

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

Product code: GLOB2111F

Product name(s): Starinta

Chemical active substance:

Bixafen, 125 g/L

Central Zone  
Zonal Rapporteur Member State: Poland

**CORE ASSESSMENT**  
(authorization)

Applicant: Globachem N.V.

zRMS Assessment : 09/08/2024

Version after commenting : 15/11/2024

MS Finalisation date: 12/12/2024 corrected 29/04/2025

## Version history

When	What
August 2024	zRMS assesment
November 2024	zRMS: after first round of commenting
April 2025	zRMS correction

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

This document is to be used by the applicant of a plant protection product for authorization at Member State level. It has been designed to provide guidance on the preparation of Part B, Section 3 (Efficacy Data and Information) of the draft registration report (dRR) and on the information required specifically for this section. The guidance is applicable to the core assessment and the national addenda (if submitted).

Notes: Text shaded turquoise provides general information/support and should be deleted when the document is finalized. Text highlighted in yellow should be changed as specified; it shows example text. Explanation may be added and text that is not relevant may be removed.

Tables are provided as examples and may be adapted to suit the product being evaluated (columns can be added or deleted). Moreover, some tables are not relevant for all products or all submission types and can be added or deleted.

Fields shaded in grey are reserved for Member State assessors and should not be filled in by the applicant.

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

The process chosen by the zRMS to transform the dRR into a RR should be explained. Options are to rewrite the document (with track change or not) or to use commenting boxes such as the following:

Comments of zRMS:	The commenting boxes are filled-in by the zRMS. They are usually placed at the end of each chapter. Commenting boxes should be understandable alone and refer very precisely to the text commented. The main advantage of their use is to distinguish easily between the applicant and the zRMS text.
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#### 3.1 Summary and conclusions of zRMS on Section 3: Efficacy (KCP 6)

##### Abstract

GLOB2111F contains 125g/L of the active substance bixafen. It is formulated as an emulsifiable concentrate (EC). It is to be used as a fungicide in cereals. The proposed maximum rate of the product is 1.0 L/ha with a maximum of one applications per crop/season with a water content of 100 – 300 L/ha.

##### Minimum effective dose:

Based on the results of trials in the Maritime, North East and South East zones, the 1.0 l/ha dose of GLOB2111F provided the optimum overall reduction and should be considered an acceptable solution for the major cereal diseases claimed.

##### Efficacy tests

For all uses the evaluation is to be confirmed by relevant cMS based on their experience with similar substances and their national possibilities for extrapolation.

Most of the requested of uses are not supported by a sufficient number of trials to meet EPPO requirements PP 1/226 (3). This is because there are not enough efficacy trials that fits the proposed applied uses with one application. Typically, two treatments of GLOB2111F have been made, exceeding the recommendations proposed in the GAP. Where possible, results obtained after the first application (0-DAB) were included in this evaluation. Where data are available, GLOB2111F applied at the target rate of 1.0 L/ha



provided satisfactory but mostly moderate levels of control, particularly in terms of disease intensity. The efficacy of GLOB2111F was variable and consistently lower than the standard products tested.

Approval is also sought for GLOB2111F at a range of timings from T1 to T3 (BBCH 30-69). As most of the trials have been conducted at the early application timing (T1), ~~zRMS believes that the use of GLOB2111F should be restricted to the early application timing (T1).~~ An exception is the application against *Fusarium* spp. where the product was applied at T3.

Like all other SDHIs, GLOB2111F must only be used as a tank-mix partner with no cross-resistance to this product. For PL, further data are required for the use of GLOB2111F in combination with other fungicides (tank-mix partners) according to the claimed uses. This would consist of at least three fully supportive trials for each tank-mix partner demonstrating acceptable levels of infestation and disease control of SEPTTR on wheat and RHYNSE on barley.

**Yield and Yield parameters:**

The data summarized across all EPPO climatic zones confirmed that GLOB2111F applied at the proposed label rate of 1.0 L/ha with a maximum of one application per season had no adverse effect on yield and yield quality parameters

**Information on possible occurrence of the development of resistance:**

The applicant addresses all points of the EPPO Standard PP 1/213 (Resistance risk analysis) to evaluate the possible actual resistance risk of Bixafen. Based on FRAC assessment the applicant stated the risk of resistance for bixafen as medium to high and a special resistance management system must be used for the application of the product.

As with all SDHIs, GLOB2111F must only be used as a tank-mix partner with no cross-resistance to this product.

**Phytotoxicity to host crop:**

Phytotoxicity symptoms in crops tested caused by the application of GLOB2111F were not observed in any of the efficacy trials reported by the applicant.

**Adverse effects on succeeding or adjacent crops:**

GLOB2111F had no adverse effects on the crops tested as observed in germination or vegetative vigour tests with any of the plant species. GLOB2111F does not pose a risk to succeeding or adjacent crops and justifies the recommendation of no restrictions on succeeding or adjacent crops when using GLOB2111F.

**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. (e)	Member state(s)	Crop and/ or situation  (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled  (additionally: develop- mental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks:  e.g. g saf- ener/synergist per ha (i)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. num- ber a) per use b) per crop/ season	Min. inter- val between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
Zonal uses (field or outdoor uses, certain types of protected crops)														
1	PL	Winter wheat <i>Triticum aestivum</i> winter / <i>Triticum durum</i> winter (TRZAW/TRZDW)	F	<i>Puccinia striiformis</i> (PUC CST) <i>Zymoseptoria tritici</i> (SEPTTR) <i>Parastagonospora nodorum</i> (LEPTNO) <i>Puccinia recondita</i> (PUCCRE) <i>Blumeria graminis</i> (ERYSGR)	Normal down-ward spraying	BBCH 30 – 61 <del>BBCH 30—33</del>	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		R
2	CZ, HU, RO	Winter wheat <i>Triticum aestivum</i> winter / <i>Triticum durum</i> winter (TRZAW/TRZDW)	F	<i>Puccinia striiformis</i> (PUC CST) <i>Zymoseptoria tritici</i> (SEPTTR) <i>Parastagonospora nodorum</i> (LEPTNO) <i>Puccinia recondita</i> (PUCCRE) <i>Blumeria graminis</i> (ERYSGR)	Normal down-ward spraying	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	<del>100–300</del> 100 - 400	/	TRZDW: minor crop in CZ & RO	HU: SEPTTR (moderate control)  C
3	PL	Winter wheat <i>Triticum aestivum</i> winter / <i>Triticum durum</i> winter (TRZAW/TRZDW)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down-ward spraying	BBCH 61—69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	<del>100–300</del>	/		
4	CZ, HU, RO	Winter wheat <i>Triticum aestivum</i>	F	<i>Fusarium sp.</i> (FUSASP)	Normal down-	BBCH 61 – 69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125		/	TRZDW: minor crop in CZ &	HU

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation  (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled  (additionally: develop- mental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks:  e.g. g saf- ener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. num- ber a) per use b) per crop/ season	Min. inter- val between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
		winter / Triticum durum winter (TRZAW/TRZDW)			ward spraying						<del>100-300</del> 100 - 400		RO	C
5	PL	Winter barley <i>Hordeum vulgare</i> winter (HORVW)	F	<i>Puccinia hordei</i> (PUCCHD) <i>Pyrenophora teres</i> (PYRNTE) <i>Rhynchosporium secalis</i> (RHYNSE) <i>Blumeria graminis</i> (ERYSGR) <i>Ramularia collo-cygni</i> (RAMUCC)	Normal down- ward spraying	BBCH 30 – 61 <del>BBCH 30–33</del>	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		R
6	CZ, HU, RO	Winter barley <i>Hordeum vulgare</i> winter (HORVW)	F	<i>Puccinia hordei</i> (PUCCHD) <i>Pyrenophora teres</i> (PYRNTE) <i>Rhynchosporium secalis</i> (RHYNSE) <i>Blumeria graminis</i> (ERYSGR) <i>Ramularia collo-cygni</i> (RAMUCC)	Normal down- ward spraying	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	<del>100-300</del> 100 - 400	/		HU: PYRNTE, RHYNSE, RAMUCC
7	PL	Winter barley <i>Hordeum vulgare</i> winter (HORVW)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100-300			
8	CZ, HU, RO	Winter barley <i>Hordeum vulgare</i> winter (HORVW)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		C
9	PL	Winter rye	F	<i>Rhynchosporium secalis</i> (RHYNSE)	Normal down-	BBCH 30 – 61 <del>BBCH 30–33</del>	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		R

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation  (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled  (additionally: develop- mental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks:  e.g. g saf- ener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. num- ber a) per use b) per crop/ season	Min. inter- val between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	kg as/ha  a) max. rate per appl. b) max. total rate per crop/season	Water L/ha  min / max			
		<i>Secale cereale</i> win- ter (SECCW)		<i>Puccinia recondita</i> (PUCCRE) <i>Blumeria graminis</i> (ERYSGR)	ward spraying									
10	CZ, HU	Winter rye <i>Secale cereale</i> win- ter (SECCW)	F	<i>Rhynchosporium secalis</i> (RHYNSE) <i>Puccinia recondita</i> (PUCCRE) <i>Blumeria graminis</i> (ERYSGR)	Normal down- ward spraying	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	<del>100-300</del> 100 - 400	/		HU: RHYNSE
11	PL	<del>Winter rye</del> <del><i>Secale cereale</i> win- ter</del> (SECCW)	<del>F</del>	<del><i>Fusarium sp.</i> (FUSASP)</del>	<del>Normal</del> <del>down- ward spraying</del>	<del>BBCH 61 – 69</del>	<del>a) 1 b) 1</del>	<del>/</del>	<del>a) 1 b) 1</del>	<del>a) 0.125 b) 0.125</del>	<del>100-300</del>	<del>/</del>		
12	CZ, HU	Winter rye <i>Secale cereale</i> win- ter (SECCW)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61 – 69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		C
13	PL	Triticale winter <i>Triticale sp. winter</i> (TTLWI)	F	<i>Rhynchosporium secalis</i> (RHYNSE) <i>Parastagonospora</i> <i>nodorum</i> (LEPTNO) <i>Puccinia striiformis</i> (PUCCST) <i>Zymoseptoria tritici</i> (SEPTTR) <i>Blumeria graminis</i> (ERYSGR)	Normal down- ward spraying	BBCH 30 – 61 <del>BBCH 30 – 33</del>	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		R
14	CZ, HU	Triticale winter <i>Triticale sp. winter</i>	F	<i>Rhynchosporium secalis</i> (RHYNSE)	Normal down-	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125		/		HU: SEPTTR

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation  (crop destination / purpose of crop)  (TTLWI)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled  (additionally: develop- mental stages of the pest or pest group)  <i>Parastagonospora nodorum</i> (LEPTNO) <i>Puccinia striiformis</i> (PUCCST) <i>Zymoseptoria tritici</i> (SEPTTR) <i>Blumeria graminis</i> (ERYSGR)	Application				Application rate			PHI (days)	Remarks:  e.g. g saf- ener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. num- ber a) per use b) per crop/ season	Min. inter- val between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
					ward spraying						100-300  100 - 400			
15	PL	Triticale-winter <i>Triticale sp. winter</i> (TTLWI)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61—69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100-300	/		
16	CZ, HU	Triticale winter <i>Triticale sp. winter</i> (TTLWI)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61 – 69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100-300  100 - 400	/		HU
17	PL	Oats-winter <i>Avena sativa</i> (AVESW)	F	<i>Blumeria graminis</i> (ERYSGR) <i>Puccinia coronata var.</i> <i>avenae</i> (PUCCCA) <i>Pyrenophora</i> <i>chaetomioides</i> (PYRNAV)	Normal down- ward spraying	BBCH 30—61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100-300	/		
18	CZ, HU, RO	Oats winter <i>Avena sativa</i> (AVESW), AVESA	F	<i>Blumeria graminis</i> (ERYSGR) <i>Puccinia coronata var.</i> <i>avenae</i> (PUCCCA) <i>Pyrenophora</i> <i>chaetomioides</i> (PYRNAV)	Normal down- ward spraying	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100-300  100 - 400	/		HU: PYRNAV

