REGISTRATION REPORT

Part B

Section 3

Efficacy Data and Information

Concise summary

Product code(s): ADM.03502.F.1.A/ ADM.3502.F.1.A/ MCW-2091

Product name(s): see part A

Chemical active substance(s):

Prothioconazole: 175, g/L

Fenpropidin: 250, g/L

Central

Zonal Rapporteur Member State: Poland

CORE ASSESSMENT

(authorization)

Applicant: ADAMA Polska Sp. z o.o.

Submission date: September 2021, updated: October 2022, December 2022, April 2023

MS Finalisation date: December 2022 (initial Core Assessment)

April 2023 (final Core Assessment)

Version history

When	What
September 2021	Initial dRR – ADAMA Polska Sp. z o.o.
October 2022	Updated dRR (updates concerning GAP – presentation of data; tables – the effectiveness results after 1 application) – ADAMA Polska Sp. z o.o.
December 2022	Applicant answers to the zRMS questions concerning 3.4.4 (Effect on transformation) and 3.4.5 (Effect on plant parts used for propagation). The applicant`s responses can be found in the zRMS commenting boxes following the respective dRR chapters.
December 2022	Initial zRMS 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~~. Following the evaluation and before sending the document for commenting, all coloured highlighting was removed, from the parts updated by the Applicant, for better legibility.
April 2023	Updated RR (chapters 3.5.1 and 3.5.2). Changes are highlighted in turquoise – ADAMA Polska Sp. z o.o.
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. Information no longer relevant ~~is struck through and shaded~~.

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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 evaluation 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 also ~~visibly marked with the grey font~~.

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

Abstract

Comments of zRMS:

This application has been submitted for authorization of the fungicide ADM.3502.F.1.A, containing 175 g/L prothioconazole (DMI fungicide, FRAC code: 3) and 250 g/L fenpropidin (amines /morpholines, FRAC code: 5).
ADM.3502.F.1.A is intended to be used for the control of *Zymoseptoria tritici* (SEPTTR), *Erysiphe graminis* (ERYSGR), *Pyrenophora tritici-repentis* (PYRNTR), *Puccina striiformis* (PUCCST) and *Puccinia recondita*. (PUCCRT/ PUCCRE) on wheat (TRZAW, TRZAS), *Erysiphe graminis* (ERYSGR), *Rhynchosporium secalis* (RHYNSE), *Pyrenophora teres* (PYRNTE), *Puccinia hordei* (PUCCHD) on barley (HORVW, HORVS); *Erysiphe graminis* (ERYSGR), *Rhynchosporium secalis* (RHYNSE), *Puccinia recondita*. (PUCCRE/ PUCCRR) on winter rye (SECCW); *Zymoseptoria tritici* (SEPTTR), *Erysiphe graminis* (ERYSGR), *Puccina striiformis* (PUCCST) and *Puccinia recondita*. (PUCCRE) on triticale (TTLSS), *Erysiphe graminis* (ERYSGR), *Puccinia coronata* (PUCCCO) on oat (AVESS).
The recommended application rate of ADM.3502.F.1.A is 1.0 L/ha in Maritime and North-East EPPO zone. Dose range 0.8-1.0 L/ha is claimed in South-East EPPO zone. ADM.3502.F.1.A is intended to be used within the growth stage of the crop ranging from BBCH 30-65.

Efficacy
A total of 224 valid efficacy trials carried out between 2018 and 2020 have been used for the evaluation of the fungicide ADM.3502.F.1.A. The trials were carried out in 3 EPPO zones: Maritime (DE, CZ, FR), North-East (PL, LT, LV) and South-East (SK, HU, RO). Based on the submitted efficacy trial results it can be concluded that the fungicide ADM.3502.F.1.A, applied at the recommended dose rate of 1.0 L/ha is effective in the control of target pathogens. For some uses, due to limited efficacy data (especially after 1 application), the concerned MSs are kindly advised to make a decision about acceptance, individually on the national level, according to the national requirements.
The efficacy of ADM.3502.F.1.A applied at 0.8 L/ha was lower (but also satisfying) as compared with the dose rate of 1.0 L/ha in South-East EPPO zone. It is recommended to include in the product label remark to use lower dose rate of 0.8 L/ha under conditions of low disease pressure in South-East EPPO zone.
Summarizing the evaluation, the following uses are accepted by the zRMS:
Maritime EPPO zone:
TRZAW: SEPTTR, ERYSGR, PUCCRT/ PUCCRE
HORVW: ERYSGR, RHYNSE, PYRNTE, PUCCHD
HORVS: ERYSGR, PYRNTE, PUCCHD
SECCW: RHYNSE, PUCCRE/ PUCCRR
TTLWI: ERYSGR, SEPTTR
North-East EPPO zone
TRZAW: SEPTTR, ERYSGR, PYRNTR, PUCCST, PUCCRT/ PUCCRE
TRZAS: SEPTTR, ERYSGR, PYRNTR
HORVW, HORVS: ERYSGR, RHYNSE, PYRNTE, PUCCHD

TTLWI: ERYSGR, SEPTTR, PUCCRE, PUCCST
South-East EPPO zone
TRZAW: SEPTTR
HORVW, HORVS: ERYSGR, PYRNTE

The following uses are not accepted by the zRMS:
North-East EPPO zone
TRZAS: PUCCST, PUCCRT/ PUCCRE
TTLSO: ERYSGR, SEPTTR, PUCCRE, PUCCST

The following uses are to be confirmed by cMSs:
Maritime EPPO zone
TRZAW: PYRNTR, PUCCST
TRZAS: SEPTTR, ERYSGR, PYRNTR, PUCCST, PUCCRT/ PUCCRE
HORVS: RHYNSE
SECCW: ERYSGR
TTLWI: PUCCRE, PUCCST
TTLSO: ERYSGR, SEPTTR, PUCCRE, PUCCST
AVESA: ERYSGR, PUCCCO
South-East EPPO zone
TRZAW: ERYSGR, PUCCST, PUCCRT/ PUCCRE
TRZAS: SEPTTR, ERYSGR, PUCCST, PUCCRT/ PUCCRE
HORVW, HORVS: RHYNSE, PUCCHD
According to the comments received from cMSs (DE, NL), the following uses have been finally accepted:

- TRZAW: PYRNTR, PUCCST (DE)
- TRZAS: SEPTTR, ERYSGR, PYRNTR, PUCCST, PUCCRT/ PUCCRE (DE)
- TRZAS: SEPTTR, ERYSGR, PUCCRT/ PUCCRE (NL)
- HORVS: RHYNSE (DE, NL)
- SECCW: ERYSGR (DE, NL). This use has been finally accepted by the zRMS also in BE due to minor status of rye in BE
- TTLWI: PUCCRE, PUCCST (DE)
- TTLWI: PUCCRE (NL)
- TTLSO: ERYSGR, SEPTTR, PUCCRE, PUCCST (DE)
- TTLSO: ERYSGR, SEPTTR, PUCCRE (NL)
- AVESA: ERYSGR, PUCCCO (NL)

The claimed uses not accepted are as follows:

- AVESA: ERYSGR, PUCCCO (DE)

Phytotoxicity, yield, transformation processes, germination, succeeding crops and adjacent crops
No phytotoxicity symptoms were observed after application of ADM.3502.F.1.A at recommended dose rate of 1.0 L/ha in all the trials conducted on barley, rye, triticale, oat and in the vast majority of trials carried out on wheat. Phytotoxicity observed in only 1 trial, had no negative impact on the yield of winter wheat, cultivar Tobak. No reasonable explanation for the occurrence of phytotoxicity, after application of ADM.3502.F.1.A in this trial was given. It can be noticed, that in other 5 trials conducted on winter wheat, cultivar Tobak, no phytotoxicity occurred after application of ADM.3502.F.1.A at recommended dose rate of 1.0 L/ha. Based on the submitted trial results it can be concluded that ADM.3502.F.1.A can be safely used on target cereal crops.
Based on the submitted data it can be also concluded that no adverse effect on transformation processes, seed germination, succeeding crops, adjacent crops is to be expected after application of ADM.3502.F.1.A. Nevertheless, in order to avoid the risk of adverse effects on adjacent crops, being in accordance with the rules of good agricultural practice it is recommended to include, in the product label, the following remark: "*When using* ADM.3502.F.1.A *do not allow spray drift to the neighbouring crop plantations*".

Resistance management strategy

- Non-chemical measures such as resistant crop varieties, plant hygiene, and good agricultural practice should be taken into consideration to reduce the infection pressure of the target pathogens.
- ADM.3502.F.1.A should only be recommended to be used with the full rate, even if used in mixtures.

- ADM.3502.F.1.A should be used predominantly for protective fungi control at the very beginning of an infection or re-infection. A predominantly curative or eradicative control of the pathogens should be avoided.
- Since the number of applications is limited to a maximum of 1 application per crop, for further applications only products should be used which provide a mode of action being non-cross-resistant to DMIs and amines.
- If the performance ADM.3502.F.1.A should decline and a sensitivity testing has confirmed the presence of less sensitive strains, ADM.3502.F.1.A should only be used in mixture or alternation with effective non-cross-resistant partner fungicides.

This strategy is to be considered by the cMSs.

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

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use-No. *	**Member state(s)**	**Crop and/ or situation** (crop destination / purpose of crop)	**F, Fn, Fnp G, Gn, Gnp 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, other dose rate expression, dose range (min-max)	**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)	kg or L product / ha a) max. rate per appl. b) max. total rate per crop/season	g or kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
Zonal uses (field or outdoor uses, certain types of protected crops)														
1	Germany	Winter wheat (TRZAW) Spring wheat (TRZAS)	F	*Septoria tritici* (SEPTTR) *Erysiphe graminis* (ERYSGR) *Drechslera tritici-repentis* (DTR) (PYRNTR) *Puccinia striiformis* (PUCCST) *Puccinia recondita* (PUCCRE)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **TRZAW, TRZAS:** SEPTTR ERYSGR PUCCRTE PYRNTR PUCCST
2	Germany	Winter barley (HORVW) Spring barley (HORVS)	F	*Erysiphe graminis* (ERYSGR) *Rhynchosporium secalis* (RHYNSE) *Helminthosporium gramineum (Pyrenophora teres)* (PYRNTE) *Puccinia hordei* (PUCCHD)	foliar, spraying, overall	-/ BBCH 30-65 61 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **HORVW, HORVS:** ERYSGR RHYNSE PYRNTE PUCCHD
3	Germany	Rye (SECCW)	F	*Erysiphe graminis* (ERYSGR) *Rhynchosporium secalis* (RHYNSE) *Puccinia recondita* (PUCCRE)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A RHYNSE PUCCRE ERYSGR

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use-No. *	**Member state(s)**	**Crop and/ or situation** (crop destination / purpose of crop)	**F, Fn, Fnp G, Gn, Gnp 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, other dose rate expression, dose range (min-max)	**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)	kg or L product / ha a) max. rate per appl. b) max. total rate per crop/season	g or kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
4	Germany	Triticale (TTLSS)	F	*Erysiphe graminis* *Septoria sp./ Septoria tritici* (SEPTSP/ SEPTTR) *Puccinia recondita* (PUCCRE) *Puccinia striiformis* (PUCCST)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **TTLWI/** TTLSO ERYSGR SEPTSP/ SEPTTR PUCCRE PUCCST
5	Germany	Oats (AVESS)	F	*Erysiphe graminis* (ERYSGR) *Puccinia coronata* (PUCCCO)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			**N** **AVESA**: ERYSGR PUCCCO
6	Austria	Winter wheat (TRZAW) Spring wheat (TRZAS)	F	*Septoria tritici* (SEPTTR) *Erysiphe graminis* (ERYSGR) *Drechslera tritici-repentis* (DTR) (PYRNTR) *Puccinia striiformis* (PUCCST) *Puccinia recondita* (PUCCRE)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **TRZAW:** SEPTTR ERYSGR PUCCR~~T~~E C **TRZAW:** PYRNTR PUCCST **TRZAS:** SEPTTR ERYSGR PYRNTR PUCCST PUCCR~~T~~E
7	Austria	Winter barley (HORVW) Spring barley (HORVS)	F	*Erysiphe graminis* (ERYSGR) *Rhynchosporium secalis* (RHYNSE) *Helminthosporium gramineum (Pyrenophora teres)* (PYRNTE) *Puccinia hordei*	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **HORVW:** ERYSGR RHYNSE PYRNTE PUCCHD **HORVS:** ERYSGR PYRNTE PUCCHD

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use-No. *	**Member state(s)**	**Crop and/ or situation** (crop destination / purpose of crop)	**F, Fn, Fnp G, Gn, Gn p 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, other dose rate expression, dose range (min-max)	**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)	kg or L product / ha a) max. rate per appl. b) max. total rate per crop/season	g or kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
				(PUCCHD)										C **HORVS:** RHYNSE
8	Austria	Rye (SECCW)	F	*Erysiphe graminis* (ERYSGR) *Rhynchosporium secalis* (RHYNSE) *Puccinia recondita* (PUCCRE)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A RHYNSE PUCCRE C ERYSGR
9	Austria	Triticale (TTLSS)	F	*Erysiphe graminis* (ERYSGR) *Septoria tritici* (SEPTTR) *Puccinia recondita* (PUCCRE) *Puccinia striiformis* (PUCCST)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **TTLWI**: ERYSGR SEPTTR C **TTLWI**: PUCCRE PUCCST **TTLSO**: ERYSGR SEPTTR PUCCRE PUCCST
10	Austria	Oats (AVESS)	F	*Erysiphe graminis* (ERYSGR) *Puccinia coronata* (PUCCCO)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			C **AVESA**: ERYSGR PUCCCO
11	Belgium	Winter wheat (TRZAW) Spring wheat (TRZAS)	F	*Septoria tritici* (SEPTTR) *Erysiphe graminis*	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **TRZAW:** SEPTTR ERYSGR PUCCR~~T~~E

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use-No. *	**Member state(s)**	**Crop and/ or situation** (crop destination / purpose of crop)	**F, Fn, Fnp G, Gn, Gnp 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, other dose rate expression, dose range (min-max)	**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)	kg or L product / ha a) max. rate per appl. b) max. total rate per crop/season	g or kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
				(ERYSGR) *Puccinia striiformis* (PUCCST) *Puccinia recondita* (PUCCRE)										C **TRZAW:** PUCCST **TRZAS:** SEPTTR ERYSGR PUCCST PUCCR~~T~~E
12	Belgium	Winter barley (HORVW) Spring barley (HORVS)	F	*Erysiphe graminis* (ERYSGR) *Rhynchosporium secalis* (RHYNSE) *Helminthosporium gramineum (Pyrenophora teres)* (PYRNTE) *Puccinia hordei* (PUCCHD)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **HORVW:** ERYSGR RHYNSE PYRNTE PUCCHD **HORVS:** ERYSGR PYRNTE PUCCHD
														C **HORVS:** RHYNSE
13	Belgium	Rye (SECCW)	F	*Erysiphe graminis* (ERYSGR) *Rhynchosporium secalis* (RHYNSE) *Puccinia recondita* (PUCCRE)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A RHYNSE, PUCCRE ERYSGR
14	Belgium	Triticale (TTLSS)	F	*Erysiphe graminis* (ERYSGR) *Septoria tritici*		-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **TTLWI:** ERYSGR SEPTTR

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use-No. *	**Member state(s)**	**Crop and/ or situation** (crop destination / purpose of crop)	**F, Fn, Fnp G, Gn, Gnp 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, other dose rate expression, dose range (min-max)	**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)	kg or L product / ha a) max. rate per appl. b) max. total rate per crop/season	g or kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
				(SEPTTR) *Puccinia recondita* (PUCCRE) *Puccinia striiformis* (PUCCST)	foliar, spraying, overall									C **TTLWI**: PUCCRE PUCCST **TTLSO**: ERYSGR SEPTTR PUCCRE PUCCST
15	Belgium	Oats (AVESS)	F	*Erysiphe graminis* (ERYSGR) *Puccinia coronata* (PUCCCO)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			C **AVESA**: ERYSGR PUCCCO
16	Netherlands	Winter wheat (TRZAW) Spring wheat (TRZAS)	F	*Septoria tritici* (SEPTTR) *Erysiphe graminis* (ERYSGR) *Puccinia striiformis* (PUCCST) *Puccinia recondita* (PUCCRE)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **TRZAW, TRZAS:** SEPTTR ERYSGR PUCCR~~TE~~ C **TRZAW:** PUCCST **TRZAS:** PUCCST
17	Netherlands	Winter barley (HORVW) Spring barley (HORVS)	F	*Erysiphe graminis* (ERYSGR) *Rhynchosporium secalis* (RHYNSE) *Helminthosporium gramineum (Pyrenophora teres)* (PYRNTE) *Puccinia hordei* (PUCCHD)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **HORVW, HORVS:** ERYSGR RHYNSE PYRNTE PUCCHD

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use-No. *	**Member state(s)**	**Crop and/ or situation** (crop destination / purpose of crop)	**F, Fn, Fnp G, Gn, Gnp 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, other dose rate expression, dose range (min-max)	**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)	kg or L product / ha a) max. rate per appl. b) max. total rate per crop/season	g or kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
18	Netherlands	Rye (SECCW)	F	*Erysiphe graminis* (ERYSGR) *Rhynchosporium secalis* (RHYNSE) *Puccinia recondita* (PUCCRE)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A RHYNSE PUCCRE ERYSGR
19	Netherlands	Triticale (TTLSS)	F	*Erysiphe graminis* (ERYSGR) *Septoria tritici* (SEPTTR) *Puccinia recondita* (PUCCRE) *Puccinia striiformis* (PUCCST)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **TTLWI, TTLSO**: ERYSGR SEPTTR PUCCRE C **TTLWI**: PUCCST **TTLSO**: PUCCST
20	Netherlands	Oats (AVESS)	F	*Erysiphe graminis* (ERYSGR) *Puccinia coronata* (PUCCCO)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **AVESA**: ERYSGR PUCCCO
21	Czechia	Winter wheat (TRZAW) Spring wheat (TRZAS)	F	*Septoria tritici* (SEPTTR) *Erysiphe graminis* (ERYSGR) *Puccinia striiformis* (PUCCST) *Puccinia recondita* (PUCCRE)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **TRZAW:** SEPTTR ERYSGR PUCCR~~T~~E C **TRZAW:** PUCCST **TRZAS:** SEPTTR ERYSGR PUCCST PUCCR~~T~~E

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use-No. *	**Member state(s)**	**Crop and/ or situation** (crop destination / purpose of crop)	**F, Fn, Fnp G, Gn, Gn p 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, other dose rate expression, dose range (min-max)	**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)	kg or L product / ha a) max. rate per appl. b) max. total rate per crop/season	g or kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
22	Czechia	Winter barley (HORVW) Spring barley (HORVS)	F	*Erysiphe graminis* (ERYSGR) *Rhynchosporium secalis* (RHYNSE) *Helminthosporium gramineum (Pyrenophora teres)* (PYRNTE) *Puccinia hordei* (PUCCHD)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **HORVW:** ERYSGR RHYNSE PYRNTE PUCCHD **HORVS:** ERYSGR PYRNTE PUCCHD C **HORVS:** RHYNSE
23	Poland	Winter wheat (TRZAW) Spring wheat (TRZAS)	F	*Septoria tritici* (SEPTTR) *Erysiphe graminis* (ERYSGR) *Drechslera tritici-repentis* (DTR) (PYRNTR) *Puccinia striiformis* (PUCCST) *Puccinia recondita* (PUCCRE)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **TRZAW:** SEPTTR ERYSGR PYRNTR PUCCST PUCCRTE **TRZAS:** SEPTTR ERYSGR PYRNTR N **TRZAS:** PUCCST PUCCRTE
24	Poland	Winter barley (HORVW) Spring barley (HORVS)	F	*Erysiphe graminis* (ERYSGR) *Rhynchosporium secalis* (RHYNSE) *Helminthosporium gramineum (Pyrenophora teres)* (PYRNTE) *Puccinia hordei* (PUCCHD)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **HORVW, HORVS:** ERYSGR RHYNSE PYRNTE PUCCHD

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use-No. *	**Member state(s)**	**Crop and/ or situation** (crop destination / purpose of crop)	**F, Fn, Fnp G, Gn, Gnp 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, other dose rate expression, dose range (min-max)	**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)	kg or L product / ha a) max. rate per appl. b) max. total rate per crop/season	g or kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
25	Poland	Triticale (TTLSS)	F	*Erysiphe graminis* (ERYSGR) *Septoria tritici* (SEPTTR) *Puccinia recondita* (PUCCRE) *Puccinia striiformis* (PUCCST)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **TTLWI**: ERYSGR SEPTTR PUCCRE PUCCST N **TTLSO**: ERYSGR SEPTTR PUCCRE N PUCCST (possible registration under art.51)
26	Hungary	Winter wheat (TRZAW) Spring wheat (TRZAS)	F	*Septoria tritici* (SEPTTR) *Erysiphe graminis* (ERYSGR) *Puccinia striiformis* (PUCCST) *Puccinia recondita* (PUCCRE)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 0.8 - 1 L/ha b) 0.8 - 1 L/ha	a) 140-175 / 200-250 b) 140-175 / 200-250	100-400			A **TRZAW:** SEPTTR C **TRZAW:** ERYSGR PUCCST PUCCR~~T~~E **TRZAS:** SEPTTR ERYSGR PUCCST PUCCR~~T~~E
27	Hungary	Winter barley (HORVW) Spring barley (HORVS)	F	*Erysiphe graminis* (ERYSGR) *Rhynchosporium secalis*	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 0.8 - 1 L/ha b) 0.8 - 1 L/ha	a) 140-175 / 200-250 b) 140-175 / 200-250	100-400			A **HORVW, HORVS:** ERYSGR PYRNTE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use-No. *	**Member state(s)**	**Crop and/ or situation** (crop destination / purpose of crop)	**F, Fn, Fnp G, Gn, Gnp 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, other dose rate expression, dose range (min-max)	**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)	kg or L product / ha a) max. rate per appl. b) max. total rate per crop/season	g or kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
				(RHYNSE) *Helminthosporium gramineum (Pyrenophora teres)* (PYRNTE) *Puccinia hordei* (PUCCHD)										C **HORVW, HORVS:** RHYNSE PUCCHD
28	Slovakia	Winter wheat (TRZAW) Spring wheat (TRZAS)	F	*Septoria tritici* (SEPTTR) *Erysiphe graminis* (ERYSGR) *Puccinia striiformis* (PUCCST) *Puccinia recondita* (PUCCRE)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 0.8 - 1 L/ha b) 0.8 - 1 L/ha	a) 140-175 / 200-250 b) 140-175 / 200-250	100-400			A **TRZAW:** SEPTTR C **TRZAW:** ERYSGR PUCCST PUCCR~~T~~E **TRZAS:** SEPTTR ERYSGR PUCCST PUCCR~~T~~E
29	Slovakia	Winter barley (HORVW) Spring barley (HORVS)	F	*Erysiphe graminis* (ERYSGR) *Rhynchosporium secalis* (RHYNSE) *Helminthosporium gramineum (Pyrenophora teres)* (PYRNTE) *Puccinia hordei* (PUCCHD)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 0.8 - 1 L/ha b) 0.8 - 1 L/ha	a) 140-175 / 200-250 b) 140-175 / 200-250	100-400			A **HORVW, HORVS:** ERYSGR PYRNTE C **HORVW, HORVS:** RHYNSE PUCCHD
106	Ireland	Winter wheat (TRZAW) Spring wheat (TRZAS)	F	*Septoria tritici* (SEPTTR) *Erysiphe graminis*	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **TRZAW:** SEPTTR ERYSGR PUCCR~~T~~E

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use-No. *	**Member state(s)**	**Crop and/ or situation** (crop destination / purpose of crop)	**F, Fn, Fnp G, Gn, Gn p 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, other dose rate expression, dose range (min-max)	**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)	kg or L product / ha a) max. rate per appl. b) max. total rate per crop/season	g or kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
				(ERYSGR) *Drechslera tritici-repentis* (DTR) (PYRNTR) *Puccinia striiformis* (PUCCST) *Puccinia recondita* (PUCCRE)										C **TRZAW:** PYRNTR PUCCST **TRZAS:** SEPTTR ERYSGR PYRNTR PUCCST PUCCRE
107	Ireland	Winter barley (HORVW) Spring barley (HORVS)	F	*Erysiphe graminis* (ERYSGR) *Rhynchosporium secalis* (RHYNSE) *Helminthosporium gramineum (Pyrenophora teres)* (PYRNTE) *Puccinia hordei* (PUCCHD)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **HORVW:** ERYSGR RHYNSE PYRNTE PUCCHD **HORVS:** ERYSGR PYRNTE PUCCHD
														C **HORVS:** RHYNSE
108	Ireland	Rye (SECCW)	F	*Erysiphe graminis* (ERYSGR) *Rhynchosporium secalis* (RHYNSE) *Puccinia recondita* (PUCCRE)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A RHYNSE PUCCRE
														C ERYSGR
109	Ireland	Triticale (TTLSS)	F	*Erysiphe graminis* (ERYSGR) *Septoria tritici*		-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			A **TTLWI**: ERYSGR SEPTTR

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use-No. *	**Member state(s)**	**Crop and/ or situation** (crop destination / purpose of crop)	**F, Fn, Fnp G, Gn, Gnp 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, other dose rate expression, dose range (min-max)	**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)	kg or L product / ha a) max. rate per appl. b) max. total rate per crop/season	g or kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
				(SEPTTR) *Puccinia recondita* (PUCCRE) *Puccinia striiformis* (PUCCST)	foliar, spraying, overall									C **TTLWI**: PUCCRE PUCCST **TTLSO**: ERYSGR SEPTTR PUCCRE PUCCST
110	Ireland	Oats (AVESS)	F	*Erysiphe graminis* (ERYSGR) *Puccinia coronata* (PUCCCO)	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	--	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			C **AVESA**: ERYSGR PUCCCO

* 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

Column 15: zRMS conclusion.

A	Acceptable
R	Acceptable with further restriction
C	To be confirmed by cMS
N	Not acceptable / evaluation not possible

3.2 Efficacy data (KCP 6)

Introduction

This document summarises the information related to the efficacy data for the registration of the plant protection product ADM.3502.F.1.A. ADM.3502.F.1.A is a fungicide based on the well-known and proven fungicidal active ingredients prothioconazole and fenpropidin. Up to now, ADM.3502.F.1.A is not authorised in any country of the EU.

For the reason of the application for registration this dossier is compiled according to Commission Regulation 1107/2009 dated 21.10.2009 and guideline SANCO/6895/2009 rev 1 dated 02.10.2009 (Guidance on the presentation and evaluation of dossiers) and follows the data requirements of Commission Regulation (EU) No 545/2011 dated 10 June 2011. It is based on the results of field trials carried out in the years 2018 to 2020 for the assessment of the biological performance. The trials were carried out in Czech Republic, Germany, Hungary, Poland, Romania, and Slovakia and Lithuania by official testing facilities and private testing organisations.

Table 3.2-1: Zonal rapporteur member state (zRMS) and concerned member states (cMS).

Central Zone	zRMS	Poland	PL
	cMS	Austria	AT
		Belgium	BE
		Czech Republic	CZ
		Germany	GE
		Hungary	HU
		Ireland	IE
		Netherlands	NL
		Slovakia	SK

Description of active substances / Mode of action

Table 3.2-21: Details of the active substances

Active substance	prothioconazole	fenpropidin
Concentration (Unit: g/kg or g/L...)	175 g/L	250 g/L
Chemical group	**triazoles**	**amines**
Mode of action	DeMethylation Inhibitors	Inhibition of $\triangle^{14}$-reductase and $\triangle^{8}\rightarrow\triangle^{7}$-isomerase in sterol biosynthesis
Biological action	Systemic fungicide	Systemic fungicide
Degradation in soil (DT_{50})	*Lab (DT_{50}): 0.07 to 1.27 days median: 0.5 days (n=4) Field (DT_{50f}): 1.3 to 2.8 days median: 1.6 days (n=8)	**Lab (DT_{50}): 49 to 84 days (n=6) Field (DT_{50f}): 7 to 116 days (n=6)
Mobility in soil	Low mobility in soil	Low mobility in soil
Date of approval (Annex I)	01.08.2008	01.01.2009
Expiration of approval	31.07.2021	01.12.2021

*) Based on EFSA Scientific Report (2007) 106, 1-98, Conclusion on the peer review of prothioconazole.
**) Based on EFSA Scientific Report (2007) 124, 1-84, Conclusion on the peer review of fenpropidin

Description of the plant protection product

ADM.3502.F.1.A contains the active ingredient (AI) prothioconazole and fenpropidin and is formulated as an emulsifiable concentrate (EC). It contains 175 g/L of prothioconazole and 250 g/L of fenpropidin. Information on the detailed composition of ADM.3502.F.1.A can be found in the confidential dossier of this submission (Registration Report - Part C).

At present ADM.3502.F.1.A is not yet authorized in any EU member state.

Description of the target pests

Powdery Mildew *(Blumeria graminis)* on cereals – EPPO code: ERYSGR (also valid for ERYSGA, ERYSGH, ERYSGT, and ERYSGS)

Powdery mildew caused by ERYSGR has host specific forms in wheat *(f.sp. tritici)* - ERYSGT, barley *(f.sp. hordei)* – ERYSGH, rye *(f.sp. secalis)* – ERYSGS, and oats *(f.sp. avenae)* - ERYSGA.
Effects on the crop:
Powdery mildew is one of the most important leaf diseases in cereals. It is spread worldwide. Being an obligate parasite, *Blumeria graminis* can only infest living green plant tissue. In wheat and rye, infestations of the flag leaf and of the glumes may lead to significant yield losses of about 25%, dependent on the begin of infection and the epidemic process. (OBST, A. und GEHRING, K., 2002[1]). Losses in grain yield from mildew can be due to reduced photosynthesis and increases in respiration and transpiration. Grain number and size can also be adversely affected.

Leaf Spot *(Zymoseptoria tritici)* on wheat and triticale – EPPO Code: SEPTTR
Effects on the crop:
Zymoseptoria tritici the pathogen causing leaf spot disease on wheat occurs predominantly on wheat and is one of the most important pathogens causing leaf diseases in this crop. However, also other cereal crops such as triticale can be infested as well as numerous grass species. Beside the leaves also stems and nodes can be infected. In single cases yield losses of about 30% can be caused, dependent on the beginning of infection and the epidemic process. (Obst, A. und Gehring, K., 2002). They are caused by the loss of green leaf areas leading to a changed sink-source relationship in the plant holding back assimilates and nitrogen substances in the leaves.

Rust diseases *(Puccinia* species*)* on cereals – EPPO codes: PUCCRE, PUCCHD, PUCCST, PUCCCO
Effects on the crop:
Puccinia recondita is the most prevalent of all the wheat rust diseases, occurring in nearly all areas where wheat is grown. It is the economically most important rust species on wheat, rye and triticale and is present in all production areas. Early infestations can lead to substantial yield and quality losses since the number of grains, the TGW and the protein content can be reduced. (Obst, A. und Gehring, K., 2002).
In addition to the brown rust pathogen, other rust species may occur on wheat and barley. The most common species are ***P. striiformis*** – PUCCST (yellow rust of wheat and triticale), ***P. hordei*** – PUCCHD (brown rust of barley), ***P. graminis*** – PUCCGR (black stem rust of cereals), and ***P. coronata*** – PUCCCO (crown rust on oats). Which rust disease is most important depends on complex interactions between inoculum sources, varietal resistance, and climatic conditions. All rust diseases can lead to significant yield loss and often occur in complexes with other foliar diseases on wheat and barley.

Tan spot / DTR-disease *(Pyrenophora tritici-repentis = Drechslera tritici-repentis*) on wheat – EPPO Code: PYRNTR
Effects on the crop:
Pyrenophora tritici-repentis is a fungal plant pathogen, causing tan spot (DTR-disease) that affects mainly wheat. Heavily infested leaves may wither and die. *Pyrenophora tritici-repentis* can also infect wheat grains causing red or pink smudge and black point. Severely infested kernels can result in significant down grading of seed quality. Severe infection by DTR-disease in the seedling stage can kill or severely weaken plants. Leaf spotting diseases reduce the photosynthetic area of leaves resulting in reduced TGW (thousand- grain weight) and lower yields (Obst, A. und Gehring, K., 2002), particularly, if the top two leaves (penultimate and flag leaves) are severely infested. Yield losses caused by tan spot can be as high as 30 to 40 %, but generally range from three to 15 %.

Scald *(Rhynchosporium secalis)* on barley and rye – EPPO Code: RHYNSE

[1] Obst, A. und Gehring, K.: Getreide – Krankheiten · Schädlinge · Unkräuter; Verlag Th. Mann, Gelsenkirchen, 2002

Effects on the crop:
Rhynchosporium secalis is the causal agent of barley and rye scald. The disease is an economically important in barley in Europe, North America, and Australia. It has been reported from South America, Africa, the Middle East, Japan, and Korea. Yield losses as high as 35-40 % have been reported, however, losses of 1-10 % are more common. Yield loss is primarily due to reduced kernel weight, but both kernels per head and number of heads per plant may also been affected.

Net Blotch *(Pyrenophora teres)* on barley – EPPO Code: PYRNTE
Effects on the crop:
Severe infection kills leaves prematurely and causes reduced seed weight. It may also reduce the number of ears and the number of grains per ear. Populations of pathogen are highly heterogenic on virulence. In cereal growing areas with favourable climatic conditions, damage from *Pyrenophora* can have serious economic consequences and reduce farm yields by up to 50 %.

Table 3.2-2: Glossary of pests mentioned in the dossier.

EPPO code	Scientific name / common synonyms	Common name
ERYSGR	*Blumeria graminis / Erysiphe graminis*	powdery mildew
ERYSGA	*Blumeria graminis f. sp. avenae / Erysiphe graminis f. sp. avenae*	powdery mildew of oats
ERYSGH	*Blumeria graminis f. sp. hordei / Erysiphe graminis f. sp. hordei*	powdery mildew of barley
ERYSGS	*Blumeria graminis f. sp. secalis / Erysiphe graminis f. sp. secalis*	powdery mildew of rye
ERYSGT	*Blumeria graminis f. sp. tritici / Erysiphe graminis f. sp. tritici*	powdery mildew of wheat
PUCCCO	*Puccinia coronata*	crown rust of grasses
PUCCCA	*Puccinia coronata var. avenae*	crown rust of oats
PUCCHD	*Puccinia hordei*	brown rust of barley
PUCCRE	*Puccinia recondita*	brown rust of cereals
PUCCRR	*Puccinia recondita f. sp. recondita*	brown rust of rye
PUCCRT	*Puccinia triticina / Puccinia recondita f. sp. tritici*	brown rust of wheat
PUCCST	*Puccinia striiformis*	yellow rust of grasses
PUCCSI	*Puccinia striiformis f. sp. tritici*	yellow rust of wheat
PYRNSP / DRECSP / HELMSP	*Pyrenophora species / Drechslera species / Helminthosporium species/*	
PYRNAV	*Pyrenophora avenae / Drechslera avenae / Helmintosporium avenae*	leaf spot of oats
PYRNGR	*Pyrenophora graminea / Drechslera graminea / Helmintosporium gramineum*	stripe disease of barley
PYRNTE	*Pyrenophora teres /Drechslera teres / Helminthosporium teres*	net blotch of barley
PYRNTM	*Pyrenophora teres f. sp. maculata / Helminthosporium teres f. sp. maculata*	net-spot blotch of barley
PYRNTR	*Pyrenophora tritici-repentis / Drechslera tritici-repentis (DTR) /Helminthosporium tritici-repentis*	tan spot of wheat
RHYNSE	*Rhynchosporium secalis*	leaf blotch of cereals
SEPTSP	*Septoria species*	
SEPTTR	*Zymoseptoria tritici / Septoria tritici / Mycosphaerella graminicola*	leaf spot of wheat
SEPTSE	*Septoria secalis*	leaf spot of rye

Table 3.2-3: Major / minor status of intended uses (for all cMS and zRMS).

Crop and/or situation	Crop status		Pests or group of pests controlled	Pest status	
	Major	minor		Major	minor
Wheat	PL, DE, AT, BE, NL, CZ, IE, SK, HU		SEPTTR PYRNTR PUCCST PUCCRT ERYSGT	PL, DE, AT, BE, NL, IE, CZ, SK, HU	
Barley			ERYSGH RHYNSE PYRNTE PUCCHD	DE, AT, BE, NL, IE, CZ, PL, SK, HU	
Rye	PL, DE, AT, ~~NL~~, IE, CZ, HU	BE, ~~HU,~~ SK , NL	ERYSGS RHYNSE PUCCRR	PL, DE, AT, NL, IE, CZ	BE, HU, SK
Triticale	PL, DE, AT, BE, NL, CZ, IE, HU	~~HU,~~ SK	SEPTTR PUCCRE PUCCST ÊRYSGR	PL, DE, AT, BE, NL, CZ, IE	HU, SK
Oats	DE, AT, BE, ~~NL,~~ PL	NL	PUCCCO ERYSGA	DE, AT, BE, NL, PL	

Compliance with the Uniform Principles

The assessment complies with the Uniform Principles

Information on trials submitted (3.1 Efficacy data)

The following EPPO guidelines relate to the conduct of fungicide trials for the control of foliar diseases on wheat, barley, rye, triticale, oats, crop safety, and the assessment of target pathogen infestations on which data are presented in this dossier.

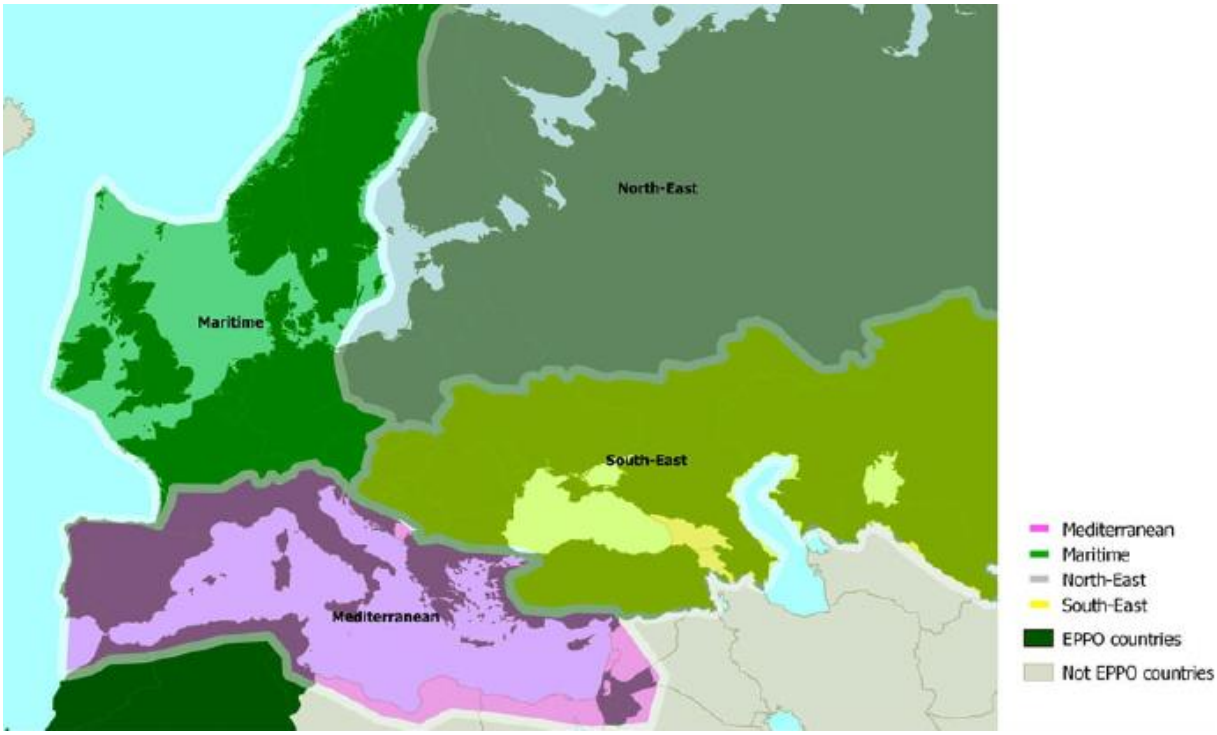
EPPO guidelines followed:
EPPO guideline N° PP1/181: Conduct and reporting of efficacy evaluation trials.
EPPO guideline N° PP1/152: Design and analysis of efficacy evaluation trials.
EPPO guideline N° PP1//241: Guidance on Comparable Climates.
EPPO guideline N° PP1/225: Minimum Effective Dose.
EPPO guideline N° PP1/026: Foliar and ear diseases on cereals.

In accordance with the guideline, the trials were established as field trials. All the trials were placed within regions where cereals are commonly grown.

Based on EPPO guideline 1/241(2) "Guidance on comparable climates", the trials included in this dossier have been grouped by EPPO zones. 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 Maritime zone, the Mediterranean zone, the North-East zone, and the South-East zone.
However, as demonstrated by comparisons of climatic conditions[2,3], trial results achieved in Poland (EPPO zone North-East) can also been considered supportive for the EPPO zones Maritime and South-East, and vice versa.

[2] Lopatka, A: et al.: Expert report regarding division of Europe into regions characterized by homogenous soil and climatic conditions, within the boundaries of which the results of efficacy evaluation of pesticides can be relevant for the entire region; Institute of Soil Science and Plant Cultivation – State Research Institute Pulawy, February 2012
[3] Anonymous: Report on comparison of regions: Zachodniopomorskie (Polska) and Podkarpackie (Polska)

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 presented in this dossier have been carried out in the following EPPO zones and countries:

Maritime: ~~Austria, Belgium,~~ Czech Republic, Germany~~, Ireland, Netherlands, United Kingdom.~~

North-East: Poland, Lithuania.

South-East: Hungary, Romania, Slovakia.

Table 3.2-4: Presentation of trials

Crop	Targets	Country	Years	Type of trial	# of tirals				Total	GEP
					Mari-time	Mediter-anean	N-East	S-East		
TRZAW	**across targets**	**CZ**	2018-2020	**MED+E**	13					Y
		DE	2018-2020	**MED+E**	27					Y
		HU	2018-2020	**MED+E**				23		Y
		PL	2018-2019	**MED+E**			12			Y
		SK	2020	**MED+E**				6		Y
		Total		**MED+E**	**40**		**12**	**29**	**81**	
HORVW	**across targets**	**CZ**	2018-2020	**MED+E**	5					Y
		DE	2018-2019	**MED+E**	13					Y
		HU	2018-2020	**MED+E**				16		Y
		PL	2019	**MED+E**			8			Y
		SK	2018/2020	**MED+E**				8		Y
		Total		**MED+E**	**18**		**8**	**24**	**50**	
HORVS	**across targets**	**CZ**	2018-2020	**MED+E**	11					Y
		Total		**MED+E**	**11**				**11**	
HORVX		**Total**		**MED+E**	**29**		**8**	**24**	**61**	
SECCW	**across targets**	**CZ**	2019-2020	**MED+E**	2					Y
		DE	2019-2020	**MED+E**	21					Y
		Total		**MED+E**	**23**				**23**	
TTLWI	**across targets**	**CZ**	2019-2020	**MED+E**	13					Y
		DE	2019-2020	**MED+E**	14					Y
		PL	2019	**MED+E**			8			Y
		RO	2019	**MED+E**				4		Y
		Total		**MED+E**	**27**		**8**	**4**	**39**	
TTLSO	**across targets**	**DE**	2019	**MED+E**	1					Y
		Total		**MED+E**	**1**				**1**	
TTLSS				**MED+E**	**28**		**8**	**4**	**40**	
AVESA	**across targets**	**CZ**	2019-2020	**MED+E**	5					Y
		DE	2019-2020	**MED+E**	3					Y
		LT	2020	**MED+E**	2					Y
		Total		**MED+E**	~~8~~ **10**				~~8~~ **10**	

* According to the GAP table. Timing of the application(s) can be added if relevant (e.g. Pre-mergence vs post-emergence, spring vs autumn).

** P = preliminary trial, MED = minimum effective dose, E = efficacy trial.

*** GEP: Good Experimental Practices. Official: carried out by a national official organisation.

Maps showing the distribution of trials are presented separately for each use in the relevant efficacy section.

Table 3.2-5: Presentation of reference standards used in trials

RP ID	Trade name	Formul. Type	Active ingredient(s)	Rate (/ha)	Country	Reg:-N°
Zonal reference products						
1	Input Classic Input 460 EC	EC	prothioconazole 160 g/L - spiroxamine 300 g/L	1.25	CZ, DE, ES, FR, HU, IT, PL, RO, SK	CZ: 33038; DE: 025625-00; FR 2100056; PL: R-61/2011
2	Input 460 EC			1	DK, LT, LV	DK: 18-604; LT: AS2-57F(2016); LV: 0266
Additional reference products						
4	Amistar	SC	azoxystrobin 250 g/L	1	DE	DE: 5090-00; LV: 0187
5	Amistar Gold	SC	azoxystrobin 125 g/L – difenconazole 125 g/L	2.5	CZ, RO	DE: 8267-00; RO: 424PC/05.06.2018
7	Artemis	EC	prochloraz 200 g/L - fenpropidin 150 g/L tebuconazole 100 g/L	2	HU; PL	PL: R-10/2016
8	Delaro 325 SC	SC	prothioconazole 175 g/L trifloxistrobin 150 g/L	1	PL	PL: R-18/2016wu
10	Fandango	EC	fluoxastrobin 100 g/L - prothioconazole 100 g/L	1.5	DE, LV	LV: 0264
11	Hutton	EC	prothioconazole 100 g/L - spiroxamine 250 g/L, tebuconazole 100 g/L	0.8-1	CZ	CZ: 4662-1
12	Leander	EC	fenpropidin 750 g/L	0.25	DE, HU, LT, LV, PL, SK	DE: 006345-00; HU: 04.2/1497-1/2011; PL: R-254/2014
14	Mercury Pro	SC	azoxystrobin 200 g/L - cyproconazole 80 g/L	1	DE	DE: 8015-00
15	Mirador Xtra	SC	azoxystrobin 200 g/L - cyproconazole 80 g/L	0.75-1	CZ	CZ: 4626-1
16	Orius P	EW	tebuconazole 133 g/L – prochloraz 267 g/L	1.5	HU	
17	Proline Joao Praktis	EC	prothioconazole 250 g/L	0.7	CZ, DE, ES, FR, HU, LT, LV, PL, RO, SK	DE: 025287-00; FR: 2060116; HU: 6300/1205-1/2020; PL: R-222/2019
18	Rubric XL	SC	Azoxystrobin 200 g/L - epoxiconazole 100 g/L	1	PL	PL: R-238/2016
19	Sfera 535 SC	SC	trifloxystrobin 375 g/L – cyproconazole 160 g/L	0.35	RO	RO:2854/02.09.2010
20	Slape Trio	EC	prothioconazole 53 g/L spiroxamine 224 g/L tebuconazole 148 g/L	0.7	CZ	CZ: 4760-2
22	Tebusha 25 EW	EW	tebuconazole 250 g/L	1	HU	HU: 04.2/2887-2/2014
23	Tebusip	EC	tebuconazole 250 g/L	1	CZ	CZ: 5374-0
24	Zamir	EW	Tebuconazole 133 g/L – prochloraz 267 g/L	1.5	HU	HU: 04.2/3402-1/2012
25	Zoxis Super	SC	azoxystrobin 250 g/L	1	DE	DE: A124-00

Data are summarised by uses. Within uses they are summarised by EPPO climatic zones and, if there is no significant difference between trials from different EPPO climatic zones, the synthesis across the EPPO zones is discussed.

Detailed information about the testing facilities/organisations and their certificates of recognition is provided in section 3.7.

3.2.1 Preliminary tests (KCP 6.1)

Prothioconazole and fenpropidin, the active ingredients of ADM.3502.F.1.A, are authorised and widely used for the control of fungal pathogens in many countries inside and outside of Europe. The major background for the combination of these two active ingredients is the prevention of fungicide resistance. Although both active ingredients are sterol biosynthesis inhibiters (SBIs), they have different target sites in the sterol biosynthesis and are known to be not cross resistant (please refer to section 6.3). Since powdery mildew fungies, which belong to the high-risk pathogens for the development of resistance, are well controlled target pathogens of fenpropidin, the combination with prothioconazole, providing a broad-spectrum activity against fungi species on arable crops, is deemed to be highly valuable to prevent resistance development.

According to the FRAC recommendations for SBI fungicides (please refer to section 6.3), it is critical to reduce the rate of DeMethylation-Inhibitors (DMIs, e.g. prothioconazole) in combination with other non cross resistant fungicides. Thus, in the combination product ADM.3502.F.1.A, the rate of prothioconazole is kept on the high level of 175 g/ha combined with 250 g/ha of fenpropidin, known to provide solid efficacy in combination with DMIs). Special preliminary combination trials for these two well known active ingredients are deemed not necessary.

In a number of efficacy trials the efficacy of prothioconazole (Proline or JOAO) is directly compared the efficacy of ADM.3502.F.1.A. The results against *Erysiphe* species and *Puccinia recondite or Puccinia hordei* are presented below. An overview of the trial distribution is given in table 6.1/1.

Table 6.1/1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A compared to Proline in the control of ERYSSP and PUCCRE or PUCCHD

Crop	EPPO zone	Country	~~2019~~ 2018	~~2020~~ 2019	Sum
AVESA	Maritime	DE		1	**1**
HORVX	Maritime	CZ	2	1	3
HORVX	Maritime	DE	1	~~7~~ 6	8
HORVX	Maritime	FR	1	4	5
HORVX	Mediterr.	FR	1		1
HORVX	North-East	LT	1		1
HORVX	North-East	PL		2	2
HORVX	South-East	HU	2	2	4
HORVX	South-East	SK	2		2
	Sum		**10**	~~16~~ **15**	~~26~~ **25**
SECSS	Maritime	DE		8	**8**
TRZSS	Maritime	CZ	2	6	8
TRZSS	Maritime	DE	9	~~11~~ 9	~~20~~ 18
TRZSS	Maritime	FR	6	5	11
TRZSS	Mediterr.	FR	~~1~~	~~2~~ 1	~~3~~ 1
TRZSS	North-East	LT	2		2
~~TRZSS~~	~~North-East~~	~~LV~~	~~1~~		~~1~~
TRZSS	North-East	PL	2	4	6
TRZSS	South-East	HU	5	4	9
	Sum		~~28~~ **26**	~~32~~ **29**	~~60~~ **55**
TTLSS	Maritime	CZ		4	4
TTLSS	Maritime	DE		~~2~~ 1	~~2~~ 1
TTLSS	North-East	PL		2	2
TTLSS	South-East	RO		1	1
	Sum		**0**	~~9~~ **8**	~~9~~ **8**
Across crops			~~38~~ **36**	~~74~~ **61**	~~112~~ **97**

In total the results are based on ~~104 trials~~ 97 valid trials. Information about material and methods is given in table 6.1/2.

Table 6.1/2: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/152(3/4), PP 1/181(3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks(104)
	Plot size	10 to 30 m²
	Number of replications	4
Crop	Trials per crop	wheat: ~~60~~ 55; barley: ~~26~~ 25; rye: 8; triticale: ~~9~~ 8; oats: 1
	Varieties	wide range of commercially grown varieties
Application	Timing	at infestation or re-infestation
	Number of applications	1 to 2
	Assessment types	% Pest severity [PESSEV]: % infested area on the rated plant parts
Assessment	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Blumeria graminis* infestations should be carried out preferably in the area of crop GS 75 (BBCH) in small grain cereals.
	Natural / artificial innoculation	Natural ~~(104)~~ (97)
Other relevant information	Field / Laboratory	Field ~~(104)~~ (97)

The results are presented in table 6.1/3.

Table 6.1/2: Efficacy of ADM.3502.F.1.A against ERYSSP and PUCCRE or PUCCHD compared to Proline or JOAO

		Pathogen					
		ERYSSP			PUCCRE or PUCCHD*		
Crop	Product	mean	median	n	mean	median	n
TRZAX	ADM.3502.F.1.A 1 L/ha	87	94	~~22~~ 25	89	~~93~~ 94	~~36~~ 37
	Proline 0.7-0.8 L/ha	~~83~~ 82	81	~~22~~ 25	~~80~~ 79	~~81~~ 80	~~36~~ 37
HORVX	ADM.3502.F.1.A 1 L/ha	91	~~87~~ 89	7	~~93~~ 94	~~93~~ 98	~~22~~ 21
	Proline 0.7-0.8 L/ha	90	90	7	~~91~~ 93	~~92~~ 96	~~22~~ 21
~~SECWI~~ SECCW	ADM.3502.F.1.A 1 L/ha	-	-	-	90	97	8
	Proline 0.8 L/ha	-	-	-	87	92	8
~~TTLSS~~ TTLWI	ADM.3502.F.1.A 1 L/ha	~~95~~ 97	96	~~1~~ 3	~~93~~ 94	~~94~~ 96	7
	Proline0.8 L/ha	~~86~~ 91	90	~~1~~ 3	89	91	7
AVESA	ADM.3502.F.1.A 1 L/ha	~~70~~ 80	-	1	-	-	-
	Proline 0.8 L/ha	~~54~~ 51	-	1	-	-	-

*PUCCHD controlled on barley

Compared to Proline or JOAO (0.7 to 0.8 L/ha), the mean results demonstrate a comparable to higher performance of ADM.3502.F.1.A 1, applied at 1 L/ha against *Erysiphe* species and *Puccinia ~~redondita~~ recondita or Puccinia hordei* in the different crops. Comparing the median of the results in wheat (ERYSGT and PUCCRE or PUCCHD), the differences between the performance of ADM.3502.F.1.A and Proline are more expressed, indicating that the variability of the results is clearly reduced with the combination product.

Conclusion

Based on the benefits with respect to resistance prevention and based on the reduced variability in controlling fungi pathogens like *Erysiphe* species and *Puccinia recondita* or *Puccinia hordei* the combination of the active ingredients of ADM.3502.F.1.A and their rate ratio are justified.

Comments of zRMS on:
Preliminary (3.2.1)

ADM.3502.F.1.A is a new co-formulated fungicide containing 175 g/L prothioconazole and 250 g/L fenpropidin. Ninety seven valid trials (with relevant infestation level: pest severity >5% on UNCK) carried out on wheat (55), barley (25), triticale (8), rye (8) and oat (1) presents data on efficacy of ADM.3502.F.1.A compared with Proline or JOAO containing single prothioconazole. The benefits of use prothioconazole with fenpropidin as compared with single prothioconazole are seen in the control of ERYSGR and/or PUCCRE on wheat, rye, triticale and oat. Slight difference in the average value of efficacy between ADM.3502.F.1.A and Proline in the control of ERYSGR and PUCCHD was noted on barley. The highest difference in efficacy (29%) in the control of ERYSGR on oat, between ADM.3502.F.1.A and Proline in favor of ADM.3502.F.1.A was observed in 1 trial conducted in Germany.
Based on the submitted preliminary efficacy trial results it can be concluded that the use of co-formulation of prothioconazole with fenpropidin has been justified.

3.2.2 Minimum effective dose tests (KCP 6.2)

In total ~~213~~ 215 trials were established to assess the minimum effective dose of ADM.3502.F.1.A. In cereal crops the target rate of ADM.3502.F.1.A is 1 L/ha. The reduced tested rates of ADM.3502.F.1.A are 0.8 L/ha and 0.5 L/ha. In accordance with the EPPO guideline PP 1/225(1) "Minimum effective dose", the rate range reflects 50 %, 80 % and 100 % of the recommended dose rate of ADM.3502.F.1. Efficacy is tested under a range of environmental conditions to fully challenge the product. All trials included in this section are also included in section 3.2.3. The detailed methods and materials are described in section 3.2.3.

All trials were conducted to GEP and followed the appropriate EPPO standards by officially recognized testing organisations. The results presented are based on field trials. All trials were of a randomized block design with four replicates. All field trials were of a minimum plot size of 10 m^2. As a zonal reference product Input (respectively Input Classic) was used and applied at its authorised rate.

Although ADM.3502.F.1.A is intended to be applied only once per season, in the vast majority of the trials it was applied twice for a product specific comparison to the reference product and to avoid interferences with other products applied in sequence with the test- or the reference product.

For more details on materials and methods, please refer to sections 3.2.3.1 to 3.2.3.22.

Fungal diseases on wheat

Table ~~6.1.2-1~~ 3.2.2-1gives an overview on the dose response results from trials carried out for the control of foliar diseases on wheat. Target pathogens in wheat are *Zymoseptoria tritici* [SEPTTR], *Pyrenophora tritici repentis* [PYRNTR], *Puccinia striiformis* [PUCCST], *Puccinia triticina* [PUCCRT; PUCCRE], and *Blumeria graminis* [ERYSGT; ERYSGR]. Due to climatical comparability the number of Polish trials is supplemented by fully supportive trials from Germany, Czech Republic, and Slovakia.

Table 3.2.2-1: Number and distribution of dose response trial results for the control of fungal diseases on wheat

Target	EPPO zone	Country	2018	2019	2020	Sum
SEPTTR	Maritime	CZ	1	4	3	**8**
		DE	7	10	2	**19**
	North-East	PL		2		**2**
	South-East	HU	2	2	1	**5**
		SK			3	**3**
	Sum		**10**	**18**	**9**	**37**
PYRNTR	Maritime	CZ	1			**1**
		DE	2	2	1	**5**
	North-East	PL		2		**2**
	South-East	HU		4	2	**6**
		SK			3	**3**
	Sum		**3**	**8**	**6**	**17**
PUCCST	Maritime	CZ			1	**1**
		DE	2	2		**4**
	North-East	PL		2		**2**
	South-East	HU	1	3	1	**5**
	Sum		**3**	**7**	**2**	**12**
PUCCRT	Maritime	CZ	2	5	1	**8**
		DE	7	5		**12**
	North-East	PL		2		**2**
	South-East	HU	4	3	1	**8**
		SK			5	**5**
	Sum		**13**	**15**	**7**	**35**
ERYSGT	Maritime	CZ	1	2	4	7
		DE	3	5	1	9
	North-East	PL	2	2		4
	South-East	HU	2	1	1	4
	Sum		**8**	**10**	**6**	**24**
Total			**37**	**58**	**30**	**125**

ADM.3502.F.1.A was tested with the rates of 1 L/ha, 0.8 L/ha, and 0.5 L/ha. The results are presented in table 3.2.2-2.

3.2.2-2: Efficacy of different rates of ADM.3502.F.1.A against fungal diseases on winter wheat

Crop	Patho-gen	EPPO Zone	n	Disease level in UTC (%)		Control (%) of Test Product						Control (%) of Ref. Prod. (In-put)	
						0.5 L/ha		0.8 L/ha		1 L/ha			
				Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range
TRZAW	SEPTTR	Maritime	27	28.4	7.1-99	64.6	34-96	76.3	37-99	84.5	51-100	84.8	55-100
		N-East	2	8.7	7.6-10	56.8	53-60	65.1	62-68	81.7	81-83	84.8	84-85
		S-East	8	11.0	6.7-21	60.6	28-98	82.3	49-98	88.4	73-99	84.2	62-93
	Across EPPO zones		**37**	**23.6**	**6.7-99**	**63.3**	**28-98**	**77.0**	**37-99**	**85.2**	**51-100**	**84.7**	**55-100**
TRZAW	PYRNTR	Maritime	6	11.2	5-20	54.5	42-77	64.8	42-86	78.1	61-100	77.4	58-100
		N-East	2	10.7	9.1-12	63.8	52-76	73.7	66-82	91.8	88-96	84.6	84-86
		S-East	9	13.0	5-47	50.0	12-71	65.2	42-82	74.3	47-85	73.1	43-85
	Across EPPO zones		**17**	**12.1**	**5-47**	**53.2**	**12-77**	**66.0**	**42-86**	**77.7**	**47-100**	**76.0**	**43-100**
TRZAW	PUCCST	Maritime	5	13.3	6.1-26	74.9	43-88	82.4	59-92	89.8	82-96	72.1	0-91
		N-East	2	15.7	15-16	73.3	71-75	82.6	82-83	88.6	87-90	89.7	89-90
		S-East	5	11.9	6.2-15	74.3	65-80	87.1	79-97	94.5	84-100	91.3	79-100
	Across EPPO zones		**12**	**13.1**	**6.1-26**	**74.4**	**43-88**	**84.4**	**59-97**	**91.5**	**82-100**	**83.0**	**0-100**
TRZAW	PUCCRT	Maritime	20	27.1	5-99	74.5	40-100	83.1	42-100	89.2	53-100	86.5	53-100
		N-East	2	18.9	7.8-30	89.8	87-92	94.3	93-95	96.6	95-98	83.9	79-89
		S-East	13	10.7	5.1-32	60.4	29-94	76.7	26-100	85.8	37-100	88.6	54-100
	Across EPPO zones		**35**	**20.5**	**5-99**	**70.1**	**29-100**	**81.4**	**26-100**	**88.4**	**37-100**	**87.1**	**53-100**

TRZAW	ERYSGT	Maritime	16	10.5	5-30	78.8	55-100	88.8	65-100	89.4	35-100	90.2	70-100
		N-East	4	9.5	7.5-11	57.2	52-66	76.1	73-81	78.0	59-88	79.2	61-88
		S-East	4	19.2	5.2-59	73.3	65-89	95.3	85-100	98.1	95-100	94.4	86-100
Across EPPO zones			**24**	**11.8**	**5-59**	**74.3**	**52-100**	**87.8**	**65-100**	**89.0**	**35-100**	**89.1**	**61-100**

In table 3.2.2-2a the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

The results demonstrate that against fungal diseases on wheat, independent of the EPPO climatic zone, a clear dose response effect can be observed. To reach the level of performance of the authorized reference products, the full rate of 1 L/ha is required. Thus, the intended target dose rate of 1 L/ha of ADM.3502.F.1.A is justified.

3.2.2-2a: Efficacy of different rates of ADM.3502.F.1.A against fungal diseases on winter wheat after 1 application only

Crop	Patho-gen	EPPO Zone	n	Disease level in UTC (%)		Control (%) of Test Product						Control (%) of Ref. Prod. (Input)	
						0.5 L/ha		0.8 L/ha		1 L/ha			
				Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range
TRZAW	SEPTTR	Maritime	16	12.5	3.3-52	54.5	27-81	66.2	29-98	71.1	23-99	70.3	29-99
		N-East	2	9.4	8-11	59.0	53-65	66.4	62-71	74.6	70-79	81.0	78-84
		S-East	6	7.3	3.7-13	72.5	49-100	87.1	72-100	90.3	78-100	91.7	83-100
Across EPPO zones			**24**	**10.9**	**3.3-52**	**59.4**	**27-100**	**71.4**	**29-100**	**76.2**	**23-100**	**76.6**	**29-100**
TRZAW	PYRNTR	Maritime	1	5.0	5-5	48.0	48-48	64.0	64-64	80.0	80-80	80.0	80-80
		N-East	2	8.2	7.9-9	35.9	35-37	48.1	47-49	65.7	65-67	56.6	53-60
		S-East	5	~~4.2~~ 5.3	~~2.6-6~~ 2.6-7.2	71.0	57-100	~~77.2~~ 78.7	~~68-95~~ 68.2-95.2	~~81.0~~ 82.6	~~73-95~~ 72.9-95.2	~~82.6~~ 83.8	~~72-95~~ 71.9-95.2
Across EPPO zones			**8**	~~**5.3**~~ **6.0**	**2.6-9**	**59.4**	**35-100**	~~**68.3**~~ **69.2**	**47-95**	~~**77.0**~~ **78.0**	**65-95**	~~**75.8**~~ **76.5**	**53-95**
TRZAW	PUCCST	Maritime	3	3.7	1-7	65.3	25-100	69.4	50-100	73.2	25-100	64.1	25-100
		N-East	2	15.7	15-16	73.3	71-75	82.6	82-83	88.6	87-90	89.7	89-90
		S-East	2	10.0	4.5-15	88.8	80-98	96.2	92-100	99.7	99-100	99.8	100
Across EPPO zones			**7**	**8.9**	**1-16**	**74.3**	**25-100**	**80.8**	**50-100**	**85.2**	**25-100**	**81.6**	**25-100**
TRZAW	PUCCRT	Maritime	8	8.3	4.5-14	79.8	59-100	84.2	63-100	87.6	59-100	87.0	61-100
		N-East	2	3.9	3.3-4	88.2	76-100	90.9	82-100	97.4	95-100	90.7	81-100
		S-East	2	3.4	2.1-5	59.2	18-100	63.9	28-100	62.1	24-100	69.8	40-100
Across EPPO zones			**12**	**6.8**	**2.1-14**	**77.8**	**18-100**	**81.9**	**28-100**	**85.0**	**24-100**	**84.8**	**40-100**
TRZAW	ERYSGT	Maritime	10	11.5	4-23	78.4	47-98	89.3	47-100	92.0	47-100	87.6	47-100
		N-East	4	15.7	5.3-25	54.8	45-62	71.7	52-80	77.3	64-91	80.8	60-94
		S-East	4	6.9	2.5-14	78.0	61-100	88.7	73-100	92.3	78-100	88.0	77-100
Across EPPO zones			**18**	**11.4**	**2.5-25**	**73.1**	**45-100**	**85.3**	**47-100**	**88.8**	**47-100**	**86.2**	**47-100**

Comments of zRMS on:
Table 3.2.2-2a

As checked by the zRMS:
For TRZAW/SEPTTR: after exclusion of 2 trials with low disease severity in the Maritime EPPO zone, the efficacy was 52.2%, 62.4% and 67.8% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 67.2% for the reference product. In South-East EPPO zone, after exclusion of 1 trial with low disease severity the efficacy was 69.8%, 84.5%, 88.3% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and and 90.1% for the standard.

