of the efficacy of the fungicide activity of test product based on trials carried out with whole season application of the test product is considered more reliable from a technical perspective for the following reasons:

- The efficacy of the product is not influenced by eventual maintenance treatments.
- The effective control of the disease observed in the trial is given only by the test product.
- A comparison of the efficacy over all trials is possible and homogeneous.
- Preventive application is ensured.
- The trials allow an evaluation of eventual resistances or sensitivity shift of the target to the product under field conditions.
- Success rate of the trials is sensibly higher under natural disease conditions.

Finally, it is to note that the maximum number of applications reported in the GAP is mainly driven by product safety limitations and anti-resistance restriction.

This procedure is well accepted in Europe by several authorities. An example is given in the two CEB guidelines (Commission des Essais Biologiques of France) currently regulating the methodology to adopt in the trials for registration of products in France.

Trials methodology in relation to EPPO – *Phytophthora infestans* on tomato

According to the specific EPPO guideline PP 1/065(3), for the efficacy evaluation of A22773A against *Phytophthora infestans* on tomato, during the trials disease incidence and severity on leaves and fruit was estimated just before each further application (respectively as % of infected plant part – PESINC %; or as % of area of disease on leaves/fruits – PESSEV % area). Only assessments from trials where a minimum of 5% disease severity or 10% disease incidence in the untreated plot was recorded were selected for summarization. This selection is suitable to show the efficacy of A22773A applied preventatively under challenging conditions of disease pressure, showing statistically significant differences between treatments and untreated check.

The table below summarizes the methodology in the specific set of trials.

Table 3.2-14: Details on trial methodology - *Phytophthora infestans* on tomato (vertical, greenhouse) – Interzonal

19 trials:		
Guidelines	General guidelines	PP 1/152(4); PP 1/181(4); PP 1/135(4)
	Specific guidelines	PP 1/065(3)
Experimental design	Plot design	RANDOMIZED COMPLETE BLOCK (19)
	Plot size	1 - 12 m ²
	Number of replications	4 (19)
Crop	Trials per crop	Vertical tomato, greenhouse (19)
	Varieties per crop	Bella Alma F1 (1); Bond (1); Bravante (1); Casarino (1); Colby (1); Elpida (1); Formula (1); Ikram Ty (1); Indalo (1); Julia (2); Letizia (1); Ozarowski (2); Patriarca (1); Robin (1); Runner (1); Signora (1); Sir Elyan F1(1)
Application	Crop stage (BBCH) at application	First application: BBCH 21 (1); BBCH 21-27 (1); BBCH 52-61 (1); BBCH 54-62 (1); BBCH 59-78 (1); BBCH 63-71 (2); BBCH 64 (1); BBCH 69 (2); BBCH 69-72 (1); BBCH 71 (2); BBCH 71-73 (1); BBCH 72 (1); BBCH 72-73 (1); BBCH 72-74 (1); BBCH 81 (1); BBCH 84 (1) Last application: BBCH 59-79 (1); BBCH 67-71 (1); BBCH 67-76 (1); BBCH 71 (1); BBCH 75-77 (2); BBCH 75-84 (1); BBCH 76-85 (1); BBCH 81 (3); BBCH 81-82 (1); BBCH 81-83 (1); BBCH 82 (1); BBCH 83 (2); BBCH 83-84 (1); BBCH 83-85 (1); BBCH 85 (1)
	Number of applications	3 (2); 4 (3); 5 (1); 6 (3); 8 (1); 9 (1); 11(3); 12 (5)
	Intervals between applications	about 7 - 10 days (6); about 12 - 21 days (13)
	Spray volumes	400 - 1050 L/ha
Assessment	Assessment types	pest incidence (%) on leaf, pest severity (%) on leaf
	Assessment dates	regularly at each application
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	Not relevant, foliar application
	e.g. Natural / artificial inoculation...	Natural (19)
	e.g. Field / Greenhouse...	Greenhouse (19)
	EPPO zones	Interzonal (19)

Trials methodology in relation to EPPO – *Bremia lactucae* on lettuce

According to the specific EPPO guideline PP 1/065(3), for the efficacy evaluation of A22773A against *Bremia lactucae* on lettuce, during the trials disease incidence and severity on leaves was estimated just before each further application (respectively as % of infected plant part – PESINC %; or as % of area of disease on leaves – PESSEV % area). Only assessments from trials where a minimum of 5% disease severity or 10% disease incidence in the untreated plot was recorded were selected for summarization. This selection is suitable to show the efficacy of A22773A applied preventatively under challenging conditions of disease pressure, showing statistically significant differences between treatments and untreated check.

The table below summarizes the methodology in the specific set of trials.

Table 3.2-15: Details on trial methodology - *Bremia lactucae* on lettuce (greenhouse) – Interzonal

16 trials:		
Guidelines	General guidelines	PP 1/152(4); PP 1/181(4); PP 1/135(4)
	Specific guidelines	PP 1/065(3)
Experimental design	Plot design	RANDOMIZED COMPLETE BLOCK (16)
	Plot size	3 - 12 m ²
	Number of replications	4 (16)
Crop	Trials per crop	Lettuce, greenhouse (16)
	Varieties per crop	Cosmopolia (1); ETINCEL (1); Flandria (1); Gardia (2); Gennari (3); GOLDORAC (1); Isasa (1); Maritima (1); Médis (1); PANISSE (1); SÉMINIS (6621) (1); Soupirai (1); Tiziana(1)
Application	Crop stage (BBCH) at application	First application: BBCH 11-12 (1); BBCH 12-13 (1); BBCH 13-14 (2); BBCH 14 (2); BBCH 14-16 (1); BBCH 15 (1); BBCH 16 (1); BBCH 16-19 (4); BBCH 17 (1); BBCH 44-45 (1) Last application: BBCH 33-35 (1); BBCH 37-42 (1); BBCH 39 (1); BBCH 18-42 (1); BBCH 39-43 (2); BBCH 41-44 (1); BBCH 43 (1); BBCH 43-45 (1); BBCH 45 (2); BBCH 47 (2); BBCH 47-48 (1); BBCH 49 (1)
	Number of applications	3 (1); 4 (11); 5 (4)
	Intervals between applications	about 7 - 10 days
	Spray volumes	300 - 800 L/ha
Assessment	Assessment types	pest incidence (%) on leaf, pest severity (%) on leaf, COUNT marketable plant, %
	Assessment dates	regularly at each application
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	Not relevant, foliar application
	e.g. Natural / artificial inoculation...	Natural (16)
	e.g. Field / Greenhouse...	Greenhouse (16)
	EPPO zones	Interzonal (16)

Trials methodology in relation to EPPO – *Pseudoperonospora cubensis* on cucurbits

According to the specific EPPO guideline PP 1/065(3), for the efficacy evaluation of A22773A against *Pseudoperonospora cubensis* on cucurbits, during the trials disease incidence and severity on leaves was estimated just before each further application (respectively as % of infected plant part – PESINC %; or as % of area of disease on leaves – PESSEV % area). Only assessments from trials where a minimum of 5% disease severity or 10% disease incidence in the untreated plot was recorded were selected for summarization. This selection is suitable to show the efficacy of A22773A applied preventatively under challenging conditions of disease pressure, showing statistically significant differences between treatments and untreated check.

The table below summarizes the methodology in the specific set of trials.

Table 3.2-16: Details on trial methodology – *Pseudoperonospora cubensis* on cucurbits (horizontal, greenhouse) – Interzonal

8 trials:		
Guidelines	General guidelines	PP 1/152(4); PP 1/181(4); PP 1/135(4)
	Specific guidelines	PP 1/065(3)
Experimental design	Plot design	RANDOMIZED COMPLETE BLOCK (8)
	Plot size	10 - 24 m ²
	Number of replications	4 (8)
Crop	Trials per crop	Horizontal melon (7), horizontal zucchini (1), greenhouse
	Varieties per crop	Zucchini: Galatea (1); Melon: Malerva (1); Niovi (1); Party (1); Proteo (2); Retato (1); Valverde (piel de sapo) (1)
Application	Crop stage (BBCH) at application	First application: BBCH 13-15 (1); BBCH 14 (1); BBCH 14-16 (1); BBCH 21 (1); BBCH 21-23 (1); BBCH 52-54 (1); BBCH 62 (1); BBCH 65 (1)
		Last application: BBCH 63 (1); BBCH 65 (1); BBCH 65-72 (1); BBCH 67-75 (1); BBCH 69 (1); BBCH 72-75 (1); BBCH 73 (1); BBCH 81-84 (1)
	Number of applications	3 (4); 4 (1); 5 (3)
	Intervals between applications	about 7 - 10 days
Assessment	Spray volumes	200 - 1000 L/ha
	Assessment types	pest incidence (%) on leaf, pest severity (%) on leaf
Other relevant information	Assessment dates	regularly at each application
	e.g. Soil type, pH (in case of soil active substance ...)	Not relevant, foliar application
	e.g. Natural / artificial inoculation...	Natural (8)
	e.g. Field / Greenhouse...	Greenhouse (8)
	EPPO zones	Interzonal (8)

Table 3.2-17: Details on trial methodology – *Pseudoperonospora cubensis* on cucurbits (vertical, greenhouse) – Interzonal

16 trials:		
Guidelines	General guidelines	PP 1/152(4); PP 1/181(4); PP 1/135(4)
	Specific guidelines	PP 1/065(3)
Experimental design	Plot design	RANDOMIZED COMPLETE BLOCK (16)
	Plot size	4.56 - 20 m ²
	Number of replications	4 (16)
Crop	Trials per crop	Vertical cucumber, greenhouse (16)
	Varieties per crop	Audax(1); Belmonte (1); Bosco (4); Levantino (1); Maritimo (1); Modan (1); Modan RZ (1); Myrtos (1); Strategos (4); Trimax (1)
Application	Crop stage (BBCH) at application	First application: BBCH 12 (1); BBCH 12-13 (1); BBCH 12-14 (2); BBCH 13 (1); BBCH 14-16 (1); BBCH 15-16 (1); BBCH 16 (2); BBCH 16-18 (1); BBCH 18 (2); BBCH 21 (1); BBCH 51-54 (1); BBCH 62 (1); BBCH 63-65 (1)
		Last application: BBCH 65 (1); BBCH 65-74 (1); BBCH 66-74 (1); BBCH 69-82 (1); BBCH 72-75 (1); BBCH 73-74 (1); BBCH 74 (2); BBCH 74-75 (1); BBCH 74-81 (1); BBCH 75 (1); BBCH 76 (1); BBCH 78-81 (1); BBCH 81 (1); BBCH 83 (1); BBCH 85 (1)
	Number of applications	3 (3); 6 (3); 8 (3); 9 (2); 12 (2); 14 (2); 16 (1)
	Intervals between applications	about 7 - 10 days (4); about 12 - 15 days (12)
Assessment	Spray volumes	100 - 1145 L/ha
	Assessment types	pest incidence (%) on leaf, pest severity (%) on leaf
Other relevant information	Assessment dates	regularly at each application
	e.g. Soil type, pH (in case of soil active substance ...)	Not relevant, foliar application
	e.g. Natural / artificial inoculation...	Natural (16)
	e.g. Field / Greenhouse...	Greenhouse (16)
	EPPO zones	Interzonal (16)

Trials methodology in relation to EPPO – Powdery mildew on tomato

According to the specific EPPO guideline PP 1/057(3), for the efficacy evaluation of A22773A against Powdery mildew on tomato, during the trials disease incidence and severity on leaves was estimated just before each further application (respectively as % of infected plant part – PESINC %; or as % of area of disease on leaves – PESSEV % area). Only assessments from trials where a minimum of 5% disease severity or 10% disease incidence in the untreated plot was recorded were selected for summarization. This selection is suitable to show the efficacy of A22773A applied preventatively under challenging conditions of disease pressure, showing statistically significant differences between treatments and untreated check.

The table below summarizes the methodology in the specific set of trials.

Table 3.2-18: Details on trial methodology – Powdery mildew on tomato (vertical, greenhouse) – Interzonal

6 trials:		
Guidelines	General guidelines	PP 1/152(4); PP 1/181(4); PP 1/135(4)
	Specific guidelines	PP 1/057(3); PP 1/121(2)
Experimental design	Plot design	RANDOMIZED COMPLETE BLOCK (6)
	Plot size	8.4 - 16 m ²
	Number of replications	4 (1)
Crop	Trials per crop	Tomato, greenhouse (6)
	Varieties per crop	Faguara (1); Mozia (1); Panekra (1); Sir Elyan (1); SVTH 1214 (1); Ventero (1)
Application	Crop stage (BBCH)* at application	First application: BBCH 14 - 16 (2); BBCH 21 (1); BBCH 51 (1); BBCH 65 - 73 (1); BBCH 74 - 81 (1) Last application: BBCH 63 - 64 (1); BBCH 65 - 72 (1); BBCH 74 - 82 (1); BBCH 75 - 81 (1); BBCH 81 (1); BBCH 82 - 83 (1)
	Number of applications	4 (3); 6 (3)
	Intervals between applications	about 7 - 10 days
	Spray volumes	120 - 1000 L/ha
Assessment	Assessment types	pest incidence (%) on leaf, pest severity (%) on leaf
	Assessment dates	regularly at each application
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	Not relevant, foliar application
	e.g. Natural / artificial inoculation...	Natural (6)
	e.g. Field / Greenhouse...	Greenhouse (6)
	EPPO zones	Interzonal (6)

Trials methodology in relation to EPPO – *Didymella bryoniae* on cucurbits

According to the specific EPPO guidelines PP 1/057(3) and PP 1/121(2), for the efficacy evaluation of A22773A against *Stagonosporopsis cucurbitacearum* (also known as *Didymella bryoniae*) on cucurbits, during the trials disease incidence and severity on leaves were estimated just before each further application (respectively as % of infected plant part – PESINC %; or as % of area of disease on leaves – PESSEV % area). Only assessments from trials where a minimum of 5% disease severity or 10% disease incidence in the untreated plot was recorded were selected for summarization. This selection is suitable to show the efficacy of A22773A applied preventatively under challenging conditions of disease pressure, showing statistically significant differences between treatments and untreated check. Furthermore, data on the percentage of marketable yield were recorded in most of the trials.

The table below summarizes the methodology in the specific set of trials.

Table 3.2-19: Details on trial methodology – *Didymella bryoniae* on cucurbits (horizontal, greenhouse) – Interzonal

5 trials:		
Guidelines	General guidelines	PP 1/152(4); PP 1/181(4); PP 1/135(4)
	Specific guidelines	PP 1/057(3);PP 1/121(2)
Experimental design	Plot design	RANDOMIZED COMPLETE BLOCK (5)
	Plot size	14 - 18 m ²
	Number of replications	4 (5)
Crop	Trials per crop	Cucumber (1), melon (4), greenhouse
	Varieties per crop	Cucumber: Valle (1); Melon: Chester (1); Malerva (1); Tezac (1); Valverde (1)
Application	Crop stage (BBCH)* at application	First application: BBCH 13-14 (1); BBCH 14 (1); BBCH 15 (1); BBCH 21-22 (1); BBCH 88 (1) Last application: BBCH 24-25 (1); BBCH 63-64 (1); BBCH 65 (2); BBCH 88-89 (1)
	Number of applications	3 (1); 4 (4)
	Intervals between applications	about 7 - 10 days
	Spray volumes	208 - 940 L/ha
Assessment	Assessment types	pest incidence (%) on leaf, pest severity (%) on leaf
	Assessment dates	regularly at each application
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	Not relevant, foliar application
	e.g. Natural / artificial inoculation...	Natural (5)
	e.g. Field / Greenhouse...	Greenhouse (5)
	EPPO zones	Interzonal (5)

Summary and conclusion of efficacy

A total of 70 efficacy trials are presented to support the authorization of A22773A on target uses.

***Phytophthora infestans* on tomato (vertical grown – greenhouse):** 19 efficacy trials are presented for this use. Out of these, efficacy data for assessment on *Phytophthora infestans* on tomato (vertical grown – greenhouse) are presented from 6 efficacy trials with 7-10 days spray interval assessed for disease incidence and severity on leaf and fruits. These trials were carried out in 2020 in countries of the EU zone (Greece, Italy, Spain and Poland). Furthermore, supportive data with treatments applied at 12-15 days spray interval are presented from further 13 efficacy trials performed in 2019-2020 in countries of the EU zone (Greece, Italy, Spain and Poland).

Data demonstrated that the efficacy of the A22773A, applied at 7-10 days spray interval, at the proposed rate of 0.5 LPR/10000M2LWA (max. 1 L PR/ha) was equivalent, often superior, to the efficacy of the commercial reference standards A12946B (mandipropamid) at 0.6 L PR/ha, A15605D (copper + metalaxyl-M) at 4-5 g PR/ha, A14576A (mandipropamid + difenoconazole) at 0.6 L PR/ha, RANMAN TOP (cyazofamid) at 0.5 L PR/ha, providing very good control of *Phytophthora infestans* on tomato (vertical grown – greenhouse).

Similar trend of results was obtained at the longer spray interval of 12-15 days (most challenging condition).

The data also demonstrated that there was no difference in the performance of A22773A when trial data were grouped as presented in Table 3.2-20 .

Therefore, this rate of A22773A applied at 7-10 days interval, should thus be considered to be effective against *Phytophthora infestans* on tomato (vertical grown – greenhouse).

Comments of zRMS:

6 efficacy trials with 7-10 days spray interval were carried out in greenhouses in Poland, Greece, Spain and Italy to control *Phytophthora infestans* on tomato vertical grown. The high effectiveness was visible in case of A22773A. Based on PESSEV parameter in case of leaves, the test product applied at dose rate of 0,5 l pr/10000 m2 LWA achieved results of 83,9-99%, depend of reference products. Also results from 2 trials with observation of fruits show good level of control after applied of A22773A. The reference products were significantly worse.