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation  (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled  (additionally: develop- mental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks:  e.g. g saf- ener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. num- ber a) per use b) per crop/ season	Min. inter- val between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	kg as/ha  a) max. rate per appl. b) max. total rate per crop/season	Water L/ha  min / max			
19	PL	Oats-winter <i>Avena sativa</i> (AVESW)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100-300	/		
20	CZ, RO	Oats winter <i>Avena sativa</i> (AVESW)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100-300  100 - 400	/		HU
21	PL	Spring wheat <i>Triticum aestivum</i> spring/ <i>Triticum</i> <i>durum</i> winter. (TRZAS/TRZDS)	F	<i>Puccinia striiformis</i> (PUCST) <i>Zymoseptoria tritici</i> (SEPTTR) <i>Parastagonospora</i> <i>nodorum</i> (LEPTNO) <i>Puccinia recondita</i> (PUCCRE) <i>Blumeria graminis</i> (ERYSGR)	Normal down- ward spraying	BBCH 30-61 BBCH 30-33	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100-300	/		
22	CZ, HU, RO	Spring wheat <i>Triticum aestivum</i> spring/ <i>Triticum</i> <i>durum</i> winter. (TRZAS/TRZDS)	F	<i>Puccinia striiformis</i> (PUCST) <i>Zymoseptoria tritici</i> (SEPTTR) <i>Parastagonospora</i> <i>nodorum</i> (LEPTNO) <i>Puccinia recondita</i> (PUCCRE) <i>Blumeria graminis</i> (ERYSGR)	Normal down- ward spraying	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100-300  100 - 400	/	TRZDW: minor crop in CZ & RO	HU: SEPTTR (moderate control)
23	PL	Spring-wheat <i>Triticum aestivum</i> spring/ <i>Triticum</i>	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward	BBCH 61-69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100-300	/		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation  (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled  (additionally: develop- mental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks:  e.g. g saf- ener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. num- ber a) per use b) per crop/ season	Min. inter- val between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	kg as/ha  a) max. rate per appl. b) max. total rate per crop/season	Water L/ha  min / max			
		<del>durum spring- (TRZAS/TRZDS)</del>			<del>spraying</del>									
24	CZ, HU, RO	Spring wheat <i>Triticum aestivum</i> spring/ <i>Triticum</i> <i>durum</i> spring. (TRZAS/TRZDS)	F	<i>Fusarium</i> sp. (FUSASP)	Normal down- ward spraying	BBCH 61 – 69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	<del>100–300</del>  100 - 400	/	TRZDW: minor crop in CZ & RO	HU:
25	PL	Spring barley <i>Hordeum vulgare</i> spring (HORVS)	F	<del><i>Puccinia hordei</i> (PUCCHD)</del> <del><i>Pyrenophora teres</i> (PYR- NTE)</del> <i>Rhynchosporium secalis</i> (RHYNSE) <del><i>Blumeria graminis</i> (ERYSGR)</del> <del><i>Ramularia collo-cygni</i> (RAMUCC)</del>	Normal down- ward spraying	BBCH 30 – 61 <del>BBCH 30–33</del>	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100-300	/		R
26	CZ, HU, RO	Spring barley <i>Hordeum vulgare</i> spring (HORVS)	F	<i>Puccinia hordei</i> (PUCCHD) <i>Pyrenophora teres</i> (PYR- NTE) <i>Rhynchosporium secalis</i> (RHYNSE) <i>Blumeria graminis</i> (ERYSGR) <i>Ramularia collo-cygni</i> (RAMUCC)	Normal down- ward spraying	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	<del>100–300</del>  100 - 400	/		HU: PYRNTE, RHYNSE, RAMUCC
27	PL	<del>Spring barley <i>Hordeum vulgare</i> spring (HORVS)</del>	F	<del><i>Fusarium</i> sp. (FUSASP)</del>	<del>Normal down- ward spraying</del>	<del>BBCH 61</del>	<del>a) 1 b) 1</del>	<del>/</del>	<del>a) 1 b) 1</del>	<del>a) 0.125 b) 0.125</del>	<del>100–300</del>	<del>/</del>		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation  (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled  (additionally: develop- mental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks:  e.g. g saf- ener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. num- ber a) per use b) per crop/ season	Min. inter- val between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	kg as/ha  a) max. rate per appl. b) max. total rate per crop/season	Water L/ha  min / max			
28	CZ, HU, RO	Spring barley <i>Hordeum vulgare</i> spring (HORVS)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		C
29	CZ, HU	Spring rye <i>Secale cereale</i> spring (SECCS)	F	<i>Rhynchosporium secalis</i> (RHYNSE) <i>Puccinia recondita</i> (PUCCRE) <i>Blumeria graminis</i> (ERYSGR)	Normal down- ward spraying	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	<del>100-300</del> 100 - 400	/		HU: RHYNSE
30	CZ, HU	Spring rye <i>Secale cereale</i> spring (SECCS)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61 – 69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		C
31	PL	Triticale spring <i>Triticale sp. spring</i> (TTLSO)	F	<i>Rhynchosporium secalis</i> (RHYNSE) <i>Parastagonospora</i> <i>nodorum</i> (LEPTNO) <i>Puccinia striiformis</i> (PUCCST) <i>Zymoseptoria tritici</i> (SEPTTR) <i>Blumeria graminis</i> (ERYSGR)	Normal down- ward spraying	BBCH 30 – 61 BBCH 30 – 33	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	<del>100-300</del>	/		
32	CZ, HU	Triticale spring <i>Triticale sp. spring</i> (TTLSO)	F	<i>Rhynchosporium secalis</i> (RHYNSE)	Normal down- ward	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	<del>100-300</del> 100 - 400	/		HU: SEPTTR



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation  (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled  (additionally: develop- mental stages of the pest or pest group)  <i>Parastagonospora nodorum</i> (LEPTNO) <i>Puccinia striiformis</i> (PUCCST) <i>Zymoseptoria tritici</i> (SEPTTR) <i>Blumeria graminis</i> (ERYSGR)	Application				Application rate			PHI (days)	Remarks:  e.g. g saf- ener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. num- ber a) per use b) per crop/ season	Min. inter- val between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
					spraying									
33	PL	Triticale-spring <i>Triticale sp. spring</i> (TTLSO)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61—69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100–300	/		
34	CZ, HU	Triticale spring <i>Triticale sp. spring</i> (TTLSO)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61 – 69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100–300  100 - 400	/		HU
35	PL	Oats-spring <i>Avena sativa</i> (AVESP)	F	<i>Blumeria graminis</i> (ERYSGR) <i>Puccinia coronata var. avenae</i> (PUCCCA) <i>Pyrenophora chaetomioides</i> (PYRNAV)	Normal down- ward spraying	BBCH 30—61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100–300	/		
36	PL	Oats-spring <i>Avena sativa</i> (AVESP)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100–300	/		
37	PL	Spelt <i>Triticum spelta</i> (TRZSP)	F	<i>Puccinia recondita</i> (PUCCRE) <i>Puccinia striiformis</i> (PUCCST)	Normal down- ward spraying	BBCH 30 – 61 <del>BBCH 30—33</del>	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100–300	/		R

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation  (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled  (additionally: develop- mental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks:  e.g. g saf- ener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. num- ber a) per use b) per crop/ season	Min. inter- val between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	kg as/ha  a) max. rate per appl. b) max. total rate per crop/season	Water L/ha  min / max			
				<i>Pyrenophora-teres</i> (PYRNTE) <i>Rhynchosporium-secalis</i> (RHYNSE) <i>Zymoseptoria tritici</i> (SEPTTR) <i>Puccinia-triticina</i> (PUCCRT) <i>Blumeria graminis</i> (ERYSGR)										
38	PL	Spelt <i>Triticum spelta</i> (TRZSP)	F	<i>Fusarium-sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61—69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100–300	/		
Minor uses according to Article 51 (zonal uses)														
39	CZ, RO	Winter durum wheat <i>Triticum durum</i> winter (TRZDW)	F	<i>Puccinia striiformis</i> (PUCCST) <i>Zymoseptoria tritici</i> (SEPTTR) <i>Parastagonospora</i> <i>nodorum</i> (LEPTNO) <i>Puccinia recondita</i> (PUCCRE) <i>Blumeria graminis</i> (ERYSGR)	Normal down- ward spraying	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		
40	CZ, RO	Winter durum wheat <i>Triticum durum</i> winter (TRZDW)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61 – 69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		
41	RO	Winter rye <i>Secale cereale</i> win- ter (SECCW)	F	<i>Rhynchosporium secalis</i> (RHYNSE) <i>Puccinia recondita</i> (PUCCRE)	Normal down- ward spraying	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation  (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled  (additionally: develop- mental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks:  e.g. g saf- ener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. num- ber a) per use b) per crop/ season	Min. inter- val between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	kg as/ha  a) max. rate per appl. b) max. total rate per crop/season	Water L/ha  min / max			
				<i>Blumeria graminis</i> (ERYSGR)										
42	RO	Winter rye <i>Secale cereale</i> win- ter (SECCW)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61 – 69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		
43	RO	Triticale winter <i>Triticale sp. winter</i> (TTLWI)	F	<i>Rhynchosporium secalis</i> (RHYNSE) <i>Parastagonospora</i> <i>nodorum</i> (LEPTNO) <i>Puccinia striiformis</i> (PUC CST) <i>Zymoseptoria tritici</i> (SEPTTR) <i>Blumeria graminis</i> (ERYSGR)	Normal down- ward spraying	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		
44	RO	Triticale winter <i>Triticale sp. winter</i> (TTLWI)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61 – 69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		
45	HU	Oats winter <i>Avena sativa</i> (AVESW)	F	<i>Blumeria graminis</i> (ERYSGR) <i>Puccinia coronata</i> var. <i>avenae</i> (PUCCCA) <i>Pyrenophora</i> <i>chaetomioides</i> (PYRNAV)	Normal down- ward spraying	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		
46	HU	Oats winter <i>Avena sativa</i> (AVESW)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation  (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled  (additionally: develop- mental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks:  e.g. g saf- ener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. num- ber a) per use b) per crop/ season	Min. inter- val between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	kg as/ha  a) max. rate per appl. b) max. total rate per crop/season	Water L/ha  min / max			
47	CZ, RO	Spring wheat <i>Triticum aestivum</i> spring/ <i>Triticum</i> <i>durum</i> spring. (TRZAS/TRZDS)	F	<i>Puccinia striiformis</i> (PCCST) <i>Zymoseptoria tritici</i> (SEPTTR) <i>Parastagonospora</i> <i>nodorum</i> (LEPTNO) <i>Puccinia recondita</i> (PUCCRE) <i>Blumeria graminis</i> ( ERYSGR)	Normal down- ward spraying	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/	CZ & RO: Only TRZDS minor	
48	CZ, RO	Spring wheat <i>Triticum aestivum</i> spring/ <i>Triticum</i> <i>durum</i> spring. (TRZAS/TRZDS)	F	<i>Fusarium sp.</i> FUSASP)	Normal down- ward spraying	BBCH 61 – 69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/	CZ & RO: Only TRZDS minor	
49	PL, RO	Spring rye <i>Secale cereale</i> spring (SECCS)	F	<i>Rhynchosporium secalis</i> (RHYNSE) <i>Puccinia recondita</i> (PUCCRE) <i>Blumeria graminis</i> ( ERYSGR)	Normal down- ward spraying	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		
50	PL, RO	Spring rye <i>Secale cereale</i> spring (SECCS)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61 – 69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		
51	RO	Triticale spring <i>Triticale sp. spring</i> (TTL SO)	F	<i>Rhynchosporium secalis</i> (RHYNSE) <i>Parastagonospora</i> <i>nodorum</i> (LEPTNO) <i>Puccinia striiformis</i> (PCCST) <i>Zymoseptoria tritici</i>	Normal down- ward spraying	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation  (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled  (additionally: develop- mental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks:  e.g. g saf- ener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. num- ber a) per use b) per crop/ season	Min. inter- val between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	kg as/ha  a) max. rate per appl. b) max. total rate per crop/season	Water L/ha  min / max			
				(SEPTTR) <i>Blumeria graminis</i> (ERYSGR)										
52	RO	Triticale spring <i>Triticale sp. spring</i> (TTLSO)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61 – 69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		
53	CZ, RO, HU	Oats spring <i>Avena sativa</i> (AVESP)	F	<i>Blumeria graminis</i> (ERYSGR) <i>Puccinia coronata var.</i> <i>avenae</i> (PUCCCA) <i>Pyrenophora</i> <i>chaetomioides</i> (PYRNAV)	Normal down- ward spraying	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		
54	CZ, RO, HU	Oats spring <i>Avena sativa</i> (AVESP)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		
55	CZ, HU, RO	Spelt <i>Triticum spelta</i> (TRZSP)	F	<i>Puccinia recondita</i> (PUCCRE) <i>Puccinia striiformis</i> (PUCCST) <i>Pyrenophora teres</i> (PYRNTE) <i>Rhynchosporium secalis</i> (RHYNSE <i>Zymoseptoria tritici</i> (SEPTTR) <i>Puccinia triticina</i> (PUCCRT) <i>Blumeria graminis</i> (ERYSGR)	Normal down- ward spraying	BBCH 30 – 61	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use- No. (e)	Member state(s)	Crop and/ or situation  (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled  (additionally: develop- mental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks:  e.g. g saf- ener/synergist per ha (f)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. num- ber a) per use b) per crop/ season	Min. inter- val between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	kg as/ha  a) max. rate per appl. b) max. total rate per crop/season	Water L/ha  min / max			
56	BE, CZ, HU, RO	Spelt <i>Triticum spelta</i> (TRZSP)	F	<i>Fusarium sp.</i> (FUSASP)	Normal down- ward spraying	BBCH 61 – 69	a) 1 b) 1	/	a) 1 b) 1	a) 0.125 b) 0.125	100 -300	/		