For TRZAW/PYRNTR: after exclusion of 1 trial with low disease severity in the South-East EPPO zone, the efficacy in the control of PYRNTR after 1 application was 72.4%, 78.7% and 81.8% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 83.1% for the reference standard.

For TRZAW/ PUCCST: after exclusion of 2 trials with low disease severity in the Maritime EPPO zone, the efficacy in the control of PUCCST after 1 application was 70.9%, 58.2% and 94.5% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 67.3% for the reference standard.

For TRZAW/PUCCRT: after exclusion of 1 trial with low disease severity in the South-East EPPO zone, the efficacy in the control of PUCCRT after 1 application was 18.3%, 27.7% and 24.1% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 39.6% for the reference standard. In North-East EPPO zone, after exclusion of 1 trial with low disease severity, the efficacy was 76.3%, 81.9%, 94.7% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 81.3% for the standard.

For TRZAW/ERYSGT: after exclusion of 1 trial with low disease severity in the South-East EPPO zone, the efficacy in the control of ERYSGT after 1 application was 70.7%, 84.9% and 89.7% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 83.9% for the reference standard.

Fungal diseases on barley

Table 3.2.2-3 gives an overview on the dose response results from trials carried out for the control of fungal diseases on barley. Target pathogens in barley are *Blumeria graminis* [ERYSGH; ERYSYGR), *Rhynchosporium secalis* [RHYNSE], *Pyrenophora teres* [PYRNTE], and *Puccinia hordei* [PUCCHD]. Due to climatical comparability the number of Polish trials is supplemented by fully supportive trials from Germany, Czech Republic, and Slovakia.

Table 3.2.2-3: Number and distribution of dose response trial results for the control of fungal diseases on winter- and spring barley

Target	EPPO zone	Country	2018	2019	2020	Sum
ERYSGH	Maritime	CZ	1	3	4	8
		DE		2		2
	North-East	PL		2		2
	South-East	HU	1	2	1	4
		SK	1		1	2
	Sum		**3**	**9**	**6**	**18**
RHYNSE	Maritime	CZ		1	2	3
		DE		3		3
	North-East	PL		2		2
	South-East	HU		2	1	3
		SK			1	1
	Sum			**8**	**4**	**12**
PYRNTE	Maritime	CZ	1	4	5	10
		DE		4		4
	North-East	PL		2		2
	South-East	HU		2	2	4
		SK	1		6	7
	Sum		**2**	**12**	**13**	**27**
PUCCHD	Maritime	CZ	2	2	3	7
		DE	1	8		9
	North-East	PL		2		2
	South-East	HU	2	2	2	6
		SK	2			2
	Sum		**7**	**14**	**5**	**26**
Total			**12**	**43**	**28**	**83**

ADM.3502.F.1.A was tested with the rates of 1 L/ha 0.8 L/ha, and 0.5 L/ha. The results are presented in table 3.2.2-4.

Table 3.2.2-4: Efficacy of different rates of ADM.3502.F.1.A against fungal diseases on barley

Crop	Pathogen	EPPO Zone	n	Disease level in UTC (%)		Control (%) of Test Product						Control (%) of Ref. Prod. (Input)	
						0.5 L/ha		0.8 L/ha		1 L/ha			
				Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range
HORVW/ HORVS	ERYSGH	Maritime	10	21.1	5.6-86	70.2	39-100	88.1	65-100	92.7	73-100	92.5	81-100
		N-East	2	9.0	5.5-13	76.2	76-76	87.5	82-93	90.1	86-94	87.7	83-93
		S-East	6	13.5	5.1-37	75.6	65-95	84.1	71-98	88.3	77-97	90.6	79-95
Across EPPO zones			**18**	**17.2**	**5.1-86**	**72.7**	**39-100**	**86.7**	**65-100**	**90.9**	**73-100**	**91.3**	**79-100**
HORVW/ HORVS	RHYNSE	Maritime	6	9.7	5-18	58.1	21-94	76.1	53-97	84.3	66-100	82.7	63-100
		N-East	2	8.5	8.3-9	67.7	66-69	77.2	76-78	84.9	85-85	87.6	87-88
		S-East	4	10.3	6.1-19	71.9	62-82	85.0	75-90	91.4	81-97	91.1	81-95
Across EPPO zones			**12**	**9.7**	**5-19**	**64.3**	**21-94**	**79.3**	**53-97**	**86.8**	**66-100**	**86.3**	**63-100**
HORVW/ HORVS	PYRNTE	Maritime	14	16.3	6-58	67.3	46-98	85.5	56-99	87.9	61-100	88.1	65-100
		N-East	2	19.4	19-20	60.2	52-69	78.0	75-81	82.0	80-84	75.3	72-79
		S-East	11	14.1	5.2-43	74.3	54-93	86.4	68-100	90.2	76-100	90.2	77-100
Across EPPO zones			**27**	**15.6**	**5.2-58**	**69.6**	**46-98**	**85.3**	**56-100**	**88.4**	**61-100**	**88.0**	**65-100**
HORVW/ HORVS	PUCCHD	Maritime	~~16~~ 15	~~22.1~~ 22.5	5.8-80	~~78.9~~ 78.8	39-100	~~94.0~~ 93.8	74-100	~~96.1~~ 95.5	83-100	~~95.5~~ 95.2	83-100
		N-East	2	14.9	14-16	71.0	71-71	81.6	82-82	88.5	88-89	89.0	89-89
		S-East	8	23.2	5.2-100	77.4	60-100	87.9	72-100	92.8	76-100	93.5	78-100
Across EPPO zones			~~26~~ **25**	~~21.9~~ **22.1**	**5.2-100**	~~77.9~~ **77.7**	**39-100**	**91.2**	**72-100**	~~94.4~~ **94.1**	**76-100**	~~94.4~~ **94.1**	**78-100**

In table 3.2.2-4a the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

Table 3.2.2-4a: Efficacy of different rates of ADM.3502.F.1.A against fungal diseases on barley after 1 application only

Crop	Pathogen	EPPO Zone	n	Disease level in UTC (%)		Control (%) of Test Product						Control (%) of Ref. Prod. (Input)	
						0.5 L/ha		0.8 L/ha		1 L/ha			
				Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range
HORVW/ HORVS	ERYSGH	Maritime	10	12.2	1-31	65.0	0-87	79.5	0-100	84.2	0-100	82.4	0-96
		N-East	2	6.0	6-6	75.8	75-77	82.8	81-84	88.4	87-90	86.2	85-88
		S-East	5	13.3	4.4-26	70.9	55-91	80.3	68-100	86.0	74-100	86.4	77-93
Across EPPO zones			**17**	**11.8**	**1-31**	**68.0**	**0-91**	**80.1**	**0-100**	**85.2**	**0-100**	**84.0**	**0-96**
HORVW/ HORVS	RHYNSE	Maritime	6	9.1	4.7-15	46.4	0-86	61.8	0-95	67.8	0-97	66.9	0-98
		N-East	2	8.5	8.3-9	67.7	66-69	77.2	76-78	84.9	85-85	87.6	87-88
		S-East	2	3.4	1.5-5	60.4	40-81	90.3	83-98	73.8	62-86	93.5	87-100
Across EPPO zones			**10**	**7.8**	**1.5-15**	**53.4**	**0-86**	**70.6**	**0-98**	**72.4**	**0-97**	**76.4**	**0-100**
HORVW/ HORVS	PYRNTE	Maritime	12	6.8	2-17	67.4	26-100	88.3	67-100	89.8	71-100	91.5	74-100
		N-East	2	22.7	22-23	77.5	69-86	86.8	82-92	90.0	85-95	91.5	85-98
		S-East	8	5.5	1.8-12	73.2	32-97	84.1	41-100	85.6	47-100	77.7	14-100
Across EPPO zones			**22**	**7.8**	**1.8-23**	**70.4**	**26-100**	**86.6**	**41-100**	**88.3**	**47-100**	**86.5**	**14-100**
HORVW/ HORVS	PUCCHD	Maritime	11	7.6	2.8-15	79.7	39-100	91.0	74-100	94.4	82-100	93.1	81-100
		N-East	2	14.9	14-16	71.0	71-71	81.6	82-82	88.5	88-89	89.0	89-89
		S-East	3	10.7	2.8-23	84.5	62-96	94.9	85-100	98.7	96-100	96.1	92-100
Across EPPO zones			**16**	**9.1**	**2.8-23**	**79.5**	**39-100**	**90.5**	**74-100**	**94.4**	**82-100**	**93.1**	**81-100**

The results demonstrate that against fungal diseases on barley, independent of the EPPO climatic zone, a clear dose response effect can be observed. To reach the level of performance of the authorized

reference products, the full rate of 1 L/ha is required. Thus, the intended target dose rate of 1 L/ha of ADM.3502.F.1.A is justified.

Comments of zRMS on:
Table 3.2.2-4a

As checked by the zRMS:
For HORVW, HORVS/ ERYSGR: after exclusion of 1 trial with low disease severity in the Maritime EPPO zone, the efficacy was 72.3%, 88.3% and 93.5% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 91.6% for the reference product.

For HORVW, HORVS/ RHYNSE: after exclusion of 1 trial with low disease severity in the South-East EPPO zone, the efficacy was 81.0%, 97.6% and 61.9% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 100% for the reference product.

For HORVW, HORVS/ PYRNTE: after exclusion of 3 trials with low disease severity in the Maritime EPPO zone, the efficacy was 62.7%, 87.8% and 89.6% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 90.4% for the reference product. . In South-East EPPO zone, after exclusion of 2 trials with low disease severity, the efficacy was 70.6%, 79.8%, 84.0% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 85.4% for the standard.

For HORVW, HORVS/ PUCCHD: after exclusion of 2 trials with low disease severity in the Maritime EPPO zone, the efficacy was 76.3%, 89.0% and 93.2% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 91.5% for the reference product. In South-East EPPO zone, after exclusion of 1 trial with low disease severity, the efficacy was 95.9%, 92.3%, 98.1% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 94.1% for the standard.

Fungal diseases on rye

Table 3.2.2-5 gives an overview on the dose response results from trials carried out for the control of fungal diseases on rye. Target pathogens in rye are *Rhynchosporium secalis*. [RHYNSE] and *Puccinia recondita* [PUCCRR, PUCCRE].

Table 3.2.2-5: Number and distribution of valid dose response trial results for the control fungal diseases on rye

Target	EPPO zone	Country	2019	2020	Sum
ERYSGR	Maritime	CZ	2		2
		DE	2	1	3
	Sum		**4**	**1**	**5**
RHYNSE	Maritime	CZ	1		1
		DE	7	4	11
	Sum		**8**	**4**	**12**
PUCCRE	Maritime	CZ	2		2
		DE	9	9	18
	Sum		**11**	**9**	**20**
Total			**23**	**14**	**37**

ADM.3502.F.1.A was tested with the rates of 1 L/ha, 0.8 L/ha, and 0.5 L/ha. The results are presented in table 3.2.2-6.

Table 3.2.2-6: Efficacy of different rates of ADM.3502.F.1.A against fungal diseases on rye

Crop	Pathogen	EPPO Zone	n	Disease level in UTC (%)		Control (%) of Test Product						Control (%) of Ref. Prod. (Input)	
						0.5 L/ha		0.8 L/ha		1 L/ha			
				Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range
SECCW	ERYSGR	Maritime	5	10.1	6.8-16	78.4	52-97	95.7	88-100	100.0	100-100	97.1	89-100
SECCW	RHYNSE	Maritime	12	18.1	5.3-58	63.0	22-84	74.1	43-96	77.2	43-100	75.8	19-100
SECCW	PUCCRE	Maritime	20	21.7	5-79	72.2	30-100	83.9	42-100	88.8	63-100	87.9	52-100

In table 3.2.2-6a the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

Table 3.2.2-6a: Efficacy of different rates of ADM.3502.F.1.A against fungal diseases on rye after 1 application only

Crop	Pathogen	EPPO Zone	n	Disease level in UTC (%)		Control (%) of Test Product						Control (%) of Ref. Prod. (Input)	
						0.5 L/ha		0.8 L/ha		1 L/ha			
				Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range
SECCW	ERYSGR	Maritime	3	8.8	6.8-13	95.5	93-97	98.8	96-100	100.0	100-100	95.1	89-100
SECCW	RHYNSE	Maritime	9	13.7	2.3-54	57.1	28-84	65.0	36-96	67.1	39-99	63.7	17-99
SECCW	PUCCRE	Maritime	9	4.2 4.6	1.5-8	72.2 71.4	23 18.8-100	83.9 85.5	50-100	84.2 85.3	42 50-100	84.6 85.8	50-100

The results demonstrate that against fungal diseases on rye a clear dose response effect can be observed. To reach the level of performance of the authorized reference products, the full rate of 1 L/ha is required. Thus, the intended target dose rate of 1 L/ha of ADM.3502.F.1.A is justified.

Comments of zRMS on:
Table 3.2.2-6a

As checked by the zRMS:
For SECCW/ RHYNSE: after exclusion of 1 trial with low disease severity in the Maritime EPPO zone, the efficacy was 58.0%, 66.1% and 70.6% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 69.6% for the reference product.

For SECCW/ PUCCRE: after exclusion of 4 rials with low disease severity in the Maritime EPPO zone, the efficacy was 71.9%, 83.9% and 83.6% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 84.5% for the reference product.

Fungal diseases on triticale

Table 3.2.2-7 gives an overview on the dose response results from trials carried out for the control of fungal diseases on triticale. Target pathogens in triticale are *Zymoseptoria tritici* [SEPTTR], *Puccinia recondita* [PUCCRE], *Puccinia striiformis* [PUCCST], and *Blumeria graminis* [ERYSGR].

Table 3.2.2-7: Number and distribution of valid dose response trial results for the control fungal diseases on triticale

Target	EPPO zone	Country	2019	2020	Sum
SEPTTR	Maritime	CZ	6	5	11
		DE	7	4	11
	North-East	PL	3		3
	South-East	RO	1		1
	Sum		**17**	**9**	**26**
PUCCRE	Maritime	CZ	7	3	10
		DE		2	2
	North-East	PL	2		2
	South-East	RO	1		1
	Sum		**10**	**5**	**15**
PUCCST	Maritime	DE	2	1	3
	North-East	PL	2		2
	South-East	RO	1		1
	Sum		**5**	**1**	**6**
ERYSGR	Maritime	CZ	4	3	7
		DE	5	1	6
	North-East	PL	2		2
	South-East	RO	1		1
	Sum		**12**	**4**	**16**
Total			**44**	**19**	**63**

ADM.3502.F.1.A was tested with the rates of 1 L/ha, 0.8 L/ha, and 0.5 L/ha. The results are presented in table 3.2.2-8.

Table 3.2.2-8: Efficacy of different rates of ADM.3502.F.1.A against fungal diseases on winter- and spring triticale

Crop	Patho-gen	EPPO Zone	n	Disease level in UTC (%)		Control (%) of Test Product						Control (%) of Ref. Prod. (Input)	
						0.5 L/ha		0.8 L/ha		1 L/ha			
				Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range
TTLWI	SEPTTR	Maritime	22	~~13.6~~ 13.8	5-61	~~63.0~~ 62.7	19-100	~~80.9~~ 81.3	50-100	~~85.0~~ 85.3	46-100	~~85.0~~ 85.3	58-100
		N-East	3	12.3	6.8-15	70.1	67-72	82.0	78-87	90.2	85-95	90.4	84-94
		S-East	1	6.1	6.1-6	67.3	67-67	79.6	80-80	87.8	88-88	83.7	84-84
	Across EPPO zones		**26**	**13.1**	**5-61**	**64.0**	**19-100**	**81.0**	**50-100**	**85.7**	**46-100**	**85.5**	**58-100**
TTLWI ~~/ TTLSO~~	PUCCRE	Maritime	12	18.3	7.5-43	71.9	51-100	88.0	69-100	90.6	80-100	88.5	78-100
		N-East	2	29.2	28-31	87.6	87-88	92.8	92-93	97.5	98-98	98.3	98-99
		S-East	1	4.9	4.9-5	67.9	68-68	74.4	74-74	87.2	87-87	83.3	83-83
	Across EPPO zones		**15**	**18.8**	**4.9-43**	**73.7**	**51-100**	**87.7**	**69-100**	**91.3**	**80-100**	**89.5**	**78-100**
TTLWI / TTLSO	PUCCST	Maritime	3	6.5	5.6-8	84.0	61-100	100.0	100-100	100.0	100-100	100.0	100-100
		N-East	2	30.3	11-50	85.1	82-89	89.1	85-93	95.3	93-98	89.0	81-97
		S-East	1	5.3	5.3-5	82.4	82-82	85.7	86-86	92.9	93-93	94.8	95-95
	Across EPPO zones		**6**	**14.2**	**5.3-50**	**84.1**	**61-100**	**94.0**	**85-100**	**97.2**	**93-100**	**95.5**	**81-100**
TTLWI / TTLSO	ERYSGR	Maritime	13	12.3	5-35	81.1	56-100	89.8	64-100	94.8	70-100	92.9	72-100
		N-East	2	7.7	5.5-10	70.7	60-81	77.0	68-86	85.9	81-91	84.0	83-85
		S-East	1	6.8	6.8-7	64.2	64-64	66.1	66-66	81.7	82-82	76.5	77-77
	Across EPPO zones		**16**	**11.3**	**5-35**	**78.7**	**56-100**	**86.8**	**64-100**	**92.9**	**70-100**	**90.8**	**72-100**

A limited number of results from field trials are available for the intended use 'Control of *Puccinia striiformis* on triticale'. For the provision of the efficacy of ADM.3502.F.1.A on this pest on triticale and the required minimum dose, it is referred to the data presented for the control of *Puccinia striiformis* on wheat (table 3.2.2-2).

In table 3.2.2-8a the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

Table 3.2.2-8a: Efficacy of different rates of ADM.3502.F.1.A against fungal diseases on winter- and spring triticale after 1 application only

Crop	Patho-gen	EPPO Zone	n	Disease level in UTC (%)		Control (%) of Test Product						Control (%) of Ref. Prod. (Input)	
						0.5 L/ha		0.8 L/ha		1 L/ha			
				Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range
TTLWI	SEPTTR	Maritime	13	11.1	2.5-29	71.8	0-100	90.0	56-100	91.2	45-100	92.7	63-100
		N-East	3	13.6	2.3-22	72.7	70-77	85.0	83-86	91.2	88-94	92.1	89-96
		S-East	1	6.1	6.1-6	67.3	67-67	79.6	80-80	87.8	88-88	83.7	84-84
	Across EPPO zones		**17**	**11.3**	**2.3-29**	**71.7**	**0-100**	**88.5**	**56-100**	**91.0**	**45-100**	**92.1**	**63-100**
TTLWI	PUCCRE	Maritime	3	11.4	7.5-19	76.3	54-91	80.2	52-96	84.0	56-99	83.0	60-96
		N-East	2	8.9	7.5-10	91.8	91-93	98.8	98-100	100.0	100-100	100.0	100-100
		S-East	1	7.8	7.8-8	68.0	68-68	75.2	75-75	85.6	86-86	84.0	84-84
	Across EPPO zones		**6**	**10.0**	**7.5-19**	**80.1**	**54-93**	**85.6**	**52-100**	**89.6**	**56-100**	**88.8**	**60-100**
TTLWI / TTLSO	PUCCST	Maritime	3	9.1	3-20	80.1	67-94	96.0	88-100	97.9	94-100	96.8	90-100
		N-East	2	13.3	11-16	79.4	77-82	92.4	85-100	96.4	93-100	90.5	81-100
		S-East	1	2.5	2.5-3	50.5	50-50	56.4	56-56	67.3	67-67	70.3	70-70
	Across EPPO zones		**6**	**9.4**	**2.5-20**	**74.9**	**50-94**	**88.2**	**56-100**	**92.3**	**67-100**	**90.3**	**70-100**
TTLWI / TTLSO	ERYSGR	Maritime	11	10.6	1.8-22	85.0	59-100	93.9	78-100	95.4	83-100	93.3	67-100
		N-East	2	8.8 9.7	4-14 5.7-13.7	64.8 64.6	58-71 58.4-70.8	73.2 72.3	66-81 65.5-79.1	79.6 78.7	74-85 74.1-83.3	82.1 81.1	80-84 79.8-82.4
		S-East	1	5.1	5.1-5	65.0	65-65	69.1	69-69	82.9	83-83	80.5	80-80
	Across EPPO zones		**14**	**10.0**	**1.8-22**	**80.7**	**58-100**	**89.2**	**66-100**	**92.3**	**74-100**	**90.8**	**67-100**

The results demonstrate that against fungal diseases on triticale, independent of the EPPO climatic zone, overall a clear dose response effect can be observed. To reach the level of performance of the authorized reference formulations of prothioconazole, the full rate of 1 L/ha is required. Thus, the intended target dose rate of 1 L/ha of ADM.3502.F.1.A is justified.

Comments of zRMS on:
Table 3.2.2-8a

As checked by the zRMS:
For TTLWI/ SEPTTR: after exclusion of 2 trials with low disease severity in the Maritime EPPO zone, the efficacy was 69.3%, 89.4% and 90.4% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 92.4% for the reference product. In North-East EPPO zone, after exclusion of 1 trial with low disease severity, the efficacy was 73.5%, 85.8%, 92.9% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 93.6% for the standard.

For TTLWI, TTLSO/ PUCCST: after exclusion of 1 trial with low disease severity (the only trial conducted in spring triticale) in the Maritime EPPO zone, the efficacy was 86.8%, 94.0% and 96.9% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 95.2% for the reference product. In South-East EPPO zone, after exclusion of 1 trial with low disease severity, no trials with efficacy data after 1 application were available.

For TTLWI, TTLSO/ ERYSGR: after exclusion of 2 trials (including the only trial conducted in spring triticale) with low disease severity in the Maritime EPPO zone, the efficacy was 81.7%, 92.5% and 94.4% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 91.8% for the reference product.

Fungal diseases on oats

Table 3.2.2-9 gives an overview on the dose response results from trials carried out for the control of fungal diseases on oats. The target pathogens in oats are *Puccinia coronata* [PUCCCO] and *Blumeria graminis f. sp. avenae* [ERYSGA].

Table 3.2.2-9: Number and distribution of valid dose response trial results for the control fungal diseases on oats

Target	EPPO zone	Country	2019	2020	Sum
PUCCCO	Maritime	CZ	2	2	4
		DE		2	2
	Sum		**2**	**4**	**6**
ERYSGA	Maritime	CZ		1	1
		DE	1	2	3
	Sum		**1**	**3**	**4**
Total			**3**	**7**	**10**

ADM.3502.F.1.A was tested with the rates of 1 L/ha, 0.8 L/ha, and 0.5 L/ha. The results are presented in table 3.2.2-10.

Table 3.2.2-10: Efficacy of different rates of ADM.3502.F.1.A against fungal diseases on oats

Crop	Pathogen	EPPO Zone	n	Disease level in UTC (%)		Control (%) of Test Product						Control (%) of Ref. Prod. (Input)	
						0.5 L/ha		0.8 L/ha		1 L/ha			
				Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range
AVESA	PUCCCO	Maritime	6	9.3	6.3-13	69.8	53-84	89.5	84-98	91.6	85-99	89.8	81-96
		N-East	2	6.7	5.6-7.8	74.0	64.1-83.8	74.4	71.2-77.5	80.1	71.8-88.3	82.1	71.8-92.3
AVESA	ERYSGA	Maritime	4	25.2	16-38	85.7	72-97	85.1	50-100	90.4	70-100	92.5	81-100

In table 3.2.2-10a the results after 1 application only are presented in addition. ~~Since in the majority of trials 2 applications have been performed,~~ In these trials, the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

Table 3.2.2-10a: Efficacy of different rates of ADM.3502.F.1.A against fungal diseases on oats after 1 application only

Crop	Pathogen	EPPO Zone	n	Disease level in UTC (%)		Control (%) of Test Product						Control (%) of Ref. Prod. (Input)	
						0.5 L/ha		0.8 L/ha		1 L/ha			
				Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range
AVESA	PUCCCO	Maritime	~~3~~ 5	~~3.9~~ 4.9	2.1-~~5~~ 7.2	~~88.3~~ 83.0	~~84~~ 74-95	~~96.0~~ 96.7	88-100	~~97.3~~ 97.4	92-100	~~97.3~~ 96.1	92-100
		N-East	2	6.7	5.6-7.8	74.0	64.1-83.8	74.4	71.2-77.5	80.1	71.8-88.3	82.1	71.8-92.3
AVESA	ERYSGA	Maritime	3	23.6	8.4-38	87.9	70-97	94.3	83-100	95.6	87-100	95.8	88-100

The results demonstrate that against fungal diseases on oats overall a clear dose response effect can be observed. To reach the level of performance of the authorized reference products, the full rate of 1 L/ha is required. Thus, the intended target dose rate of 1 L/ha of ADM.3502.F.1.A is justified.

Comments of zRMS on:
Table 3.2.2-10a

As checked by the zRMS:
For AVESA/ PUCCCO: after the exclusion of 2 trials with low disease severity in the Maritime EPPO zone, the

efficacy was 78.0%, 94.5% and 95.7% for ADM.3502.F.1.A applied at dose rate of 0.5 L/ha, 0.8 Lha and 1.0 L/ha respectively and 93.6% for the reference product.

Summary and conclusions on the minimum effective dose

As a result, the proposed rate of 1 L/ha of ADM.3502.F.1.A in cereal crops should be considered the minimum effective dose to deliver broad spectrum control of the target pathogens under a wide range of environmental conditions.

The product complies with the Uniform Principles.

Comments of zRMS on:
Minimum effective dose tests (3.2.2)

Two hundred and fifteen efficacy trials conducted between 2018 and 2020 in Maritime, North-East and South-East EPPO zone present data to determine the Minimum Effective Dose (MED) of ADM.3502.F.1.A. The fungicide ADM.3502.F.1.A was tested in a range of dose rates: 0.5 L/ha, 0.8 L/ha, 1.0 L/ha.. The target dose rate is 1.0 L/ha and lower dose rates correspond to 50% and 80% of the target dose rate.
Based on the submitted trial results, a clear dose response was seen with the increasing dose rate of ADM.3502.F.1.A in the control of the vast majority of target pathogens in all concerned EPPO zones. The highest tested dose rate of 1.0 L/ha was the most effective dose in the trials conducted on wheat, barley, rye, triticale and oat. Therefore, it can be concluded that the minimum effective dose 1.0 L/ha has been justified.
For South-East EPPO zone dose range 0.8-1.0 L/ha is claimed. It is recommended to include in the product label remark to use lower dose rate of 0.8 L/ha under conditions of low disease pressure.

3.2.3 Efficacy tests (KCP 6.2)

Trials in this dossier were carried out by contractor companies and official research institutes, all of which following 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). Relevant GEP certificates from the contractor companies and the official country testing organizations mentioned above are located in the Biological Assessment Dossier of ADM.3502.F.1.A (Reference KIIIA 6.0/1).

In this section results are presented for efficacy of ADM.3502.F.1.A against fungal pathogens on cereals. A general introduction of experimental and presentational design and detailed information about the testing facilities/organisations and their certificates of recognition is given in the BAD (Reference KIIIA 6.0/1). A summary of the specific trial and application data and the summarised results are presented below, separated by uses.

3.2.3.1 Control of *Zymoseptoria tritici*. (SEPTTR) on wheat

(uses 1, 6, 11, 16, 21, 23, 26, 28, 106)

Table 3.2.3.1-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Zymoseptoria tritici* on winter wheat

EPPO zone	EU Regul. Zone	Country	Year of trial initiation			Sum
			2018	2019	2020	
Maritime	Central	CZ	1	4	3	8
		DE	7	10	2	19
Total Maritime			8	14	5	**27**
North-East	Central	PL		2		**2**
South-East	Central	HU	2	2	1	5
		SK			3	3
Total South-East			2	2	4	**8**
Total			**10**	**18**	**9**	**37**

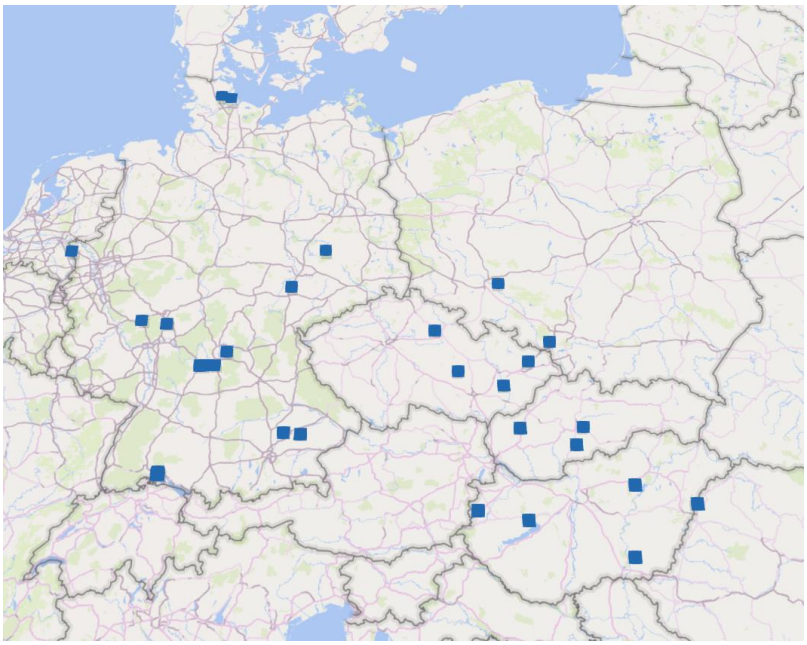
Table 3.2.3.1-2: Location of efficacy trials in the EPPO climatic zones

	EPPO zone		
Country	**Maritime**	**North-East**	**South-East**
Czech Republic (CZ)	8		
Germany (DE)	19		
Hungary (HU)			5
Poland (PL)		2	
Slovakia (SK)			3
Total	**27**	**2**	**8**

Table 3.2.3.1-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (37),
	Plot size	10-30 m²
	Number of replications	4 (37)
Crop	Trials per crop	Winter wheat (37)
	Varieties per crop	Akteur, Altigo, Amicus, Annie, Asano, Bodycek, Bussard, Csillag, Cubus, Dekan, Elixer, Genius, Gk Körös, Grizzly, Imposanto, Jeltka, Julius, Kerubino, Lukullus, Ménrót, Patras, Sailor, Sunanka, Svitava, Tobak, Turandot, Zeppelin
	Sowing period	Maritime zone: from September (17) to October (21). North-East zone: from October (8)) to October (12) South-East zone: October (2) to October (21)
Application	Crop stage (BBCH)* at application	1st application: 30 to 41 2nd application: 39 to 67
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	1 (3); 2 (34)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Zymoseptoria tritici* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 55 to 85 (BBCH).
Other relevant information	Natural / artificial innoculation	37 / -
	Field / Lab / GH	37 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.1-1: Distribution of trial locations



Efficacy data for the control of *Zymoseptoria tritici* on wheat are presented from 37 efficacy trials carried out in the central European regulation zone. The summarised results for different EPPO climatic zones are presented in table 3.2.3.1-4 and table 3.2.3.1-5. As the relevant assessment, the rating carried out at

(or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.1-4a the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was 23.6 % (range: 6.7 % to 99 %), this represents very good conditions for product testing. The results are considered valid.

Table 3.2.3.1-4: Efficacy of ADM.3502.F.1.A against *Zymoseptoria tritici* on winter wheat compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Zymoseptoria tritici*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference product(s)			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TRZAW	SEPTTR	Maritime	27	28.4	7.1-99	84.5	88	51-100	Input / Input Classic | 1.25	84.8	88.5	55-100
		N-East	2	8.7	7.6-9.9	81.7	.	81-83	Input | 1-1.25	84.8	.	84-85
		S-East	8	11.0	6.7-21.4	88.4	89.3	73-99	Input / Input Classic | 1.25	84.2	87	62-93
		Across zones	**37**	**23.6**	**6.7-99**	**85.2**	**88**	**51-100**	**Input / Input Classic | 1-1.25**	**84.7**	**88.1**	**55-100**

Across the EPPO climatic zones, based on the results of 37 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was 85.2 % (median 88; range 51 % to 100 %). The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Zymoseptoria tritici* in the vast majority of trials (table 3.2.3.1-4). The performance is comparable to the performance provided by the zonal reference product Input 460 EC respectively Input Classic (mean: 84.7 %, median: 88.1 %).

Table 3.2.3.1-4a: Efficacy of ADM.3502.F.1.A against *Zymoseptoria tritici* on winter wheat after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Zymoseptoria tritici*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference product(s)			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TRZAW	SEPTTR	Maritime	16	12.5	3.3-52	71.1	78.3	23-99	Input / Input Classic | 1.25	70.3	75.1	29-99
		N-East	2	9.4	8-10.8	74.6	.	70-79		81.0	.	78-84
		S-East	6	7.3	3.7-13.4	90.3	91.5	78-100		91.7	91.7	83-100
		Across zones	**24**	**10.9**	**3.3-52**	**76.2**	**80.6**	**23-100**		**76.6**	**82.5**	**29-100**

At the most relevant assessment after 1 application only, in the trials which could be considered, the mean level of infestation was 10.9 % (range 3.3 to 52 %). Based on the results of 24 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was 76.2 % (range 23-100 %). The performance is fully comparable to the performance provided by the zonal reference product (mean: 76.6 %, range: 29-100 %).

Table 3.2.3.1-5: Efficacy of ADM.3502.F.1.A against *Zymoseptoria tritici* on winter wheat compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Zymoseptoria tritici*									
		N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TRZAW	SEPTTR	2	8.7	7.6-9.9	81.7	.	81-83	Artemis | 2	85.3	.	85-86
		2	29.4	8.8-50	90.4	.	86-94	Hutton |0.8	86.7	.	85-89
		1	8.0	.	77.6	.	.	Leander | 0.5	34.5	.	.
		1	44.6	.	99.5	.	.	Tebusip | 1	99.6	.	.
		2	9.0	6.7-11.3	93.2	.	89-98	Zamir | 1.5	84.5	.	84-85

Compared to the additionally applied reference products, ADM.3502.F.1.A tends to be superior to Leander (1 result), and Zamir (2 results), and it tends to be roughly comparable to Artemis (2 results), Hutton (2 results), and Tebusip (1 result) – (table 3.2.3.1-5).

Results for the control of *Zymoseptoria tritici* are available from EPPO zones Maritime, North-East, and South-East. As demonstrated by the results presented in table 3.2.3.1-4, there are no substantial differences between the climatic zones.

In 36 efficacy trials with a relevant infestation of *Zymoseptoria tritici* yield was taken. The results are presented in table 3.2.3.1-6 (quantity of yield) and table 3.2.3.1-7 (quality of yield).

Table 3.2.3.1-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference products	
			Mean	Range	Mean	Range	Mean	Range
Maritime	TRZAW	26	71.2	38.4-101.9	121.9	103-218	121.7	102-208
North-East	TRZAW	2	55.8	51.5-60.2	112.0	108-116	112.5	112-113
South-East	TRZAW	8	63.6	42.4-82.5	107.3	102-116	107.8	102-116
Across EPPO zones	**TRZAW**	**36**	**68.6**	**38.4-101.9**	**118.1**	**102-218**	**118.1**	**102-208**

The results clearly demonstrate the benefits provided by the control of *Zymoseptoria tritici* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was 18 %. In 15 of 36 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the reference products. There are no differences between EPPO zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 8 %.

Table 3.2.3.1-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

EPPO zone		Quality parameters of yield					
		TGW		HLW		PRC	
		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)
Maritime	Mean	110.9	111.9	103.4	103.6	102.2	96.7
	Range	97-161	95-158	100-124	100-123	97-106	94-98
	Nº	26	26	22	22	3	3
N-East	Mean	100.1	98.8	101.6	102.3		
	Range	100-100	97-100	101-102	102-103		
	Nº	2	2	2	2		
S-East	Mean	102.1	101.9	100.4	100.5		

	Range	98-109	99-107	100-101	99-102		
	Nº	8	8	4	4		
Across zones	**Mean**	**108.3**	**108.9**	**102.9**	**103.1**	**102.2**	**96.7**
	Range	**97-161**	**95-158**	**100-124**	**99-123**	**97-106**	**94-98**
	Nº	**36**	**36**	**28**	**28**	**3**	**3**

TGW = Thousand grain weight; HLW = Hectolitre weight; PRC = Protein content

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Zymoseptoria tritici* on wheat.

Comments of zRMS on:
Table 3.2.3.1-4a

As checked by the zRMS, after exclusion of 2 trials with low disease severity in the Maritime EPPO zone, the efficacy for ADM.3502.F.1.A after one application was 67.8% and 67.2% for the standard. In South-East EPPO zone, after exclusion of 1 trial with low disease severity the efficacy for ADM.3502.F.1.A after one application was 88.3% and 90.1% for the standard.

3.2.3.2 Control of *Pyrenophora tritici repentis* (PYRNTR) on wheat

(uses 1, 6, 23, 106)

Table 3.2.3.2-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Pyrenophora tritici repentis* on wheat

EPPO zone	EU Reg. Zone	Country	2018	2019	2020	Sum
Maritime	**Central**	CZ	1			1
		DE	2	2	1	5
Total Maritime			3	2	1	**6**
North-East	**Central**	PL		2		**2**
South-East	**Central**	HU		4	2	6
		SK			3	3
Total South-East			0	4	5	**9**
Total			**3**	**8**	**6**	**17**

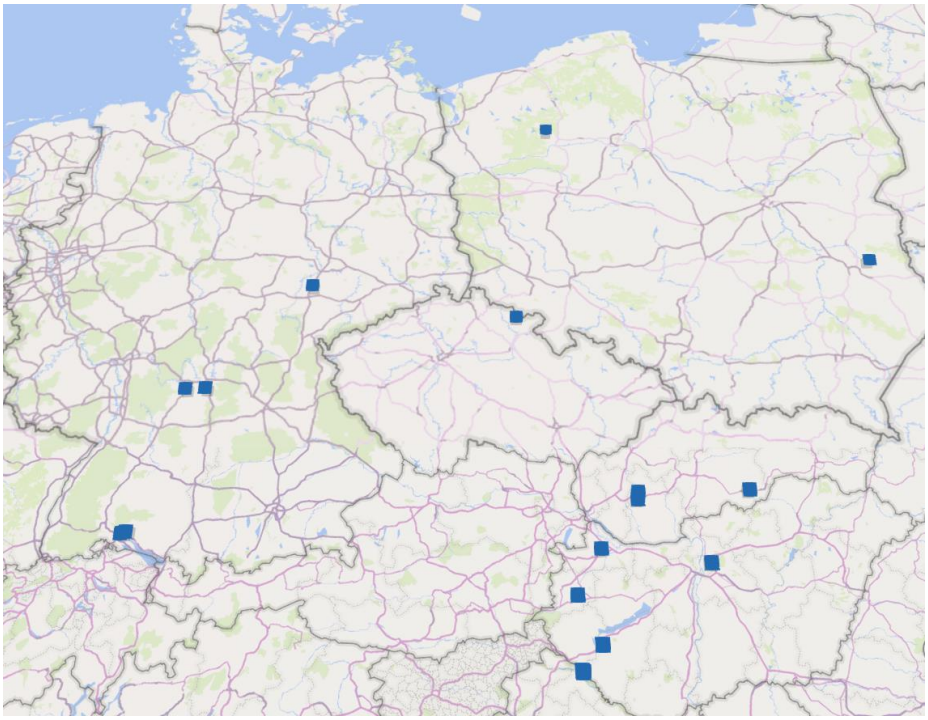
Table 3.2.3.2-2: Location of efficacy trials in the EPPO climatic zones

	EPPO zone		
Country	**Maritime**	**North-East**	**South-East**
Czech Republic (CZ)	1		
Germany (DE)	5		
Hungary (HU)			6
Poland (PL)		2	
Slovakia (SK)			3
Total	**6**	**2**	**9**

Table 3.2.3.2-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (17),
	Plot size	17.5-30 m²
	Number of replications	4 (17)
Crop	Trials per crop	Winter wheat (17)
	Varieties per crop	Akteur, Altigo, Capo, Dagmar, Elixer, Findus, Genius, IKVA, Lukullus, Nádor, Norin, Ostroga, Pamier, Patras, Porthus
	Sowing period	Maritime zone: from October (1) to October (14). North-East zone: from September (10) to September (22) South-East zone: October (02) to November (22)
Application	Crop stage (BBCH)* at application	1st application: 30 to 39 2nd application: 37 to 67
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	1 (2); 2 (15)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Pyrenophora tritici repentis* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 49 to 85 (BBCH).
Other relevant information	Natural / artificial innoculation	17 / -
	Field / Lab / GH	17 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.2-1: Distribution of trial locations



Efficacy data for the control of *Pyrenophora tritici repentis* on wheat are presented from 17 efficacy trials. The summarised results for the central European regulation zone are presented in tables 3.2.3.2-4 and table 3.2.3.2-5. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings

were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.2-4a the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was 12.1 % (range: 5 % to 47 %), this represents acceptable to very good conditions for product testing. The results are considered valid.

Table 3.2.3.2-4: Efficacy of ADM.3502.F.1.A against Pyrenophora tritici repentis on winter wheat compared to the zonal reference product(s)

Crop	Patho-gen (EPPO-code)	EPPO zone	Efficacy on *Pyrenophora tritici repentis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference product			
				Mean	Range	Mean	Me-dian	Range	Ref.Prod. | rate [L/ha]	Mean	Me-dian	Range
TRZAW	PYRNTR	Mari-time	6	11.2	5-20	78.1	77.6	61-100	Input / Input Classic | 1.25	77.4	78.6	58-100
		N-East	2	10.7	9.1-12.3	91.8	.	88-96	Input | 1-1.25	84.6	.	84-86
		S-East	9	13.0	5-47.4	74.3	79.3	47-85	Input / Input Classic | 1.25	73.1	82.3	43-85
		Across zones	**17**	**12.1**	**5-47.4**	**77.7**	**80**	**47-100**	**Input / Input Classic | 1-1.25**	**76.0**	**82.3**	**43-100**

Across the EPPO climatic zones, based on the results of 17 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was 77.7 % (median 80 %). The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Pyrenophora tritici repentis* in the majority of the trials (table 3.2.3.2-4). The performance is fully comparable to the performance provided by the zonal reference product Input 460 EC respectively Input Classic (mean: 76 %, median: 82.3 %).

At the most relevant assessment after 1 application only, in the trials which could be considered, the mean level of infestation was ~~5.3 %~~ 6.0% (range 2.6 to 8.5 %). Based on the results of 8 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was ~~77.0 %~~ 78.0% (range 65-95 %). The performance is fully comparable to the performance provided by the zonal reference product (mean: ~~75.8 %~~ 76.5%, range: 53-95 %).

Table 3.2.3.2-4a: Efficacy of ADM.3502.F.1.A against *Pyrenophora tritici repentis* on winter wheat after 1 application compared to the zonal reference product(s)

Crop	Patho-gen (EPPO-code)	EPPO zone	Efficacy on *Pyrenophora tritici repentis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference product			
				Mean	Range	Mean	Me-dian	Range	Ref.Prod. | rate [L/ha]	Mean	Me-dian	Range
TRZAW	PYRNTR	Maritime	1	5.0	.	80.0	.	.	Input / Input Classic | 1.25	80.0	.	.
		N-East	2	8.2	7.9-8.5	65.7	.	65-67		56.6	.	53-60
		S-East	5	~~4.2~~ 5.3	~~2.6-5.9~~ 2.6-7.2	~~81.0~~ 82.6	~~76.9~~ 76.0	~~73-95~~ 72.9-95.2		~~82.6~~ 83.8	~~80.8~~ 79.0	~~72-95~~ 71.9-95.2
		Across zones	**8**	~~**5.3**~~ **6.0**	**2.6-8.5**	~~**77.0**~~ **78.0**	~~**75.5**~~ **74.3**	**65-95**		~~**75.8**~~ **76.5**	~~**79.2**~~ **75.5**	**53-95**

Compared to the additionally applied reference products, ADM.3502.F.1.A tends to be superior to Delaro 325 SC (2 results) and it tends to be roughly comparable to Leander (2 results), and Zamir (4 results) – (table 3.2.3.2-5).

Table 3.2.3.2-5: Efficacy of ADM.3502.F.1.A against *Pyrenophora tritici repentis* on winter wheat compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Pyrenophora tritici repentis*									
		N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TRZAW	PYRNTR	2	10.7	9.1-12.3	91.8	.	88-96	Delaro 325 SC | 1	78.8	.	74-84
		2	5.4	5-5.9	77	.	73-81	Leander | 0.5	73.5	.	70-77
		4	11.2	5.2-28.1	72.7	79.2	47-85	Zamir | 1.5	65.7	71.1	35-86

Results for the control of *Pyrenophora tritici repentis* are available from EPPO zones Maritime, North-East, and South-East. As demonstrated by the results presented in table 3.2.3.2-4, there are no substantial differences between the climatic zones.

In 17 efficacy trials with a relevant infestation of *Pyrenophora tritici repentis* yield was taken. The results are presented in table 3.2.3.2-6 (quantity of yield) and table 3.2.3.2-7 (quality of yield).

Table 3.2.3.2-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product	
			Mean	Range	Mean	Range	Mean	Range
Maritime	TRZAW	6	82.3	57.3-99.9	110.9	104-126	109.7	102-131
North-East	TRZAW	2	50.2	48.4-52	107.5	107-108	104.7	104-105
South-East	TRZAW	9	63.8	44.4-91	113.8	102-148	110.4	101-127
Across EPPO zones	**TRZAW**	**17**	**68.7**	**44.4-99.9**	**112.0**	**102-148**	**109.5**	**101-131**

Table 3.2.3.2-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

		Quality parameters of yield					
		TGW		HLW		PRC	
EPPO zone		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product
Maritime	Mean	107.2	106.2	101.6	101.5	97.0	97.6
	Range	101-119	101-117	101-102	100-103		
	Nº	6	6	3	3	1	1
N-East	Mean	103.1	102.8	101.9	101.6		
	Range	103-104	102-103	101-103	101-102		
	Nº	2	2	2	2		
S-East	Mean	105.4	104.3	101.3	99.7		
	Range	100-126	100-118	100-103	95-102		
	Nº	9	9	7	7		
Across zones	**Mean**	**105.8**	**104.8**	**101.5**	**100.5**	**97.0**	**97.6**
	Range	**100-126**	**100-118**	**100-103**	**95-103**		
	Nº	**17**	**17**	**12**	**12**	**1**	**1**

TGW = Thousand grain weight; HLW = Hectolitre weight; PRC = Protein content

The results clearly demonstrate the benefits provided by the control of *Pyrenophora tritici repentis* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was 12 %. In 4 of 17 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the zonal reference product. There are no differences between EPPO zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 6 %.

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Pyrenophora tritici repentis* on wheat.

Comments of zRMS on:
Table 3.2.3.2-4a

As checked by the zRMS, after exclusion of 1 trial with low disease severity in the South-East EPPO zone, the efficacy for ADM.3502.F.1.A after one application was 81.8% and 83.1% for the standard.

3.2.3.3 Control of *Puccinia striiformis* (PUCCST) on wheat

(uses 1, 6, 11, 16, 21, 23, 26, 28, 106)

Table 3.2.3.3-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Puccinia striiformis* on wheat

EPPO zone	EU Reg. Zone	Country	2018	2019	2020	Sum
Maritime	**Central**	CZ			1	1
		DE	2	2		4
Total Maritime			2	2	1	**5**
North-East	**Central**	PL		2		**2**
South-East	**Central**	HU	1	3	1	**5**
	Total		**3**	**7**	**2**	**12**

Table 3.2.3.3-2: Location of efficacy trials in the EPPO climatic zones

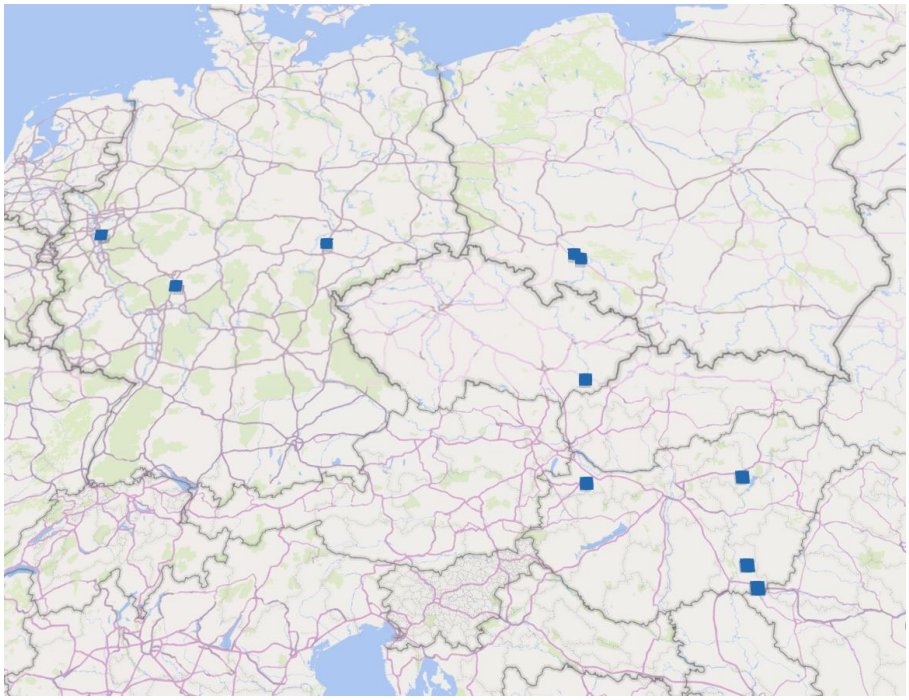
	EPPO zone		
Country	**Maritime**	**North-East**	**South-East**
Czech Republic (CZ)	1		
Germany (DE)	4		
Hungary (HU)			5
Poland (PL)		2	
Total	**5**	**2**	**5**

Table 3.2.3.3-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (12),
	Plot size	13.5-30 m²
	Number of replications	4 (12)
Crop	Trials per crop	Winter wheat (12)
	Varieties per crop	Akteur, Danubia, Körös, Lukullus, Patras, Tallér, Trapez, Tytanika
	Sowing period	Maritime zone: from October (01) to November (04). North-East zone: from October (04) to October (10) South-East zone: October (04) to October (22)
Application	Crop stage (BBCH)* at application	1st application: 30 to 59 2nd application: 39 to 71
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	1 (3); 2 (9)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Puccinia striiformis* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 65 to 85 (BBCH).
Other relevant information	Natural / artificial innoculation	12 / -

	Field / Lab / GH	12 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.3-1: Distribution of trial locations



Efficacy data for the control of *Puccinia striiformis* on wheat are presented from 12 efficacy trials. The summarised results for the central European regulation zone are presented in tables 3.2.3.3-4 and table 3.2.3.3-5. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.3-4a the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was 13.1 % (range: 6 % to 26 %), this represents acceptable to very good conditions for product testing. The results are considered valid.

Across the EPPO climatic zones, based on the results of 12 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was 91.5 % (median 91.9 %). The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Puccinia striiformis* in the vast majority of the trials (table 3.2.3.3-4). Comparing the median, the performance is fully comparable to the performance provided by the zonal reference product Input 460 EC respectively Input Classic (median: 89.9 %). Due to an oulier of the reference product in trial DE19FETRZAW203A, the means are different.

Table 3.2.3.3-4: Efficacy of ADM.3502.F.1.A against Puccinia *striiformis* on winter wheat compared to the zonal reference product(s)

Crop	Patho-gen	EPPO zone	Efficacy on *Puccinia striiformis*			
			N°	Disease level in UTC (%)	ADM.3502.F.1.A [1 L/ha]	Zonal reference product

	(EPPO-code)		of tri-als	Mean	Range	Mean	Me-dian	Range	Ref.Prod. | rate [L/ha]	Mean	Me-dian	Range
TRZAW	PUCCST	Maritime	5	13.3	6.1-25.6	89.8	89.7	82-96	Input / Input Classic | 1.25	72.1	89.7	0-91
		N-East	2	15.7	15.1-16.4	88.6	.	87-90		89.7	.	89-90
		S-East	5	11.9	6.2-15.5	94.5	95.2	84-100		91.3	94.4	79-100
		Across zones	**12**	**13.1**	**6.1-25.6**	**91.5**	**91.9**	**82-100**		**83.0**	**89.9**	**0-100**

At the most relevant assessment after 1 application only, in the trials which could be considered, the mean level of infestation was 8.9 % (range 1.0-16.4 %). Based on the results of 7 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was 85.2 % (range 25-100 %). The performance is fully comparable to the performance provided by the zonal reference product (mean: 81.6 %, range: 25-100 %).

Table 3.2.3.3-4a: Efficacy of ADM.3502.F.1.A against Puccinia *striiformis* on winter wheat after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Puccinia striiformis*									
			N° of tri-als	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference product			
				Mean	Range	Mean	Me-dian	Range	Ref.Prod. | rate [L/ha]	Mean	Me-dian	Range
TRZAW	PUCCST	Maritime	3	3.7	1-6.9	73.2	94.5	25-100	Input / Input Classic | 1.25	64.1	67.3	25-100
		N-East	2	15.7	15.1-16.4	88.6	.	87-90		89.7	.	89-90
		S-East	2	10.0	4.5-15.4	99.7	.	99-100		99.8	.	100-100
		Across zones	**7**	**8.9**	**1-16.4**	**85.2**	**94.5**	**25-100**		**81.6**	**90.0**	**25-100**

Compared to the additionally applied reference products, ADM.3502.F.1.A tends to be roughly comparable to Artemis (2 results), Leander (1 result), Tebusip (1 result), and Zamir (3 results) – (table 3.2.3.3-5). \

Table 3.2.3.3-5: Efficacy of ADM.3502.F.1.A against Puccinia *striiformis* on winter wheat compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Puccinia striiformis*									
		N° of tri-als	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TRZAW	PUCCST	2	15.7	15.1-16.4	88.6	.	87-90	Artemis | 2	89.4	.	89-90
		1	6.2	.	95.2	.	.	Leander | 0.5	95.2	.	.
		1	14.8	.	93.5	.	.	Tebusip | 1	90.9	.	.
		3	12.6	9-15	92.6	93.6	84-100	Zamir | 1.5	91.9	88.3	87-100

Results for the control of *Puccinia striiformis* are available from EPPO zones Maritime, North-East, and South-East. As demonstrated by the results presented in table 3.2.3.3-4, there are no substantial differences between the climatic zones.

In 12 efficacy trials with a relevant infestation of *Puccinia striiformis* yield was taken. The results are presented in table 3.2.3.3-6 (quantity of yield) and table 3.2.3.3-7 (quality of yield).

Table 3.2.3.3-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product	
			Mean	Range	Mean	Range	Mean	Range
Maritime	TRZAW	5	59.9	40.1-79	137.9	113-218	137.0	108-208
North-East	TRZAW	2	53.0	46.6-59.3	120.2	117-123	120.6	120-122
South-East	TRZAW	5	56.5	44.7-64.6	107.0	102-114	107.7	104-115
Across EPPO zones	**TRZAW**	**12**	**57.3**	**40.1-79**	**122.1**	**102-218**	**122.0**	**104-208**

Table 3.2.3.3-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

		Quality parameters of yield					
		TGW		HLW		PRC	
EPPO zone		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product
Maritime	Mean	112.7	111.1	104.7	105.1	95.4	100.4
	Range	98-164	98-158	99-125	100-124	91-99	99-101
	Nº	14	14	13	13	2	2
N-East	Mean	103.6	103.8	100.3	101.0		
	Range	100-111	98-113	96-103	98-104		
	Nº	8	8	7	7		
S-East	Mean	101.8	101.2	100.8	100.8		
	Range	98-105	94-105	100-102	100-102		
	Nº	12	12	7	7		
Across zones	**Mean**	**106.7**	**105.9**	**102.6**	**102.9**	**95.4**	**100.4**
	Range	**98-164**	**94-158**	**96-125**	**98-124**	**91-99**	**99-101**
	Nº	**34**	**34**	**27**	**27**	**2**	**2**

TGW = Thousand grain weight; HLW = Hectolitre weight; PRC = Protein content

The results clearly demonstrate the benefits provided by the control of *Puccinia striiformis* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was 22 %. In 6 of 12 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the zonal reference product. There are no substantial differences between EPPO zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 7 %.

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Puccinia striiformis* on wheat.

Comments of zRMS on:
Table 3.2.3.3-4a

As checked by the zRMS, after exclusion of 2 trials with low disease severity in the Maritime EPPO zone, the efficacy for ADM.3502.F.1.A after one application was 94.5% and 67.3% for the standard.

3.2.3.4 Control of *Puccinia triticina* (PUCCRT / PUCCRE) on wheat

(uses 1, 6, 11, 16, 21, 23, 26, 28, 106)

Table 3.2.3.4-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Puccinia triticina* on wheat

EPPO zone	EU Reg. Zone	Country	2018	2019	2020	Sum
Maritime	**Central**	CZ	2	5	1	8
		DE	7	5		12
Total Maritime			9	10	1	**20**
North-East	**Central**	PL		2		**2**
South-East	**Central**	HU	4	3	1	8
		SK			5	5
Total South-East			4	3	6	**13**
Total			**13**	**15**	**7**	**35**

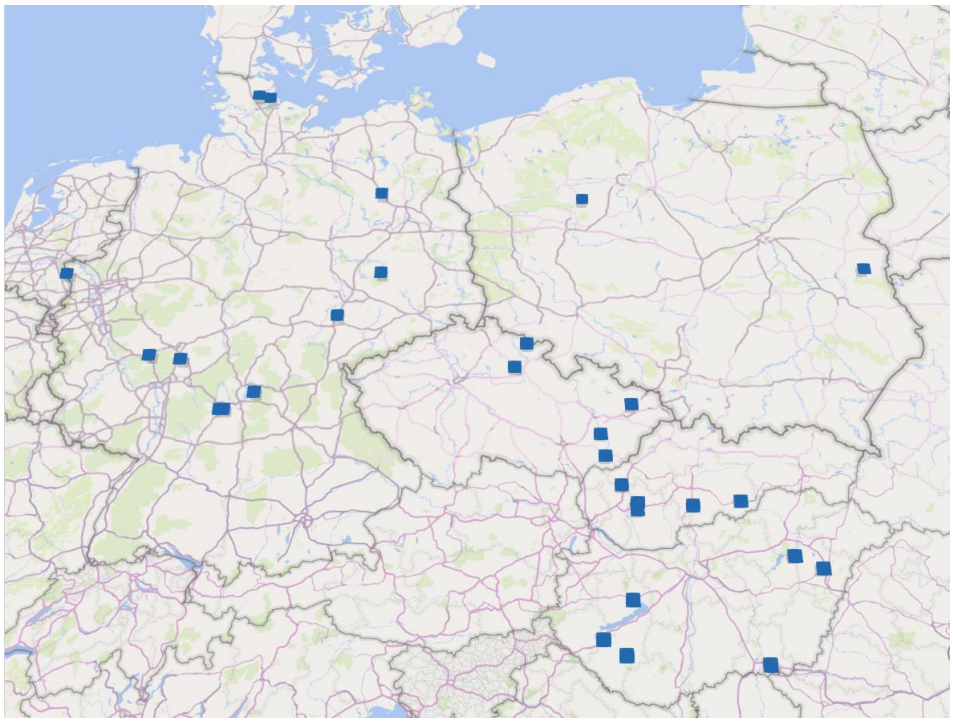
Table 3.2.3.4-2: Location of efficacy trials in the EPPO climatic zones

	EPPO zone		
Country	**Maritime**	**North-East**	**South-East**
Czech Republic (CZ)	8		
Germany (DE)	12		
Hungary (HU)			8
Poland (PL)		2	
Slovakia (SK)			5
Total	**20**	**2**	**13**

Table 3.2.3.4-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (35),
	Plot size	10-30 m²
	Number of replications	4 (35)
Crop	Trials per crop	Winter wheat (35)
	Varieties per crop	Acteur, Akteur, Aleksander, Altigo, Annie, Asano, Belissa, Boregar, Bussard, Capo, Dagmar, Danubia, Dekan, Genius, Grizzly, Julius, Kolo, Kolompos, Kt-Hasáb, Lukullus, Ménrót, Patras, Sacramento, Sunanka, Svitava, Tobak
	Sowing period	Maritime zone: from September (17) to November (04). North-East zone: from September (20) to September (29) South-East zone: Octoner (02) to November (11)
Application	Crop stage (BBCH)* at application	1st application: 29 to 41 2nd application: 37 to 71
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	1 (3); 2 (32)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Puccinia triticina* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 49 to 85 (BBCH).
Other relevant information	Natural / artificial innoculation	35 / -
	Field / Lab / GH	35 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.4-1: Distribution of trial locations



Efficacy data for the control of *Puccinia triticina* on wheat are presented from 35 efficacy trials. The summarised results for the central European regulation zone are presented in tables 3.2.3.4-4 and table 3.2.3.4-5. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.4-4a the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was 20.5 % (range: 5 % to 99 %), this represents acceptable to very good conditions for product testing. The results are considered valid.

Table 3.2.3.4-4: Efficacy of ADM.3502.F.1.A against *Puccinia triticina* on winter wheat compared to the zonal reference product(s)

Crop	Patho-gen (EPPO-code)	EPPO zone	Efficacy on *Puccinia triticina*									
			N° of tri-als	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference product			
				Mean	Range	Mean	Me-dian	Range	Ref.Prod. | rate [L/ha]	Mean	Me-dian	Range
TRZAW	PUCCRT	Maritime	20	27.1	5-99	89.2	90.9	53-100	Input / Input Classic | 1.25	86.5	89.7	53-100
		N-East	2	18.9	7.8-30	96.6	.	95-98		83.9	.	79-89
		S-East	13	10.7	5.1-31.9	85.8	88.8	37-100		88.6	94	54-100
		Across zones	**35**	**20.5**	**5-99**	**88.4**	**91.2**	**37-100**		**87.1**	**89.7**	**53-100**

Across the EPPO climatic zones, based on the results of 35 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was 88.4 % (median 91.2 %). The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Puccinia triticina* in the vast majority of the trials (table

3.2.3.4-4). The performance is fully comparable to the performance provided by the zonal reference product Input 460 EC (= Input Classic) - mean: 87.1 %, median: 89.7 %.
At the most relevant assessment after 1 application, in the trials which could be considered, the mean level of infestation was 6.8 % (range 2.1-14 %). Based on the results of 12 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was 85.0 % (range 24-100 %). The performance is fully comparable to the performance provided by the zonal reference product (mean: 84.8 %, range: 40-100 %).