Moreover, the results from 13 efficacy trials with longer spray interval (12-15 days) have been presented as supportive data. The significant higher effectiveness can be observed on objectives treated with test product compared to the reference products. A22773A at dose rate of 0,5 l pr/10000 m² LWA achieved results of 82,6-94,7% for leaves and 85-98,9% for fruits. Taking into account of all submitted trial results, it can be concluded that the test product is effective to control of *Phytophthora infestans* on tomato under protected conditions.

***Bremia lactucae* on lettuce (greenhouse):** 16 efficacy trials with 7-10 days spray interval are summarized for this use. These trials were carried out in 2018-2020 in countries of the EU zone (Belgium, Spain, France, Italy and Portugal).

Data demonstrated that the efficacy of the A22773A, applied at 7-10 days spray interval, at the proposed rate of 1 L PR was equivalent, often superior, to the efficacy of the commercial reference standard A12946B (mandipropamid 250 g/L) at 0.6 L PR/ha, providing very good control of *Bremia lactucae* on lettuce (horizontal grown – greenhouse).

The data also demonstrated that there was no difference in the performance of A22773A when trial data were grouped as presented in Table 3.2-21 and Table 3.2-22.

Therefore, this rate of A22773A applied at 7-10 days interval, should thus be considered to be effective against *Bremia lactucae* on lettuce (horizontal grown – greenhouse).

Comments of zRMS:

16 efficacy trials (Belgium, Spain, France, Italy and Portugal) were carried out to control *Bremia lactucae* on lettuce in greenhouse. Only shorter spray interval (7-10 days) was used in these trials. Based on PESSEV parameter, A22773A applied at dose rate of 1 l pr/ha achieved an effectiveness on a level of 95%. No significant differences between test and reference product were observed. Moreover, no adverse effect on the yield of lettuce was noted after application of A22773A.

***Pseudoperonospora cubensis* on cucurbits (horizontal grown – greenhouse):** 8 efficacy trials with 7-10 days spray interval assessed for disease incidence and severity on leaf. These trials were carried out in 2019 and 2020 in countries of the EU zone (Greece, Italy, and Spain).

Data demonstrated that the efficacy of the A22773A, applied at 7-10 days spray interval, at the proposed rate of 1 L PR was equivalent, often superior, to the efficacy of the commercial reference standard INFINITO 687.5 SC (fluopicolide + propamocarb hydrochloride) at 1.6 L PR/ha, providing very good control of *Pseudoperonospora cubensis* on cucurbits (horizontal grown – greenhouse).

The data also demonstrated that there was no difference in the performance of A22773A when trial data were grouped as presented in Table 3.2-23.

Therefore, this rate of A22773A applied at 7-10 days interval, should thus be considered to be effective against *Pseudoperonospora cubensis* on cucurbits (horizontal grown – greenhouse).

Comments of zRMS:

8 efficacy trials (Greece, Italy and Spain) were carried out to control of *Pseudoperonospora cubensis* on cucurbits horizontal grown (1 trial in zucchini, 2 trials in muskmelon, 2 trials in melon and 3 trials in cantaloup melon) in greenhouse. Only shorter spray interval (7-10 days) was used in these trials. Based on PESINC parameter, the effectiveness of test product was significantly higher compared to the reference product (85,7% vs 73,7%). A22773A at dose rate of 1 l pr/ha is effective to protection of melon against PSPECU. The limited number of trials have been submitted for zucchini and no trials presented for watermelon. The cMSs are kindly asked to consider these uses on the national level.

***Pseudoperonospora cubensis* on cucurbits (vertical grown – greenhouse):** 4 efficacy trials with 7-10 days spray interval assessed for disease incidence and severity on leaf. These trials were carried out in 2020 in countries of the EU zone (Italy 2x and Spain 2x). Furthermore, supportive data with treatments applied at 12-15 days spray interval are presented from further 12 efficacy trials performed in 2019 and 2020 in countries of the EU zone (Greece 2x, Italy 4x and Spain 6x).

Data demonstrated that the efficacy of the A22773A, applied at 7-10 days spray interval, at the proposed rate of at 0.5 LPR/10000M2LWA (max. 1 L PR/ha) was equivalent, often superior, to the efficacy of the commercial reference standards INFINITO 687.5 SC (fluopicolide + propamocarb hydrochloride) at 1.6 L PR/ha and RANMAN TOP (cyazofamid) at 0.5 L PR/ha, providing very good control of *Pseudoperonospora cubensis* on cucurbits (vertical grown – greenhouse).

Similar trend of results was obtained at the longer spray interval of 12-15 days (most challenging condition).

The data also demonstrated that there was no difference in the performance of A22773A when trial data were grouped as presented in Table 3.2-24.

Therefore, this rate of A22773A applied at 7-10 days interval, should thus be considered to be effective against *Pseudoperonospora cubensis* on cucurbits (vertical grown – greenhouse).

Comments of zRMS:

4 efficacy trials with 7-10 days spray interval were carried out to control of *Pseudoperonospora cubensis* on cucumber vertical grown in greenhouses in Italy and Spain. Based on PESSEV parameter, A22773A applied at dose rate of 0,5 l pr/10000 m2 LWA was effective on similar level compared to the reference products. The test product achieved results of 88,1-99,9%, depending on the reference products. Moreover, 12 efficacy trials with 12-15 days spray interval have been submitted as supporting data. The test product was slight better than reference products with effectiveness of 89,2-95,2%. All trial results show that A22773A is effective to control of PSPECU on cucumber under protected conditions.

Powdery mildew (including *Oidium neolycopersici*, *Leveillula taurica*) on tomato (vertical grown – greenhouse): 6 efficacy trials with 7-10 days spray interval assessed for disease incidence and severity on leaf. These trials were carried out in 2020 in countries of the EU zone (Italy 3x and Spain 3x).

Data demonstrated that the efficacy of the A22773A, applied at 7-10 days spray interval, at the proposed rate of 0.5 LPR/10000M2LWA (max. 1 L PR/ha) was equivalent, or even superior, to the efficacy of the commercial reference standards TOPAS 200 EW (penconazole) at 0.25 L PR/ha, in general equivalent to the efficacy of DAGONIS 125 SC (difenoconazole + fluxapyroxad) at 1 L PR/ha and A12705B at 0.5 LPR/10000M2LWA, providing very good control of Powdery mildew on tomato (vertical grown – greenhouse).

The data also demonstrated that there was no difference in the performance of A22773A when trial data were grouped as presented in Table 3.2-25 .

Therefore, this rate of A22773A applied at 7-10 days interval, should thus be considered to be effective against Powdery mildew on tomato (vertical grown – greenhouse).

Comments of zRMS:

6 efficacy trials with 7-10 days spray interval were carried out to control of pathogens caused powdery mildew on tomato vertical grown in greenhouses in Italy and Spain (2 trials with *Oidium neolycopersici* and 4 trials with *Leveillula taurica*). Based on PESSEV parameter, A22773A applied at dose rate of 0,5 l pr/10000 m2 LWA was effective on a level of 89,3-93,6%, depending on the reference product. No significant differences between test and reference products were observed. The trial results show good control of powdery mildew on tomato after application of A22773A.

***Didymella bryoniae* on cucurbits (greenhouse):** 5 efficacy trials with 7-10 days spray interval are summarized for this use. These trials were carried out in 2019 and 2020 in countries of the EU zone (Spain).

Data demonstrated that the efficacy of the A22773A, applied at 7-10 days spray interval, at the proposed rate of 1 L PR was equivalent, often superior, to the efficacy of the commercial reference standard A12705B (azoxystrobin) at 1 L PR/ha, providing very good control of *Didymella bryoniae* on cucurbits (greenhouse).

The data also demonstrated that there was no difference in the performance of A22773A when trial

data were grouped as presented in Table 3.2-26 .

Therefore, this rate of A22773A applied at 7-10 days interval, should thus be considered to be effective against *Didymella bryoniae* on cucurbits (greenhouse).

Comments of zRMS:

5 efficacy trials with 7-10 days spray interval were carried out to control of *Didymella bryoniae* on cucurbits horizontal grown in greenhouses in Spain (1 trial on cucumber, 3 trials on cantaloup melon and 1 trial on melon). A22773A applied at 1 l pr/ha was effective with result of 84,3% (%PESSEV) and no differences between test and reference products were observed. However, the limited number of trials have been submitted for the efficacy evaluation, either for cucumber and melon. Moreover, no trials were conducted for zucchini and watermelon. The cMSs are kindly asked to consider these uses on the national level.

Data demonstrated that the efficacy of the A22773A at the proposed application rates delivering maximum 1 L PR/ha was equivalent to the efficacy of several reference standards providing good control of all the target uses.

Therefore, this rate (delivering up to 1 L PR/ha) should thus be considered to be effective against all the target diseases.

Furthermore the use of A22773A (delivering up to 1 L PR/ha) is also claimed for the several minor uses for which no data are required (according to Art. 51 Reg. EU 1107/09) or extrapolation of efficacy results are allowed according to EPPO extrapolation tables and biological similarities between diseases and/or growing systems of crops.

In some cases, extrapolation can be considered also from field to greenhouse.

Further information in the field trials (Maritime, Mediterranean, North East and South East EPPO zone) can be found in the relative Biological assessment dossier for A22773A_VV-881245.

Summary on efficacy results for A22773A is summarized in the following tables.

Table 3.2-20: Summary on efficacy of A22773A against PHYTIN on tomato (vertical grown – greenhouse) – (EU zone for interzonal use) – 7-10 days spray interval or 12-15 days

Interval of 12-15 days					Infestation		% Efficacy (Untreated Check = 0%)				
EPPO zone	Rating data type	Plant part	Nr of trials	Spray interval (days)	CHECK UNTREATED		A22773A** 0.5 LPR/10000M2LWA azoxystrobin oxathiapiprolin 250 12 gai/ha		Ref. Std.*		Specific Ref. Std.
					Mean	min-max	Mean	min-max	Mean	min-max	
GH (interzonal)	PESINC, %	LEAF	6	7-10	60.0	11.2-100	89.0	58.7-100	59.7	15.3-100	all
GH (interzonal)	PESINC, %	LEAF	3	7-10	46.5	11.2-100	95.1	87-100	66.6	42.3-93.2	vs A15605 [D] at 5 kg/ha
GH (interzonal)	PESINC, %	LEAF	2	7-10	61.1	45.5-76.6	79.4	58.7-100	57.7	15.3-100	vs A14576 [A] at 0.6 L/ha
GH (interzonal)	PESINC, %	LEAF	1	7-10	98.4	-	89.8	-	42.9	-	vs RANMAN TOP 160 SC at 0.5 L/ha
GH (interzonal)	PESSEV, % area	LEAF	6	7-10	25.6	5.9-80.1	93.4	67.8-100	74.3	29.6-100	all
GH (interzonal)	PESSEV, % area	LEAF	3	7-10	40.7	9.5-80.1	99.0	97.9-100	83.6	66.5-95.7	vs A15605 [D] at 5 kg/ha
GH (interzonal)	PESSEV, % area	LEAF	2	7-10	6.4	5.9-6.8	83.9	67.8-100	64.8	29.6-100	vs A14576 [A] at 0.6 L/ha
GH (interzonal)	PESSEV, % area	LEAF	1	7-10	19.1	-	95.6	-	65.6	-	vs RANMAN TOP 160 SC at 0.5 L/ha
GH (interzonal)	PESINC, %	FRUIT	2	7-10	43.3	19.6-67	99.9	99.7-100	83.7	75.8-91.5	all
Further supportive data at longer spray interval of appl.s (more challenging condition)											
GH (interzonal)	PESINC, %	LEAF/PLANT	13	12-15	59.3	11.7-99.8	88.2	58.5-100	60.6	10.7-100	all
GH (interzonal)	PESINC, %	LEAF/PLANT	7	12-15	47.0	11.7-98.2	88.8	58.5-100	57.9	10.7-100	vs A15605 [D] at 4-5 kg/ha
GH (interzonal)	PESINC, %	LEAF	3	12-15	91.2	74.9-99.8	85.7	72.5-99.9	61.4	42-77.2	vs A12946B at 0.6 L/ha
GH (interzonal)	PESINC, %	LEAF	2	12-15	42.0	15.3-68.6	87.4	78.1-96.7	86.4	72.8-100	vs RANMAN TOP 160 SC at 0.5 L/ha
GH (interzonal)	PESINC, %	LEAF	1	12-15	84.1	-	92.3	-	24.6	-	vs A14576 [A] at 0.6 L/ha
GH (interzonal)	PESSEV, % area	LEAF	13	12-15	28.2	5.2-66.5	90.6	74.3-98.9	70.7	19.3-95.5	all
GH (interzonal)	PESSEV, % area	LEAF	7	12-15	34.8	5.8-66.5	89.2	74.3-96.2	70.2	22-92.1	vs A15605 [D] at 4-5 kg/ha
GH (interzonal)	PESSEV, % area	LEAF	3	12-15	32.0	26.5-41.9	94.7	86.4-98.9	77.0	58.4-95.5	vs A12946B at 0.6 L/ha
GH (interzonal)	PESSEV, % area	LEAF	2	12-15	10.6	10.3-10.9	93.6	90.6-96.6	88.9	88.8-88.9	vs RANMAN TOP 160 SC at 0.5 L/ha
GH (interzonal)	PESSEV, % area	LEAF	1	12-15	5.2	-	82.6	-	19.3	-	vs A14576 [A] at 0.6 L/ha
GH (interzonal)	PESINC, %	FRUIT	7	12-15	53.2	12.9-79.1	91.6	70.5-100	79.4	60-96.4	all
GH (interzonal)	PESINC, %	FRUIT	3	12-15	52.5	28.4-72.8	91.1	84.5-96.8	71.4	60-84.7	vs A15605 [D] at 4-5 kg/ha
GH (interzonal)	PESINC, %	FRUIT	2	12-15	46.0	12.9-79.1	85.0	70.5-99.5	79.6	62.7-96.4	vs RANMAN TOP 160 SC at 0.5 L/ha
GH (interzonal)	PESINC, %	FRUIT	2	12-15	61.7	56-67.3	98.9	97.8-100	91.4	90.4-92.4	vs A12946B at 0.6 L/ha

*In trials carried out in 2019, the reference standard A12946B was applied at 12-15 days spray interval. In trials carried out in 2020, the reference standard A12946B was applied at 7-10 days spray interval and.

** Dose rate applied in single trials reports were expressed in terms of LWA. A22773A at 0.5 LPR/10000M2LWA (corresponds to the full rate delivering max. 1 L PR/ha)

Table 3.2-21: Summary on efficacy of A22773A against BREMLA on lettuce (horizontal grown – greenhouse) – (EU zone for interzonal use) – 7-10 days spray interval

EPPO zone	Rating data type	Plant part	Nr of trials	Spray interval (days)	Infestation		% Efficacy (Untreated Check = 0%)			
					CHECK UNTREATED		A22773A 1 LPR/HA azoxystrobin oxathiapiprolin 250 12 gai/ha		A12946B 0.6 LPR/ha mandipropamid 150 gai/ha	
					Mean	min-max	Mean	min-max	Mean	min-max
GH (interzonal)	PESINC, %	LEAF	16	7-10	50.3	12.3-99.3	97.4	77.8-100	94.6	63-100
GH (interzonal)	PESSEV, % area	LEAF	16	7-10	27.9	7.5-88.9	95.0	81.8-100	90.6	61.9-100

Table 3.2-22: Summary on Yield from efficacy trials of A22773A against BREMLA on lettuce (horizontal grown – greenhouse) – (EU zone for interzonal use) – 7-10 days spray interval

EPPO zone	Rating data type	Plant part	Nr of trials	Spray interval (days)	CHECK UNTREATED		A22773A 1 LPR/HA azoxystrobin oxathiapiprolin 250 12 gai/ha		A12946B 0.6 LPR/ha mandipropamid 150 gai/ha	
					Mean Value	% of check	Mean Value	% of check	Mean Value	% of check
GH (interzonal)	COUNT marketable, %	PLANT	7	7-10	34.2	(100)	98.8	288.6	95.6	279.2

Table 3.2-23: Summary on efficacy of A22773A against PSPECU on cucurbits (horizontal grown – greenhouse) – (EU zone for interzonal use) – 7-10 days spray interval

EPPO zone	Rating data type	Plant part	Nr of trials	Spray interval (days)	Infestation		% Efficacy (Untreated Check = 0%)			
					CHECK UNTREATED		A22773A 1 LPR/HA azoxystrobin oxathiapiprolin 250 12 gai/ha		INFINITO 687.5 SC 1.6 LPR/ha fluopicolide propamocarb hydrochloride 100 1000 gai/ha	
					Mean	min-max	Mean	min-max	Mean	min-max
GH (interzonal)	PESINC, %	LEAF/PLANT	8	7-10	48.2	10-100	85.7	59.3-100	73.7	40.1-100
GH (interzonal)	PESSEV, % area	LEAF/PLANT	5	7-10	8.3	5.5-15.9	96.1	91.4-98.4	79.4	34.7-98.2