\* 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
n.r.	Not relevant for section 3

## 3.2 Efficacy data (KCP 6)

### Introduction

This document summarises the information related to the efficacy of the plant protection product GLOB2111F containing the active substances bixafen (125 g/L).

Poland is considered to be the zonal Rapporteur Member State (zRMS) of this of this submission for the Central zone, while France is considered to be the zRMS for the Southern zone and Lithuania is considered to be the zRMS for the Northern zone according to the Regulation No. 1107/2009. At the time of submission, Poland, Belgium, Czech Republic, Hungary and Romania are included as concerned Member States (cMS) for the Central zone, while France, Bulgaria, Spain and Italy are included as concerned Member States (cMS) for the Southern zone. Lithuania, Estonia, Finland, Latvia and Sweden are cMS for the Northern zone.

Trials included in the core Biological Assessment Dossier and summarized in this dRR were performed across all climatic zones, including the Maritime, North-East, South-East and Mediterranean EPPO Zones according to the EPPO standard PP1/241.

### Description of active substances

#### Bixafen

Bixafen was approved for inclusion into Annex I of Directive 91/414 (Commission Implementing Regulation (EU) No 350/2013), in accordance with Regulation (EC) No 1107/2009, Council Directive 91/414/EEC (Implementing Regulation (EU) No. 350/2013, dated 17 April 2013) with the entry into force of 1 October 2013

The SANCO report for bixafen (SANCO/10357/2013 rev 3 – 15 March 2013) is considered to provide the relevant information on the evaluation or a reference to where such information can be found.

For the implementation of the uniform principles of Annex VI, the conclusions of the review reports on the active substance bixafen, and in particular Appendices I and II thereof, as finalised in the Standing Committee on the Food Chain and Animal Health on 15 March 2013, shall be taken into account.

Member States shall pay particular attention to:

- the residues of bixafen and of its metabolites in rotational crops; - the protection of groundwater, when the substance is applied in regions with vulnerable soil and/or climatic conditions; - the risk to aquatic organisms; - the risk to soil and sediment-dwelling organisms. Conditions of use shall include risk mitigation measures, where appropriate

In this overall assessment there are however no efficacy related concerns.

The approval of bixafen was last extended by Commission Implementing Regulation (EU) 2020/2007 of 8 December 2020.

## Mode of action

The active substance bixafen, belongs to the chemical group of the Pyrazole-carboxamides, and the FRAC mode of action group 7 (inhibition of the enzyme succinate dehydrogenase-SDHI). The active substance inhibits early stages of fungal development, providing a strong protective effect. It also has systemic properties, is very rapidly absorbed into the plant and acropetal distributed in the sap. This results in both a protective and curative action. The main effect of bixafen is the inhibition of spore germination, the reduction in the number of appressoria, and mycelial growth are inhibited, including latent infections.

**Table 3.2-1: Details of the active substances**

Active substance	Bixafen
Concentration (Unit: g/kg or g/L...)	100 g/L
Chemical group	Pyrazole-carboxamides
Mode of action	Loco-systemic fungicide
Biological action	complex II succinate dehydrogenase inhibition (SDHI)
FRAC code	7

## Description of the plant protection product

Information on the detailed composition of GLOB2111F can be found in the confidential dossier of this submission (Registration Report - Part C).

GLOB2111F contains 125g/L of the active substance bixafen. It is formulated as an emulsifiable concentrate (EC). It is to be used as a fungicide in cereals.

Its technical characteristics are acceptable for an emulsifiable concentrate formulation, no particular problems are to be expected when GLOB2111F is used as recommended. More information can be found in Part B1, B2 and B4 of this submission.

The classification proposal for GLOB2111F according to Regulation (EC) 1272/2008 (CLP Regulation) can be found in Part A of this submission.



**Table 3.2-2: Simplified table of requested uses for GLOB2111F**

Uses		Member State	Requested rate(s)	Comments / Other relevant details on GAPs
Crop(s)	Target(s)			
Cereals (winter and spring wheat, winter and spring barley, winter and spring rye, winter and spring triticale, spelt, oats)	Different diseases (eg. Fusarium (FUSASP), speckled leaf blotch of wheat (SEPTTR), glume blotch of wheat (LEPTNO), Stripe/yellow rust (PUCCST/PUCCSI), brown rust of cereals (PUCCRE), brown rust of wheat (PUCCRT), brown rust of rye (PUCRR), dwarf leaf rust of barley (PUCCHD), crown rust of oats (PUCCCA), leaf blotch of oat (PYRNAV), net blotch of barley (PYRNTE), leaf spot of barley (PYRNTM), ramularia leaf spot of barley (RAMUCC), leaf blotch of cereals (RHYNSE), Powdery mildew (ERYSGR)	Central zone: PL, BE, CZ, DE, HU, RO	Max. 1 L/ha	Max. 1 application  FUSASP: BBCH 61  Other diseases: BBCH: 30-61

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

### Description of the target pests

GLOB2111F is used as a fungicide in cereals.

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

EPPO code	Scientific name	Common name
ERYSGA	<i>Blumeria graminis f. sp. Avenae</i>	powdery mildew of oat
ERYSGH	<i>Blumeria graminis f. sp. hordei</i>	powdery mildew of barley
ERYSGR	<i>Blumeria graminis</i>	Powdery mildew
ERYSGT	<i>Blumeria graminis f. sp. tritici</i>	powdery mildew of wheat
ERYSGR	<i>Blumeria graminis</i>	Powdery mildew
FUSACU	<i>Fusarium culmorum</i>	culm rot of cereals
FUSASP	<i>Fusarium sp.</i>	Fusarium ear blight of cereals
GIBBZE	<i>Fusarium graminearum</i>	head blight of cereals
LEPTNO	<i>Parastagonospora nodorum</i>	glume blotch of wheat
PUCCCA	<i>Puccinia coronata var. avenae</i>	crown rust of oats
PUCCHD	<i>Puccinia hordei</i>	Dwarf leaf rust of barley
PUCCRE	<i>Puccinia recondita</i>	Brown rust of cereals
PUCRRR	<i>Puccinia recondita f. sp. Recondita</i>	brown rust of rye
PUCCRT	<i>Puccinia triticina</i>	brown rust of wheat
PUCCSI	<i>Puccinia striiformis f. sp. tritici</i>	yellow rust of wheat
PUCCST	<i>Puccinia striiformis</i>	Stripe rust
PYRNAV	<i>Pyrenophora chaetomioides</i>	leaf blotch of oat
PYRNTE	<i>Pyrenophora teres</i>	Net blotch of barley
PYRNTM	<i>Pyrenophora teres f. sp. maculata</i>	leaf spot of barley
RAMUCC	<i>Ramularia collo-cygni</i>	ramularia leaf spot of barley
RHYNSE	<i>Rhynchosporium secalis</i>	Leaf blotch of cereals
SEPTTR	<i>Zymoseptoria tritici</i>	Speckled leaf blotch of wheat

**Table 3.2-4: Major / minor status of intended uses in the Central zone (for all cMS and zRMS).**

Crop and/or situation	Crop status		Pests or group of pests controlled	Pest status	
	Major (at least one crop in the group)	minor		Major	minor
Spring and winter Cereals (winter and spring wheat, winter and spring durum wheat, winter and spring barley, winter and spring rye, winter and spring triticale, spelt, oats)	PL, BE, CZ, HU, RO	PL: spring rye, BE: all except winter wheat and winter barley CZ: spelt, spring oats, winter and spring durum wheat, HU: oat, spelt RO: winter and spring durum wheat, spelt, rye, triticale	Foliar and ear diseases on cereals	PL, BE, CZ, HU, RO	-

### Compliance with the Uniform Principles

All data submitted in the Biological assessment dossier and summarized in this dRR are in compliance with the Uniform Principles.

### Information on trials submitted (3.1 Efficacy data)

The following table aims to give an overview of submitted trials.