Table 3.2.3.4-4a: Efficacy of ADM.3502.F.1.A against *Puccinia triticina* on winter wheat after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Puccinia triticina*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference product			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TRZAW	PUCCRT	Maritime	8	8.3	4.5-14.4	87.6	87.6	59-100	Input / Input Classic | 1.25	87.0	88.6	61-100
		N-East	2	3.9	3.3-4.5	97.4	.	95-100		90.7	.	81-100
		S-East	2	3.4	2.1-4.8	62.1	.	24-100		69.8	.	40-100
		Across zones	**12**	**6.8**	**2.1-14.4**	**85.0**	**92.2**	**24-100**		**84.8**	**88.6**	**40-100**

Compared to the additionally applied reference products, ADM.3502.F.1.A tends to be superior to Leander (1 result) and Mirador Xtra (3 results) and slightly superior to Artemis (2 results), and it tends to be roughly comparable to Hutton (2 results), Tebusip (1 result), and Zamir (3 results). – (table 3.2.3.4-5).

Table 3.2.3.4-5: Efficacy of ADM.3502.F.1.A against *Puccinia triticina* on winter wheat compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Puccinia triticina*									
		N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TRZAW	PUCCRT	2	18.9	7.8-30	96.6	.	95-98	Artemis | 2	91.7	.	88-95
		2	20.9	16.9-25	95.3	.	91-100	Hutton |0.8	95.6	.	91-100
		1	6.7	.	88.1	.	.	Leander | 0.5	64.8	.	.
		3	10.8	5-13.8	86.6	85.5	84-90	Mirador Xtra | 0.75-1	78.2	80	64-91
		1	45.6	.	82.3	.	.	Tebusip | 1	83.2	.	.
		3	6.3	5.1-7.7	74.9	91.2	37-96	Zamir | 1.5	82.5	91.4	62-94

Results for the control of *Puccinia triticina* are available from EPPO zones Maritime, North-East, and South-East. As demonstrated by the results presented in table 3.2.3.4-4, there are no substantial differences between the climatic zones.

In 35 efficacy trials with a relevant infestation of *Puccinia triticina* yield was taken. The results are presented in table 3.2.3.4-6 (quantity of yield) and table 3.2.3.4-7 (quality of yield).

Table 3.2.3.4-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product	
			Mean	Range	Mean	Range	Mean	Range
Maritime	TRZAW	20	60.8	29.9-89.5	126.2	104-218	125.2	99-208
North-East	TRZAW	2	68.3	67.5-69.2	118.2	114-123	116.6	109-124
South-East	TRZAW	13	61.4	40.2-82.5	112.5	102-148	110.3	102-138
Across EPPO zones	**TRZAW**	**35**	**61.4**	**29.9-89.5**	**120.7**	**102-218**	**119.2**	**99-208**

Table 3.2.3.4-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

		Quality parameters of yield					
		TGW		HLW		PRC	
EPPO zone		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product
Maritime	Mean	112.6	113.1	105.1	105.2	97.0	97.6
	Range	97-161	95-158	100-124	100-123		
	Nº	20	20	14	14	1	1
N-East	Mean	102.9	102.3	102.0	101.9		
	Range	102-104	102-103	101-103	101-103		
	Nº	2	2	2	2		
S-East	Mean	105.4	105.1	101.0	100.2		
	Range	98-126	100-121	99-103	95-103		
	Nº	13	13	9	9		
Across zones	**Mean**	**109.4**	**109.5**	**103.4**	**103.1**	**97.0**	**97.6**
	Range	**97-161**	**95-158**	**99-124**	**95-123**		
	Nº	**35**	**35**	**25**	**25**	**1**	**1**

TGW = Thousand grain weight; HLW = Hectolitre weight; PRC = Protein content

The results clearly demonstrate the benefits provided by the control of *Puccinia triticina* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was 21 %. In 14 of 35 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the zonal reference product. There are no differences between EPPO zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 9 %.

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Puccinia triticina* on wheat.

Comments of zRMS on:
Table 3.2.3.4-4a

As checked by the zRMS, after exclusion of 1 trial with low disease severity in the North-East EPPO zone, the efficacy for ADM.3502.F.1.A after one application was 94.7% and 81.3% for the standard. In South-East EPPO zone, after exclusion of 1 trial with low disease severity the efficacy for ADM.3502.F.1.A after one application was 24.1% and 39.6% for the standard.

3.2.3.5 Control of *Blumeria graminis* (ERYSGT / ERYSGR) on wheat

(uses 1, 6, 11, 16, 21, 23, 26, 28, 106)

Table 3.2.3.5-1: Overview and distribution of *field trials carried out to determine the efficacy of ADM.3502.F.1.A on Blumeria* graminis on wheat

EPPO zone	EU Reg. Zone	Country	2018	2019	2020	Sum
Maritime	**Central**	CZ	1	2	4	7
		DE	3	5	1	9
Total Maritime			4	7	5	**16**
North-East	**Central**	PL	2	2		**4**
South-East	**Central**	HU	2	1	1	**4**
Total			**8**	**10**	**6**	**24**

Table 3.2.3.5-2: Location of efficacy trials in the EPPO climatic zones

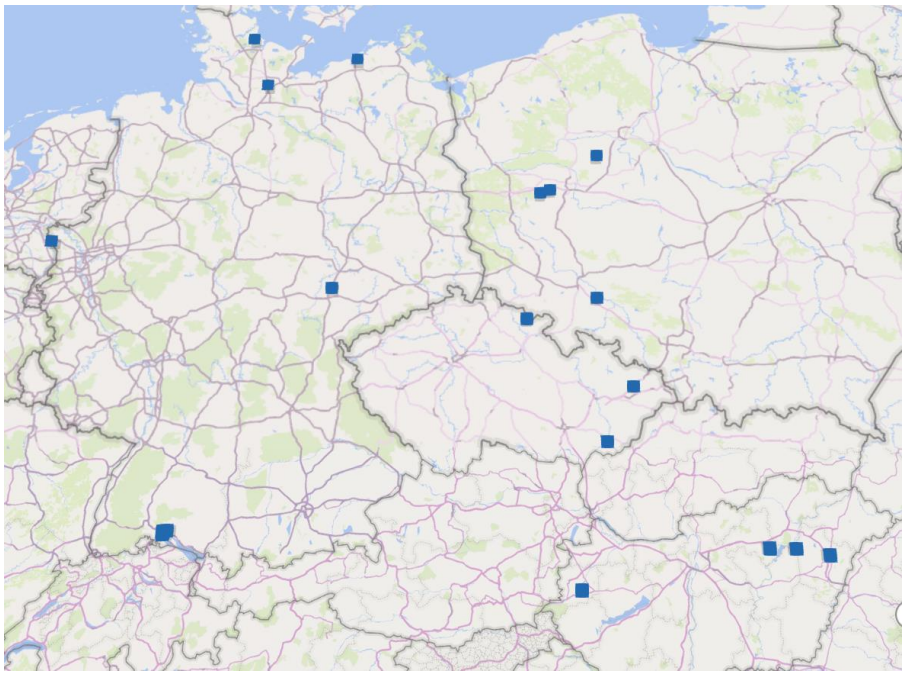
	EPPO zone

Country	Maritime	North-East	South-East
Czech Republic (CZ)	7		
Germany (DE)	9		
Hungary (HU)			4
Poland (PL)		4	
Total	**16**	**4**	**4**

Table 3.2.3.5-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (24),
	Plot size	13.5-30 m²
	Number of replications	4 (16)
Crop	Trials per crop	Winter wheat (24)
	Varieties per crop	Akteur, Arkadia, Bodycek, Combin, Dagmar, Danubia, Julius, Kerubino, Kolompos, Kt-Hasáb, Lukullus, Patras, Porthus, Princeps, Sacramento, Tobak
	Sowing period	Maritime zone: from September (17) to November (04) North-East zone: from September (19) to October (23) South-East zone: October (04) to October (12)
Application	Crop stage (BBCH)* at application	1st application: 30 to 39 2nd application: 39 to 65
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	1 (4); 2 (20)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Blumeria graminis* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 55 to 85 (BBCH).
Other relevant information	Natural / artificial innoculation	24 / -
	Field / Lab / GH	24 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.5-1: Distribution of trial locations



Efficacy data for the control of *Blumeria graminis* on wheat are presented from 24 efficacy trials. The summarised results for the central European regulation zone are presented in tables 3.2.3.5-4 and table 3.2.3.5-5. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.5-4a the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was 11.8 % (range: 5 % to 59 %), this represents acceptable to very good conditions for product testing. The results are considered valid.

Table 3.2.3.5-4: Efficacy of ADM.3502.F.1.A against *Blumeria graminis* on winter wheat compared to the zonal reference product(s)

Crop	Patho-gen (EPPO-code)	EPPO zone	Efficacy on *Blumeria graminis*									
			N° of tri-als	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference product			
				Mean	Range	Mean	Me-dian	Range	Ref.Prod. | rate [L/ha]	Mean	Me-dian	Range
TRZAW	ERYSGT	Maritime	16	10.5	5-30.2	89.4	95.9	35-100	Input / Input Classic | 1.25	90.2	93.5	70-100
		N-East	4	9.5	7.5-10.6	~~78.0~~ 83.5	~~82.4~~ 83.3	~~59~~ 79-88		79.2	83.6	61-88
		S-East	4	19.2	5.2-58.8	98.1	98.7	95-100		94.4	96	86-100
		Across zones	**24**	**11.8**	**5-58.8**	**89.0**	**94.3**	**35-100**		**89.1**	**90.8**	**61-100**

Across the EPPO climatic zones, based on the results of 24 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was 89 % (median 94.3 %). The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Blumeria graminis* in the vast majority of the trials (table 3.2.3.5-4). The performance is comparable to the performance provided by the zonal reference products Input, respectively Input Classic (mean: 89.1 %, median: 90.8 %).

At the most relevant assessment after 1 application only, in the trials which could be considered, the mean level of infestation was 11.4 % (range 2.5-25 %). Based on the results of 18 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was 88.8 % (range 47-100 %). The performance is fully comparable to the performance provided by the zonal reference product (mean: 86.2 %, range: 47-100 %).

Table 3.2.3.5-4a: Efficacy of ADM.3502.F.1.A against *Blumeria graminis* on winter wheat after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Blumeria graminis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference product			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TRZAW	ERYSGT	Maritime	10	11.5	4-22.9	92.0	98.4	47-100	Input / Input Classic | 1.25	87.6	96	47-100
		N-East	4	15.7	5.3-24.7	77.3	77.4	64-91		80.8	84.7	60-94
		S-East	4	6.9	2.5-13.8	92.3	95.6	78-100		88.0	87.4	77-100
		Across zones	**18**	**11.4**	**2.5-24.7**	**88.8**	**94.3**	**47-100**		**86.2**	**91.4**	**47-100**

Compared to the additionally applied reference products, ADM.3502.F.1.A tends to be superior to Miradoe Xtra (2 results) and roughly comparable to Artemis (2 results), Leander (1 result), Tebusip (2 results), and Zami (1 result) – (table 3.2.3.5-5).

Table 3.2.3.5-5: Efficacy of ADM.3502.F.1.A against *Blumeria graminis* on winter wheat compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Blumeria graminis*									
		N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TRZAW	ERYSGT	2	10.5	10.3-10.6	68.8	.	59-79	Artemis | 2	67.9	.	58-78
		1	6.3	.	94.9	.	.	Leander | 0.5	92.1	.	.
		2	8.8	7.5-10	94	.	90-98	Mirador Xtra | 0.75-1	81	.	70-92
		2	10.6	7.4-13.8	93.1	.	88-98	Tebusip | 1	88.1	.	78-98
		1	58.8	.	97.4	.	.	Zamir | 1.5	92.6	.	.

Results for the control of *Blumeria graminis* are available from EPPO zones Maritime, North-East, and South-East. As demonstrated by the results presented in table 3.2.3.5-4, there are no substantial differences between the climatic zones. Apparent differences are seen as a result of variability and number of trials.
In 24 efficacy trials with a relevant infestation of *Blumeria graminis* yield was taken. The results are presented in table 3.2.3.5-6 (quantity of yield) and table 3.2.3.5-7 (quality of yield).

Table 3.2.3.5-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product	
			Mean	Range	Mean	Range	Mean	Range
Maritime	TRZAW	16	68.7	29.9-97.8	115.2	104-146	115.9	104-145
North-East	TRZAW	4	66.3	40.4-81.1	115.6	111-125	117.7	111-128
South-East	TRZAW	4	63.9	55.2-75.9	107.2	102-115	105.4	103-108
Across EPPO zones	**TRZAW**	**24**	**67.5**	**29.9-97.8**	**113.9**	**102-146**	**114.5**	**103-145**

Table 3.2.3.5-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

		Quality parameters of yield					
		TGW		HLW		PRC	
EPPO zone		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product
Maritime	Mean	108.5	109.0	102.6	102.5	101.6	95.9
	Range	100-122	102-126	100-109	100-108	97-106	94-98
	Nº	16	16	14	14	2	2
N-East	Mean	102.2	102.3	101.1	101.6		
	Range	101-104	101-105	101-101	101-102		
	Nº	4	4	2	2		
S-East	Mean	100.6	99.9	100.7	100.5		
	Range	98-104	97-102				
	Nº	4	4	1	1		
Across zones	**Mean**	**106.1**	**106.4**	**102.3**	**102.3**	**101.6**	**95.9**
	Range	**98-122**	**97-126**	**100-109**	**100-108**	**97-106**	**94-98**
	Nº	**24**	**24**	**17**	**17**	**2**	**2**

TGW = Thousand grain weight; HLW = Hectolitre weight; PRC = Protein content

The results clearly demonstrate the benefits provided by the control of *Blumeria graminis* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was 14 %. In 10 of 24 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the zonal reference product. There are no differences between EPPO zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 6 %.

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Blumeria graminis* on wheat.

Comments of zRMS on:
Table 3.2.3.4-4a

As checked by the zRMS, after exclusion of 1 trial with low disease severity in the South-East EPPO zone, the efficacy for ADM.3502.F.1.A after one application was 89.7% and 83.9% for the standard.

3.2.3.6 Control of *Blumeria graminis* f.sp. *hordei* on barley (uses 2, 7, 12, 17, 22, 24, 27, 29, 107)

Table 3.2.3.6-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Blumeria graminis* on barley

EPPO zone	EU Reg. Zone	Country	2018	2019	2020	Sum
Maritime	**Central**	CZ	1(-/1)	3(1/2)	4(1/3)	8(2/6)
		DE		2		2
Total Maritime			1(-/1)	5(3/2)	4(1/3)	10(4/6)
North-East	**Central**	PL		2		2
South-East	**Central**	HU	1	2	1	4
		SK	1(-/1)		1(-/1)	2(-/2)
Total South-East			2(1/1)	2	2(1/1)	6(4/2)
Total			**3(1/2)**	**9(7/2)**	**6(2/4)**	**18(10/8)**

N° in brackets: (Winter barley/ Spring barley)

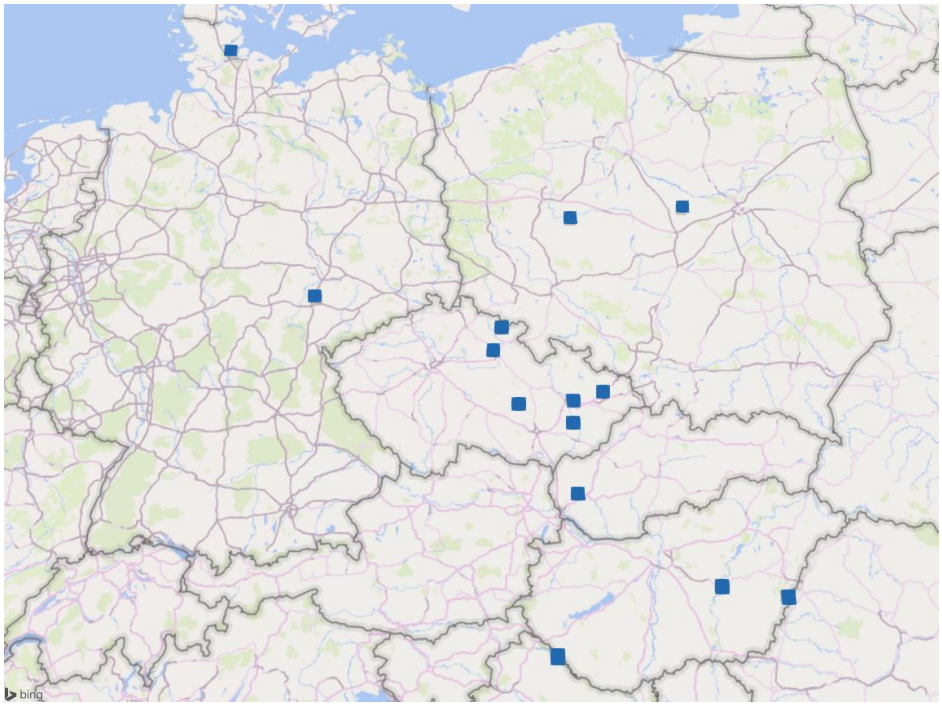
Table 3.2.3.6-2: Location of efficacy trials in the EPPO climatic zones

Country	EPPO zone		
	Maritime	**North-East**	**South-East**
Czech Republic (CZ)	8		
Germany (DE)	2		
Hungary (HU)			4
Poland (PL)		2	
Slovakia (SK)			2
Total	**10**	**2**	**6**

Table 3.2.3.6-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (18),
	Plot size	12-30 m²
	Number of replications	4 (18)
Crop	Trials per crop	Winter barley (10); Spring barley (8)
	Varieties per crop	**Winter barley:** Casanova, Henriette, Keeper, Leopard, Meridian, Padura, Su Ellen, Titus **Spring barley:** Bojos, Francin, Kangoo, Malz, Sebastian
	Sowing period	**Winter barley:** Maritime zone: from September (17) to September (27) North-East zone: from September (22) to September (25) South-East zone: September (17) to October (17) **Spring barley:** Maritime zone: from March (19) to April (09) South-East zone: March (17) to March (28)
Application	Crop stage (BBCH)* at application	1st application: 31 to 61 2nd application: 33 to 65
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	HORVW: 1 (1); 2 (9) HORVS: 1 (1); 2 (7)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Blumeria graminis* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 39 to 85 (BBCH).
Other relevant information	Natural / artificial innoculation	18 / -
	Field / Lab / GH	18 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.6-1: Distribution of trial locations



Efficacy data for the control of *Blumeria graminis* on barley are presented from 18 efficacy trials. The summarised results for the central European regulation zone are presented in tables 3.2.3.6-4 and table 3.2.3.6-5. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.6-4b the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was 14.5 % (range: 5 % to 86 %), this represents acceptable to very good conditions for product testing. The results are considered valid.

Across the EPPO climatic zones, based on the results of 18 trials, the mean reduction of pest severity of *Blumeria graminis* by ADM.3502.F.1.A applied at 1 L/ha was 90.9 % (median 94.4 %, range 73 % to 100 %). The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Blumeria graminis* in the majority of the trials (table 3.2.3.6-4). The performance is comparable to the performance provided by the zonal reference products Input, respectively Input Classic (mean: 91.3 %, median: 93.3 %).

Table 3.2.3.6-4: Efficacy of ADM.3502.F.1.A against *Blumeria graminis* on winter- and spring barley compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Blumeria graminis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference product			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
HORVW /HORVS	ERYSGH	Maritime	10	21.1	5.6-85.8	92.7	97.6	73-100	Input / Input Classic | 1.25	92.5	95.1	81-100
		N-East	2	9.0	5.5-12.5	90.1	.	86-94		87.7	.	83-93
		S-East	6	13.5	5.1-37.4	88.3	89.8	77-97		90.6	92.7	79-95
		Across zones	**18**	**14.5**	**5.1-85.8**	**90.9**	**94.4**	**73-100**		**91.3**	**93.3**	**79-100**

In table 3.2.3.6.4a an additional summary of test results on the spring form only is presented.

Table 3.2.3.6-4a: Efficacy of ADM.3500.F.2.B against *Blumeria graminis* on spring barley (relevant assessment) compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Blumeria graminis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
HORVS	ERYSGH	Maritime	6	28.7	5.6-85.8	88.8	92.2	73-100	Input / Input Classic | 1.25	90.5	90.5	81-100
		S-East	2	24.7	12.1-37.4	89.8	.	87-92		94.3	.	94-95
		Across zones	**8**	**27.7**	**5.6-85.8**	**89.0**	**90.6**	**73-100**		**91.5**	**94.3**	**81-100**

At the most relevant assessment after 1 application only, in the trials which could be considered, the mean level of infestation was 11.8 % (range 1.0-31 %). Based on the results of 17 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was 85.2 % (range 0-100 %). The performance is fully comparable to the performance provided by the zonal reference product (mean: 84.0 %, range: 0-96 %).

Table 3.2.3.6-4b: Efficacy of ADM.3502.F.1.A against *Blumeria graminis* on winter- and spring barley after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Blumeria graminis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference product			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
HORVW /HORVS	ERYSGH	Maritime	10	12.2	1-31.3	84.2	92.7	0-100	Input / Input Classic | 1.25	82.4	92.5	0-96
		N-East	2	6.0	6-6.1	88.4	.	87-90		86.2	.	85-88
		S-East	5	13.3	4.4-26.4	86.0	88.6	74-100		86.4	91.1	77-93
		Across zones	**17**	**11.8**	**1-31.3**	**85.2**	**91.2**	**0-100**		**84.0**	**91.1**	**0-96**

Compared to the additionally applied reference products, ADM.3502.F.1.A tends to be comparable to Artemis 25 EW (2 results), Hutton (3 results), Leander (1 result) and Tebusha 25 EW (2 results) – (table 3.2.3.6-5).

Table 3.2.3.6-5: Efficacy of ADM.3502.F.1.A against *Blumeria graminis* on winter- and spring barley compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Blumeria graminis*									
		N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
HORVW /HORVS	ERYSGH	2	9	5.5-12.5	90.1	.	86-94	Artemis | 2	89.1	.	84-95
		3	12.5	8.2-16.3	94.4	94.6	89-100	Hutton |0.8	95.2	97.7	88-100
		1	5.1	.	96.7	.	.	Leander | 0.5	95.1	.	.
		2	9.9	6.1-13.8	85.8	.	77-95	Tebusha 25 EW | 1	88.6	.	79-98

Results for the control of *Blumeria graminis* are available from EPPO zones Maritime, North-East, and South-East. As demonstrated by the results presented in table 3.2.3.6-4, there are no substantial differences between the climatic zones.

In 18 efficacy trials with a relevant infestation of *Blumeria graminis* yield was taken. The results are presented in table 3.2.3.6-6 (quantity of yield) and table 3.2.3.6-7 (quality of yield).

Table 3.2.3.6-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product	
			Mean	Range	Mean	Range	Mean	Range
Maritime	HORVW	4	84.6	54.3-111.1	115.6	106-127	114.7	106-124
	HORVS	6	66.7	59-82.3	107.8	101-115	107.9	103-115
North-East	HORVW	2	27.1	7.8-46.4	124.8	124-125	121.6	121-122
South-East	HORVW	4	61.3	50.8-71.6	106.9	106-109	106.8	101-110
	HORVS	2	53.2	51.4-55.1	114.8	111-118	112.4	109-116
Across EPPO zones	**HORVW**	10	63.8	7.8-111.1	114.0	106-127	112.9	101-124
	HORVS	8	63.3	51.4-82.3	109.6	101-118	109.0	103-116
	HORVX	18	63.6	7.8-111.1	112.0	101-127	111.2	101-124

Table 3.2.3.6-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

EPPO zone		Quality parameters of yield			
		TGW		HLW	
		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)
Maritime	Mean	106.2	105.7	103.0	103.1
	Range	102-115	101-114	100-105	100-105
	Nº	10	10	9	9
N-East	Mean	110.7	110.2	102.8	102.8
	Range	102-120	101-119	102-104	102-104
	Nº	2	2	2	2
S-East	Mean	100.4	101.0	100.4	100.8
	Range	99-102	100-103	100-101	100-102
	Nº	6	6	3	3
Across zones	**Mean**	**104.8**	**104.6**	**102.4**	**102.5**
	Range	**99-120**	**100-119**	**100-105**	**100-105**
	Nº	**18**	**18**	**14**	**14**

TGW = Thousand grain weight; HLW = Hectolitre weight

The results clearly demonstrate the benefits provided by the control of *Blumeria graminis* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was 11 %. In 11 of 18

trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the zonal reference products. There are no substantial differences between EPPO zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 5 %.

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Blumeria graminis* on barley.

Comments of zRMS on:
Table 3.2.3.6-4b

As checked by the zRMS, after exclusion of 1 trial with low disease severity in the Maritime EPPO zone, the efficacy for ADM.3502.F.1.A after one application was 93.5% and 91.6% for the standard.

3.2.3.7 Control of *Rhynchosporium secalis* (RHYNSE) on barley (uses 2, 7, 12, 17, 22, 24, 27, 29, 107)

Table 3.2.3.7-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Rhynchosporium secalis* on barley

EPPO zone	EU Reg. Zone	Country	2019	2020	Sum
Maritime	**Central**	CZ	1	2(1/1)	3
		DE	3		3
Total Maritime			4	**2(1/1)**	**6(5/1)**
North-East	**Central**	PL	2		**2**
South-East	**Central**	HU	2	1	3
		SK		1	1
Total South-East			2	2	**4**
Total			**8**	**4(3/1)**	**12(11/1)**

N° in brackets: (Winter barley/ Spring barley)

Table 3.2.3.7-2: Location of efficacy trials in the EPPO climatic zones

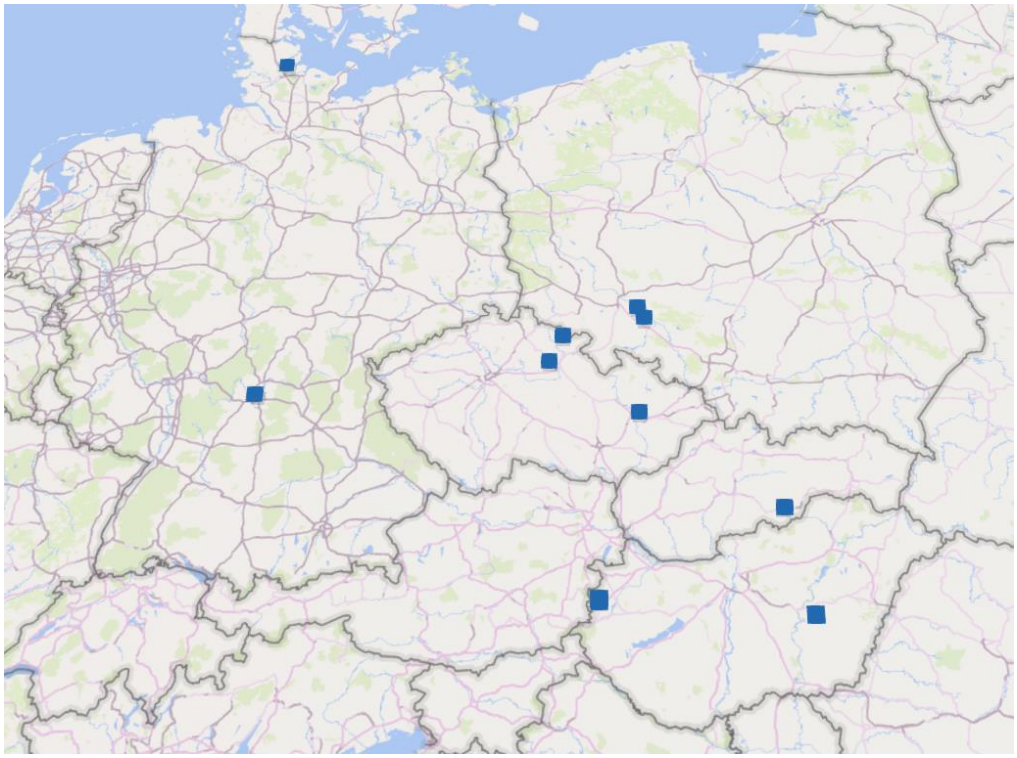
	EPPO zone		
Country	**Maritime**	**North-East**	**South-East**
Czech Republic (CZ)	3		
Germany (DE)	3		
Hungary (HU)			3
Poland (PL)		2	
Slovakia (SK)			1
Total	**6**	**2**	**4**

Table 3.2.3.7-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (12),
	Plot size	13.5-30 m²
	Number of replications	4 (12)
Crop	Trials per crop	Spring barley 1); Winter barley (11)
	Varieties per crop	**Spring barley**: Francin **Winterbarley**: Carmina, Henriette, Joy, Jup, Leopard, Lomerit, Meridian, Sandra, Scala
	Sowing period	**Spring barley**: Maritime zone: March (19) **Winter barley**: Maritime zone: from September (17) to October (09) North-East zone: from September (20) to September (21) South-East zone: September(28) to October (23)

Application	Crop stage (BBCH)* at application	1st application: 30 to 61 2nd application: 37 to 65
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	Spring barley: 1 (1); 2 (-) - Winter barley: 1 (5); 2 (6)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Rhynchosporium secalis* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 65 to 85 (BBCH).
Other relevant information	Natural / artificial innoculation	12 / -
	Field / Lab / GH	12 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.7-1: Distribution of trial locations



Efficacy data for the control of *Rhynchosporium secalis* on barley are presented from 12 efficacy trials. The summarised results for the central European regulation zone are presented in tables 3.2.3.7-4 and table 3.2.3.7-5. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.7-4b the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was 9.7 % (range: 5 % to 18 %), this represents acceptable to good conditions for product testing. The results are considered valid.

Table 3.2.3.7-4: Efficacy of ADM.3502.F.1.A against *Rhynchosporium secalis* on winter- and spring barley compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Rhynchosporium secalis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
HORVW / HORVS	RHYNSE	Maritime	6	9.7	5-17.9	84.3	86.6	66-100	Input / Input Classic | 1.25	82.7	83.8	63-100
		N-East	2	8.5	8.3-8.8	84.9	.	85-85		87.6	.	87-88
		S-East	4	10.3	6.1-19.2	91.4	94.1	81-97		91.1	93.9	81-95
		Across zones	**12**	**9.7**	**5-19.2**	**86.8**	**86.7**	**66-100**		**86.3**	**87.6**	**63-100**

Across the EPPO climatic zones, based on the results of 12 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was 86.8 % (median 86.7 %). The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Rhynchosporium secalis* in the vast majority of the trials (table 3.2.3.7-4). The performance is comparable to the performance provided by the zonal reference products Input 460 EC, respectively Input Classic (mean: 86.3 %, median: 87.6 %).

In table 3.2.3.7.4a an additional summary of test results on the spring form only is presented.

Table 3.2.3.7-4a: Efficacy of ADM.3500.F.2.B against *Rhynchosporium secalis* on spring barley (relevant assessment) compared to the zonal reference product

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Rhynchosporium secalis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
HORVS	ERYSGH	Maritime	1	7.8	.	94.0	.	.	Input | 1.25	93.2	.	.

At the most relevant assessment after 1 application only, in the trials which could be considered, the mean level of infestation was 7.8 % (range 1.5-15 %). Based on the results of 10 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was 72.4 % (range 0-97 %). The performance is comparable to the performance provided by the zonal reference product (mean: 76.4 %, range: 0-100 %).

Table 3.2.3.7-4b: Efficacy of ADM.3502.F.1.A against *Rhynchosporium secalis* on winter- and spring barley after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Rhynchosporium secalis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
HORVW/ HORVS	RHYNSE	Maritime	6	9.1	4.7-15.1	67.8	75.1	0-97	Input / Input Classic | 1.25	66.9	73.4	0-98
		N-East	2	8.5	8.3-8.8	84.9	.	85-85		87.6	.	87-88
		S-East	2	3.4	1.5-5.3	73.8	.	62-86		93.5	.	87-100
		Across zones	**10**	**7.8**	**1.5-15.1**	**72.4**	**81.1**	**0-97**		**76.4**	**86.9**	**0-100**

Compared to the additionally applied reference products, ADM.3502.F.1.A tends to be superior to Leander (1 result) and comparable to Orius P (2 results).

Table 3.2.3.7-5: Efficacy of ADM.3502.F.1.A against *Rhynchosporium secalis* on winter barley compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Rhynchosporium secalis*			
		N°	Disease level in UTC (%)	ADM.3502.F.1.A [1 L/ha]	Additionally applied reference product(s)

		of tri-als	Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
HORVW	RHYNSE	1	8.3	.	96.2	.	.	Leander | 0.5	74.1	.	.
		2	6.9	6.1-7.8	94.4	.	92-97	Orius P | 1.5	94.9	.	91-98

Results for the control of *Rhynchosporium secalis* are available from EPPO zones Maritime, North-East, and South-East. As demonstrated by the results presented in table 3.2.3.7-4, there are no substantial differences between the climatic zones.

In 12 efficacy trials (11 in winter barley, 1 in spring barley) with a relevant infestation of *Rhynchosporium secalis* yield was taken. The results are presented in table 3.2.3.7-6 (quantity of yield) and table 3.2.3.7-7 (quality of yield).

Table 3.2.3.7-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product	
			Mean	Range	Mean	Range	Mean	Range
Maritime	HORVW	5	79.1	61.8-111.1	120.1	106-150	117.0	103-145
	HORVS	1	68.7	.	110.2	.	115.2	.
North-East	HORVW	2	56.9	55.5-58.3	111.2	109-113	109.8	109-110
South-East	HORVW	4	63.0	47.5-81	106.7	104-110	106.3	102-109
Across EPPO zones	**HORVW**	**11**	**69.2**	**47.5-111.1**	**113.6**	**104-150**	**111.8**	**102-145**
	HORVS	**1**	**68.7**	**.**	**110.2**	**.**	**115.2**	**.**
	HORVX	**12**	**69.2**	**47.5-111.1**	**113.3**	**104-150**	**112.1**	**102-145**

Table 3.2.3.7-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

		Quality parameters of yield			
		TGW		HLW	
EPPO zone		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product
Maritime	Mean	105.8	105.6	104.1	103.8
	Range	96-113	99-112	100-113	99-113
	Nº	6	6	6	6
N-East	Mean	100.7	100.9	102.3	101.6
	Range	100-102	101-101	102-103	101-102
	Nº	2	2	2	2
S-East	Mean	101.8	102.4	101.1	100.2
	Range	101-103	102-103	100-102	100-101
	Nº	4	4	3	3
Across zones	**Mean**	**103.6**	**103.7**	**103.0**	**102.4**
	Range	**96-113**	**99-112**	**100-113**	**99-113**
	Nº	**12**	**12**	**11**	**11**

TGW = Thousand grain weight; HLW = Hectolitre weight

The results clearly demonstrate the benefits provided by the control of *Rhynchosporium secalis* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was about 14 %. In 5 of 12 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the zonal reference products. There are no differences between EPPO zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 4 %.

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Rhynchosporium secalis* on barley.

Comments of zRMS on:
Table 3.2.3.7-4b

As checked by the zRMS, after exclusion of 1 trial with low disease severity in the South-East EPPO zone, the efficacy for ADM.3502.F.1.A after one application was 61.9% and 100% for the standard.

3.2.3.8 Control of *Pyrenophora teres* (~~PYRNTR~~ PYRNTE) on barley (uses 2, 7, 12, 17, 22, 24, 27, 29, 107)

Table 3.2.3.8-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Pyrenophora teres* on barley

EPPO zone	EU Reg. Zone	Country	2018	2019	2020	Sum
Maritime	**Central**	CZ		5(3/2)	5(1/4)	10(4/6)
		DE		4		4
Total Maritime				9(7/2)	5(1/4)	**14(8/6)**
North-East	**Central**	PL		2		**2**
South-East	**Central**	HU		2	2	4
		SK	1(-/1)		6(5/1)	7(5/2)
Total South-East			1(-/1)	2	8(7/1)	**11(9/2)**
Total			**1(-/1)**	**13(11/2)**	**13(9/4)**	**27(19/8)**

N° in brackets: (Winter barley/ Spring barley)

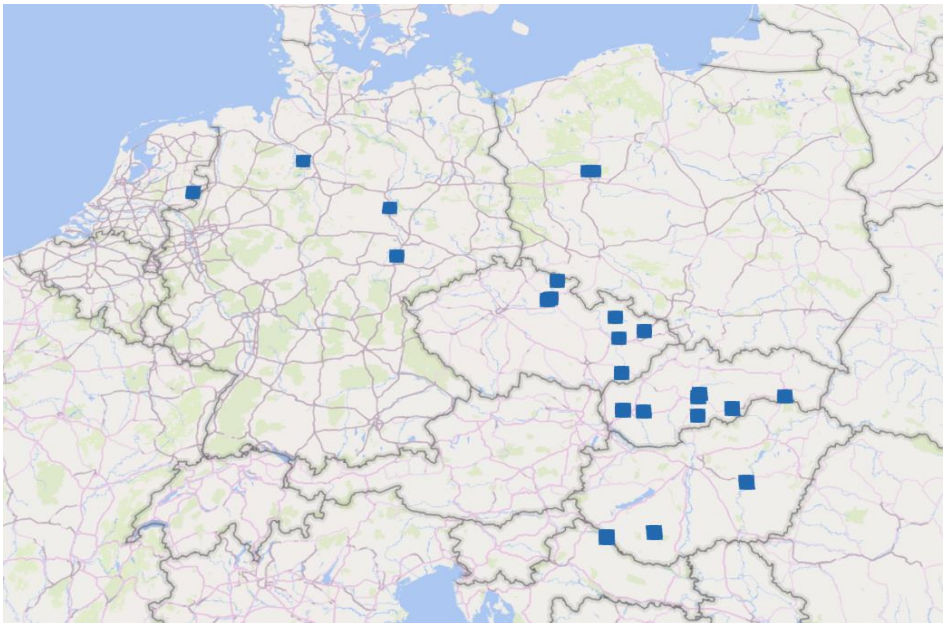
Table 3.2.3.8-2: Location of efficacy trials in the EPPO climatic zones

Country	EPPO zone		
	Maritime	**North-East**	**South-East**
Czech Republic (CZ)	10		
Germany (DE)	4		
Hungary (HU)			4
Poland (PL)		2	
Slovakia (SK)			7
Total	**14**	**2**	**11**

Table 3.2.3.8-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (49),
	Plot size	10-30 m²
	Number of replications	4 (27)
Crop	Trials per crop	Spring barley (8); Winter barley (19)
	Varieties per crop	**Spring barley**: Bojos, Francin, Laudis 550, Malz, Sebastian **Winter barley**: Calypso, Casanova, Gloria, Jup, Keeper, Kosmos, Leopard, Lg Triumph, Meridian, Quadriga, Sandra, Scala, Tenor, Triumf, Yatzy
	Sowing period	**Spring barley**: Maritime zone: March (18) to April (10) South-East zone: March (178) to April (06) **Winter barley**: Maritime zone: from September (17) to October (20) North-East zone: from September (25) to October (02) South-East zone: September(13) to October (23)
Application	Crop stage (BBCH)* at application	1st application: 29 to 61 2nd application: 43 to 69
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	Spring barley: 1 (2); 2 (6) - Winter barley: 1 (2); 2 (17)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Pyrenophora teres* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 61 to 85 (BBCH).
Other relevant information	Natural / artificial innoculation	27 / -
	Field / Lab / GH	27 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.8-1: Distribution of trial locations



Efficacy data for the control of *Pyrenophora teres* on barley are presented from 27 efficacy trials. The summarised results for the central European regulation zone are presented in tables 3.2.3.8-4 and table 3.2.3.8-5. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.8-4b the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was 15.6 % (range: 5 % to 58 %), this represents acceptable to very good conditions for product testing. The results are considered valid.

Table 3.2.3.8-4: Efficacy of ADM.3502.F.1.A against *Pyrenophora teres* on winter- and spring barley compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Pyrenophora teres*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
HORVW / HORVS	PYRNTE	Maritime	14	16.5	6-57.5	88.4	91.2	61-100	Input / Input Classic | 1.25	88.0	89.9	65-100
		N-East	2	19.4	18.8-20	82.0	.	80-84		75.3	.	72-79
		S-East	11	14.1	5.2-42.5	90.2	91.1	76-100		90.2	93.2	77-100
		Across zones	**27**	**15.7**	**5.2-57.5**	**88.7**	**90.7**	**61-100**		**87.9**	**89.5**	**65-100**

Across the EPPO climatic zones, based on the results of 27 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was 88.7 % (median 90.7 %). The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Pyrenophora teres* in the vast majority of the trials (table 3.2.3.8-4). The performance is comparable to the performance provided by the zonal reference products Input 460 EC, respectively Input Classic (mean: 87.9 %, median: 89.5 %).

In table 3.2.3.8.4a an additional summary of test results on the spring form only is presented.

Table 3.2.3.8-4a: Efficacy of ADM.3502.F.1.A against *Pyrenophora teres* on spring barley compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Pyrenophora teres*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
HORVS	PYRNTE	Maritime	6	11.6	6-18.1	92.1	92.2	86-98	Input / Input Classic | 1.25	91.1	90.8	85-98
		S-East	2	12.2	5.2-19.2	96.3	.	93-99		90.3	.	81-100
		Across zones	**8**	**11.8**	**5.2-19.2**	**93.1**	**93.0**	**86-99**		**90.9**	**90.8**	**81-100**

At the most relevant assessment after 1 application only, in the trials which could be considered, the mean level of infestation was 7.8 % (range 1.8-23 %). Based on the results of 22 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was 88.3 % (range 47-100 %). The performance is fully comparable to the performance provided by the zonal reference product (mean: 86.5 %, range: 14-100 %).

Table 3.2.3.8-4b: Efficacy of ADM.3502.F.1.A against *Pyrenophora teres* on winter- and spring barley ~~at the time of the 2nd application~~ after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Pyrenophora teres*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
HORVW / HORVS	PYRNTE	Maritime	12	6.8	2-17.2	89.8	93.4	71-100	Input / Input Classic | 1.25	91.5	92.6	74-100
		N-East	2	22.7	22.2-23.1	90.0	.	85-95		91.5	.	85-98
		S-East	8	5.5	1.8-12.5	85.6	92.2	47-100		77.7	92.5	14-100
		Across zones	**22**	**7.8**	**1.8-23.1**	**88.3**	**93.4**	**47-100**		**86.5**	**92.6**	**14-100**

Compared to the additionally applied reference products, ADM.3502.F.1.A tends to be superior to Leander (2 results) and comparable to Artemis (1 result), Hutton (1 result), and Orius P (2 results) – (table 3.2.3.8-5).

Table 3.2.3.8-5: Efficacy of ADM.3502.F.1.A against *Pyrenophora teres* on winter- and spring barley compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Pyrenophora teres*									
		N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
HORVW / HORVS	PYRNTE	1	18.8	.	84	.	.	Artemis | 2	85.3	.	.
		1	6.1	.	92.8	.	.	Hutton |0.8	93	.	.
		2	7.6	6.2-9	89.1	.	87-91	Leander | 0.5	55.6	.	29-82
		2	24.6	6.7-42.5	87.3	.	76-99	Orius P | 1.5	86.4	.	77-96

Results for the control of *Pyrenophora teres* are available from EPPO zones Maritime, North-East, and South-East. As demonstrated by the results presented in table 3.2.3.8-4, there are no substantial differences between the climatic zones.
In 26 efficacy trials (18 in winter barley, 8 in spring barley) with a relevant infestation of *Pyrenophora teres* yield was taken. The results are presented in table 3.2.3.8-6 (quantity of yield) and table 3.2.3.8-7 (quality of yield).

Table 3.2.3.8-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product	
			Mean	Range	Mean	Range	Mean	Range
Maritime	HORVW	7	77.1	23.5-111.1	110.9	105-122	111.4	104-122
	HORVS	6	60.5	48-82.3	114.3	110-121	114.6	110-120
North-East	HORVW	2	59.8	56.6-63.1	132.7	123-142	132.3	124-141
South-East	HORVW	9	56.8	37.5-72.2	107.2	98-125	107.5	97-118
	HORVS	2	47.3	43.2-51.4	117.7	117-118	113.3	109-118
Across EPPO zones	**HORVW**	**18**	**65.0**	**23.5-111.1**	**111.5**	**98-142**	**111.8**	**97-141**
	HORVS	**8**	**57.2**	**43.2-82.3**	**115.2**	**110-121**	**114.2**	**109-120**
	HORVX	**26**	**62.6**	**23.5-111.1**	**112.6**	**98-142**	**112.5**	**97-141**

The results clearly demonstrate the benefits provided by the control of *Pyrenophora teres* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was 11 %. In 14 of 26 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the zonal reference products. There are no differences between EPPO zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 5 %.

Table 3.2.3.8-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

		Quality parameters of yield					
		TGW		HLW		PRC	
EPPO zone		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)
Maritime	Mean	107.9	107.5	103.2	103.0	97.8	97.8
	Range	102-117	103-118	99-108	99-108	98-98	98-98
	Nº	13	13	13	13	1	1
N-East	Mean	104.7	103.3	100.3	98.1	#DIV/0!	#DIV/0!
	Range	97-112	97-110	93-107	96-101	0-0	0-0
	Nº	2	2	2	2	0	0
S-East	Mean	102.2	102.4	101.0	101.0	102.0	97.7
	Range	99-109	98-109	97-106	99-106	102-102	98-98
	Nº	11	11	9	9	1	1
Across zones	**Mean**	**105.2**	**105.1**	**102.1**	**101.8**	**99.9**	**97.8**
	Range	**97-117**	**97-118**	**93-108**	**96-108**	**98-102**	**98-98**
	Nº	**26**	**26**	**24**	**24**	**2**	**2**

TGW = Thousand grain weight; HLW = Hectolitre weight; PRC = Protein content

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Pyrenophora teres* on barley.

Comments of zRMS on:
Table 3.2.3.8-4b

As checked by the zRMS, after exclusion of 3 trials with low disease severity in the Maritime EPPO zone, the efficacy for ADM.3502.F.1.A after one application was 89.6% and 90.4% for the standard. In South-East EPPO zone, after exclusion of 2 trials with low disease severity the efficacy for ADM.3502.F.1.A after one application was 84.0% and 85.4% for the standard.

3.2.3.9 Control of *Puccinia hordei* (PUCCHD) on barley (uses 2, 7, 12, 17, 22, 24, 27, 29, 107)

Table 3.2.3.9-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Puccinia hordei* on barley

EPPO zone	EU Reg. Zone	Country	2018	2019	2020	Sum
Maritime	**Central**	CZ	2(-/2)	2(-/2)	3(-/3)	7(-/7)
		DE	1	8		9
Total Maritime			3(1/2)	10(8/2)	3(-/3)	16(9/7)
North-East	**Central**	PL		2		2
South-East	**Central**	HU	2	2	2	6
		SK	2(-/2)			2(-/2)
Total South-East			4(2/2)	2	2	8(6/2)
Total			**7(3/4)**	**14(12/2)**	**5(2/3)**	**26(17/9)**

N° in brackets: (Winter barley/ Spring barley)

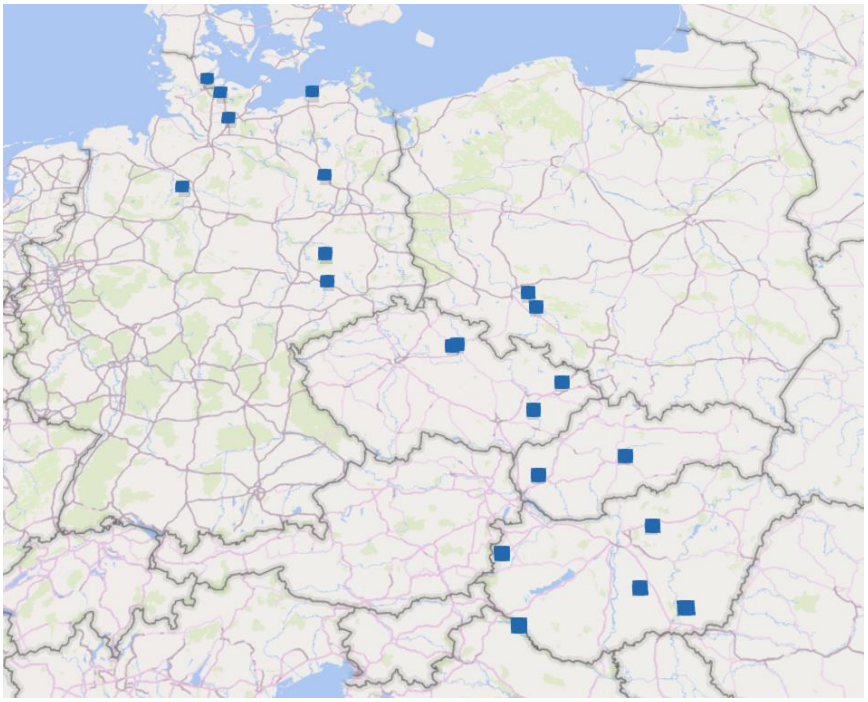
Table 3.2.3.9-2: Location of efficacy trials in the EPPO climatic zones

Country	EPPO zone		
	Maritime	**North-East**	**South-East**
Czech Republic (CZ)	7		
Germany (DE)	9		
Hungary (HU)			6
Poland (PL)		2	
Slovakia (SK)			2
Total	**16**	**2**	**8**

Table 3.2.3.9-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (26),
	Plot size	10-30 m²
	Number of replications	4 (26)
Crop	Trials per crop	Spring barley (9); Winter barley (17)
	Varieties per crop	**Spring barley:** Bojos, Kangoo, Laudis 550, Malz, Sebastian **Winter barley**: Antonella, Apavár, Carmina, Casanova, Henriette, Higgins, Kosmos, Lomerit, Mercurioo, Meridian, Scala, Su Ellen, Tenor
	Sowing period	**Spring barley:** Maritime zone: from March (18) to April (10) South-East zone: from March (28) to April (06) **Winter barley:** Maritime zone: from September (19) to October (01) North-East zone: from September (20) to September (21) South-East zone: from September (26) to October (19)
Application	Crop stage (BBCH)* at application	1st application: 30 to 55 2nd application: 37 to 69
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	HORVS: 1 (2); 2 (7) / HORVW: 1 (3); 2 (14)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Puccinia hordei* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 61 to 83 (BBCH).
Other relevant information	Natural / artificial innoculation	26 / -
	Field / Lab / GH	26 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.9-1: Distribution of trial locations



Efficacy data for the control of *Puccinia hordei* on barley are presented from 26 efficacy trials. The summarised results for the central European regulation zone are presented in tables 3.2.3.9-4 and table 3.2.3.9-5. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.9-4b the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was ~~21.9 %~~ 22.1% (range: 5 % to 100 %), this represents acceptable to very good conditions for product testing. The results are considered valid.

Table 3.2.3.9-4: Efficacy of ADM.3502.F.1.A against *Puccinia hordei* on winter- and spring barley compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Puccinia hordei*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
HORVW / HORVS	PUCCHD	Maritime	~~16~~ 15	22.1 ~~21.9~~ 22.5	5.8-80.3	~~96.1~~ 95.5	~~99.4~~ 98.1	83-100	Input / Input Classic | 1.25	~~95.5~~ 95.2	~~98.3~~ 97.4	83-100
		N-East	2	14.9	13.8-15.9	88.5	.	88-89		89.0	.	89-89
		S-East	8	23.2	5.2-100	92.8	97.1	76-100		93.5	96.5	78-100
		Across zones	~~26~~ **25**	~~21.9~~ **22.1**	**5.2-100**	~~94.4~~ **94.1**	~~98.1~~ **96.7**	**76-100**		~~94.4~~ **94.1**	**97.4**	**78-100**

Across the EPPO climatic zones, based on the results of ~~26~~ 25 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was ~~94.4 %~~ 94.1% (median 98.1 %). The results clearly

demonstrate the good performance of ADM.3502.F.1.A against *Puccinia hordei* in the vast majority of the trials (table 3.2.3.9-4). The performance is comparable to the performance provided by the zonal reference product Inpt 460 EC, respectively Input Classic (mean: ~~94.4 %~~ 94.1%, median: ~~97 %~~ 97.4%).

In table 3.2.3.9.4a an additional summary of test results on the spring form only is presented.

Table 3.2.3.9-4a: Efficacy of ADM.3502.F.1.A against *Puccinia hordei* on spring barley compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Puccinia hordei*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
HORVW / HORVS	PUCCHD	Maritime	7	21.4	5.9-80.3	96.5	99.4	91-100	Input / Input Classic | 1.25	95.7	99.2	86-100
		S-East	2	16.7	8-25.4	91.7	.	84-100		91.9	.	84-100
		Across zones	**9**	**20.3**	**5.9-80.3**	**95.5**	**99.4**	**84-100**		**94.8**	**99.2**	**84-100**

At the most relevant assessment after 1 application only, in the trials which could be considered, the mean level of infestation was 9.1 % (range 2.8-23 %). Based on the results of 16 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was 94.4 % (range 82-100 %). The performance is fully comparable to the performance provided by the zonal reference product (mean: 93.1 %, range: 81-100 %).

Table 3.2.3.9-4b: Efficacy of ADM.3502.F.1.A against *Puccinia hordei* on winter- and spring barley after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Puccinia hordei*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
HORVW / HORVS	PUCCHD	Maritime	11	7.6	2.8-14.8	94.4	97.6	82-100	Input / Input Classic | 1.25	93.1	94	81-100
		S-East	2	14.9	13.8-15.9	88.5	.	88-89		89.0	.	89-89
		N-East	3	10.7	2.8-23	98.7	100.0	96-100		96.1	95.9	92-100
		Across zones	**16**	**9.1**	**2.8-23**	**94.4**	**96.9**	**82-100**		**93.1**	**93.7**	**81-100**

Compared to the additionally applied reference products, ADM.3502.F.1.A tends to be superior to Leander (2 results) and Orius P (2 results), and it tends to be comparable to Hutton (1 result) – (table 3.2.3.9-5).

Table 3.2.3.9-5: Efficacy of ADM.3502.F.1.A against *Puccinia hordei* on winter barley compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Puccinia hordei*									
		N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
HORVW / HORVS	PUCCHD	1	12.6	.	99.4	.	.	Hutton |0.8	99.5	.	.
		2	5.3	5.2-5.4	97.1	.	95-99	Leander | 0.5	89.9	.	86-94
		2	53.4	6.8-100	94.4	.	89-100	Orius P | 1.5	71.9	.	44-100

Results for the control of *Puccinia hordei* are available from EPPO zones Maritime, North-East, and South-East. As demonstrated by the results presented in table 3.2.3.9-4, there are no substantial differences between the climatic zones.

In 25 efficacy trials with a relevant infestation of *Puccinia hordei* yield was taken. The results are presented in table 3.2.3.9-6 (quantity of yield) and table 3.2.3.9-7 (quality of yield).

Table 3.2.3.9-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product	
			Mean	Range	Mean	Range	Mean	Range
Maritime	HORVW	8	70.9	44.3-83.4	119.6	100-150	118.8	96-145
	HORVS	7	54.9	42.8-65	111.2	101-121	111.0	103-120
North-East	HORVW	2	66.2	63.3-69.1	116.0	116-117	118.3	117-119
South-East	HORVW	6	45.9	37.2-50.8	115.6	102-169	113.3	104-147
	HORVS	2	49.2	43.2-55.1	114.2	111-117	117.1	116-118
Across EPPO zones	**HORVW**	**16**	**60.9**	**37.2-83.4**	**117.7**	**100-169**	**116.7**	**96-147**
	HORVS	**9**	**53.6**	**42.8-65**	**111.8**	**101-121**	**112.3**	**103-120**
	HORVX	**25**	**58.3**	**37.2-83.4**	**115.6**	**100-169**	**115.1**	**96-147**

Table 3.2.3.9-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

		Quality parameters of yield					
		TGW		HLW		PRC	
EPPO zone		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)
Maritime	Mean	107.4	107.6	103.3	103.5	102.0	101.3
	Range	98-120	100-121	99-113	99-113		
	Nº	15	15	13	13	1	1
N-East	Mean	101.8	102.3	100.4	100.7		
	Range	101-102	102-102	100-101	101-101		
	Nº	2	2	2	2		
S-East	Mean	101.7	101.6	101.2	101.0		
	Range	97-106	99-105	100-103	100-103		
	Nº	8	8	5	5		
Across zones	**Mean**	**105.1**	**105.3**	**102.5**	**102.6**	**102.0**	**101.3**
	Range	**97-120**	**99-121**	**99-113**	**99-113**		
	Nº	**25**	**25**	**20**	**20**	**1**	**1**

TGW = Thousand grain weight; HLW = Hectolitre weight; PRC = Protein content

The results clearly demonstrate the benefits provided by the control of *Puccinia hordei* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was 15.6 %. In 9 of 25 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the zonal reference products. There are no differences between EPPO zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 5 %.

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Puccinia hordei* on barley.

Comments of zRMS on:
Table 3.2.3.9-4b

As checked by the zRMS, after exclusion of 2 trials with low disease severity in the Maritime EPPO zone, the efficacy for ADM.3502.F.1.A after one application was 93.2% and 91.5% for the standard. In South-East EPPO zone, after exclusion of 1 trial with low disease severity the efficacy for ADM.3502.F.1.A after one application was 98.1% and 94.1% for the standard.

3.2.3.10 Control of *Blumeria graminis* (ERYSGS, ERSYGR) on rye (uses 3, 8, 13, 18, 108)

Table 3.2.3.10-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Blumeria graminis* on rye

EPPO zone	EU Reg. Zone	Country	2019	2020	Sum
Maritime	**Central**	CZ	2		2
		DE	2	1	3
Total Maritime			**4**	**1**	**5**

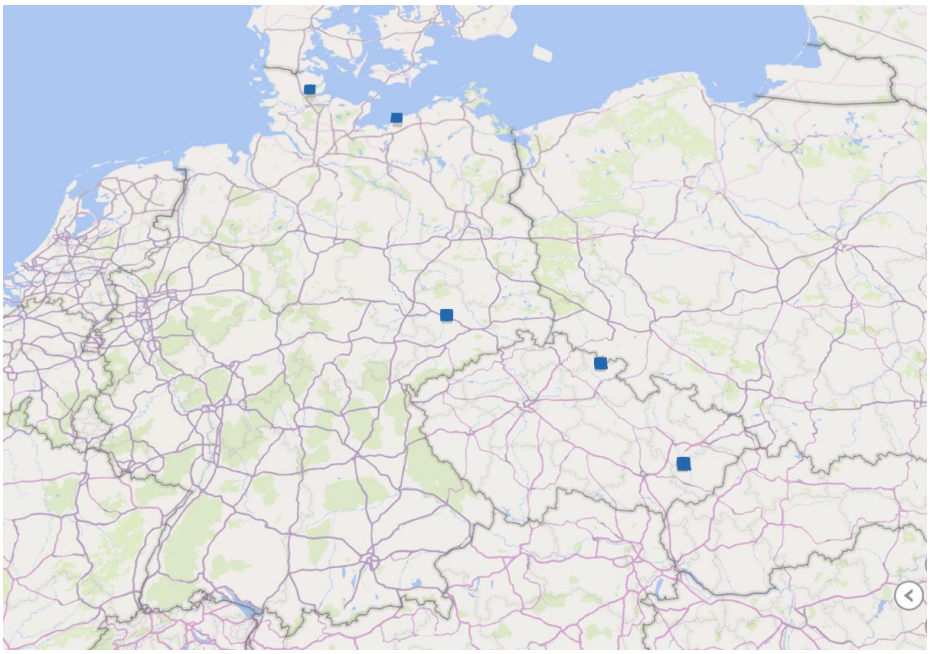
Table 3.2.3.10-2: Location of efficacy trials in the EPPO climatic zones

	EPPO zone		
Country	**Maritime**	**North-East**	**South-East**
Czech Republic (CZ)	2		
Germany (DE)	3		
Total	**5**	-	-

Table 3.2.3.10-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (5),
	Plot size	20-30 m²
	Number of replications	4 (5)
Crop	Trials per crop	Winter rye (5)
	Varieties per crop	Binntto, Bono, Gonello, Inspector, Tajo
	Sowing period	from September (09) to September (20)
Application	Crop stage (BBCH)* at application	1st application: 32 to 39 2nd application: 51 to 61
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	1 (2); 2 (3)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Blumeria graminis* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 65 to 85 (BBCH).
Other relevant information	Natural / artificial innoculation	5/ -
	Field / Lab / GH	5 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.10-1: Distribution of trial locations



Efficacy data for the control of *Blumeria graminis* on rye are presented from 5 efficacy trials. The summarised results for the central European regulation zone are presented in tables 3.2.3.10-4 and table 3.2.3.10-5. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.10-4a the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was 10.1 % (range: 7 % to 16 %), this represents acceptable to very good conditions for product testing. The results are considered valid.

Table 3.2.3.10-4: Efficacy of ADM.3502.F.1.A against *Blumeria graminis* on winter rye compared to the zonal reference product(s)

Crop	Patho-gen (EPPO-code)	EPPO zone	Efficacy on *Blumeria graminis*									
			N° of tri-als	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Me-dian	Range	Ref.Prod. | rate [L/ha]	Mean	Me-dian	Range
SECCW	ERYSGS	Maritime	5	10.1	6.8-15.9	100	100	100-100	Input / Input Classic | 1.25	97.1	100	89-100

Based on the results of 5 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was 100 %. The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Blumeria graminis* in all of the trials (table 3.2.3.10-4). The performance is comparable to the performance provided by the zonal reference products Input 460 EC, respectively Input Classic (mean: 97.1 %, median: 100 %).

At the most relevant assessment after 1 application only, in 3 trials which could be considered, the level of infestation was 8.8 %. The mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was

100 %. The performance is largely comparable to the performance provided by the zonal reference product (mean: 95.1 %).

Table 3.2.3.10-4a: Efficacy of ADM.3502.F.1.A against *Blumeria graminis* on winter rye ~~at the time of the 2nd application~~ after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Blumeria graminis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1.0 L/ha]			Zonal reference product(s)			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
SECCW	ERYSGS	Maritime	3	8.8	6.8-12.5	100.0	100.0	100	Input / Input Classic | 1.25	95.1	96.4	89-100

Compared to the additionally applied reference products, ADM.3502.F.1.A tends to be comparable to Hutton (2 results) – (table 3.2.3.10-5).

Table 3.2.3.10-5: Efficacy of ADM.3502.F.1.A against *Blumeria graminis* on winter rye compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Blumeria graminis*									
		N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
SECCW	ERYSGS	2	14.2	12.5-15.9	100	.	100-100	Hutton |0.8	100	.	100-100

In 5 efficacy trials with a relevant infestation of *Blumeria graminis* yield was taken. The results are presented in table 3.2.3.10-6 (quantity of yield) and table 3.2.3.10-7 (quality of yield).

Table 3.2.3.10-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference products	
			Mean	Range	Mean	Range	Mean	Range
	1	4	5		6		7	
Maritime	SECCW	5	68.1	7.3-98.9	113.7	104-127	113.2	104-124

Table 3.2.3.10-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

EPPO zone		Quality parameters of yield			
		TGW		HLW	
		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)
Maritime	Mean	105.3	103.6	100.7	101.0
	Range	100-112	99-111	97-105	99-105
	N°	5	5	5	5

TGW = Thousand grain weight; HLW = Hectolitre weight

The results clearly demonstrate the benefits provided by the control of *Blumeria graminis* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was 14 %. In 3 of 5 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the zonal reference products. There are no differences between EPPO zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 5 %.

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Blumeria graminis* on rye.