Table 3.2-24: Summary on efficacy of A22773A against PSPECU on cucurbits (vertical grown – greenhouse) – (EU zone for interzonal use) – 7-10 days spray interval or 12-15 days

spray interval of 12-15 days					Infestation		% Efficacy (Untreated Check = 0%)					
EPPO zone	Rating data type	Plant part	Nr of trials	Spray interval (days)	CHECK UNTREATED		A22773A** 0.5 LPR/10000M2LWA azoxystrobin oxathiapiprolin 250 12 gai/ha		Ref. Std.		Specific Ref. Std.	
					Mean	min-max	Mean	min-max	Mean	min-max		
GH (interzonal)	PESINC, %	LEAF	4	7-10	47.0	20.5-100	89.3	71.7-100	88.4	75.7-100	all	
GH (interzonal)	PESINC, %	LEAF	2	7-10	71.5	43-100	100	100-100	97.5	95-100	vs INFINITO at 1.6 LPR/ha	
GH (interzonal)	PESINC, %	LEAF	2	7-10	22.6	20.5-24.6	78.6	71.7-85.5	79.4	75.7-83	vs RANMAN TOP 160 SC at 0.5 L/ha	
GH (interzonal)	PESSEV, % area	LEAF	4	7-10	10.7	5.1-22.4	94.0	87.8-100	93.5	85.6-100	all	
GH (interzonal)	PESSEV, % area	LEAF	2	7-10	15.3	8.2-22.4	99.9	99.8-100	99.4	98.8-100	vs INFINITO 687.5 SC at 1.6 LPR/ha	
GH (interzonal)	PESSEV, % area	LEAF	2	7-10	6.2	5.1-7.2	88.1	87.8-88.4	87.7	85.6-89.7	vs RANMAN TOP 160 SC at 0.5 L/ha	
Further supportive data at longer spray interval of appl.s (more challenging condition)												
GH (interzonal)	PESINC, %	LEAF	11	12-15	62.0	17.6-100	88.9	36.7-100	68.0	19.6-100	all	
GH (interzonal)	PESINC, %	LEAF	6	12-15	65.3	22-100	87.7	36.7-100	71.3	19.6-94.5	vs INFINITO 687.5 SC at 1.6-2 L/ha	
GH (interzonal)	PESINC, %	LEAF	3	12-15	59.1	53-65.1	88.7	76.6-98.4	64.0	44.2-83.1	vs RANMAN TOP 160 SC at 0.5 L/ha	
GH (interzonal)	PESINC, %	LEAF	2	12-15	56.2	17.6-94.7	93.1	87.6-98.6	64.4	28.7-100	vs EQUATION PRO 52.5 WG at 0.4 kg/ha	
GH (interzonal)	PESSEV, % area	LEAF	10	12-15	24.8	5.8-55.5	93.7	80.9-100	84.1	64.7-96.9	all	
GH (interzonal)	PESSEV, % area	LEAF	6	12-15	22.6	6.9-51.5	93.7	80.9-100	88.9	76.1-96.9	vs INFINITO 687.5 SC at 1.6-2 L/ha	
GH (interzonal)	PESSEV, % area	LEAF	3	12-15	23.3	5.8-55.5	95.2	88.8-98.8	78.9	64.7-91.2	vs RANMAN TOP 160 SC at 0.5 L/ha	
GH (interzonal)	PESSEV, % area	LEAF	1	12-15	42.4	---	89.2	---	71.3	---	vs INFINITO 687.5 SC at 0.8 LPR/10000M2LWA	

** Dose rate applied in single trials reports were expressed in terms of LWA. A22773A at 0.5 LPR/10000M2LWA (corresponds to the full rate delivering max. 1 L PR/ha)

Table 3.2-25: Summary on efficacy of A22773A against Powdery mildew on tomato (vertical grown – greenhouse) – (EU zone for interzonal use) – 7-10 days spray interval

Days spray interval					Infestation		% Efficacy (Untreated Check = 0%)						
EPPO zone	Rating data type	Plant part	Nr of trials	Spray interval (days)	CHECK UNTREATED		A22773A** 0.5 LPR/10000M2LWA azoxystrobin oxathiapiprolin 250 12 gai/ha		A12705B 0.5 LPR/10000M2LWA azoxystrobin 250 gai/ha		Ref. Std.		Specific Ref. Std.
					Mean	min-max	Mean	min-max	Mean	min-max	Mean	min-max	
GH (interzonal)	PESINC, %	LEAF	6	7-10	40.0	17.2-83.6	76.8	56.5-98.4	76.2	56.5-97	75.9	28-99.5	all
GH (interzonal)	PESINC, %	LEAF	3	7-10	31.3	17.2-52.52	85.6	74.32-98.4	78.1	64.79-97	93.3	87-99.5	vs DAGONIS 125 SC at 1 L/ha
GH (interzonal)	PESINC, %	LEAF	3	7-10	48.8	22.9-83.6	68.0	56.5-84.7	74.3	56.5-94.2	58.5	28-91.6	vs TOPAS 200 EW at 0.25 L/ha
GH (interzonal)	PESSEV, % area	LEAF	5	7-10	15.4	11.2-22.3	91.9	82.02-97.1	91.4	77.64-99.1	90.0	66.1-98.4	all
GH (interzonal)	PESSEV, % area	LEAF	3	7-10	17.8	11.2-22.3	93.6	88.4-97.1	94.3	90.4-99.1	85.7	66.1-98.4	vs TOPAS 200 EW at 0.25 L/ha
GH (interzonal)	PESSEV, % area	LEAF	2	7-10	11.8	11.3-12.3	89.3	82.02-96.6	87.1	77.64-96.6	96.5	95.12-97.9	vs DAGONIS 125 SC at 1 L/ha

** Dose rate applied in single trials reports were expressed in terms of LWA. A22773A at 0.5 LPR/10000M2LWA (corresponds to the full rate delivering max. 1 L PR/ha)

Table 3.2-26: Summary on efficacy of A22773A against DIDYBR on cucurbits (horizontal grown – greenhouse) – (EU zone for interzonal use) – 7-10 days spray interval

EPPO zone	Rating data type	Plant part	Nr of trials	Spray interval (days)	Infestation		% Efficacy (Untreated Check = 0%)			
					CHECK UNTREATED		A22773A 1 LPR/HA azoxystrobin oxathiapiprolin 250 12 gai/ha		A12705B 1 LPR/HA azoxystrobin 250 gai/ha	
					Mean	min-max	Mean	min-max	Mean	min-max
GH (interzonal)	PESINC, %	LEAF	5	7-10	18.6	12.5-24	91.1	73.8-100	87.3	48.2-100
GH (interzonal)	PESSEV, % area	LEAF	5	7-10	26.8	6.3-59.4	84.3	57.3-98.1	82.2	53.9-96

Minor use

Minor uses are those uses of plant protection products (defined in relation to crops and pests) in which either the crop is considered to be of low economic importance at national level (minor crop), or the pest is of limited importance on a major crop (minor pest). It should be noted that a minor use in one country may be a major use in another country (each country is responsible for defining its minor uses).

Therefore, efficacy and selectivity data were generated on crops that are considered major in at least one concerned country and that are considered as indicator crops according to EPPO extrapolation tables.

Efficacy against *Phytophthora* sp., *Alternaria* spp. and powdery mildew pathogens on solanaceae (tomato, aubergine and pepper)

As stated in EPPO extrapolation Table 14/19575 “EXTRAPOLATION TABLE for EFFECTIVENESS of FUNGICIDES ► DISEASES ON FRUITING VEGETABLES OF SOLANACEAE”, the presented data from the indicator crops “Tomato LYPES” can be extrapolated to “Aubergine / Eggplant SOLME” and “Sweet pepper CPSAN, Chilli pepper CPSFR) against *Phytophthora infestans* PHYTIN (*Phytophthora* sp.) *Alternaria* spp. and powdery mildew pathogens. Considering also biological similarities, the efficacy results against *Phytophthora infestans*, *Alternaria* spp. and powdery mildew pathogens on tomato can therefore be extrapolated to aubergine / eggplant and pepper under field as well as under greenhouse conditions, as well as for the use against *Phytophthora capsici* in pepper. Furthermore, efficacy results on *Alternaria* spp. in tomato, support, with reduced data, the use against *Alternaria* spp. on melon according to EPPO extrapolation Table 14-19722 “EXTRAPOLATION TABLE for EFFECTIVENESS of FUNGICIDES ► DISEASES ON CUCURBITACEAE”.

In addition, considering disease similarities, data presented can also support the use against *Alternaria* spp. on endive, wild lettuce and garden purslane (minor uses).

Further details can be found in the Biological assessment dossier for A22773A_VV-881245.

Efficacy data for the assessment on ***Alternaria* spp. (including *Alternaria solani*, *Alternaria alternata*) on tomato (horizontal grown – field)** are presented from 15 efficacy trials with 10-14 days spray interval assessed for disease severity on leaf and disease incidence on fruits. These trials were carried out in 2019-2020: 6 trials in countries of the Mediterranean EPPO zone (Greece 1x, Italy 1x, Spain 2x and Portugal 2x), 4 trials in countries of the North East EPPO zone (Poland 4x) and 5 trials in countries of the South East EPPO zone (Croatia 1x and Hungary 3x).

Comments of zRMS:

No efficacy trials have been submitted for control of *Alternaria* spp. on tomato in greenhouses. 15 trials were carried out to control the target pathogen on tomato horizontal grown in field. According to the applicant explanation, extrapolation results from field to greenhouse trials is possible. In opinion of zRMS, that decision should be consider on the national level. The cMS Czech Republic is kindly asked to use their own national requirements and drawn conclusion.

Extract from EPPO extrapolation table 14/19575

Pathogen species	Disease group name	Indicator crops	Extrapolation to other crops	Data from these crops can support the indicator crops (reduced data or no data *)
<i>Leveillula taurica</i> LEVETA	Powdery mildew	Tomato LYPES	Aubergine SOLME, Sweet pepper CPSAN, Chilli pepper CPSFR	
<i>Oidium neolycopersici</i> OIDINL	Powdery mildew	Tomato LYPES	Aubergine SOLME	
<i>Alternaria</i> spp. ALTESP (<i>A. alternata</i> , <i>A. solani</i> etc.)	Early blight (leaf and stem blight and fruit rot)	Tomato LYPES	Aubergine SOLME, Sweet pepper CPSAN	Potato SOLTU, Strawberry FRASS, Beta beet BEAVX, Cucumber CUMSC, Garden Carrot DAUCS, Garden bean PHSVX, Fennel FOESS Head cabbage BRSOX, Leek ALLPO, Oilseed rape BRSNN, Onions ALLSS, Beans PHSSS
<i>Phytophthora infestans</i> PHYTIN	Late blight	Tomato LYPES	Aubergine SOLME	Potato SOLTU
<i>Phytophthora nicotianae</i> PHYTNN, <i>P. capsici</i> PHYTCP, <i>P. cactorum</i> PHYTCC etc.	Blight of sweet pepper	Sweet pepper CPSAN	Aubergine SOLME, tomato LYPES, Chilli pepper CPSFR	All cucurbit crops 1CU

Source: https://www.eppo.int/media/uploaded_images/ACTIVITIES/plant_protect_products/minor_uses/fungicides/PP1-19575FEET_2014_Fruiting_solanaceae-effectiveness.pdf

Efficacy against *Bremia* sp. on leafy vegetables (lettuce, endive, wild lettuce, garden purslane)

As stated in EPPO extrapolation Table 14/19578 “EXTRAPOLATION TABLE for EFFECTIVENESS of FUNGICIDES ► DISEASES ON LEAFY VEGETABLES”, the presented data from the indicator crops “Lettuce LACSS” can be extrapolated to “Leafy vegetables of the Asteraceae 1COMF, Prickly lettuce LACSE, Dandelion TAROF, Endive CICEN, chicory CICIN” against *Bremia* sp. BREMSP. Considering also biological similarities, the efficacy results against *Bremia* sp. BREMSP on lettuce can therefore be extrapolated to endive, wild lettuce, and garden purslane under field as well as under greenhouse conditions.

Extract from EPPO extrapolation table 14/19578

Pathogen species	Disease group name	Indicator crops	Extrapolation to other crops	Data from these crops can support the indicator crops (reduced data or no data *)
<i>Bremia</i> sp. BREMSP	Downy Mildew	Lettuce LACSS	Leafy vegetables of the Asteraceae 1COMF, Prickly lettuce LACSE, Dandelion TAROF, Endive CICEN, chicory CICIN	

Source: https://www.eppo.int/media/uploaded_images/ACTIVITIES/plant_protect_products/minor_uses/fungicides/PP1-19578FEET_2014_Leafy_vegetables-effectiveness.pdf

Efficacy against *Pseudoperonospora cubensis* on cucurbits (cucumber, melon, watermelon, zucchini, gherkin, squash, pumpkin)

As stated in EPPO extrapolation Table 14-19722 “EXTRAPOLATION TABLE for EFFECTIVENESS of FUNGICIDES ► DISEASES ON CUCURBITACEAE”, the presented data from the indicator crops “Cucumber CUMSC or Melon CUMME” can be extrapolated to “All crops within the group” against *Pseudoperonospora cubensis* PSPECU, *Cladosporium* spp. CLADSP and *Didymella bryoniae* DIDYBR. Considering also biological similarities, the efficacy results against *Pseudoperonospora cubensis* PSPECU, *Cladosporium* spp. CLADSP and *Didymella bryoniae* DIDYBR on cucumber and melon can therefore be extrapolated to all crops within the group under field as well as under greenhouse conditions. Furthermore, specific data on zucchini and watermelon are presented.

Extract from EPPO extrapolation table 14-19722

Pathogen species	Disease group name	Indicator crops	Extrapolation to other crops	Data from these crops can support the indicator crops (reduced data or no data *)
<i>Pseudoperonospora cubensis</i> PSPECU	Downy mildew	Cucumber CUMSC or Melon CUMME	All crops within the group	
<i>Cladosporium</i> spp. CLADSP	Scab	Cucumber CUMSC or Melon CUMME,	All crops within the group	Tomato LYPES
<i>Didymella bryoniae</i> DIDYBR	Gummy stem blight Black stem rot	Melon CUMME or Cucumber CUMSC	All crops within the group	Cabbage BRSOL, Raspberry RUBID
<i>Alternaria</i> spp. ALTESP <i>A. cucumerina</i> ALTECU	Leaf blight	Cucumber CUMSC or Melon CUMME	All crops within the group	Strawberry FRASS, Tomato LYPES

Source:

https://www.eppo.int/media/uploaded_images/ACTIVITIES/plant_protect_products/minor_uses/fungicides/PP1-19722FEET_2014_Cucurbitaceae-effectiveness.pdf

Efficacy against Peronosporaceae on pot plants and shrubs

Considering the large data set presented to demonstrate the efficacy against Peronosporaceae on relevant crops, such as *Phytophthora infestans* on tomato, *Bremia lactucae* on lettuce, *Pseudoperonospora cubensis* on cucurbits, *Phytophthora porri* on leek, *Pseudoperonospora humuli* on hop, efficacy data presented can be extrapolated for the use against Peronosporaceae on pot plants and shrubs.

Efficacy against other disease: *Sphaerotheca fuliginea* on endive and *Botrytis cinerea* on lettuce, endive, wild lettuce, garden purslane (in field and greenhouse)

Considering the large data set presented to demonstrate the efficacy against Peronosporaceae and other relevant diseases, efficacy data presented can be extrapolated for the use against *Sphaerotheca fuliginea* on endive and *Botrytis cinerea* on lettuce, endive, wild lettuce, garden purslane (in field and greenhouse).

Furthermore, it is noted that azoxystrobin based products (e.g. ORTIVA; AMISTAR) are already successfully registered against these use in several European countries at the same active ingredient dose rate as requested for A22773A.

Selectivity on minor uses

In all efficacy trials conducted in field as well as in protected conditions in presence of target disease on tomato, lettuce, cucurbits (both edible and inedible peel), ~~bulb vegetables including leek and garlic and hop~~, A22773A appeared selective when used as recommended and did not lead to any spray visible deposits. Thanks to the extensive dataset, selectivity of A22773A is expected on all supported crops, ~~as ORTIVA~~, whatever their minor or major status.

Comments of zRMS:

Taking into account the opportunities of extrapolation in case of minor crops, the cMSs are kindly consider these uses on the national level.

3.3 Information on the occurrence or possible occurrence of the development of resistance (KCP 6.3)

Table 3.3-1: EPPO guidelines followed

EPPO guideline number	Title
EPPO guideline PP 1/213 (2)	Resistance Risk Analysis

The capacity of target pathogens to become resistant to fungicide treatments varies greatly with respect to the different fungicide classes when single site are compared to multi-site fungicides, and it varies also between different genera or species of target fungi comparing different single site fungicides.

In the following sections it is referred to the mode of action and mechanism of resistance for Azoxystrobin and oxathiapiprolin (A22773A), baseline sensitivity and cross resistance patterns for grapes and vegetable targets. At the end of this part, general measures and specifics guidelines are proposed to prevent resistance development against mandipropamid and oxathiapiprolin.

Mode of action, mechanisms of resistance and cross resistance

Azoxystrobin (QoI fungicide class)

Mode of action of QoI

Azoxystrobin is a well-established strobilurin fungicide with broad spectrum activity when used on cereals, bulb onions, asparagus, oilseed rape, peas, beans, carrots, brassicae and many other agriculturally and horticulturally important crops. Azoxystrobin is a Quinone outside inhibitor (QoI) fungicide which acts at the Quinone ‘outside’ (Qo) binding site of the cytochrome bc1 complex. Strobilurins and related compounds inhibit mitochondrial respiration by binding to the ubiquinol oxidation (Qo) site formed by domains of cytochrome b and the iron-sulphur protein within the cytochrome bc1 complex. Because ATP production is compromised, energy-demanding stages of fungal development, such as spore germination, are particularly affected.

The Qo inhibitors (QoIs) have become a key component of disease control strategies on Legume, Vegetable and Fruit crop types in Europe due to their persistent broad-spectrum disease control and potential extra yield benefits through increased green canopy duration. The QoI fungicides (FRAC group 11) are considered at high risk to fungicide resistance development.

Mechanism of resistance to QoI's

Resistant isolates to QoI fungicides have been detected in a range of countries and in several pathogens including *Erysiphe graminis* fsp. *tritici*, *Septoria tritici*, *Sphaerotheca fuliginea*, *Plasmopara viticola*, *Pseudoperonospora cubensis*, *Mycosphaerella fijiensis*, *Venturia inaequalis* and

to a lesser degree also in *Erysiphe graminis* fsp. *hordei*, *Mycovellosiella natrassii*, *Corynespora cassiicola*, *Pyricularia grisea*, *Didymella bryoniae*, *Colletotrichum graminicola*, *Colletotrichum gloeosporioides*, *Mycosphaerella graminicola*, *Alternaria arborescens*, *A. tenuissima* and *A. alternata*.

All of the resistance pathogens bear a single site mutation at position 143 in the *cyt b* gene at the G143A site. In many cases, the presence of the mutated allele was associated with a decrease in / loss of disease control. Increasing the dose of a QoI compound is therefore not expected to be effective in controlling QoI resistant strains.