**Table 3.2-5: Presentation of efficacy trials on cereals**

Target(s)	Crop	Country	Years	Type of trial**	KCP	Number of trials				GEP, non-GEP, official***	Comments (any other relevant information)
						Marit. zone	North-East zone	Medit. zone	South-East zone		
FUSACU	TRZAW	CZ	2023	E+MED	KCP 6.2-132	1				GEP	
					KCP 6.2-133	1				GEP	
					KCP 6.2-134	1				GEP	
					KCP 6.2-135	1				GEP	
		EE	2022	E+MED	KCP 6.2-09		1			GEP	Low Incid.
			2023	E+MED	KCP 6.2-159		1			GEP	
		GR	2022	E+MED	KCP 6.2-17			1		GEP	Low sever.
		HR	2022	E+MED	KCP 6.2-16			1		GEP	
					KCP 6.2-18			1		GEP	
					KCP 6.2-19			1		GEP	
		HU	2023	E+MED	KCP 6.2-194				1	GEP	
		IE	2021	E+MED	KCP 6.2-01	1				GEP	
		LV	2022	E	KCP 6.2-10		1			GEP	
					KCP 6.2-12		1			GEP	
					KCP 6.2-13		1			GEP	
					KCP 6.2-14		1			GEP	
				E+MED	KCP 6.2-11		1			GEP	
				E+MED	KCP 6.2-160		1			GEP	
		PL	2021	E+MED	KCP 6.2-03		1			GEP	
					KCP 6.2-04		1			GEP	
			2022	E	KCP 6.2-05		1			GEP	
					KCP 6.2-06		1			GEP	
					KCP 6.2-07		1			GEP	
					KCP 6.2-08		1			GEP	
			2023	E+MED	KCP 6.2-161		1			GEP	
					KCP 6.2-162		1			GEP	

Target(s)	Crop	Country	Years	Type of trial**	KCP	Number of trials				GEP, non-GEP, official***	Comments (any other relevant information)
						Marit. zone	North-East zone	Medit. zone	South-East zone		
		PT	2021	E+MED	KCP 6.2-15			1		GEP	
			2022	E+MED	KCP 6.2-20			1		GEP	
		RO	2023	E+MED	KCP 6.2-195				1	GEP	
			2023	E+MED	KCP 6.2-130	1				GEP	
		SI	2022	E	KCP 6.2-24				1	GEP	
				E+MED	KCP 6.2-25				1	GEP	
			2023	E+MED	KCP 6.2-196				1	GEP	
					KCP 6.2-21			1		GEP	
		GR	2022	E+MED	KCP 6.2-22			1		GEP	Low sever.
					KCP 6.2-23			1		GEP	Low sever.
			2023	E+MED	KCP 6.2-178			1		GEP	
	TRZDW	PT	2023	E+MED	KCP 6.2-179			1		GEP	
		PL	2023	E	KCP 6.2-167		1			GEP	
FUSASP	TRZAW	HU	2022	E+MED	KCP 6.2-26				1	GEP	
GIBBZE	TRZAW	SE	2023	E+MED	KCP 6.2-131	1				GEP	
	TRZDW	HU	2022	E+MED	KCP 6.2-27				1	GEP	
FUSASP Total			2021-2023			7	17	11	7		
SEPTTR	SECCW	CZ	2023	E+MED	KCP 6.2-113	1				GEP	
	TRZAW	CZ	2023	E+MED	KCP 6.2-114	1				GEP	
					KCP 6.2-124	1				GEP	
					KCP 6.2-125	1				GEP	
					KCP 6.2-126	1				GEP	
					KCP 6.2-127	1				GEP	
					KCP 6.2-128	1				GEP	
		DK	2023	E+MED	KCP 6.2-117	1				GEP	
					KCP 6.2-121	1				GEP	
		EE	2022	E+MED	KCP 6.2-49		1			GEP	
					KCP 6.2-50		1			GEP	
					KCP 6.2-159		1			GEP	
		GR	2022	E+MED	KCP 6.2-64			1		GEP	
		HR	2021	E+MED	KCP 6.2-62			1		GEP	
					KCP 6.2-63			1		GEP	
					KCP 6.2-65			1		GEP	
					KCP 6.2-66			1		GEP	
		HU	2021	E+MED	KCP 6.2-74				1	GEP	
					KCP 6.2-76				1	GEP	
			2022	E+MED	KCP 6.2-77				1	GEP	
			2023	E	KCP 6.2-186				1	GEP	
					KCP 6.2-188				1	GEP	
		IE	2021	E+MED	KCP 6.2-189				1	GEP	
					KCP 6.2-190				1	GEP	
					KCP 6.2-30	1				GEP	
					KCP 6.2-31	1				GEP	
		LV	2021	E+MED	KCP 6.2-45		1			GEP	
					KCP 6.2-51		1			GEP	
					KCP 6.2-52		1			GEP	
					KCP 6.2-154		1			GEP	
		NO	2022	E+MED	KCP 6.2-156		1			GEP	
					KCP 6.2-32	1				GEP	
		PL	2021	E+MED	KCP 6.2-46		1			GEP	
					KCP 6.2-47		1			GEP	
					KCP 6.2-48		1			GEP	
					KCP 6.2-155		1			GEP	
		PT	2022	E+MED	KCP 6.2-157		1			GEP	
					KCP 6.2-158		1			GEP	
					KCP 6.2-67			1		GEP	
					KCP 6.2-174			1		GEP	
		RO	2023	E	KCP 6.2-187				1	GEP	
					KCP 6.2-191				1	GEP	
	TRZDW	GR	2022	E+MED	KCP 6.2-192				1	GEP	
					KCP 6.2-193				1	GEP	
					KCP 6.2-68			1		GEP	
					KCP 6.2-69			1		GEP	
					KCP 6.2-70			1		GEP	

Target(s)	Crop	Country	Years	Type of trial**	KCP	Number of trials				GEP, non-GEP, official***	Comments (any other relevant information)
						Marit. zone	North-East zone	Medit. zone	South-East zone		
			2023	E	KCP 6.2-175			1		GEP	
				E+MED	KCP 6.2-176			1		GEP	
		PT	2023	E+MED	KCP 6.2-177			1		GEP	
	TRZSP	CZ	2023	E+MED	KCP 6.2-136	1				GEP	
					KCP 6.2-137	1				GEP	
	TTLWI	CZ	2023	E+MED	KCP 6.2-138	1				GEP	
					KCP 6.2-139	1				GEP	
					KCP 6.2-140	1				GEP	
					KCP 6.2-141	1				GEP	
		EE	2023	E+MED	KCP 6.2-164		1			GEP	
		HR	2023	E+MED	KCP 6.2-180			1		GEP	
		PL	2023	E+MED	KCP 6.2-163		1			GEP	
	KCP 6.2-166					1			GEP		
SEPTTR Total			2021-2023			18	17	14	11		
PUCCRE	SECCW	CZ	2023	E+MED	KCP 6.2-113	1				GEP	
		LV	2023	E+MED	KCP 6.2-151		1			GEP	
		PL	2023	E+MED	KCP 6.2-153		1			GEP	
	TRZAW	CZ	2023	E+MED	KCP 6.2-119	1				GEP	
					KCP 6.2-124	1				GEP	
					KCP 6.2-132	1				GEP	
		GR	2021	E+MED	KCP 6.2-61			1		GEP	
		PL	2022	E	KCP 6.2-05		1			GEP	
TTLWI	CZ	2023	E+MED	KCP 6.2-138	1				GEP		
PUCCRR	SECCW	CZ	2023	E+MED	KCP 6.2-116	1				GEP	
		PL	2023	E+MED	KCP 6.2-152		1			GEP	
		PUCCRE/PUCCRR Total			2021-2023			6	4	1	
PUCCSI	TRZAW	PL	2021	E+MED	KCP 6.2-04		1			GEP	
					KCP 6.2-46		1			GEP	
			2022	E+MED	KCP 6.2-48		1			GEP	
			2023	E+MED	KCP 6.2-157		1			GEP	
PUCCST	TRZAW	CZ	2023	E+MED	KCP 6.2-126	1				GEP	
		HU	2023	E+MED	KCP 6.2-189				1	GEP	
		RO	2023	E+MED	KCP 6.2-195				1	GEP	
PUCCSI/PUCCST Total			2021-2023			1	4		2		
PUCCHD	HORVS	DK	2023	E+MED	KCP 6.2-103	1				GEP	
		PL	2023	E	KCP 6.2-146		1			GEP	
					KCP 6.2-147		1			GEP	
	HORVW	CZ	2023	E+MED	KCP 6.2-107	1				GEP	
		HU	2023	E+MED	KCP 6.2-182				1	GEP	
		LV	2022	E	KCP 6.2-43		1			GEP	
		PL	2021	E+MED	KCP 6.2-39		1			GEP	
2023	E+MED		KCP 6.2-148		1			GEP			
PUCCHD Total			2021-2023			2	5		1		
PUCCCA	AVESA	CZ	2023	E	KCP 6.2-101	1				GEP	
		EE	2022	E	KCP 6.2-34		1			GEP	
		LV	2022	E	KCP 6.2-35		1			GEP	
		PL	2022	E	KCP 6.2-36		1			GEP	
					KCP 6.2-37		1			GEP	
					KCP 6.2-145		1			GEP	
PUCCCA Total			2022-2023			1	5				
PYRNAV	AVESA	CZ	2023	E	KCP 6.2-101	1				GEP	
		LV	2022	E	KCP 6.2-35		1			GEP	
			2023	E	KCP 6.2-143		1			GEP	
					KCP 6.2-144		1			GEP	
			PL	2022	E	KCP 6.2-36		1			GEP
		2023		E	KCP 6.2-145		1			GEP	
PYRNAV Total			2022-2023			1	5				