3.2.3.11 Control of *Rhynchosporium secalis* (RHYNSE) on rye (uses 3, 8, 13, 18, 108)

Table 3.2.3.11-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Rhynchosporium secalis* on rye

EPPO zone	EU Reg. Zone	Country	2019	2020	Sum
Maritime	**Central**	CZ	1		1
		DE	7	4	11
Total Maritime			**8**	**4**	**12**

Table 3.2.3.11-2: Location of efficacy trials in the EPPO climatic zones

	EPPO zone		
Country	**Maritime**	**North-East**	**South-East**
Czech Republic (CZ)	1		
Germany (DE)	11		
Total	**12**	**-**	**-**

Table 3.2.3.11-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (12),
	Plot size	~~13.75~~ 17.5 to 27 m²
	Number of replications	4 (12)
Crop	Trials per crop	Winter rye (12)
	Varieties per crop	Binntto, Eterno, Gonello, Performer, Serafino
	Sowing period	Maritime zone: from September (16) to October (23)
Application	Crop stage (BBCH)* at application	1st application: 31 to 43 2nd application: 41 to 65
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	1 (1); 2 (11)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Rhynchosporium secalis* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 65 to 81 (BBCH).
Other relevant information	Natural / artificial innoculation	12 / -
	Field / Lab / GH	12 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.11-1: Distribution of trial locations



Efficacy data for the control of *Rhynchosporium secalis* on rye are presented from 12 efficacy trials. The summarised results for the central European regulation zone are presented in tables 3.2.3.11-4 and table 3.2.3.11-5. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.11-4a the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was 18.1 % (range: 5 % to 58 %), this represents acceptable to very good conditions for product testing. The results are considered valid.

Table 3.2.3.11-4: Efficacy of ADM.3502.F.1.A against *Rhynchosporium secalis* on winter rye compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Rhynchosporium secalis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
SECCW	RHYNSE	Maritime	12	18.1	5.3-58	77.2	86.2	43-100	Input / Input Classic | 1.25	75.8	82.9	19-100

Based on the results of 12 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was 77.2 % (median 86.2 %). The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Rhynchosporium secalis* in the vast majority of the trials (table 3.2.3.11-4). The performance is comparable to the performance provided by the zonal reference product Input 460 EC, respectively Input Classic (mean: 75.8 %, median: 82.9 %).

At the most relevant assessment after 1 application only, in the trials which could be considered, the mean level of infestation was 13.7 % (range 2.3-54 %). Based on the results of 9 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was 67.1 % (range 39-99 %). The performance is fully comparable to the performance provided by the zonal reference product (mean: 63.7 %, range: 17-99 %).

Table 3.2.3.11-4a: Efficacy of ADM.3502.F.1.A against *Rhynchosporium secalis* on winter rye after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Rhynchosporium secalis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
SECCW	RHYNSE	Maritime	9	13.7	2.3-53.9	67.1	68.2	39-99	Input / Input Classic | 1.25	63.7	68.4	17-99

Compared to the additionally applied reference products, ADM.3502.F.1.A tends to be comparable to Hutton (1 result) – (table 3.2.3.11-5).

Table 3.2.3.11-5: Efficacy of ADM.3502.F.1.A against *Rhynchosporium secalis* on winter rye compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Rhynchosporium secalis*									
		N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
SECCW	RHYNSE	1	17.5	.	98.6	.	.	Hutton |0.8	98.1	.	.

In 12 efficacy trials with a relevant infestation of *Rhynchosporium secalis* yield was taken. The results are presented in table 3.2.3.11-6 (quantity of yield) and table 3.2.3.11-7 (quality of yield).

Table 3.2.3.11-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product	
			Mean	Range	Mean	Range	Mean	Range
Maritime	SECCW	12	86.4	63.1-111.4	112	101-138	113.4	100-136

Table 3.2.3.11-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

EPPO zone		Quality parameters of yield					
		TGW		HLW		PRC	
		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)
Maritime	Mean	104.8	104.7	101.1	101.3	100.3	101.4
	Range	100-121	100-118	99-106	99-106	100-101	99-103
	Nº	12	12	12	12	2	2

TGW = Thousand grain weight; HLW = Hectolitre weight; PRC = Protein content

The results clearly demonstrate the benefits provided by the control of *Rhynchosporium secalis* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was 12.7 %. In 13 of 21 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the zonal reference products. There are no differences between EPPO zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 5 %.

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Rhynchosporium secalis* on rye.

Comments of zRMS on:
Table 3.2.3.11-4a

As checked by the zRMS, after exclusion of 1 trial with low disease severity in the Maritime EPPO zone, the efficacy for ADM.3502.F.1.A after one application was 70.6% and 69.6% for the standard.

3.2.3.12 Control of *Puccinia recondita* (PUCCRE / PUCCRR) on rye (uses 3, 8, 13, 18, 108)

Table 3.2.3.12-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Puccinia recondita* on rye

EPPO zone	EU Reg. Zone	Country	2019	2020	Sum
Maritime	**Central**	CZ	2		2
		DE	9	9	18
Total Maritime			**11**	**9**	**20**

Table 3.2.3.12-2: Location of efficacy trials in the EPPO climatic zones

Country	EPPO zone		
	Maritime	**North-East**	**South-East**
Czech Republic (CZ)	23		
Germany (DE)	18		
Total	**20**	**-**	**-**

Table 3.2.3.12-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (20),
	Plot size	13.75 to 27 m²
	Number of replications	4 (20)
Crop	Trials per crop	Winter rye (20)
	Varieties per crop	Binntto, Dukato, Eterno, Gonello, Inspector, ~~Palazzo~~, Performer, Serafino
	Sowing period	Maritime zone: from September (01) to October (23)
Application	Crop stage (BBCH)* at application	1st application: 31 to 49 2nd application: 41 to 65
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	1 (3); 2 (17)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Puccinia recondita* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 65 to 85 (BBCH).
Other relevant information	Natural / artificial innoculation	20 / -
	Field / Lab / GH	20 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.12-1: Distribution of trial locations



Efficacy data for the control of *Puccinia recondita* on rye are presented from 20 efficacy trials. The summarised results for the central European regulation zone are presented in tables 3.2.3.12-4 and table 3.2.3.12-5. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.12-4a the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5% (but ≥ 1%).

At the relevant assessment, the mean infestation in the untreated plots was 21.7 % (range: 5 % to 79 %), this represents acceptable to very good conditions for product testing. The results are considered valid.

Table 3.2.3.12-4: Efficacy of ADM.3502.F.1.A against *Puccinia recondita* on winter rye compared to the zonal reference product(s)

Crop	Patho-gen (EPPO-code)	EPPO zone	Efficacy on *Puccinia recondita*									
			N° of tri-als	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Me-dian	Range	Ref.Prod. | rate [L/ha]	Mean	Me-dian	Range
SECCW	PUCCRE	Maritime	20	21.7	5-78.5	88.8	94.6	63-100	Input / Input Classic | 1.25	87.9	97	52-100

Based on the results of 20 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was 88.8 % (median 94.6 %). The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Puccinia recondita* in the vast majority of the trials (table 3.2.3.12-4). The performance is comparable to the performance provided by the zonal reference products Input 460 EC, respectively Input Classic (mean: 87.9 %, median: 97 %).

At the most relevant assessment after 1 application only, in the trials which could be considered, the mean level of infestation was ~~4.2 %~~ 4.6% (range 1.5-7.6 %). Based on the results of 9 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was ~~84.2 %~~ 85.3% (range ~~42~~ 50-100 %).

The performance is fully comparable to the performance provided by the zonal reference product (mean: ~~84.6 %~~ 85.8%, range: 50-100 %).

Table 3.2.3.12-4a: Efficacy of ADM.3502.F.1.A against *Puccinia recondita* on winter rye after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Puccinia recondita*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
SECCW	PUCCRE	Maritime	9	~~4.2~~ 4.6	1.5-7.6	~~84.2~~ 85.3	~~100.0~~ 96.7	~~42~~ 50-100	Input | 1.25	~~84.6~~ 85.8	~~100~~ 96.7	50-100

Compared to the additionally applied reference product, ADM.3502.F.1.A tends to be comparable to Hutton (2 results) – (table 3.2.3.12-5).

Table 3.2.3.12-5: Efficacy of ADM.3502.F.1.A against *Puccinia recondita* on winter rye compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Puccinia recondita*									
		N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
SECCW	PUCCRE	2	27.6	7.6-47.7	97.9	.	96-100	Hutton | 0.8	99.7	.	99-100

Results for the control of *Puccinia recondita* are available from EPPO zones Maritime and North-East. As demonstrated by the results presented in table 3.2.3.12-4, there are no substantial differences between the climatic zones.

In 20 efficacy trials with a relevant infestation of *Puccinia recondita* yield was taken. The results are presented in table 3.2.3.12-6 (quantity of yield) and table 3.2.3.12-7 (quality of yield).

Table 3.2.3.12-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product	
			Mean	Range	Mean	Range	Mean	Range
Maritime	SECCW	20	88.3	63.1-111.4	111.7	100-138	111.8	100-136

Table 3.2.3.12-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

EPPO zone		Quality parameters of yield					
		TGW		HLW		PRC	
		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)
Maritime	Mean	104.4	104.2	100.9	100.8	99.7	101.4
	Range	98-121	98-118	97-106	99-106	99-101	99-103
	N°	20	20	19	19	3	3

TGW = Thousand grain weight; HLW = Hectolitre weight; PRC = Protein content

The results clearly demonstrate the benefits provided by the control of *Puccinia recondita* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was 11.7 %. In 11 of 20 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There

were no differences between ADM.3502.F.1.A and the zonal reference products. There are no differences between EPPO zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 4 %.

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Puccinia recondita* on rye.

Comments of zRMS on:
Table 3.2.3.12-4a

As checked by the zRMS, after exclusion of 4 trials with low disease severity in the Maritime EPPO zone, the efficacy for ADM.3502.F.1.A after one application was 83.6% and 84.5% for the standard.

3.2.3.13 Control of *Zymoseptoria tritici* (SEPTTR) on triticale (uses 4, 9, 14, 19, 25, 109)

Table 3.2.3.13-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Zymoseptoria tritici* on triticale

EPPO zone	EU Reg. Zone	Country	2019	2020	Sum
Maritime	**Central**	CZ	6	5	11
		DE	7	4	11
Total Maritime			13	9	22
North-East	**Central**	PL	3		3
South-East	**Central**	RO	1		1
Total			**17**	**9**	**26**

Table 3.2.3.13-2: Location of efficacy trials in the EPPO climatic zones

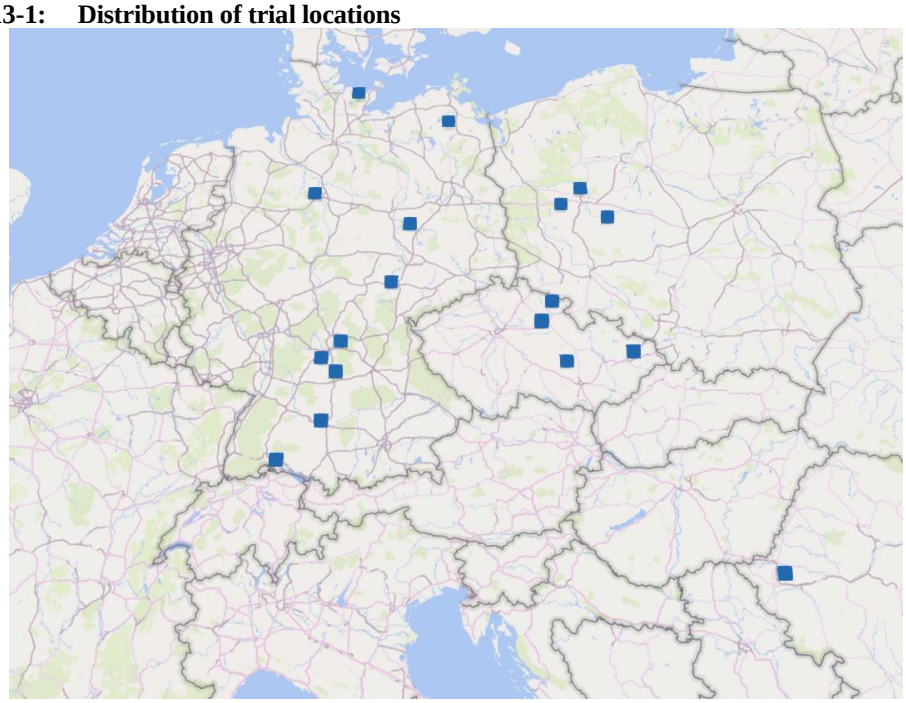
	EPPO zone		
Country	**Maritime**	**North-East**	**South-East**
Czech Republic (CZ)	11		
Germany (DE)	11		
Poland (PL)		3	
Romania (RO)			1
Total	**22**	**3**	**1**

Table 3.2.3.13-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (26),
	Plot size	17.5-30 m²
	Number of replications	4 (26)
Crop	Trials per crop	Winter triticale (26)
	Varieties per crop	Agostino, Cedrico, Claudius, Flavius, Fredro, Lanetto, Lombardo, Magnat, Negoiu, Rotondo, Securo, Talentro, Temuco, Tulus
	Sowing period	Maritime zone: from September (18) to October (17) North-East zone: from September (19) to September (29) South-East zone: October (20)
Application	Crop stage (BBCH)* at application	1st application: 30 to 59 2nd application: 39 to 69
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	1 (2); 2 (24)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Zymoseptoria tritici* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 54 to 85 (BBCH).

Other relevant information	Natural / artificial innoculation	26 / -
	Field / Lab / GH	26 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.13-1: Distribution of trial locations



Efficacy data for the control of *Zymoseptoria tritici* on triticale are presented from 26 efficacy trials. The summarised results for the central European regulation zone are presented in tables 3.2.3.13-4 and table 3.2.3.13-5. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.13-4a the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was 13.1 % (range: 5 % to 61 %), this represents acceptable to very good conditions for product testing. The results are considered valid.

Table 3.2.3.13-4: Efficacy of ADM.3502.F.1.A against *Zymoseptoria tritici* on winter triticale compared to the zonal reference product(s)

Crop	Patho-gen (EPPO-code)	EPPO zone	Efficacy on *Zymoseptoria tritici*									
			N° of tri-als	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Me-dian	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TLLWI	SEPTTR	Maritime	22	~~13.6~~ 13.8	5-60.9	~~85~~ 85.3	88.5	46-100	Input / Input Classic | 1.25	~~85~~ 85.3	86.1	58-100
		N-East	3	12.3	6.8-15	90.2	90.4	85-95		90.4	93.3	84-94
		S-East	1	6.1	.	87.8	.	.		83.7	.	.
		Across zones	**26**	**13.1**	**5-60.9**	**85.7**	**88.5**	**46-100**		**85.5**	**86.1**	**58-100**

Across the EPPO climatic zones, based on the results of 26 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was 85.7 % (median 88.5 %). The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Zymoseptoria tritici* in the vast majority of the trials (table 3.2.3.13-4). The performance is comparable to the performance provided by the zonal reference product Input 460 EC, respectively Input Classic (mean: 85.5 %, median: 86.1 %).

At the most relevant assessment after 1 application only, in the trials which could be considered, the mean level of infestation was 11.3 % (range 2.3-29 %). Based on the results of 17 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was 91,0 % (range 45-100 %). The performance is fully comparable to the performance provided by the zonal reference product (mean: 92.1 %, range: 63-100 %).

Table 3.2.3.13-4a: Efficacy of ADM.3502.F.1.A against *Zymoseptoria tritici* on winter triticale after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Zymoseptoria tritici*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1.0 L/ha]			Zonal reference product(s)			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TLLWI	SEPTTR	Maritime	13	11.1	2.5-29	91.2	96.3	45-100	Input / Input Classic | 1.25	92.7	97.3	63-100
		N-East	3	13.6	2.3-21.9	91.2	92.3	88-94		92.1	91.4	89-96
		S-East	1	6.1	.	87.8	.	.		83.7	.	.
		Across zones	**17**	**11.3**	**2.3-29**	**91.0**	**93.6**	**45-100**		**92.1**	**93.3**	**63-100**

Compared to the additionally applied reference products, ADM.3502.F.1.A tends tended to be superior to Zoxis Super (1 result) and roughly comparable to all other additionally applied reference products included in the tests. – (table 3.2.3.13-5).

Table 3.2.3.13-5: Efficacy of ADM.3502.F.1.A against *Zymoseptoria tritici* on winter triticale compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Zymoseptoria tritici*									
		N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TTLWI	SEPTTR	3	12.3	6.8-15	90.2	90.4	85-95	Artemis | 2	86.3	86.7	83-89
		1	26.3	.	91.2	.	.	Fandango |1.5	91.8	.	.
		2	34.8	8.8-60.9	89.3	.	88-91	Hutton |0.8	85.6	.	84-88
		1	9.2	.	91.3	.	.	Slape Trio | 0.7	90.9	.	.
		6	8.6	5-13.8	92.3	93.3	81-100	Tebusip | 1	87.5	88.7	73-100
		1	9.3	.	62.2	.	.	Zoxis Super | 1	5.4	.	.

Results for the control of *Zymoseptoria tritici* are available from EPPO zones Maritime, North-East, and South-East. As demonstrated by the results presented in table 3.2.3.13-4, there are no substantial differences between the climatic zones.

In 26 efficacy trials with a relevant infestation of *Zymoseptoria tritici* yield was taken. The results are presented in table 3.2.3.13-6 (quantity of yield) and table 3.2.3.13-7 (quality of yield).

Table 3.2.3.13-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product	
			Mean	Range	Mean	Range	Mean	Range
Maritime	TTLWI	22	79.2	53.3-116.4	111.1	97-124	111.0	99-127
North-East		3	67.3	55.4-88.5	113.9	110-118	113.1	106-119
South-East		1	51.1	.	104.9	.	107.7	.
Across EPPO zones	**TTLWI**	**26**	**76.8**	**51.1-116.4**	**111.2**	**97-124**	**111.1**	**99-127**

Table 3.2.3.13-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

		Quality parameters of yield			
		TGW		HLW	
EPPO zone		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)
Maritime	Mean	106.1	105.8	101.6	101.3
	Range	100-120	99-118	99-105	99-104
	Nº	22	22	22	22
N-East	Mean	103.9	105.1	100.6	100.7
	Range	102-105	102-108	100-101	101-101
	Nº	3	3	3	3
S-East	Mean	100.7	108.2	100.9	102.7
	Nº	1	1	1	1
Across zones	**Mean**	**105.7**	**105.8**	**101.4**	**101.3**
	Range	**100-120**	**99-118**	**99-105**	**99-104**
	Nº	**26**	**26**	**26**	**26**

TGW = Thousand grain weight; HLW = Hectolitre weight

The results clearly demonstrate the benefits provided by the control of *Zymoseptoria tritici* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was about 11 %. In 16 of 26 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the zonal reference products. There are no differences between EPPO zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 6 %.

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Zymoseptoria tritici* on triticale.

Comments of zRMS on:
Table 3.2.3.13-4a

As checked by the zRMS, after exclusion of 2 trials with low disease severity in the Maritime EPPO zone, the efficacy for ADM.3502.F.1.A after one application was 90.4% and 92.4% for the standard. In North-East EPPO zone, after exclusion of 1 trial with low disease severity the efficacy for ADM.3502.F.1.A after one application was 92.9% and 93.6% for the standard.

3.2.3.14 Control of *Puccinia recondita* (PUCCRE) on triticale (uses 4, 9, 14, 19, 25, 109)

Table 3.2.3.14-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Puccinia recondita* on triticale

EPPO zone	EU Reg. Zone	Country	2019	2020	Sum
Maritime	**Central**	CZ	7	3	10
		DE		2	2
Total Maritime			7	5	12
North-East	**Central**	PL	2		2
South-East	**Central**	RO	1		1
	Total		**10**	**5**	**15**

Table 3.2.3.14-2: Location of efficacy trials in the EPPO climatic zones

	EPPO zone		
Country	**Maritime**	**North-East**	**South-East**
Czech Republic (CZ)	10		
Germany (DE)	2		
Poland (PL)		2	
Romania (RO)			1
Total	**12**	**2**	**1**

Table 3.2.3.14-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (15),
	Plot size	19.25-30 m²
	Number of replications	4 (15)
Crop	Trials per crop	Winter triticale (15)
	Varieties per crop	Aliko, Cedrico, Claudius, Haiduc, Magnat, Rotondo, Securo, Talentro, Temuco, Tubus, Tulus
	Sowing period	Maritime zone: from September (18) to October (17) North-East zone: from September (19) to October (02) South-East zone: October (19)
Application	Crop stage (BBCH)* at application	1st application: 31 to 59 2nd application: 37 to 67
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	1 (2); 2 (13)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Puccinia recondita* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 73 to 85 (BBCH).
Other relevant information	Natural / artificial innoculation	15 / -
	Field / Lab / GH	15 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.14-1: Distribution of trial locations



Efficacy data for the control of *Puccinia recondita* on triticale are presented from 15 efficacy trials. The summarised results for the central European regulation zone are presented in tables 3.2.3.14-4 and table 3.2.3.14-5. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.14-4a the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was 18.8 % (range: 5 % to 43 %), this represents acceptable to very good conditions for product testing. The results are considered valid.

Table 3.2.3.14-4: Efficacy of ADM.3502.F.1.A against *Puccinia recondita* on winter triticale compared to the zonal reference product(s)

Crop	Patho-gen (EPPO-code)	EPPO zone	Efficacy on *Puccinia recondita*									
			N° of tri-als	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Me-dian	Range	Ref.Prod. | rate [L/ha]	Mean	Me-dian	Range
TLLWI	PUCCRE	Maritime	12	18.3	7.5-43.3	90.6	92.2	80-100	Input / Input Classic | 1.25	88.5	91.3	78-100
		N-East	2	29.2	27.8-30.6	97.5	.	97-98		98.3	.	98-99
		S-East	1	4.9	.	87.2	.	.		83.3	.	.
		Across zones	**15**	**18.8**	**4.9-43.3**	**91.3**	**93.8**	**80-100**		**89.5**	**91.6**	**78-100**

Across the EPPO climatic zones, based on the results of 15 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was 91.3 % (median 93.8 %). The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Puccinia recondita* in the vast majority of the trials (table 3.2.3.14-4). The performance is comparable to the performance provided by the zonal reference product Input 460 EC, respectively Input Classic (mean: 89.5 %, median: 91.6 %).

At the most relevant assessment after 1 application only, in the trials which could be considered, the mean level of infestation was 10.0 % (range 7.5-19.1 %). Based on the results of 6 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was 89.6 % (range 56-100 %). The performance is fully comparable to the performance provided by the zonal reference product (mean: 88.8 %, range: 60-100 %).

Table 3.2.3.14-4a: Efficacy of ADM.3502.F.1.A against *Puccinia recondita* on winter triticale after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Puccinia recondita*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1.0 L/ha]			Zonal reference product(s)			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TLLWI	PUCCRE	Maritime	3	11.4	7.5-19.1	84.0	96.7	56-99	Input / Input Classic | 1.25	83.0	92.7	60-96
		N-East	2	8.9	7.5-10.3	100.0	.	100-100		100.0	.	100-100
		S-East	1	7.8	.	85.6	.	.		84.0	.	.
		Across zones	**6**	**10.0**	**7.5-19.1**	**89.6**	**97.8**	**56-100**		**88.8**	**94.3**	**60-100**

Compared to the additionally applied reference products, ADM.3502.F.1.A tended to be slightly superior to Tebusip (4 results) and largely comparable to all other additionally applied reference products included in the tests. – (table 3.2.3.14-5).

Table 3.2.3.14-5: Efficacy of ADM.3502.F.1.A against *Puccinia recondita* on winter triticale compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Puccinia recondita*									
		N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TTLWI	PUCCRE	2	29.2	27.8-30.6	97.5	.	98-98	Artemis | 2	93.9	.	90-98
		2	29.5	15.7-43.3	87.1	.	80-94	Hutton |0.8	85.8	.	78-94
		2	12.5	7.5-17.5	95.2	.	94-97	Slape Trio | 0.7	93.2	.	92-94
		4	8.9	7.6-11	92.6	94	82-100	Tebusip | 1	86	84.7	75-100
		1	8.0	.	90.6	.	.	Zoxis Super | 1	95.3	.	.

Results for the control of *Puccinia recondita* are available from EPPO zones Maritime, North-East, and South-East. As demonstrated by the results presented in table 3.2.3.14-4, there are no substantial differences between the climatic zones.

In 15 efficacy trials with a relevant infestation of *Puccinia recondita* yield was taken. The results are presented in table 3.2.3.14-6 (quantity of yield) and table 3.2.3.14-7 (quality of yield).

Table 3.2.3.14-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product	
			Mean	Range	Mean	Range	Mean	Range
Maritime	TTLWI	12	76.9	53.6-96.9	110.8	90-124	111.1	97-127
North-East	TTLWI	2	63.9	46.4-81.4	125.2	123-128	128.6	126-132
South-East	TTLWI	1	48.8	.	113.3	.	103.2	.
Across EPPO zones	**TTLWI**	**15**	**73.3**	**46.4-96.9**	**112.9**	**90-128**	**112.9**	**97-132**

Table 3.2.3.14-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

EPPO zone		Quality parameters of yield			
		TGW		HLW	
		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)
Maritime	Mean	106.6	106.4	101.4	101.2
	Range	100-110	100-117	100-103	100-102
	Nº	12	12	12	12
N-East	Mean	104.7	103.8	100.0	100.4
	Range	104-105	103-104	99-101	100-101
	Nº	2	2	2	2
S-East	Mean	97.5	99.4	101.5	101.2
	Nº	1	1	1	1
Across zones	**Mean**	**105.7**	**105.6**	**101.2**	**101.1**
	Range	**97-110**	**99-117**	**99-103**	**100-102**
	Nº	**15**	**15**	**15**	**15**

TGW = Thousand grain weight; HLW = Hectolitre weight

The results clearly demonstrate the benefits provided by the control of *Puccinia recondita* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was 13 %. In 12 of 15 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the zonal reference products. There are no differences between EPPO zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 6 %.

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Puccinia recondita* on triticale.

3.2.3.15 Control of *Puccinia striiformis* (PUCCST) on triticale (uses 4, 9, 14, 19, 25, 109)

Table 3.2.3.15-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Puccinia striiformis* on triticale

EPPO zone	EU Reg. Zone	Country	2019	2020	Sum
Maritime	**Central**	DE	2(1/1)	1	3(2/1)
North-East	**Central**	PL	2		2
South-East	**Central**	RO	1		1
Total			**5(4/1)**	**1**	**6(5/1)**

N° in brackets: (Winter triticale/ Spring triticale)

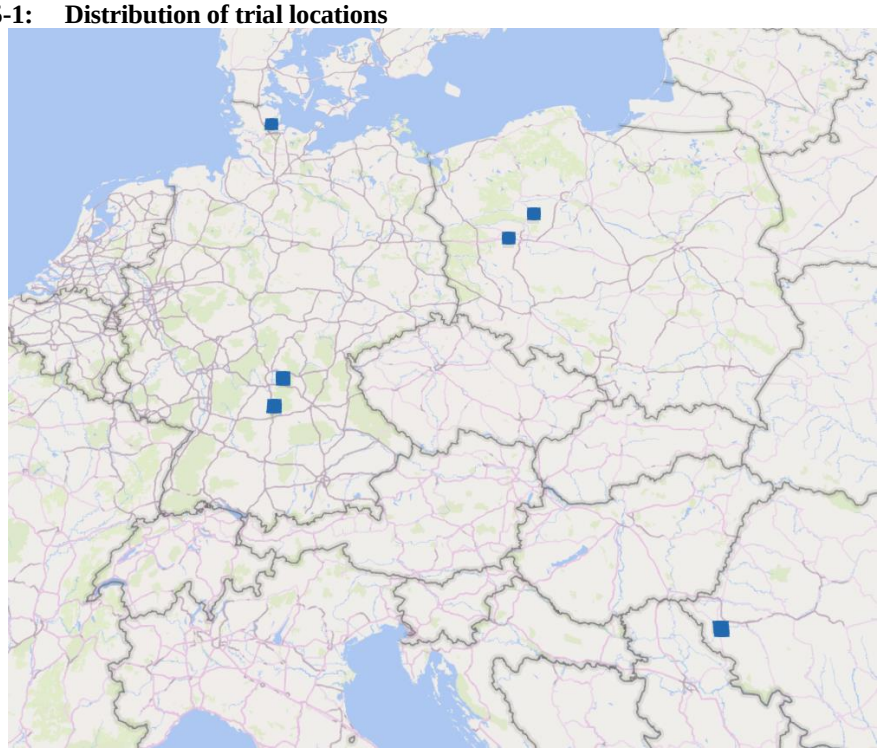
Table 3.2.3.15-2: Location of efficacy trials in the EPPO climatic zones

Country	EPPO zone		
	Maritime	North-East	South-East
Germany (DE)	3		
Poland (PL)		3	
Romania (RO)			1
Total	**3**	**2**	**1**

Table 3.2.3.15-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (6),
	Plot size	17.5-30 m²
	Number of replications	4 (6)
Crop	Trials per crop	Spring triticale (1) Winter triticale (5)
	Varieties per crop	**Spring triticale:** Somtri **Winter triticale**: Balu, Grenado, Talentro, Trimasso
	Sowing period	**S. triticale:** Maritime zone: March (28) **W. triticale:** Maritime zone: from September (27) to September (29) North-East zone: from September (25) to October (02) South-East zone: November (22)
Application	Crop stage (BBCH)* at application	1st application: 31 to 61 2nd application: 47 to 59
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	1 (1); 2 (5)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Puccinia striiformis* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 75 to 83 (BBCH).
Other relevant information	Natural / artificial innoculation	6 / -
	Field / Lab / GH	6 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.15-1: Distribution of trial locations



Efficacy data for the control of *Puccinia striiformis* on triticale are presented from 6 efficacy trials. The summarised results for the central European regulation zone are presented in tables 3.2.3.15-4 and table 3.2.3.15-5. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased

over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.15-4b the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was 14.2 % (range: 5 % to 50 %), this represents acceptable to very good conditions for product testing. The results are considered valid.

Table 3.2.3.15-4: Efficacy of ADM.3502.F.1.A against *Puccinia striiformis* on winter- and spring triticale compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Puccinia striiformis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TLLWI/TTLSO	PUCCST	Maritime	3	6.5	5.6-8	100	100	100-100	Input / Input Classic | 1.25	100	100	100-100
		N-East	2	30.3	11-49.7	95.3	.	93-98		89	.	81-97
		S-East	5.3	.	92.9	92.9	.	5.3		94.8	.	.
		Across zones	**6**	**14.2**	**5.3-49.7**	**97.2**	**98.9**	**93-100**		**95.5**	**98.6**	**81-100**

Across the EPPO climatic zones, based on the results of 6 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was 97.2 % (median 98.9 %). The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Puccinia striiformis* (table 3.2.3.15-4). The performance is comparable to the performance provided by the zonal reference product Input 460 EC, respectively Input Classic (mean: 95.5 %, median: 98.6 %).

In table 3.2.3.15.4a an additional summary of test results on the spring form only is presented.

Table 3.2.3.15.4a: Efficacy of ADM.3500.F.2.B against *Puccinia striiformis* on spring triticale (relevant assessment) compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Blumeria graminis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TTLSO	PUCCST	Maritime	1	5.8	.	100.0	.	.	Input Classic|1.25	100.0	.	.

At the most relevant assessment after 1 application only, in the trials which could be considered, the mean level of infestation was 9.4 % (range 2.5-20 %). Based on the results of 6 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was 92.3 % (range 67-100 %). The performance is fully comparable to the performance provided by the zonal reference product (mean: 90.3 %, range: 70-100 %).

Table 3.2.3.15-4b: Efficacy of ADM.3502.F.1.A against *Puccinia striiformis* on winter- and spring triticale after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Puccinia striiformis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1.0 L/ha]			Zonal reference product(s)			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TTLWI/ TTLSO	PUCCST	Maritime	3	9.1	3-19.9	97.9	100.0	94-100	Input / Input Classic | 1.25	96.8	100	90-100
		N-East	2	13.3	11-15.6	96.4	.	93-100		90.5	.	81-100
		S-East	1	2.5	.	67.3	.	.		70.3	.	.
		Across zones	**6**	**9.4**	**2.5-19.9**	**92.3**	**96.9**	**67-100**		**90.3**	**95.2**	**70-100**

Compared to the additionally applied reference products, ADM.3502.F.1.A tended to be comparable to all additionally applied reference products included in the tests. – (table 3.2.3.15-5).

Table 3.2.3.15-5: Efficacy of ADM.3502.F.1.A against *Puccinia striiformis* on winter triticale compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Puccinia striiformis*									
		N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TTLWI	PUCCST	1	5.8	.	100	.	.	Fandango |1.5	100	.	.
		2	30.3	11-49.7	95.3	.	93-98	Rubric XL | 1	94.5	.	90-98
		1	5.6	.	100	.	.	Zoxis Super | 1	100	.	.

Results for the control of *Puccinia striiformis* are available from EPPO zones Maritime, North-East, and South-East. As demonstrated by the results presented in table 3.2.3.15-4, there are no substantial differences between the climatic zones.

In 6 efficacy trials with a relevant infestation of *Puccinia striiformis* yield was taken. The results are presented in table 3.2.3.15-6 (quantity of yield) and table 3.2.3.15-7 (quality of yield).

Table 3.2.3.15-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone 210587	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference products	
			Mean	Range	Mean	Range	Mean	Range
	1	4	5		6		7	
Maritime	TTLSO	1	49.0	.	113.9	.	124.3	.
	TTLWI	2	78.5	67.3-89.8	121.4	106-137	119.9	108-132
North-East		2	56.7	45.7-67.8	120.3	116-125	116.9	111-123
South-East		1	63.9	.	104.8	.	105.8	.
Across EPPO zones	**TTLWI**	**5**	**66.9**	**45.7-89.8**	**117.6**	**105-137**	**115.9**	**106-132**
	TTLSS	**6**	**63.9**	**45.7-89.8**	**117.0**	**105-137**	**117.3**	**106-132**

The results clearly demonstrate the benefits provided by the control of *Puccinia striiformis* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was 17 %. In 2 of 6 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the zonal reference products. There are no differences between EPPO zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 6 %.

Table 3.2.3.15-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

		Quality parameters of yield			
		TGW		HLW	
EPPO zone		**ADM.3502.F.1.A 1 L/ha**	**Zonal Reference Product(s)**	**ADM.3502.F.1.A 1 L/ha**	**Zonal Reference Product(s)**
Maritime	Mean	104.1	104.5	101.0	101.0
	Range	100-109	102-109	100-103	99-103
	Nº	3	3	3	3
N-East	Mean	104.5	103.0	102.5	102.1
	Range	102-107	101-105	101-104	101-103
	Nº	2	2	2	2
S-East	Mean	103.7	105.6	101.0	100.8
	Range	104-104	106-106	101-101	101-101
	Nº	1	1	1	1
Across zones	**Mean**	**104.2**	**104.2**	**101.5**	**101.4**
	Range	**100-109**	**101-109**	**100-104**	**99-103**
	Nº	**6**	**6**	**6**	**6**

TGW = Thousand grain weight; HLW = Hectolitre weight

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Puccinia striiformis* on triticale. The conclusion is supported by the performance of ADM.3502.F.1.A against *Puccinia striiformis* on wheat.

Comments of zRMS on:
Table 3.2.3-15-4b

For TTLWI, TTLSO/PUCCST: after exclusion of 1 trial with low disease severity (the only trial conducted in spring triticale) in the Maritime EPPO zone, the efficacy for ADM.3502.F.1.A after one application was 96.9% and 95.2% for the standard. In South-East EPPO zone, after exclusion of 1 trial with low disease severity, no trials with efficacy data after 1 application were available.

3.2.3.16 Control of *Blumeria graminis* (ERYSGR) on triticale (uses 4, 9, 14, 19, 25, 109)

Table 3.2.3.16-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Blumeria graminis* on triticale

EPPO zone	EU Reg. Zone	Country	2019	2020	Sum
Maritime	**Central**	CZ	4	3	7
		DE	5(4/1)	1	6(5/1)
Total Maritime			9(8/1)	4	13(12/1)
North-East	**Central**	PL	2		2
South-East	**Central**	RO	1		1
Total			**12(11/1)**	**4**	**16(15/1)**

N° in brackets: (Winter triticale/ Spring triticale)

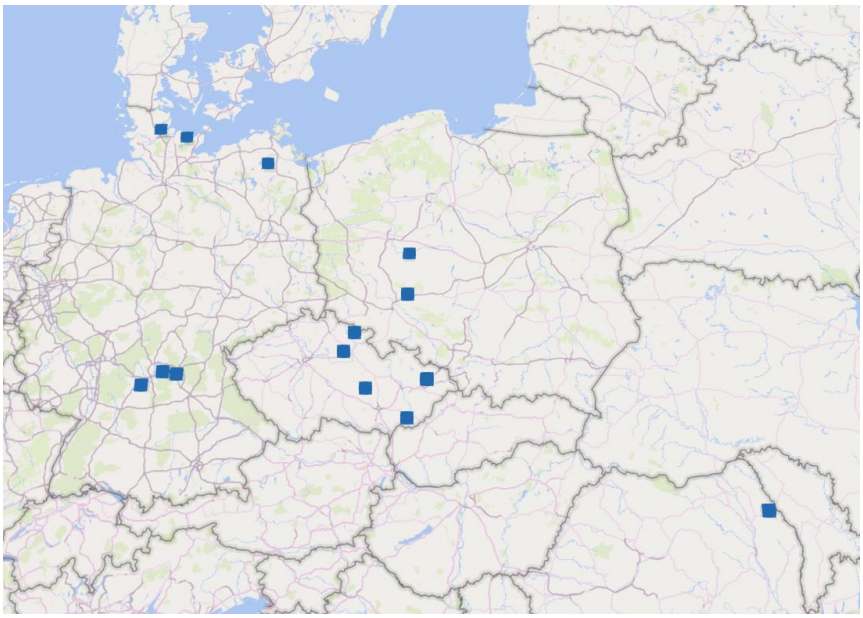
Table 3.2.3.16-2: Location of efficacy trials in the EPPO climatic zones

Country	EPPO zone		
	Maritime	**North-East**	**South-East**
Czech Republic (CZ)	7		
Germany (DE)	6		
Poland (PL)		2	
Romania (RO)			1
Total	**13**	**2**	**1**

Table 3.2.3.16-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (16),
	Plot size	17.5-30 m²
	Number of replications	4 (16)
Crop	Trials per crop	Spring triticale: 1 Winter triticale: 15
	Varieties per crop	**Spring triticale:** Somtri **Winter triticale:** Agostino, Balu, Claudius, Flavius, Fredro, Haiduc, Lombardo, Rotondo, Talentro, Temuco, Tulus
	Sowing period	**S. triticale:** Maritime zone: March (28) **W. triticale:** Maritime zone: from September (18) to October (20) North-East zone: from September (18) to September (29) South-East zone: October (12)
Application	Crop stage (BBCH)* at application	1st application: 30 to 59 2nd application: 39 to 67
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	1 (1); 2 (15)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Blumeria graminis* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 51 to 89 (BBCH).
Other relevant information	Natural / artificial innoculation	16 / -
	Field / Lab / GH	16 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.16-1: Distribution of trial locations



Efficacy data for the control of *Blumeria graminis* on triticale are presented from 16 efficacy trials. The summarised results for the central European regulation zone are presented in tables 3.2.3.16-4 and table 3.2.3.16-5. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.16-4b the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was 11.3 % (range: 5 % to 35 %), this represents acceptable to good conditions for product testing. The results are considered valid.

Table 3.2.3.16-4: Efficacy of ADM.3502.F.1.A against *Blumeria graminis on* winter- and spring triticale compared to the zonal reference product(s)

Crop	Patho-gen (EPPO-code)	EPPO zone	Efficacy on *Blumeria graminis*									
			N° of tri-als	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Me-dian	Range	Ref.Prod. | rate [L/ha]	Mean	Me-dian	Range
TLLWI/ TTLSO	ERYSGR	Mari-time	13	12.3	5-34.7	94.8	98.5	70-100	Input / Input Classic | 1.25	92.9	98.5	72-100
		N-East	2	7.7	5.5-9.9	85.9	.	81-91		84	.	83-85
		S-East	1	4.9 6.8	.	87.2 81.7	.	.		83.3 76.5	.	.
		Across zones	**16**	**11.3**	**5-34.7**	**92.9**	**95.8**	**70-100**		**90.8**	**90.2**	**72-100**

Across the EPPO climatic zones, based on the results of 16 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was 92.9 % (median 95.8 %). The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Blumeria graminis* in the vast majority of the trials (table 3.2.3.16-4). The performance is comparable to the performance provided by the zonal reference product Input 460 EC, respectively Input Classic (mean: 90.8 %, median: 90.2 %).

In table 3.2.3.16.4a an additional summary of test results on the spring form only is presented.

Table 3.2.3.6-14a: Efficacy of ADM.3500.F.2.B against *Blumeria graminis* on spring triticale (relevant assessment) compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Blumeria graminis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TTLSO	ERYSGR	Maritime	1	6.5	.	100.0	.	.	Input Classic|1.25	100.0	.	.

At the most relevant assessment after 1 application only, in the trials which could be considered, the mean level of infestation was 10.0 % (range 1.8-22 %). Based on the results of 14 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was 92.3 % (range 74-100 %). The performance is fully comparable to the performance provided by the zonal reference product (mean: 90.8 %, range: 67-100 %).

Table 3.2.3.16-4b: Efficacy of ADM.3502.F.1.A against *Blumeria graminis* on winter- and spring triticale after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Blumeria graminis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1.0 L/ha]			Zonal reference product(s)			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TLLWI/ TTLSO	ERYSGR	Maritime	11	10.6	1.8-21.7	95.4	99.2	83-100	Input / Input Classic | 1.25	93.3	98.9	67-100
		N-East	2	~~8.8~~ 9.7	~~4-13.7~~ 5.7-13.7	~~79.6~~ 78.7	.	~~74-85~~ 74.1-83.3		~~82.1~~ 81.1	.	~~80-84~~ 79.8-82.4
		S-East	1	5.1	.	82.9	.	.		80.5	.	.
		Across zones	**14**	**10.0**	**1.8-21.7**	**92.3**	**95.9**	**74-100**		**90.8**	**93.9**	**67-100**

Compared to the additionally applied reference products, ADM.3502.F.1.A tended to be largely comparable to all additionally applied reference products included in the tests. – (table 3.2.3.16-5).

Table 3.2.3.16-5: Efficacy of ADM.3502.F.1.A against *Blumeria graminis* on winter triticale compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Blumeria graminis*									
		N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
TTLWI	ERYSGR	2	7.7	5.5-9.9	85.9	.	81-91	Artemis | 2	88.3	.	86-91
		2	12	6.5-17.5	93.3	.	87-100	Fandango | 1.5	94.9	.	90-100
		2	13.3	5.8-20.9	95.3	.	92-98	Hutton | 0.8	93.3	.	88-99
		5	14.6	5-34.7	92	96.4	70-100	Tebusip | 1	88.3	90	67-100

Results for the control of *Blumeria graminis* are available from EPPO zones Maritime, North-East, and South-East. As demonstrated by the results presented in table 3.2.3.16-4, there are no substantial differences between the climatic zones.

In 16 efficacy trials with a relevant infestation of *Blumeria graminis* yield was taken. The results are presented in table 3.2.3.16-6 (quantity of yield) and table 3.2.3.16-7 (quality of yield).

Table 3.2.3.16-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone 210587	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference products	
			Mean	Range	Mean	Range	Mean	Range
	1	4	5		6		7	
Maritime	TTLSO	1	49.0	.	113.9	.	124.3	.
	TTLWI	12	78.6	61.5-116.4	113.6	97-137	113.6	105-132
North-East		2	53.6	49.2-58.1	112.8	110-116	111.1	106-116
South-East		1	50.3	.	110.3	.	108.8	.
Across EPPO zones	**TTLWI**	**15**	**73.4**	**49.2-116.4**	**113.3**	**97-137**	**112.9**	**105-132**
	TTLSS	**16**	**71.9**	**49-116.4**	**113.3**	**97-137**	**113.6**	**105-132**

The results clearly demonstrate the benefits provided by the control of *Blumeria graminis* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was 13 %. In 12 of 16 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the zonal reference products. There are no differences between EPPO zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 6 %.

Table 3.2.3.16-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

		Quality parameters of yield					
		TGW		HLW		PRC	
EPPO zone		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)
Maritime	Mean	107.3	105.7	101.4	101.0	98.0	102.2
	Range	101-120	97-118	99-105	99-104		
	Nº	13	13	13	13	1	1
N-East	Mean	101.0	103.0	100.3	101.3		
	Range	100-102	102-104	100-100	101-102		
	Nº	2	2	2	2		
S-East	Mean	98.7	100.6	100.6	99.7		
	Range	99-99	101-101	101-101	100-100		
	Nº	1	1	1	1		
Across zones	**Mean**	**106.0**	**105.1**	**101.2**	**101.0**	**98.0**	**102.2**
	Range	**99-120**	**97-118**	**99-105**	**99-104**		
	Nº	**16**	**16**	**16**	**16**	**1**	**1**

TGW = Thousand grain weight; HLW = Hectolitre weight; PRC = Protein content

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Blumeria graminis* on triticale.

Comments of zRMS on:
Table 3.2.3-16-4b

As checked by the zRMS, after exclusion of 2 trials with low disease severity (including the only trial conducted on spring triticale) in the Maritime EPPO zone, the efficacy for ADM.3502.F.1.A after 1 application was 94.4% and 91.8% for the standard.

3.2.3.17 Control of *Puccinia coronata* (PUCCCO) on oats (uses 5, 10, 15, 20, 110)

Table 3.2.3.17-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Puccinia coronata* on oats

EPPO zone	EU Reg. Zone	Country	2019	2020	Sum
Maritime	**Central**	CZ	2	2	4
		DE		2	2
Total Maritime			2	4	6
North-East	**Northern**	LT		2	2
Total			**2**	**6**	**8**

Table 3.2.3.17-2: Location of efficacy trials in the EPPO climatic zones

	EPPO zone	
Country	**Maritime**	**North-East**
Czech Republic (CZ)	4	
Germany (DE)	2	
Lithuania (LT)		2
Total	**6**	**2**

Table 3.2.3.17-3: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (8),
	Plot size	17.5-25 m²
	Number of replications	4 (8)
Crop	Trials per crop	Oats (8)
	Varieties per crop	Apollon, Belinda, Korok, Max, Montrose
	Sowing period	Maritime zone: from March (27) to May (20) N-East zone: April (16)
Application	Crop stage (BBCH)* at application	1st application: 31 to 55 2nd application: 57 to 65
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	1 (5); 2 (3)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Puccinia coronata* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 73 to 89 (BBCH).
Other relevant information	Natural / artificial innoculation	8 / -
	Field / Lab / GH	8 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.17-1: Distribution of trial locations



Efficacy data for the control of *Puccinia coronata* on oats are presented from 8 efficacy trials, 6 trials carried out in the central European regulation zone and for support 2 trials carried out in the northern European regulation zone. The summarised results are presented in tables 3.2.3.17-4 and table 3.2.3.17-5. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.17-4a the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was 9.3 % (range: 6 % to 13 %), this represents acceptable to good conditions for product testing. The results are considered valid.

Table 3.2.3.17-4: Efficacy of ADM.3502.F.1.A against Puccinia coronata on oats compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Puccinia coronata*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
AVESA	PUCCCO	Maritime	6	9.3	6.3-13.4	91.6	91.8	85-99	Input / Input Classic | 1.25	89.8	92.2	81-96
		N-East	2	6.7	5.6-7.8	80.0	.	72-88	Input | 1	82.1	.	72-92
		Across zones	8	8.7	5.6-13.4	88.7	89.9	72-99	Input / Input Classic | 1-1.25	87.9	92.2	72-96

Across the EPPO climatic zones, based on the results of 8 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was 88.7 % (median 89.9 %). The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Puccinia coronata* in all trials (table 3.2.3.17-4). The

performance is comparable to the performance provided by the zonal reference product Input 460 EC, respectively Input Classic (mean: 87.9 %, median: 92.2 %).

At the most relevant assessment after 1 application only, in the trials which could be considered, the mean level of infestation was ~~5.0 %~~ 5.4% (range 2.1-7.8 %). Based on the results of 5 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was ~~90.4 %~~ 92.4% (range 72-100 %). The performance is fully comparable to the performance provided by the zonal reference product (mean: ~~91.2 %~~ 92.1%, range: 72-100 %).

Table 3.2.3.17-4a: Efficacy of ADM.3502.F.1.A against *Puccinia coronata* on oats after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Puccinia coronata*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1.0 L/ha]			Zonal reference product(s)			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
AVESA	PUCCCO	Maritime	~~3~~ 5	~~3.9~~ 4.9	2.1-~~6.3~~ 7.2	~~97.3~~ 97.4	~~100.0~~ 98.5	92-100	Input | 1.25 Input | 1.0	~~97.3~~ 96.1	~~100~~ 95.6	92-100
		N-East	2	6.7	5.6-7.8	80.0	.	72-88		82.1	.	72-92
		Across zones	~~5~~ **7**	~~**5.0**~~ **5.4**	**2.1-7.8**	~~**90.4**~~ **92.4**	~~**92.0**~~ **93.1**	**72-100**		~~**91.2**~~ **92.1**	~~**92.3**~~ **93.1**	**72-100**

Compared to the additionally applied reference products, ADM.3502.F.1.A tended to be superior to Tebusip (2 results) and comparable to Amistar (1 result). – (table 3.2.3.17-5).

Table 3.2.3.17-5: Efficacy of ADM.3502.F.1.A against *Puccinia coronata* on oats compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Puccinia coronata*									
		N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
AVESA	PUCCCO	1	6.3	.	92	.	.	Amistar | 1	96	.	.
		2	9.8	8.2-11.4	85.6	.	85-86	Tebusip | 1	72.7	.	70-75

Results for the control of *Puccinia coronata* are available from EPPO zones Maritime and North-East. As demonstrated by the results presented in table 3.2.3.17-4, there are no substantial differences between the climatic zones and between the concerned European regulation zones.

In 8 efficacy trials with a relevant infestation of *Puccinia coronata* yield was taken. The results are presented in table 3.2.3.17-6 (quantity of yield) and table 3.2.3.17-7 (quality of yield).

Table 3.2.3.17-6: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product	
			Mean	Range	Mean	Range	Mean	Range
Maritime	AVESA	6	53.7	21.3-87.8	115.1	107-135	115.5	106-144
North-East	AVESA	2	72.8	72.6-72.9	108.9	106-112	110.1	108-113
Across EPPO zones	**AVESA**	**8**	**58.5**	**21.3-87.8**	**113.5**	**106-135**	**114.2**	**106-144**

Table 3.2.3.17-7: Quality of yield in harvested efficacy trials (relative to UTC (=100))

EPPO zone		Quality parameters of yield			
		TGW		HLW	
		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)
Maritime	Mean	106.4	105.5	101.7	101.6
	Range	102-111	98-108	99-103	101-102
	Nº	6	6	6	6
N-East	Mean	103.2	104.1	101.6	100.9
	Range	102-104	103-105	102-102	101-101
	Nº	2	2	2	2
Across zones	**Mean**	**105.6**	**105.1**	**101.7**	**101.4**
	Range	**102-111**	**98-108**	**99-103**	**101-102**
	Nº	**8**	**8**	**8**	**8**

TGW = Thousand grain weight; HLW = Hectolitre weight

The results clearly demonstrate the benefits provided by the control of *Puccinia coronata* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was 13.5 %. In 5 of 8 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the zonal reference products. There are no differences between EPPO zones and between the concerned European regulation zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 5 %.

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Puccinia coronata* on oats.

Comments of zRMS on:
Table 3.2.3.17-4a

As checked by the zRMS, after exclusion of 2 trials with low disease severity in the Maritime EPPO zone, the efficacy for ADM.3502.F.1.A after one application was 95.7% and 93.6% for the standard.

3.2.3.18 Control of *Blumeria graminis f. sp. avenae* (ERYSGA) on oats (uses 5, 10, 15, 20, 110)

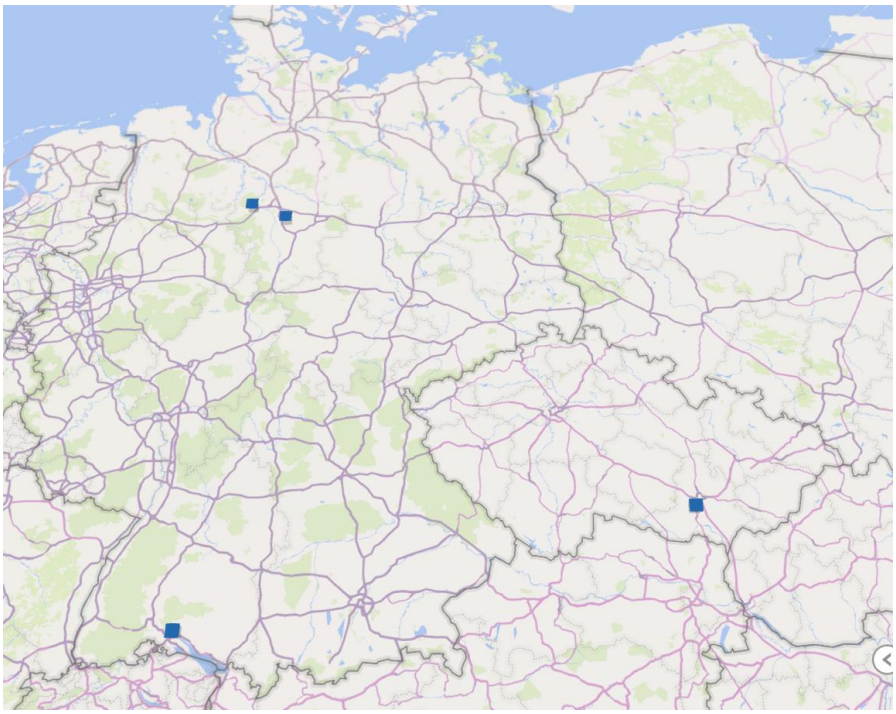
Table 3.2.3.18-1: Overview and distribution of field trials carried out to determine the efficacy of ADM.3502.F.1.A on *Blumeria graminis* on oats

EPPO zone	EU Reg. Zone	Country	2019	2020	Sum
Maritime	**Central**	CZ		1	1
		DE	1	2	3
Total Maritime			**1**	**3**	**4**

Table 3.2.3.18-2: Details on trial methodology

Guidelines	General guidelines	EPPO PP 1/135 (3/4); PP 1/152 (3/4), PP 1/181 (3/4)
	Specific guidelines	EPPO PP 1/026(4)
Experimental design	Plot design	Randomised blocks (4),
	Plot size	17.5-25 m²
	Number of replications	4 (4)
Crop	Trials per crop	Oats (4)
	Varieties per crop	Apollon, Korok, Max
	Sowing period	Maritime zone: from March (27) to May (20)
Application	Crop stage (BBCH)* at application	1st application: 31 to 39 2nd application: 63 to 65
	Timing	Foliar application at infestation and/or re-infestation
	Number of applications	1 (3); 2 (1)
Assessment	Assessment types	% of pest severity
	Assessment dates	According to EPPO guideline PP 1/026 relevant assessments of *Blumeria graminis* infestations should be carried out preferably in the area of crop GS 75 (BBCH). In the trials the crop GS ranged from 71 to 83 (BBCH).
Other relevant information	Natural / artificial innoculation	4 / -
	Field / Lab / GH	4 / - / -
Reference products		please refer to table 3.2-6

Figure 3.2.3.18-1: Distribution of trial locations



Efficacy data for the control of *Blumeria graminis* on oats are presented from 4 efficacy trials carried out in the central European regulation The summarised results are presented in tables 3.2.3.18-3 and table 3.2.3.18-4. As the relevant assessment, the rating carried out at (or close by) the preferred crop growth stage (BBCH 75) is used. Only in cases where infestation levels have increased lately or have decreased over time to a level considered not valid for a meaningful evaluation, later or earlier ratings were defined to be relevant. If appropriate, beside the mean, the median was calculated in addition for the assessment across trials to reduce the effect of outliers.
In table 3.2.3.18-3a the results after 1 application only are presented in addition. Since in the majority of trials 2 applications have been performed, in these trials the summarised results of a rating carried out at the day of the 2nd application (or just before) are used. Due to partly very low levels of infestation at that point of time, also trial results were considered valid for this assessment if the level of infestation in the untreated control was less than 5 % (but ≥ 1 %).

At the relevant assessment, the mean infestation in the untreated plots was 25.2 % (range: 15.6 % to 38 %), this represents acceptable to good conditions for product testing. The results are considered valid.

Table 3.2.3.18-3: Efficacy of ADM.3502.F.1.A against *Blumeria graminis* on oats compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Blumeria graminis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Zonal reference products			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
AVESA	ERYSGA	Maritime	4	25.2	15.6-38	90.4	95.7	70-100	Input / Input Classic | 1.25	92.5	94.6	81-100

Based on the results of 4 trials, the mean efficacy of ADM.3502.F.1.A applied at the rate of 1 L/ha was 90.4 % (median 95.7 %). The results clearly demonstrate the good performance of ADM.3502.F.1.A against *Blumeria graminis* in all trials (table 3.2.3.18-3). The performance is comparable to the performance provided by the zonal reference product Input 460 EC, respectively Input Classic (mean: 92.5 %, median: 94.6 %).
At the most relevant assessment after 1 application only, in the trials which could be considered, the mean level of infestation was 23.6 % (range 8.4-38 %). Based on the results of 3 trials, the mean efficacy

of ADM.3502.F.1.A applied at the rate of 1.0 L/ha was 95.6 % (range 87-100 %). The performance is fully comparable to the performance provided by the zonal reference product (mean: 95.8 %, range: 88-100 %).

Table 3.2.3.18-3a: Efficacy of ADM.3502.F.1.A against *Blumeria graminis* on oats after 1 application compared to the zonal reference product(s)

Crop	Pathogen (EPPO-code)	EPPO zone	Efficacy on *Blumeria graminis*									
			N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1.0 L/ha]			Zonal reference product(s)			
				Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
AVESA	ERYSGA	Maritime	3	23.6	8.4-38.0	95.6	100	87.0-100	Input / Input Classic | 1.25	95.8	99.6	88-100

Compared to the additionally applied reference products, ADM.3502.F.1.A tended to be superior to Amistar (1 result) and comparable to Tebusip (1 result). – (table 3.2.3.18-4).

Table 3.2.3.18-4: Efficacy of ADM.3502.F.1.A against *Blumeria graminis* on oats compared to the additionally applied reference products

Crop	Pathogen (EPPO-code)	Efficacy on *Blumeria graminis*									
		N° of trials	Disease level in UTC (%)		ADM.3502.F.1.A [1 L/ha]			Additionally applied reference product(s)			
			Mean	Range	Mean	Median	Range	Ref.Prod. | rate [L/ha]	Mean	Median	Range
AVESA	ERYSGA	1	24.4	.	100	.	.	Amistar | 1	73.3	.	.
		1	38	.	100	.	.	Tebusip | 1	100.0	.	.

In 4 efficacy trials with a relevant infestation of *Blumeria graminis* yield was taken. The results are presented in table 3.2.3.18-5 (quantity of yield) and table 3.2.3.18-6 (quality of yield).

Table 3.2.3.18-5: Yield results of harvested efficacy trials (relative to UTC (=100))

EPPO zone	Crop	Quantity of yield						
		N° of trials	Yield in UTC (dt/ha)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product	
			Mean	Range	Mean	Range	Mean	Range
Maritime	AVESA	4	50.8	21.3-87.8	112.6	102-135	115.0	100-144

Table 3.2.3.18-6: Quality of yield in harvested efficacy trials (relative to UTC (=100))

EPPO zone		Quality parameters of yield			
		TGW		HLW	
		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)
Maritime	Mean	101.6	102.1	99.7	101.4
	Range	99-105	98-104	98-102	101-102
	Nº	4	4	4	4

TGW = Thousand grain weight; HLW = Hectolitre weight

The results clearly demonstrate the benefits provided by the control of *Blumeria graminis* with ADM.3502.F.1.A. Compared to the untreated control the mean yield increase was 12.6 %. In 1 of 4 trials the yield of the plots treated with ADM.3502.F.1.A at 1 L/ha was significantly increased. There were no differences between ADM.3502.F.1.A and the zonal reference products. There are no differ-

ences between EPPO zones and between the concerned European regulation zones. There are no indications that quality parameters of yield are affected adversely. The thousand grain weight is increased for about 2 %.

It can be concluded that ADM.3502.F.1.A is suitable for the control of *Blumeria graminis* on oats.

3.2.3.19 Summary and conclusion

213 trials ~~were~~ carried out in the central European regulation zone and 2 trials conducted in the North European regulation zone to evaluate the efficacy of ADM.3502.F.1.A against the target fungal pathogens.

The results demonstrate that the intended target dose rates of ADM.3502.F.1.A (1 L/ha) is required for a comprehensive successful protection of the target crops.

At the target dose rates, ADM.3502.F.1.A achieves very good efficiency for the control of the target fungal diseases on winter cereal crops. Compared to the untreated check, it reduces the level of infestations significantly and is largely comparable to the reference products Input 460 EC (= Input Classic) and Spyrale, and comparable to superior to further authorised reference products used in the trials.

At presence of the target diseases, applications of ADM.3502.F.1.A have a clearly positive effect on the yield of cereals crops.

The product complies with the Uniform Principles.

Comments of zRMS on:
Efficacy (3.2.3)

A total of 215 efficacy trials carried out between 2018 and 2020 have been submitted and presented by the applicant in dRR for the evaluation of the fungicide ADM.3502.F.1.A. Additional 9 efficacy trials submitted by the applicant and contained only in BAD document, have been presented by zRMS in commenting box to support registration of ADM.3502.F.1.A in wheat and barley.
The trials were carried out in 3 EPPO zones: Maritime (DE, CZ, FR), North-East (PL, LT, LV) and South-East (SK, HU, RO). A wide range of trial locations allows to evaluate the performance of ADM.3502.F.1.A in all the Member States (Germany, Austria, Belgium, Netherlands, Czechia, Poland, Hungary, Slovakia, Ireland) for which the authorisation is sought. All the efficacy trials were carried out by the officially GEP-recognized testing units.
ADM.3502.F.1.A is intended to be used for the control of *Zymoseptoria tritici* (SEPTTR), *Erysiphe graminis* (ERYSGR), *Pyrenophora tritici-repentis* (PYRNTR), *Puccina striiformis* (PUCCST) and *Puccinia recondita*. (PUCCRT/ PUCCRE) on wheat (TRZAW, TRZAS), *Erysiphe graminis* (ERYSGR), *Rhynchosporium secalis* (RHYNSE), *Pyrenophora teres* (PYRNTE), *Puccinia hordei* (PUCCHD) on barley (HORVW, HORVS); *Erysiphe graminis* (ERYSGR), *Rhynchosporium secalis* (RHYNSE), *Puccinia recondita*. (PUCCRE/ PUCCRR) on winter rye (SECCW); *Zymoseptoria tritici* (SEPTTR), *Erysiphe graminis* (ERYSGR), *Puccina striiformis* (PUCCST) and *Puccinia recondita*. (PUCCRE) on triticale (TTLSS), *Erysiphe graminis* (ERYSGR), *Puccinia coronata* (PUCCCO) on oat (AVESS).

The claimed dose rate for ADM.3502.F.1.A is 1.0 L/ha in Maritime and North-East EPPO zone. Dose range: 0.8-1.0 L/ha is claimed in South-East EPPO zone. The recommended water volumes range is 100-400 (water amount in covered by efficacy trials).

ADM.3502.F.1.A is intended to be used within the crop stage ranging from BBCH 30-65 in all target crops. The range of application timing is covered by efficacy trials.

In 39 of 224 trials ADM.3502.F.1.A was applied once. According to the GAP table, ADM.3502.F.1.A can be applied only once per growth season in cereals. As trial results presenting efficacy after 1 and 2 application have

been compiled together by the applicant, upon request of the zRMS, the applicant has provided additionally and separately efficacy data presenting only efficacy data after 1 application.

Conclusions from the evaluation have been summarized separately for individual claimed uses listed in the GAP table.