In addition, a second mutation, F129L, has been detected in *Pythium aphanidermatum*, *Pyricularia grisea*, *Alternaria solani*, *Plasmopara viticola*, *Pyrenophora teres* and *Pyrenophora tritici-repentis*. The F129L resistance factors are significantly lower in comparison with the G143A mutation and field performance of QoI containing mixtures remains good. In the latter two pathogens, also the G137R mutation has been found, however, at very low frequency and with small resistance factors.

In contrast, rust pathogens (*Puccinia* spp, *Phakopsora* spp, *Hemileia* spp) have not developed resistance to QoI fungicides up to date. Recently, it has been shown that the G143A amino acid substitution most likely does not occur, when there is an intron after the nucleotide triplet coding for the glycine (G) at position 143 (Grasso et al., 2006). The self-splicing process requires a specific and conserved recognition sequence 4 to 6 bases upstream the splicing site and therefore a mutation in the triplet coding for G143 resulting in cytochrome b deficiency, which is lethal. This gene structure is present in all rust species studied so far as well as in *Alternaria solani* (Grasso et al., 2006) and *Pyrenophora teres* (Sierotzki et al., 2007), not having developed G143A.

As described by FRAC and others, there are some pathogens in which resistance to QoI fungicides has so far not been reported. There could be several reasons for this including effective anti-resistance strategies, lack of exposure of the pathogen to QoI fungicides or strong fitness penalties of mutant strains to survive or be competitive.

The strobilurin-producing Basidiomycetes *Strobilurus tenacellus* and *Mycena galopoda* exhibit 'natural resistance' to QoIs and the molecular mechanisms of this 'natural resistance' are known to be point mutations in the *cyt b* gene. This phenomenon was therefore investigated in *Puccinia* species (Grasso et al, 2006).

In different *Puccinia* species, the presence of an intron has been observed directly after the triplet GGT that encodes for glycine at position 143. In all rust species included in this study, as well as in *Alternaria solani* and *Pyrenophora teres*, the codon GGT at position 143 is located exactly at the exon/intron boundary and is likely part of the signal sequences essential for the recognition of the intronic RNA to be excised. The authors predict that a nucleotide substitution in codon 143 (GGT → GCT), which is two nucleotides upstream from the exon/intron junction, will strongly affect the splicing process, leading to a deficient cytochrome b. The substitution of guanine to cytosine obviously does not allow a proper pairing of the exonic nucleotides with the intronic IGS sequence in the pre-mRNA molecule. Therefore, this substitution will be lethal, and individuals carrying this mutation will not survive. This mechanism has been recently confirmed to have a strong effect on the availability of *cyt b* transcripts in yeast (Vallières et al 2012). As a consequence, it is concluded that resistance to QoI fungicides based on the G143A mutation is not likely to evolve in species such as rusts (*Puccinia* spp, *U. appendiculatus*, *P. pachyrhizi*, *H. vastatrix*), *P. teres* and *A. solani*. The presence of such an intron has also been reported in *Monilinia laxa*, *Monilinia fructicola* (Miessner and Stammler, 2010, Luo et al., 2010) and *Guignardia bidwellii* (Miessner et al., submitted) In the fungal species investigated so far, the presence of an intron was conserved over all investigated isolates within a species, even after many years of high selection pressure by QoIs. There is only one exception, *Botrytis cinerea*, where two forms of the cytochrome *b* gene have been reported (Banno et al., 2009). However, it cannot be excluded that mutations other than G143A conferring resistance may

arise in upcoming populations selected by the use of QoI fungicides. For *A. solani* and *P. teres* the mutations F129L and/or G137R have been reported (Sierotzki et al 2007, www.frac.info) as a mechanism for QoI tolerance. Both mutations are of minor importance, however, because they generally lead to lower resistance factors (www.frac.info) than the G143A mutation and it has been found that these two mutations have no, or only limited impact on the field efficacy of QoIs (Semar et al. 2007). The results give some confidence around the continued sustainability of disease control with QoI fungicides in pathogens containing an intron after codon 143 in the cytochrome *b* gene providing that responsible resistance management practices are implemented.

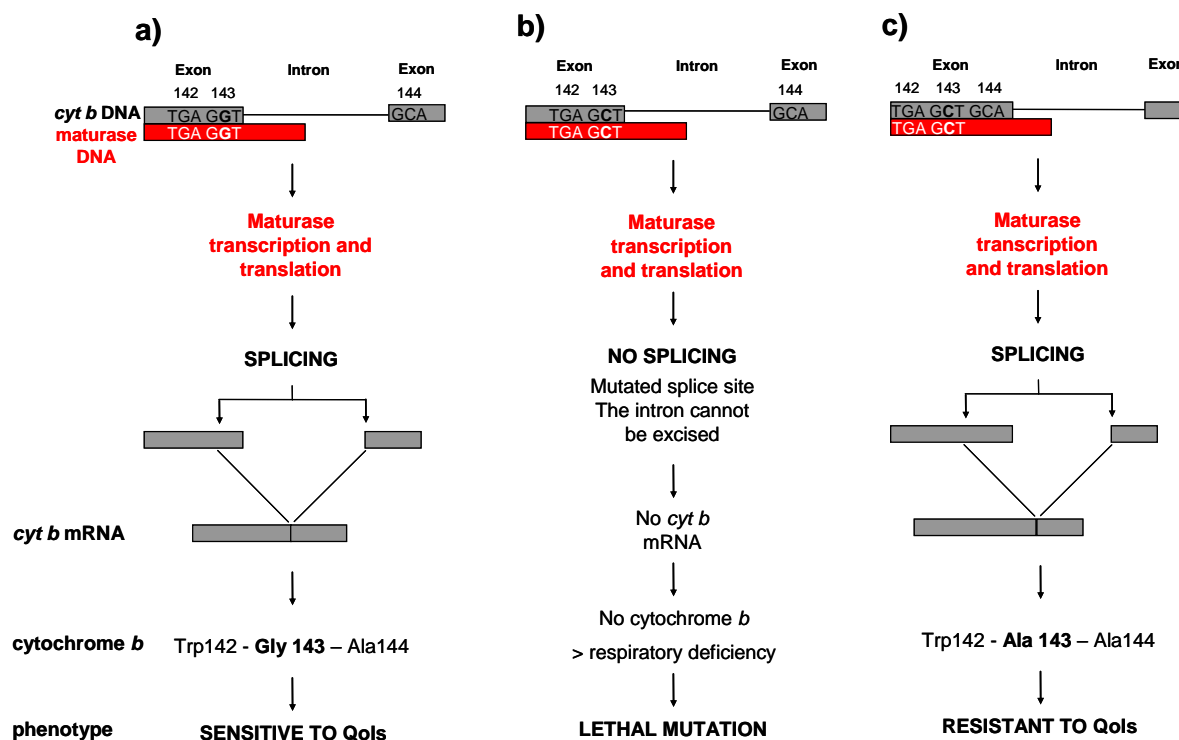


Figure 3.3-1: Effect of the mutation G143A on the processing of the *cyt b* gene pre-mRNA. a) presence of intron in wild type *cyt b*, b) mutation in codon 143 (G to C mutation) and c) intron not directly after the 143 codon.

Citations

Sierotzki H and Frey R, Cytochrome <i>b</i> gene sequence and structure of <i>Pyrenophora teres</i> and <i>P.tritici-repentis</i> and implications for QoI resistance. Pest Manag. Sci. 63:225-233 (2007).
Grasso V, Palermo S, Sierotzki H, Garibaldi A, and Gisi U, Cytochrome <i>b</i> gene structure and consequences for resistance to Qo inhibitor fungicides in plant pathogens. Pest Manag. Sci. 62:465-472 (2006).
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Luo CX, Hu MJ, Jin X, Bryson PK and Schnabel G, Evidence for the unlikely development of the QoI fungicide resistance-related G143A mutation in the Cyt <i>b</i> gene of <i>Monilinia fructicola</i> . Pest Manag. Sci. 66: http://onlinelibrary.wiley.com/doi/10.1002/ps.v66:12/issuetoc 1308–1315 (2010).
Miessner S and Stammler G, <i>Monilinia laxa</i> , <i>M. fructigena</i> and <i>M. fructicola</i> : Risk estimation of resistance to QoI fungicides and identification of species with cytochrome <i>b</i> gene sequences. J. Plant Dis. Prot. 117:162-167 (2010).
Miessner S, Mann W and Stammler G, <i>Guignardia bidwellii</i> , the causal agent of black rot on grapevine has a low risk for QoI resistance. J. Plant Dis. Prot., submitted

Semar M, Strobel D, Koch A, Klappach K and Stammler G, Field efficacy of pyraclostrobin against populations of *Pyrenophora teres* containing the F129L mutation in the cytochrome *b* gene. J. Plant Dis. Prot. 114:117-119 (2007).

Source: FRAC

Evidence of resistance to QoI's in Legume, Vegetable and Fruit crops and their management

Members of the Fungicide Resistance Action Committee (FRAC) have monitored the occurrence of resistance to QoI fungicides primarily in Legume, Vegetable and Fruit crop diseases across Europe and give guidelines for the use of QoI fungicides. The most recent guidelines on the use of QoI fungicides in Legume, Vegetable and Fruit crops are shown below.

FRAC Guidelines for using QoI fungicides on Legume, Vegetable and Fruit crops:

Risk assessment

The following table indicates the risk classification in relation to known resistance occurrence

Table 3.3-2: Pathogen resistance risk classes

1) risk low, no R	2) risk low, R; medium risk, No R	3) risk medium R; high risk no R; high risk, R	4) medium risk, R in EU; high risk, R in EU	5) high risk with tested or putative significant frequency of resistance
Phytophthora infestans	Albugo candida	Alternaria brassicae	Alternaria solani	Erysiphe cichoracearum
Puccinia	Ascochyta pisi	Alternaria brassicicola	Didymella bryoniae	Pseudoperonospora cubensis
Puccinia allii	Bremia lactucae	Alternaria cichorii		Sphaerotheca fuliginea
Puccinia apii	Cercospora	Alternaria dauci		Stemphylium botryosum
Puccinia asparagi	Cladosporium allii-cepae	Alternaria porri		
Uromyces pisi	Cladosporium allii-porri	Botrytis squamosa		
	Cladosporium cucumerinum	Erysiphe cruciferarum		
	Colletotrichum orbiculare	Erysiphe heraclei		
	Mycosphaerella brassicicola	Erysiphe pisi		
	Mycosphaerella pinodes	Leveillula cucurbitacearum		
	Peronospora destructor	Leveillula taurica		
	Peronospora parasitica	Oidium lycopersicum		
	Peronospora viciae sp. pisi	Pseudoperonospora humuli		
	Rhizoctonia solani	Sphaerotheca macularis		
	Sclerotium cepivorum			

Monitoring data are available for some pathogens on the list. The available data are presented in the paragraphs below (for reference of reported cases of resistance consult <http://www.frac.info/>). All other pathogens are not monitored, but reliable statements can be made by comparison to related pathogens, from which either internal or external data are available.

The first group of pathogens contains pathogens with low risk of development of resistance in which no resistance has been detected.

The rust fungi are considered as low risk pathogen for evolving resistance to QoI fungicides, due to the above mentioned intron in the cytochrome *b* gene. Long term monitoring data for *Puccinia recondita* on wheat confirm this hypothesis and the population remained fully sensitive. Therefore, we assume that the populations of *Puccinia allii*, *P. apii*, *P. asparagi* and *Uromyces pisi* are fully sensitive.

Phytophthora infestans is a medium risk pathogen, except for the PA fungicides, no resistance has been detected so far. Especially for the QoI fungicides the populations seem to be still sensitive.

In 2020 bioassay tests showed no resistance in all isolates collected in 2020 from potato crops in Czech republic, France, Netherlands, Poland, Portugal, Spain and Turkey (BASf)¹.

¹ FRAC; [https://www.frac.info/docs/default-source/working-groups/qoi-fungicides/qoi-meeting-minutes/minutes-of-the-2021-qoi-wg-meeting-and-recommendations-for-2021-\(-january-march-2021\).pdf?sfvrsn=28f0499a_2](https://www.frac.info/docs/default-source/working-groups/qoi-fungicides/qoi-meeting-minutes/minutes-of-the-2021-qoi-wg-meeting-and-recommendations-for-2021-(-january-march-2021).pdf?sfvrsn=28f0499a_2), accessed July.2021.

The second group contains pathogens with low risk, but resistance has been observed and pathogens with medium risk, for which no resistance has been detected.

Rhizoctonia solani is a heterogenous group of different anastomosis groups. Most of the groups contain soil borne pathogens that do not or rarely produce asexual or sexual spores. A survey in 2011 testing 68 isolates for QoI sensitivity revealed that isolates from AG groups (AG 11, AG 1-IB, AG 2-1, AG 3-PT, AG 3-TB, AG 4-HGII, AG 5, AG 6-Gv1, AG 6-Gv2, AG 6-HGI, AG 8, AG 9, AG-E, Rc / AG-D, AG-Bo, AG-I, AG-K, AG-C) from CZ, D, E, F, GB, H, I and PL all were fully sensitive. However, isolates of *Rhizoctonia solani* AG 1 from rice in the US did contain a mutation in the cyt b gene (F129L) that confers a relative weak resistance to QoI fungicides. The AG 1 group is also called the aerial group of *Rhizoctonia* since it does infect the foliage of host plants readily. Despite this finding the grouping into the low-risk class is still correct since it took more than 10 years of regular usage of solo QoI to select the resistance. Evidence from the region indicates that the spread is very limited.

For the other pathogen where medium risk is assumed no resistance has been described so far. However, for some closely related pathogen species has been reported to contain resistance to QoI fungicides such as *Ascochyta rabiei*, *Cercospora beticola*, *Colletotrichum gloeosporioides*, *Mycosphaerella graminicola* and *M. fijiensis*.

Lettuce Downy Mildew (*Bremia lactucae*). No monitoring performed in recent years. No resistance: In 2016 genetic analysis showed that all samples from Spain and Germany did not contain any known mutations potentially causing QoI resistance and were therefore classified as sensitive to QoI (BASF)¹.

Onion Downy Mildew (*Peronospora destructor*). No monitoring performed in recent years. In 2016 genetic analysis showed that samples from Germany did not contain any known mutations potentially causing QoI resistance and were therefore classified as sensitive to QoI (BASF)¹.

The third group contains pathogen belonging to the high risk class, but with no reported resistance to QoI. *Alternaria* spp either develop the G143A or the F129L mutation depending on the cyt b gene exon/intron structure. The powdery mildew pathogens are in general high risk pathogens because of their big propagation potential. *Pseudoperonospora humuli* is very closely related to *P. cubensis*, for which QoI resistance is reported.

A. solani and *A. tomatophila* show very similar spore morphology and are difficult to be distinguished without molecular characterization. Specific primers targeting calmodulin and major allergen Alt a1 were used to discriminate between the two species. In 2019, *A. tomatophila* strains showing resistance to QoI were observed in Spain, Croatia and Italy. Molecular analysis identified in these strains the mutation G143A. G143A mutation was already monitored in *A. tomatophila* from USA. *A. solani* evolved mutation F129L associated to much lower resistance factors than G143A.

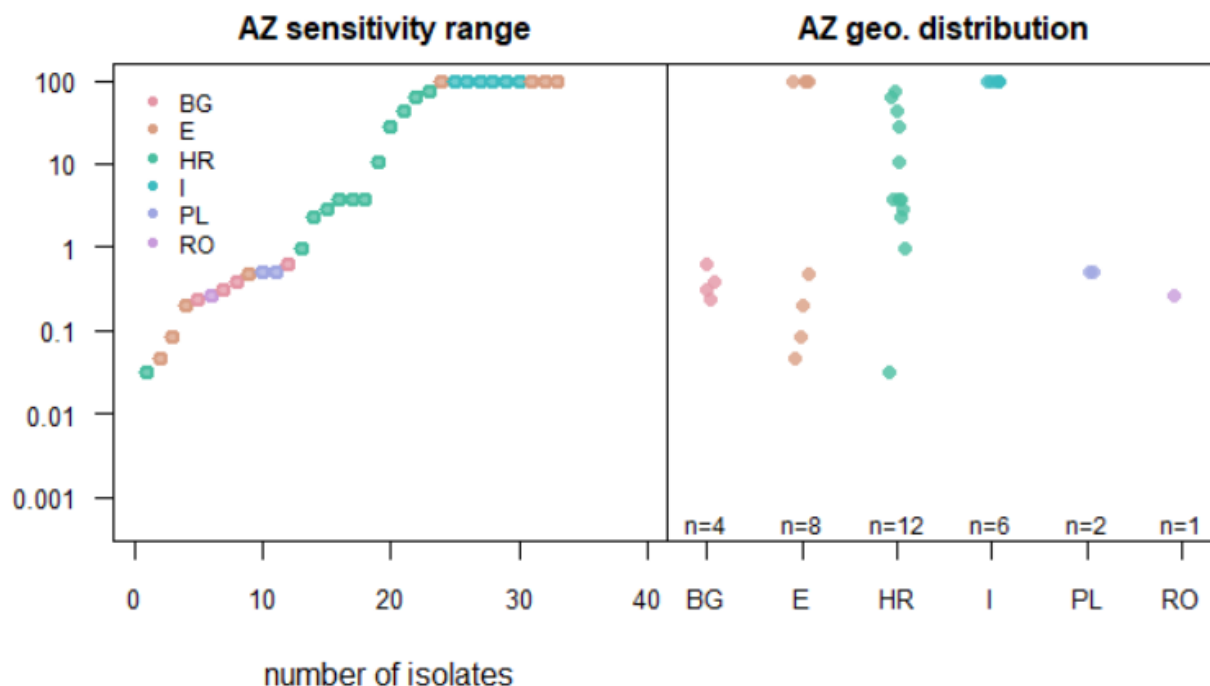


Figure 3.3-2: QoI sensitivity in *Alternaria tomatophila* in 2019 in Europe. Isolates from tomato originated from Bulgaria, Spain, Croatia, Italy, Poland and Romania.