Target(s)	Crop	Country	Years	Type of trial**	KCP	Number of trials				GEP, non-GEP, official***	Comments (any other relevant information)
						Marit. zone	North-East zone	Medit. zone	South-East zone		
PYRNTE	HORVS	DK	2023	E+MED	KCP 6.2-103	1				GEP	
		PL	2023	E	KCP 6.2-146		1			GEP	
	HORVW	CZ	2023	E+MED	KCP 6.2-107	1				GEP	
					KCP 6.2-108	1				GEP	
					KCP 6.2-109	1				GEP	
					KCP 6.2-110	1				GEP	
					KCP 6.2-111	1				GEP	
					KCP 6.2-104	1				GEP	
		DK	2023	E+MED	KCP 6.2-149		1			GEP	
		EE	2023	E+MED	KCP 6.2-71				1	GEP	
		HU	2021	E+MED	KCP 6.2-182				1	GEP	
			2023	E+MED	KCP 6.2-29	1				GEP	
		IE	2021	E+MED	KCP 6.2-41		1			GEP	
		LV	2022	E+MED	KCP 6.2-39		1			GEP	
		PL	2021	E+MED	KCP 6.2-40		1			GEP	
			2022	E+MED	KCP 6.2-42		1			GEP	
			2023	E+MED	KCP 6.2-148		1			GEP	
PT	2022	E+MED	KCP 6.2-58			1		GEP			
SI	2023	E+MED	KCP 6.2-185				1	GEP			
PYRNTE Total			2021-2023			8	7	2	3		
RAMUCC	HORVS	DK	2023	E+MED	KCP 6.2-103	1				GEP	
	HORVW	CZ	2023	E+MED	KCP 6.2-107	1				GEP	
					KCP 6.2-110	1				GEP	
					KCP 6.2-112	1				GEP	
					KCP 6.2-72				1	GEP	
		HU	2022	E+MED	KCP 6.2-181				1	GEP	
			2023	E+MED	KCP 6.2-182				1	GEP	
		IE	2021	E+MED	KCP 6.2-28	1				GEP	
		PL	2022	E	KCP 6.2-29	1				GEP	
	KCP 6.2-44					1			GEP		
	SI	2022	E+MED	KCP 6.2-55			1		GEP		
KCP 6.2-60						1		GEP			
2023		E+MED	KCP 6.2-185				1	GEP			
RAMUCC Total			2021-2023			6	1	2	4		
RHYNSE	HORVW	CZ	2023	E+MED	KCP 6.2-109	1				GEP	
					KCP 6.2-111	1				GEP	
		DK	2023	E+MED	KCP 6.2-104	1				GEP	
		EE	2023	E+MED	KCP 6.2-149		1			GEP	
		GR	2023	E+MED	KCP 6.2-168			1		GEP	
					KCP 6.2-169			1		GEP	
		HR	2022	E+MED	KCP 6.2-53			1		GEP	
					KCP 6.2-56			1		GEP	
					KCP 6.2-57			1		GEP	
					KCP 6.2-170			1		GEP	
		HU	2022	E+MED	KCP 6.2-73				1	GEP	
					KCP 6.2-181				1	GEP	
					KCP 6.2-182				1	GEP	
					KCP 6.2-43			1		GEP	
		LV	2022	E	KCP 6.2-41		1			GEP	
				E+MED	KCP 6.2-150		1			GEP	
				E+MED	KCP 6.2-40		1			GEP	
		PL	2022	E	KCP 6.2-44		1			GEP	
				E+MED	KCP 6.2-42		1			GEP	
				E+MED	KCP 6.2-59			1		GEP	
		PT	2022	E+MED	KCP 6.2-172			1		GEP	
					KCP 6.2-183				1	GEP	
		RO	2023	E+MED	KCP 6.2-184				1	GEP	
					KCP 6.2-60			1		GEP	
	SI	2022	E+MED	KCP 6.2-113	1				GEP		
	SECCW	CZ	2023	E+MED	KCP 6.2-114	1				GEP	
					KCP 6.2-115	1				GEP	

Target(s)	Crop	Country	Years	Type of trial**	KCP	Number of trials				GEP, non-GEP, official***	Comments (any other relevant in-formation)	
						Marit. zone	North-East zone	Medit. zone	South-East zone			
										KCP 6.2-116	1	
		HR	2023	E+MED	KCP 6.2-173			1			GEP	
		LV	2023	E+MED	KCP 6.2-151		1				GEP	
		PL	2023	E+MED	KCP 6.2-152		1				GEP	
					KCP 6.2-153		1				GEP	
	TTLWI	CZ	2023	E+MED	KCP 6.2-141	1					GEP	
RHYNSE Total			2021-2023			8	10	11	5			
ERYSGH	HORVW	DK	2023	E+MED	KCP 6.2-104	1					GEP	
					KCP 6.2-106	1					GEP	
		LV	2023	E+MED	KCP 6.2-150		1				GEP	
	AVESA	CZ	2023	E	KCP 6.2-101	1					GEP	
ERYSGR	HORVW	LV	2021	E+MED	KCP 6.2-38		1				GEP	
		SE	2023	E+MED	KCP 6.2-105	1					GEP	
	SECCW	CZ	2023	E+MED	KCP 6.2-116	1					GEP	
		LV	2023	E+MED	KCP 6.2-151		1				GEP	
	TRZAW	CZ	2023	E+MED	KCP 6.2-128	1					GEP	
		EE	2022	E+MED	KCP 6.2-49		1				GEP	
		LV	2023	E	KCP 6.2-154		1				GEP	
	TRZSP	CZ	2023	E+MED	KCP 6.2-137	1					GEP	
		CZ	2023	E+MED	KCP 6.2-139	1					GEP	
	TTLWI	LV	2023	E+MED	KCP 6.2-165		1				GEP	
PL		2023	E+MED	KCP 6.2-166		1				GEP		
ERYSGT		TRZAW	PL	2021	E+MED	KCP 6.2-46		1			GEP	
			2022	E+MED	KCP 6.2-48		1			GEP		
ERYSGR Total			2021-2023			8	9					

Information regarding chemical standards and test product used are provided in chapter 3.2.3 (Efficacy tests).

### 3.2.1 Preliminary tests (KCP 6.1)

Bixafen is an old active ingredient that have been registered for many years all over the world. The concerned active substance is authorized as solo product (e.g. THORE in FR and Bixafen EC125/Inception/Inception Xpro in UK and IE, all containing 125 g a.s./L and authorized at a dose rate of 1 L/ha), as well as in co-formulations containing bixafen and triazoles as Zantara (bixafen + tebuconazole), Aviator Xpro (bixafen + prothioconazole) or Ascra Xpro (bixafen + fluopyram + prothioconazole).

Since this is a well-known active substance, preliminary tests to investigate the biological activity of the active substance were not required.

Comments of zRMS:	No preliminary range-finding tests are available. Based on the knowledge about this active substance and the experiences with products, preliminary tests in field trials to assess the biological activity of the active substances or dose range for the plant protection product were not deemed necessary.
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### 3.2.2 Minimum effective dose tests (KCP 6.2)

Field trials were carried out across several countries of the Central, Southern and Northern Zone to fully reflect the range of climatic and agronomic conditions. Sites and application details of these trials are presented in Appendix 3 of the BAD.

The disease control levels used for evaluation are recorded as a percentage and are displayed in summary tables reflecting HSE Data Requirement Handbook (ver. 2.2 June 2012, chapter 8, table 8.2 *Levels of pest control expected for effectiveness claims*):

Description of effectiveness against diseases	Mean level of control
Control (good to very good)	≥ 80%-100%
Partial / moderate / useful control	≥ 60%-79%
Reduction / some control	≥ 40-59%
Not reliable control	<40%

#### 3.2.2.1 Minimum effective dose on cereals

A lower dose rate was included in most of the trials conducted on cereals and are presented in detail in section 3.2.3 of the Biological Assessment Dossier. Those data are presented here summarizing the most representative results from trials where a lower dose rate was tested.

The test product GLOB2111F was applied according to the GAP table at the maximum rate of 1 L/ha (100%) and 0.6 L/ha (60% of the full rate). Further details on methodology are presented in section 3.2.3. A summary of the dose response results is provided in the tables below.

The results show that the requested dose rate of 1 L/ha in cereals provide the best control against a broad range of diseases for these crops. Furthermore, for some diseases a clear dose response relationship can be observed, with the highest dose rate having not only the highest efficacy, but also offering a more stable control throughout a wide range of situations and on the different plant parts.

As cereal infestations often occur as complexes of several diseases throughout a season, the dose rate of 1 L/ha should therefore be used to efficiently control all the diseases claimed on the label.



## Maritime EPPO Zone

**Table 3.2-6: Minimum effective dose of GLOB2111F on cereals - Maritime EPPO zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control						Mean control At 60% rate	Mean control At 100% rate
												60% full rate			100% full rate				
												GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha				
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn		
MAR	FUSASP	TRZAW	All valid ass. BBCH 75-83	EAR SEVIND	61-65	7	20-29	20-29	1611.1	7.7-5248.8	237.1	59.9	16.3-93	75.9	70.3	20.9-99	86.5	60	70
MAR	SEPTTR	TRZAW	All valid ass. (2-3w after A)	FL-2	32-32	4	21-24	21-24	13.6	5-25.9	11.7	79.1	51.8-100	82.2	85.1	70.8-100	84.8	80	86
				FL-3	32-32	4	21-22	21-22	24.8	4.3-48.4	23.3	72.2	54.6-89.2	72.4	71.5	47.1-96.7	71.1		
			All valid ass. (2-3w after B)	FLAG	32-32	2	45-46	21-25	7.4	4.5-10.3	7.4	67.5	55.1-79.8	67.5	81.2	62.3-100	81.2		
				FL-1	32-32	8	31-46	ott-25	14.1	5.6-30.3	11.3	67.9	20-100	76.9	82.1	30.5-100	93.3		
				FL-2	32-32	8	31-48	ott-25	37.8	14.4-70.2	34.4	60.5	28.3-93.3	59.2	68.4	31.2-97.3	70.9		
			All valid ass. (4-6w after B)	FLAG	32-33	2	65-66	35-38	13	10-15.9	13	46.1	12.5-79.6	46.1	49.3	16.5-82.1	49.3		
		TRZSP		All valid ass. (2-3w after A)	FL-2	32	1	22	22	7.5	-	-	89.3	-	-	100	-		
			FL-3		32	1	22	22	38.8	-	-	84.1	-	-	79.2	-	-		
			All valid ass. (2-3w after B)	FLAG	32	1	28	7	14.7	-	-	80.5	-	-	100	-	-		
				FL-1	32	1	28	7	26.6	-	-	83.6	-	-	89.6	-	-		
				FL-2	32	1	28	7	37.5	-	-	69.2	-	-	92.5	-	-		
			All valid ass. (4-6w after B)	FLAG	32	1	50	29	75	-	-	90	-	-	95	-	-		
		SECCW	All valid ass. (2-3w after A)	FL-2	32	1	25	25	41.3	-	-	84.9	-	-	81.3	-	-		
				FL-1	32	1	46	21	17.5	-	-	95.5	-	-	100	-	-		
			All valid ass. (4-6w after B)	FLAG	32	1	50	29	20.3	-	-	89.1	-	-	93.2	-	-		
		TTLWI	All valid ass. (2-3w after A)	FL-2	32-32	1	21-21	21-21	8	08-ago	8	85.3	85.3-85.3	85.3	98.7	98.7-98.7	98.7		
				FL-3	32-32	1	21-21	21-21	41.9	-	-	85.4	-	-	80.5	-	-		
			All valid ass. (2-3w after B)	FLAG	32-32	1	38-38	17-17	7.8	7.8-7.8	7.8	100	100-100	100	100	100-100	100		
				FL-1	32-32	2	38-42	17-21	12.1	6.6-17.5	12.1	79.4	65.8-92.9	79.4	84.2	75.8-92.5	84.2		
			FL-2	32-32	3	35-42	14-21	21.9	10.6-37.5	17.5	80	52.5-94.2	93.3	88.4	72.7-100	92.5			
			All valid ass. (4-6w after B)	FLAG	32-32	1	50-50	29-29	35.9	-	-	93	-	-	94.7	-	-		
		MAR	PUCCRE	SECCW	All valid ass. (2-3w after B)	FL-1	32	1	42	21	5	-	-	96.3	-	-	100		
All valid ass. (4-6w after B)	FLAG				32-32	1	50-50	29-29	60.9	-	-	93.8	-	-	97.3	-	-		
TRZAW	All valid ass. (2-3w after A, late appl.)			FLAG	61-61	1	15-15	15-15	28.1	-	-	71.8	-	-	92.3	-	-		