WHEAT/ SEPTTR
The number of trials submitted and presented by the applicant in dRR for this use is: 37 trials [27 MAR (CZ, DE) + 2 NE (PL) + 8 SE (HU, SK)].
In 34 of 37 trials ADM.3502.F.1.A was applied twice. In 3 of 37 trials ADM.3502.F.1.A was applied once. Trial results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.1-4-3.2.3.1-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2.3.1-4a.
The number of trials for the efficacy assessment after 1 application is as follows:
MAR (DE+CZ): 16 trials (14 trials with relevant disease severity level)
NE (PL, LV): 3 trials (including 1 additional trial added by the zRMS)
SE (HU, SK): 6 trials (5 trials with relevant disease severity level)

All the efficacy trials presented by the applicant in dRR were conducted on winter wheat.
Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was moderately effective in Maritime and North-East EPPO zone, and highly effective in South-East EPPO zone. High efficacy was noted in all concerned EPPO zones, based on the all efficacy trials presented by the applicant with efficacy data shown mostly after second application. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic and additionally applied standards: Artemis, Hutton and Tebusip. ADM.3502.F.1.A was visibly more effective as compared to the additionally applied standards: Leander and Zamir.
Dose range 0.8-1.0 L/ha is claimed for South-East EPPO zone. Based on the trial results for lower dose rate of 0.8 L/ha presented in the chapter 3.2.2 Minimum effective dose tests, it can be concluded that ADM.3502.F.1.A applied at lower dose rate of 0.8 L/ha was highly effective in the control of SEPTTR on winter wheat in South-East EPPO zone. The efficacy at dose rate of 1.0 was slightly higher as compared to the efficacy at lower dose rate of 0.8 L/ha. It is recommended to include in the product label remark to use lower dose rate of 0.8 L/ha under conditions of low disease pressure.

Additional 1 efficacy trial (LV20FETRZAX473A) conducted in North-East EPPO zone (LV) submitted by the applicant and contained only in BAD document, has been presented by zRMS to support registration of ADM.3502.F.1.A in the control of SEPTTR in spring wheat. Results from this trial (trial with 1 application) are presented below:

EPPO zone	**Crop/ Pathogen**	**Efficacy after 1 application**							
		N° of trials	**Disease severity in UNCK (%)**		**ADM.3502.F.1.A [1 L/ha]**		**Zonal reference product (Input)**	
			Mean	**Range**	**Mean**	**Range**	**Mean**	**Range**
North-East (LV)	TRZAS/ SEPTTR	1	6.1	7.5	53.3	-	46.7	-

It can be concluded, that ADM.3502.F.1.A applied once at recommended dose rate of 1.0 L/ha limited disease occurrence in 1 trial conducted in North-East EPPO zone (LV), presenting data for the control of SEPTTR on spring wheat. The efficacy on the similar level was noted for the reference product. Considering all 3 efficacy trials conducted on winter and spring wheat in North-East EPPO zone, the average efficacy was on the moderate level (67.4%) after 1 application. Moderate efficacy (71.1%) was also noted in Maritime EPPO zone (CZ, DE) based on the results after 1 application on winter wheat. Therefore it can be concluded ADM.3502.F.1.A is moderately effective in the control of SEPTTR on wheat in North-East and Maritime EPPO zone.

Based on efficacy data from North-East (PL, LV), Maritime (CZ, DE) and South-East EPPO zone (SK), this use is accepted in PL on winter wheat and spring wheat. Sufficient efficacy data allow to accept this use in Maritime and South-East EPPO zone on winter wheat.
As no trials have been submitted for spring wheat for Maritime and South-East EPPO zone, the concerned MSs

are kindly advised to consider individually data from North-East EPPO zone and possible extrapolation of efficacy trial results from winter wheat to spring wheat, according to the national requirements and make a decision concerning acceptance of this use on the national level.

WHEAT/ PYRNTR
The number of trials submitted and presented by the applicant in dRR for this use is: 17 trials [6 MAR (CZ, DE) + 2 NE (PL) + 9 SE (HU, SK).
In 15 of 17 trials ADM.3502.F.1.A was applied twice. In 2 of 17 trials ADM.3502.F.1.A was applied once. Trial results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.2-4-3.2.3.2-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2.3.2-4a.
The number of trials for the efficacy assessment after 1 application is as follows:
MAR (CZ): 1 trial
NE (PL, LV): 3 trials (including 1 additional trial added by the zRMS)
SE (HU): 5 trials (4 trials with relevant disease severity level)

All the efficacy trials presented by the applicant in dRR were conducted on winter wheat.
Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was highly effective in South-East EPPO zone and moderately effective in North-East and Maritime EPPO zone. High efficacy was noted in North-East EPPO zone, based on the efficacy trials results presented mostly after second application. Moderate efficacy was noted in Maritime EPPO zone and South-East EPPO zone, based on the all efficacy trials presented by the applicant with efficacy data shown mostly after second application. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic and additionally applied standards: Leander, Zamir. ADM.3502.F.1.A was visibly more effective as compared to the additionally applied standard Delaro 325 SC.
Dose range 0.8-1.0 L/ha is claimed for South-East EPPO zone. Based on the trial results for lower dose rate of 0.8 L/ha presented in the chapter 3.2.2 Minimum effective dose tests, it can be concluded that ADM.3502.F.1.A applied at lower dose rate of 0.8 L/ha was moderately effective in the control of PYRNTR on wheat in South-East EPPO zone. The efficacy at dose rate of 1.0 was higher as compared to the efficacy at lower dose rate of 0.8 L/ha. It is recommended to include in the product label remark to use lower dose rate of 0.8 L/ha under conditions of low disease pressure.

Additional 1 efficacy trial (LV20FETRZAX473A) conducted in North-East EPPO zone (LV) submitted by the applicant and contained only in BAD document, has been presented by zRMS to support registration of ADM.3502.F.1.A in the control of PYRNTR in spring wheat. Results from this trial (trial with 1 application) are presented below:

EPPO zone	**Crop/ Pathogen**	**Efficacy after 1 application**						
		N° of trials	**Disease severity in UNCK (%)**		**ADM.3502.F.1.A [1 L/ha]**		**Zonal reference product (Input)**	
			Mean	**Range**	**Mean**	**Range**	**Mean**	**Range**
North-East (LV)	TRZAS/ PYRNTR	1	9.4	-	78.8	-	84.0	-

It can be concluded, that ADM.3502.F.1.A applied once at recommended dose rate of 1.0 L/ha was moderately effective in the control of PYRNTR on spring wheat in 1 trial conducted in North-East EPPO zone (LV). The efficacy of reference product was visibly higher in this trial.

This use was not claimed by the applicant in GAP table for South-East EPPO zone.
Based on efficacy data from North-East (PL, LV), Maritime (CZ, DE) and South-East EPPO zone (SK), this use is accepted in PL on winter wheat and spring wheat.
As no trials have been submitted for spring wheat for Maritime EPPO zone, the concerned MSs are kindly advised to consider individually data from North-East EPPO zone and possible extrapolation of efficacy trial results from winter wheat to spring wheat, according to the national requirements and make a decision concerning acceptance of this use on the national level
As limited number of trials (with sufficient disease severity level) presenting data after 1 application is available

for Maritime EPPO zone for winter wheat, the cMSs are kindly advised to consider individually the acceptance of this use, according to the national requirements and make a decision on the national level.

WHEAT/ PUCCST

The number of trials submitted and presented by the applicant in dRR for this use is: 12 trials [5 MAR (CZ, DE) + 2 NE (PL) + 5 SE (HU).
In 9 of 12 trials ADM.3502.F.1.A was applied twice. In 3 of 12 trials ADM.3502.F.1.A was applied once. Trial results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.3-4-3.2.3.3-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2.3.3-4a.
The number of trials for the efficacy assessment after 1 application is as follows:
MAR (DE, FR): 3 trials (including 2 additional trials with relevant disease severity)
NE (PL): 2 trials
SE (HU): 2 trials

Additional 2 efficacy trials (FR19FETRZAX328A, FR20FETRZAW307A) conducted in Maritime EPPO zone (FR) submitted by the applicant and contained only in BAD document, have been presented by zRMS to support registration of ADM.3502.F.1.A in the control of PUCCST in winter wheat. Results from 3 trials presenting efficacy after 1 application, carried out in Maritime zone are presented below:

EPPO zone	Crop/ Pathogen	Efficacy after 1 application						
		N° of trials	Disease severity in UNCK (%)		ADM.3502.F.1.A [1 L/ha]		Zonal reference products (Input, Input Classic)	
			Mean	Range	Mean	Range	Mean	Range
Maritime (DE, FR)	TRZAW/ PUCCST	3	9.8	6.9-13.2	91.8	90.2-94.5	82.7	67.3-92.9

All the efficacy trials presented by the applicant in dRR were conducted on winter wheat.
Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was highly effective in all concerned EPPO zones. High efficacy was also noted in all concerned EPPO zones, based on the efficacy trials results presented mostly after second application. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic in North-East and South-East EPPO zones. The efficacy of zonal reference products was visibly lower in Maritime EPPO zone. Similar efficacy results have been noted for the additionally applied standards: Artemis, Leander, Tebusip and Zamir.
Dose range 0.8-1.0 L/ha is claimed for South-East EPPO zone. Based on the trial results for lower dose rate of 0.8 L/ha presented in the chapter 3.2.2 Minimum effective dose tests, it can be concluded that ADM.3502.F.1.A applied at lower dose rate of 0.8 L/ha was highly effective in the control of PUCCST on wheat in South-East EPPO zone. The efficacy at dose rate of 1.0 was higher but at the same high level as compared to the efficacy at lower dose rate of 0.8 L/ha. It is recommended to include in the product label remark to use lower dose rate of 0.8 L/ha under conditions of low disease pressure.

Based on efficacy data from North-East (PL) and Maritime EPPO zone (CZ, DE) zone, this use is accepted in PL on winter wheat only. No efficacy trials have been submitted for the control of PUCCST on spring wheat. Therefore this use can not be accepted in spring wheat in PL.
As no trials have been submitted for spring wheat, the concerned MSs from Maritime and South-East EPPO zone, are kindly advised to consider individually possible extrapolation of efficacy trial results from winter wheat to spring wheat, according to the national requirements and make a decision concerning acceptance of this use on the national level
As limited number of trials (with sufficient disease severity level) presenting data after 1 application is available for all concerned EPPO zones, the cMSs are kindly advised to consider individually the acceptance of this use, according to the national requirements and make a decision on the national level.

WHEAT/ PUCCRT/ PUCCRE

The number of trials submitted and presented by the applicant in dRR for this use is: 35 trials [20 MAR (CZ, DE) + 2 NE (PL) + 13 SE (HU, SK).
In 32 of 35 trials ADM.3502.F.1.A was applied twice. In 3 of 35 trials ADM.3502.F.1.A was applied once. Trial

results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.4-4-3.2.3.4-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2.3.4-4a.
The number of trials for the efficacy assessment after 1 application is as follows:
MAR (DE): 8 trials
NE (PL): 2 (1 trial with relevant disease severity level)
SE (HU): 2 (1 trial with relevant disease severity level)

All the efficacy trials presented by the applicant in dRR were conducted on winter wheat.
Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was highly effective in Maritime and North-East EPPO zone. The efficacy of ADM.3502.F.1.A, after 1 application (after exclusion by the zRMS 1 trial with low disease severity 2.1%) was only 24.1% in South-East EPPO zone. High efficacy was noted in all concerned EPPO zones, based on the efficacy trials results presented mostly after second application. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic and for the additionally applied standards: Artemis, Hutton, Tebusip. The efficacy of ADM.3502.F.1.A was visibly higher as compared to the efficacy of standard Mirador Xtra. The efficacy of reference product Zamir was higher than efficacy of ADM.3502.F.1.A.

Dose range 0.8-1.0 L/ha is claimed for South-East EPPO zone. Based on the all trial results for lower dose rate of 0.8 L/ha presented in the chapter 3.2.2 Minimum effective dose tests, it can be concluded that ADM.3502.F.1.A applied at lower dose rate of 0.8 L/ha was moderately effective in the control of PUCCRT on wheat in South-East EPPO zone. The efficacy at dose rate of 1.0 was visibly higher as compared to the efficacy at lower dose rate of 0.8 L/ha. Low efficacy was noted in 1 trial presenting data after 1 application (after exclusion of another trial with low disease severity 2,1%), for ADM.3502.F.1.applied at 0.8 and 1.0 L/ha and for the reference standards. Based on the results from all efficacy trial it is recommended to include in the product label remark to use lower dose rate of 0.8 L/ha under conditions of low disease pressure.

Based on efficacy data from North-East (PL), Maritime (CZ, DE) and South-East EPPO zone (SK), this use is accepted in PL on winter wheat only. No efficacy trials have been submitted for the control of PUCCRT on spring wheat. Therefore this use can not be accepted in spring wheat in PL.
Sufficient efficacy data allow to accept this use in Maritime EPPO zone on winter wheat.
As no trials have been submitted for spring wheat the concerned MSs from Maritime and South-East EPPO zone, are kindly advised to consider individually possible extrapolation of efficacy trial results from winter wheat to spring wheat, according to the national requirements and make a decision concerning acceptance of this use on the national level
As limited number of trials (with sufficient disease severity level) presenting data after 1 application is available for South-East EPPO zone for winter wheat, the cMSs are kindly advised to consider individually the acceptance of this use, according to the national requirements and make a decision on the national level.

WHEAT/ ERYSGR
The number of trials submitted and presented by the applicant in dRR for this use is: 24 trials [16 MAR (CZ, DE) + 4 NE (PL) + 4 SE (HU)].
In 20 of 24 trials ADM.3502.F.1.A was applied twice. In 4 of 24 trials ADM.3502.F.1.A was applied once. Trial results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.5-4-3.2.3.5-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2.3.5-4a.
The number of trials for the efficacy assessment after 1 application is as follows:
MAR (DE+CZ): 10 trials
NE (PL, LV): 6 trials (including 2 additional trials added by the zRMS)
SE (HU): 4 trials (3 trials with relevant disease severity level)

Additional 1 efficacy trial (LV19FETRZAX482A) conducted in North-East EPPO zone (LV) submitted by the applicant and contained only in BAD document, has been presented by zRMS to support registration of ADM.3502.F.1.A in the control of ERYSGR in winter wheat. Results from 5 trials presenting efficacy after 1 application, carried out in North-East zone are presented below:

EPPO zone	Crop/ Pathogen	Efficacy after 1 application						
		N° of trials	Disease severity in UNCK (%)		ADM.3502.F.1.A [1 L/ha]		Zonal reference products (Input, Input Classic)	
			Mean	Range	Mean	Range	Mean	Range
North-East (PL, LV)	TRZAW/ ERYSGR	5	14.2	5.3-24.7	81.4	63.6-97.6	83.6	59.8-94.5

All the efficacy trials presented by the applicant in dRR were conducted on winter wheat.
Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was highly effective in all concerned EPPO zones. High efficacy was also noted in all concerned EPPO zones, based on the all efficacy trials presented by the applicant with efficacy data shown mostly after second application. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic and additionally applied standards: Artemis, Hutton and Tebusip. ADM.3502.F.1.A was visibly more effective as compared to the additionally applied standards: Artemis, Leander, Tebusip and Zamir. The efficacy of ADM.3502.F.1.A was visibly higher as compared to the efficacy of standard Mirador Xtra.

Dose range 0.8-1.0 L/ha is claimed for South-East EPPO zone. Based on the trial results for lower dose rate of 0.8 L/ha presented in the chapter 3.2.2 Minimum effective dose tests, it can be concluded that ADM.3502.F.1.A applied at lower dose rate of 0.8 L/ha was highly effective in the control of ERYSGR on wheat in South-East EPPO zone. The efficacy at dose rate of 1.0 was slightly higher as compared to the efficacy at lower dose rate of 0.8 L/ha. It is recommended to include in the product label remark to use lower dose rate of 0.8 L/ha under conditions of low disease pressure.

Additional 1 efficacy trial (LV20FETRZAX473A) conducted in North-East EPPO zone (LV) submitted by the applicant and contained only in BAD document, has been presented by zRMS to support registration of ADM.3502.F.1.A in the control of ERYSGR in spring wheat. Results from this trial (trial with 1 application) are presented below:

EPPO zone	Crop/ Pathogen	Efficacy after 1 application						
		N° of trials	Disease severity in UNCK (%)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product (Input)	
			Mean	Range	Mean	Range	Mean	Range
North-East (LV)	TRZAS/ ERYSGR	1	8.2	-	97.6	-	94.5	-

It can be concluded, that ADM.3502.F.1.A applied once at recommended dose rate of 1.0 L/ha was highly effective in the control of ERYSGR on spring wheat in 1 trial conducted in North-East EPPO zone (LV). The similar efficacy was noted for the reference product.

Based on efficacy data from North-East (PL) and Maritime EPPO zone (CZ, DE) zone this use is accepted in PL on winter wheat and spring wheat.
Sufficient efficacy data allow to accept this use in Maritime EPPO zone on winter wheat.
As no trials have been submitted for spring wheat for Maritime and South-East EPPO zone, the concerned MSs are kindly advised to consider individually data from North-East EPPO zone and possible extrapolation of efficacy trial results from winter wheat to spring wheat, according to the national requirements and make a decision concerning acceptance of this use on the national level
As limited number of trials is available for South-East EPPO zone for winter wheat, the cMSs are kindly advised to consider individually the acceptance of this use, according to the national requirements and make a decision on the national level.

BARLEY/ ERYSGR
The number of trials submitted and presented by the applicant in dRR for this use is: 18 trials: 10 for HORVW and 8 for HORVS [10 MAR: 4 for HORVW and 6 for HORVS (CZ, DE) + 2 NE: for HORVW (PL) + 6 SE: 4 for HORVW and 2 for HORVS (HU, SK)].
In 16 of 18 trials ADM.3502.F.1.A was applied twice. In 2 of 18 trials ADM.3502.F.1.A was applied once. Trial

results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.6-4, 3.2-3.6-4a and 3.2.3.6-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2-3.6-4b.
The number of trials for the efficacy assessment after 1 application is as follows:
MAR (DE+CZ): 10 trials: 4 on HORVW and 6 on HORVS (9 trials with relevant disease severity level: 4 on HORVW and 5 on HORVS)
NE (PL, LT, LV): 7 trials (including 5 additional trials added by the zRMS): 3 on HORVW and 4 on HORVS
SE (HU, SK): 5 trials: 3 on HORVW and 2 on HORVS.

Additional 1 efficacy trial (LV20FEHORVX476A) conducted in North-East EPPO zone (LV) submitted by the applicant and contained only in BAD document, has been presented by zRMS to support registration of ADM.3502.F.1.A in the control of ERYSGR in winter barley. Results from 3 trials presenting efficacy after 1 application, carried out in North-East zone are presented below:

EPPO zone	Crop/ Pathogen	Efficacy after 1 application						
		N° of trials	Disease severity in UNCK (%)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product (Input)	
			Mean	Range	Mean	Range	Mean	Range
North-East (PL, LV)	HORVW/ ERYSGR	3	5.7	4.9-6.1	81.0	66.2-89.6	78.5	63.1-87.5

Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was highly effective in all concerned EPPO zones. High efficacy was also noted in all concerned EPPO zones, based on the all efficacy trials presented by the applicant with efficacy data shown mostly after second application. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic and additionally applied standards: Artemis, Hutton, Leander and Tebusha.

Dose range 0.8-1.0 L/ha is claimed for South-East EPPO zone. Based on the trial results for lower dose rate of 0.8 L/ha presented in the chapter 3.2.2 Minimum effective dose tests, it can be concluded that ADM.3502.F.1.A applied at lower dose rate of 0.8 L/ha was highly effective in the control of ERYSGR on barley in South-East EPPO zone. The efficacy at dose rate of 1.0 was slightly higher but at the same efficacy level as compared to the efficacy at lower dose rate of 0.8 L/ha. It is recommended to include in the product label remark to use lower dose rate of 0.8 L/ha under conditions of low disease pressure.

Additional 4 efficacy trials (LT18FEHORVS929A, LT19FEHORVS487A, LT19FEHORVS487B, LV19FEHORVS484B) conducted in North-East EPPO zone (LT, LV) submitted by the applicant and contained only in BAD document, have been presented by zRMS to support registration of ADM.3502.F.1.A in the control of ERYSGR in spring barley. Results from these trials (after 1 application) are presented below:

EPPO zone	Crop/ Pathogen	Efficacy after 1 application						
		N° of trials	Disease severity in UNCK (%)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product (Input)	
			Mean	Range	Mean	Range	Mean	Range
North-East (LT, LV)	HORVS/ ERYSGR	4	19.3	6.3-47.5	73.1	35.5-91.3	69.7	32.9-89.6

It can be concluded, that ADM.3502.F.1.A applied once at recommended dose rate of 1.0 L/ha was moderately effective in the control of ERYSGR on spring barley based on 4 trials conducted in North-East EPPO zone (LT, LV). The similar efficacy was noted for the reference product. High efficacy (about 80-90%) was noted in 3 of 4 trials. Low efficacy (35,5%) was noted in only 1 trial after application of ADM.3502.F.1.A and also reference standard. Therefore, it can be concluded that, ADM.3502.F.1.A is effective in the control of ERYSGR on spring barley in North-East EPPO zone.

Based on efficacy data from North-East (PL, LT, LV), Maritime (CZ, DE) and South-East EPPO zone (SK), this use is accepted in PL on winter and spring barley. Sufficient efficacy data allow to accept this use in Maritime EPPO and South-East EPPO zone on winter and spring barley.

BARLEY/ RHYNSE
The number of trials submitted and presented by the applicant in dRR for this use is: 12 trials: 11 for HORVW and 1 for HORVS [6 MAR: 5 for HORVW and 1 for HORVS (CZ, DE) + 2 NE: for HORVW (PL) + 4 SE: for HORVW (HU, SK)].
In 6 of 12 trials ADM.3502.F.1.A was applied twice. In 6 of 12 trials was applied once. Trial results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.7-4, 3.2-3.7-4a and 3.2.3.7-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2-3.7-4b.
The number of trials for the efficacy assessment after 1 application is as follows:
MAR (DE+CZ): 6 trials: 5 on HORVW and 1 on HORVS
NE (PL): 2 trials on HORVW
SE (HU): 2 trials: on HORVW (1 trial with relevant disease severity level).

Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was moderately effective in Maritime and South-East EPPO zone, and highly effective in North-East EPPO zone. High efficacy was noted in all concerned EPPO zones, based on the all efficacy trials presented by the applicant with efficacy data shown after first and second application. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic and additionally applied standard Orius P. ADM.3502.F.1.A was visibly more effective as compared with additionally applied standard Leander. The efficacy of zonal reference products was visibly higher after 1 application as compared with the efficacy of ADM.3502.F.1.A in South-East EPPO zone.

Dose range 0.8-1.0 L/ha is claimed for South-East EPPO zone. Based on the trial results from 4 trials, for lower dose rate of 0.8 L/ha presented in the chapter 3.2.2 Minimum effective dose tests, it can be concluded that ADM.3502.F.1.A applied at lower dose rate of 0.8 L/ha was highly effective in the control of RHYNSE on barley in South-East EPPO zone. The efficacy at dose rate of 1.0 was slightly higher but at the same efficacy level as compared to the efficacy at lower dose rate of 0.8 L/ha. It is recommended to include in the product label remark to use lower dose rate of 0.8 L/ha under conditions of low disease pressure.

Based on efficacy data from North-East (PL), Maritime (CZ, DE) and South-East EPPO zone (SK), this use is accepted in PL on winter and spring barley. Sufficient efficacy data allow to accept this use in Maritime zone on winter barley.
As limited number of trials (only 1) or no trials have been submitted for spring barley for Maritime and South-East EPPO zone respectively, the concerned MSs are kindly advised to consider individually possible extrapolation of efficacy trial results from winter barley to spring barley according to the national requirements and make a decision concerning acceptance of this use on the national level
As limited number of trials (only 4 trials altogether and only 1 trial with efficacy data with relevant disease severity level after 1 application) is available for South-East EPPO zone, the cMSs are kindly advised to consider individually data from other EPPO zones and the acceptance of this use, according to the national requirements and make a decision on the national level.

BARLEY/ PYRNTE
The number of trials submitted and presented by the applicant in dRR for this use is: 27 trials: 19 for HORVW and 8 for HORVS [14 MAR: 8 for HORVW and 6 for HORVS (CZ, DE) + 2 NE: for HORVW (PL) + 11 SE: 9 for HORVW and 2 for HORVS (HU, SK)].
In 23 of 27 trials ADM.3502.F.1.A was applied twice. In 4 of 27 trials ADM.3502.F.1.A was applied once. Trial results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.8-4, 3.2-3.8-4a and 3.2.3.8-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2-3.8-4b.
The number of trials for the efficacy assessment after 1 application is as follows:
MAR (DE+CZ): 12 trials: 7 on HORVW and 5 on HORVS (9 trials with relevant disease severity level: 4 on HORVW and 5 on HORVS)
NE (PL, LV): 3 trials (including 1 additional trial added by zRMS): 2 on HORVW and 1 on HORVS
SE (HU, SK): 8 trials: 7 on HORVW and 1 on HORVS (6 trials with relevant disease severity level: 5 on HORVW and 1 on HORVS).

Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was highly effective in all concerned EPPO zones. High efficacy was also noted in all concerned EPPO zones, based on the all efficacy trials presented by the applicant with efficacy data shown mostly after second application. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic and additionally applied standards: Artemis, Hutton and Orius P. ADM.3502.F.1.A was visibly more effective as compared with additionally applied standard Leander. The efficacy of zonal reference products was visibly lower after 1 application as compared with the efficacy of ADM.3502.F.1.A in South-East EPPO zone. The efficacy of zonal reference products was visibly lower after 2 application as compared with the efficacy of ADM.3502.F.1.A in North-East EPPO zone.

Dose range 0.8-1.0 L/ha is claimed for South-East EPPO zone. Based on the trial results for lower dose rate of 0.8 L/ha presented in the chapter 3.2.2 Minimum effective dose tests, it can be concluded that ADM.3502.F.1.A applied at lower dose rate of 0.8 L/ha was highly effective in the control of PYRNTE on barley in South-East EPPO zone. The efficacy at dose rate of 1.0 was higher as compared to the efficacy at lower dose rate of 0.8 L/ha. It is recommended to include in the product label remark to use lower dose rate of 0.8 L/ha under conditions of low disease pressure.

Additional 1 efficacy trial (LV19FEHORVS484B) conducted in North-East EPPO zone (LV) submitted by the applicant and contained only in BAD document, has been presented by zRMS to support registration of ADM.3502.F.1.A in the control of PYRNTE in spring barley. Results from this trial (after 1 application) are presented below:

EPPO zone	**Crop/ Pathogen**	**Efficacy after 1 application**						
		N° of trials	**Disease severity in UNCK (%)**		**ADM.3502.F.1.A [1 L/ha]**		**Zonal reference product (Input)**	
			Mean	**Range**	**Mean**	**Range**	**Mean**	**Range**
North-East (LV)	HORVS/ PYRNTE	1	13.4	-	97.4	-	88.6	-

It can be concluded, that ADM.3502.F.1.A applied once at recommended dose rate of 1.0 L/ha was highly effective in the control of PYRNTE on spring barley based on 1 trial conducted in North-East EPPO zone (LV). The similar efficacy was noted for the reference product.

Based on efficacy data from North-East (PL, LV), Maritime (CZ, DE) and South-East EPPO zone (SK), this use is accepted in PL on winter and spring barley. Sufficient efficacy data allow to accept this use in Maritime and South-East EPPO zone on winter and spring barley.

BARLEY/ PUCCHD

The number of trials submitted and presented by the applicant in dRR for this use is: 26 trials: 17 for HORVW and 9 for HORVS [16 MAR: 9 for HORVW and 7 for HORVS (CZ, DE) + 2 NE: for HORVW (PL) + 8 SE: 6 for HORVW and 2 for HORVS (HU, SK)].
In 21 of 26 trials ADM.3502.F.1.A was applied twice. In 5 of 26 trials ADM.3502.F.1.A was applied once. Trial results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.9-4, 3.2-3.9-4a and 3.2.3.9-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2-3.9-4b.
The number of trials for the efficacy assessment after 1 application is as follows:
MAR (DE+CZ): 11 trials: 7 on HORVW and 4 on HORVS (9 trials with relevant disease severity level: 6 on HORVW and 3 on HORVS)
NE (PL, LV): 3 trials (including 1 additional trial added by zRMS): 2 on HORVW and 1 on HORVS
SE (HU): 3 trials: on HORVW (2 trials with relevant disease severity level).

Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was highly effective in all concerned EPPO zones. High efficacy was also noted in all concerned EPPO zones, based on the all efficacy trials presented by the applicant with efficacy data shown mostly after second application. Similar efficacy results have been noted for the zonal reference products: Input,

Input Classic and additionally applied standard: Hutton. ADM.3502.F.1.A was visibly more effective as compared with additionally applied standards Leander and Orius P.

Dose range 0.8-1.0 L/ha is claimed for South-East EPPO zone. Based on the trial results for lower dose rate of 0.8 L/ha presented in the chapter 3.2.2 Minimum effective dose tests, it can be concluded that ADM.3502.F.1.A applied at lower dose rate of 0.8 L/ha was highly effective in the control of PUCCHD on barley in South-East EPPO zone. The efficacy at dose rate of 1.0 was higher as compared to the efficacy at lower dose rate of 0.8 L/ha. It is recommended to include in the product label remark to use lower dose rate of 0.8 L/ha under conditions of low disease pressure.

Additional 1 efficacy trial (LV19FEHORVS484B) conducted in North-East EPPO zone (LV) submitted by the applicant, and contained only in BAD document, has been presented by zRMS to support registration of ADM.3502.F.1.A in the control PUCCHD in spring barley. Results from this trial (after 1 application) are presented below:

EPPO zone	Crop/ Pathogen	Efficacy after 1 application						
		N° of trials	Disease severity in UNCK (%)		ADM.3502.F.1.A [1 L/ha]		Zonal reference product (Input)	
			Mean	Range	Mean	Range	Mean	Range
North-East (LV)	HORVS/ PUCCHD	1	12.3	-	88.3	-	93.4	-

It can be concluded, that ADM.3502.F.1.A applied once at recommended dose rate of 1.0 L/ha was highly effective in the control of PUCCHD on spring barley based on 1 trial conducted in North-East EPPO zone (LV). The similar efficacy was noted for the reference product.

Based on efficacy data from North-East (PL, LV), Maritime (CZ, DE) and South-East EPPO zone (SK), this use is accepted in PL on winter and spring barley. Sufficient efficacy data allow to accept this use in Maritime EPPO zone on winter and spring barley.
As limited number of trials is available for South-East EPPO zone after 1 application (3 trials on winter barley but only 2 trials with relevant disease severity level), the cMSs are kindly advised to consider individually data from other EPPO zones and the acceptance of this use in winter and spring barley, according to the national requirements and make a decision on the national level.

WINTER RYE/ ERYSGR
The number of trials submitted and presented by the applicant in dRR for this use is: 5 trials from Maritime EPPO zone (CZ, DE).

In 3 of 5 trials ADM.3502.F.1.A was applied twice. In 2 of 5 trials ADM.3502.F.1.A was applied once. Trial results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.10-4-3.2.3.10-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2.3.10-4a.
The number of trials for the efficacy assessment after 1 application is: 3 trials from Maritime EPPO zone (CZ, DE).

All the efficacy trials presented by the applicant in dRR were conducted on winter rye.
Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was highly effective in Maritime EPPO zone. High efficacy was also noted, based on the all efficacy trials presented by the applicant with efficacy from the trials with 1 and 2 applications. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic and additionally applied standard Hutton.

As limited number of trials (5 trials altogether and only 3 trials with efficacy data after 1 application) is available for Maritime EPPO zone, the cMSs are kindly advised to consider individually the possibility of extrapolation efficacy data from winter wheat, according to the national requirements and make a decision on acceptance of this use on the national level.

This use was not claimed by the applicant in GAP table for Noth-East EPPO zone and South-East EPPO zone.

WINTER RYE/ RHYNSE
The number of trials submitted and presented by the applicant in dRR for this use is: 12 trials from Maritime EPPO zone (CZ, DE).

In 11 of 12 trials ADM.3502.F.1.A was applied twice. In 1 of 12 trials ADM.3502.F.1.A was applied once. Trial results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.11-4-3.2.3.11-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2.3.11-4a.
The number of trials for the efficacy assessment after 1 application is: 9 trials from Maritime EPPO zone (CZ, DE) (8 trials with relevant disease severity level).

All the efficacy trials presented by the applicant in dRR were conducted on winter rye.
Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was moderately effective in Maritime EPPO zone. Moderate efficacy was also noted, based on the all efficacy trials presented by the applicant with efficacy from the trials with 1 and 2 applications. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic and additionally applied standard Hutton.
Sufficient efficacy data allow to accept this use in Maritime EPPO zone.
This use was not claimed by the applicant in GAP table for North-East EPPO and South-East EPPO zone.

WINTER RYE/ PUCCRE/ PUCCRR
The number of trials submitted and presented by the applicant in dRR for this use is: 20 trials from Maritime EPPO zone (CZ, DE).

In 17 of 20 trials ADM.3502.F.1.A was applied twice. In 3 of 20 trials ADM.3502.F.1.A was applied once. Trial results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.12-4-3.2.3.12-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2.3.12-4a.
The number of trials for the efficacy assessment after 1 application is: 9 trials from Maritime EPPO zone (CZ, DE) (5 trials with relevant disease severity level).

All the efficacy trials presented by the applicant in dRR were conducted on winter rye.

Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was highly effective in Maritime EPPO zone. High efficacy was also noted, based on the all efficacy trials presented by the applicant with efficacy from the trials with 1 and 2 applications. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic and additionally applied standard Hutton.
Sufficient efficacy data allow to accept this use in Maritime EPPO zone.
This use was not claimed by the applicant in GAP table for North-East EPPO and South-East EPPO zone.

TRITICALE/ SEPTTR
The number of trials submitted and presented by the applicant in dRR for this use is: 26 trials [22 MAR (CZ, DE) + 3 NE (PL) + 1 SE (RO)].
In 24 of 26 trials ADM.3502.F.1.A was applied twice. In 2 of 26 trials ADM.3502.F.1.A was applied once. Trial results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.13-4-3.2.3.13-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2.3.13-4a.
The number of trials for the efficacy assessment after 1 application is as follows:
MAR (DE+CZ): 13 trials (11 trials with relevant disease severity level)
NE (PL): 3 trials (2 trials with relevant disease severity level)
SE (RO): 1 trial

All the efficacy trials presented by the applicant in dRR were conducted on winter triticale.
Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was highly effective in Maritime and North-East EPPO zone. High efficacy was also noted 1 trial conducted in South-East EPPO zone. High efficacy was noted in Maritime, North-East EPPO and South-East EPPO zone, based on the all efficacy trials presented by the applicant with efficacy data shown mostly after second application. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic and additionally applied standards: Artemis, Fandango, Hutton, Slape Trio, Tebusip. ADM.3502.F.1.A was visibly more effective as compared to the additionally applied standard Zoxis Super.

This use was not claimed by the applicant in GAP table for South-East EPPO zone.
Based on efficacy data from North-East (PL) and Maritime EPPO zone (CZ, DE) zone this use is accepted in PL on winter triticale only. Sufficient efficacy data allow to accept this use in Maritime EPPO zone on winter triticale.
As no efficacy trials are available for spring triticale, the cMSs are kindly advised to consider individually the possibility of extrapolation efficacy data from winter wheat or winter triticale, according to the national requirements and make a decision on acceptance of this use on the national level.

TRITICALE/ PUCCRE
The number of trials submitted and presented by the applicant in dRR for this use is: 15 trials [12 MAR (CZ, DE) + 2 NE (PL) + 1 SE (RO)].
In 13 of 15 trials ADM.3502.F.1.A was applied twice. In 2 of 15 trials ADM.3502.F.1.A was applied once. Trial results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.14-4-3.2.3.14-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2.3.14-4a.
The number of trials for the efficacy assessment after 1 application is as follows:
MAR (DE+CZ): 3 trials
NE (PL): 2 trials
SE (RO): 1 trial

All the efficacy trials presented by the applicant in dRR were conducted on winter triticale.
Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was highly effective in Maritime and North-East EPPO zone. High efficacy was also noted 1 trial conducted in South-East EPPO zone. High efficacy was noted in Maritime, North-East EPPO and South-East EPPO zone, based on the all efficacy trials presented by the applicant with efficacy data shown mostly after second application. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic and additionally applied standards: Artemis, Hutton, Slape Trio and Zoxis Super. ADM.3502.F.1.A was visibly more effective as compared to the additionally applied standard Tebusip.

This use was not claimed by the applicant in GAP table for South-East EPPO zone.
Based on efficacy data from North-East (PL) and Maritime EPPO zone (CZ, DE) zone this use is accepted in PL on winter triticale only.
As limited number of trials (only 3 trials) presenting data after 1 application is available for Maritime EPPO zone for winter triticale, the cMSs are kindly advised to consider individually the possibility of extrapolation efficacy data from winter wheat, according to the national requirements and make a decision on acceptance of this use on the national level.
As no efficacy trials are available for spring triticale, the cMSs are kindly advised to consider individually the possibility of extrapolation efficacy data from winter wheat or winter triticale, according to the national requirements and make a decision on acceptance of this use on the national level.

TRITICALE/ PUCCST
The number of trials submitted and presented by the applicant in dRR for this use is: 6 trials [3 MAR (DE) + 2 NE (PL) + 1 SE (RO)].
In 5 of 6 trials ADM.3502.F.1.A was applied twice. In 1 of 6 trials ADM.3502.F.1.A was applied once. Trial results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.15-4, 3.2.3.15-4a, 3.2-3.15-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in

table 3.2.3.15-4b.
The number of trials for the efficacy assessment after 1 application is as follows:
MAR (DE+CZ): 3 trials (2 trials with relevant disease severity level)
NE (PL): 2 trials
SE (RO): 1 trial (no trials with relevant disease severity level)

The efficacy trials presented by the applicant in dRR were conducted on winter triticale (5 trials) and on spring triticale (1 trial conducted in Germany).
Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was highly effective in Maritime and North-East EPPO zone in the control of PUCCST on winter triticale. After the exclusion of 1 trial with low disease severity conducted on spring triticale, no trials with efficacy data after 1 application were available for this crop. In South-East EPPO zone, after the exclusion of 1 trial with low disease severity, no trials with efficacy data after 1 application were available for this zone (this use was not claimed by the applicant in GAP table for South-East EPPO zone). High efficacy in the control of PUCCST on winter and spring triticale was noted in Maritime, North-East EPPO and South-East EPPO zone, based on the all efficacy trials presented by the applicant with efficacy data shown mostly after second application. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic and additionally applied standards: Fandango, Rubric XL, Zoxis Super.

This use was not claimed by the applicant in GAP table for South-East EPPO zone.
Based on efficacy data from North-East (PL) and Maritime EPPO zone (DE) zone and on the possibility of extrapolation efficacy data from winter wheat, this use is accepted in PL on winter triticale only.
As limited number of trials is available for Maritime zone for winter triticale (2 trials), the cMSs are kindly advised to consider individually the possibility of extrapolation efficacy data from winter wheat, according to the national requirements and make a decision on acceptance of this use on the national level.
As only 1 trial with relevant efficacy data after 2 application (to low disease severity level after 1 application) is available for Maritime zone for spring triticale, the cMSs are kindly advised to consider individually the possibility of extrapolation efficacy data from winter wheat , according to the national requirements and make a decision on acceptance of this use on the national level.

TRITICALE/ ERYSGR
The number of trials submitted and presented by the applicant in dRR for this use is: 16 trials [13 MAR (CZ, DE) + 2 NE (PL) + 1 SE (RO)].
In 15 of 16 trials ADM.3502.F.1.A was applied twice. In 1 of 16 trials ADM.3502.F.1.A was applied once. Trial results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.16-4, 3.2.3.16-4a, 3.2-3.16-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2.3.16-4b.
The number of trials for the efficacy assessment after 1 application is as follows:
MAR (DE+CZ): 11 trials (9 trials with relevant disease severity level)
NE (PL): 2 trials
SE (RO): 1 trial

The efficacy trials presented by the applicant in dRR were conducted on winter triticale (15 trials) and on spring triticale (1 trial conducted in Germany).
Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was highly effective in Maritime and moderately effective in North-East EPPO zone in the control of ERYSGR on winter triticale. After the exclusion of trial with low disease severity conducted on spring triticale, no trials with efficacy data after 1 application were available for this crop. In South-East EPPO zone, high efficacy was noted based on the only 1 trial submitted for this zone (this use was not claimed by the applicant in GAP table for South-East EPPO zone). High efficacy in the control of ERYSGR on winter and spring triticale was noted in Maritime, North-East EPPO and South-East EPPO zone, based on the all efficacy trials presented by the applicant with efficacy data shown mostly after second application. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic and additionally applied standards: Artemis, Fandango, Hutton, Tebusip.

This use was not claimed by the applicant in GAP table for South-East EPPO zone.
Based on efficacy data from North-East (PL) and Maritime EPPO zone (CZ, DE) this use is accepted in PL on

winter triticale only. Sufficient efficacy data allow to accept this use in Maritime EPPO zone on winter triticale. As only 1 trial with relevant efficacy data after 2 application (to low disease severity level after 1 application) is available for Maritime zone for spring triticale, the cMSs are kindly advised to consider individually the possibility of extrapolation efficacy data from winter wheat or winter triticale, according to the national requirements and make a decision on acceptance of this use on the national level.

AVESA/ PUCCCO
The number of trials submitted and presented by the applicant in dRR for this use is: 6 trials from Maritime EPPO zone (CZ, DE) ad 2 trials from North-East EPPO zone (LT).

In 3 of 8 trials ADM.3502.F.1.A was applied twice. In 5 of 8 trials ADM.3502.F.1.A was applied once. Trial results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.17-4-3.2.3.17-5. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2.3.17-4a.
The number of trials for the efficacy assessment after 1 application is: 5 trials from Maritime EPPO zone (CZ, DE) (3 trials with relevant disease severity level) and 2 trials from North-East EPPO zone.

Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was highly effective in Maritime EPPO zone and moderately effective in North-East EPPO zone. Similar efficacy results were noted, based on the all efficacy trials presented by the applicant with efficacy from the trials with 1 and 2 applications. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic and additionally applied standard Amistar. ADM.3502.F.1.A was visibly more effective as compared with additionally applied standard Tebusip.
This use was not claimed by the applicant in GAP table for North-East EPPO and South-East EPPO zone.
As limited number of trials is available after 1 application in Maritime EPPO zone (3 trials with relevant disease severity level), the cMSs are kindly advised to consider individually additional data from North-East EPPO zone and acceptance of this use according to the national requirements and make a decision on the national level.

AVESA/ ERYSGA
The number of trials submitted and presented by the applicant in dRR for this use is: 4 trials from Maritime EPPO zone (CZ, DE).

In 1 of 4 trials ADM.3502.F.1.A was applied twice. In 3 of 4 trials ADM.3502.F.1.A was applied once. Trial results presenting efficacy after 1 and 2 application compiled together are presented in the tables 3.2-3.18-3-3.2.3.18-4. Additional data presenting only efficacy after 1 application (from the trials with 1 application and from the trials with 2 applications, considering observations after 1 application) are presented in table 3.2.3.18-3a.
The number of trials for the efficacy assessment after 1 application is: 3 trials from Maritime EPPO zone (CZ, DE).

Based on the submitted trials results it can be concluded, that ADM.3502.F.1.A, applied once at recommended dose rate of 1.0 L/ha was highly effective in Maritime EPPO zone. High efficacy was also noted, based on the all efficacy trials presented by the applicant with efficacy from the trials with 1 and 2 applications. Similar efficacy results have been noted for the zonal reference products: Input, Input Classic and additionally applied standard Tebusip ADM.3502.F.1.A was visibly more effective as compared with additionally applied standard Amistar.
This use was not claimed by the applicant in GAP table for North-East EPPO and South-East EPPO zone.
As limited number of trials (4 trials altogether and 3 trials with efficacy data after 1 application) is available for Maritime EPPO zone, the cMSs are kindly advised to consider individually the acceptance of this use, according to the national requirements and make a decision on the national level.

Summarizing the efficacy assessment, it is concluded as follows:
The following uses are accepted by the zRMS:
Maritime EPPO zone:
TRZAW: SEPTTR, ERYSGR, PUCCRT/ PUCCRE
HORVW: ERYSGR, RHYNSE, PYRNTE, PUCCHD

HORVS: ERYSGR, PYRNTE, PUCCHD
SECCW: RHYNSE, PUCCRE/ PUCCRR
TTLWI: ERYSGR, SEPTTR
North-East EPPO zone
TRZAW: SEPTTR, ERYSGR, PYRNTR, PUCCST, PUCCRT/ PUCCRE
TRZAS: SEPTTR, ERYSGR, PYRNTR
HORVW, HORVS: ERYSGR, RHYNSE, PYRNTE, PUCCHD
TTLWI: ERYSGR, SEPTTR, PUCCRE, PUCCST
South-East EPPO zone
TRZAW: SEPTTR
HORVW, HORVS: ERYSGR, PYRNTE

The following uses are not accepted by the zRMS:
North-East EPPO zone
TRZAS: PUCCST, PUCCRT/ PUCCRE
TTLSO: ERYSGR, SEPTTR, PUCCRE, PUCCST

The following uses are to be confirmed by cMss:
Maritime EPPO zone
TRZAW: PYRNTR, PUCCST
TRZAS: SEPTTR, ERYSGR, PYRNTR, PUCCST, PUCCRT/ PUCCRE
HORVS: RHYNSE
SECCW: ERYSGR
TTLWI: PUCCRE, PUCCST
TTLSO: ERYSGR, SEPTTR, PUCCRE, PUCCST
AVESA: ERYSGR, PUCCCO
South-East EPPO zone
TRZAW: ERYSGR, PUCCST, PUCCRT/ PUCCRE
TRZAS: SEPTTR, ERYSGR, PUCCST, PUCCRT/ PUCCRE
HORVW, HORVS: RHYNSE, PUCCHD

According to the comments received from cMSs (DE, NL), the following uses have been finally accepted:
- TRZAW: PYRNTR, PUCCST (DE)
- TRZAS: SEPTTR, ERYSGR, PYRNTR, PUCCST, PUCCRT/ PUCCRE (DE)
- TRZAS: SEPTTR, ERYSGR, PUCCRT/ PUCCRE (NL)
- HORVS: RHYNSE (DE, NL)
- SECCW: ERYSGR (DE, NL). This use has been finally accepted by the zRMS also in BE due to minor status of rye in BE
- TTLWI: PUCCRE, PUCCST (DE)
- TTLWI: PUCCRE (NL)
- TTLSO: ERYSGR, SEPTTR, PUCCRE, PUCCST (DE)
- TTLSO: ERYSGR, SEPTTR, PUCCRE (NL)
- AVESA: ERYSGR, PUCCCO (NL)

The claimed uses not accepted are as follows:
- AVESA: ERYSGR, PUCCCO (DE)

Yield

Based on the submitted trial results, it can be concluded that ADM.3502.F.1.A, applied at the maximum recommended dose rate of 1.0 L/ha has no negative impact on the yield and yield quality parameters of tested crops in all concerned EPPO zones. In additional 9 trials (LV20FETRZAX473A, LV19FETRZAX482A, LT18FEHORVS929A, LT19FEHORVS487A, LT19FEHORVS487B, LV19FEHORVS484B, LV20FEHORVX476A, FR19FETRZAX328A, FR20FETRZAW307A) used by the zRMS to support registration of ADM.3502.F.1.A in wheat and barley, no negative impact of ADM.3502.F.1.A was noted on the yield and yield quality parameters of wheat and barley. Results from these additional trials are contained in BAD document.

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

3.3.1 Active Ingredient(s)

ADM.3502.F.1.A contains the active ingredients prothioconazole and fenpropidin. The fungicidal active ingredient prothioconazole belongs to the chemical group of triazoles, the active ingredient fenpropidin belongs to the chemical group of piperidines. Fungi species intended to be controlled by ADM.3502.F.1.A are *Blumeria graminis* on wheat, barley, rye, triticale, and oats, *Pyrenophora tritici repentis,* on wheat, *Puccinia recondita* on wheat, rye, and triticale, *Puccinia striiformis and Zymoseptoria tritici* on wheat and triticale, *Rhynchosporium secalis* on barley and rye, *Pyrenophora teres* and *Puccinia hordei* on barley, and *Puccinia coronata* on oats.

Prothioconazole
Mode of Action
Prothioconazole belongs to a group of active ingredients which are now commonly characterised as SBI-class I: **D**e**M**ethylation-**I**nhibitors (Abbreviation: **DMI**'s), a subgroup of the **S**terol **B**iosynthesis **I**nhibitors (**SBI**'s), inhibiting the ergosterol synthesis by the inhibition of the steroid reduction.
Due to their mode of action, in the **FRAC** (**F**ungicide **R**esistance **A**ction **C**ommittee) classification[4], prothioconazole is classified as follows:

FRAC Code:	3
MOA Code	G1: (Target site: C^{14}-demethylase in sterol biosynthesis).
Group name:	DMI-fungicides (DeMethylation Inhibitors) (SBI: Class I).
Chemical group:	Triazolinthiones.

Besides triazolinthiones, numerous triazoles, imidazoles, pyridines, and pyrimidines all have been shown to act as demethylation inhibitors. Typically, DMI's have a broad spectrum of activity against a range of economically important pathogens on arable crops, top fruit, vines, plantation crops, etc.

Fenpropidin
Mode of Action
Fenpropidin belongs to a group of active ingredients which are now commonly characterised as SBI-class II: amines ("morpholines"), a subgroup of the **S**terol **B**iosynthesis **I**nhibitors (**SBI**'s), inhibiting the ergosterol synthesis by the inhibition of the steroid reduction.
Due to their mode of action, in the **FRAC** (**F**ungicide **R**esistance **A**ction **C**ommittee) classification, fenpropidin is classified as follows:

FRAC Code:	5
MOA Code	G2: (Target site: Δ14-reductase and Δ8→Δ7- isomerase in sterol biosynthesis).
Group name:	Amines ("morpholines") - (SBI: Class II).
Chemical group:	Piperidines.

Typically, amines inhibit to a variable degree two target sites (Δ14-reductase and Δ8→Δ7- isomerase) within the sterol biosynthetic pathway, which explains the lower inclination for resistance development for this SBI subgroup. Besides piperidines, numerous morpholines and spirotkal-amines have been shown to act as amines. Typically, amines (formerly called morpholines) have a narrower spectrum of activity than DMIs. They can be used alone but are often used in mixtures with DMI's to improve the control of powdery mildews and rusts.

[4] FRAC Code List 2021, available on the internet in May 2021 under http://www.frac.info

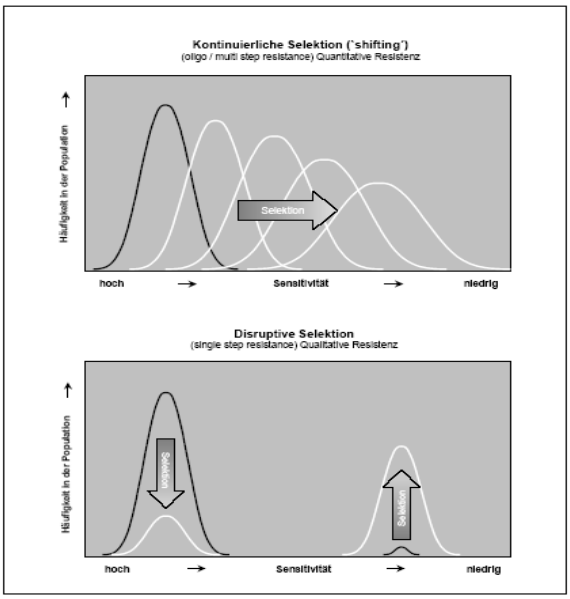
3.3.2 6.3.2 Information on resistance of fungal diseases

3.3.2.1 6.3.2.1 General Remarks to the Development of Fungicide Resistance

For each group of fungicides, a principle risk for the development of resistance is existing. However, the potential for resistance development is different between the fungicide groups. The potential depends on many parameters such as mode of action, frequency of applications and the biology of the pathogen. While some pathogens develop resistance to a certain active substance already shortly after market introduction, for other pathogen/active substance combinations no resistance is recorded up to now.

Generally, fungicide resistance is divided into two types: the qualitative and the quantitative resistance (figure 3-1). Quantitative resistance means only a certain adaptation to the active substance by the pathogen. Pathogens as *Septoria* can thereby only adapt gradually by accumulating several genetic modifications within each individual. This exclusively leads to a stepwise and slow-going resistance evolution. A characteristic of this form of adaptation is also an increasing diversity in sensitivity of the isolates within the whole population during the progress of resistance evolution, because differently adapted isolates result from an individual accumulation of resistance mutations. And: After a period of resistance evolution (multi-/oligo-step resistance or 'shifting'), it is often observed that at an achieved compound-specific adaptation level, the pathogen populations stay - with some up and downs - relatively stable within a sideward-trend channel, and do not continuously increase in their resistance level. This can be attributed to the biology of the pathogen due to its sexual recombination (formation of ascospores) in connection with the oligo-/polygenic biocontrol of the SBI-resistance formation in the fungus[5]. The control of the pathogen is still possible. However, higher rates are required.

Figure 3-1: Scheme of the population dynamic by quantitative and qualitative resistance[6]



In contrary to quantitative resistance, qualitative resistance means that even with high rates of the active substance no acceptable control of the pathogen is possible. This happens for example in case of a mutation at the site of action preventing the optimal binding of the substance.

Evidence of resistance

Prothioconazole

[5] Felsenstein, F.G., Jaser,B.: RESEARCH REPORT: Sensitivity of *Septoria tritici* in different regions of Europe towards prochloraz, tebuconazole, difenoconazole and prothioconazole 2018, EpiLogic GmbH Agrobiol. Research and Consulting

[6] Felsenstein, F.G.; Jaser, B.: Fungizidresistenz bei pilzlichen Getreidepathogenen und Wirksamkeit der vertikalen (qualitativen) Mehltauresistenz bei Weizen und Gerste – Situationsbericht 2007; available in the internet in Nov. 2020 under http://www.epilogic.de

Resistance to DMIs is known in various fungal species in various crops. In cereal crops most important are resistances to *Blumeria graminis*, *Zymoseptoria tritici*, and to a lesser extend to *Rhynchosporium secalis*. The type of resistance of DMI fungicides, for example of *Septoria sp.* or *Blumeria graminis* is the 'quantitative' - type (shifting). It can be expected that under most situations of commercial production of cereals, populations of these fungal pathogens show decreased sensitivity to prothioconazole and other DMIs. However, the current situation is stable. By FRAC **the fungicide risk for resistance development** is considered as **medium** for DMIs.

Fenpropidin

Resistance to amines (morpholines) is especially known in *Blumeria graminis* in wheat and barley. Since amines inhibit to a variable degree two target sites (Δ14-reductase and Δ8→Δ7- isomerase) within the sterol biosynthetic pathway, it took approximately 30 years until relevant resistance occurred in the field. The type of resistance of amine fungicides is the 'quantitative' - type (shifting). The current situation is stable. The sensitivity remains within a of variability seen over more than 25 years. By FRAC **the fungicide risk for resistance development** is considered as **low to medium** for amines.

Mechanism of resistance

Prothioconazole

The primary mechanism of resistance is the accumulation of several independent mutations in the target site incl. mutations in cyp51 (erg 11) gene, e.g. V136A, Y137F, A379G, I381V; cyp51 promotor; ABC transporters and others. Each individual mutation typically causes only a small reduction in sensitivity that does not cause a large enough reduction in sensitivity to impact efficacy under field conditions until multiple mutations accumulate in an isolate.

Fenpropidin

Not much is known in detail about the mechanism of resistance of amines. It is likely that resistance is the result of several independent mutations at the target sites.

Cross resistance

Prothioconazole

It is likely that cross resistance is present between DMI fungicides effective against the same fungus. DMI fungicides are Sterol Biosynthesis Inhibitors (SBIs) but show no cross resistance to other SBI classes[7].

Fenpropidin

It is likely that cross resistance is present between amine fungicides effective against the same fungus. Amine fungicides are Sterol Biosynthesis Inhibitors (SBIs) but show no cross resistance to other SBI classes[8].

Baseline sensitivity of target pathogens

Powdery Mildew (*Blumeria graminis* / *Erysiphe graminis*)

Prothioconazole

The wide spread and intensive use of DMI products since end of the 1970s lead to a quantitative adaptation of the sensitivity of *Blumeria graminis* on wheat and barley accompanied by partly clearly reduced levels of control. Since the middle of the 1990s monitoring data[8] show a relatively little dynamic of pathogen sensitivity only, indicating that the situation of sensitivity of *Blumeria graminis* against DMI products is stable to a large degree. The stabilised mean resistance factors (MRFs) can be different for different DMI products. Based on the authors estimation, in wheat they are ranging from 3-7 to 30-70. MRFs of prothioconazole are in the range of 3-7. In barley they are ranging from 8-15 to 10-250. MRFs of prothioconazole are in the range of 8-15.

[7] FRAC Code List 2021; available on the internet in May 2021 under http://www.frac.info

[8] Felsenstein, F.G.; Jaser, B.: Fungizidresistenz bei pilzlichen Getreidepathogenen und Wirksamkeit der vertikalen (qualitativen) Mehltauresistenz bei Weizen und Gerste – Situationsbericht 2007; available on the internet in May 2021 under http://www.epilogic.de

According to the SBI working group of FRAC[9], sensitivity data presented for 2016 to 2020 in wheat confirmed that the situation was overall stable within the range of variability detected during the last 20 years. In 2020, DMI field performance was good. Monitoring was carried out in Belgium, Czech Republic, Denmark, France, Germany, Hungary, Italy, Poland, and United Kingdom. Differences in the sensitivity are significantly a.i. and regionally dependent. Higher resistance factors were observed only for particular DMIs especially in France, Germany, and UK, but also to a lesser extend in Belgium. In barley, monitoring was carried out in Czech Republic, Denmark (2016), France, Germany, Latvia, Sweden (2016), Ukraine, and United Kingdom. The sensitivity of the populations stayed in the range observed for more than 15 years.

Fenpropidin

Data on the active substance fenpropidin show that after a phase of sensitivity loss in the 80s, stabilization has occurred. The sensitivity values have been moving in a known range for about 25 years. The sensitivity of mildew is today - despite certain sensitivity losses in the past - so high that field effort quantities achieve good control effects.

According to the SBI working group of FRAC[10], in 2020 monitoring was carried out in Czech Republic, Denmark, France, Germany, Poland, Slovakia and United Kingdom. Sensitivity data presented confirmed that the situation in 2020 was stable remaining in the range of variability seen over more than 25 years in monitoring carried out by certain FRAC member companies.

Septoria Leaf Blotch (*Mycosphaerella graminicola* / *Zymoseptoria tritici* / *Septoria tritici*)

According the FRAC SBI working group, in 2020 at a low to moderate disease pressure, field performance of DMIs was good when used according to the manufacturers and FRAC recommendations. No general field resistance has been reported. Based on the monitoring carried out in Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, France, Germany, , Hungary, Ireland, Italy, Latvia, Lithuania, Netherlands, Norway, Poland, Romania, Russia, Slovakia, , Spain, Sweden, Switzerland, Turkey, Ukraine, and United Kingdom, after the slight increase in the frequency of less sensitive isolates from 2002 to 2004, the situation had stabilised between 2005 and 2008. In 2009 a trend to slightly higher EC_{50} values was observed in important cereal growing areas (France, Germany, Ireland, United Kingdom), this trend has slowed down in 2010 to 2012 and was stable in 2013. 2014 sensitivity was in the same range as 2011. In 2015 depending on the individual active ingredient and regions slight shifts of sensitivity of populations have been observed. Highest EC_{50} values were observed in areas of elevated disease pressure and sub-optimal use of azoles in spray programs (e.g. reduction of rates in comparison to the manufacturer's recommended rate and inappropriate use of effective mix-partners). In 2016 and also in 2017 the sensitivity of the populations was overall stable on a European level with regional differences also based on different disease epidemics. In regions with lower sensitivity in 2015 the sensitivity of the populations was stable and, in some areas, even partially increased. In 2018 the sensitivity of the populations was overall stable on the European level. In 2019, the sensitivity of the populations was overall stable on European level with EC_{50} sensitivity values slightly higher compared to 2018 in some geographies but overall in the range of previous years. In 2020, the sensitivity of populations was overall stable on European level with EC50 sensitivity values in the range of previous years.

A resistance monitoring study was carried out by INRA (France)[10] in 2006 and leaf-samples with *Zymoseptoria tritici* infections were collected by Makhteshim Agan and its affiliates like FCS (now ADAMA Agricultural Solutions Ltd.) in wheat growing areas in France, Germany, and Denmark.

[9] FRAC SBI Working Group: Minutes from Annual Meeting on March 3, 2021, available on the internet in May 2021 under http://www.frac.info

[10] Leroux P., Walker A.S., Albertini C. and Gredt M.: Resistance to fungicides in European populations of *Septoria tritici*, the causal agent of wheat leaf blotch. Analysis of populations sent by MAKHTESHIM AGAN in 2006; *INRA, Unité de Phytopharmacie et Médiateurs Chimiques 78026 Versailles Cedex, 2006; not published yet*

Table 3-1: Phenotypes and genotypes of *Zymoseptoria tritici* strains resistant to DMI

Fungicides	EC50 in mg/l TriS	Resistance levels in Tri R strains [a] TriLR					TriMR	
		R1	R2	R3	R4	R5	R6	R7
Pyrifénox	0,001	-/+	+	+/++	++	++	+++	+++
Triflumizole	0,004	-	+/++	-	++	++	++++	++++
Prochloraze	0,002	-/+	+	+/++	+	++	+	-
Triadiménol	0,6	++	-/+	++	+	+	++	++
Tébuconazole	0,01	+	+	++	++	-	+++	+++
Fluquinconazole	0,003	-	-/+	-	+	++	++	++
Flusilazole	0,006	+	+	++	++	++	+++	+++
Metconazole	0,002	+	+	+	+	+	++	++
Epoxiconazole	0,002	+	+	++	+	+	++	++
Prothioconazole	0,04	**?**	-	+	+	+	+	+
Genotype[b] (*Cyp51*)	I	I	I	I	II	I et II	I	II

[a]. Resistance level : CI_{50} TriR/CI_{50} TriS : Scale – (between 0,3 and 3) ; + (between 3 and 10), ++ (between 10 and 30), +++ (between 30 and 100), ++++ (superior to 100).
[b] Type I : no deletion ; Type II : deletion (ΔY459/G460).

The study results indicate that, regarding DMIs, up to 7 biotypes of *Zymoseptoria tritici* are present determining low to high resistance levels. More details are presented in table 3-1.

According to Heick et al. 2020[11], epoxiconazole and prothioconazole were the most widely used active ingredients in the last ten years. The goal of this investigation was to survey the resistance development of Z. tritici towards these two compounds. In total, EC_{50} values were determined for 3472 *Z. tritici* isolates from 2012 to 2019. Also, the field performance of the most used DMI compounds was tested in field trials. EC_{50} values of epoxiconazole and prothioconazole increased in the testing period. A significant shift was observed for epoxiconazole in 2016 and again 2018 with average EC_{50} values >1 ppm in Denmark. In Sweden, average EC_{50} values for epoxiconazole reached 1 ppm in 2017. The sensitivity towards prothioconazole remained stable at a high level. Following the decline in sensitivity in vitro, field efficacies of epoxiconazole and prothioconazole decreased in Denmark and Sweden. Currently, the Danish and Swedish *Z. tritici* populations are highly adapted to epoxiconazole and prothioconazole.

In a long-term study, carried out by Epilogic[12,13,14] and initiated by ADAMA, respectively its predecessor companies, the sensitivity of the fungal pathogen *Zymoseptoria tritici* (*Mycosphaerella graminicola*) towards fungicidal active azole compounds is analysed on an international scale with field samples from different European wheat growing areas. The main objectives of the research program are to obtain a current survey on the sensitivity of the pathogen towards the compounds across different European countries, to study the sensitivity structure of the pathogen populations for estimating potential resistance risks and to monitor population dynamics according to adaptation and resistance evolution. In table 3-2 the resistance situation for the DMI active ingredient prothioconazole in the different European countries is demonstrated for the years 2016 to 2018.