The fourth group contains pathogens species for which QoI resistance has been reported. *Didymella bryoniae* is repeatedly reported to develop resistance to QoI and other fungicides, especially in the US. In 2019 full sensitivity was monitored in Belgium. Single isolates/samples showing resistance with presence G143A were monitored in Spain (Syngenta)².

The fifth group contains pathogen species from which QoI resistance is known to be widespread. *Sphaerotheca fuliginea* samples (N=4) from 2012 from Belgium and Italy were tested to be QoI resistant. It must be assumed the *E. cichoracearum* has also developed resistance to QoI, since it appears many times together with *S. fuliginea*. *Stemphyllium botryosum* isolates tested from Germany sampled in 2012 were all resistant to QoI (N=15). Resistance in *P. cubensis* has been reported in earlier years in Europe, but not follow-up in recently anymore.

Cucumber downy mildew (*Pseudoperonospora cubensis*). Single samples from zucchini and cucumber tested by bioassay from France, Germany, Greece, Italy, Poland, and Spain were monitored as resistant in 2020. Previous monitorings showed the following: 2014 - Resistance was found in samples from cucumber in Greece, Italy (Sicilia) and Spain. Samples from melons collected in Italy (Piemonte) were sensitive. (Bayer, Syngenta)².

Cucumber powdery mildew (*Sphaerotheca fuliginea*= *Podosphaera xanthii* and *Golovinomyces cichoracearum*). Testing of a few samples in 2017 confirmed presence of resistance in Italy and Spain from cucumber and zucchini ranging from no to high frequency (Bayer, Syngenta)².

Oxathiapiprolin (OSBPI fungicide class)

Oxathiapiprolin belongs to the chemical class of the piperidinyl thiazole – isooxazoline.

Oxathiapiprolin and fluoxapiprolin are the two members of the FRAC group 49 named Oxysterol

² FRAC; [https://www.frac.info/docs/default-source/working-groups/qoi-fungicides/qoi-meeting-minutes/minutes-of-the-2021-qoi-wg-meeting-and-recommendations-for-2021-\(-january-march-2021\).pdf?sfvrsn=28f0499a_2](https://www.frac.info/docs/default-source/working-groups/qoi-fungicides/qoi-meeting-minutes/minutes-of-the-2021-qoi-wg-meeting-and-recommendations-for-2021-(-january-march-2021).pdf?sfvrsn=28f0499a_2), accessed July.2021.

binding protein homologue inhibitors (OSBPI). The OSBPI fungicides are not cross resistant to the other FRAC fungicide classes as for example CAA, PA or QoI. Oxathiapiprolin blocks the sterol-binding domain of an OSBP homologue, preventing it from picking up sterols and making the inter-membrane transfer. Inhibiting OSBP disrupts many further processes in the cell, such as signalling, maintaining cell membranes, and the formation of more complex lipids that are essential for the cell to survive.

Some lab studies were conducted to elucidate the mechanisms of resistance related to the OSBPI fungicide class. In the list below the amino acid changes are unified to the annotation of the oxathiapiprolin target protein of *P. infestans*.

P. capsici was recently used to generate lab mutants resistant to OSBPI either by spontaneous, UV or CRISPR/Cas9 approaches. Some point mutations in the oxysterol binding protein-related protein 1 (ORP1) were observed. In *P. capsici* ultraviolet mutagenesis mutants, L733W, S768I/F/K/Y, G770A/I/P/V/L, N837I/F/Y, G839W, P861H, L863W/F, and I877F/Y were detected.

P. sojae transformants were recovered using the CRISPR–Cas9 system. The following mutations were associated to high OSBPI resistance L733W, S768F, S768Y, N837Y, N837F, P861H, L863W, and I877Y

Some grape downy mildew isolates collected from field trials where oxathiapiprolin had been continuously used for 4 years showed resistance to OSBPI and harboured the following amino acid changes G770V, N837I and L863W.

The resistant alleles G770V and DG818/F819 were observed in *P. nicotianae* resistant mutants produced by UV radiation.

So far little is known about the possible fitness cost associated to resistance in field, however mutants harbouring G770V showed significantly reduced fitness in the lab.

The resistance risk for OSBPI is considered medium to high by FRAC.

Sensitivity data to oxathiapiprolin (OSBPI fungicide class)

***P. infestans* monitoring data**

Bioassay sensitivity monitoring conducted by Syngenta since 2015 showed the European population of *P. infestans* is largely sensitive to OSBPI. In total 302 *P. infestans* strains were analysed from 21 European countries since 2015. No strains showing decreased sensitivity to oxathiapiprolin were monitored (**Figure 3.3-3 and Figure 3.3-4**).

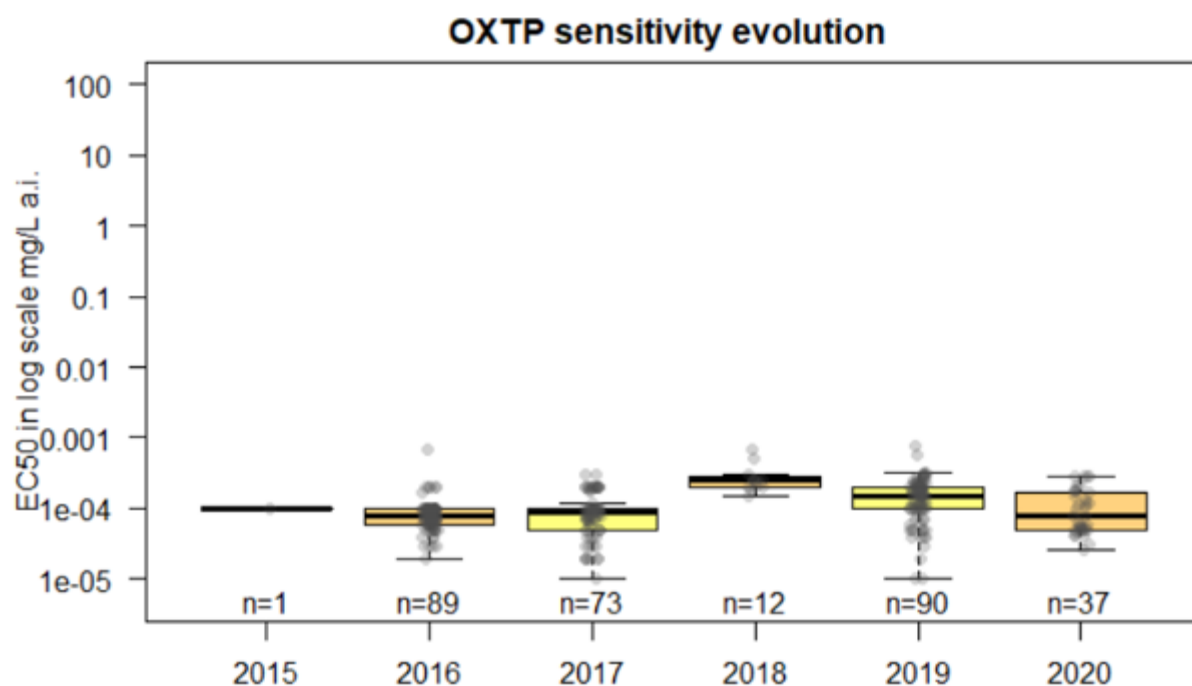


Figure 3.3-3: Sensitivity evolution from field strains of *P. infestans* from 2015 to 2020 (n=302) collected across Europe from 21 countries. OXTP shows a high intrinsic activity to control *P. infestans* and all monitored strains were fully sensitive.

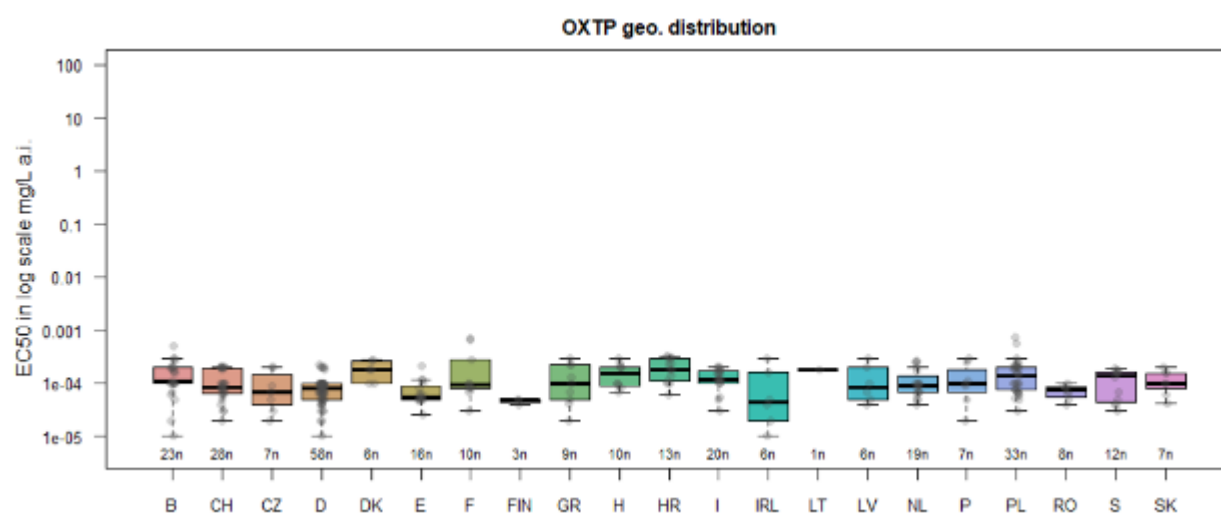


Figure 3.3-4: Sensitivity distribution from field strains of *P. infestans* from 2015 to 2020 (n=302) collected across Europe from 21 countries. OXTP shows a high intrinsic activity to control *P. infestans* and all monitored strains were fully sensitive.

***B. lactucae* monitoring data**

A total of 7 samples collected in 2019 from six European countries (Belgium, Spain, Greece, Italy, Portugal and Poland) were monitored. All samples were fully sensitive to oxathiapiprolin showing low EC50 values (**Figure 3.3-5**). No reports of *B. lactucae* decreased sensitivity to oxathiapiprolin have been reported so far.

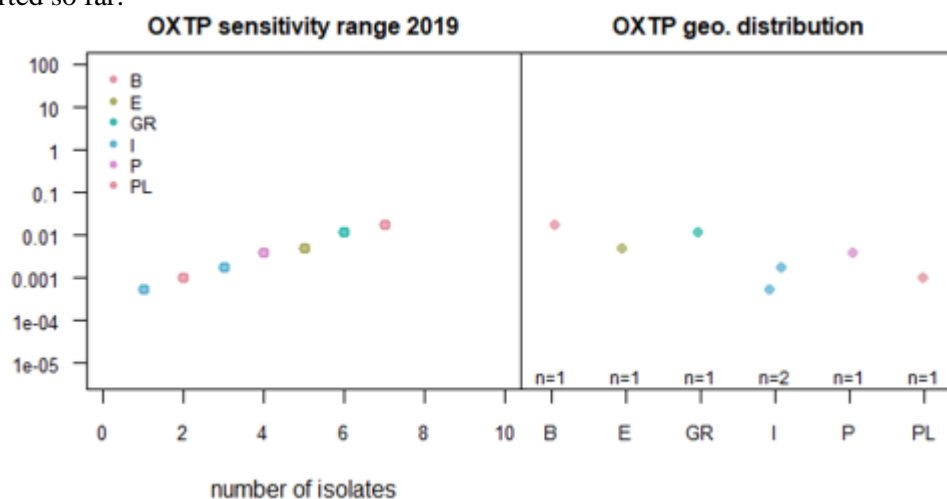


Figure 3.3-5: *B. lactucae* sensitivity range to oxathiapiprolin in samples collected from Belgium, Spain, Greece, Italy, Portugal and Poland during 2019.

Resistance risk associated with unrestricted use pattern

The actual risk for the evolution of resistance towards azoxystrobin and oxathiapiprolin depends on three different parameters: mechanism of resistance against the compound (intrinsic fungicide risk), biology of the pathogen (pathogen risk) and on agronomical factors (agronomic risk). Additionally, to the risk to the individual fungicides also the combined risk towards mixtures needs to be evaluated.

Azoxystrobin and oxathiapiprolin are single site inhibitors. Resistance is mainly due to target site mutations linked to the resistance gene G143A, F129L and G137R. Resistance in field populations has been selected by QoI fungicides. OSBPI resistance has been generated in the lab to a range of pathogens, but in field is found sporadically in single pathogens. Only little is known about the dynamics of OSBPI resistance evolution, such as stability, spread and fitness cost.

The resistance risk of QoI fungicides is in general estimated as high (FRAC). Based on our knowledge today, the intrinsic fungicide risk for oxathiapiprolin is moderate to high (single site inhibitor).

Except for *P. cubensis*, which is considered high risk pathogen to evolve resistance, the other pathogen discussed in this dossier are considered by FRAC moderate risk.

The overall resistance risk for QoI and OSBPI including azoxystrobin and oxathiapiprolin should be considered between medium depending on the agronomic risk associated to each pathogen/crop system (**Figure 3.3-6**).

SDHI OXTP	High risk Benzimidazoles QoIs Phenylamides	3	3	6	9	1	High risk
			1,5	3	4,5	0,5	Medium risk
			0,75	1,5	2,25	0,25	Low Risk
	Medium risk CAA DMIs / APs Morpholines MBI-D Phenylpyrrol	2	2	4	6	1	High risk
			1	2	3	0,5	Medium risk
			0,5	1	1,5	0,25	Low Risk
	Low risk Multi sites MBI-R Resistance Ind.	0,5	0,5	1	1,5	1	High risk
			0,25	0,5	0,75	0,5	Medium risk
			0,125	0,25	0,375	0,25	Low Risk
	Fungicide Risk Pathogen Risk		1	2	3	Agronomic Risk Pathogen Risk	
Low risk <i>S. vesicarium</i> <i>Rhizoctonia</i> spp. Rust spp. <i>Fusarium</i> spp. Soil borne fungi Seed borne fungi Smuts & Bunts			Medium risk <i>B. lactucae</i> <i>A. brassicicola</i> <i>A. brassicae</i> <i>C. beticola</i> <i>A. solani</i> <i>P. infestans</i> <i>R. secalis</i>	High risk <i>P. viticola</i> <i>P. cubensis</i> <i>S. fuliginea</i> <i>Erysiphe</i> spp <i>R. collo-cygni</i> <i>Corynespora</i> <i>Magnaporthe</i>			

Adapted from Grimmer et al. 2014. Pest Management Science 70:1008-1016

Figure 3.3-6: Resistance risk assessment matrix considering i) Fungicide, ii) Pathogen and iii) Agronomic risk for the discussed pathogen and fungicide classes.

Management strategy

The actual performance of products depends on the strength of the evolved reduced sensitivity and its frequency in a particular population. Monitoring of azoxystrobin and oxathiapiprolin sensitivity will continue as appropriate for the pathogens discussed above and any change in sensitivity will be reported through FRAC and the relevant country resistance management bodies. Through this process Syngenta is able to adapt to any changes in sensitivity and readily adopt alternative resistance management strategies as appropriate.

The summaries and recommendations included in this report are based upon data generated by members of the FRAC-QoI and FRAC-OSBPI Working Group and upon the work of non-industry collaborators. The working group concentrates its resources on the major crop/pathogen targets from the point of view of resistance risk. Inevitably many, still important, pathogens are omitted. To help in making recommendations for crops and pathogens the following general recommendations can be made:

The use of two fungicides in a mixture is considered as valuable anti-resistance strategy compared to the use of solo compounds.

General use recommendation:

- Apply A22773A preferentially in a preventive manner.
- Alternate A22773A with fungicides having other modes of action is recommended in spray programs
- Make no more than two³ applications or 33% of the total period of protection needed per crop, whichever is more restrictive.
- Where the total number of fungicide applications targeting oomycetes is less than three, no more than one application of A22773A is recommended
- Applications of A22773A products can be made in alternation with products containing different cross-resistance group with satisfactory efficacy against the targeted pathogen(s).
- Apply A22773A at effective rates and intervals according to manufacturers' recommendations
- The use of good agricultural plant protection practice.

The resistance management strategy for A22773A is therefore based on limitation of exposure of the pathogen to the fungicide by limiting the number of applications permitted in a program and promoting the use of alternation with products from different cross resistance groups.

Comments of zRMS:

A22773A contains two active substances: azoxystrobin (belonging to the chemical group of methoxy-acrylates, MoA group of QoI-fungicides) and oxathiapiprolin (belonging to the chemical group of piperidinyl-thiazole-isoxazolines, MoA group of OSBPI fungicides). According to FRAC classification, the resistance risk for azoxystrobin is considered high risk and for oxathiapiprolin - medium to high. Furthermore, the target pathogens indicated in the GAP table are medium or high risk developed of resistance. *Pseudoperonospora humuli*, *Pseudoperonospora cubensis* and *Didymella bryoniae* are reported to develop resistance to QoI and other fungicides. Due to that the resistance management is required.

Specific QoI guidelines are described for tomato (*Alternaria solani*, *Alternaria alternata*, *Phytophthora infestans*) on the FRAC website:

- Where QoI fungicide products are applied solo do not exceed 33% of the total number of sprays or a maximum of 4. Where mixtures (co-formulations or tank mixes) are used do not exceed 50% of the total number of sprays or a maximum of 6 QoI fungicide applications, whichever is the lower.
- Apply QoI fungicides according to manufacturer's recommendations for the target disease (or complex) at the specific crop growth stage indicated. Effective disease management is a critical parameter in delaying the build-up of resistant pathogen populations

Also specific recommendations are presented for cucurbits:

- Apply QoI fungicides according to manufacturer's recommendations for the target disease (or complex) at the specific crop growth stage indicated. Effective disease management is a critical parameter in delaying the build-up of resistant pathogen populations.
- Apply a maximum of 3 QoI fungicide sprays per crop
- Use a maximum of 1 QoI fungicide spray out of every three fungicide applications.
- Do not use consecutive applications of QoI fungicides.
- Apply QoI fungicides in alternation with fungicides from a different cross-resistance group with satisfactory efficacy against the targeted pathogen(s).
- Continue QoI fungicide alternation between successive crops.