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)	% control						Mean control At 60% rate	Mean control At 100% rate		
										60% full rate			100% full rate						
										GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha						
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean			Min & Max	Mdn
		TRZAW	All valid ass. (4-6w after B)	FLAG	32-37	2	47-55	34-47	64.1	62.5-65.6	64.1	89	89-89	89	90.4	87.1-93.7	90.4		
		TTLWI	All valid ass. (4-6w after B)	FLAG	32	1	50	29	60.9	-	-	92.8	-	-	88.2	-	-		
MAR	PYRNTE	HORVW	All valid ass. (2-3w after B)	FLAG	32-32	2	38-40	18-19	23.4	4.5-42.2	23.4	92.6	88.1-97	92.6	98.5	97-100	98.5	78	81
				FL-1	32-32	4	33-46	dic-21	10.3	6.8-14.1	10.1	74.2	61.3-86.4	74.5	84.3	70.8-95	85.7		
				FL-2	32-32	6	33-44	dic-21	11.3	4.5-19.1	10.6	70.7	35.1-100	77	75.3	30.5-100	84.2		
MAR	PYRNTE	HORVS	All valid ass. (4-6w after B)	FL-1	33	1	44	30	17.5	-	-	80.8	-	-	79.6	-	-		
				FL-2	33	1	44	30	35	-	-	70.8	-	-	65.6	-	-		
MAR	RHYNSE	HORVW	All valid ass. (2-3w after A)	FL-2	32-32	3	20-25	20-25	6.1	5.7-6.3	6.2	73.6	69.7-75.7	75.5	87.9	83.5-93.3	86.9	79	89
				FL-3	32-32	2	20-20	20-20	10.3	5.6-15	10.3	82.6	78.7-86.5	82.6	86.5	84-89	86.5		
			All valid ass. (2-3w after B)	FLAG	32-32	1	38-38	18-18	18	-	-	97.3	-	-	100	-	-		
				FL-1	32-32	2	38-46	18-21	28.1	6.1-1.4	28.1	85.6	75.5-51.7	85.6	92.3	87.6-68.3	92.3		
				FL-2	32-32	1	38-38	18-18	62.5	-	-	88.3	-	-	96.7	-	-		
MAR	RHYNSE	SECCW	All valid ass. (2-3w after A)	FL-2	32-32	2	21-25	21-25	5.3	5-5.6	5.3	90.3	89.2-91.3	90.3	94.2	92.5-95.9	94.2		
				FL-3	32-32	1	24-24	24-24	8.8	-	-	33.4	-	-	70.3	-	-		
			All valid ass. (2-3w after B)	FL-1	32-32	4	27-46	giu-21	8.5	5.8-15.6	6.3	72.6	59.4-90.5	70.3	87.9	82.8-94.8	87.1		
				FL-2	32-32	2	27-45	giu-21	22.8	6.4-39.1	22.8	69.1	50.1-88.1	69.1	78.3	62.3-94.3	78.3		
MAR	RHYNSE	TTLWI	All valid ass. (2-3w after A)	FL-2	32	1	21	21	4.7	-	-	79.6	-	-	82.7	-	-		
			All valid ass. (2-3w after B)	FL-1	32	1	42	21	8.1	-	-	93	-	-	96.1	-	-		
				FL-2	32	1	42	21	8.8	-	-	86	-	-	89.8	-	-		

## North-East EPPO Zone

**Table 3.2-7: Minimum effective dose of GLOB2111F on cereals - North-East EPPO zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control						Mean control At 60% rate	Mean control At 100% rate	
												60% full rate			100% full rate					
												GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha					
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn			
NE (+CZ)	SEPTTR	TRZAW	All valid ass. (2-3w after A)	FL-1	32	1	26	26	5	-	-	50	-	-	90	-	-	68	82	
				FL-2	32-32	5	21-26	21-26	12.6	5-25.9	11.6	73.7	51.8-100	72.5	78.6	52.5-100	72.1			
				FL-3	31-32	5	20-23	20-23	22	5.2-48.4	18.4	75.3	54.6-91.3	79.6	82.2	55.7-96.7	86.5			
			All valid ass. (2-3w after B)	FLAG	32-32	2	38-45	dic-21	4.8	4.5-5	4.8	64.9	50-79.8	64.9	95	90-100	95			
				FL-1	32-33	10	31-48	ott-26	12.5	4.3-30.3	8.2	66.4	20-100	70	81.3	40.8-100	87.3			
				FL-2	31-32	9	31-45	ott-22	24.2	4-62.5	14.4	72.2	53.6-99.7	63	79.6	50-100	79.3			
			All valid ass. (4-6w after B)	FLAG	31-33	5	50-61	24-35	15.5	5-47.5	7.6	56.6	25-83.1	71.9	57.8	25-74.3	68.8			
				FL-1	32	1	75	43	8.8	-	-	88.1	-	-	93.8	-	-			
NE (+CZ)	PUCCRE	SECCW	All valid ass. (2-3w after B)	FL-1	32	1	42	21	5	-	-	96.3	-	-	100	-	-	89	95	
			FL-3	32	1	35	14	5.4	-	-	91.4	-	-	96.8	-	-				
			All valid ass. (4-6w after B)	FLAG	32-32	3	50-56	29-35	24.2	4-60.9	7.6	84.2	72.8-93.8	85.9	93.3	88.8-97.3	93.7			
			FL-1	32	1	52	31	5.5	-	-	100	-	-	100	-	-				
		TRZAW	All valid ass. (2-3w after A)	FLAG	61-65	2	15-21	15-21	17.3	6.4-28.1	17.3	71.8	71.8-71.8	71.8	94.4	92.3-96.4	94.4			
			All valid ass. (4-6w after B)	FLAG	32-37	2	47-55	34-47	64.1	62.5-65.6	64.1	89	89-89	89	90.4	87.1-93.7	90.4			
			TTLWI	All valid ass. (4-6w after B)	FLAG	32	1	50	29	60.9	-	-	92.8	-	-	88.2	-			-
NE (CZ)	PUCCSI/PUCCST	TRZAW	All valid ass. (2-3w after A)	FL-1	39-39	1	14-14	14-14	5	05-mag	5	79.9	-	-	87.3	-	-	67	75	
				FL-2	39	1	14	14	5.3	-	-	80.1	-	-	75.7	-	-			
			All valid ass. (2-3w after B)	FLAG	32	1	45	21	15.5	-	-	74	-	-	88.3	-	-			
				FL-1	32-32	2	37-45	15-21	11.3	4.6-18	11.3	61.7	60.6-62.7	61.7	77.8	60.1-95.4	77.8			
			FL-2	32-32	1	37-37	15-15	5.1	-	-	76	-	-	62.8	-	-				
			All valid ass. (4-6w after A)	FLAG	39	1	35	35	5.8	-	-	23.9	-	-	51.9	-	-			
			All valid ass. (4-6w after B)	FLAG	31-32	2	56-61	34-35	8.9	5.4-12.4	8.9	69.9	39.8-100	69.9	81.6	63.2-100	81.6			
NE (+CZ)	PYRNAV	AVESA	All valid ass. (2-3w after A)	FLAG	32	1	22	22	6.3	-	-	12.5	-	-	57.5	-	-	65	78	
				FL-1	32-59	2	21-22	21-22	13.6	8.3-18.8	13.6	66.9	48.4-85.4	66.9	74.3	56.9-91.7	74.3			
				FL-2	32-59	4	14-22	14-22	12.1	5-23.8	9.8	82.4	60.3-92.5	88.5	82.9	62.2-92.5	88.4			
			FL-3	32-32	2	15-20	15-20	6.4	5-7.8	6.4	62.6	30.1-95	62.6	72.3	44.6-100	72.3				
			All valid ass. (2-3w after B)	FLAG	32-37	2	35-43	14-21	11.1	4.6-17.5	11.1	71	58.3-83.6	71	84.6	79.1-90	84.6			
			All valid ass. (2-3w after B)	FL-1	32-37	4	35-54	14-33	13.5	5.2-22.5	13.2	77.3	52.4-100	78.4	84.9	74-100	82.8			
	FL-2	32-32	4	38-54	16-33	17.3	5.5-25.6	19	80.4	70.8-100	75.5	92.9	76.6-100	97.5						

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)	% control						Mean control At 60% rate	Mean control At 100% rate		
										60% full rate			100% full rate						
										GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha						
										Mean	Min & Max	Mdn	Mean	Min & Max	Mdn				
NE (+CZ)	PYRNTE	HORVW	All valid ass. (2-3w after A)	FL-1	33-33	1	14-14	14-14	5	-	-	25	-	-	40	-	54	61	
				FL-2	31-45	3	14-21	14-21	9.9	5.6-15.4	8.8	61.2	52.5-76.4	54.6	62.6	52.5-73.7			61.5
				FL-3	31-45	4	14-29	14-29	11.2	5.7-25.3	6.8	58.8	44.4-83.7	53.5	68.5	50.6-87			68.3
			All valid ass. (2-3w after B)	FLAG	31-33	5	26-50	7-21	14.4	4.5-42.2	8.8	74.2	42.2-100	88.1	77.1	55.8-100			75
				FL-1	31-33	7	26-50	7-21	11.9	6.8-18.1	13.4	62.3	35.6-86.4	62.5	66.3	25-95			70.8
				FL-2	31-33	7	26-50	7-21	16.6	5-47.5	11.9	61.1	29.7-91.4	71.6	68.8	36.7-100			75.9
			All valid ass. (4-6w after B)	FLAG	32-33	2	50-50	27-29	11.5	10.6-12.3	11.5	38.1	19-57.1	38.1	45.5	28.9-62.1			45.5
NE (+CZ)	RHYNSE	HORVW	All valid ass. (2-3w after A)	FL-2	31-33	5	14-25	14-25	5.9	4.9-6.3	6.2	77	64-100	75.5	87.6	74.4-100	86.9	76	81
				FL-3	31-33	4	14-23	14-23	14.2	4.5-27.5	12.5	59.9	35.4-78.7	62.8	64	33.3-89	66.9		
			All valid ass. (2-3w after B)	FLAG	31-32	3	37-44	14-21	9.5	4.1-18	6.5	84.2	61.9-97.3	93.3	78.2	63.3-100	71.4		
				FL-1	31-32	5	26-46	7-21	14.8	4.3-6.5	6.1	81	52.8-93.3	85.6	72.3	46-71.4	65.8		
				FL-2	32-33	4	26-42	7-20	22.1	5.4-62.5	10.2	74.2	60-88.3	74.2	74.7	58.5-96.7	71.7		
			All valid ass. (4-6w after B)	FLAG	32	1	50	27	10	-	-	55	-	-	93.3	-	-		
				FL-1	32-33	2	50-50	27-29	11.8	6.6-16.9	11.8	73.3	70.9-75.7	73.3	51	28.4-73.6	51		
		SECCW	All valid ass. (2-3w after A)	FL-2	32-32	2	21-25	21-25	5.3	5-5.6	5.3	90.3	89.2-91.3	90.3	94.2	92.5-95.9	94.2		
				FL-3	32-32	2	21-24	21-24	8.6	8.3-8.8	8.6	46.8	33.4-60.2	46.8	72.2	70.3-74.1	72.2		
			All valid ass. (2-3w after B)	FL-1	32-32	4	27-46	6-21	8.5	5.8-15.6	6.3	72.6	59.4-90.5	70.3	87.9	82.8-94.8	87.1		
				FL-2	32-32	3	27-45	6-21	16.6	4.3-39.1	6.4	68.3	50.1-88.1	66.7	75	62.3-94.3	68.4		
			All valid ass. (4-6w after B)	FLAG	32	1	52	31	10	-	-	100	-	-	100	-	-		
		TTLWI	All valid ass. (2-3w after A)	FL-2	32	1	21	21	4.7	-	-	79.6	-	-	82.7	-	-		
				FL-1	32	1	42	21	8.1	-	-	93	-	-	96.1	-	-		
			All valid ass. (2-3w after B)	FL-2	32	1	42	21	8.8	-	-	86	-	-	89.8	-	-		
				FL-1	32-32	2	34-46	20-21	10.2	10-10.3	10.2	91	87.5-94.4	91	85.9	85-86.7	85.9		
			FL-2	65	1	21	25	15	-	-	90	-	-	95	-	-			
		AVESA	All valid ass. (2-3w after B)	FL-1	32	1	35	18	10.9	-	-	100	-	-	100	-	-		
				FL-2	32	1	35	18	17.2	-	-	100	-	-	100	-	-		