[11] Heick T.M., Matzen N. & Jørgensen L.N. Reduced field efficacy and sensitivity of demethylation inhibitors in the Danish and Swedish Zymoseptoria tritici populations. Eur. J. Plant Pathol. 157, 625–636
[12] Felsenstein, F.G.; Jaser, B.: Sensitivity of *Septoria tritici* in different regions of Europe towards prochloraz, tebuconazole, difenoconazole, propiconazole, and prothioconazole 2016 – Research Report, EpiLogic GmbH Agrobiol. Research and Consulting
[13] Felsenstein, F.G.; Jaser, B.: Sensitivity of *Septoria tritici* in different regions of Europe towards prochloraz, tebuconazole, difenoconazole and prothioconazole 2017 – Research Report, EpiLogic GmbH Agrobiol. Research and Consulting
[14] Felsenstein, F.G.; Jaser, B.: Sensitivity of *Septoria tritici* in different regions of Europe towards prochloraz, tebuconazole, difenoconazole and prothioconazole 2018 – Research Report, EpiLogic GmbH Agrobiol. Research and Consulting

Table 3-2: MRFs and MDFs of *Zymoseptoria tritici* isolates against prothioconazole in different European countries in 2016 to 2018

Country	2016					2017					2018				
	NOL	RF_{50}		DF_{50}		NOL	RF_{50}		DF_{50}		NOL	RF_{50}		DF_{50}	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range		Mean	Range	Mean	Range
UK	9	22	18-28	2.0	1-4.6	12	34	23-45	2.1	1.2-3.4	9	28	25-32	2.1	1.7-2.9
NL	2	19	18-20	1.7	1.6-1.7	2	25	22-28	3.1	1.5-4.6	3	26	25-27	1.9	1.2-3
BE	2	19	19-19	1.4	1-1.7						2	31	28-35	2.8	1.7-3.9
FR	9	18	6-25	3.6	1.6-17	5	44	37-50	2.0	1.4-2.8	7	26	22-29	2.8	1.8-4.4
DK	1	14		4.2		2	38	28-49	1.8	1.5-2	2	28	26-29	2.0	2-2
SE						2	19	18-20	3.1	3-3.3					
GE	6	20	14-29	1.9	1.1-3	6	31	22-39	3.1	1.1-6.3	4	26	23-30	2.1	1.2-2.7
LT											2	17	16-19	6.3	5.7-6.9
LV	1	18		1.7		2	6	5-8	6.9	3.9-10					
PL						4	23	8-41	6.0	1.4-9.9					
CZ	3	14	9-17	1.4	1.2-1.9	1	36		1.2		5	21	8-34	3.3	1-11.2
AT	1	18		1.0		1	23		2.4		1	22		1.6	
ES	2	21	19-23	2.6	1.9-3.4	2	15	3-26	6.9	1.7-12.1	3	15	4-30	14.5	3.1-23.9
IT	4	6	1.1-15	8.7	1.1-20.8	3	4	2-8	8.6	2.9-16.5	5	9	1.1-27	5.0	2-10.2
	40	**18**	**1.1-29**	**3.0**	**1.1-20.8**	**42**	**28**	**2-50**	**3.6**	**1.1-16.5**	**43**	**23**	**1.1-35**	**3.8**	**1-23.9**

RF_{50} = Resistance Factor based on EC_{50} values

DF_{50} = Diversity Factor based on EC_{50} values (diversity factor = quotient of highest and lowest EC_{50} values of analysed isolates per location)
NOL = Number Of Locations

Overall, the results show a quite stable resistance situation over the three years. The range of found resistance factors were 1.1 to 29 in ~~2017~~ 2016, 2 to 50 in 2017, and 1.1 to 35 in 2018. High diversity factors on single locations indicate that highly susceptible and DMI resistant strains of *Zymoseptoria tritici* are existing at the same location, predominantly in Southern European countries.

Tan spot (*Pyrenophora tritici-repentis*, syn. *Drechslera tritici-repentis*)
According the FRAC SBI working group, monitoring data from 2019 in Finland, Lithuania, and United Kingdom showed a narrow range of sensitivity in line with results from previous years. In 2020, a limited monitoring was carried out in Czech Republic, Romania, and Sweden. A stable and sensitive situation was observed.

Wheat brown rust (*Puccinia triticina* / *Puccinia recondita f. sp. tritici*)
According the FRAC SBI working group, in 2020, the good field performance of DMIs against rust has been maintained. The monitoring in 2020 which has been carried out in Belgium, Czech Republic, France, Germany, Hungary, Italy, Poland, and United Kingdom. Sensitivity data from 2019 for wheat brown rust showed that sensitivities were in the range of those of the last 20 years.

Yellow rust (*Puccinia striiformis*)
According the FRAC SBI working group, in 2020 monitoring was carried out in Belgium, Denmark, France, Germany, Italy, Poland, Portugal, Spain and United Kingdom.
The first monitoring in 2015 showed high sensitivity and low diversity, and from 2016 to 2020 a stable situation was reported.

Scald (*Rhynchosporium secalis*)
According the FRAC SBI working group, Field performance of DMIs was good. 2020 a monitoring was carried out in Denmark, France, Germany, Hungary, Ireland, Poland, Slovakia, Spain, and United Kingdom showing a stable situation. The sensitivity of the populations stayed in the range observed in the previous 15 years.

Net blotch (*Pyrenophora teres* /*Drechslera teres*)
According the FRAC SBI working group, monitoring was carried out in Austria, Bulgaria, Czech Republic, Denmark, France, Germany, Hungary, Ireland, Italy, Lithuania, Poland, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, Ukraine, and United Kingdom. The monitoring of the last 20 years showed a certain level of fluctuations of the sensitivity level in the regions over the years. In 2018, the situation stabilized again in all countries including France and Germany, thus being comparable to the long-term monitoring results. In 2019, like 2017 lower sensitivities have been frequently detected in major French regions and in a single location in North-Eastern Germany. In the other European regions monitored sensitivity ranges were stable. Overall, the sensitivity of populations monitored in 2020 stayed in the range observed in previous years, without any major geographical differences across Europe.

Barley brown rust (*Puccinia hordei*)
According the FRAC SBI working group, monitoring was carried out in 2014, 2018 and 2019 in Denmark, France, Germany, Sweden, and United Kingdom. In this five-year interval, a very stable situation with a narrow range of sensitivity was observed.

3.3.3 Determination of Inherent Risk for Resistance of the Target Harmful Organisms

According to the FRAC code-list 2021[15], DMI-fungicides are generally considered as a medium risk group. Amine-fungicides are generally considered as a low to medium risk group.

Based on the available knowledge the Fungicide Resistance Action Committee has published a classification of important pathogens as related to their risk to develop resistance to fungicides (high risk, medium risk, and low risk)[16]. The risks for the target pathogens are determined as follows:

- **Low:** *Puccinia species, Rhynchosporium secalis*
- **Medium:** *Zymoseptoria tritici, Pyrenophora teres, Pyrenophora tritici repentis*
- **High:** *Blumeria graminis*

Pathogens considered medium risk species are regarded as posing a lower risk because resistance is not a major problem or has been slow to develop. In some cases, this is due to the pattern of product use. Cases of specific isolates being classed as resistant may be known in some instances, but in commercial practice resistance has not created major disease control problems.

In a risk estimation matrix diagram (table 3-3) the potential risk for the development of resistance is estimated in dependency of the chemical class and the pathogen. Based on this table, the combined (pathogen x product) inherent resistance risk of the target pathogens is considered low (1-2) for *Puccinia* species and *Rhynchosporium secalis*, medium (2-4) *for Zymoseptoria tritici, Pyrenophora teres*, and *Pyrenophora tritici repentis*, and medium to high for *Blumeria graminis* (table 3-3).

[15] FRAC Code List 2020, available on the internet in May 2021 under http://www.frac.info
[16] FRAC Pathogen List 2019, available on the internet in May 2021 under http://www.frac.info

Table 3-3: Combined resistance risk diagram based on inherent fungicide risk and inherent pathogen risk.

Fungicide Classes *	**Fungicide Risk**	**Combined Risk (fungicide risk x pathogen risk)**		
benzimidazoles dicarboximides phenylamides Qol fungicides	**high =3**	3	6	9
carboxamides anilinopyrimidines phenylpyrroles phosphorothiolates **SBI fungicides DMIs amines**	**medium = 2**	**2**	**4**	**6**
amines multi side fungicides: (e.g. dithiocarbamates Copper, Sulphur) MBI-R inhibitors SAR inducers	**low 1*)**	1	2	3
Pathogen risk		**low = 1*)**	**medium = 2**	**high = 3**
Pathogen groups *		***Puccinia species Rhynchosporium secalis,***	***Zymoseptoria septoria tritici Pyrenophora tritici repentis Pyrenophora teres***	***Blumeria graminis***

*) Fungicide and pathogen risks are classified from 1 [low] to 3 [high]; Combined risk is the product of both

3.3.4 Determination of Agronomic Risk for Resistance

Agronomical factors reducing the risk of a development of resistance are:

- *No repeated applications in the same crop per season.*
- *Applications in mixture with other (different mode of action) active substances.*
- *Sequential applications with other active substances (different mode of action).*
- *High level of efficacy on the harmful target organisms.*
- *Protective use of the product.*
- *Chemical diversity.*

Agronomical factors increasing the risk of a development of resistance are:

- *Repeated applications (repeated exposure of successive generations of a target organism to the product).*
- *Sole active ingredient (= sole mode of action).*
- *Sub-lethal concentrations of the product.*
- *Eradicative use of the fungicide.*

ADM.3502.F.1.A provides a high level of efficacy on the target pathogens.
It contains the two active ingredients prothioconazole and fenpropidin, thus, it provides two non-cross-resistant modes of action.
ADM.3502.F.1.A provides protective and curative action. Thus, based on the characteristics of the active ingredients, ADM.3502.F.1.A could also be used curatively.

For a sufficient control of the pathogens, multiple applications (normally 2) are required as a rule. Since the number of applications of ADM.3502.F.1.A is restricted to 1, further applications with different products should be performed normally. The use of products providing a different mode of action clearly reduce the risk for resistance development.

Based on these facts the agronomical risk factors for the development of pathogen resistance against ADM.3502.F.1.A could be considered medium if ADM.3502.F.1.A would be used unrestrictedly.

3.3.5 Combined Agronomic and Inherent Risk for Resistance

Based on the agronomic and the inherent risk for the development of resistance of the target organisms to ADM.3502.F.1.A it can be concluded that a strategy for a resistance management for ADM.3502.F.1.A is useful for a durable prevention of relevant resistance of the target pathogens.

3.3.6 Resistance Management for product

As guidelines for the resistance management for ADM.3502.F.1.A the long standing and well-tried recommendations of the FRAC for the use of SBI fungicides should be followed:

General recommendations for use

The SBI fungicides represent one of the most potent classes of fungicides available to the grower for the control of many economically important pathogens. It is in the best interest of all those involved in recommending and using these fungicides that they are utilised in such a way that their effectiveness is maintained.

The summaries and recommendations included in this report are based upon data generated by members of the FRAC-SBI 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 not directly covered above, the following general recommendations can be made:

- *Repeated application of SBI fungicides alone should not be used on the same crop in one season against a high-risk pathogen in areas of high disease pressure for that particular pathogen.*
- *For crop/pathogen situations where repeated spray applications (e.g. orchard crops/powdery mildew) are made during the season, alternation (block sprays or in sequence) or mixtures with an effective non cross-resistant fungicide are recommended (see FRAC Code List).*
- *Where alternation or the use of mixtures is not feasible because of a lack of effective or compatible non-cross-resistant partner fungicides, then input of SBI's should be reserved for critical parts of the season or crop growth stage.*
- *If the performance of SBIs should decline and sensitivity testing has confirmed the presence of less sensitive isolates, SBIs should only be used in mixture or alternation with effective non-cross-resistant partner fungicides.*
- *The introduction of new classes of chemistry offers opportunities for more effective resistance management. The use of different modes of action should be maximized for the most effective resistance management strategies.*
- *Users must adhere to the manufacturers' recommendations. In many cases, reports of "resistance" have, on investigation, been attributed to cutting recommended use rates, or to poorly timed applications.*
- *Fungicide input is only one aspect of crop management. Fungicide use does not replace the need for resistant crop varieties, good agronomic practice, plant hygiene/sanitation, etc.*
- *Exclusive frequency measurements of single cyp51 mutations are not sufficient to describe the sensitivity situation towards DMIs but can help to better understand the background of sensitivity shifts.*

Recommendations for cereals (DMIs and amines)

- *The recommendations for the use of DMI and amine fungicides in mixture or alternation programmes with different mode of action fungicides remain unchanged. It needs to be emphasized that it is essential for resistance management purposes to follow strictly the manufacturer's and FRAC recommendations.*
- *Repeated application of DMI or amine fungicides alone should not be used on the same crop in one season against risky pathogens (e.g. cereal powdery mildews, barley net blotch, scald) in areas of high disease pressure for that particular pathogen.*
- *Reduced rates of DMIs can contribute to accelerate the shift to less sensitive populations. It is critical to use effective rates of DMIs in order to ensure robust disease control and effective resistance management. DMIs must provide effective disease control and be used at manufacturers recommended rates.*
- *When used in mixture recommended effective rates of the SBI must be maintained. Split and reduced rate programmes, using multiple repeated applications at dose rates below manufacturer's recommendations, provide continuous selection pressure and accelerate the development of resistant populations, and therefore must not be used.*
- *To ensure good performance and particularly resistance management in situations of even low disease pressure it is essential to adhere to dosages and spray timings as recommended by manufacturers. Curative applications should be avoided. Application timing has to be appropriate to all mix partners' characteristics. Mixing with a non-cross resistant fungicide at effective dose rates contributes to a more effective disease control and resistance management.*
- *The amine fungicides are effective non-cross-resistant partner fungicides for DMIs on cereals for the control of pathogens included in the label recommendation of each respective product.*

Taking the FRAC recommendation as a basis, the following measures should help to secure the efficacy of ADM.3502.F.1.A in the long term and on a high level:

- Non-chemical measures such as resistant crop varieties, plant hygiene, and good agricultural practice should be taken into consideration to reduce the infection pressure of the target pathogens.
- ADM.3502.F.1.A should only be recommended to be used with the full rate, even if used in mixtures.
- ADM.3502.F.1.A should be used predominantly for protective fungi control at the very beginning of an infection or re-infection. A predominantly curative or eradicative control of the pathogens should be avoided.
- Since the number of applications is limited to a maximum of 1 application per crop, for further applications only products should be used which provide a mode of action being non-cross-resistant to DMIs and amines.
- If the performance ADM.3502.F.1.A should decline and a sensitivity testing has confirmed the presence of less sensitive strains, ADM.3502.F.1.A should only be used in mixture or alternation with effective non-cross-resistant partner fungicides.

The use pattern of ADM.3502.F.1.A following GAP is defined as follows:

- Spray treatment
- Rate(s): Small grain cereals 1.0 L/ha
- Timing: Small grain cereals: GS 30 to 65,
  at beginning of infestation or re-infestation.
- Maximum 1 application per crop and year.

Result: As a result, it can be stated that, if ADM.3502.F.1.A is used according to the use instructions and under consideration of the proposed anti-resistance modifiers, the resistance risk of the target pathogens to develop resistance to ADM.3502.F.1.A is considered low.

3.3.7 Summary and Conclusions

The risk for the development of resistance of target species was analysed following EPPO guideline PP1/213(4). The procedure follows the proposal of the German Authorities[17]. The evaluation for ADM.3502.F.1.A shows low inherent risk for *Puccinia* species and *Rhynchosporium secalis*, medium inherent risk for *Zymoseptoria tritici*, *Pyrenophora teres*, and *Pyrenophora tritici repentis*, and medium to high inherent risk for *Blumeria graminis*. The agronomic risk analysis shows ADM.3502.F.1.A to be of medium risk for the development of resistance if it would be used unrestrictedly.

Taking into consideration inherent and agronomical risk for resistance development and based on the long-term experience available, it could be concluded that measures for a resistance management in the indications concerned should be established for ADM.3502.F.1.A.

A resistance management for ADM.3502.F.1.A was defined following the recommendation of the Fungicide Resistance Action Committee. It is not foreseen to establish a separate monitoring program, since the SBI resistance situation of the major target pathogens is observed and published regularly.

If ADM.3502.F.1.A is used according to the use instructions and under consideration of the proposed anti-resistance modifiers, the resistance risk of the target pathogens to develop resistance to ADM.3502.F.1.A is considered low.

Comments of zRMS on:
Information on the occurrence or possible occurrence of the development of resistance (3.3)

ADM.3502.F.1.A is a new fungicide containing a mixture of two known active substances: prothioconazole (chemical group: triazoles, group name: DMI-fungicides, SBI: Class I; FRAC code: 3) and fenpropidin (chemical group: piperidines, group name: amines/ morpholines, SBI: Class II; FRAC code: 5). The mode of action of prothioconazole is inhibiting the ergosterol synthesis by the inhibition of the steroid reduction and the target site is: C^{14}-demethylase in sterol biosynthesis. The mode of action of fenpropidin is inhibiting the ergosterol synthesis by the inhibition of the steroid reduction and the target site is: Δ14-reductase and Δ8→Δ7- isomerase in sterol biosynthesis. DMI fungicides show no cross resistance to other SBI classes (including amines). As the amine fungicides are effective non-cross-resistant partner fungicides for DMIs on cereals for the control of pathogens, ADM.3502.F.1.A containing non-cross resistant actives would be a valuable tool in resistance management strategy. The resistance risk of DMI-fungicides and amines has been defined by FRAC as medium and low to medium respectively. According to the FRAC Pathogen Risk List (revised in September 2019), *Blumeria graminis* is defined as high risk of development of resistance pathogen, *Zymoseptoria tritici* , *Pyrenophora teres* and *Pyrenophora tritici-repentis* are defined as medium risk of resistance pathogen, and *Puccinia* spp., *Rhynchosporium secalis* are defined as low risk of resistance pathogens. The combined (pathogen x product) inherent resistance risk of the target pathogens is considered low for *Puccinia* species and *Rhynchosporium secalis*, medium for *Zymoseptoria tritici*, *Pyrenophora teres*, and *Pyrenophora tritici repentis*, and medium to high for *Blumeria graminis*.
FRAC List of first confirmed cases of plant pathogenic organisms resistant to disease control agents (revised in May 2020) includes the following cases of the concerned cereal pathogens resistance to:
DMI-fungicides:

- *Erysiphe graminis* (on wheat, barley)
- *Puccinia striiformis* (on wheat)
- *Pyrenophora teres* (on barley)
- *Pyrenophora tritici-repentis* (on wheat)
- *Rhynchosporium secalis* (on barley)

[17] Heimbach U., Kral G., Niemann P.: Implementation of resistance risk analysis of plant protection products in the German authorization procedure, Proceedings of the Brighton Crop Protection Conference - Pests and Diseases, pp 771-776, 2000

- *Zymoseptoria tritici* (on wheat)

Amines:

- *Erysiphe graminis* (on wheat, barley)

According to results from monitoring studies reported by FRAC Sterol Biosynthesis Inhibitor (SBI) Working Group (Minutes from virtual call on September 21st, 2022):

- For Wheat/ *Zymoseptoria tritici*: In 2021 field performance of DMI-containing fungicides was good when used according to the manufacturers and FRAC recommendation. The overall sensitivity levels were stable and comparable to previous years. In 2021, monitoring was carried out in Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Poland, Romania, Russia, Slovakia, Spain, Sweden, The Netherlands, Turkey, Ukraine, and the United Kingdom.
- For Wheat/ *Blumeria graminis/ DMI-s:* In 2021, DMI field performance was good. In 2021, monitoring was carried out in France, Germany, Hungary, Italy, Poland, Spain and the United Kingdom. Sensitivity data presented for 2016 to 2021 confirmed that the situation was overall stable within the range of variability detected during the last 20 years.
- For Wheat/ *Blumeria graminis/* Amines: In 2020, field performance of amine-based products was good. In 2020 monitoring was carried out in Czech Republic, Denmark, France, Germany, Poland, Slovakia and United Kingdom. Sensitivity data presented confirmed that the situation in 2020 was stable remaining in the range of variability seen over more than 25 years in monitoring carried out by other FRAC member companies.
- For Wheat/ *Puccinia triticina/:* In 2020, good field performance of DMIs against rust has been maintained. Monitoring in 2020 has been carried out in Belgium, Czech Republic, Denmark, France, Germany, Hungary, Italy, Poland, Romania, Slovakia, Spain and United Kingdom. Sensitivity data from 2020 for wheat brown rust showed that sensitivities were in the range of those of the last 20 years
- For Wheat/ *Pyrenophora tritici-repentis/:* From 2019 to 2021, a limited monitoring was carried out in countries like Czech Republic, Finland, Hungary, Lithuania, Romania, Slovakia, Sweden, and the United Kingdom. In these three years of monitoring, a stable and sensitive situation was observed.
- For Wheat/ *Puccinia striiformis/:* The first monitoring in 2015 showed high sensitivity and low diversity, and from 2016 to 2021 a stable situation was reported. In 2021, monitoring was carried out in Belgium, Czech Republic, France, Germany, Italy, Poland, and Romania.
- For Barley/ *Blumeria graminis/* DMI-s: In 2021, DMI products performed well. The sensitivity of the populations stayed in the range observed for more than 16 years. In 2021, monitoring was carried out in Germany, France, Hungary, Italy, Poland and the United Kingdom.
- For Barley/ *Blumeria graminis/* Amines: In 2020, Monitoring was carried out in France, Germany, and United Kingdom. Amine products performed well. The sensitivity of the populations stayed in the range observed in monitoring programs from other FRAC member companies for more than 20 years.
- For Barley/ *Rhynchosporium:* In 2021, monitoring was carried out in Denmark, France, Germany, Hungary, Ireland, Italy, Poland, Spain and United Kingdom. Field performance of DMIs was good. Stable situation was noted. The sensitivity of the populations stayed in the range observed in Europe in the previous 16 years.
- For Barley/ *Pyrenophora teres/:* In 2021, monitoring was carried out in Austria, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Poland, Russia, Slovakia, Spain, Sweden, The Netherlands, Ukraine, and the United Kingdom. Overall, the sensitivity of populations monitored in 2021 stayed in the range observed in previous years, without any major geographical differences across Europe.
- For Barley/ *Puccinia hordei/:* Monitoring was carried out in 2014, 2018 and 2019 in Denmark, France, Germany, Sweden, and United Kingdom in 2014, 2018 and 2019. In 2021, monitoring was carried in France, Germany and Poland. In this six-year interval, a very stable situation with a narrow range of sensitivity was observed.

Based on the additional sensitivity studies submitted by the applicant:

- Quite stable resistance situation was demonstrated over the three years (2016-2019), according to the results of a long-term study, carried out by Epilogic on the sensitivity of the fungal pathogen *Zymoseptoria tritici* (*Mycosphaerella graminicola*) towards fungicidal active azole compounds. The range of found resistance factors were 1.1 to 29 in 2016, 2 to 50 in 2017, and 1.1 to 35 in 2018. High diversity factors on single locations indicate that highly susceptible and DMI resistant strains of *Zymoseptoria tritici* are existing at the same location, predominantly in Southern European countries.
- The sensitivity of Z. *tritici* towards prothioconazole remained stable at a high level, based on the investigation results given by Heick et al. 2020.
- Low to high resistance level of 7 biotypes of *Zymoseptoria tritici* collected from France, Germany and

Denmark, to DMI-s was determined in the study conducted by INFRA (France) in 2006.

Based on the submitted data, and to avoid possible development of resistance, the following resistance management strategy proposed by the applicant and accepted by zRMS is recommended to be included in the label of ADM.3502.F.1.A:

- Non-chemical measures such as resistant crop varieties, plant hygiene, and good agricultural practice should be taken into consideration to reduce the infection pressure of the target pathogens.
- ADM.3502.F.1.A should only be recommended to be used with the full rate, even if used in mixtures.
- ADM.3502.F.1.A should be used predominantly for protective fungi control at the very beginning of an infection or re-infection. A predominantly curative or eradicative control of the pathogens should be avoided.
- Since the number of applications is limited to a maximum of 1 application per crop, for further applications only products should be used which provide a mode of action being non-cross-resistant to DMIs and amines.
- If the performance ADM.3502.F.1.A should decline and a sensitivity testing has confirmed the presence of less sensitive strains, ADM.3502.F.1.A should only be used in mixture or alternation with effective non-cross-resistant partner fungicides.

The zRMS considers the proposed resistance management strategy to be sufficient but all cMS may wish to consider these recommendations in line with the resistance situation in individual countries or their own specific requirements.

3.4 Adverse effects on treated crops (KCP 6.4)

Information on trials submitted (3.4: Adverse effects on treated crops)

As ADM.3502.F.1.A showed no herbicidal activity, no dedicated crop safety trial was necessary (in accordance with EPPO standard PP1/135(4) “Phytotoxicity assessment”). Thus, no data are available from specific selectivity (pest free) trials.

Table 3.4-1: Presentation of trials (efficacy trials)

Crop*	Country	Type of trial**	Number of trials			Years	GEP, non-GEP, official***	Comments (any other relevant information)
			Maritime	North-East	South-East			
Winter wheat	CZ	S + Y + Q	13			2018 - 2020	GEP	
	DE	S	1			2018	GEP	
		S + Y + Q	26			2018 - 2020	GEP	
	HU	S + Y + Q			23	2018 - 2020	GEP	
	PL	S + Y + Q		12		2018 - 2019	GEP	
	SK	S + Y + Q			6	2020	GEP	
Total winter wheat			**40**	**12**	**29**			
Winter barley	CZ	S + Y + Q	5			2018 - 2020	GEP	
	DE	S + Y + Q	13			2018 - 2020	GEP	
	HU	S + Y + Q			16	2018 - 2020	GEP	
	~~IE~~	~~S + Y + Q~~	~~4~~	-	-	~~2019 - 2020~~	~~GEP~~	-
	PL	S + Y + Q		8		2019	GEP	
	SK	S + Y + Q			5	2018, 2020	GEP	
Total winter barley			**22**	**8**	**21**			
Spring barley	CZ	S + Y + Q	11			2018 - 2020	GEP	
	SK	S + Y + Q			3	2018, 2020	GEP	
Total spring barley			**11**		**3**			
Winter rye	CZ	S + Y + Q	2			2019	GEP	
	DE	S + Y + Q	21			2019 - 2020	GEP	
Total winter rye			**23**					

Crop*	Country	Type of trial**	Number of trials			Years	GEP, non-GEP, official***	Comments (any other relevant information)
			Maritime	North-East	South-East			
Winter triticale	CZ	S + Y + Q	13			2019 - 2020	GEP	
	DE	S + Y + Q	14			2019 - 2020	GEP	
	PL	S + Y + Q		8		2019	GEP	
	RO	S + Y + Q			4	2019	GEP	
Total winter triticale			**27**	**8**	**4**			
Spring triticale	DE	S + Y + Q	1			2019	GEP	
Total spring triticale			**1**					
Oats	CZ	S + Y + Q	5			2019 - 2020	GEP	
	DE	S + Y + Q	3			2019 - 2020	GEP	
	LT	S + Y + Q	2			2020	GEP	
Total oats			**8**					

* According to the GAP table

** S = selectivity data of efficacy 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

For the reference standards used in the trials, please refer to table 3.2-6 in the efficacy section (3.2).

3.4.1 Phytotoxicity to host crop (KCP 6.4.1)

As ADM.3502.F.1.A showed no herbicidal activity, no dedicated crop safety trial was necessary (in accordance with EPPO standard PP1/135(4) “Phytotoxicity assessment”).

Materials and Methods have been covered in section 3.2. For trial site details please refer to Appendix 4 of the Biological Assessment Dossier (KCP 6.0 / 001).

EPPO guidelines followed:
EPPO guideline N° PP1/181: Conduct and reporting of efficacy evaluation trials.
EPPO guideline N° PP1/152: Design and analysis of efficacy evaluation trials.
EPPO guideline N° PP1//241: Guidance on Comparable Climates.
EPPO guideline N° PP1/135: Phytotoxicity.
EPPO guideline N° PP1/225: Minimum Effective Dose.
EPPO guideline N° PP1/026: Foliar and ear diseases on cereals.

All the trials were placed within regions where small grain cereals are commonly grown. Detailed information about the testing facilities/organisations and their certificates of recognition is provided in section 3.7.

All assessments were based on a 0-100 scale where 0 means no damage and 100 means total crop loss. Individual phytotoxicity symptoms were recorded where appropriate. Where no phytotoxicity was observed, this was generally recorded within the individual trial reports either as assessment (0) or as text in the comments. No phytotoxicity was observed also in all trials, where no specific ratings or comments were made in the detailed trial records.

Table 3.4-2: Overview and distribution of efficacy trials conducted within mostly the Central European Regulation zone and evaluated for crop safety of product in target crops

Crop	EPPO zone	EU regul. zone	Country	Year			Sum
				2018	2019	2020	
Winter wheat (TRZAW)	**Maritime**	Central	CZ	2	6	5	13
			DE	9	15	3	27
	Maritime Sum			**11**	**21**	**8**	**40**
	North-East	Central	PL	2	10		12
	North-East Sum			**2**	**10**		**12**
	South-East	Central	HU	7	10	6	23
			SK			6	6
	South-East Sum			**7**	**10**	**12**	**29**
Winter wheat (sum across zones)				**20**	**41**	**20**	**81**
Winter barley (HORVW)	**Maritime**	Central	CZ	1	3	1	5
			DE	1	12		13
	Maritime Sum			**2**	**15**	**1**	**18**
	North-East	Central	PL		8		8
	North-East Sum				**8**		**8**
	South-East	Central	HU	2	8	6	16
			SK			5	5
	South-East Sum			**2**	**8**	**11**	**21**
Winter barley (sum across zones)				**4**	**31**	**12**	**47**
Spring barley (HORVS)	**Maritime**	Central	CZ	2	3	6	11
	Maritime Sum			**2**	**3**	**6**	**11**
	South-East	Central	SK	2		1	**3**
	South-East Sum			**2**		**1**	**3**
Spring barley (sum across zones)				**4**	**3**	**7**	**14**
Winter rye (SECCW)	**Maritime**	Central	CZ		2		2
			DE		10	11	21
	Maritime Sum				**12**	**11**	**23**
	Central (sum across EPPO zones)				**12**	**11**	**23**
Winter rye (sum across zones)					**12**	**11**	**23**
Winter triticale (TTLWI)	**Maritime**	Central	CZ		8	5	13
			DE		9	5	14
	Maritime Sum				**17**	**10**	**27**
	North-East	Central	PL		8		8
	North-East Sum				**8**		**8**
	South-East	Central	RO		4		4
	South-East Sum				**4**		**4**
	Central (sum across EPPO zones)				**29**	**10**	**39**
Triticale (sum across zones)					**29**	**10**	**39**
Spring triticale (SECSO)	**Maritime**	Central	DE		1		1
	Maritime Sum				**1**		**1**
	Central (sum across EPPO zones)				**1**		**1**
Spring triticale (sum across zones)					**1**		**1**
Oats (AVESA)	**Maritime**	Central	CZ		2	3	5
			DE		1	2	3
	Maritime Sum				**3**	**5**	**8**
	North-East	North				**2**	**2**
	North-East Sum		LT			**2**	**2**
Oats (sum across zones)					**3**	**7**	**10**

3.4.1.1 Wheat

- **Winter wheat**

81 trials were conducted in Czech Republic, Germany, Poland, Hungary, and Slovakia in crop seasons 2017/18 to 2019/20 on a wide range of commercially grown cultivars. The frequency and magnitude of the maximum observed phytotoxicity in the trials is shown in table 3.4.1-1a.

Table 3.4.1-1a: Crop tolerance (maximum observed phytotoxicity) ADM.3502.F.1.A in winter wheat

Crop	Evaluation period	# of tests	ADM.3502.F.1.A 1 L/ha	Zonal reference product(s)
			Phyto*(%)	Phyto*(%)
TRZAW	across the whole test period	≤ 5%	80	81
		>5% to 10%	0	0
		>10% to 15%	0	0
		>15 %	1	0

The results clearly demonstrate the excellent selectivity of ADM.3502.F.1.A in winter wheat. Only in 1 trial relevant necrosis was observed at crop growth stage 75 (20 %), which had no negative influence on yield (table 3.4.1-1b). There is no reasonable explanation for the occurrence of necrosis caused by ADM.3502.F.1.A in this trial. In not any of the other 81 trials any case of relevant phytotoxicity (> 5 %) has been observed.

Table 3.4.1-1b: Detailed information including yield data of trials which revealed phytotoxicity symptoms > 5 %

Serial Nº	Trial Nº	Cultivar	Crop GS	Rating date	Symptom	Scale	UTC	ADM.3500. F.2.B 1 L/ha	Ref. prod. Input Classic 1 L/ha
W010	DE18FETRZAW921A	Tobak	37	14.05.2018	necrosis	%	0	0	0
			39	21.05.2018			0	0	0
			65	06.06.2018			0	5	1.25
			75	13.06.2018			0	20	0
W010	DE18FETRZAW921A	Tobak	89	Yield (rel. to UTC)			100 a	105 a	104 a

3.4.1.2 Barley

- **Winter barley**

47 trials were conducted in Czech Republic, Germany, Poland, Hungary, and Slovakia in crop seasons 2017/18 to 2019/20 on a wide range of commercially grown cultivars. The frequency and magnitude of the maximum observed phytotoxicity in the trials is shown in table 3.4.1-2.

Table 3.4.1-2: Crop tolerance (maximum observed phytotoxicity) ADM.3502.F.1.A in winter barley

Crop	Evaluation period	# of tests	ADM.3502.F.1.A 1 L/ha	Zonal reference product(s)
			Phyto*(%)	Phyto*(%)
HORVW	across the whole test period	≤ 5%	47	47
		>5% to 10%	0	0
		>10% to 15%	0	0
		>15 %	0	0

No phytotoxicity symptom caused by ADM.3502.F.1.A at the proposed dose rate of 1 L/ha was recorded in all trials.

- **Spring barley**

14 trials were conducted in Czech Republic and Slovakia in crop seasons 2017/18 to 2019/20 on a wide range of commercially grown cultivars. The frequency and magnitude of the maximum observed phytotoxicity in the trials is shown in table 3.4.1-3.

Table 3.4.1-3: Crop tolerance (maximum observed phytotoxicity) ADM.3502.F.1.A in spring barley

Crop	Evaluation period	# of tests	ADM.3502.F.1.A 1 L/ha	Zonal reference product(s)
			Phyto*(%)	Phyto*(%)
HORVS	across the whole test period	≤ 5%	14	14
		>5% to 10%	0	0
		>10% to 15%	0	0
		>15 %	0	0

No phytotoxicity symptom caused by ADM.3502.F.1.A at the proposed dose rate of 1 L/ha was recorded in all trials.

3.4.1.3 Rye

- **Winter rye**

23 trials were conducted in Czech Republic and Germany in crop seasons 2018/19 to 2019/20 on a wide range of commercially grown cultivars. The frequency and magnitude of the maximum observed phytotoxicity in the trials is shown in table 3.4.1-4.

Table 3.4.1-4: Crop tolerance (maximum observed phytotoxicity) ADM.3502.F.1.A in winter rye

Crop	Evaluation period	# of tests	ADM.3502.F.1.A 1 L/ha	Zonal reference product(s)
			Phyto*(%)	Phyto*(%)
SECCW	across the whole test period	≤ 5%	23	23
		>5% to 10%	0	0
		>10% to 15%	0	0
		>15 %	0	0

No phytotoxicity symptom caused by ADM.3502.F.1.A at the proposed dose rate of 1 L/ha was recorded in all trials.

3.4.1.4 Triticale

- **Winter and spring triticale**

40 trials (39 in winter triticale, 1 in spring triticale) were conducted in Czech Republic, Germany, Poland, and Romania in crop seasons 2018/19 to 2019/20 on a wide range of commercially grown cultivars. The frequency and magnitude of the maximum observed phytotoxicity in the trials is shown in table 3.4.1-5.

Table 3.4.1-5: Crop tolerance (maximum observed phytotoxicity) ADM.3502.F.1.A in triticale

Crop	Evaluation period	# of tests	ADM.3502.F.1.A 1 L/ha	Zonal reference product(s)
			Phyto*(%)	Phyto*(%)
TTLWI/ TTLSO	across the whole test period	≤ 5%	40	40
		>5% to 10%	0	0
		>10% to 15%	0	0
		>15 %	0	0

No phytotoxicity symptom caused by ADM.3502.F.1.A at the proposed dose rate of 1 L/ha was recorded in all trials.

3.4.1.5 Oats

8 trials were conducted in Czech Republic, and Germany and Lithuania in crop seasons 2018/19 20 to 2019/20 on a wide range of commercially grown cultivars. The frequency and magnitude of the maximum observed phytotoxicity in the trials is shown in table 3.4.1-6.

Table 3.4.1-6: Crop tolerance (maximum observed phytotoxicity) ADM.3502.F.1.A in winter triticale

Crop	Evaluation period	# of tests	ADM.3502.F.1.A 1 L/ha	Zonal reference product(s)
			Phyto*(%)	Phyto*(%)
AVESA	across the whole test period	≤ 5%	8 10	8 10
		>5% to 10%	0	0
		>10% to 15%	0	0
		>15 %	0	0

No phytotoxicity symptom caused by ADM.3502.F.1.A at the proposed dose rate of 1 L/ha was recorded in all trials.

Comments of zRMS on:
Phytotoxicity to host crop (3.4.1)

No phytotoxicity symptoms were observed after application of ADM.3502.F.1.A at recommended dose rate of 1.0 L/ha in all the trials conducted on barley, rye, triticale, oat and in 80 of 81 trials carried out on wheat. Phytotoxicity 20% (necrosis) observed in 1 trial at BBCH growth stage of the crop 75, had no negative impact on the yield of winter wheat, cultivar Tobak. In the earlier assessments performed at BBCH growth stage of the crop 39 and 65, the phytotoxicity was only 5% in this trial. No reasonable explanation for the occurrence of necrosis, after application of ADM.3502.F.1.A in this trial was given. It can be noticed, that in other 5 trials (CZ20FETRZAW270A, DE18FETRZAW920C, DE18FETRZAW919A, DE19FETRZAW201B, CZ20FETRZAW270C) conducted on winter wheat, cultivar Tobak, no phytotoxicity occurred after application of ADM.3502.F.1.A at recommended dose rate of 1.0 L/ha.
In additional 9 trials (LV20FETRZAX473A, LV19FETRZAX482A, LT18FEHORVS929A, LT19FEHORVS487A, LT19FEHORVS487B, LV19FEHORVS484B, LV20FEHORVX476A, FR19FETRZAX328A, FR20FETRZAW307A) used by the zRMS to support registration of ADM.3502.F.1.A in wheat and barley, no phytotoxicity was observed after application of ADM.3502.F.1.A on wheat and barley. Results from these additional trials are contained in BAD document.

Based on the submitted trial results it can be concluded that ADM.3502.F.1.A can be safely used on target cereal crops.

3.4.2 Effect on the yield of treated plants or plant product (KCP 6.4.2)

As ADM.3502.F.1.A showed no herbicidal activity, no dedicated crop safety trial was necessary (in accordance with EPPO standard PP1/135(4) “Phytotoxicity assessment”).

Since this part concerns only trials in pest-free conditions, no data are presented. Yield results achieved from efficacy trials are presented in section 3.2 (efficacy data).

Comments of zRMS on:
Effect on the yield of treated plants or plant product (3.4.2)

Based on the submitted trial results, presented in the chapter 3.2., it can be concluded that ADM.3502.F.1.A, applied at the maximum recommended dose rate of 1.0 L/ha has no negative impact on the crop yield in all concerned EPPO zones.

3.4.3 Effects on the quality of plants or plant products (KCP 6.4.3)

The yield quality results separated by uses of the harvested efficacy trials of ADM.3502.F.1.A are already presented in the efficacy section (3.2.2). In this section, the results are presented for the crops across the uses.

For details on trial methodology, please refer to section 3.2.2.

Quality parameters like the thousand grain weight, the volume weight (hectolitre weight) of grains, protein content, and starch content are presented from trials where yield was taken. Since any adverse effects on the target crops have been observed, only the results of the zonal reference products (Input 460 EC = Input Classic) are presented for comparison.

Wheat

Table 3.4.3-1: Distribution of trials providing quality results of grains in wheat (number of trials)

			Thousand grain weight				Hectolitre weight				Protein content			
Zones	**Europ. reg. Zone**	**Country**	**Year**			**Sum**	**Year**			**Sum**	**Year**			**Sum**
			2018	**2019**	**2020**		**2018**	**2019**	**2020**		**2018**	**2019**	**2020**	
Maritime	Central	CZ	2	6	5	13	1	6	5	12				
		DE	9	14	3	26	5	14	3	22	1	2		3
Maritime Sum			**11**	**20**	**8**	**39**	**6**	**20**	**8**	**34**	**1**	**2**		**3**
North-East	Central	PL	2	10		12		10		10				
North-East Sum			**2**	**10**	**3**	**12**		**10**		**10**				
South-East	Central	HU	7	10	6	23		5	6	11				
		SK			6	6			6	6				
South-East Sum			**7**	**10**	**12**	**29**		**5**	**12**	**17**				
Across zones			**20**	**40**	**20**	**80**	**6**	**35**	**20**	**61**	**1**	**2**		**3**

In 80 trials conducted in wheat between 2018 and 2020 quality parameters of yield were reported from Czech Republic, Germany, Hungary, Poland, and Slovakia. The results are presented in table 3.4.3-2.

Table 3.4.3-2: Quality parameters of yield in harvested efficacy trials in wheat (relative to UTC (=100))

		Quality parameters of yield					
		TGW		**HLW**		**PRC**	
Zones		**ADM.3502.F.1.A 1 L/ha**	**Zonal Reference Product(s)**	**ADM.3502.F.1.A 1 L/ha**	**Zonal Reference Product(s)**	**ADM.3502.F.1.A 1 L/ha**	**Zonal Reference Product(s)**
Maritime	Mean	109.1	110.1	102.9	102.9	102.2	96.7
	Range	97-161	95-158	100-124	100-123	97-106	94-98
	Nº	39	39	33	33	3	3
N-East	Mean	102.4	102.7	101.4	101.7		
	Range	100-108	97-111	100-103	100-103		
	Nº	12	12	10	10		
S-East	Mean	103.6	103.2	100.9	100.4		
	Range	98-126	97-121	99-103	95-103		
	Nº	29	29	17	17		
Across zones	**Mean**	**106.1**	**106.5**	**102.1**	**102.0**	**102.2**	**96.7**
	Range	**97-161**	**95-158**	**99-124**	**95-123**	**97-106**	**94-98**
	Nº	**80**	**80**	**60**	**60**	**3**	**3**

TGW = Thousand grain weight; HLW = Hectolitre weight; PRC = Protein content

The studies revealed no negative impact of ADM.3502.F.1.A on quality of wheat.

Barley

Table 3.4.3-3: Distribution of trials providing quality results of grains in barley (number of trials)

Zones	Europ. reg. Zone	Country	Thousand grain weight				Hectolitre weight				Protein content			
			Year			Sum	Year			Sum	Year			Sum
			2018	2019	2020		2018	2019	2020		2018	2019	2020	
Maritime	Central	CZ	3	6	7	16	1	6	7	14				
		DE	1	11		12	1	11		12		2		2
Maritime Sum			**4**	**17**	**7**	**28**	**2**	**17**	**7**	**28**		**2**		**2**
North-East	Central	PL		8		8		8		8				
North-East Sum				**8**		**8**		**8**		**8**				
South-East	Central	HU	2	8	6	16		4	6	10				
		SK	2		6	8	1		6	7			1	1
South-East Sum			**4**	**8**	**12**	**24**	**1**	**4**	**12**	**17**			**1**	**1**
Sum across zones			**8**	**33**	**19**	**60**	**3**	**29**	**19**	**51**	**0**	**2**	**1**	**3**

In 60 trials conducted in barley between 2018 and 2020 quality parameters of yield were reported from Czech Republic, Germany, Hungary, Poland, and Slovakia. The results are presented in table 3.4.3-4.

Table 3.4.3-4: Quality parameters of yield in harvested efficacy trials in barley (relative to UTC (=100))

Zones		Quality parameters of yield					
		TGW		HLW		PRC	
		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)
Maritime	Mean	106.4	106.5	103.0	103.1	99.9	99.6
	Range	96-120	99-121	99-113	99-113	98-102	98-101
	Nº	28	28	26	26	2	2
N-East	Mean	104.5	104.2	101.5	100.8		
	Range	97-120	97-119	93-107	96-104		
	Nº	8	8	8	8		
S-East	Mean	101.7	102.0	101.1	100.9	102.0	97.7
	Range	97-109	98-109	97-106	99-106		
	Nº	24	24	17	17	1	1
Across zones	**Mean**	**104.3**	**104.4**	**102.2**	**102.0**	**100.6**	**99.0**
	Range	**96-120**	**97-121**	**93-113**	**96-113**	**98-102**	**98-101**
	Nº	**60**	**60**	**51**	**51**	**3**	**3**

TGW = Thousand grain weight; HLW = Hectolitre weight; PRC = Protein content; STC = Starch content

The studies revealed no negative impact of ADM.3502.F.1.A on quality of barley.

Rye

Table 3.4.3-5: Distribution of trials providing quality results of grains in rye (number of trials)

Zones	Europ. reg. Zone	Country	Thousand grain weight			Hectolitre weight			Protein content		
			Year		Sum	Year		Sum	Year		Sum
			2019	2020		2019	2020		2019	2020	
Maritime	Central	CZ	2		2	2		2			
		DE	10	11	21	10	10	20	1	2	3
Maritime Sum			**12**	**11**	**23**	**12**	**10**	**22**	**1**	**2**	**3**
Sum across zones			**12**	**11**	**23**	**12**	**10**	**22**	**1**	**2**	**3**

In 23 trials conducted in rye between 2019 and 2020 quality parameters of yield were reported from Czech Republic and Germany. The results are presented in table 3.4.3-6.

Table 3.4.3-6: Quality parameters of yield in harvested efficacy trials in rye (relative to UTC (=100))

Zones		Quality parameters of yield					
		TGW		HLW		PRC	
		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)
Maritime	**Mean**	**103.9**	**103.6**	**100.8**	**100.7**	**99.7**	**101.4**
	Range	**98-121**	**98-118**	**97-106**	**99-106**	**99-101**	**99-103**
	Nº	**23**	**23**	**22**	**22**	**3**	**3**

TGW = Thousand grain weight; HLW = Hectolitre weight; PRC = Protein content

The studies revealed no negative impact of ADM.3502.F.1.A on quality of rye.

Triticale

Table 3.4.3-7: Distribution of trials providing quality results of grains in triticale (number of trials)

Zones	Europ. reg. Zone	Country	Thousand grain weight			Hectolitre weight			Protein content		
			Year		Sum	Year		Sum	Year		Sum
			2019	2020		2019	2020		2019	2020	
Maritime	Central	CZ	8	5	13	8	5	13			
		DE	10	5	15	10	5	15	1	1	2
Maritime Sum			**18**	**10**	**28**	**18**	**10**	**28**	**1**	**1**	**2**
North-East	Central	PL	8		8	8		8			
North-East Sum			**8**		**8**	**8**		**8**			
South-East	Central	RO	4		4	4		4			
South-East Sum			**4**		**4**	**4**		**4**			
Sum across zones			**30**	**10**	**40**	**30**	**10**	**40**	**1**	**1**	**2**

In 40 trials conducted in triticale between 2019 and 2020 quality parameters of yield were reported from Czech Republic, Germany, Poland, and Romania. The results are presented in table 3.4.3-8.

Table 3.4.3-8: Quality parameters of yield in harvested efficacy trials in triticale (relative to UTC (=100))

Zones		Quality parameters of yield					
		TGW		HLW		PRC	
		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)
Maritime	Mean	105.7	105.1	101.5	101.2	100.2	101.1
	Range	100-120	97-118	99-105	99-104	98-102	100-102
	Nº	28	28	28	28	2	2
N-East	Mean	103.8	104.1	100.9	101.2	#DIV/0!	#DIV/0!
	Range	100-107	101-108	99-104	100-103	0-0	0-0
	Nº	8	8	8	8	0	0
S-East	Mean	100.1	103.5	101.0	101.1	#DIV/0!	#DIV/0!
	Range	97-104	99-108	101-101	100-103	0-0	0-0
	Nº	4	4	4	4	0	0
Across zones	**Mean**	**104.7**	**104.7**	**101.3**	**101.2**	**100.2**	**101.1**
	Range	**97-120**	**97-118**	**99-105**	**99-104**	**98-102**	**100-102**
	Nº	**40**	**40**	**40**	**40**	**2**	**2**

TGW = Thousand grain weight; HLW = Hectolitre weight; PRC = Protein content

The studies revealed no negative impact of ADM.3502.F.1.A on quality of triticale.

Oats

Table 3.4.3-9: Distribution of trials providing quality results of grains in oats (number of trials)

Zones	Europ. reg. Zone	Country	Thousand grain weight			Hectolitre weight		
			Year		Sum	Year		Sum
			2019	2020		2019	2020	
Maritime	Central	CZ	2	3	5	2	3	5
		DE	1	2	3	1	2	3
Maritime Sum			**3**	**5**	**8**	**3**	**5**	**8**
North-East		LT						
North-East Sum				**2**	**2**		**2**	**2**
Sum across zones			**3**	~~5~~ **7**	~~8~~ **10**	**3**	~~5~~ **7**	~~8~~ **10**

In ~~8~~ 10 trials conducted in oats between 2019 and 2020 quality parameters of yield were reported from Czech Republic, ~~and~~ Germany and Lithuania. The results are presented in table 3.4.3-10.

Table 3.4.3-10: Quality parameters of yield in harvested efficacy trials in oats (relative to UTC (=100))

Zones		Quality parameters of yield			
		TGW		HLW	
		ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)	ADM.3502.F.1.A 1 L/ha	Zonal Reference Product(s)
Maritime	Mean	104.8	104.8	101.0	101.5
	Range	99-111	98-108	98-103	101-102
North-East	Mean	103.2	104.1	101.6	100.9
	Range	102-104	103-105	102-102	101-101
Sum across zones	**Nº**	~~8~~ **10**	~~8~~ **10**	~~8~~ **10**	~~8~~ **10**

TGW = Thousand grain weight; HLW = Hectolitre weight

The studies revealed no negative impact of ADM.3502.F.1.A on quality of oats.

Comments of zRMS on:
Effect on the yield of treated plants or plant product (3.4.3)

Based on the submitted trial results, it can be concluded that ADM.3502.F.1.A, applied at the maximum recommended dose rate of 1.0 L/ha has no negative impact on the yield quality parameters of tested crops, in all concerned EPPO zones.

3.4.4 Effects on transformation processes (KCP 6.4.4)

No relevant residues of prothioconazole or fenpropidin and their metabolites are present in the target crops at harvest after a timely application of 1 L/ha of ADM.3502.F.1.A on small grain cereals. If the product is used correctly and in the designated way, relevant residues in harvested plants or plant products can be excluded. Special investigations on possible effects on transformation processes are not required.

Since the market introduction of the active ingredients prothioconazole and fenpropidin, any cases of negative influences on parameters influencing the processing procedure of target crop plants or grains were reported, neither from practical use nor from trial experience.

Comments of zRMS on:
Effects on transformation processes (3.4.4)

The applicant makes no reference to any specific data that would support the statement of "no relevant residue" in the plant material harvested. As the efficacy section does not deal directly with residue part of the dossier, a more complete information is expected for the point 3.4.4, justifying the claim that no data concerning effect on transformation are indeed required. The PP 1/243(2) EPPO guidance has it as follows: "*If the applicant can demonstrate that residues are undetectable, or that any residues will not affect yeasts, a reasoned case may be sufficient to address these requirements.*" Therefore "the reasoned case" is in fact expected, in the Efficacy part of the dossier, supported by the reliably quoted data from the Residue part. Without it, the applicant`s statement is unsupported of evidence, even taken the status of prothioconazole and fenpropidin as already known actives. That the residue is not relevant does not mean it is non-detectable, or not affecting transformation process. The latter, however, must be demonstrated against the treshold that triggers requirement for the transformation data, before the present point can be finalized.

The applicant`s response:
Based on the results of residue trials for prothioconazole and fenpropidin, significant residue levels will not occur in cereals at harvest. Accordingly based on EPPO PP1_135 (4), processing studies are not required.
Further, it is referred to RR part B Section 7, in which the magnitude of residues in processed commodities, including industrial processing and/or house hold preparation is assessed, leading to robust processing factors, which are subsequently used in the dietary burden calculations (cattle) and in the exposure assessments through diet and other means for humans.

Based on the submitted data/explanations and considering the long experience of usage prothioconazole and fenpropidin in cereal protection, it can be concluded that, adverse effects on transformation processes is no to be expected after application of ADM.3502.F.1.A.

3.4.5 Impact on treated plants or plant products to be used for propagation (KCP 6.4.5)

During the past years, neither from the agricultural use of prothioconazole and/or fenpropidin nor from field trials, there is any information that the application of products containing one of these active ingredients has any influence on the propagation behaviour of the target crops..

Summary and conclusion

Based on the results of ~~213~~ 215 trials in cereal crops, it can be concluded that ADM.3502.F.1.A is very safe on the target crops. If applied at the intended target dose rate (1 L/ha) there is no risk for enduring crop injury, adverse effects on yield quantity, and yield quality. The experience since market introduction of prothioconazole and/or fenpropidin containing products proves that prothioconazole and fenpropidin has no adverse effects on transformation processes or plant parts or products used for propagation.

Comments of zRMS on:
Impact on treated plants or plant products to be used for propagation (3.4.5)

The present part of the dossier does not include any specific data on propagative capacity of the seed material harvested from the crops protected by ADM.3502.F.1.A. The quality parameters presented above such as TGW, HLW, protein, starch are not directly indicative of the germinating ability of the seeds harvested. The zRMS is not suggesting that new germinating study is necessary for the present dossier, but any existing data on germination from any previous prothioconazole and fenpropidin studies should be presented briefly or at least referred to, for completeness.

The applicant replied that, that based on the results of residue trials for prothioconazole and fenpropidin, significant residue levels will not occur in cereals at harvest, indicating that additional studies are not required.

Based on the submitted data/explanations and considering long experience of usage prothioconazole and fenpropidin in cereal protection, it can be concluded that, adverse effects on plant parts or plant products used for propagation is no to be expected after application of ADM.3502.F.1.A.

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

3.5.1 Impact on succeeding crops (KCP 6.5.1)

Since ADM.3502.F.1.A shows any herbicidal activity, it can be concluded that there is any impact of the product on succeeding crops if the product is applied according to good agricultural practice.

Fungicides usually do not exhibit herbicidal activity. Phytotoxicity was considered as acceptable on all of efficacy trials where ADM.3502.F.1.A was applied according to the GAP. For more details on phytotoxicity results, please refer to Section 3.4.1.

In addition, any potential impact of ADM.3502.F.1.A on succeeding crops would principally be related to the active substances. Fenpropidin and prothioconazole have been used in Europe for many years and no effect on succeeding crops is known in Europe.

Moreover, further information on the non-target plant studies can be found in Part B Section 9 ("Ecotoxicological studies") of the Registration Report. No significant adverse effects were observed from ADM.3502.F.1.A on any of the crops tested in the seeding emergence and vegetative vigour studies. Therefore it can be concluded there are no risks to succeeding crops from ADM.3502.F.1.A applied according to the GAP.

Therefore, no impact is expected on succeeding crops if ADM.3502.F.1.A is used according to the Good Agricultural Practices and label recommendations.

Comments of zRMS on:
Impact on succeeding crops (3.5.1)

Accepted. ~~No additional trials are required.~~

3.5.2 Impact on other plants including adjacent crops (KCP 6.5.2)

Fungicides usually do not exhibit herbicidal activity. Phytotoxicity was considered as acceptable on all of efficacy trials where ADM.3502.F.1.A was applied according to the GAP. For more details on phytotoxicity results, please refer to Section 3.4.1.

In addition, any potential impact of ADM.3502.F.1.A on adjacent crops would principally be related to the active substances. Fenpropidin and prothioconazole have been used in Europe for many years and no effect on adjacent crops is known in Europe.

Moreover, further information on the non-target plant studies can be found in Part B Section 9 ("Ecotoxicological studies") of the Registration Report. No significant adverse effects were observed from ADM.3502.F.1.A on any of the crops tested in the seeding emergence and vegetative vigour studies. Therefore it can be concluded there are no risks to Adjacent crops from ADM.3502.F.1.A applied according to the GAP.

Therefore, no impact is expected on adjacent crops if ADM.3502.F.1.A is used according to the Good Agricultural Practices and label recommendations.

Drift onto adjacent crops should be generally avoided. Since ADM.3502.F.1.A shows any herbicidal

activity, there is no risk for adjacent crops to become injured, even in case of improper applications.

Comments of zRMS on:
Impact on other plants including adjacent crops (3.5.2)

Accepted. ~~No additional trials are required.~~ To avoid the risk of adverse effects on adjacent crops, being in accordance with the rules of good agricultural practice it is recommended to include, in the product label, the following remark: "*When using* ADM.3502.F.1.A *do not allow spray drift to the neighbouring crop plantations*".

Effects on non-target terrestrial plants
The available information from the vegetative vigour and seedling emergence studies conducted on a range of representative crops as submitted in dRR section B9 (Ecotoxicology), is provided below.

The evaluation of the risk for non-target terrestrial plants was performed in accordance with the recommendations of the "Guidance Document on Terrestrial Ecotoxicology", as provided by the Commission Services (SANCO/10329/2002 rev 2 (final), October 17, 2002). Based on the screening step recommended by the SANCO guideline for fungicides, a safe use (with respect to an acceptable risk for terrestrial non-target plants) can be concluded for the intended GAP uses of ADM.3502.F.1.A in cereals. Risk mitigation measures are not required.

Toxicity data
Studies on effects on non-target terrestrial plants have been carried out with the active substances. Full details of these studies are provided in the respective EU DAR and related documents. Effects on non-target terrestrial plants of ADM.3502.F.1.A, the formulation for which authorisation is sought, were not evaluated as part of the EU assessment of active substances.

Key studies on effects of formulated product on non-target plants were evaluated within the framework of a vegetative vigour test and a seedling emergence test conducted with ADM.3502.F.1.A. The dose-response tests were performed with six representative plant species: sugar beet, rape, tomato, soybean, ryegrass, onion. Endpoints are summarised in the table below.

All ER_{50} values were above the highest concentration tested in the vegetative vigour test and a seedling emergence test and is therefore set at > 1.0 L prod./ha.

Endpoints and effect values relevant for the risk assessment for non-target terrestrial plants

Substance	Exposure System	Most sensitive species	Results	Reference
Prothionazole technical	Seedling emergence	Pigweed	Lowest ER_{50} > 200 g a.s./ha	EFSA Scientific Report (2007) 106, 1-98
Prothionazole technical	Vegetative vigour	Pigweed, sugar beet	Lowest ER_{50} > 250 g a.s./ha	EFSA Scientific Report (2007) 106, 1-98
ADM.3502.F.1.A (250 g fenpropidin + 175 g prothioconazole/L)	Seedling emergence	--- (NOER of all tested plants is 1.0 L prod./ha)	**Lowest ER_{50} > 1.0 L prod./ha**	KCP 10.6.1/01 Kästner, K., 2020a report no. 2046PSE0007
ADM.3502.F.1.A (250 g fenpropidin + 175 g prothioconazole/L)	Vegetative vigour	--- (NOER of all tested plants is 1.0 L prod./ha)	**Lowest ER_{50} > 1.0 L prod./ha**	KCP 10.6.1/02 Kästner, K., 2020b report no. 2046PVV0009

Bold: Endpoint considered most relevant with respect to risk assessment for non-target terrestrial plants; n.a. = not applicable

Justification for new endpoints

New endpoints are provided for the formulated product, since the formulation itself is considered to be

more relevant in terms of non-target plant exposure under field conditions than effects of the active substances applied as technical grade.

Risk assessment

The evaluation of the risk for terrestrial non-target plants was performed in accordance with the recommendations of the "Guidance Document on Terrestrial Ecotoxicology", as provided by the Commission Services (SANCO/10329/2002 rev 2 (final), October 17, 2002).

Tier-1 risk assessment (based screening data)

According to SANCO/10329/2002 (2002), the risk for non-target plants (defined as *non-crop plants located outside the treatment area*) exposed to fungicides should be considered acceptable if there are no initial screening data indicating more than 50 % effects determined at the maximum single application rate (i.e. Tier-1 risk assessment).

Prothioconazole - screening risk assessment for terrestrial non-target plants based on the results of the vegetative vigour and seedling emergence tests

Intended use	Cereals, 1× 1.0 L prod./ha, BBCH ≥ 10		
Active substance 1 **Application rate (g a.s./ha)**	Prothioconazole 1× 175		
Test system	**Lowest ER_{50} [g prothioconazole/ha]**	**Max. single application rate [g prothioconazole/ha]**	**Risk for fungicides according to SANCO/10329/2002 recommendations**
Vegetative vigour test	> 250	175	Acceptable risk is indicated since the lowest ER_{50} exceeds the maximum single application rate
Seedling emergence test	> 200	175	Acceptable risk is indicated since the lowest ER_{50} exceeds the maximum single application rate

ADM.3502.F.1.A - screening risk assessment for terrestrial non-target plants based on the results of the vegetative vigour and seedling emergence tests

Intended use	Cereals, 1× 1.0 L prod./ha, BBCH ≥ 10		
Product **Application rate (L prod./ha)**	ADM.3502.F.1.A 1× 1.0		
Test system	**Lowest ER_{50} [L prod./ha]**	**Max. single application rate [L prod./ha]**	**Risk for fungicides according to SANCO/10329/2002 recommendations**
Vegetative vigour test	> 1.0	1.0	Acceptable risk is indicated since the lowest ER_{50} exceeds the maximum single application rate
Seedling emergence test	> 1.0	1.0	Acceptable risk is indicated since the lowest ER_{50} exceeds the maximum single application rate

As outlined in the table above, the ER_{50} values of the two test systems are determinable above the maximum test rates (seedling emergence tests and vegetative vigour tests), covering the maximum single application rate of ADM.3502.F.1.A in cereals. On this account, an acceptable risk for terrestrial non-target plants exposed to applications of the fungicide ADM.3502.F.1.A is indicated. No mitigation measures need to be applied

Higher tier risk assessment
No higher tier considerations are required for terrestrial non-target plants. An acceptable risk is indicated based on Tier 2 data.

Risk mitigation measures
No risk mitigation is needed. An acceptable risk is indicated based on Tier 2 data without the necessity to account for risk mitigations.

Overall conclusions
An acceptable risk is indicated for exposure of terrestrial non-target plants towards the formulated product for the intended worst-case use of ADM.03502.F.1.A without the necessity to account for risk mitigations.

No significant adverse effects were observed from ADM.3502.F.1.A on any of the crops tested in the Seeding emergence and Vegetative vigour studies. Therefore it can be concluded there are no risks to succeeding or adjacent crops from ADM.3502.F.1.A applied according to the GAP.

Comments of zRMS on:
Observations on other undesirable or unintended side-effects (3.5)

Detailed data contained in RR section B9 (Ecotoxicology) from the vegetative vigour and seedling emergence studies conducted on a range of representative crops: sugar beet, rape, tomato, soybean, ryegrass, onion have been included into section B3 (Efficacy Data and Information), by the applicant (update on April 2023). The results from these trials allow to conclude that if ADM.03502.F.1.A is applied according to GAP recommendations and in accordance with good agricultural practice including the general rule: not to allow spray drift to the neighbouring crop plantations, the risk of adverse effects to succeeding and adjacent crops it not to be expected.

3.5.3 Effects on beneficial and other non-target organisms (KCP 6.5.3)

~~No observations about effects of ADM.3502.F.1.A on beneficials or other non-target organisms were reported in the field trials.~~ The results of the required standard tests are presented and discussed in Part B - Section 6, see Part A – Chemical Plant Protection Products, section 10 (Eco-toxicological Studies).