Furthermore, specific guidelines are recommended for OSBPI products in case of foliar treatments:

- Make no more than four (4) applications or maximum 33% of the total period of protection needed per crop, whichever is more restrictive.
- Applications of OSBPI-containing products are to be made no more than three (3) times in sequence before applying a fungicide with a different mode of action. In areas where the agronomic risk is very high (e.g. continuous potato or cucurbit cropping) and resistance has already been reported, further restrictions to the number of consecutive applications are recommended.
- Where the total number of fungicide applications targeting oomycetes is less than three (3), apply no

³ Note from the applicant: Although the FRAC recommendations may allow for more than two applications (already considering the most restrictive number between QoI and OSBPI) in the proposed crops, due to product safety limitations, A22773A is limited to two applications per crop.

more than one (1) application of an OSBPI product.

- Applications of OSBPI products can be made in alternation with a fungicide with a different mode of action.

Taking into account that A22773A is compound of two active substances with different mode of actions, the limitation number of application (the most restrictive number between QoI and OSBPI) and use of alternation with products from different cross resistance group are justify. According to the note from the applicant, due to product safety limitation, A22773A is limited to two application per crop. In the opinion of zRMS, the general use recommendations submitted by the applicant are sufficient.

3.4 Adverse effects on treated crops (KCP 6.4)

Data on adverse effects on target crops are available from:

- **all the 70 efficacy trials** presented in Table 3.2-5 in presence of challenging disease pressure;
- **4 trials on lettuce grown in greenhouse (2x) or in field (2x in Mediterranean EPPO zone)** in absence of disease to study selectivity of A22773A applied at 1 L/ha (N rate) and at 2 L/ha (2N rate);
- **2 trials on tomato grown in field** (in absence of disease in Mediterranean EPPO zone) to study unintentional effect of A22773A at max. 1 L PR/ha on fresh tomato, tomato puree and tomato after freezing.

Trials methodology in relation to EPPO

For information on material and methods of efficacy trials presented in this section refer to Point 3.2.

Taint test trials were conducted according to the EPPO guidelines stated in Table 3.4-2 (taint test: trial in the absence of disease).

Full details of the sites and applications are provided in Appendix 2 of the Biological assessment dossier for A22773A_VV-881245. The hyperlinks to the GEP certificates of the official testing organization are provided in Point 3.7.

Table 3.4-1: Presentation of trials (selectivity trials, transformation trials...)

Crop*	Country	Type of trial**	Number of trials		Years	GEP, non-GEP, official***	Comments (any other relevant information)
			Maritime zone	Mediterranean zone			
Lettuce [LACSA]	Belgium	S; Y	2	-	2019	GEP	grown in GH
	Spain	S; Y	-	2	2019	GEP	grown in FIELD
Tomato [LYPES]	Italy	TT; TF; TP	-	2	2019-2020	GEP	taint test on fresh tomato, puree and frozen tomato
TOTAL	-	-	2	4	-	-	

* According to the GAP table.

** S = selectivity trial, Y = trial with yield assessment, Q = trial with quality assessment, T = trial on the basis of the study of impact on transformation process (TP: Physical transformation, TF: transformation involving microbial fermentation), P = trial with assessment of impact on propagation).

*** Official: carried out by a national official organisation.

Table 3.4-2: Details on trial methodology of Taint Test trials on tomato

Total number of trial: 2		
Guidelines	General guidelines	EPPO:PP 1/135(4) Phytotoxicity assessment - (2) EPPO:PP 1/152(4) Design and analysis of efficacy evaluation trials - (2) EPPO:PP 1/181(4) Conduct and reporting of efficacy evaluation trials including good experimental practice - (2)
	Specific guidelines	EPPO:PP 1/242(2) – Taint tests (2) CEB: 143, normalized testing method AFNOR V 09-013 (1)
Experimental design	Plot design	RACOB L - (2)
	Plot size	19.2-21 m ²
	Number of replications	4 - (2)
Crop	Trials per crop	Tomato - (2)
	Varieties per crop	H1301 - (1); H7204 - (1)
Application	Crop stage (BBCH)* at application	Appl. A: BBCH 83 (2) Appl. B: BBCH 85 (2) Appl. C: BBCH 87 (1)
	Timing	preventive (2)
	Pest stage at application	absence of disease (2)
	Number of appl.s	3 - (1); 2 - (1)
	Intervals between appl.s	7 days (2)
	Spray volumes	1000 L/ha - (2)
Assessment	Assessment types	PHYTO general <u>taint test on fresh tomato</u> <u>taint test on tomato puree</u> <u>taint test on tomato after freezing</u>
	Assessment dates	PHYTO general: from 7 days before harvest up to harvest; <u>taint test on fresh tomato</u> : 8 days after harvest (1); 1 day after harvest (1); <u>taint test on tomato puree</u> : 15 days after harvest (1); 4 month after harvest (1); <u>taint test on defrost tomato</u> (17 days after harvest)
Other relevant information	Soil type	clay (1); clay sandy loam (1)
	Natural / artificial inoculation...	absence of disease (2)
	Field / Greenhouse...	field (2)

Summary and conclusion on adverse effects on treated crops

Phytotoxicity

On tomato: 2 selectivity trials with no infestation were carried out in field and 25 efficacy trials in greenhouse in presence of disease were carried out in greenhouse in several countries belonging to the EU zone.

Table 3.4-3: Phytotoxicity of product on tomato

Number of trials with...		Efficacy trials (25 trials)		Selectivity trials or trials in absence of disease (2 trials)	
		Test product	Standard*	Test product	Standard
		N	N	N	N
Maximum of phytotoxicity recorded during the trials	0% to 5%	25	24	2	2
	>5% to 10%	0	0	0	0
	>10% to 15%	0	0	0	0
	>15 %	0	1	0	0
Level of symptoms at the last assessments	0% to 5%	25	24	2	2
	>5% to 10%	0	0	0	0
	>10% to 15%	0	0	0	0

Number of trials with...		Efficacy trials (25 trials)		Selectivity trials or trials in absence of disease (2 trials)	
		Test product	Standard*	Test product	Standard
		N	N	N	N
	>15 %	0	1	0	0

* In one trial (tomato in GH: PLIWZF1082020) the Ref. Std. A15605D at 5 kg PR/ha showed some symptoms.

On lettuce: 16 efficacy trials in greenhouse in presence of disease and 4 selectivity trials with no infestation (2x in greenhouse and 2x in field – Mediterranean EPPO zone) were carried out in several countries belonging to the EU zone.

Table 3.4-4: Phytotoxicity of product on lettuce

Number of trials with...		Efficacy trials (16 trials)		Selectivity trials (4 trials: one with double variety*)			
		Test	Standard	Test		Standard	
		N	N	N	2N	N	2N
Maximum of phytotoxicity recorded during the trials	0% to 5%	16	16	4	4	5	5
	>5% to 10%	0	0	1	1	0	0
	>10% to 15%	0	0	0	0	0	0
	>15 %	0	0	0	0	0	0
Level of symptoms at the last assessments	0% to 5%	16	16	5	5	5	5
	>5% to 10%	0	0	0	0	0	0
	>10% to 15%	0	0	0	0	0	0
	>15 %	0	0	0	0	0	0

* 5 varieties tested (in trial ESSEZF4042019 var. Tsarina and var. LS15537 were both assessed)

On cucurbits: 29 efficacy trials on cucurbits including crop with both edible and inedible peel in presence of disease were carried out in greenhouse in several countries belonging to the EU zone.

Table 3.4-5: Phytotoxicity of product on cucurbits

Number of trials with...		Efficacy trials (29 trials)	
		Test product	Standard*
		N	N
Maximum of phytotoxicity recorded during the trials	0% to 5%	29	23
	>5% to 10%	0	3
	>10% to 15%	0	3
	>15 %	0	0
Level of symptoms at the last assessments	0% to 5%	29	23
	>5% to 10%	0	3
	>10% to 15%	0	0
	>15 %	0	0

* In 6 trials, the Ref. Std. showed some symptoms (DAGONIS 125 SC at 0.6 LPR/ha (4x); A12705B at 0.5 L PR/10000m²LWA (2x)).

In conclusion, no relevant phytotoxicity symptom ($\geq 5\%$ or statistically different compared to the

untreated or not completely recovered at the following assessment timings or with negative impact on yield) caused by A22773A at the proposed maximum dose rate of 1 L PR/ha was recorded in all the efficacy trials and even at the double rate of 2 L PR/ha (tested in selectivity trials available on lettuce).

Yield

No unacceptable symptoms caused by the product application were observed during the trials summarized in this dossier. Azoxystrobin or oxathiapiprolin based products have been and are currently registered and extensively used on target crops (including tomato, lettuce, cucurbits both edible and inedible peel, leek, other bulb vegetables such as onion and garlic, hop and other minor crops) in some formulations types without report of negative effects since several years. Therefore, no evaluations of effects on yield were demanded necessary and no negative effects on crops quantity are expected after application of A22773A following the label recommendations.

However, **yield data were available from efficacy trials and are presented in the relative chapter:**

- on lettuce (in presence of *Bremia lactucae*) in EU zone for greenhouse use (7x);

These data on crop yield confirmed that A22773A at the proposed rate of 1 L PR/ha had a positive impact on the yield as a consequence of disease control.

Furthermore, **yield data were available from selectivity trials:**

- on lettuce (in absence of disease) in Mediterranean EPPO zone (2x) and in EU zone for greenhouse use (2x);

These data on crop yield confirmed that A22773A at the proposed rate of 1 L PR/ha, or even at the double rate of 2 L PR/ha, had no negative impact on the yield compared to the untreated.

Quality

No unacceptable symptoms caused by the product application were observed during the trials summarized in this dossier. Azoxystrobin or oxathiapiprolin based products have been and are currently registered and extensively used on target crops (including tomato, lettuce, cucurbits both edible and inedible peel, leek, other bulb vegetables such as onion and garlic, hop and other minor crops) in some formulations types without report of negative effects since several years. Therefore, no evaluations of effects on quality were demanded necessary and no negative effects on crops quality are expected after application of A22773A following the label recommendations.

Transformation processes – (fresh tomato, tomato puree and frozen tomato)

Two taint test trials (one on var. H1301 and one on var. H7204) were performed on fresh tomato, tomato puree and tomato after freezing. In general no statistically significant difference was observed between samples treated with A22773A and the untreated check. Only in one out of 2 trials statistical difference between A22773A (2 appl.s) and the untreated check was recorded for tomato puree (no comment on possible taint perceived was reported). However, at more challenging conditions, following 3 appl.s of A22773A, in the other trial, no statistical difference was recorded on tomato puree. Therefore, in conclusion data show that there is no negative effect (unpleasant taste or smell) on fresh tomato, tomato puree and tomato after freezing arising from the use of A22773A at the proposed rate of 1 L/ha (250 g/ha of azoxystrobin and 12 g/ha of oxathiapiprolin) following up to 3 foliar applications at 7 days spray interval in open field in the absence of disease.

Propagation materials

During several years of commercial use of azoxystrobin or oxathiapiprolin, no negative effects on plant parts used for propagation have been observed.

Furthermore in general a separate supply chain for propagating material is dedicated and therefore there is no concern in possible adverse effect on propagation for plants treated with A22773A for fruit production in target crops.

Because A22773A has no herbicidal activity and no phytotoxicity was reported from the trials with no negative impact on quality and yield, no data on plant parts for propagation are required nor have been carried out. Furthermore, several plant protection products are successfully registered since several years around Europe delivering the same amount of active ingredients according to their registered labels.

No specific studies on plant propagation have been carried out nor are they considered necessary.

Comments of zRMS:

The results from efficacy and selectivity trials have been presented to determine adverse effect of A22773A on treated vegetables. No phytotoxicity symptoms or symptoms on acceptable level were noted in all trials. The product was safe even at the double rate (2 l pr/ha) tested in 4 selectivity trials on lettuce. Moreover, A22773A at dose rate of 1 l pr/ha had no negative impact on the yield of lettuce.

The results from 2 taint tests show that A22773A at the proposed rate of 1 l pr/ha has not negative effect (unpleasant taste or smell) on fresh tomato, tomato puree and tomato after freezing.

No data on plants parts for propagation was submitted. Because the product has not herbicidal activity and no phytotoxicity symptoms were recorded, no data of impact on plant parts for propagation are required.

3.5 Observations on other undesirable or unintended side-effects (KCP 6.5)

Summary and conclusion on Observations on other undesirable or unintended side-effects

A22773A applied on tomato, lettuce, cucurbits (edible or inedible peel), ~~leek, garlic, hop grown in open field or~~ greenhouse, according to recommendations, does not lead to unacceptable risk to succeeding crops, adjacent crops, beneficial insects and non-target organisms. Further details are given in Part B Section 8 and Section 9 of the dRR.

A22773A has fungicide activity and no herbicidal activity, therefore the risk from tank residues is of no relevance and no testing of cleaning method are required. Furthermore, A22773A causes no phytotoxic symptoms on the plant species tested and registration is currently sought without restrictions.

For all these reasons, when applied according to the recommendations, traces of residues of A22773A remained in the application equipment after cleaning should pose no risk to subsequently treated crops.

Finally, A22773A is a suitable candidate for inclusion in IPM thanks to its profile and characteristics.

No impacts on the fauna in general and/or beneficials in particular be observed, nor could any negative impacts on the environment be noticed in the efficacy and selectivity trials summarized in this dossier.

Also no adverse effects on natural predators or other organisms are reported, applying azoxystrobin or oxathiapiprolin formulations since several years on a range of crops.

However 4 specific trials were carried to observe possible effects on beneficials following the application of A22773A at 1 L PR/ha in greenhouse in Spain in 2019.

Data following several application of A22773A were compared to the untreated check (water sprayed) and to the positive control, an active insecticide against the target beneficials.

Table 3.5-1: Details on trial methodology – trials on beneficials

4 trials:		
Guidelines	General guidelines	PP 1/151(2)
	Specific guidelines	PP 1/170 (2) (bumble bees)
Experimental design	Plot design	Big plot were designed. A net was installed for separation of treatments. Each big plot is divided in 4 subsamples in order to get statistical analysis, as indicated by protocol (4)
	Plot size	30 m ² (2) 160 m ² (1) 320 m ² (1)
	Number of replications	4 (4)
Crop	Trials per crop	tomato (2) pepper (2)
	Varieties per crop	tomato: Guanche (1); Karelya (1) pepper: Herminio (1); Loreto (1)
Beneficial observed	Specie per crop	tomato: (<i>Nesidiocoris tenuis</i> ; <i>Bombus</i> sp.) pepper: (<i>Orius laevigatus</i> ; <i>Amblyseius swirskii</i>)
Application	Crop stage (BBCH) at application per crop	First application: tomato BBCH 81 (1); BBCH 63 (1) pepper BBCH 63 (1); BBCH 77 (1)
		First application: tomato BBCH 83 (1); BBCH 71 (1) pepper BBCH 72 (1); BBCH 83 (1)
	Number of applications	3 (3); 2 (1)
	Intervals between applications	about 7 days
	Spray volumes per crop	tomato: 820-900 L/ha (1) 456-800 L/ha (1) pepper: 660-810 L/ha (1) 290-300 L/ha (1)
Assessment	Assessment types per beneficial:	<i>Nesidiocoris tenuis</i> : count insect (adult/nymph), number <i>Orius laevigatus</i> : count insect (adult/nymph), number <i>Amblyseius swirskii</i> : count insect (adult), number <i>Bombus</i> sp.: count insect (adult/larva large/larva small/pupa), number per one beehive; pollination (flower brown/flower marked/flower unmarked), % per one plant; Quality - Beehiv (g per 1 beehive); Weight - Nest (g per 1 beehive)
	Assessment dates	regularly at each application, and regularly following the last application
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	Not relevant, foliar application
	e.g. Natural / artificial inoculation...	artificial introduction of beneficial with homogeneous widespread (3); artificial introduction of hives (1)
	e.g. Field / Greenhouse...	greenhouse (4)

Therefore it can be concluded that A22773A does not have relevant adverse effects on beneficial organisms when used according to recommendation.

Detailed studies on the possible adverse effects to beneficial organisms are submitted and summarized in **Part B, Section 9** (Ecotoxicology).

Comments of zRMS:

Trials on the effects on adjacent and succeeding crops are mainly concerned with field crops. In opinion of

zRMS, they are irrelevant for greenhouse due to the specificity of cultivating these crops.
4 trials have been submitted to determine of impact on beneficial and other non-target organisms. According to trial results, it can be concluded that A22773A after three applications at 1 l pr/ha (7 days interval) is selective for *Nesidiocoris tenuis*, *Orius laevigatus*, *Amblyseius swirskii* and *Bombus* sp.

3.6 Other/special studies (KCP 6.6)

No other study submitted.

3.7 List of test facilities including the corresponding certificates

The following table gives information about the testing facilities where trials were done. All facilities are certified and the trials conducted according to GEP.

The corresponding certificates are available in the GEP Certificate Database System (Certibase) (<http://www.gepcertibase.eu>) via the hyperlinks provided in the table below.