## Mediterranean EPPO Zone

**Table 3.2-8: Minimum effective dose of GLOB2111F on cereals - Mediterranean EPPO zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control						Mean control at 60% rate	Mean control at 100% rate
												60% full rate			100% full rate				
												GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha				
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn		
MED	FUSASP	TRZAW	All valid ass. BBCH 75-83	EAR SEVIND	61-65	5	21-44	21-44	964.7	120.1-3140.6	362.3	92.1	77.4-100	98.8	90.6	66.5-100	99.7	74	78
		TRZDW	All valid ass. BBCH 75-83	EAR SEVIND	61-61	3	21-28	21-28	1692.9	1548.8-1788.8	1741.2	56.1	23.9-81.3	63.1	66.1	41.8-86.9	69.7		
MED	SEPTTR	TRZAW	All valid ass. (2-3w after A)	FL-1	32-36	5	21-23	21-23	8.3	5.1-14.7	7.5	84.7	49.9-100	92.5	84.9	43.3-100	93.4	68	74
				FL-2	32-36	6	21-23	21-23	12.4	5.3-22.3	11.4	69.9	34.8-89.8	86.2	70.7	22.7-91.1	89		
				FL-3	32-32	1	21-21	21-21	11.2	11.2-11.2	11.2	37.6	37.6-37.6	37.6	46.5	46.5-46.5	46.5		
			All valid ass. (2-3w after B)	FLAG	32-36	5	36-42	14-21	9.2	5.2-18.4	6.8	73.5	36.4-100	85.6	80.3	44.7-100	88.9		
				FL-1	32-36	5	36-42	14-21	16.8	6.1-28.7	17	73	36.9-90.6	86.3	77.6	42.8-94.6	91.5		
				FL-2	32-36	5	36-42	14-21	27.2	9.3-36.7	30.5	70.4	37.2-88.6	85.2	71.2	41.6-91.4	90.3		
		TRZDW	All valid ass. (2-3w after A)	FL-2	32-33	5	21-21	21-21	7.6	4.6-15.1	5.8	60.6	35.6-90	61.7	68.9	49.9-91.7	68.1		
				FL-3	32-32	3	21-21	21-21	11.1	10.1-11.9	11.2	46.6	30.9-75.6	33.3	55	43.3-76.9	44.7		
				FLAG	32-33	5	35-42	14-21	8.8	6.1-13.8	7	66	38.7-88.9	73.4	72.2	44.1-95	79.2		
			All valid ass. (2-3w after B)	FL-1	32-33	5	35-42	14-21	17.2	13.6-21.3	16	65.3	37.4-86.7	79.4	74.2	46.5-92.1	85.7		
				FL-2	32-33	4	42-42	21-21	31.8	30-32.5	32.3	61	35.1-85.3	61.8	66.1	43.2-89	66.2		
				FLAG	32	1	14	14	20.2	-	-	74.1	-	-	85.2	-	-		
		TTLWI	All valid ass. (2-3w after A)	FL-1	32	1	14	14	23.9	-	-	73.7	-	-	82.2	-	-		
				FL-2	32	1	14	14	27	-	-	72.8	-	-	82.2	-	-		
				FLAG	32	1	49	21	35.9	-	-	74.8	-	-	83.1	-	-		
			All valid ass. (2-3w after B)	FL-1	32	1	49	21	39.5	-	-	76.7	-	-	83.5	-	-		
				FL-2	32	1	49	21	43.9	-	-	74.9	-	-	81.4	-	-		
				FLAG	32	1	49	21	43.9	-	-	74.9	-	-	81.4	-	-		
MED	RHYNSE	HORVW	All valid ass. (2-3w after A)	FLAG	32-37	4	21-22	21-22	11.1	4-21.3	9.6	84.4	65.2-100	86.1	87.9	71-100	90.2	77	85
				FL-1	32-37	6	21-22	21-22	13.5	05-26	10.3	79.4	54.4-96.9	83.2	85.6	66.4-97.9	88.2		
				FL-2	32-37	10	19-22	19-22	14.9	5.1-33.4	11.3	80.1	35.5-100	84.4	83.2	40.7-97.1	87.8		
			All valid ass. (2-3w after B)	FLAG	32-37	9	37-42	15-21	15.7	5.2-29.8	7.3	88.5	71.9-100	90.8	92.9	81.6-100	94.6		
				FL-1	32-37	9	37-42	15-21	21	7.1-29.8	15.1	79	63.6-100	79.2	86.9	75.6-100	85.8		
				FL-2	32-37	7	37-42	15-21	30.9	14.2-51.2	24.8	84.1	68.3-96.5	86.2	87.3	78.1-93.4	86.6		
		SECCW	All valid ass. (2-3w after A)	FLAG	32	1	21	21	8	-	-	67.9	-	-	82.9	-	-		
				FL-1	32	1	21	21	18.9	-	-	72.4	-	-	82.8	-	-		
				FL-2	32-32	1	21-21	21-21	24.2	-	-	70.1	-	-	82.5	-	-		
			All valid ass. (2-3w after B)	FLAG	32	1	42	21	26.5	-	-	72.4	-	-	81.3	-	-		
				FL-1	32-32	1	42-42	21-21	34.4	-	-	73.2	-	-	87	-	-		
				FL-2	32-32	1	42-42	21-21	35.2	-	-	75.7	-	-	84.8	-	-		

## South-East EPPO Zone

**Table 3.2-9: Minimum effective dose of GLOB2111F on cereals - South-East EPPO zone**

EPPO zone	Pest Code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control						60%	All timings rating type and parts
												60% full rate			100% full rate				
												GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha				
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn		
SE	SEPTTR	TRZAW	All valid ass. (2-3w after A)	FLAG	31-31	1	21-21	21-21	7.6	7.6-7.6	7.6	90.2	90.2-90.2	90.2	100	100-100	100	75	82
				FL-1	31-31	1	21-21	21-21	14.3	14.3-14.3	14.3	69.2	69.2-69.2	69.2	78.3	78.3-78.3	78.3		
				FL-2	31-37	5	19-23	19-23	13.9	4.1-36.1	5.3	68.9	36.9-100	72.4	73.8	40.7-100	82		
			All valid ass. (2-3w after B)	FL-3	31-33	4	19-23	19-23	25.9	7.4-43.8	26.3	69.7	37-97.3	72.3	70.8	39.4-100	71.8		
				FLAG	31-33	4	35-52	14-25	10	4.5-20.4	7.5	70.6	55.7-78.9	73.8	79.3	65.7-90.2	80.7		
				FL-1	31-33	5	35-52	14-25	20.4	13.8-38	16.6	69.8	57.2-86.4	68.8	78.3	63.2-100	78.8		
			All valid ass. (4-6w after B)	FL-2	31-33	7	34-52	15-25	28.9	5.3-53.6	39.5	73.6	40.1-100	77.3	78.5	50.8-100	78.4		
				FLAG	31-33	2	56-57	33-38	43.5	11.9-75	43.5	90.2	86.8-93.5	90.2	93.2	91.9-94.4	93.2		
				SE	PYRNTE	HORVW	All valid ass. (2-3w after A)	FL-1	32-32	1	20-20	20-20	4	-	-	91.5	-		
FL-2	32-32	3	20-24					20-24	17.3	6.2-33	12.8	75.8	63.4-100	63.9	83.4	69.1-100	81		
All valid ass. (2-3w after B)	FL-1	32-32	3				39-43	16-21	9.9	5.2-15	9.4	80.9	53.9-100	88.7	88.1	67.1-100	97.3		
	FL-2	32-32	3				39-43	16-21	34.5	9.3-51.5	42.8	81.7	70.3-89.3	85.5	88	74.3-97.1	92.6		
All valid ass. (4-6w after B)	FLAG	32-32	1				48-48	27-27	4.6	-	-	87.4	-	-	97.5	-	-		
SE	RAMUCC	HORVW	All valid ass. (2-3w after A)	FL-1	32	1	24	24	7.5	-	-	100	-	-	100	-	-	90	92
				FL-2	32-32	2	19-24	19-24	12.9	4.3-21.5	12.9	100	100-100	100	100	100-100	100		
			All valid ass. (2-3w after B)	FLAG	32-32	2	40-41	16-21	15.6	11.5-19.7	15.6	96.2	92.3-100	96.2	98.5	96.9-100	98.5		
				FL-1	32-32	3	30-41	11-21	32.1	17-50	29.4	86.1	67.4-96.3	94.5	91.8	79.4-99.4	96.6		
			FL-2	32-32	4	30-43	11-21	55	4-100	57.9	67.6	25-91	77.2	71.7	25-96.5	82.7			
SE	RHYNSE	HORVW	All valid ass. (2-3w after A)	FL-1	32-32	2	21-21	21-21	4.6	4-5.2	4.6	96	92-100	96	100	100-100	100	75	85
				FL-2	32-39	5	14-22	14-22	8.4	4.2-11.8	7.6	67	33.7-79.6	72.8	79.8	65.6-88.1	81.1		
			All valid ass. (2-3w after B)	FLAG	32-39	3	28-43	14-22	9	5.2-11.8	9.9	76.1	67.3-85.6	75.5	87.1	82.6-93.7	85		
				FL-1	32-39	4	28-43	14-22	13.1	6.3-11.8	14.2	74.9	68.2-85.6	72.2	83.4	72.4-93.7	83.8		
			FL-2	32-32	3	42-43	21-22	15.8	5.2-22.1	20	62	36.2-81.9	67.9	74.2	55.3-91.6	75.6			

### Conclusion to “Minimum effective dose”

#### Maritime Zone

The presented data correspond with the requirements of the EPPO Standard PP 1/225 (Minimum effective dose).

The test product GLOB2111F was applied according to the GAP table at the maximum rate of 1 L/ha (100%) and a reduced rate of 0.6 L/ha (60% of the full rate). The applicant submitted relevant data with one application on winter wheat (targeting FUSASP, SEPTTR, PUCCRE), rye (targeting SEPTTR, RHYNSE), triticale (targeting SEPTTR, RHYNSE), and winter barley (targeting RHYNSE). However, the amount of data presented is very limited. In the presented trials, application of GLOB2111F at the lower rate of 0.6 l/ha dose rate gave less consistent and more variable disease control than that achieved with the 1.0 l/ha dose rate.

Based on results from the above trials, the dose of 1.0 l/ha of GLOB2111F provided the optimum overall reduction and should be considered an acceptable solution against the major cereal diseases claimed.

#### North- East Zone

The presented data correspond with the requirements of the EPPO Standard PP 1/225 (Minimum effective dose).

The test product GLOB2111F was applied according to the GAP table at the maximum rate of 1 L/ha (100%) and a reduced rate of 0.6 L/ha (60% of the full rate). The applicant submitted relevant data with one application on winter wheat (targeting SEPTTR, PUCCSI), rye (targeting RHYNSE), triticale (targeting RHYNSE), and winter barley (targeting PYRNTE, RHYNSE). However, the amount of data presented is very limited. In the presented trials, application of GLOB2111F at the lower rate of 0.6 l/ha dose rate gave less consistent and more variable disease control than that achieved with the 1.0 l/ha dose rate. Based on results from the above trials, the dose of 1.0 l/ha of GLOB2111F provided the optimum overall reduction and should be considered an acceptable solution against the major cereal diseases claimed.