Comments of zRMS on:
Effects on beneficial and other non-target organisms (3.5.3)

Adverse effects on non-target organisms were not observed in a part of efficacy and selectivity trials. In other trials no observations on beneficial or non-target organisms have been reported. Detailed studies are contained in Part B, Section 9 (Ecotoxicology).

3.6 Other/special studies

No other/special studies are available.

3.7 List of test facilities including the corresponding certificates

The majority of corresponding certificates, confirming that all the test facilities mentioned have been officially recognized as organizations for efficacy testing of plant protection products according to the Directive 93/71/EC, are available in the GEP certibase (www.gepcertibase.eu). Corresponding certificates are available hereafter.

Table 3.7-1: List of test facilities

Test facility	Address		Certificate (Yes or No)	Link of GEP Certibase
DITANA spol. s.r.o.	Velka Bystrice	Czech Republic	Yes	1d65893d1e2
InTec Agro Trials s.r.o.	Uhersky Ostroh	Czech Republic	Yes	1d65893d2e8
Zemedelska zkusebni stanice Kujavy, s.r.o.	Fulnek	Czech Republic	Yes	1d65893d275
Zemedelsky vyzkumny ustav Kromeriz, s.r.o.	Kromeriz	Czech Republic	Yes	1d65893d231
Zemservis zkusebni stanice Domaninek, s.r.o.	Bystrice nad Pernstejnem	Czech Republic	Yes	1d65893ce00
Zkusebni stanice Nechanice s.r.o.	Nechanice	Czech Republic	Yes	1d65893d1e9
Zkusebni Stanice Trutnov. s.r.o.	Trutnov	Czech Republic	Yes	1d65893d216
Agrartest GmbH	Aarbergen-Panrod	Germany	Yes	1d65893d1dd
Agricola	Leiblfing	Germany	Yes	1d65893d437
Agro-Check Dr. Teresiak & Erdmann GbR Landwirtschaftliche Forschung, Entwicklung und Beratung	Lenzke	Germany	Yes	1d65893d364 1d65893d171
BioChem Agrar GmbH	Machern OT Gerichshain	Germany	Yes	1d65893d0eb 1d65893d372
Field Research Support (DE)	Wunstorf	Germany	Yes	1d65893d262
Hetterich Fieldwork GbR	Schwarzach	Germany	Yes	1d65893d05e 1d65893d43c
Martin Feldversuchswesen Ing.-Büro zur Durchführung von Feldversuchen	Orsingen-Nenzingen	Germany	Yes	1d65893d279
Syntech Research Germany GmbH	Preetz	Germany	Yes	1d65893d362
Trial-Tec	Holtsee	Germany	Yes	1d65893d40b
U. A. S. Umwelt - und Agrarstudien GmbH	Jena	Germany	Yes	1d65893d1b6 1d65893d3bf
CPR Europe Kft.	Szombathely	Hungary	Yes	1d65893d42c
Novenypathyka Kft	Kaposvar	Hungary	Yes	1d65893d0b5
SGS Hungaria Kft	Budapest	Hungary	Yes	1d65893d1a2 1d65893d3c0
Syntech Research Hungary Kft.	Taplanszentkereszt	Hungary	Yes	1d65893d3c3
Agreco Sp. z o.o.	Wroclaw	Poland	Yes	1d65893d199 1d65893d475
Agro Research Consulting	Lowicz	Poland	Yes	1d65893d2dc 1d65893d3c4
Biotek Agriculture Polska Sp. Z o.o.	Olawa	Poland	Yes	1d690998983
Fertico Sp. z o.o.	Bledow	Poland	Yes	1d65893d441
Poznan University of Life Sciences Experimental and Didactic Section of Tillage and Plant Cultivation Gorzyn Department of Agronomy	Poznan	Poland	Yes	1d65893d21b
Staphyt Sp. z o.o.	Poznan	Poland	Yes	1d65893d440

Test facility	Address		Certificate (Yes or No)	Link of GEP Certibase
Eurofins Agroscience Services Srl (Romania)	Timisoara	Romania	Yes	1d65893d15d
Berberis s.r.o.	Boliarov	Slovakia	Yes	1d65893d313
Blumeria consulting s.r.o.	Nitra	Slovakia	Yes	1d65893d219
FYSE s.r.o. Odd. AgroLab Kolare	Kolare	Slovakia	Yes	1d65893d19d
Gemerprodukt Valice ovocinarsko-vino-hradnicke druzstvo	Rimavska Sobota	Slovakia	Yes	1d65893d1ad
Institute of Agriculture, Lithuanian Research Centre for Agriculture and Forestry	Akademija	Lithuania	Yes	-
LPPRC	Riga	Latvia	Yes	-
Staphyt France	Inchy en Artois	France	Yes	-
SAS Ephydia	Martinpuich	France	Yes	-
NPPC, VURV Piestany	Bratislava	Slovakia	Yes	See below

Central Control and Testing Institute in Agriculture in Bratislava
Matúškova 21, 833 16 Bratislava

GEP CERTIFICATE

No. 05c/C - 05/2018

issued in accordance with § 28 of the Act No. 405/2011 Coll. on Plant Care, Amending and Supplementing Act of the National Council of the Slovak Republic No. 145/1995 Coll. on Administrative Fees as Amended and § 3 of the Regulation of the Ministry of Agriculture and Rural Development of the Slovak Republic No. 486/2011 Coll. laying down details of the conditions, procedures and deadlines to implement the provisions of the tests of biological efficacy, applications, principles of good experimental practice, audits and issuing certificate, extension of the certificate, recertification (hereinafter "Regulation")

for

Národné poľnohospodárske a potravinárske centrum
workplace
Výskumný ústav rastlinnej výroby Piešťany
Bratislavská cesta 122
921 68 Piešťany

Identification number: 42337402

which has demonstrated implementation of principles of Good experimental practice (GEP) in accordance with the requirements of the Regulation in the following categories

Categories of crops	Categories of plant protection products and their adverse effects on crops.
cereals	fungicides; fungicides - seed treatment; herbicides, defoliants, drying agents; zoocides; growth regulators; phytotoxicity - fungicides; herbicides, defoliants, drying agents
corn	fungicides; herbicides, defoliants, drying agents; zoocides; phytotoxicity - fungicides; herbicides, defoliants, drying agents
legumes	herbicides, defoliants, drying agents; zoocides; phytotoxicity - herbicides, defoliants, drying agents
oil plants	fungicides; herbicides, defoliants, drying agents; zoocides; growth regulators; phytotoxicity - herbicides, defoliants, drying agents
technical crops	herbicides, defoliants, drying agents; phytotoxicity - herbicides, defoliants, drying agents
root crops	herbicides, defoliants, drying agents; phytotoxicity - herbicides, defoliants, drying agents

Date of issue: 20.12.2018
Date of expiry: 12.12.2022

ÚSTREDNÝ KONTROLNÝ A SKÚŠOBNÝ ÚSTAV POĽNOHOSPODÁRSKY V BRATISLAVE SLOVENSKÁ REPUBLIKA

Ing. Peter Rusňák, PhD.
General Director

This certificate includes also appendix. By issuing this certificate, certificate No. 05c/C-04/2017 expires.

Appendix 1 Lists of data considered in support of the evaluation

List of data submitted by the applicant and relied on

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.0	Nelgen, N.	2021	Biological Assessment Dossier of ADM.3502.F.1.A (Part B, Section 7– Core assessment - Central Zone / Southern Zone / Northern Zone) Dr. Norbert Nelgen Scientific Consulting - / not published	N	ADAMA Agriculture
KCP 6.1/001	BAROU, JL	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in France, 2019 Agrotest France / FR19FETRZAX329B GEP / not published	N	ADAMA agri-culture
KCP 6.1/002	BAROU, JL	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in France, 2019 Agrotest France / FR19FETRZAX329C GEP / not published	N	ADAMA agri-culture
KCP 6.1/003	Brož, M.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in the Czech Republic, 2019 ZZS Kujavy / CZ19FETTLSS212A GEP / not published	N	ADAMA agri-culture
KCP 6.1/004	Cáp, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on barley, Czech republic, 2018. ZS Nechanice / CZ18FEHORVX921A GEP / not published	N	ADAMA agri-culture
KCP 6.1/005	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in the Czech Republic, 2019 ZS Nechanice / CZ19FETRZAW200A GEP / not published	N	ADAMA agri-culture
KCP 6.1/006	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in the CZech Republic, 2019 ZS Nechanice / CZ19FETRZAW203A GEP / not published	N	ADAMA agri-culture
KCP 6.1/007	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in the Czech Republic, 2019	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			ZS Nechanice / CZ19FEHORVS207A GEP / not published		
KCP 6.1/008	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in the Czech Republic, 2019 ZS Nechanice / CZ19FETTLWI212B GEP / not published	N	ADAMA agriculture
KCP 6.1/009	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in the Czech Republic, 2019 ZS Nechanice / CZ19FETTLWI215A GEP / not published	N	ADAMA agriculture
~~KCP 6.1~~	~~Cáp, J.~~	~~2019~~	~~Efficacy evaluation of ADM.3502.F.1.A for the control of Puccinia c. (PUCCCO) on oat in the Czech Republic, 2019~~ ~~ZS Nechanice / CZ19FEAVESA216B~~ ~~GEP / not published~~	~~N~~	~~ADAMA agriculture~~
KCP 6.1	Von Hörsten, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in (Germany), 2019 FRS Wunstorf / DE19FEAVESA216C GEP / not published	N	ADAMA agriculture
KCP 6.1/011	Endres, U.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Germany in 2018. Hetterich Fieldworks / DE18FETRZAW919B GEP / not published	N	ADAMA agriculture
KCP 6.1/012	Endres, U.	2019	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Germany in 2018. Hetterich Fieldworks / DE18FETRZAW920B GEP / not published	N	ADAMA agriculture
KCP 6.1/013	Furman-Fratczak, K.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Poland in 2018. Biotek Agriculture / PL18FETRZAW020A GEP / not published	N	ADAMA agriculture
~~KCP 6.1~~	~~GOUAILLE, L.~~	~~2019~~	~~Efficacy evaluation of ADM.3502.F.1.A for the control of Brown leaf rust (PUCCRE) and Septoria tritici (SEPTTR) on winter wheat in France, 2019~~ ~~Biotek Agriculture France / FR19FETRZAX328B~~ ~~GEP / not published~~	~~N~~	~~ADAMA agriculture~~
KCP 6.1/015	GOUAILLE, L.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) and Rhynchosporium (RHYNSE) on barley in France, 2019 Biotek Agriculture France / FR19FEHORVX318B	N	ADAMA agriculture

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			GEP / not published		
KCP 6.1/016	Halmágyi, T.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW112A GEP / not published	N	ADAMA agriculture
KCP 6.1/017	Halmágyi, T.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia hordei* on barley, in Hungary in 2018. Syntech HU / HU18FEHORVW114B GEP / not published	N	ADAMA agriculture
~~KCP 6.1~~	~~Hetterich, A.~~	~~2019~~	~~Efficacy evaluation of ADM.3502.F.1.A for the control of Pyrenophora tritici-repentis (PYRNTR (DTR)) on winter wheat in (Germany), 2019~~ ~~Hetterich Fieldworks / DE19FETRZAW202B~~ ~~GEP / not published~~	~~N~~	~~ADAMA agriculture~~
KCP 6.1/019	Hetterich, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in (Germany), 2019 Hetterich Fieldworks / DE19FETRZAW203B GEP / not published	N	ADAMA agriculture
KCP 6.1/020	Holcikova, D.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on spring barley in Slovakia in 2018. Fyse Ltd./ SK18FEHORVS921A GEP / not published	N	ADAMA agriculture
KCP 6.1/023	Hrabovský, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, Czech republic, 2018. ZZS Kujavy / CZ18FETRZAW921B GEP / not published	N	ADAMA agriculture
KCP 6.1/024	Hrabovský, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech Republic, 2019 ZZS Kujavy / CZ19FETRZAW201A GEP / not published	N	ADAMA agriculture
KCP 6.1/025	Hruška, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, Czech republic, 2018. ZS Trutnov / CZ18FETRZAW921A GEP / not published	N	ADAMA agriculture
KCP 6.1/026	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech Republic, 2019 ZS Nechanice / CZ19FETRZAW201B	N	ADAMA agriculture

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			GEP / not published		
KCP 6.1/027	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in the Czech Republic, 2019 ZS Nechanice / CZ19FETRZAW203B GEP / not published	N	ADAMA agriculture
KCP 6.1/028	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRE) on triticale in the Czech Republic, 2019 ZS Trutnov / CZ19FETTLWI215B GEP / not published	N	ADAMA agriculture
KCP 6.1/029	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Poland, 2019 AGRECO SP. Z O.O. / PL19FEHORVW424A GEP / not published	N	ADAMA agriculture
KCP 6.1/030	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Poland, 2019 AGRECO SP. Z O.O. / PL19FEHORVW424B GEP / not published	N	ADAMA agriculture
KCP 6.1/032	Labusch, U.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Germany in 2018. BioChem Agrar / DE18FETRZAW919C GEP / not published	N	ADAMA agriculture
KCP 6.1/033	Labusch, U.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Germany in 2018. BioChem Agrar / DE18FETRZAW920C GEP / not published	N	ADAMA agriculture
KCP 6.1/034	Laug, S.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Germany in 2018. Hetterich Fieldworks / DE18FETRZAW921B GEP / not published	N	ADAMA agriculture
KCP 6.1/035	Legros, C.	2019	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* (ERYSGT) on wheat, in France in 2018. SAS (SARL) EPHYDIA / FR18FETRZAX342A GEP / not published	N	ADAMA agriculture
KCP 6.1/036	LUNZENFICHTER, C.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* (ERYSGT) on wheat, in France in 2018. QUALIPHYT / FR18FETRZAX342D	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			GEP / not published		
KCP 6.1/037	Magyaróvári, V.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2019 Agrartest GmbH/ DE19FESECSS211E GEP / not published	N	ADAMA agriculture
KCP 6.1/038	Makó, I.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Hungary, 2019 Syntech HU / HU19FEHORVX113A GEP / not published	N	ADAMA agriculture
KCP 6.1/039	Malovcova, L.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/*or Puccinia hordei* on spring barley in Slovakia in 2018. NPPC VURV Piestany / SK18FEHORVS921B GEP / not published	N	ADAMA agriculture
KCP 6.1/040	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in (Germany), 2019 Martin Feldversuchswesen / DE19FETRZAW201C GEP / not published	N	ADAMA agriculture
KCP 6.1/041	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in (Germany), 2019 Martin Feldversuchswesen / DE19FETRZAW203C GEP / not published	N	ADAMA agriculture
KCP 6.1/042	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2019 Martin Feldversuchswesen/ DE19FESECSS209D GEP / not published	N	ADAMA agriculture
KCP 6.1/043	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2019 Martin Feldversuchswesen/ DE19FESECSS211D GEP / not published	N	ADAMA agriculture
KCP 6.1/044	Nagy, Z.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW112B GEP / not published	N	ADAMA agriculture
KCP 6.1/045	Nagy, Z.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Hungary in 2018.	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			Syntech HU / HU18FETRZAW114B GEP / not published		
KCP 6.1/046	Nagy, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Hungary, 2019 Syntech HU / HU19FETRZAW114A GEP / not published	N	ADAMA agriculture
KCP 6.1/047	Németh, S.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW114A GEP / not published	N	ADAMA agriculture
KCP 6.1/048	Pawlak, A.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Poland in 2018. Staphyt Poland / PL18FETRZAW020B GEP / not published	N	ADAMA agriculture
KCP 6.1/049	Pawlak, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Poland, 2019 Staphyt Poland / PL19FETRZAW420A GEP / not published	N	ADAMA agriculture
KCP 6.1/050	Pawlak, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Poland, 2019 Staphyt Poland / PL19FETRZAW420B GEP / not published	N	ADAMA agriculture
KCP 6.1/051	Perner, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Germany in 2018. U.A.S. Jena / DE18FETRZAW920D GEP / not published	N	ADAMA agriculture
KCP 6.1/052	Perner, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in (Germany), 2019 U.A.S. Jena / DE19FETRZAW200A GEP / not published	N	ADAMA agriculture
~~KCP 6.1~~	~~Perner, J.~~	~~2019~~	~~Efficacy evaluation of ADM.3502.F.1.A for the control of Pyrenophora tritici-repentis (PYRNTR (DTR)) on winter wheat in (Germany), 2019 U.A.S. Jena / DE19FETRZAW202C GEP / not published~~	~~N~~	~~ADAMA agriculture~~

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.1/054	Perner, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Puccinia hordei (PUCCHD) on barley in (Germany), 2019 U.A.S. Jena / DE19FEHORVW208B GEP / not published	N	ADAMA agriculture
KCP 6.1/055	Perner, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2019 U.A.S. Jena / DE19FESECSS211C GEP / not published	N	ADAMA agriculture
KCP 6.1/056	Ramanauskiene, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on winter wheat in Lithuania in 2018 IA LRC, Kedainiai / LT18FETRZAW927A GEP / not published	N	ADAMA agriculture
~~KCP 6.1~~	~~Rancane, R.~~	~~2018~~	~~Efficacy evaluation of different MCW-2091 formulations against Blumeria graminis on winter wheat in Latvia in 2018~~ ~~LPPRC Riga / LV18FETRZAW918A~~ ~~GEP / not published~~	~~N~~	~~ADAMA agriculture~~
KCP 6.1/058	Raue, C.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in (Germany), 2019 SynTech DE / DE19FEHORVW205C GEP / not published	N	ADAMA agriculture
KCP 6.1/059	Raue, C.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2019 SynTech DE / DE19FESECSS209E GEP / not published	N	ADAMA agriculture
KCP 6.1/060	Rivet, J.; Crepin, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in France, 2019 Essais+ / FR19FETRZAX327B GEP / not published	N	ADAMA agriculture
KCP 6.1/061	Rivet, J.; Crepin, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in France, 2019 Essais+ / FR19FETRZAX327C GEP / not published	N	ADAMA agriculture
KCP 6.1/062	Rivet, J.; Crepin, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in France, 2019	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			Essais+ / FR19FEHORVX319A GEP / not published		
KCP 6.1/063	Rivet, J.; Crepin, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in France, 2019 Essais+ / FR19FEHORVX319B GEP / not published	N	ADAMA agriculture
KCP 6.1/064	Rivet, J.; Crepin, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in France, 2019 Essais+ / FR19FEHORVX319C GEP / not published	N	ADAMA agriculture
KCP 6.1/065	Rohr, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Germany in 2018. Agrartest GmbH / DE18FETRZAW919A GEP / not published	N	ADAMA agriculture
KCP 6.1/066	Rohr, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Germany in 2018. Agrartest GmbH/ DE18FETRZAW920A GEP / not published	N	ADAMA agriculture
KCP 6.1/067	Rohr, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Germany in 2018. Agrartest GmbH/ DE18FETRZAW921A GEP / not published	N	ADAMA agriculture
KCP 6.1/068	Rohr, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on barley, in Germany in 2018. Agrartest GmbH/ DE18FEHORVW921A GEP / not published	N	ADAMA agriculture
KCP 6.1/069	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in (Germany), 2019 Trial-Tec / DE19FETRZAW201B GEP / not published	N	ADAMA agriculture
KCP 6.1/070	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in (Germany), 2019 Trial-Tec / DE19FETRZAW204A GEP / not published	N	ADAMA agriculture
KCP 6.1/071	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in (Germany), 2019	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			Trial-Tec / DE19FEHORVW208A GEP / not published		
KCP 6.1/072	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2019 Trial-Tec / DE19FESECSS209B GEP / not published	N	ADAMA agri-culture
KCP 6.1/073	Ronis, A.	2018	Efficacy evaluation of different MCW-2091 formulations against *Blumeria graminis* on spring wheat in Lithuania in 2018 IA LRC, Kedainiai / LT18FETRZAS928A GEP / not published	N	ADAMA agri-culture
~~KCP 6.1~~	~~ROUANE, W.~~	~~2019~~	~~Efficacy evaluation of different MCW-2091 formulation against Septoria tritici (SEPTTR) on wheat, in France in 2018.~~ ~~ANADIAG FRANCE / FR18FETRZAX341C~~ ~~GEP / not published~~	~~N~~	~~ADAMA agri-culture~~
KCP 6.1/075	ROUANE, W.	2019	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in France in 2018. ANADIAG FRANCE / FR18FETRZAX341D GEP / not published	N	ADAMA agri-culture
KCP 6.1/077	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Poland, 2019 Poznan University of Life Sciences/ PL19FETRZAW417A GEP / not published	N	ADAMA agri-culture
KCP 6.1/078	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Poland, 2019 Poznan University of Life Sciences/ PL19FETRZAW417B GEP / not published	N	ADAMA agri-culture
KCP 6.1/079	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in Poland, 2019 Poznan University of Life Sciences/ PL19FETTLSS428A GEP / not published	N	ADAMA agri-culture
KCP 6.1/080	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in Poland, 2019 Poznan University of Life Sciences/ PL19FETTLSS428B GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.1/081	Semaskiene, R.	2018	Efficacy evaluation of different MCW-2091 formulations against *Blumeria graminis* on spring barley in Lithuania in 2018 IA LRC, Kedainiai / LT18FEHORVS929A GEP / not published	N	ADAMA agriculture
KCP 6.1/082	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Hungary, 2019 SGS Hungary / HU19FETRZAW112B GEP / not published	N	ADAMA agriculture
KCP 6.1/083	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Hungary, 2019 SGS Hungary / HU19FEHORVX113B GEP / not published	N	ADAMA agriculture
KCP 6.1/084	Tuna, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in ROMANIA, 2019 EAS Romania / RO19FETTLSS162A GEP / not published	N	ADAMA agriculture
KCP 6.1/088	Tvaruzek, L.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on barley, Czech republic, 2018. ZVU Kromeriz / CZ18FEHORVX921B GEP / not published	N	ADAMA agriculture
KCP 6.1/089	Tvaruzek, L.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in the Czech Republic, 2019 ZVU Kromeriz / CZ19FETRZAW200B GEP / not published	N	ADAMA agriculture
KCP 6.1/090	Vadász, Z.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on barley, in Hungary in 2018. Syntech HU / HU18FEHORVW114A GEP / not published	N	ADAMA agriculture
KCP 6.1/091	Varga, A.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW110B GEP / not published	N	ADAMA agriculture
KCP 6.1/092	VARRET, F.	2019	Efficacy evaluation of different MCW-2091 formulations against *Puccinia striiformis* (PUCCST) and Puccinia recondita (PUCCRE) on wheat, in France in 2018. STAPHYT / FR18FETRZAX341A	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			GEP / not published		
KCP 6.1/093	VARRET, F.	2019	Efficacy evaluation of different MCW-2091 formulations against *Puccinia recondita* (PUCCRE) on wheat, in France in 2018. STAPHYT / FR18FETRZAX341B GEP / not published	N	ADAMA agriculture
KCP 6.1/094	Viosin, J.F.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on barley, in France in 2018. Agrotest France / FR18FEHORVX315A GEP / not published	N	ADAMA agriculture
KCP 6.1/095	Viosin, J.F.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on barley, in France in 2018. Agrotest France / FR18FEHORVX315B GEP / not published	N	ADAMA agriculture
KCP 6.1/096	Von Hörsten, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in (Germany), 2019 FRS Wunstorf / DE19FEHORVW207D GEP / not published	N	ADAMA agriculture
KCP 6.1/097	WALLART, F.	2019	EFFICACY EVALUATION OF ADM.3502.F.1.A FOR THE CONTROL OF BROWN RUST (PUCCRT) ON WINTER WHEAT IN FRANCE, 2019 SAS (SARL) EPHYDIA / FR19FETRZAX329A GEP / not published	N	ADAMA agriculture
KCP 6.1/098	WALLART, F.	2019	EFFICACY EVALUATION OF ADM.3502.F.1.A FOR THE CONTROL OF *BLUMERIA GRAMINIS TRITICI* (ERYSGT) ON WINTER WHEAT IN FRANCE, 2019 SAS (SARL) EPHYDIA / FR19FETRZAX327D GEP / not published	N	ADAMA agriculture
KCP 6.1/100	Wallart, G.	2019	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in France in 2018. SAS (SARL) EPHYDIA / FR18FETRZAX340B GEP / not published	N	ADAMA agriculture
KCP 6.1/101	Wöllmann, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in (Germany), 2019 Agro-check / DE19FETRZAW204B(AC-19-096) GEP / not published	N	ADAMA agriculture
KCP 6.1/102	Wöllmann, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in (Germany), 2019 Agro-check / DE19FEHORVW208C_2(AC-19-097)	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			GEP / not published		
KCP 6.1/103	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2019 BioChem Agrar / DE19FETRZAW202A GEP / not published	N	ADAMA agriculture
KCP 6.1/104	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in (Germany), 2019 BioChem Agrar / DE19FETRZAW201A GEP / not published	N	ADAMA agriculture
~~KCP 6.1~~	~~Zickart, U.~~	~~2019~~	~~Efficacy evaluation of ADM.3502.F.1.A for the control of Rhynchosporium secalis (RHYNSE) on barley in (Germany), 2019 BioChem Agrar / DE19FEHORVW205A GEP / not published~~	~~N~~	~~ADAMA agriculture~~
KCP 6.1/106	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in (Germany), 2019 BioChem Agrar / DE19FEHORVW208D GEP / not published	N	ADAMA agriculture
KCP 6.1/107	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2019 BioChem Agrar / DE19FESECSS209A GEP / not published	N	ADAMA agriculture
KCP 6.1/108	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2019 BioChem Agrar / DE19FESECSS211A GEP / not published	N	ADAMA agriculture
KCP 6.1/109	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in (Germany), 2019 BioChem Agrar / DE19FETTLSS212A GEP / not published	N	ADAMA agriculture
~~KCP 6.1~~	~~Zöllner, H.~~	~~2019~~	~~Efficacy evaluation of ADM.3502.F.1.A for the control of Septoria tritici (SEPTSP) on triticale in (Germany), 2019 FRS Wunstorf / DE19FETTLSS212C GEP / not published~~	~~N~~	~~ADAMA agriculture~~

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.1/111	Zsuzsanna, H.P.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Hungary, 2019 Növénypathyka / HU19FETRZAW114B GEP / not published	N	ADAMA agriculture
KCP 6.1/112	Zsuzsanna, H.P.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici (*SEPTTR) on winter wheat in Hungary, 2019 Növénypathyka / HU19FETRZAW111B GEP / not published	N	ADAMA agriculture
KCP 6.2 /005	Bauer, T.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in the Czech republic, 2020 InTec Agro / CZ20FETRZAW271B GEP / not published	N	ADAMA agriculture
KCP 6.2 /006	Benczés, B.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Hungary, 2020 CPR Europe Kft. / HU20FEHORVW421A GEP / not published	N	ADAMA agriculture
KCP 6.2 /007	Benczés, B.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW413A GEP / not published	N	ADAMA agriculture
KCP 6.2 /008	Bezdíčková, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in the Czech republic, 2020 Ditana spol. s r. o. / CZ20FEHORVS236B GEP / not published	N	ADAMA agriculture
KCP 6.2 /009	Botos, I.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW112C GEP / not published	N	ADAMA agriculture
KCP 6.2 /010	Brož, M.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in the Czech Republic, 2019 ZZS Kujavy / CZ19FETTLSS212A GEP / not published	N	ADAMA agriculture
KCP 6.2 /011	Cáp, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on barley, Czech republic, 2018. ZS Nechanice / CZ18FEHORVX921A GEP / not published	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2 /012	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in the Czech Republic, 2019 ZS Nechanice / CZ19FETRZAW200A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /013	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in the CZech Republic, 2019 ZS Nechanice / CZ19FETRZAW203A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /014	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in the Czech Republic, 2019 ZS Nechanice / CZ19FEHORVS206A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /015	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in the Czech Republic, 2019 ZS Nechanice / CZ19FEHORVW205B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /016	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in the Czech Republic, 2019 ZS Nechanice / CZ19FEHORVS207A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /017	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in the Czech Republic, 2019 ZS Nechanice / CZ19FETTLWI212B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /018	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on triticale in the Czech Republic, 2019 ZS Nechanice / CZ19FETTLWI213B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /019	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in the Czech Republic, 2019 ZS Nechanice / CZ19FETTLWI215A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /020	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in the Czech Republic, 2019	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			ZS Nechanice / CZ19FEAVESA216A GEP / not published		
KCP 6.2 /021	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in the Czech Republic, 2019 ZS Nechanice / CZ19FEAVESA216B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /022	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in the Czech republic, 2020 ZS Nechanice / CZ20FEHORVS273B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /023	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on triticale in the Czech republic, 2020 ZS Nechanice / CZ20FETTLWI243C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /024	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in the Czech republic, 2020 ZS Nechanice / CZ20FETTLWI244B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /025	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in the Czech republic, 2020 ZS Nechanice / CZ20FEAVESA246A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /026	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c*. (PUCCCO) on oat in the Czech republic, 2020 ZS Nechanice / CZ20FEAVESA246C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /027	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in the Czech republic, 2020 ZS Nechanice / CZ20FEHORVW236A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /040	Endres, U.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Germany in 2018. Hetterich Fieldworks / DE18FETRZAW919B GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2 /041	Endres, U.	2019	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Germany in 2018. Hetterich Fieldworks / DE18FETRZAW920B GEP / not published	N	ADAMA agriculture
KCP 6.2 /042	Flahaut, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in FRANCE, 2020 STAPHYT France / FR20FETRZAW307A GEP / not published	N	ADAMA agriculture
KCP 6.2 /043	Forgacova, L.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Slovakia, 2020 BERBERIS s.r.o. / SK20FEHORVW238B GEP / not published	N	ADAMA agriculture
KCP 6.2 /044	Furman-Fratczak, K.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Poland in 2018. Biotek Agriculture / PL18FETRZAW020A GEP / not published	N	ADAMA agriculture
KCP 6.2 /045	Gajek, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on triticale in Poland, 2019 Agro Research Consulting / PL19FETTLSS426A GEP / not published	N	ADAMA agriculture
KCP 6.2 /047	Gezova, V.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in the Czech Republic, 2019 InTec Agro / CZ19FEHORVW207B GEP / not published	N	ADAMA agriculture
KCP 6.2 /048	Gezova, V.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in the Czech Republic, 2019 InTec Agro / CZ19FETTLSS214B GEP / not published	N	ADAMA agriculture
KCP 6.2 /052	Gulbis	2021	Efficacy evualtion of ADM.3502.F.1.A (MCW-2091) for *D.teres* control in spring barley in Latvia in 2019 LPPRC Riga / LV19FEHORVS484B GEP / not published	N	ADAMA agriculture
KCP 6.2 /054	Gulbis, K.	2019	Efficacy evualtion of ADM.3502.F.1.A (MCW-2091) for *Erysiphe graminis* control in winter wheat in Latvia in 2019 LPPRC Riga / LV19FETRZAX482A GEP / not published	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2 /056	Gulbis, K.	2020	Efficacy evualtion of ADM.3502.F.1.A for *Blumeria graminis* control in winter barley in Latvia in 2020 LPPRC Riga / LV20FEHORVX476A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /058	Gulbis, K.	2020	Efficacy evualtion of ADM.3502.F.1.A for *Blumeria graminis* control in spring wheat in Latvia in 2020 LPPRC Riga / LV20FETRZAX473A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /061	Halmágyi, T.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW110A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /062	Halmágyi, T.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW112A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /063	Halmágyi, T.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia hordei* on barley, in Hungary in 2018. Syntech HU / HU18FEHORVW114B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /064	Heger, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in the Czech republic, 2020 Zemservis ZS Domaninek s.r.o. / CZ20FETTLWI243B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /065	Heger, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in the Czech republic, 2020 ZS Domanínek / CZ20FEHORVS237A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /066	Hetterich, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2019 Hetterich Fieldworks / DE19FETRZAW202B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /067	Hetterich, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in (Germany), 2019 Hetterich Fieldworks / DE19FETRZAW203B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /068	Hetterich, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in (Germany), 2019 Hetterich Fieldworks / DE19FEHORVW205B	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			GEP / not published		
KCP 6.2 /069	Hetterich, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in (Germany), 2019 Hetterich Fieldworks / DE19FEHORVW207B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /070	Hetterich, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in (Germany), 2019 Hetterich Fieldworks / DE19FETTLSS213B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /073	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS239D GEP / not published	N	ADAMA agri-culture
KCP 6.2 /074	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS239E GEP / not published	N	ADAMA agri-culture
KCP 6.2 /075	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS240D GEP / not published	N	ADAMA agri-culture
KCP 6.2 /076	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS239C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /077	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS240E GEP / not published	N	ADAMA agri-culture
KCP 6.2 /078	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS241E GEP / not published	N	ADAMA agri-culture
KCP 6.2 /079	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in (Germany), 2020	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			Hetterich Fieldworks / DE20FETTLSS243A GEP / not published		
KCP 6.2 /080	Holcikova, D.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on spring barley in Slovakia in 2018. Fyse Ltd. / SK18FEHORVS921A GEP / not published	N	ADAMA agriculture
KCP 6.2 /083	Hrabovsky, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in the Czech republic, 2020 ZZS Kujavy / CZ20FETTLWI243A GEP / not published	N	ADAMA agriculture
KCP 6.2 /084	Hrabovský, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, Czech republic, 2018. ZZS Kujavy / CZ18FETRZAW921B GEP / not published	N	ADAMA agriculture
KCP 6.2 /085	Hrabovský, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech Republic, 2019 ZZS Kujavy / CZ19FETRZAW201A GEP / not published	N	ADAMA agriculture
KCP 6.2 /086	Hrabovský, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on triticale in the Czech Republic, 2019 ZZS Kujavy / CZ19FETTLSS213A GEP / not published	N	ADAMA agriculture
KCP 6.2 /087	Hrabovský, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech republic, 2020 ZZS Kujavy / CZ20FETRZAW270A GEP / not published	N	ADAMA agriculture
KCP 6.2 /088	Hrabovský, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in the Czech republic, 2020 ZZS Kujavy / CZ20FETRZAW271A GEP / not published	N	ADAMA agriculture
KCP 6.2 /089	Hruška, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, Czech republic, 2018. ZS Trutnov / CZ18FETRZAW921A GEP / not published	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2 /090	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech Republic, 2019 ZS Nechanice / CZ19FETRZAW201B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /091	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in the Czech Republic, 2019 ZS Nechanice / CZ19FETRZAW203B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /092	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in the Czech Republic, 2019 ZS Nechanice / CZ19FESECCW210A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /093	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in the Czech Republic, 2019 ZS Nechanice / CZ19FETTLWI214A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /094	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRE) on triticale in the Czech Republic, 2019 ZS Trutnov / CZ19FETTLWI215B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /095	Hruška, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in the Czech republic, 2020 ZS Trutnov / CZ20FETTLWI244A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /096	Hudec, K.; Mihóc, M.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Slovakia, 2020 Blumeria Consulting / SK20FEHORVW273B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /097	Hudec, K.; Mihóc, M.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Slovakia, 2020 Blumeria Consulting / SK20FETRZAW235B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /098	Hudec, K.; Mihóc, M.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Slovakia, 2020	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			Blumeria Consulting / SK20FETRZAW269B GEP / not published		
KCP 6.2 /103	Jovic, M.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2019 SynTech DE / DE19FETRZAW202E GEP / not published	N	ADAMA agri-culture
KCP 6.2 /104	Juhász, I.J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in Hungary, 2019 SGS Hungary / HU19FEHORVX111B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /105	Kolarik, P.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in the Czech republic, 2020 ZVU Kromeriz / CZ20FEAVESA246B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /106	Konvalinkova, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in the Czech Republic, 2019 ZS Nechanice / CZ19FEHORVW205A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /107	Kovacova Holicova, D.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Slovakia, 2020 Fyse Ltd./ SK20FEHORVW273A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /108	Kovacova Holicova, D.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis (*PYRNTR (DTR)) on winter wheat in Slovakia, 2020 Fyse Ltd./ SK20FETRZAW235A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /109	Kovacova, D.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Slovakia, 2020 Fyse Ltd./ SK20FEHORVW238A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /110	Kovacova, D.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Slovakia, 2020 Fyse Ltd./ SK20FETRZAW269A GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2 /111	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Poland, 2019 AGRECO SP. Z O.O. / PL19FETRZAW416A GEP / not published	N	ADAMA agriculture
KCP 6.2 /112	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Poland, 2019 AGRECO SP. Z O.O. / PL19FETRZAW416B GEP / not published	N	ADAMA agriculture
KCP 6.2 /113	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Poland, 2019 AGRECO SP. Z O.O. / PL19FETRZAW419A GEP / not published	N	ADAMA agriculture
KCP 6.2 /114	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Poland, 2019 AGRECO SP. Z O.O. / PL19FETRZAW419B GEP / not published	N	ADAMA agriculture
KCP 6.2 /115	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Poland, 2019 AGRECO SP. Z O.O. / PL19FEHORVW421A GEP / not published	N	ADAMA agriculture
KCP 6.2 /116	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Poland, 2019 AGRECO SP. Z O.O. / PL19FEHORVW421B GEP / not published	N	ADAMA agriculture
KCP 6.2 /117	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Poland, 2019 AGRECO SP. Z O.O. / PL19FEHORVW424A GEP / not published	N	ADAMA agriculture
KCP 6.2 /118	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Poland, 2019 AGRECO SP. Z O.O. / PL19FEHORVW424B GEP / not published	N	ADAMA agriculture
KCP 6.2 /119	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in Poland, 2019	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			AGRECO SP. Z O.O. / PL19FETTLSS426B GEP / not published		
KCP 6.2 /124	Labant, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Hungary, 2020 Növénypathyka / HU20FEHORVW421B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /127	Labusch, U.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Germany in 2018. BioChem Agrar / DE18FETRZAW919C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /128	Labusch, U.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Germany in 2018. BioChem Agrar / DE18FETRZAW920C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /129	Labusch, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in (Germany), 2019 BioChem Agrar / DE19FETRZAW203A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /130	Laug, S.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Germany in 2018. Hetterich Fieldworks / DE18FETRZAW921B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /146	Magyaróvári, V.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2019 Agrartest GmbH / DE19FESECSS211E GEP / not published	N	ADAMA agri-culture
KCP 6.2 /147	Magyaróvári, V.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in (Germany), 2019 Agrartest GmbH / DE19FETTLSS215C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /148	Magyaróvári, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in (Germany), 2020 Agrartest GmbH / DE20FETTLSS242C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /149	Magyaróvári, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in (Germany), 2020 Agrartest GmbH / DE20FETTLSS244C	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			GEP / not published		
KCP 6.2 /150	Makó, I.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Hungary, 2019 Syntech HU / HU19FETRZAW113A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /151	Makó, I.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Hungary, 2019 Syntech HU / HU19FEHORVX113A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /153	Makó, I.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW412A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /154	Malovcova, L.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on spring barley in Slovakia in 2018. NPPC VURV Piestany / SK18FEHORVS921B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /155	Malovcova, L.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in Slovakia, 2020 NPPC VURV Piestany / SK20FEHORVS237A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /156	Malovcova, L.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Slovakia, 2020 NPPC VURV Piestany / SK20FETRZAW270A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /159	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in (Germany), 2019 Martin Feldversuchswesen / DE19FETRZAW200B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /160	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in (Germany), 2019 Martin Feldversuchswesen / DE19FETRZAW201C GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2 /161	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2019 Martin Feldversuchswesen / DE19FETRZAW202D GEP / not published	N	ADAMA agri-culture
KCP 6.2 /162	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in (Germany), 2019 Martin Feldversuchswesen / DE19FETRZAW203C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /163	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2019 Martin Feldversuchswesen / DE19FESECSS209D GEP / not published	N	ADAMA agri-culture
KCP 6.2 /164	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2019 Martin Feldversuchswesen / DE19FESECSS211D GEP / not published	N	ADAMA agri-culture
KCP 6.2 /165	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in (Germany), 2019 Martin Feldversuchswesen / DE19FETTLSS212B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /166	Martin, T.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2020 Martin Feldversuchswesen / DE20FETRZAW235B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /167	Martin, T.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in (country), 2020 Martin Feldversuchswesen / DE20FEAVESA246A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /168	Martin, T.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2020 Martin Feldversuchswesen / DE20FETRZAW235A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /173	Nagy, Z.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW112B GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2 /174	Nagy, Z.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW114B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /175	Nagy, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Hungary, 2019 Syntech HU / HU19FETRZAW114A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /176	Nagy, Z.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW414B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /177	Nagy, Z.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in Hungary, 2020 CPR Europe Kft. / HU20FEHORVW420A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /180	Nagy, Z.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW411A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /181	Nagy, Z.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW410A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /182	Németh, S.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW114A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /183	Németh, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Hungary, 2019 Syntech HU / HU19FETRZAW111A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /184	Németh, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Hungary, 2019	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			Syntech HU / HU19FETRZAW110A GEP / not published		
KCP 6.2 /185	Németh, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Hungary, 2019 Syntech HU / HU19FEHORVX110A GEP / not published	N	ADAMA agriculture
KCP 6.2 /186	Németh, S.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Hungary, 2020 CPR Europe Kft. / HU20FEHORVW423A GEP / not published	N	ADAMA agriculture
KCP 6.2 /187	Németh, S.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Hungary, 2020 CPR Europe Kft. / HU20FEHORVW422B GEP / not published	N	ADAMA agriculture
KCP 6.2 /190	Olasz, L.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Hungary, 2020 CPR Europe Kft. / HU20FEHORVW422A GEP / not published	N	ADAMA agriculture
KCP 6.2 /191	Pawlak, A.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Poland in 2018. Staphyt Poland / PL18FETRZAW020B GEP / not published	N	ADAMA agriculture
KCP 6.2 /192	Pawlak, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Poland, 2019 Staphyt Poland / PL19FETRZAW420A GEP / not published	N	ADAMA agriculture
KCP 6.2 /193	Pawlak, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Poland, 2019 Staphyt Poland / PL19FETRZAW420B GEP / not published	N	ADAMA agriculture
KCP 6.2 /194	Pawlak, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in Poland 2019 Staphyt Poland / PL19FEHORVW422A GEP / not published	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2 /195	Pawlak, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in Poland, 2019 Staphyt Poland / PL19FETTLSS427A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /200	Pawlak, A.	2021	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in Poland 2019 Staphyt Poland / PL19FEHORVW422B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /201	Perner, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Germany in 2018. U.A.S. Jena / DE18FETRZAW920D GEP / not published	N	ADAMA agri-culture
KCP 6.2 /202	Perner, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in (Germany), 2019 U.A.S. Jena / DE19FETRZAW200A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /203	Perner, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2019 U.A.S. Jena / DE19FETRZAW202C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /204	Perner, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in (Germany), 2019 U.A.S. Jena / DE19FEHORVW208B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /205	Perner, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2019 U.A.S. Jena / DE19FESECSS211C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /206	Perner, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2020 U.A.S. Jena / DE20FESECSS241D GEP / not published	N	ADAMA agri-culture
KCP 6.2 /207	Perner, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in (Germany), 2020 U.A.S. Jena / DE20FESECSS240C GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2 /208	Perner, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in (Germany), 2020 U.A.S. Jena / DE20FETTLSS243B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /209	Rábai, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW413B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /214	Raue, C.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in (Germany), 2019 SynTech DE / DE19FEHORVW205C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /215	Raue, C.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2019 SynTech DE / DE19FESECSS209E GEP / not published	N	ADAMA agri-culture
KCP 6.2 /216	Raue, C.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in (Germany), 2019 SynTech DE / DE19FETTLSS214C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /224	Rohr, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Germany in 2018. Agrartest GmbH / DE18FETRZAW919A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /225	Rohr, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Germany in 2018. Agrartest GmbH / DE18FETRZAW920A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /226	Rohr, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Germany in 2018. Agrartest GmbH / DE18FETRZAW921A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /227	Rohr, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on barley, in Germany in 2018. Agrartest GmbH / DE18FEHORVW921A GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2 /228	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in (Germany), 2019 Trial-Tec / DE19FETRZAW201B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /229	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in (Germany), 2019 Trial-Tec / DE19FETRZAW204A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /230	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in (Germany), 2019 Trial-Tec / DE19FEHORVW206B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /231	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in (Germany), 2019 Trial-Tec / DE19FEHORVW208A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /232	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in (Germany), 2019 Trial-Tec / DE19FESECSS210C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /233	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2019 Trial-Tec / DE19FESECSS209B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /234	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis (*ERYSGR) on titicale in (Germany), 2019 Trial-Tec / DE19FETTLSS213C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /236	Ronis, A.	2020	Efficacy evualtion of ADM.3502.F.1.A for *Pyrenophora avenae* control in oat in Lithuania in 2020 IA LRC, Kedainiai / LT20FEAVESP480A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /237	Ronis, A.	2020	Efficacy evualtion of ADM.3502.F.1.A for *Pyrenophora avenae* control in oat in Lithuania in 2020 IA LRC, Kedainiai / LT20FEAVESP480B GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2 /238	Roslapil, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in the Czech Republic, 2019 ZZS Kujavy / CZ19FEHORVS206B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /239	Roslapil, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in the Czech republic, 2020 ZZS Kujavy / CZ20FEHORVS238A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /240	Roslapil, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in the Czech republic, 2020 ZZS Kujavy / CZ20FEHORVS273A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /249	Rusek, K.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (DTR) on winter wheat in Poland, 2019 Fertico / PL19FETRZAW418A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /250	Rusek, K.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (DTR) on winter wheat in Poland, 2019 Fertico / PL19FETRZAW418B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /258	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Poland, 2019 Poznan University of Life Sciences / PL19FETRZAW417A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /259	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Poland, 2019 Poznan University of Life Sciences / PL19FETRZAW417B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /260	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Poland, 2019 Poznan University of Life Sciences / PL19FEHORVW423A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /261	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Poland, 2019 Poznan University of Life Sciences / PL19FEHORVW423B GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2 /262	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in Poland, 2019 Poznan University of Life Sciences / PL19FETTLSS425A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /263	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in Poland, 2019 Poznan University of Life Sciences / PL19FETTLSS425B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /264	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in Poland, 2019 Poznan University of Life Sciences / PL19FETTLSS428A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /265	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in Poland, 2019 Poznan University of Life Sciences / PL19FETTLSS428B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /266	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in Poland, 2019 Poznan University of Life Sciences / PL19FETTLSS427B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /267	Semaskiene, R.	2018	Efficacy evaluation of different MCW-2091 formulations against *Blumeria graminis* on spring barley in Lithuania in 2018 IA LRC, Kedainiai / LT18FEHORVS929A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /268	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Hungary, 2019 SGS Hungary / HU19FETRZAW113B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /269	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Hungary, 2019 SGS Hungary / HU19FETRZAW110C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /270	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Hungary, 2019 SGS Hungary / HU19FETRZAW112B GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2 /271	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Hungary, 2019 SGS Hungary / HU19FEHORVX110B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /272	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Hungary, 2019 SGS Hungary / HU19FEHORVX112B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /273	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Hungary, 2019 SGS Hungary / HU19FEHORVX113B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /274	Subr. J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in the Czech Republic, 2019 ZS Nechanice / CZ19FEHORVW206C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /275	Subr. J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech republic, 2020 ZS Trutnov / CZ20FETRZAW270C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /276	Teresiak, H.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in (Germany), 2020 Agro-check / DE20FETTLSS245C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /277	Tóth, F.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Slovakia, 2020 GEMERPRODUKT Valice OVD / SK20FEHORVW236A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /278	Tóth, F.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Slovakia, 2020 GEMERPRODUKT Valice OVD / SK20FETRZAW272A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /279	Trojan, Z.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech republic, 2020 Zemservis ZS Domaninek s.r.o. / CZ20FETRZAW270B	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			GEP / not published		
KCP 6.2 /280	Tuna, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in ROMANIA, 2019 EAS Romania / RO19FETTLSS159A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /281	Tuna, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in ROMANIA, 2019 EAS Romania / RO19FETTLSS162A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /282	Tuna, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in ROMANIA, 2019 EAS Romania / RO19FETTLSS161A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /283	Tuna, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in Romania, 2019 EAS Romania / RO19FETTLSS160A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /296	Tvaruzek, L.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on barley, Czech republic, 2018. ZVU Kromeriz / CZ18FEHORVX921B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /297	Tvaruzek, L.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici (*SEPTTR) on winter wheat in the Czech Republic, 2019 ZVU Kromeriz / CZ19FETRZAW200B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /298	Tvaruzek, L.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis (*ERYSGR) on rye in the Czech Republic, 2019 ZVU Kromeriz / CZ19FESECSS210B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /299	Vadász, Z.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis and*/or *Puccinia hordei* on barley, in Hungary in 2018. Syntech HU / HU18FEHORVW114A GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2 /300	Vadász, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Hungary, 2019 Syntech HU / HU19FETRZAW110B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /301	Vadász, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe gramins* (ERYSGH) on barley in Hungary, 2019 Syntech HU / HU19FEHORVX111A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /302	Vadász, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Hungary, 2019 Syntech HU / HU19FEHORVX112A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /303	Varga, A.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW110B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /307	Verikaite, K.	2019	Efficacy evualtion of ADM.3502.F.1.A (MCW-2091) for *B. graminis* control in spring barley in Lithuania in 2019 IA LRC, Kedainiai / LT19FEHORVS487A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /308	Verikaite, K.	2019	Efficacy evualtion of ADM.3502.F.1.A (MCW-2091) for *B. graminis* control in spring barley in Lithuania in 2019 IA LRC, Kedainiai / LT19FEHORVS487B GEP / not published	N	ADAMA agri-culture
KCP 6.2 /311	Von Hörsten, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in (Germany), 2019 FRS Wunstorf / DE19FEHORVW207D GEP / not published	N	ADAMA agri-culture
KCP 6.2 /312	Von Hörsten, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in (Germany), 2019 FRS Wunstorf / DE19FEAVESA216C GEP / not published	N	ADAMA agri-culture
KCP 6.2 /313	Wallart, F.	2019	Efficacy evaluation of ADM.3502.F.1.A. for the control of yellow rust (PUCCST) on winter wheat in France, 2019 SAS (SARL) EPHYDIA / FR19FETRZAX328A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /320	Wolf, P.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2020	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			Agricola / DE20FETRZAW235G GEP / not published		
KCP 6.2 /321	Wöllmann, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in (Germany), 2019 Agro-check / DE19FETRZAW204B(AC-19-096) GEP / not published	N	ADAMA agriculture
KCP 6.2 /322	Wöllmann, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in (Germany), 2019 Agro-check / DE19FEHORVW208C_2(AC-19-097) GEP / not published	N	ADAMA agriculture
KCP 6.2 /323	Zdenek, T.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in the Czech republic, 2020 ZS Domanínek / CZ20FEHORVS238B GEP / not published	N	ADAMA agriculture
KCP 6.2 /324	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2019 BioChem Agrar / DE19FETRZAW202A GEP / not published	N	ADAMA agriculture
KCP 6.2 /325	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in (Germany), 2019 BioChem Agrar / DE19FETRZAW201A GEP / not published	N	ADAMA agriculture
KCP 6.2 /326	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in (Germany), 2019 BioChem Agrar / DE19FEHORVW207A GEP / not published	N	ADAMA agriculture
KCP 6.2 /327	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in (Germany), 2019 BioChem Agrar / DE19FEHORVW205A GEP / not published	N	ADAMA agriculture
KCP 6.2 /328	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe gramins* (ERYSGH) on barley in (Germany), 2019 BioChem Agrar / DE19FEHORVW206A GEP / not published	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2 /329	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in (Germany), 2019 BioChem Agrar / DE19FEHORVW208D GEP / not published	N	ADAMA agri-culture
KCP 6.2 /330	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in (Germany), 2019 BioChem Agrar / DE19FESECSS210A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /331	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2019 BioChem Agrar / DE19FESECSS209A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /332	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2019 BioChem Agrar / DE19FESECSS211A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /333	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in (Germany), 2019 BioChem Agrar / DE19FETTLSS212A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /334	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in (Germany), 2019 BioChem Agrar / DE19FETTLSS215A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /335	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in (Germany), 2019 BioChem Agrar / DE19FETTLSS214A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /336	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in (Germany), 2019 BioChem Agrar / DE19FETTLSS213A GEP / not published	N	ADAMA agri-culture
KCP 6.2 /339	Zickart, U.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in Germany, 2020	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			BioChem Agrar / DE20FESECSS240B GEP / not published		
KCP 6.2 /340	Zickart, U.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2020 BioChem Agrar / DE20FESECSS239B GEP / not published	N	ADAMA agriculture
KCP 6.2 /341	Zickart, U.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2020 BioChem Agrar / DE20FESECSS241B GEP / not published	N	ADAMA agriculture
KCP 6.2 /342	Zöllner, H.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in (Germany), 2019 FRS Wunstorf / DE19FETTLSS212C GEP / not published	N	ADAMA agriculture
KCP 6.2 /343	Zöllner, H.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in (Germany), 2020 FRS Wunstorf / DE20FEAVESA246C GEP / not published	N	ADAMA agriculture
KCP 6.2 /344	Zsuzsanna, H.P.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Hungary, 2019 Növénypathyka / HU19FETRZAW114B GEP / not published	N	ADAMA agriculture
KCP 6.2 /345	Zsuzsanna, H.P.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Hungary, 2019 Növénypathyka / HU19FETRZAW111B GEP / not published	N	ADAMA agriculture
KCP 6.3 /001	Anomynous	2020	FRAC Code List 2020: Fungal control agents sorted by cross resistance pattern and mode of action (including FRAC Code numbering). available in the internet in Nov. 2020 under http://www.frac.info published	N	-
KCP 6.3 /002	Anomynous	2020	FRAC Pathogen List 2019. available in the internet in Nov. 2020 under http://www.frac.info published	N	-
KCP 6.3	FRAC SBI Working	2020	Minutes from Annual Meeting on January 24th, 2020, updated on September 23rd	N	-

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/003	Group		available on the internet in Nov. 2020 under http://www.frac.info and Minutes from Annual Meeting on September 21th, 2022, available on the internet in Nov. 2022 under http://www.frac.info published		
KCP 6.3 ~~/003~~ /004	Felsenstein, F.G.; Jaser, B.	2007	Fungizidresistenz bei pilzlichen Getreidepathogenen und Wirksamkeit der vertikalen (qualitativen) Mehltauresistenz bei Weizen und Gerste – Situationsbericht 2007. available in the internet in Nov. 2020 under http://www.epilogic.de published	N	-
KCP 6.3 ~~/004~~ /005	Felsenstein, F.G., Jaser,B.	2016	RESEARCH REPORT: Sensitivity of Septoria tritici in different regions of Europe towards prochloraz, tebuconazole, difenoconazole, propiconazole, and prothioconazole 2016. EpiLogic GmbH Agrobiol. Research and Consulting, Hohenbachernstr. 19-21, D-85354 Freising-Weihenstephan not published	N	ADAMA Agriculture
KCP 6.3 ~~/005~~ /006	Felsenstein, F.G., Jaser,B.	2017	RESEARCH REPORT: Sensitivity of Septoria tritici in different regions of Europe towards prochloraz, tebuconazole, difenoconazole and prothioconazole 2017. EpiLogic GmbH Agrobiol. Research and Consulting, Hohenbachernstr. 19-21, D-85354 Freising-Weihenstephan not published	N	ADAMA Agriculture
KCP 6.3 ~~/006~~ /007	Felsenstein, F.G., Jaser,B.	2018	RESEARCH REPORT: Sensitivity of Septoria tritici in different regions of Europe towards prochloraz, tebuconazole, difenoconazole and prothioconazole 2018. EpiLogic GmbH Agrobiol. Research and Consulting, Hohenbachernstr. 19-21, D-85354 Freising-Weihenstephan not published	N	ADAMA Agriculture
~~KCP 6.3 /007~~	~~FRAC SBI Working Group~~	~~2020~~	~~Minutes from Annual Meeting on January 24th, 2020, updated on September 23rd~~ ~~available on the internet in Nov. 2020 under http://www.frac.info~~ ~~published~~	~~N~~	~~-~~
KCP 6.3 /008	Leroux P., Walker A.S., Albertini C., Gredt M,	2006	Resistance to fungicides in European populations of Septoria tritici, the causal agent of wheat leaf blotch. Analysis of populations sent by MAKHTESHIM AGAN in 2006. INRA, Unité de Phytopharmacie et Médiateurs Chimiques 78026 Versailles Cedex, 2006; not published yet	N	-
KCP 6.3 ~~/008~~ /009	Heick T.M., Matzen N., Jørgensen L.N.	2020	Reduced field efficacy and sensitivity of demethylation inhibitors in the Danish and Swedish Zymoseptoria tritici populations. Eur. J. Plant Pathol. 157, 625–636; 2020 published	N	-