Table 3.7-1: List of test facilities

Hyperlink to certificate	Test facility	Country	Number of trials		
			2018	2019	2020
1d690228a7f	PSG SKW, Sint-Katelijne-Waver, Belgium	BE	1	4	2
1d690228b4a					
1d690228bea					
1d6902288bb	FS Trials S.L, El Siscar, Spain	ES	-	13	20
1d690228c13					
1d690228b8b					
1d690228af8	Métodos Servicios Agrícolas SL, Abarán, Spain	FR	-	1	2
1d6902289e9	Phytest, Coria del Rio, Spain				
1d690228aa7	Syngenta España S.A.				
1d690228bd6	SynTech Research Spain, Valencia, Spain	GR	-	3	5
1d690228a01	QUALIPHYT, FRANCE				
1d690228b6f	SynTech Research France SAS, La Chapelle de Guinchay, France				
1d690228a6f	AGRI 2000 HELLAS	IT	-	11	11
1d690228a51	AGROLAB-RDS				
1d690228a71	Anadiag Hellas Ltd, Veria, Greece				
1d690228bcb	GAB Hellas	PL	-	3	4
1d690228aa4	SGS Greece SA				
1d690228b21	SAGEA Centro di Saggio Srl, Castagnito d'Alba , Italy				
1d69091ee58	Anadiag Italia S.R.L.	PT	-	3	4
1d690228b51	Syngenta Italia Spa				
1d690228b76	Institut of Horticulture in Skierniewice				
1d69022890e	SynTech Research Poland Sp. z o.o.	PT	-	3	4
1d690271f26	ANADIAG SA				
1d690271e78	SYNTECH RESEARCH PORTUGAL				
1d690271d8b	Trialplan, Lda OOR 031, Portugal	TOTAL:	80		

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 Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner SYN = Syngenta
KCP Section 6	Syngenta	31/08/2021	A22773A PI0009512 BAD Report No. N/A Document No. VV-881245 Test Facility N/A Not GLP Unpublished	N	SYN

List of data submitted by the applicant and relied on – trials in EU zone

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
KCP 6.1	Venneman, S..	06/12/2018	EAME Profiling OXTP + MDP (A21591C) for lettuce against Bremia in GH in EU - 2018 Report No. BESK0F9132018 Document No. VV-906623 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Venneman, S..	07/12/2020	EAME Registration of A23109A and A22773A for lettuce against brexia in GH in EU 2020 Report No. BESKZF0052020 Document No. VV-906625 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Venneman, S..	07/12/2020	EAME Registration of A23109A and A22773A for lettuce against brexia in GH in EU 2020 Report No. BESKZF0062020 Document No. VV-906626 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Venneman, S..	25/11/2019	EAME Profiling & registration of A22773A and EXF16956C for Lettuce against Bremia GH 2019 Report No. BESKZF9112019 Document No. VV-906633 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Venneman, S..	09/12/2019	EAME Profiling & registration of A22773A and EXF16956C for Lettuce against Bremia GH 2019 Report No. BESKZF9122019 Document No. VV-906634 Test Facility Syngenta Limited GEP	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Unpublished		
KCP 6.1	Soto Espinosa, F.	01/06/2020	EAME Registration Orondis Evo (A22773A) for horizontal cucurbits against Pseudoperonospora cubensis - GH - 2020 Report No. ESFSZF0122020 Document No. VV-906653 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Soto Espinosa, F.	05/06/2020	EAME Registration Orondis Evo (A22773A) for horizontal cucurbits against Pseudoperonospora cubensis - GH - 2020 Report No. ESFSZF0132020 Document No. VV-906654 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Abellan Martinez, G.	20/03/2020	EAME Profiling OXTP + MDP (A21591C) for lettuce against brexia in GH in EU - 2019 Report No. ESMSZF0032019 Document No. VV-906656 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Baneres, J.	09/12/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - normal spray interval 2020 Report No. ESPHZF0012020 Document No. VV-906657 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Baneres, J.	09/12/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - normal spray interval 2020 Report No. ESPHZF0022020 Document No. VV-906658	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Test Facility Syngenta Limited GEP Unpublished		
KCP 6.1	Angel Piedra, M.	31/07/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for Melon, water melon against Pseudoperonospora GH 2019 Report No. ESSEZF2032019 Document No. VV-906664 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Vega, P..	30/07/2020	EAME Registration A22773A for tomato against DM in GH normal spray interval in EU - 2020 Report No. ESSEZF3082020 Document No. VV-906673 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Ripaud, H.	03/11/2020	EAME Registration of A23109A and A22773A for lettuce against bremia in GH in EU 2020 Report No. FRQUZF0262020 Document No. VV-906707 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Ripaud, H.	20/12/2019	EAME Profiling & registration of A22773A and EXF16956C for Lettuce against Bremia GH 2019 Report No. FRQUZF9312019 Document No. VV-906710 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Oriol, B..	09/06/2020	EAME Registration of A23109A and A22773A for lettuce against bremia in GH in EU 2020 Report No. FRSYZF0332020 Document No. VV-906714 Test Facility Syngenta Limited	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			GEP Unpublished		
KCP 6.1	Efstathios, D.	11/09/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH normal spray interval in EU - 2020 Report No. GRAIZF0072020 Document No. VV-906716 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Nalpantidis, M.	11/12/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH normal spray interval in EU - 2020 Report No. GREUZF0282020 Document No. VV-906728 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Paratore, F..	08/01/2021	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - normal spray interval 2020 Report No. IT34ZF5512020 Document No. VV-906752 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Pizzolongo, G.	24/09/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for horizontal cucurbits against Pseudoperonospora cubensis - GH - 2020 Report No. IT34ZF5702020 Document No. VV-906753 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	D'Asero, R..	26/06/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - normal spray interval 2020 Report No. ITSOZF0682020 Document No. VV-906771	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Test Facility Syngenta Limited GEP Unpublished		
KCP 6.1	Aversa, A..	16/05/2019	EAME Profiling OXTP + MDP (A21591C) for lettuce against brexia in GH in EU - 2019 Report No. ITSOZF0782019 Document No. VV-906772 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Aversa, A..	16/05/2019	EAME Profiling OXTP + MDP (A21591C) for lettuce against brexia in GH in EU - 2019 Report No. ITSOZF0792019 Document No. VV-906773 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Aversa, A..	27/12/2019	EAME Profiling OXTP + MDP (A21591C) for lettuce against brexia in GH in EU - 2019 Report No. ITSOZF0802019 Document No. VV-906774 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Aversa, A..	10/01/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Lettuce against Bremia GH 2019 Report No. ITSOZF1002019 Document No. VV-906778 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	D'Asero, R..	23/07/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Melon against Peronospora GH 2019 Report No. ITSOZF1032019 Document No. VV-906781 Test Facility Syngenta Limited GEP	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Unpublished		
KCP 6.1	Asero, G..	05/07/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Melon against Peronospora GH 2019 Report No. ITSOZF1042019 Document No. VV-906782 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	D'Asero, R..	07/07/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for horizontal cucurbits against Pseudoperonospora cubensis - GH - 2020 Report No. ITSOZF1082020 Document No. VV-906785 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	D'Errico, M..	21/11/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH normal spray interval in EU - 2020 Report No. ITSOZF1462020 Document No. VV-906790 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Efstathios, D.	13/06/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for Melon, water melon against Pseudoperonospora GH 2019 Report No. GRAIZF0442019 Document No. VV-906718 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Jarecka-Boncela, A.	15/09/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH normal spray interval in EU - 2020 Report No. PLIWZF1082020 Document No. VV-906811 Test Facility Syngenta Limited GEP	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Unpublished		
KCP 6.1	Gruska, A.	15/12/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH normal spray interval in EU - 2020 Report No. PLSYZF1032020 Document No. VV-906818 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Oliveira, M..	19/12/2019	EAME Profiling & registration OXTP+AZT - Orondis Evo (A22773) and OXTP+MFX for Lettuce against Bremia GH 2019 Report No. PTANZF0012019 Document No. VV-906820 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Spreckelsen, G.	01/03/2021	EAME Registration OXTP + MFX (A23109A) and OXTP+AZT (A22773A) for lettuce against brexia in GH in EU 2020 Report No. PTSTZF0152020 Document No. VV-906822 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.1	Domingos, S.	30/12/2019	EAME Profiling & registration OXTP+AZT - Orondis Evo (A22773) and OXTP+MFX for Lettuce against Bremia GH 2019 Report No. PTPPZF0092019 Document No. VV-906824 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Venneman, S..	06/12/2018	EAME Profiling OXTP + MDP (A21591C) for lettuce against Bremia in GH in EU - 2018 Report No. BESK0F9132018 Document No. VV-906623 Test Facility Syngenta Limited	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			GEP Unpublished		
KCP 6.2	Venneman, S..	07/12/2020	EAME Registration of A23109A and A22773A for lettuce against brexia in GH in EU 2020 Report No. BESKZF0052020 Document No. VV-906625 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Venneman, S..	07/12/2020	EAME Registration of A23109A and A22773A for lettuce against brexia in GH in EU 2020 Report No. BESKZF0062020 Document No. VV-906626 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Venneman, S..	25/11/2019	EAME Profiling & registration of A22773A and EXF16956C for Lettuce against Bremia GH 2019 Report No. BESKZF9112019 Document No. VV-906633 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Venneman, S..	09/12/2019	EAME Profiling & registration of A22773A and EXF16956C for Lettuce against Bremia GH 2019 Report No. BESKZF9122019 Document No. VV-906634 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Jarecka-Bonceta, A.	15/09/2020	EAME Registration A22773A (OXT+AZT) for tomato against DM in GH normal spray interval in EU - 2020 Report No. PLIWZF1082020 Document No. VV-906811 Test Facility Syngenta Limited GEP Unpublished	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
KCP 6.2	Efstathios, D.	13/06/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for Melon, water melon against Pseudoperonospora GH 2019 Report No. GRAIZF0442019 Document No. VV-906718 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Soto Espinosa, F.	01/06/2020	EAME Registration Orondis Evo (A22773A) for horizontal cucurbits against Pseudoperonospora cubensis - GH - 2020 Report No. ESFSZF0122020 Document No. VV-906653 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Soto Espinosa, F.	05/06/2020	EAME Registration Orondis Evo (A22773A) for horizontal cucurbits against Pseudoperonospora cubensis - GH - 2020 Report No. ESFSZF0132020 Document No. VV-906654 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Soto Espinosa, F.	29/11/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for tomato in GH against Powdery mildew - 2020 Report No. ESFSZF0142020 Document No. VV-906655 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Abellan Martinez, G.	20/03/2020	EAME Profiling OXTP + MDP (A21591C) for lettuce against brexia in GH in EU - 2019 Report No. ESMSZF0032019 Document No. VV-906656 Test Facility Syngenta Limited GEP	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Unpublished		
KCP 6.2	Baneres, J.	09/12/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - normal spray interval 2020 Report No. ESPHZF0012020 Document No. VV-906657 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Baneres, J.	09/12/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - normal spray interval 2020 Report No. ESPHZF0022020 Document No. VV-906658 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Angel Piedra, M.	31/07/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for Melon, water melon against Pseudoperonospora GH 2019 Report No. ESSEZF2032019 Document No. VV-906664 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Angel Piedra, M.	31/07/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for Cucumber against Pseudoperonospora cubensis GH 2019 Report No. ESSEZF2042019 Document No. VV-906665 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Angel Piedra, M.	01/08/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Solanacea against P infestans (GH) 2019 Report No. ESSEZF2072019 Document No. VV-906666	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Test Facility Syngenta Limited GEP Unpublished		
KCP 6.2	Angel Piedra, M.	14/01/2020	EAME Profiling OXTP + MDP (A21591C) for tomato against Late Blight in GH in EU - 2019 Report No. ESSEZF2082019 Document No. VV-906667 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Vega, P..	16/03/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for Vertical Cucurbits GH against Dydimella 2020 Report No. ESSEZF3012020 Document No. VV-906669 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Vega, P..	25/04/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for horizontal cucurbits against Dydimella - 2020 Report No. ESSEZF3022020 Document No. VV-906670 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Vega, P..	08/05/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for horizontal cucurbits against Dydimella - 2020 Report No. ESSEZF3032020 Document No. VV-906671 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Vega, P..	30/07/2020	EAME Registration A22773A for tomato against DM in GH normal spray interval in EU - 2020 Report No. ESSEZF3082020 Document No. VV-906673 Test Facility Syngenta Limited GEP	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Unpublished		
KCP 6.2	Vega, P..	28/07/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - Long spray interval 2020 Report No. ESSEZF3112020 Document No. VV-906674 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Vega, P..	04/09/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for Cucurbits (melon) against Dydimella (GH) 2019 Report No. ESSEZF3132019 Document No. VV-906676 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Vega, P..	04/12/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for Cucumber against Pseudoperonospora cubensis GH 2019 Report No. ESSEZF3142019 Document No. VV-906677 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Vega, P..	05/09/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for Cucumber against Pseudoperonospora cubensis GH 2019 Report No. ESSEZF3152019 Document No. VV-906678 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Vega, P..	04/09/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for Cucurbits (melon) against Dydimella (GH) 2019 Report No. ESSEZF3162019 Document No. VV-906679 Test Facility Syngenta Limited	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			GEP Unpublished		
KCP 6.2	Vega, P..	13/01/2020	EAME Profiling OXTP + MDP (A21591C) for tomato against Late Blight in GH in EU - 2019 Report No. ESSEZF3202019 Document No. VV-906680 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Renovell, A.	04/01/2021	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - Long spray interval 2020 Report No. ESSTZF0012020 Document No. VV-906686 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Renovell, A.	04/01/2021	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - Long spray interval 2020 Report No. ESSTZF0022020 Document No. VV-906687 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Renovell, A.	18/12/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for tomato in GH against Powdery mildew - 2020 Report No. ESSTZF0052020 Document No. VV-906688 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Renovell, A.	30/12/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH long spray interval in EU - 2020 Report No. ESSTZF0062020 Document No. VV-906689 Test Facility Syngenta Limited	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			GEP Unpublished		
KCP 6.2	Renovell, A.	30/12/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH long spray interval in EU - 2020 Report No. ESSTZF0162020 Document No. VV-906690 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Janer, P..	24/01/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Solanacea against P infestans (GH) 2019 Report No. ESSWZF3172019 Document No. VV-906693 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Ripaud, H.	03/11/2020	EAME Registration of A23109A and A22773A for lettuce against brexia in GH in EU 2020 Report No. FRQUZF0262020 Document No. VV-906707 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Ripaud, H.	20/12/2019	EAME Profiling & registration of A22773A and EXF16956C for Lettuce against Bremia GH 2019 Report No. FRQUZF9312019 Document No. VV-906710 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Oriol, B..	09/06/2020	EAME Registration of A23109A and A22773A for lettuce against brexia in GH in EU 2020 Report No. FRSYZF0332020 Document No. VV-906714 Test Facility Syngenta Limited GEP Unpublished	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
KCP 6.2	Efstathios, D.	11/09/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH normal spray interval in EU - 2020 Report No. GRAIZF0072020 Document No. VV-906716 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Krinis, D.	13/11/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - Long spray interval 2020 Report No. GRALZF0332020 Document No. VV-906720 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Krinis, D.	19/11/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - Long spray interval 2020 Report No. GRALZF0342020 Document No. VV-906721 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Chatzidimopoulos, M..	05/01/2020	EAME Profiling OXTP + MDP (A21591C) for tomato against Late Blight in GH in EU - 2019 Report No. GRANZF0502019 Document No. VV-906724 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Giannakou, I..	13/12/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH long spray interval in EU - 2020 Report No. GREUZF0252020 Document No. VV-906727 Test Facility Syngenta Limited GEP Unpublished	N	SYN



Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
KCP 6.2	Nalpantidis, M.	11/12/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH normal spray interval in EU - 2020 Report No. GREUZF0282020 Document No. VV-906728 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Lakasas, Y.	21/10/2019	EAME Profiling OXTP + MDP (A21591C) for tomato against Late Blight in GH in EU - 2019 Report No. GRSGZF0292019 Document No. VV-906732 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Paratore, F..	08/01/2021	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - normal spray interval 2020 Report No. IT34ZF5512020 Document No. VV-906752 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Pizzolongo, G.	24/09/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for horizontal cucurbits against Pseudoperonospora cubensis - GH - 2020 Report No. IT34ZF5702020 Document No. VV-906753 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Montemurro, M.	29/10/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for tomato in GH against Powdery mildew - 2020 Report No. IT34ZF5762020 Document No. VV-906754 Test Facility Syngenta Limited GEP Unpublished	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
KCP 6.2	D'Asero, R..	19/06/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - Long spray interval 2020 Report No. ITSOZF0662020 Document No. VV-906769 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Asero, G..	08/07/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - Long spray interval 2020 Report No. ITSOZF0672020 Document No. VV-906770 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	D'Asero, R..	26/06/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - normal spray interval 2020 Report No. ITSOZF0682020 Document No. VV-906771 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Aversa, A..	16/05/2019	EAME Profiling OXTP + MDP (A21591C) for lettuce against brexia in GH in EU - 2019 Report No. ITSOZF0782019 Document No. VV-906772 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Aversa, A..	16/05/2019	EAME Profiling OXTP + MDP (A21591C) for lettuce against brexia in GH in EU - 2019 Report No. ITSOZF0792019 Document No. VV-906773 Test Facility Syngenta Limited GEP	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Unpublished		
KCP 6.2	Aversa, A..	27/12/2019	EAME Profiling OXTP + MDP (A21591C) for lettuce against brexia in GH in EU - 2019 Report No. ITSOZF0802019 Document No. VV-906774 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	D'Asero, R..	07/01/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Solanacea against P infestans (GH) 2019 Report No. ITSOZF0962019 Document No. VV-906777 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Aversa, A..	10/01/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Lettuce against Bremia GH 2019 Report No. ITSOZF1002019 Document No. VV-906778 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	D'Asero, R..	23/07/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Melon against Peronospora GH 2019 Report No. ITSOZF1032019 Document No. VV-906781 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Asero, G..	05/07/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Melon against Peronospora GH 2019 Report No. ITSOZF1042019 Document No. VV-906782 Test Facility Syngenta Limited GEP Unpublished	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
KCP 6.2	D'Asero, R..	29/07/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Cucumber against Peronospora GH 2019 Report No. ITSOZF1052019 Document No. VV-906783 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Asero, G..	05/07/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Cucumber against Peronospora GH 2019 Report No. ITSOZF1062019 Document No. VV-906784 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	D'Asero, R..	07/07/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for horizontal cucurbits against Pseudoperonospora cubensis - GH - 2020 Report No. ITSOZF1082020 Document No. VV-906785 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	D'Asero, R..	09/11/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for tomato in GH against Powdery mildew - 2020 Report No. ITSOZF1382020 Document No. VV-906787 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Asero, G..	10/11/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for tomato in GH against Powdery mildew - 2020 Report No. ITSOZF1392020 Document No. VV-906788 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	D'Errico, M..	21/11/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH normal spray interval in EU - 2020	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Report No. ITSOZF1462020 Document No. VV-906790 Test Facility Syngenta Limited GEP Unpublished		
KCP 6.2	Asero, G..	30/12/2019	EAME Profiling OXTP + MDP (A21591C) for tomato against Late Blight in GH in EU - 2019 Report No. ITSOZF2312019 Document No. VV-906792 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Jarecka-Boncena, A.	02/01/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Solanacea against P infestans (GH) 2019 Report No. PLIWZF1062019 Document No. VV-906808 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Gruszka, A.	15/12/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH normal spray interval in EU - 2020 Report No. PLSYZF1032020 Document No. VV-906818 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Nasalski, L.	30/11/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH long spray interval in EU - 2020 Report No. PLSYZF1042020 Document No. VV-906819 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Palma, J.	24/12/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for tomato in GH against Powdery mildew - 2020 Report No. ESPHZF0062020 Document No. VV-913752	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Test Facility Syngenta Limited GEP Unpublished		
KCP 6.2	Oliveira, M..	19/12/2019	EAME Profiling & registration OXTP+AZT - Orondis Evo (A22773) and OXTP+MFX for Lettuce against Bremia GH 2019 Report No. PTANZF0012019 Document No. VV-906820 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Spreckelsen, G.	01/03/2021	EAME Registration OXTP + MFX (A23109A) and OXTP+AZT (A22773A) for lettuce against brexia in GH in EU  2020 Report No. PTSTZF0152020 Document No. VV-906822 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.2	Domingos, S.	30/12/2019	EAME Profiling & registration OXTP+AZT - Orondis Evo (A22773) and OXTP+MFX for Lettuce against Bremia GH 2019 Report No. PTPPZF0092019 Document No. VV-906824 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Venneman, S..	06/12/2018	EAME Profiling OXTP + MDP (A21591C) for lettuce against Bremia in GH in EU - 2018 Report No. BESK0F9132018 Document No. VV-906623 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Venneman, S..	07/12/2020	EAME Registration of A23109A and A22773A for lettuce against brexia in GH in EU  2020 Report No. BESKZF0052020	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Document No. VV-906625 Test Facility Syngenta Limited GEP Unpublished		
KCP 6.4.1	Venneman, S..	07/12/2020	EAME Registration of A23109A and A22773A for lettuce against bremia in GH in EU 2020 Report No. BESKZF0062020 Document No. VV-906626 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Venneman, S..	25/11/2019	EAME Profiling & registration of A22773A and EXF16956C for Lettuce against Bremia GH 2019 Report No. BESKZF9112019 Document No. VV-906633 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Venneman, S..	09/12/2019	EAME Profiling & registration of A22773A and EXF16956C for Lettuce against Bremia GH 2019 Report No. BESKZF9122019 Document No. VV-906634 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Soto Espinosa, F.	01/06/2020	EAME Registration Orondis Evo (A22773A) for horizontal cucurbits against Pseudoperonospora cubensis - GH - 2020 Report No. ESFSZF0122020 Document No. VV-906653 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Soto Espinosa, F.	05/06/2020	EAME Registration Orondis Evo (A22773A) for horizontal cucurbits against Pseudoperonospora cubensis - GH - 2020 Report No. ESFSZF0132020	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Document No. VV-906654 Test Facility Syngenta Limited GEP Unpublished		
KCP 6.4.1	Soto Espinosa, F.	29/11/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for tomato in GH against Powdery mildew - 2020 Report No. ESFSZF0142020 Document No. VV-906655 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Abellan Martinez, G.	20/03/2020	EAME Profiling OXTP + MDP (A21591C) for lettuce against brexia in GH in EU - 2019 Report No. ESMSZF0032019 Document No. VV-906656 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Baneres, J.	09/12/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - normal spray interval 2020 Report No. ESPHZF0012020 Document No. VV-906657 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Baneres, J.	09/12/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - normal spray interval 2020 Report No. ESPHZF0022020 Document No. VV-906658 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Efstathios, D.	13/06/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for Melon, water melon against Pseudoperonospora GH 2019	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Report No. GRAIZF0442019 Document No. VV-906718 Test Facility Syngenta Limited GEP Unpublished		
KCP 6.4.1	Jarecka-Boncels, A.	15/09/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH normal spray interval in EU - 2020 Report No. PLIWZF1082020 Document No. VV-906811 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Angel Piedra, M.	31/07/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for Melon, water melon against Pseudoperonospora GH 2019 Report No. ESSEZF2032019 Document No. VV-906664 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Angel Piedra, M.	31/07/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for Cucumber against Pseudoperonospora cubensis GH 2019 Report No. ESSEZF2042019 Document No. VV-906665 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Angel Piedra, M.	01/08/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Solanacea against P infestans (GH) 2019 Report No. ESSEZF2072019 Document No. VV-906666 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Angel Piedra, M.	14/01/2020	EAME Profiling OXTP + MDP (A21591C) for tomato against Late Blight in GH in EU - 2019	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Report No. ESSEZF2082019 Document No. VV-906667 Test Facility Syngenta Limited GEP Unpublished		
KCP 6.4.1	Vega, P..	16/03/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for Vertical Cucurbits GH against Dydimella 2020 Report No. ESSEZF3012020 Document No. VV-906669 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Vega, P..	25/04/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for horizontal cucurbits against Dydimella - 2020 Report No. ESSEZF3022020 Document No. VV-906670 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Vega, P..	08/05/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for horizontal cucurbits against Dydimella - 2020 Report No. ESSEZF3032020 Document No. VV-906671 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Vega, P..	30/07/2020	EAME Registration A22773A for tomato against DM in GH normal spray interval in EU - 2020 Report No. ESSEZF3082020 Document No. VV-906673 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Vega, P..	28/07/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - Long spray interval 2020 Report No. ESSEZF3112020	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Document No. VV-906674 Test Facility Syngenta Limited GEP Unpublished		
KCP 6.4.1	Vega, P..	04/09/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for Cucurbits (melon) against Dydimella (GH) 2019 Report No. ESSEZF3132019 Document No. VV-906676 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Vega, P..	04/12/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for Cucumber against Pseudoperonospora cubensis GH 2019 Report No. ESSEZF3142019 Document No. VV-906677 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Vega, P..	05/09/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for Cucumber against Pseudoperonospora cubensis GH 2019 Report No. ESSEZF3152019 Document No. VV-906678 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Vega, P..	04/09/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for Cucurbits (melon) against Dydimella (GH) 2019 Report No. ESSEZF3162019 Document No. VV-906679 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Vega, P..	13/01/2020	EAME Profiling OXTP + MDP (A21591C) for tomato against Late Blight in GH in EU - 2019 Report No. ESSEZF3202019	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Document No. VV-906680 Test Facility Syngenta Limited GEP Unpublished		
KCP 6.4.1	Renovell, A.	04/01/2021	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - Long spray interval 2020 Report No. ESSTZF0012020 Document No. VV-906686 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Renovell, A.	04/01/2021	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - Long spray interval 2020 Report No. ESSTZF0022020 Document No. VV-906687 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Renovell, A.	18/12/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for tomato in GH against Powdery mildew - 2020 Report No. ESSTZF0052020 Document No. VV-906688 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Renovell, A.	30/12/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH long spray interval in EU - 2020 Report No. ESSTZF0062020 Document No. VV-906689 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Renovell, A.	30/12/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH long spray interval in EU - 2020 Report No. ESSTZF0162020	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Document No. VV-906690 Test Facility Syngenta Limited GEP Unpublished		
KCP 6.4.1	Janer, P..	24/01/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Solanacea against P infestans (GH) 2019 Report No. ESSWZF3172019 Document No. VV-906693 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Ripaud, H.	03/11/2020	EAME Registration of A23109A and A22773A for lettuce against brexia in GH in EU 2020 Report No. FRQUZF0262020 Document No. VV-906707 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Ripaud, H.	20/12/2019	EAME Profiling & registration of A22773A and EXF16956C for Lettuce against Bremia GH 2019 Report No. FRQUZF9312019 Document No. VV-906710 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Oriol, B..	09/06/2020	EAME Registration of A23109A and A22773A for lettuce against brexia in GH in EU 2020 Report No. FRSYZF0332020 Document No. VV-906714 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Efstathios, D.	11/09/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH normal spray interval in EU - 2020 Report No. GRAIZF0072020 Document No. VV-906716 Test Facility Syngenta Limited	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			GEP Unpublished		
KCP 6.4.1	Krinis, D.	13/11/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - Long spray interval 2020 Report No. GRALZF0332020 Document No. VV-906720 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Krinis, D.	19/11/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - Long spray interval 2020 Report No. GRALZF0342020 Document No. VV-906721 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Chatzidimopoulos, M..	05/01/2020	EAME Profiling OXTP + MDP (A21591C) for tomato against Late Blight in GH in EU - 2019 Report No. GRANZF0502019 Document No. VV-906724 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Giannakou, I..	13/12/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH long spray interval in EU - 2020 Report No. GREUZF0252020 Document No. VV-906727 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Nalpantidis, M.	11/12/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH normal spray interval in EU - 2020 Report No. GREUZF0282020 Document No. VV-906728 Test Facility Syngenta Limited	N	SYN


Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			GEP Unpublished		
KCP 6.4.1	Lakasas, Y.	21/10/2019	EAME Profiling OXTP + MDP (A21591C) for tomato against Late Blight in GH in EU - 2019 Report No. GRSGZF0292019 Document No. VV-906732 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Paratore, F..	08/01/2021	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - normal spray interval 2020 Report No. IT34ZF5512020 Document No. VV-906752 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Pizzolongo, G.	24/09/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for horizontal cucurbits against Pseudoperonospora cubensis - GH - 2020 Report No. IT34ZF5702020 Document No. VV-906753 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Montemurro, M.	29/10/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for tomato in GH against Powdery mildew - 2020 Report No. IT34ZF5762020 Document No. VV-906754 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	D'Asero, R..	19/06/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - Long spray interval 2020 Report No. ITSOZF0662020 Document No. VV-906769	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Test Facility Syngenta Limited GEP Unpublished		
KCP 6.4.1	Asero, G..	08/07/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - Long spray interval 2020 Report No. ITSOZF0672020 Document No. VV-906770 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	D'Asero, R..	26/06/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for vertical Cucurbits against Pseudoperonospora cubensis GH - normal spray interval 2020 Report No. ITSOZF0682020 Document No. VV-906771 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Aversa, A..	16/05/2019	EAME Profiling OXTP + MDP (A21591C) for lettuce against brexia in GH in EU - 2019 Report No. ITSOZF0782019 Document No. VV-906772 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Aversa, A..	16/05/2019	EAME Profiling OXTP + MDP (A21591C) for lettuce against brexia in GH in EU - 2019 Report No. ITSOZF0792019 Document No. VV-906773 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Aversa, A..	27/12/2019	EAME Profiling OXTP + MDP (A21591C) for lettuce against brexia in GH in EU - 2019 Report No. ITSOZF0802019 Document No. VV-906774	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Test Facility Syngenta Limited GEP Unpublished		
KCP 6.4.1	D'Asero, R..	07/01/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Solanacea against P infestans (GH) 2019 Report No. ITSOZF0962019 Document No. VV-906777 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Aversa, A..	10/01/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Lettuce against Bremia GH 2019 Report No. ITSOZF1002019 Document No. VV-906778 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	D'Asero, R..	23/07/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Melon against Peronospora GH 2019 Report No. ITSOZF1032019 Document No. VV-906781 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Asero, G..	05/07/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Melon against Peronospora GH 2019 Report No. ITSOZF1042019 Document No. VV-906782 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	D'Asero, R..	29/07/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Cucumber against Peronospora GH 2019 Report No. ITSOZF1052019 Document No. VV-906783 Test Facility Syngenta Limited GEP	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Unpublished		
KCP 6.4.1	Asero, G..	05/07/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Cucumber against Peronospora GH 2019 Report No. ITSOZF1062019 Document No. VV-906784 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	D'Asero, R..	07/07/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for horizontal cucurbits against Pseudoperonospora cubensis - GH - 2020 Report No. ITSOZF1082020 Document No. VV-906785 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	D'Asero, R..	09/11/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for tomato in GH against Powdery mildew - 2020 Report No. ITSOZF1382020 Document No. VV-906787 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Asero, G..	10/11/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for tomato in GH against Powdery mildew - 2020 Report No. ITSOZF1392020 Document No. VV-906788 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	D'Errico, M..	21/11/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH normal spray interval in EU - 2020 Report No. ITSOZF1462020 Document No. VV-906790 Test Facility Syngenta Limited GEP Unpublished	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
KCP 6.4.1	Asero, G..	30/12/2019	EAME Profiling OXTP + MDP (A21591C) for tomato against Late Blight in GH in EU - 2019 Report No. ITSOZF2312019 Document No. VV-906792 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Jarecka-Boncela, A.	02/01/2020	EAME Profiling OXTP+AZT - Orondis Evo (A22773) for Solanacea against P infestans (GH) 2019 Report No. PLIWZF1062019 Document No. VV-906808 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Gruszka, A.	15/12/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH normal spray interval in EU - 2020 Report No. PLSYZF1032020 Document No. VV-906818 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Nasalski, L.	30/11/2020	EAME Registration A22773A (OXTP+AZT) for tomato against DM in GH long spray interval in EU - 2020 Report No. PLSYZF1042020 Document No. VV-906819 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Oliveira, M..	19/12/2019	EAME Profiling & registration OXTP+AZT - Orondis Evo (A22773) and OXTP+MFX for Lettuce against Bremia GH 2019 Report No. PTANZF0012019 Document No. VV-906820 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Spreckelsen, G.	01/03/2021	EAME Registration OXTP + MFX (A23109A) and OXTP+AZT (A22773A) for lettuce against brexia in GH in	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			EU  2020 Report No. PTSTZF0152020 Document No. VV-906822 Test Facility Syngenta Limited GEP Unpublished		
KCP 6.4.1	Domingos, S.	30/12/2019	EAME Profiling & registration OXTP+AZT - Orondis Evo (A22773) and OXTP+MFX for Lettuce against Bremia GH 2019 Report No. PTPZPF0092019 Document No. VV-906824 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Palma, J.	24/12/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773A) for tomato in GH against Powdery mildew - 2020 Report No. ESPHZF0062020 Document No. VV-913752 Test Facility Syngenta Limited GEP Unpublished	N	SYN

List of data submitted by the applicant and relied on – selectivity, beneficial and taint test trials

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
KCP 6.4.1	Canovas, M.	14/05/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) and Orondis Ultra (A21591C) for Lettuce - Selectivity trials 2019 Report No. ESSEZF4032019 Document No. VV-874593 Test Facility Syngenta GEP Unpublished	N	SYN
KCP 6.4.1	Canovas, M.	08/08/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773A) and Orondis Ultra (A21591C) for Lettuce - Selectivity trials 2019 Report No. ESSEZF4042019 Document No. VV-874594 Test Facility Syngenta GEP Unpublished	N	SYN
KCP 6.4.1	Castella, G., Calari, A.	09/04/2021	EAME Registration of OXTP + AZT (A22773A) taint test on tomato (F) in EU ♦ 2020 Report No. IT34ZF5772020 Document No. VV-906755 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Barbieri, E. Diebold, J.	30/01/2020	EAME Registration of OXTP + MPD (A21591C) and A22773A taint test on tomato (F) in EU ? 2019 Report No. IT37ZF5162019 Document No. VV-906757 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.1	Venneman, S.	09/12/2019	EAME registration A22773A and A21591C for Lettuce - Selectivity trials 2019	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			Report No. BESKZF9012019 Document No. VV-913749 Test Facility Syngenta Limited GEP Unpublished		
KCP 6.4.1	Venneman, S.	31/03/2020	EAME registration A22773A and A21591C for Lettuce - Selectivity trials 2019 Report No. BESKZF9022019 Document No. VV-913750 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.4	Castella, G., Calari, A.	09/04/2021	EAME Registration of OXTP + AZT (A22773A) taint test on tomato (F) in EU ♦ 2020 Report No. IT34ZF5772020 Document No. VV-906755 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.4.4	Barbieri, E. Diebold, J.	30/01/2020	EAME Registration of OXTP + MPD (A21591C) and A22773A taint test on tomato (F) in EU ? 2019 Report No. IT37ZF5162019 Document No. VV-906757 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.5.3	Piedra, M.	08/07/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773) in beneficials (including Bumble bees) on tomato/pepper/cucurbits- GH 2019 Report No. ESSEZF2062019 Document No. VV-874588 Test Facility Syngenta GEP Unpublished	N	SYN
KCP 6.5.3	Vega, P.	05/09/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773) in beneficials (including Bumble bees) on	N	SYN

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
			tomato/pepper/cucurbits- GH 2019 Report No. ESSEZF3172019 Document No. VV-874592 Test Facility Syngenta GEP Unpublished		
KCP 6.5.3	Canovas, M.	19/09/2019	EAME Profiling OXTP+AZT - Orondis Evo (A22773) in beneficials (including Bumble bees) on tomato/pepper/cucurbits- GH 2019 Report No. ESSEZF4082019 Document No. VV-913753 Test Facility Syngenta Limited GEP Unpublished	N	SYN
KCP 6.5.3	Canovas, M.	14/08/2020	EAME Registration OXTP+AZT - Orondis Evo (A22773) in Bumble bees on tomato- GH 2020 Report No. ESSEZF4092020 Document No. VV-913754 Test Facility Syngenta Limited GEP Unpublished	N	SYN

List of data submitted by the applicant and not relied on

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
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List of data relied on not submitted by the applicant but necessary for evaluation

Data point	Author(s)	Year	Title Source Company Report No. GLP or GEP status Published or Unpublished Syngenta File No.	Vertebrate study Y/N	Owner
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