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KCP 6.3 ~~/009~~ /010	Heimbach U., Kral G., Niemann P.	2000	Implementation of resistance risk analysis of plant protection products in the German authorization procedure: Proceedings of the Brighton Crop Protection Conference - Pests and Diseases, pp 771-776, 2000 published	N	-
~~KCP 6.3 /010~~	~~Leroux P., Walker A.S., Albertini C., Gredt M,~~	~~2006~~	~~Resistance to fungicides in European populations of Septoria tritici, the causal agent of wheat leaf blotch. Analysis of populations sent by MAKHTESHIM AGAN in 2006. INRA, Unité de Phytopharmacie et Médiateurs Chimiques 78026 Versailles Cedex, 2006; not published yet~~	~~N~~	~~-~~
KCP 6.4.1 /005	Bauer, T.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in the Czech republic, 2020 InTec Agro / CZ20FETRZAW271B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /006	Benczés, B.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Hungary, 2020 CPR Europe Kft. / HU20FEHORVW421A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /007	Benczés, B.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW413A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /008	Bezdíčková, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in the Czech republic, 2020 Ditana spol. s r. o. / CZ20FEHORVS236B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /009	Botos, I.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccini*a ssp. on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW112C GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /010	Brož, M.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in the Czech Republic, 2019 ZZS Kujavy / CZ19FETTLSS212A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /011	Cáp, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on barley, Czech republic, 2018. ZS Nechanice / CZ18FEHORVX921A GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.1 /012	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in the Czech Republic, 2019 ZS Nechanice / CZ19FETRZAW200A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /013	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in the CZech Republic, 2019 ZS Nechanice / CZ19FETRZAW203A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /014	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in the Czech Republic, 2019 ZS Nechanice / CZ19FEHORVS206A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /015	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in the Czech Republic, 2019 ZS Nechanice / CZ19FEHORVW205B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /016	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in the Czech Republic, 2019 ZS Nechanice / CZ19FEHORVS207A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /017	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in the Czech Republic, 2019 ZS Nechanice / CZ19FETTLWI212B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /018	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on triticale in the Czech Republic, 2019 ZS Nechanice / CZ19FETTLWI213B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /019	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in the Czech Republic, 2019 ZS Nechanice / CZ19FETTLWI215A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /020	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in the Czech Republic, 2019	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			ZS Nechanice / CZ19FEAVESA216A GEP / not published		
KCP 6.4.1 /021	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in the Czech Republic, 2019 ZS Nechanice / CZ19FEAVESA216B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /022	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in the Czech republic, 2020 ZS Nechanice / CZ20FEHORVS273B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /023	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on triticale in the Czech republic, 2020 ZS Nechanice / CZ20FETTLWI243C GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /024	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in the Czech republic, 2020 ZS Nechanice / CZ20FETTLWI244B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /025	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in the Czech republic, 2020 ZS Nechanice / CZ20FEAVESA246A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /026	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in the Czech republic, 2020 ZS Nechanice / CZ20FEAVESA246C GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /027	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in the Czech republic, 2020 ZS Nechanice / CZ20FEHORVW236A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /040	Endres, U.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Germany in 2018. Hetterich Fieldworks / DE18FETRZAW919B GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.1 /041	Endres, U.	2019	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Germany in 2018. Hetterich Fieldworks / DE18FETRZAW920B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /042	Flahaut, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in FRANCE, 2020 STAPHYT France / FR20FETRZAW307A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /043	Forgacova, L.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Slovakia, 2020 BERBERIS s.r.o. / SK20FEHORVW238B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /044	Furman-Fratczak, K.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Poland in 2018. Biotek Agriculture / PL18FETRZAW020A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /045	Gajek, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on triticale in Poland, 2019 Agro Research Consulting / PL19FETTLSS426A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /047	Gezova, V.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in the Czech Republic, 2019 InTec Agro / CZ19FEHORVW207B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /048	Gezova, V.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in the Czech Republic, 2019 InTec Agro / CZ19FETTLSS214B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /052	Gulbis	2021	Efficacy evualtion of ADM.3502.F.1.A (MCW-2091) for *D.teres* control in spring barley in Latvia in 2019 LPPRC Riga / LV19FEHORVS484B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /054	Gulbis, K.	2019	Efficacy evualtion of ADM.3502.F.1.A (MCW-2091) for *Erysiphe graminis* control in winter wheat in Latvia in 2019 LPPRC Riga / LV19FETRZAX482A GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.1 /056	Gulbis, K.	2020	Efficacy evualtion of ADM.3502.F.1.A for *Blumeria graminis* control in winter barley in Latvia in 2020 LPPRC Riga / LV20FEHORVX476A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /058	Gulbis, K.	2020	Efficacy evualtion of ADM.3502.F.1.A for *Blumeria graminis* control in spring wheat in Latvia in 2020 LPPRC Riga / LV20FETRZAX473A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /061	Halmágyi, T.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW110A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /062	Halmágyi, T.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW112A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /063	Halmágyi, T.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia hordei* on barley, in Hungary in 2018. Syntech HU / HU18FEHORVW114B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /064	Heger, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in the Czech republic, 2020 Zemservis ZS Domaninek s.r.o. / CZ20FETTLWI243B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /065	Heger, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in the Czech republic, 2020 ZS Domanínek / CZ20FEHORVS237A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /066	Hetterich, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2019 Hetterich Fieldworks / DE19FETRZAW202B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /067	Hetterich, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in (Germany), 2019 Hetterich Fieldworks / DE19FETRZAW203B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /068	Hetterich, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in (Germany), 2019 Hetterich Fieldworks / DE19FEHORVW205B	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			GEP / not published		
KCP 6.4.1 /069	Hetterich, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in (Germany), 2019 Hetterich Fieldworks / DE19FEHORVW207B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /070	Hetterich, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in (Germany), 2019 Hetterich Fieldworks / DE19FETTLSS213B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /073	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis (*RHYNSE) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS239D GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /074	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS239E GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /075	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS240D GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /076	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS239C GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /077	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS240E GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /078	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS241E GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /079	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in (Germany), 2020	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			Hetterich Fieldworks / DE20FETTLSS243A GEP / not published		
KCP 6.4.1 /080	Holcikova, D.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on spring barley in Slovakia in 2018. Fyse Ltd./ SK18FEHORVS921A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /083	Hrabovsky, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in the Czech republic, 2020 ZZS Kujavy / CZ20FETTLWI243A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /084	Hrabovský, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, Czech republic, 2018. ZZS Kujavy / CZ18FETRZAW921B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /085	Hrabovský, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech Republic, 2019 ZZS Kujavy / CZ19FETRZAW201A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /086	Hrabovský, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on triticale in the Czech Republic, 2019 ZZS Kujavy / CZ19FETTLSS213A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /087	Hrabovský, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech republic, 2020 ZZS Kujavy / CZ20FETRZAW270A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /088	Hrabovský, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in the Czech republic, 2020 ZZS Kujavy / CZ20FETRZAW271A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /089	Hruška, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, Czech republic, 2018. ZS Trutnov / CZ18FETRZAW921A GEP / not published	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.1 /090	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech Republic, 2019 ZS Nechanice / CZ19FETRZAW201B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /091	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in the Czech Republic, 2019 ZS Nechanice / CZ19FETRZAW203B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /092	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in the Czech Republic, 2019 ZS Nechanice / CZ19FESECCW210A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /093	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in the Czech Republic, 2019 ZS Nechanice / CZ19FETTLWI214A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /094	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRE) on triticale in the Czech Republic, 2019 ZS Trutnov / CZ19FETTLWI215B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /095	Hruška, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in the Czech republic, 2020 ZS Trutnov / CZ20FETTLWI244A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /096	Hudec, K.; Mihóc, M.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Slovakia, 2020 Blumeria Consulting / SK20FEHORVW273B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /097	Hudec, K.; Mihóc, M.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Slovakia, 2020 Blumeria Consulting / SK20FETRZAW235B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /098	Hudec, K.; Mihóc, M.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Slovakia, 2020	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			Blumeria Consulting / SK20FETRZAW269B GEP / not published		
KCP 6.4.1 /103	Jovic, M.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2019 SynTech DE / DE19FETRZAW202E GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /104	Juhász, I.J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in Hungary, 2019 SGS Hungary / HU19FEHORVX111B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /105	Kolarik, P.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c*. (PUCCCO) on oat in the Czech republic, 2020 ZVU Kromeriz / CZ20FEAVESA246B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /106	Konvalinkova, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in the Czech Republic, 2019 ZS Nechanice / CZ19FEHORVW205A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /107	Kovacova Holicova, D.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Slovakia, 2020 Fyse Ltd. / SK20FEHORVW273A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /108	Kovacova Holicova, D.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Slovakia, 2020 Fyse Ltd. / SK20FETRZAW235A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /109	Kovacova, D.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Slovakia, 2020 Fyse Ltd. / SK20FEHORVW238A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /110	Kovacova, D.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Slovakia, 2020 Fyse Ltd. / SK20FETRZAW269A GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.1 /111	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Poland, 2019 AGRECO SP. Z O.O. / PL19FETRZAW416A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /112	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Poland, 2019 AGRECO SP. Z O.O. / PL19FETRZAW416B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /113	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Poland, 2019 AGRECO SP. Z O.O. / PL19FETRZAW419A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /114	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Poland, 2019 AGRECO SP. Z O.O. / PL19FETRZAW419B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /115	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Poland, 2019 AGRECO SP. Z O.O. / PL19FEHORVW421A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /116	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Poland, 2019 AGRECO SP. Z O.O. / PL19FEHORVW421B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /117	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Poland, 2019 AGRECO SP. Z O.O. / PL19FEHORVW424A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /118	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Poland, 2019 AGRECO SP. Z O.O. / PL19FEHORVW424B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /119	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe gramins* (ERYSGR) on titicale in Poland, 2019	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			AGRECO SP. Z O.O. / PL19FETTLSS426B GEP / not published		
KCP 6.4.1 /124	Labant, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Hungary, 2020 Növénypathyka / HU20FEHORVW421B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /127	Labusch, U.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Germany in 2018. BioChem Agrar / DE18FETRZAW919C GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /128	Labusch, U.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Germany in 2018. BioChem Agrar / DE18FETRZAW920C GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /129	Labusch, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in (Germany), 2019 BioChem Agrar / DE19FETRZAW203A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /130	Laug, S.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Germany in 2018. Hetterich Fieldworks / DE18FETRZAW921B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /146	Magyaróvári, V.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2019 Agrartest GmbH/ DE19FESECSS211E GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /147	Magyaróvári, V.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in (Germany), 2019 Agrartest GmbH / DE19FETTLSS215C GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /148	Magyaróvári, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in (Germany), 2020 Agrartest GmbH / DE20FETTLSS242C GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /149	Magyaróvári, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in (Germany), 2020 Agrartest GmbH / DE20FETTLSS244C	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			GEP / not published		
KCP 6.4.1 /150	Makó, I.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Hungary, 2019 Syntech HU / HU19FETRZAW113A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /151	Makó, I.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Hungary, 2019 Syntech HU / HU19FEHORVX113A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /153	Makó, I.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW412A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /154	Malovcova, L.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on spring barley in Slovakia in 2018. NPPC VURV Piestany / SK18FEHORVS921B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /155	Malovcova, L.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in Slovakia, 2020 NPPC VURV Piestany / SK20FEHORVS237A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /156	Malovcova, L.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Slovakia, 2020 NPPC VURV Piestany / SK20FETRZAW270A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /159	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in (Germany), 2019 Martin Feldversuchswesen / DE19FETRZAW200B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /160	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in (Germany), 2019 Martin Feldversuchswesen / DE19FETRZAW201C GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.1 /161	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2019 Martin Feldversuchswesen / DE19FETRZAW202D GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /162	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in (Germany), 2019 Martin Feldversuchswesen / DE19FETRZAW203C GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /163	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2019 Martin Feldversuchswesen / DE19FESECSS209D GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /164	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2019 Martin Feldversuchswesen / DE19FESECSS211D GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /165	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in (Germany), 2019 Martin Feldversuchswesen / DE19FETTLSS212B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /166	Martin, T.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2020 Martin Feldversuchswesen / DE20FETRZAW235B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /167	Martin, T.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in (country), 2020 Martin Feldversuchswesen / DE20FEAVESA246A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /168	Martin, T.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2020 Martin Feldversuchswesen / DE20FETRZAW235A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /173	Nagy, Z.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW112B GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.1 /174	Nagy, Z.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW114B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /175	Nagy, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Hungary, 2019 Syntech HU / HU19FETRZAW114A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /176	Nagy, Z.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW414B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /177	Nagy, Z.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in Hungary, 2020 CPR Europe Kft. / HU20FEHORVW420A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /180	Nagy, Z.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW411A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /181	Nagy, Z.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW410A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /182	Németh, S.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW114A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /183	Németh, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Hungary, 2019 Syntech HU / HU19FETRZAW111A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /184	Németh, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Hungary, 2019	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			Syntech HU / HU19FETRZAW110A GEP / not published		
KCP 6.4.1 /185	Németh, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Hungary, 2019 Syntech HU / HU19FEHORVX110A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /186	Németh, S.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Hungary, 2020 CPR Europe Kft. / HU20FEHORVW423A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /187	Németh, S.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Hungary, 2020 CPR Europe Kft. / HU20FEHORVW422B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /190	Olasz, L.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Hungary, 2020 CPR Europe Kft. / HU20FEHORVW422A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /191	Pawlak, A.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Poland in 2018. Staphyt Poland / PL18FETRZAW020B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /192	Pawlak, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Poland, 2019 Staphyt Poland / PL19FETRZAW420A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /193	Pawlak, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Poland, 2019 Staphyt Poland / PL19FETRZAW420B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /194	Pawlak, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in Poland 2019 Staphyt Poland / PL19FEHORVW422A GEP / not published	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.1 /195	Pawlak, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in Poland, 2019 Staphyt Poland / PL19FETTLSS427A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /200	Pawlak, A.	2021	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in Poland 2019 Staphyt Poland / PL19FEHORVW422B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /201	Perner, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Germany in 2018. U.A.S. Jena / DE18FETRZAW920D GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /202	Perner, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in (Germany), 2019 U.A.S. Jena / DE19FETRZAW200A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /203	Perner, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2019 U.A.S. Jena / DE19FETRZAW202C GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /204	Perner, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in (Germany), 2019 U.A.S. Jena / DE19FEHORVW208B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /205	Perner, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2019 U.A.S. Jena / DE19FESECSS211C GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /206	Perner, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2020 U.A.S. Jena / DE20FESECSS241D GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /207	Perner, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in (Germany), 2020 U.A.S. Jena / DE20FESECSS240C GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.1 /208	Perner, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in (Germany), 2020 U.A.S. Jena / DE20FETTLSS243B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /209	Rábai, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW413B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /214	Raue, C.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in (Germany), 2019 SynTech DE / DE19FEHORVW205C GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /215	Raue, C.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2019 SynTech DE / DE19FESECSS209E GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /216	Raue, C.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in (Germany), 2019 SynTech DE / DE19FETTLSS214C GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /224	Rohr, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Germany in 2018. Agrartest GmbH/ DE18FETRZAW919A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /225	Rohr, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Germany in 2018. Agrartest GmbH / DE18FETRZAW920A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /226	Rohr, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Germany in 2018. Agrartest GmbH / DE18FETRZAW921A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /227	Rohr, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on barley, in Germany in 2018. Agrartest GmbH / DE18FEHORVW921A GEP / not published	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.1 /228	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in (Germany), 2019 Trial-Tec / DE19FETRZAW201B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /229	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in (Germany), 2019 Trial-Tec / DE19FETRZAW204A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /230	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in (Germany), 2019 Trial-Tec / DE19FEHORVW206B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /231	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in (Germany), 2019 Trial-Tec / DE19FEHORVW208A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /232	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in (Germany), 2019 Trial-Tec / DE19FESECSS210C GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /233	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2019 Trial-Tec / DE19FESECSS209B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /234	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in (Germany), 2019 Trial-Tec / DE19FETTLSS213C GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /236	Ronis, A.	2020	Efficacy evualtion of ADM.3502.F.1.A for *Pyrenophora avenae* control in oat in Lithuania in 2020 IA LRC, Kedainiai / LT20FEAVESP480A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /237	Ronis, A.	2020	Efficacy evualtion of ADM.3502.F.1.A for *Pyrenophora avenae* control in oat in Lithuania in 2020 IA LRC, Kedainiai / LT20FEAVESP480B GEP / not published	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.1 /238	Roslapil, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in the Czech Republic, 2019 ZZS Kujavy / CZ19FEHORVS206B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /239	Roslapil, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in the Czech republic, 2020 ZZS Kujavy / CZ20FEHORVS238A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /240	Roslapil, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in the Czech republic, 2020 ZZS Kujavy / CZ20FEHORVS273A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /249	Rusek, K.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (DTR) on winter wheat in Poland, 2019 Fertico / PL19FETRZAW418A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /250	Rusek, K.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (DTR) on winter wheat in Poland, 2019 Fertico / PL19FETRZAW418B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /258	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Poland, 2019 Poznan University of Life Sciences / PL19FETRZAW417A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /259	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Poland, 2019 Poznan University of Life Sciences / PL19FETRZAW417B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /260	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Poland, 2019 Poznan University of Life Sciences / PL19FEHORVW423A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /261	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Poland, 2019 Poznan University of Life Sciences / PL19FEHORVW423B GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.1 /262	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in Poland, 2019 Poznan University of Life Sciences / PL19FETTLSS425A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /263	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in Poland, 2019 Poznan University of Life Sciences / PL19FETTLSS425B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /264	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in Poland, 2019 Poznan University of Life Sciences / PL19FETTLSS428A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /265	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in Poland, 2019 Poznan University of Life Sciences / PL19FETTLSS428B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /266	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in Poland, 2019 Poznan University of Life Sciences / PL19FETTLSS427B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /267	Semaskiene, R.	2018	Efficacy evaluation of different MCW-2091 formulations against *Blumeria graminis* on spring barley in Lithuania in 2018 IA LRC, Kedainiai / LT18FEHORVS929A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /268	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Hungary, 2019 SGS Hungary / HU19FETRZAW113B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /269	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Hungary, 2019 SGS Hungary / HU19FETRZAW110C GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /270	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Hungary, 2019 SGS Hungary / HU19FETRZAW112B GEP / not published	N	ADAMA agriculture

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KCP 6.4.1 /271	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Hungary, 2019 SGS Hungary / HU19FEHORVX110B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /272	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Hungary, 2019 SGS Hungary / HU19FEHORVX112B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /273	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Hungary, 2019 SGS Hungary / HU19FEHORVX113B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /274	Subr. J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in the Czech Republic, 2019 ZS Nechanice / CZ19FEHORVW206C GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /275	Subr. J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech republic, 2020 ZS Trutnov / CZ20FETRZAW270C GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /276	Teresiak, H.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in (Germany), 2020 Agro-check / DE20FETTLSS245C GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /277	Tóth, F.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Slovakia, 2020 GEMERPRODUKT Valice OVD / SK20FEHORVW236A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /278	Tóth, F.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Slovakia, 2020 GEMERPRODUKT Valice OVD / SK20FETRZAW272A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /279	Trojan, Z.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech republic, 2020 Zemservis ZS Domaninek s.r.o. / CZ20FETRZAW270B	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			GEP / not published		
KCP 6.4.1 /280	Tuna, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in ROMANIA, 2019 EAS Romania / RO19FETTLSS159A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /281	Tuna, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in ROMANIA, 2019 EAS Romania / RO19FETTLSS162A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /282	Tuna, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in ROMANIA, 2019 EAS Romania / RO19FETTLSS161A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /283	Tuna, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in Romania, 2019 EAS Romania / RO19FETTLSS160A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /296	Tvaruzek, L.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on barley, Czech republic, 2018. ZVU Kromeriz / CZ18FEHORVX921B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /297	Tvaruzek, L.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in the Czech Republic, 2019 ZVU Kromeriz / CZ19FETRZAW200B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /298	Tvaruzek, L.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in the Czech Republic, 2019 ZVU Kromeriz / CZ19FESECSS210B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /299	Vadász, Z.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on barley, in Hungary in 2018. Syntech HU / HU18FEHORVW114A GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.1 /300	Vadász, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Hungary, 2019 Syntech HU / HU19FETRZAW110B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /301	Vadász, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in Hungary, 2019 Syntech HU / HU19FEHORVX111A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /302	Vadász, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Hungary, 2019 Syntech HU / HU19FEHORVX112A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /303	Varga, A.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW110B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /307	Verikaite, K.	2019	Efficacy evualtion of ADM.3502.F.1.A (MCW-2091) for *B. graminis* control in spring barley in Lithuania in 2019 IA LRC, Kedainiai / LT19FEHORVS487A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /308	Verikaite, K.	2019	Efficacy evualtion of ADM.3502.F.1.A (MCW-2091) for *B. graminis* control in spring barley in Lithuania in 2019 IA LRC, Kedainiai / LT19FEHORVS487B GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /311	Von Hörsten, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in (Germany), 2019 FRS Wunstorf / DE19FEHORVW207D GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /312	Von Hörsten, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in (Germany), 2019 FRS Wunstorf / DE19FEAVESA216C GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /313	Wallart, F.	2019	Efficacy evaluation of ADM.3502.F.1.A. for the control of yellow rust (PUCCST) on winter wheat in France, 2019 SAS (SARL) EPHYDIA / FR19FETRZAX328A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /320	Wolf, P.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2020	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			Agricola / DE20FETRZAW235G GEP / not published		
KCP 6.4.1 /321	Wöllmann, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in (Germany), 2019 Agro-check / DE19FETRZAW204B(AC-19-096) GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /322	Wöllmann, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in (Germany), 2019 Agro-check / DE19FEHORVW208C_2(AC-19-097) GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /323	Zdenek, T.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in the Czech republic, 2020 ZS Domanínek / CZ20FEHORVS238B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /324	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2019 BioChem Agrar / DE19FETRZAW202A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /325	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in (Germany), 2019 BioChem Agrar / DE19FETRZAW201A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /326	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in (Germany), 2019 BioChem Agrar / DE19FEHORVW207A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /327	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in (Germany), 2019 BioChem Agrar / DE19FEHORVW205A GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /328	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in (Germany), 2019 BioChem Agrar / DE19FEHORVW206A GEP / not published	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.1 /329	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in (Germany), 2019 BioChem Agrar / DE19FEHORVW208D GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /330	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in (Germany), 2019 BioChem Agrar / DE19FESECSS210A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /331	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2019 BioChem Agrar / DE19FESECSS209A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /332	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2019 BioChem Agrar / DE19FESECSS211A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /333	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in (Germany), 2019 BioChem Agrar / DE19FETTLSS212A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /334	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in (Germany), 2019 BioChem Agrar / DE19FETTLSS215A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /335	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in (Germany), 2019 BioChem Agrar / DE19FETTLSS214A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /336	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in (Germany), 2019 BioChem Agrar / DE19FETTLSS213A GEP / not published	N	ADAMA agri-culture
KCP 6.4.1 /339	Zickart, U.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in Germany, 2020	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			BioChem Agrar / DE20FESECSS240B GEP / not published		
KCP 6.4.1 /340	Zickart, U.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2020 BioChem Agrar / DE20FESECSS239B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /341	Zickart, U.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2020 BioChem Agrar / DE20FESECSS241B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /342	Zöllner, H.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in (Germany), 2019 FRS Wunstorf / DE19FETTLSS212C GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /343	Zöllner, H.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in (Germany), 2020 FRS Wunstorf / DE20FEAVESA246C GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /344	Zsuzsanna, H.P.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Hungary, 2019 Növénypathyka / HU19FETRZAW114B GEP / not published	N	ADAMA agriculture
KCP 6.4.1 /345	Zsuzsanna, H.P.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Hungary, 2019 Növénypathyka / HU19FETRZAW111B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /004	Bauer, T.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in the Czech republic, 2020 InTec Agro / CZ20FETRZAW271B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /005	Benczés, B.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Hungary, 2020 CPR Europe Kft. / HU20FEHORVW421A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /006	Benczés, B.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Hungary, 2020	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			CPR Europe Kft. / HU20FETRZAW413A GEP / not published		
KCP 6.4.2 /007	Bezdíčková, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in the Czech republic, 2020 Ditana spol. s r. o. / CZ20FEHORVS236B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /008	Botos, I.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW112C GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /009	Brož, M.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in the Czech Republic, 2019 ZZS Kujavy / CZ19FETTLSS212A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /010	Cáp, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on barley, Czech republic, 2018. ZS Nechanice / CZ18FEHORVX921A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /011	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in the Czech Republic, 2019 ZS Nechanice / CZ19FETRZAW200A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /012	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in the CZech Republic, 2019 ZS Nechanice / CZ19FETRZAW203A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /013	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in the Czech Republic, 2019 ZS Nechanice / CZ19FEHORVS206A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /014	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in the Czech Republic, 2019 ZS Nechanice / CZ19FEHORVW205B GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.2 /015	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in the Czech Republic, 2019 ZS Nechanice / CZ19FEHORVS207A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /016	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in the Czech Republic, 2019 ZS Nechanice / CZ19FETTLWI212B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /017	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on triticale in the Czech Republic, 2019 ZS Nechanice / CZ19FETTLWI213B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /018	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in the Czech Republic, 2019 ZS Nechanice / CZ19FETTLWI215A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /019	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c*. (PUCCCO) on oat in the Czech Republic, 2019 ZS Nechanice / CZ19FEAVESA216A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /020	Cáp, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in the Czech Republic, 2019 ZS Nechanice / CZ19FEAVESA216B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /021	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in the Czech republic, 2020 ZS Nechanice / CZ20FEHORVS273B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /022	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on triticale in the Czech republic, 2020 ZS Nechanice / CZ20FETTLWI243C GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /023	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in the Czech republic, 2020	N	ADAMA agri-culture

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			ZS Nechanice / CZ20FETTLWI244B GEP / not published		
KCP 6.4.2 /024	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in the Czech republic, 2020 ZS Nechanice / CZ20FEAVESA246A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /025	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in the Czech republic, 2020 ZS Nechanice / CZ20FEAVESA246C GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /026	Cáp, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in the Czech republic, 2020 ZS Nechanice / CZ20FEHORVW236A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /031	Endres, U.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Germany in 2018. Hetterich Fieldworks / DE18FETRZAW919B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /032	Endres, U.	2019	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Germany in 2018. Hetterich Fieldworks / DE18FETRZAW920B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /033	Flahaut, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in FRANCE, 2020 STAPHYT France / FR20FETRZAW307A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /034	Forgacova, L.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Slovakia, 2020 BERBERIS s.r.o. / SK20FEHORVW238B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /035	Furman-Fratczak, K.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Poland in 2018. Biotek Agriculture / PL18FETRZAW020A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /036	Gajek, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on triticale in Poland, 2019 Agro Research Consulting / PL19FETTLSS426A	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			GEP / not published		
KCP 6.4.2 /038	Gezova, V.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in the Czech Republic, 2019 InTec Agro / CZ19FEHORVW207B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /039	Gezova, V.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in the Czech Republic, 2019 InTec Agro / CZ19FETTLSS214B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /041	Gulbis	2021	Efficacy evualtion of ADM.3502.F.1.A (MCW-2091) for *D.teres* control in spring barley in Latvia in 2019 LPPRC Riga / LV19FEHORVS484B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /043	Gulbis, K.	2019	Efficacy evualtion of ADM.3502.F.1.A (MCW-2091) for *Erysiphe graminis* control in winter wheat in Latvia in 2019 LPPRC Riga / LV19FETRZAX482A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /045	Gulbis, K.	2020	Efficacy evualtion of ADM.3502.F.1.A for *Blumeria graminis* control in winter barley in Latvia in 2020 LPPRC Riga / LV20FEHORVX476A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /047	Gulbis, K.	2020	Efficacy evualtion of ADM.3502.F.1.A for *Blumeria graminis* control in spring wheat in Latvia in 2020 LPPRC Riga / LV20FETRZAX473A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /050	Halmágyi, T.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW110A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /051	Halmágyi, T.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW112A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /052	Halmágyi, T.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia hordei* on barley, in Hungary in 2018. Syntech HU / HU18FEHORVW114B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /053	Heger, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in the Czech republic, 2020 Zemservis ZS Domaninek s.r.o. / CZ20FETTLWI243B	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			GEP / not published		
KCP 6.4.2 /054	Heger, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in the Czech republic, 2020 ZS Domanínek / CZ20FEHORVS237A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /055	Hetterich, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2019 Hetterich Fieldworks / DE19FETRZAW202B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /056	Hetterich, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in (Germany), 2019 Hetterich Fieldworks / DE19FETRZAW203B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /057	Hetterich, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in (Germany), 2019 Hetterich Fieldworks / DE19FEHORVW205B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /058	Hetterich, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in (Germany), 2019 Hetterich Fieldworks / DE19FEHORVW207B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /059	Hetterich, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in (Germany), 2019 Hetterich Fieldworks / DE19FETTLSS213B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /062	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS239D GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /063	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS239E GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /064	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in (Germany), 2020	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			Hetterich Fieldworks / DE20FESECSS240D GEP / not published		
KCP 6.4.2 /065	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS239C GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /066	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS240E GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /067	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2020 Hetterich Fieldworks / DE20FESECSS241E GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /068	Hetterich, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in (Germany), 2020 Hetterich Fieldworks / DE20FETTLSS243A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /069	Holcikova, D.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on spring barley in Slovakia in 2018. Fyse Ltd./ SK18FEHORVS921A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /072	Hrabovsky, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in the Czech republic, 2020 ZZS Kujavy / CZ20FETTLWI243A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /073	Hrabovský, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, Czech republic, 2018. ZZS Kujavy / CZ18FETRZAW921B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /074	Hrabovský, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech Republic, 2019 ZZS Kujavy / CZ19FETRZAW201A GEP / not published	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.2 /075	Hrabovský, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on triticale in the Czech Republic, 2019 ZZS Kujavy / CZ19FETTLSS213A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /076	Hrabovský, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech republic, 2020 ZZS Kujavy / CZ20FETRZAW270A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /077	Hrabovský, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in the Czech republic, 2020 ZZS Kujavy / CZ20FETRZAW271A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /078	Hruška, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, Czech republic, 2018. ZS Trutnov / CZ18FETRZAW921A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /079	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech Republic, 2019 ZS Nechanice / CZ19FETRZAW201B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /080	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in the Czech Republic, 2019 ZS Nechanice / CZ19FETRZAW203B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /081	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in the Czech Republic, 2019 ZS Nechanice / CZ19FESECCW210A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /082	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in the Czech Republic, 2019 ZS Nechanice / CZ19FETTLWI214A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /083	Hruška, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRE) on triticale in the Czech Republic, 2019	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			ZS Trutnov / CZ19FETTLWI215B GEP / not published		
KCP 6.4.2 /084	Hruška, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in the Czech republic, 2020 ZS Trutnov / CZ20FETTLWI244A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /085	Hudec, K.; Mihóc, M.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Slovakia, 2020 Blumeria Consulting / SK20FEHORVW273B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /086	Hudec, K.; Mihóc, M.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Slovakia, 2020 Blumeria Consulting / SK20FETRZAW235B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /087	Hudec, K.; Mihóc, M.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Slovakia, 2020 Blumeria Consulting / SK20FETRZAW269B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /092	Jovic, M.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2019 SynTech DE / DE19FETRZAW202E GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /093	Juhász, I.J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in Hungary, 2019 SGS Hungary / HU19FEHORVX111B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /094	Kolarik, P.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in the Czech republic, 2020 ZVU Kromeriz / CZ20FEAVESA246B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /095	Konvalinkova, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in the Czech Republic, 2019 ZS Nechanice / CZ19FEHORVW205A GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.2 /096	Kovacova Holicova, D.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Slovakia, 2020 Fyse Ltd./ SK20FEHORVW273A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /097	Kovacova Holicova, D.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Slovakia, 2020 Fyse Ltd./ SK20FETRZAW235A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /098	Kovacova, D.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Slovakia, 2020 Fyse Ltd./ SK20FEHORVW238A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /099	Kovacova, D.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Slovakia, 2020 Fyse Ltd./ SK20FETRZAW269A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /100	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Poland, 2019 AGRECO SP. Z O.O. / PL19FETRZAW416A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /101	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Poland, 2019 AGRECO SP. Z O.O. / PL19FETRZAW416B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /102	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Poland, 2019 AGRECO SP. Z O.O. / PL19FETRZAW419A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /103	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Poland, 2019 AGRECO SP. Z O.O. / PL19FETRZAW419B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /104	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Poland, 2019 AGRECO SP. Z O.O. / PL19FEHORVW421A	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			GEP / not published		
KCP 6.4.2 /105	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Poland, 2019 AGRECO SP. Z O.O. / PL19FEHORVW421B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /106	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Poland, 2019 AGRECO SP. Z O.O. / PL19FEHORVW424A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /107	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Poland, 2019 AGRECO SP. Z O.O. / PL19FEHORVW424B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /108	Kukula, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis (*ERYSGR) on titicale in Poland, 2019 AGRECO SP. Z O.O. / PL19FETTLSS426B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /113	Labant, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Hungary, 2020 Növénypathyka / HU20FEHORVW421B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /116	Labusch, U.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Germany in 2018. BioChem Agrar / DE18FETRZAW919C GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /117	Labusch, U.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Germany in 2018. BioChem Agrar / DE18FETRZAW920C GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /118	Labusch, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in (Germany), 2019 BioChem Agrar / DE19FETRZAW203A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /119	Laug, S.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Germany in 2018. Hetterich Fieldworks / DE18FETRZAW921B GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.2 /129	Magyaróvári, V.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2019 Agrartest GmbH / DE19FESECSS211E GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /130	Magyaróvári, V.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in (Germany), 2019 Agrartest GmbH / DE19FETTLSS215C GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /131	Magyaróvári, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in (Germany), 2020 Agrartest GmbH / DE20FETTLSS242C GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /132	Magyaróvári, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in (Germany), 2020 Agrartest GmbH / DE20FETTLSS244C GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /133	Makó, I.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Hungary, 2019 Syntech HU / HU19FETRZAW113A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /134	Makó, I.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Hungary, 2019 Syntech HU / HU19FEHORVX113A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /136	Makó, I.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW412A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /137	Malovcova, L.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on spring barley in Slovakia in 2018. NPPC VURV Piestany / SK18FEHORVS921B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /138	Malovcova, L.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in Slovakia, 2020	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			NPPC VURV Piestany / SK20FEHORVS237A GEP / not published		
KCP 6.4.2 /139	Malovcova, L.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Slovakia, 2020 NPPC VURV Piestany / SK20FETRZAW270A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /142	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in (Germany), 2019 Martin Feldversuchswesen / DE19FETRZAW200B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /143	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in (Germany), 2019 Martin Feldversuchswesen / DE19FETRZAW201C GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /144	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2019 Martin Feldversuchswesen / DE19FETRZAW202D GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /145	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in (Germany), 2019 Martin Feldversuchswesen / DE19FETRZAW203C GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /146	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2019 Martin Feldversuchswesen / DE19FESECSS209D GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /147	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2019 Martin Feldversuchswesen / DE19FESECSS211D GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /148	Martin, T.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in (Germany), 2019 Martin Feldversuchswesen / DE19FETTLSS212B GEP / not published	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.2 /149	Martin, T.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2020 Martin Feldversuchswesen / DE20FETRZAW235B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /150	Martin, T.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c*. (PUCCCO) on oat in (country), 2020 Martin Feldversuchswesen / DE20FEAVESA246A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /151	Martin, T.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2020 Martin Feldversuchswesen / DE20FETRZAW235A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /154	Nagy, Z.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW112B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /155	Nagy, Z.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW114B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /156	Nagy, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Hungary, 2019 Syntech HU / HU19FETRZAW114A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /157	Nagy, Z.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW414B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /158	Nagy, Z.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in Hungary, 2020 CPR Europe Kft. / HU20FEHORVW420A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /161	Nagy, Z.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW411A GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.2 /162	Nagy, Z.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW410A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /163	Németh, S.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW114A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /164	Németh, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Hungary, 2019 Syntech HU / HU19FETRZAW111A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /165	Németh, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Hungary, 2019 Syntech HU / HU19FETRZAW110A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /166	Németh, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Hungary, 2019 Syntech HU / HU19FEHORVX110A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /167	Németh, S.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Hungary, 2020 CPR Europe Kft. / HU20FEHORVW423A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /168	Németh, S.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Hungary, 2020 CPR Europe Kft. / HU20FEHORVW422B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /171	Olasz, L.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Hungary, 2020 CPR Europe Kft. / HU20FEHORVW422A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /172	Pawlak, A.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Poland in 2018.	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			Staphyt Poland / PL18FETRZAW020B GEP / not published		
KCP 6.4.2 /173	Pawlak, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Poland, 2019 Staphyt Poland / PL19FETRZAW420A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /174	Pawlak, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Poland, 2019 Staphyt Poland / PL19FETRZAW420B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /175	Pawlak, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in Poland 2019 Staphyt Poland / PL19FEHORVW422A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /176	Pawlak, A.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in Poland, 2019 Staphyt Poland / PL19FETTLSS427A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /181	Pawlak, A.	2021	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in Poland 2019 Staphyt Poland / PL19FEHORVW422B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /182	Perner, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Germany in 2018. U.A.S. Jena / DE18FETRZAW920D GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /183	Perner, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in (Germany), 2019 U.A.S. Jena / DE19FETRZAW200A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /184	Perner, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2019 U.A.S. Jena / DE19FETRZAW202C GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /185	Perner, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in (Germany), 2019	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			U.A.S. Jena / DE19FEHORVW208B GEP / not published		
KCP 6.4.2 /186	Perner, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2019 U.A.S. Jena / DE19FESECSS211C GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /187	Perner, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2020 U.A.S. Jena / DE20FESECSS241D GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /188	Perner, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in (Germany), 2020 U.A.S. Jena / DE20FESECSS240C GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /189	Perner, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in (Germany), 2020 U.A.S. Jena / DE20FETTLSS243B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /190	Rábai, A.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Hungary, 2020 CPR Europe Kft. / HU20FETRZAW413B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /195	Raue, C.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in (Germany), 2019 SynTech DE / DE19FEHORVW205C GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /196	Raue, C.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2019 SynTech DE / DE19FESECSS209E GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /197	Raue, C.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in (Germany), 2019 SynTech DE / DE19FETTLSS214C GEP / not published	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.2 /202	Rohr, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Germany in 2018. Agrartest GmbH / DE18FETRZAW919A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /203	Rohr, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Puccinia* ssp. on wheat, in Germany in 2018. Agrartest GmbH / DE18FETRZAW920A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /204	Rohr, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* on wheat, in Germany in 2018. Agrartest GmbH / DE18FETRZAW921A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /205	Rohr, J.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on barley, in Germany in 2018. Agrartest GmbH / DE18FEHORVW921A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /206	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in (Germany), 2019 Trial-Tec / DE19FETRZAW201B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /207	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in (Germany), 2019 Trial-Tec / DE19FETRZAW204A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /208	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in (Germany), 2019 Trial-Tec / DE19FEHORVW206B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /209	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in (Germany), 2019 Trial-Tec / DE19FEHORVW208A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /210	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in (Germany), 2019 Trial-Tec / DE19FESECSS210C GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.2 /211	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2019 Trial-Tec / DE19FESECSS209B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /212	Rohr, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in (Germany), 2019 Trial-Tec / DE19FETTLSS213C GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /214	Ronis, A.	2020	Efficacy evualtion of ADM.3502.F.1.A for *Pyrenophora avenae* control in oat in Lithuania in 2020 IA LRC, Kedainiai / LT20FEAVESP480A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /215	Ronis, A.	2020	Efficacy evualtion of ADM.3502.F.1.A for *Pyrenophora avenae* control in oat in Lithuania in 2020 IA LRC, Kedainiai / LT20FEAVESP480B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /216	Roslapil, J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in the Czech Republic, 2019 ZZS Kujavy / CZ19FEHORVS206B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /217	Roslapil, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in the Czech republic, 2020 ZZS Kujavy / CZ20FEHORVS238A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /218	Roslapil, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in the Czech republic, 2020 ZZS Kujavy / CZ20FEHORVS273A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /223	Rusek, K.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (DTR) on winter wheat in Poland, 2019 Fertico / PL19FETRZAW418A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /224	Rusek, K.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (DTR) on winter wheat in Poland, 2019 Fertico / PL19FETRZAW418B GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.2 /232	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Poland, 2019 Poznan University of Life Sciences / PL19FETRZAW417A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /233	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Poland, 2019 Poznan University of Life Sciences / PL19FETRZAW417B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /234	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Poland, 2019 Poznan University of Life Sciences / PL19FEHORVW423A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /235	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Poland, 2019 Poznan University of Life Sciences / PL19FEHORVW423B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /236	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in Poland, 2019 Poznan University of Life Sciences / PL19FETTLSS425A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /237	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in Poland, 2019 Poznan University of Life Sciences / PL19FETTLSS425B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /238	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in Poland, 2019 Poznan University of Life Sciences / PL19FETTLSS428A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /239	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in Poland, 2019 Poznan University of Life Sciences / PL19FETTLSS428B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /240	Sawinska, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in Poland, 2019 Poznan University of Life Sciences / PL19FETTLSS427B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /241	Semaskiene, R.	2018	Efficacy evaluation of different MCW-2091 formulations against *Blumeria graminis* on spring barley in Lithuania in 2018 IA LRC, Kedainiai / LT18FEHORVS929A	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			GEP / not published		
KCP 6.4.2 /242	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Hungary, 2019 SGS Hungary / HU19FETRZAW113B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /243	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Hungary, 2019 SGS Hungary / HU19FETRZAW110C GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /244	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Hungary, 2019 SGS Hungary / HU19FETRZAW112B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /245	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Hungary, 2019 SGS Hungary / HU19FEHORVX110B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /246	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Hungary, 2019 SGS Hungary / HU19FEHORVX112B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /247	SGS Hungária Kft.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Hungary, 2019 SGS Hungary / HU19FEHORVX113B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /248	Subr. J.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in the Czech Republic, 2019 ZS Nechanice / CZ19FEHORVW206C GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /249	Subr. J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech republic, 2020 ZS Trutnov / CZ20FETRZAW270C GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /250	Teresiak, H.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in (Germany), 2020	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			Agro-check / DE20FETTLSS245C GEP / not published		
KCP 6.4.2 /251	Tóth, F.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Slovakia, 2020 GEMERPRODUKT Valice OVD / SK20FEHORVW236A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /252	Tóth, F.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Slovakia, 2020 GEMERPRODUKT Valice OVD / SK20FETRZAW272A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /253	Trojan, Z.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in the Czech republic, 2020 Zemservis ZS Domaninek s.r.o. / CZ20FETRZAW270B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /254	Tuna, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in ROMANIA, 2019 EAS Romania / RO19FETTLSS159A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /255	Tuna, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in ROMANIA, 2019 EAS Romania / RO19FETTLSS162A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /256	Tuna, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in ROMANIA, 2019 EAS Romania / RO19FETTLSS161A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /257	Tuna, V.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in Romania, 2019 EAS Romania / RO19FETTLSS160A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /270	Tvaruzek, L.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on barley, Czech republic, 2018. ZVU Kromeriz / CZ18FEHORVX921B GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.2 /271	Tvaruzek, L.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in the Czech Republic, 2019 ZVU Kromeriz / CZ19FETRZAW200B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /272	Tvaruzek, L.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in the Czech Republic, 2019 ZVU Kromeriz / CZ19FESECSS210B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /273	Vadász, Z.	2018	Efficacy evaluation of different MCW-2091 formulation against *Blumeria graminis* and/or *Puccinia hordei* on barley, in Hungary in 2018. Syntech HU / HU18FEHORVW114A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /274	Vadász, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in Hungary, 2019 Syntech HU / HU19FETRZAW110B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /275	Vadász, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe gramins* (ERYSGH) on barley in Hungary, 2019 Syntech HU / HU19FEHORVX111A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /276	Vadász, Z.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Hungary, 2019 Syntech HU / HU19FEHORVX112A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /277	Varga, A.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in Hungary in 2018. Syntech HU / HU18FETRZAW110B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /279	Verikaite, K.	2019	Efficacy evualtion of ADM.3502.F.1.A (MCW-2091) for *B. graminis* control in spring barley in Lithuania in 2019 IA LRC, Kedainiai / LT19FEHORVS487A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /280	Verikaite, K.	2019	Efficacy evualtion of ADM.3502.F.1.A (MCW-2091) for *B. graminis* control in spring barley in Lithuania in 2019 IA LRC, Kedainiai / LT19FEHORVS487B GEP / not published	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.2 /281	Von Hörsten, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c.* (PUCCCO) on oat in (Germany), 2019 FRS Wunstorf / DE19FEAVESA216C GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /282	Wallart, F.	2019	Efficacy evaluation of ADM.3502.F.1.A. for the control of yellow rust (PUCCST) on winter wheat in France, 2019 SAS (SARL) EPHYDIA / FR19FETRZAX328A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /285	Wolf, P.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2020 Agricola / DE20FETRZAW235G GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /286	Wöllmann, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in (Germany), 2019 Agro-check / DE19FETRZAW204B(AC-19-096) GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /287	Wöllmann, S.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in (Germany), 2019 Agro-check / DE19FEHORVW208C_2(AC-19-097) GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /288	Zdenek, T.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in the Czech republic, 2020 ZS Domanínek / CZ20FEHORVS238B GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /289	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora tritici-repentis* (PYRNTR (DTR)) on winter wheat in (Germany), 2019 BioChem Agrar / DE19FETRZAW202A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /290	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in (Germany), 2019 BioChem Agrar / DE19FETRZAW201A GEP / not published	N	ADAMA agri-culture
KCP 6.4.2 /291	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in (Germany), 2019 BioChem Agrar / DE19FEHORVW207A GEP / not published	N	ADAMA agri-culture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.4.2 /292	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in (Germany), 2019 BioChem Agrar / DE19FEHORVW205A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /293	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in (Germany), 2019 BioChem Agrar / DE19FEHORVW206A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /294	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in (Germany), 2019 BioChem Agrar / DE19FEHORVW208D GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /295	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in (Germany), 2019 BioChem Agrar / DE19FESECSS210A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /296	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2019 BioChem Agrar / DE19FESECSS209A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /297	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2019 BioChem Agrar / DE19FESECSS211A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /298	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in (Germany), 2019 BioChem Agrar / DE19FETTLSS212A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /299	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on triticale in (Germany), 2019 BioChem Agrar / DE19FETTLSS215A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /300	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on triticale in (Germany), 2019	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			BioChem Agrar / DE19FETTLSS214A GEP / not published		
KCP 6.4.2 /301	Zickart, U.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on titicale in (Germany), 2019 BioChem Agrar / DE19FETTLSS213A GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /304	Zickart, U.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGR) on rye in Germany, 2020 BioChem Agrar / DE20FESECSS240B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /305	Zickart, U.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on rye in (Germany), 2020 BioChem Agrar / DE20FESECSS239B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /306	Zickart, U.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia recondita* (PUCCRR) on rye in (Germany), 2020 BioChem Agrar / DE20FESECSS241B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /307	Zöllner, H.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTSP) on triticale in (Germany), 2019 FRS Wunstorf / DE19FETTLSS212C GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /308	Zöllner, H.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia c*. (PUCCCO) on oat in (Germany), 2020 FRS Wunstorf / DE20FEAVESA246C GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /309	Zsuzsanna, H.P.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Hungary, 2019 Növénypathyka / HU19FETRZAW114B GEP / not published	N	ADAMA agriculture
KCP 6.4.2 /310	Zsuzsanna, H.P.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Hungary, 2019 Növénypathyka / HU19FETRZAW111B GEP / not published	N	ADAMA agriculture

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.5.1 (filed in KCP 10.6.1/01)	Kästner, K.	2020a	Effects of ADM.03502.F.1.A on seedling emergence and seedling growth of six non-target terrestrial plant species under greenhouse conditions Report no.: 2046PSE0007, Sponsor no.: 000104852 BioChem agrar, Machern/Gerichshain, Germany GLP Unpublished	N	ADAMA agri-culture
KCP 6.5.2 (filed in KCP 10.6.1/02)	Kästner, K.	2020b	Effects of ADM.03502.F.1.A on vegetative vigour of six non-target terrestrial plant species under greenhouse conditions Report no.: 2035CRX0012, Sponsor no.: 000104853 BioChem agrar, Machern/Gerichshain, Germany GLP Unpublished	N	ADAMA agri-culture

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

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

List of data submitted by the applicant and not relied on

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2/003	BAROU, JL	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in France, 2019 Agrotest France / FR19FEHORVX317D GEP / not published	N	ADAMA agriculture
KCP 6.2/004	BAROU, JL	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) on barley in France, 2019	N	ADAMA agriculture

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
			Agrotest France / FR19FEHORVX317E GEP / not published		
KCP 6.2/028	Caprio, G.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Italy, 2020 Biofarm S.r.l. / IT20FETRZAW348D GEP / not published	N	ADAMA agriculture
KCP 6.2 /029	Caprio, G.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Italy, 2020 Biofarm S.r.l. / IT20FETRZAW349D GEP / not published	N	ADAMA agriculture
KCP 6.2/032	Desogus, S.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Italy, 2020 SAGEA / IT20FETRZAW346A GEP / not published	N	ADAMA agriculture
KCP 6.2/033	Desogus, S.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in Italy, 2020 SAGEA / IT20FEHORVW350A GEP / not published	N	ADAMA agriculture
KCP 6.2/034	Desogus, S.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Piedmont - Italy, 2020 SAGEA / IT20FEHORVW351A GEP / not published	N	ADAMA agriculture
KCP 6.2/035	Desogus, S.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia striiformis* (PUCCST) on winter wheat in Italy, 2020 SAGEA / IT20FETRZAW348A GEP / not published	N	ADAMA agriculture
KCP 6.2/036	Desogus, S.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Italy, 2020 SAGEA / IT20FETRZAW349A GEP / not published	N	ADAMA agriculture
KCP 6.2/037	Desogus, S.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Italy, 2020 SAGEA / IT20FETRZAW347A GEP / not published	N	ADAMA agriculture

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.1/014 6.2/049	GOUAILLE, L.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown leaf rust (PUCCRE) and *Septoria tritici* (SEPTTR) on winter wheat in France, 2019 Biotek Agriculture France / FR19FETRZAX328B GEP / not published	N	ADAMA agriculture
KCP 6.2/050	GOUAILLE, L.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in France, 2019 Biotek Agriculture France / FR19FETRZAX328C GEP / not published	N	ADAMA agriculture
KCP 6.2/053	Gulbis, K.	2019	Efficacy evualtion of ADM.3502.F.1.A (MCW-2091) for *Septoria tritici* control in winter wheat in Latvia in 2019 LPPRC Riga / LV19FETRZAW483A GEP / not published	N	ADAMA agriculture
KCP 6.2/055	Gulbis, K.	2019	Efficacy evaluation of ADM.3502.F.1.A (MCW-2091) for *D.teres* control in spring barley in Latvia in 2019 LPPRC Riga / LV19FEHORVS484A GEP / not published	N	ADAMA agriculture
KCP 6.2/057	Gulbis, K.	2020	Efficacy evualtion of ADM.3502.F.1.A for *Puccinia hordei* control in spring barley in Latvia in 2020 LPPRC Riga / LV20FEHORVX477A GEP / not published	N	ADAMA agriculture
KCP 6.2/059	Gulbis, K.	2020	Efficacy evualtion of ADM.3502.F.1.A for *Zymoseptoria tritici* control in winter wheat in Latvia in 2020 LPPRC Riga / LV20FETRZAX474A GEP / not published	N	ADAMA agriculture
KCP 6.2/060	Gulbis, K.	2020	Efficacy evualtion of ADM.3502.F.1.A for *Pyrenophora tritici-repentis* control in winter wheat in Latvia in 2020 LPPRC Riga / LV20FETRZAX475A GEP / not published	N	ADAMA agriculture
KCP 6.2/099	Jørgensen, L.N.	2020	Efficacy: Control of PUCCST in winter wheat ADM.3502.F.1.A. in Denmark in 2020 University of Aarhus / DK20FETRZAX212A GEP / not published	N	ADAMA agriculture
KCP 6.2/100	Jørgensen, L.N.	2020	Efficacy: Control of PUCCST in winter wheat ADM.3502.F.1.A., in Denmark in 2020 University of Aarhus / DK20FETRZAX212B GEP / not published	N	ADAMA agriculture

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2/101	Jørgensen, L.N.	2020	Control of ERYSGT in winter wheat ADM.3502.F.1.A, in Denmark in 2020 University of Aarhus / DK20FETRZAX211A GEP / not published	N	ADAMA agriculture
KCP 6.2/102	Jørgensen, L.N.	2021	Efficacy: Control of RHYNSE and PUCCHD in winter barley ADM.3502.F.1.A in Denmark in 2020 University of Aarhus / DK20FEHORVX213A GEP / not published	N	ADAMA agriculture
KCP 6.2/131	Legros, C.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in France in 2018. SAS (SARL) EPHYDIA / FR18FETRZAX340A GEP / not published	N	ADAMA agriculture
KCP 6.2/132	Legros, C.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria* (SEPTTR/LEPTNO) on wheat, in France in 2018. SAS (SARL) EPHYDIA / FR18FETRZAX342B GEP / not published	N	ADAMA agriculture
KCP 6.2/134	Lombart, L.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in France, 2020 SAS (SARL) EPHYDIA / FR20FETRZAW306A GEP / not published	N	ADAMA agriculture
KCP 6.2/135	Lopolito, P.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Italy, 2020 ProAGRI S.r.l. / IT20FETRZAW346C GEP / not published	N	ADAMA agriculture
KCP 6.2/136	Lopolito, P.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Italy, 2020 ProAGRI S.r.l. / IT20FETRZAW348C GEP / not published	N	ADAMA agriculture
KCP 6.2 /137	Lopolito, P.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Italy, 2020 ProAGRI S.r.l. / IT20FETRZAW349C GEP / not published	N	ADAMA agriculture
KCP 6.2 /138	Lopolito, P.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Italy, 2020 ProAGRI S.r.l. / IT20FETRZAW347C GEP / not published	N	ADAMA agriculture

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2 /141	LUNZENFICHTER, C.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in France in 2018. QUALIPHYT / FR18FETRZAX340C GEP / not published	N	ADAMA agriculture
KCP 6.2/142	LUNZENFICHTER, C.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on wheat, in France in 2018. QUALIPHYT / FR18FETRZAX340D GEP / not published	N	ADAMA agriculture
KCP 6.2/144	Lunzenfichter, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in France, 2019. QUALIPHYT / FR19FETRZAX326A GEP / not published	N	ADAMA agriculture
KCP 6.2/145	Lunzenfichter, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in France, 2019. QUALIPHYT / FR19FETRZAX326B GEP / not published	N	ADAMA agriculture
KCP 6.2/157	Marchi, D.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Italy, 2020 Agri 2000 / IT20FEHORVW351B GEP / not published	N	ADAMA agriculture
KCP 6.2/158	Marchi, D.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Blumeria graminis tritici* (ERYSGT) on winter wheat in Italy, 2020 Agri 2000 / IT20FETRZAW347B GEP / not published	N	ADAMA agriculture
KCP 6.2/169	Moreno, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in Spain, 2020 AGROTECNICA DEL SUR / SP20FEHORVW340C GEP / not published	N	ADAMA agriculture
KCP 6.2/172	Moreno, J.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Spain 2020 AGROTECNICA DEL SUR / SP20FETRZAW337A GEP / not published	N	ADAMA agriculture
KCP 6.2/211	Ramanauskiene, J.	2020	Efficacy evualtion of ADM.3502.F.1.A (MCW-2091) for *Blumeria graminis* control in winter wheat in Lithuania in 2019 IA LRC, Kedainiai / LT19FETRZAW486A GEP / not published	N	ADAMA agriculture

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2/212	Rancane, R.	2018	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* on winter wheat in Latvia in 2018 LPPRC Riga / LV18FETRZAW917A GEP / not published	N	ADAMA agriculture
KCP 6.1/057 6.2/213	Rancane, R.	2018	Efficacy evaluation of different MCW-2091 formulations against *Blumeria graminis* on winter wheat in Latvia in 2018 LPPRC Riga / LV18FETRZAW918A GEP / not published	N	ADAMA agriculture
KCP 6.2/219	Rivet, J.; Crepin, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Rhynchosporium secalis* (RHYNSE) on barley in France, 2019 Essais+ / FR19FEHORVX316A GEP / not published	N	ADAMA agriculture
KCP 6.2/220	Rivet, J.; Crepin, D.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of Net blotch (PYRNTE) on barley in France, 2019 Essais+ / FR19FEHORVS318A GEP / not published	N	ADAMA agriculture
KCP 6.1/074 6.2/241	ROUANE, W.	2019	Efficacy evaluation of different MCW-2091 formulation against *Septoria tritici* (SEPTTR) on wheat, in France in 2018. ANADIAG FRANCE / FR18FETRZAX341C GEP / not published	N	ADAMA agriculture
KCP 6.2/243	ROUANE, W.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Erysiphe graminis* (ERYSGH) and *Rhynchosporium secalis* (RHYNSE) on barley in France, 2019 ANADIAG FRANCE / FR19FEHORVX317B GEP / not published	N	ADAMA agriculture
KCP 6.2/244	ROUANE, W.	2019	Efficacy evaluation of ADM.3502.F.1.A for the control of *Pyrenophora graminea* (PYRNGR) on barley in France, 2019 ANADIAG FRANCE / FR19FEHORVX317A GEP / not published	N	ADAMA agriculture
KCP 6.2/245	Rugiano, M.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of *Septoria tritici* (SEPTTR) on winter wheat in Italy, 2020 Agri 2000 / IT20FETRZAW346B GEP / not published	N	ADAMA agriculture

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.2/246	Rugiano, M.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Brown rust (PUCCRT) on winter wheat in Italy, 2020 Agri 2000 / IT20FETRZAW349B GEP / not published	N	ADAMA agriculture
KCP 6.2/247	Rugiano, M.	2020	Efficacy evaluation of ADM.3502.F.1.A for the control of Yellow rust (PUCCST) on winter wheat in Italy, 2020 Agri 2000 / IT20FETRZAW348B GEP / not published	N	ADAMA agriculture
KCP 6.2/248	Rugiano, M.	2021	Efficacy evaluation of ADM.3502.F.1.A for the control of *Puccinia hordei* (PUCCHD) on barley in Italy 2020 Agri 2000 / IT20FEHORVW352B GEP / not published	N	ADAMA agriculture

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

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

Appendix 2 Critical Uses – justification and GAP tables

GAP rev. ?, date: ??/??/201?

PPP (product name/code)	ADM.3502.F.1.A	Formulation type:	EC (Emulsifiable concentrate)
active substance 1	Prothioconazole	Conc. of as 1:	175 g/L
active substance 2	Fenpropidin	Conc. of as 2:	250 g/L
active substance 3		Conc. of as 3:	
safener		Conc. of safener:	
synergist		Conc. of synergist:	
Applicant:	ADAMA Polska Sp.z.o.o	professional use	☒
Zone(s):	Central /EU	non professional use	☐

Verified by MS: yes ?

1	2	3	4	5	6	7	8	10	11	12	13	14
Use-N°	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F G 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. safener/synergist per ha e.g. recommended or mandatory tank mixtures
					Method / Kind	Timing / Growth stage of crop & season	Max. number (min. interval between applications) a) per use b) per crop/ season	kg, L product / 100 kg seed a) max. rate per appl. b) max. total rate per crop/season	g as / ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max		
1	Germany	Winter wheat (TRZAW) Spring wheat (TRZAS)	F	Septoria tritici Erysiphe graminis Drechslera tritici-repentis (DTR) Puccinia striiformis Puccinia recondita	foliar, spraying, overall	/ BBCH 30-65 spring	a) 1 b) 1	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		
2	Germany	Winter barley (HORVW) Spring barley (HORVS)	F	Erysiphe graminis Rhynchosporium secalis Helminthosporium gramineum (Pyrenophora teres) Puccinia hordei	foliar, spraying, overall	/ BBCH 30-65 spring	a) 1 b) 1	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		

1	2	3	4	5	6	7	8	10	11	12	13	14
Use-N°	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F G 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. safener/synergist per ha e.g. recommended or mandatory tank mixtures
					Method / Kind	Timing / Growth stage of crop & season	Max. number (min. interval between applications) a) per use b) per crop/ season	kg, L product / 100 kg seed a) max. rate per appl. b) max. total rate per crop/season	g as / ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max		
3	Germany	Rye (SECCW)	F	Erysiphe graminis Rhynchosporium secalis Puccinia recondita	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		
4	Germany	Triticale (TTLSS)	F	Erysiphe graminis Septoria tritici Puccinia recondita Puccinia striiformis	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		
5	Germany	Oats (AVESS)	F	Erysiphe graminis Puccinia coronata	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		

1	2	3	4	5	6	7	8	10	11	12	13	14
Use-N°	**Member state(s)**	**Crop and/ or situation** **(crop destination / purpose of crop)**	**F G 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. safener/synergist per ha e.g. recommended or mandatory tank mixtures
					Method / Kind	Timing / Growth stage of crop & season	Max. number (min. interval between applications) a) per use b) per crop/ season	kg, L product / 100 kg seed a) max. rate per appl. b) max. total rate per crop/season	g as / ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max		
6	Austria	Winter wheat (TRZAW) Spring wheat (TRZAS)	F	Septoria tritici Erysiphe graminis Drechslera tritici-repentis (DTR) Puccinia striiformis Puccinia recondita	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		
7	Austria	Winter barley (HORVW) Spring barley (HORVS)	F	Erysiphe graminis Rhynchosporium secalis Helminthosporium gramineum (Pyrenophora teres) Puccinia hordei	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		

1	2	3	4	5	6	7	8	10	11	12	13	14
Use-N°	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F G 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. safener/synergist per ha e.g. recommended or mandatory tank mixtures
					Method / Kind	Timing / Growth stage of crop & season	Max. number (min. interval between applications) a) per use b) per crop/ season	kg, L product / 100 kg seed a) max. rate per appl. b) max. total rate per crop/season	g as / ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max		
8	Austria	Rye (SECCW)	F	Erysiphe graminis Rhynchosporium secalis Puccinia recondita	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		
9	Austria	Triticale (TTLSS)	F	Erysiphe graminis Septoria tritici Puccinia recondita Puccinia striiformis	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		
10	Austria	Oats (AVESS)	F	Erysiphe graminis Puccinia coronata	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		

1	2	3	4	5	6	7	8	10	11	12	13	14					
Use-N°	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F G 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. safener/synergist per ha e.g. recommended or mandatory tank mixtures					
					Method / Kind	Timing / Growth stage of crop & season	Max. number (min. interval between applications) a) per use b) per crop/ season	kg, L product / 100 kg seed a) max. rate per appl. b) max. total rate per crop/season	g as / ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max							
11	Belgium			Winter wheat (TRZAW) Spring wheat (TRZAS)		F	Septoria tritici Erysiphe graminis Puccinia striiformis Puccinia recondita	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1		a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400				
12	Belgium			Winter barley (HORVW) Spring barley (HORVS)		F	Erysiphe graminis Rhynchosporium secalis Helminthosporium gramineum (Pyrenophora teres) Puccinia hordei	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1		a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400				
13	Belgium			Rye (SECCW)		F	Erysiphe graminis Rhynchosporium secalis Puccinia recondita	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1		a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400				

1	2	3	4	5	6	7	8	10	11	12	13	14				
Use-N°	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F G 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. safener/synergist per ha e.g. recommended or mandatory tank mixtures				
					Method / Kind	Timing / Growth stage of crop & season	Max. number (min. interval between applications) a) per use b) per crop/ season	kg, L product / 100 kg seed a) max. rate per appl. b) max. total rate per crop/season	g as / ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max						
14	Belgium			Triticale (TTLSS)		F	Erysiphe graminis Septoria tritici Puccinia recondita Puccinia striiformis	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1		a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		
15	Belgium			Oats (AVESS)		F	Erysiphe graminis Puccinia coronata	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1		a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		
16	Netherlands			Winter wheat (TRZAW) Spring wheat (TRZAS)		F	Septoria tritici Erysiphe graminis Puccinia striiformis Puccinia recondita	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1		a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		

1	2	3	4	5	6	7	8	10	11	12	13	14				
Use-N°	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F G 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. safener/synergist per ha e.g. recommended or mandatory tank mixtures				
					Method / Kind	Timing / Growth stage of crop & season	Max. number (min. interval between applications) a) per use b) per crop/ season	kg, L product / 100 kg seed a) max. rate per appl. b) max. total rate per crop/season	g as / ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max						
17	Netherlands			Winter barley (HORVW) Spring barley (HORVS)		F	Erysiphe graminis Rhynchosporium secalis Helminthosporium gramineum (Pyrenophora teres) Puccinia hordei	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1		a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		
18	Netherlands			Rye (SECCW)		F	Erysiphe graminis Rhynchosporium secalis Puccinia recondita	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1		a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		
19	Netherlands			Triticale (TTLSS)		F	Erysiphe graminis Septoria tritici Puccinia recondita Puccinia striiformis	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1		a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		

1	2	3	4	5	6	7	8	10	11	12	13	14				
Use-N°	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F G 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. safener/synergist per ha e.g. recommended or mandatory tank mixtures				
					Method / Kind	Timing / Growth stage of crop & season	Max. number (min. interval between applications) a) per use b) per crop/ season	kg, L product / 100 kg seed a) max. rate per appl. b) max. total rate per crop/season	g as / ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max						
20	Netherlands			Oats (AVESS)		F	Erysiphe graminis Puccinia coronata	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1		a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		
21	Czechia			Winter wheat (TRZAW) Spring wheat (TRZAS)		F	Septoria tritici Erysiphe graminis Puccinia striiformis Puccinia recondita	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1		a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		
22	Czechia			Winter barley (HORVW) Spring barley (HORVS)		F	Erysiphe graminis Rhynchosporium secalis Helminthosporium gramineum (Pyrenophora teres) Puccinia hordei	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1		a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		

1	2	3	4	5	6	7	8	10	11	12	13	14				
Use-N°	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F G 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. safener/synergist per ha e.g. recommended or mandatory tank mixtures				
					Method / Kind	Timing / Growth stage of crop & season	Max. number (min. interval between applications) a) per use b) per crop/ season	kg, L product / 100 kg seed a) max. rate per appl. b) max. total rate per crop/season	g as / ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max						
23	Poland			Winter wheat (TRZAW) Spring wheat (TRZAS)		F	Septoria tritici Erysiphe graminis Drechslera tritici-repentis (DTR) Puccinia striiformis Puccinia recondita	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			
24	Poland			Winter barley (HORVW) Spring barley (HORVS)		F	Erysiphe graminis Rhynchosporium secalis Helminthosporium gramineum (Pyrenophora teres) Puccinia hordei	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400			

1	2	3	4	5	6	7	8	10	11	12	13	14				
Use-№	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F G 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. safener/synergist per ha e.g. recommended or mandatory tank mixtures				
					Method / Kind	Timing / Growth stage of crop & season	Max. number (min. interval between applications) a) per use b) per crop/ season	kg, L product / 100 kg seed a) max. rate per appl. b) max. total rate per crop/season	g as / ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max						
25	Poland			Triticale (TTLSS)		F	Erysiphe graminis Septoria tritici Puccinia recondita Puccinia striiformis	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1		a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		
26	Hungary			Winter wheat (TRZAW) Spring wheat (TRZAS)		F	Septoria tritici Erysiphe graminis Puccinia striiformis Puccinia recondita	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1		a) 0.8 – 1 L/ha b) 0.8 - 1 L/ha	a) 140-175 / 200-250 b) 140-175 / 200-250	100-400		

1	2	3	4	5	6	7	8	10	11	12	13	14
Use-Nº	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F G 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. safener/synergist per ha e.g. recommended or mandatory tank mixtures
					Method / Kind	Timing / Growth stage of crop & season	Max. number (min. interval between applications) a) per use b) per crop/ season	kg, L product / 100 kg seed a) max. rate per appl. b) max. total rate per crop/season	g as / ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max		
27	Hungary	Winter barley (HORVW) Spring barley (HORVS)	F	Erysiphe graminis Rhynchosporium secalis Helminthosporium gramineum (Pyrenophora teres) Puccinia hordei	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 0.8 – 1 L/ha b) 0.8 – 1 L/ha	a) 140-175 / — 200-250 b) 140-175 / — 200-250	100-400		
28	Slovakia	Winter wheat (TRZAW) Spring wheat (TRZAS)	F	Septoria tritici Erysiphe graminis Puccinia striiformis Puccinia recondita	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 0.8 – 1 L/ha b) 0.8 – 1 L/ha	a) 140-175 / — 200-250 b) 140-175 / — 200-250	100-400		

1	2	3	4	5	6	7	8	10	11	12	13	14
Use-N°	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F G 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. safener/synergist per ha e.g. recommended or mandatory tank mixtures
					Method / Kind	Timing / Growth stage of crop & season	Max. number (min. interval between applications) a) per use b) per crop/ season	kg, L product / 100 kg seed a) max. rate per appl. b) max. total rate per crop/season	g as / ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max		
29	Slovakia	Winter barley (HORVW) Spring barley (HORVS)	F	Erysiphe graminis Rhynchosporium secalis Helminthosporium gramineum (Pyrenophora teres) Puccinia hordei	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 0.8 - 1 L/ha b) 0.8 - 1 L/ha	a) 140-175 / 200-250 b) 140-175 / 200-250	100-400		
106	Ireland	Winter wheat (TRZAW) Spring wheat (TRZAS)	F	Septoria tritici Erysiphe graminis Drechslera tritici-repentis (DTR) Puccinia striiformis Puccinia recondita	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		

1	2	3	4	5	6	7	8	10	11	12	13	14
Use-Nº	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)	F G 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. safener/synergist per ha e.g. recommended or mandatory tank mixtures
					Method / Kind	Timing / Growth stage of crop & season	Max. number (min. interval between applications) a) per use b) per crop/ season	kg, L product / 100 kg seed a) max. rate per appl. b) max. total rate per crop/season	g as / ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max		
107	Ireland	Winter barley (HORVW) Spring barley (HORVS)	F	Erysiphe graminis Rhynchosporium secalis Helmin-thosporium gramineum (Pyrenophora teres) Puccinia hordei	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		
108	Ireland	Rye (SECCW)	F	Erysiphe graminis Rhynchosporium secalis Puccinia recondita	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		
109	Ireland				Triticale (TTLSS)			F	Erysiphe graminis Septoria tritici Puccinia recondita Puccinia striiformis	foliar, spraying, overall	-/ BBCH 30-65 spring	a) 1 b) 1	a) 1 L/ha b) 1 L/ha	a) 175 / 250 b) 175 / 250	100-400		

1	2	3		4	5	6	7	8	10	11	12	13	14			
Use-N°	Member state(s)	Crop and/ or situation (crop destination / purpose of crop)		F G 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. safener/synergist per ha e.g. recommended or mandatory tank mixtures			
						Method / Kind	Timing / Growth stage of crop & season	Max. number (min. interval between applications) a) per use b) per crop/ season	kg, L product / 100 kg seed a) max. rate per appl. b) max. total rate per crop/season	g as / ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max					
110		Ireland	Oats (AVESS)	F	Erysiphe graminis Puccinia coronata	foliar, spraying, overall	-/ BBCH 30-65 spring		a) 1 b) 1	a) 1 L/ha b) 1 L/ha		a) 175 / 250 b) 175 / 250	100-400			