#### South - East Zone

The presented data correspond with the requirements of the EPPO Standard PP 1/225 (Minimum effective dose).

The test product GLOB2111F was applied according to the GAP table at the maximum rate of 1 L/ha (100%) and a reduced rate of 0.6 L/ha (60% of the full rate). The applicant submitted relevant data with one application on winter wheat (targeting SEPTTR) and winter barley (targeting PYRNTE, RHYNSE, RAMUCC). In the presented trials, application of GLOB2111F at the lower rate of 0.6 l/ha dose rate gave less consistent and more variable disease control than that achieved with the 1.0 l/ha dose rate. Based on results from the above trials, the dose of 1.0 l/ha of GLOB2111F provided the optimum overall reduction and should be considered an acceptable solution against the major cereal diseases claimed.

### 3.2.3 Efficacy tests (KCP 6.2)

#### 3.2.3.1 Cereals – leaf and ear diseases

In total, 162 efficacy trials were submitted to demonstrate the Efficacy of GLOB2020aF and GLOB2111F for the use on cereals. These trials were carried out between 2021 and 2023 by GEP certified research institutions in the northern part of France, Germany, Denmark, the Czech Republic, Ireland, Norway and Sweden (41 trials, belonging to the Maritime EPPO Zone), in Poland, Estonia and Latvia (56 trials, belonging to the North-East EPPO Zone), in Croatia, Greece, Portugal (39 trials belonging to the Mediterranean

EPPO Zone), as well as in Hungary, Romania and Slovenia (26 trials belonging to the South-East EPPO Zone).

Data are gathered per EPPO Zone. In detailed tables presented in the BAD, trials performed in the Maritime EPPO Zone have their trial number highlighted in blue, but the ones which are also valid for Poland (Czech and German trials) are dark blue. Trials performed in the North-East EPPO Zone have their trial numbers marked in yellow, in Mediterranean zone marked in green and in the South-East EPPO zone are marked in amber as shown below. A concise summary is presented in the dRR.

Maritime EPPO Zone
Czech and German trials (Maritime EPPO Zone), valid for Poland
North-East EPPO Zone
Mediterranean EPPO Zone
South-East EPPO Zone

Information on trial methodology is presented in the tables below. Trial site information and application details are presented in Appendix 3 of the BAD for each EPPO zone.

According to the EPPO reference standard PP 1/26(4) Foliar and ear diseases on cereals, the assessments performed 2 to 3 weeks after each application on different leaf levels, as well as around BBCH 75-83 for assessments on the ears (*Fusarium* spp.) were summarized. When an assessment 2-3 weeks after application ( $\pm$  2 to 3 days) was not available or no sufficient disease pressure was observed, a later assessment at about 4-6 weeks was chosen. As a rule, a maximum of 3 leaf levels were summarized, starting from the uppermost level with available data (i.e. up to L-3 after the first application and up to L-2 after the second application; at 4-6 weeks after the second application only assessments on the flag leaf were taken into account). In addition, results regarding the Fusarium index (FHB) are also summarized below.

Results in detailed tables in the BAD are sorted by crop, timing after each application and leaf level.

NOTE: Efficacy results are also presented for another coded formulation under development, GLOB2020aF, which applied at 1 L/ha provides 100 g bixafen + 100 g difenoconazole. The data are relevant to demonstrate the usefulness of the straight formulation GLOB2111F in combination with azoles.

The disease control levels used for evaluation are recorded as a percentage and are displayed in summary tables reflecting HSE Data Requirement Handbook (ver. 2.2 June 2012, chapter 8, table 8.2 *Levels of pest control expected for effectiveness claims*):

Description of effectiveness against diseases	Mean level of control
Control (good to very good)	$\geq 80\%$ -100%
Partial / moderate / useful control	$\geq 60\%$ -79%
Reduction / some control	$\geq 40\%$ -59%
Not reliable control	<40%

**Table 3.2-10: Details on trial methodology – Maritime EPPO zone**

<b>Guidelines</b>	General guidelines	PP 1/135(4), EPPO PP 1/152 (4), PP 1/181(4/5)
	Specific guidelines	PP 1/26(4)
<b>Experimental design</b>	Plot design	RCBD (41)
	Plot size	18.5-50 m <sup>2</sup>
	Number of replications	4 (41)
<b>Crop</b>	Trials per crop	AVESA (1), TRZAW (18); TTLWI (4); HORVW (11); HORVS (1); SECCW (4); TRZSP (2)



	Varieties per crop	AVESA: Marco Polo TRZAW: Costello, Energo, Hallfreda, Illusion, Jantarka, Julius, Kalbex, LG Mocca, Patras, Pondus, Tobak, Torp, Vanessa, VIRIATO, Zyatt TRZSP: Rokosz; Wirtas TTLWI: Agostino; Avokado; Cedrico; Claudius; Tenor HORVW:; Bordeaux; Breunskylic; Fabian; Kosmos; KWS Higgins; KWS Meridian; KWS Tardis; LG Zoro; Rumcajs; Titus HORVS: RGT Planet SECCW: Bojko; Daňkovské Turku; Herakles; Insepector
	Sowing period	Autumn sowing: 02/09-18/11 Spring sowing: 23/03-22/04
<b>Application</b>	Crop stage (BBCH) at application	1 appl. Trials: 61-65 2 appl. Trials - A: 31-33; B: 37-65
	Number of applications	1 (9 trials); 2 (32 trials)
	Intervals between applications	14-29
	Spray volumes	150-200 L/ha
<b>Assessment</b>	Assessment types	PESSEV% (summarized) PESINC% FHB index (summarized) YIELD (summarized)
	Assessment dates	1) 2-3 weeks after 1st. Appl. 2) 2-3 weeks after 2nd. Appl. 3) 4-6 weeks after 2nd. Appl. 3) Harvest
<b>Other relevant information</b>	Soil types	clay loam, fine clay loam, fine sandy loam, loam, loamy sand, sand, sandy clay, sandy clay loam, sandy loam, silt loam, silty clay loam
	Natural / artificial inoculation...	4 trials artificial inoculation (Fusarium sp.)
	Field / Greenhouse...	Field
	GEP	All trials were performed according to GEP

**Table 3.2-11: Details on trial methodology – North-East EPPO zone**

<b>Guidelines</b>	General guidelines	PP 1/135(4), EPPO PP 1/152 (4), PP 1/181(4/5)
	Specific guidelines	PP 1/26(4)
<b>Experimental design</b>	Plot design	RCBD (56)
	Plot size	15-27.5 m <sup>2</sup>
	Number of replications	4 (56)
<b>Crop</b>	Trials per crop	TRZAW (29); HORVW (10); HORVS (2); AVESA (7); SECCW (3); TTLWI (5)
	Varieties per crop	TRZAW: Arkadia, Belissa, Creator, Dubai, Edvins, EUFORIA, Formacja, Fredis, Gordian, Informer, Natula, RGT Kilimanjoro, SKAGEN, Tobak, Zyta HORVW: Anja, Baracooda, Bažant, Carola, KWS Kosmos, Morris, SANDRA, SY Baracooda, SY Galileo HORVS: Amadora; Raptus AVESA: Armani; Bingo; Montrose; Kusta; Stendes Darta; Bingo; Gepard SECCW: Elias; KWS Serafino; Vinetto TTLWI: Cappricia; Meloman; Ruja; Trismart
	Sowing period	Autumn sowing: 02/09-03/11 Spring sowing: 23/03-02/05
<b>Application</b>	Crop stage (BBCH) at application	1 appl. Trials:51-65 2 appl. Trials - A:32-37; B:39-71
	Number of applications	1 (24 trials); 2 (32 trials)
	Intervals between applications	14-32
	Spray volumes	150-200 L/ha
<b>Assessment</b>	Assessment types	PESSEV% (summarized) PESINC% FHB index (summarized) YIELD (sumamrized)
	Assessment dates	1) 2-3 weeks after 1st. Appl. 2) 2-3 weeks after 2nd. Appl 3) 4-6 weeks after 2nd. Appl 3) Harvest
<b>Other relevant information</b>	Soil types	calcareous clay loam, calcareous sandy loam, clay sandy loam, clayey sand, loam, loamy sand, peaty loam, sand, sandy clay, sandy clay loam, sandy loam, silt loam, silty clay, silty clay loam
	Natural / artificial inoculation...	10 trials artificial inoculation (Fusarium sp.)
	Field / Greenhouse...	Field
	GEP	All trials were performed according to GEP

**Table 3.2-12: Details on trial methodology – Mediterranean EPPO zone**

<b>Guidelines</b>	General guidelines	PP 1/135(4), EPPO PP 1/152 (4), PP 1/181(4/5)
	Specific guidelines	PP 1/26(4)
<b>Experimental design</b>	Plot design	RCBD (39)
	Plot size	20-30 m <sup>2</sup>
	Number of replications	4 (39)
<b>Crop</b>	Trials per crop	TRZAW (14); TRZDW (11); HORVW (12); SECCW (1); TTLWI (1)
	Varieties per crop	TRZAW: Acorazado, Andino, Cosaco, DIM 401, Elisavet, Ingenio, Kraljica, Mandica, Nogal, Valbona TRZDW: Antalis, Bronte, Claudio, Don Ricardo, Quadratto, Simeto HORVW: Colorado, Maxim, Pewter, Planet, RGT Planet, Sandra, Sandra RWA, Zana, Zlatko SECCW: Vector RWA TTLWI: Riparo RWA
	Sowing period	27/09-19/01 TRZDW: 1 trial on 03/04
<b>Application</b>	Crop stage (BBCH) at application	1 appl. Trials:61-65 2 appl. Trials - A:31-37; B:39-59
	Number of applications	1 (13 trials); 2 (26 trials)
	Intervals between applications	19-28
	Spray volumes	150-200 L/ha
<b>Assessment</b>	Assessment types	PESSEV% (summarized) PESINC% FHB index (summarized) YIELD (sumamrized)
	Assessment dates	1) 2-3 weeks after 1st. Appl. 2) 2-3 weeks after 2nd. Appl 3) 4-6 weeks after 2nd. Appl 3) Harvest
<b>Other relevant information</b>	Soil types	clay, clay loam, clay sandy loam, fine gravelly loam, loam, sandy clay, sandy clay loam, sandy loam, sandy silt loam, silt loam
	Natural / artificial inoculation...	5 trials artificial inoculation (Fusarium sp.)
	Field / Greenhouse...	Field
	GEP	All trials were performed according to GEP

**Table 3.2-13: Details on trial methodology – South-East EPPO zone**

<b>Guidelines</b>	General guidelines	PP 1/135(4), EPPO PP 1/152 (4), PP 1/181(4/5)
	Specific guidelines	PP 1/26(4)
<b>Experimental design</b>	Plot design	RCBD (26)
	Plot size	20-30 m <sup>2</sup>
	Number of replications	4 (26)
<b>Crop</b>	Trials per crop	HORVW (8); TRZAW (17), TRZDW (1)
	Varieties per crop	HORVW: KWS Meridian; KWS Daxor, KWS Scala, Cardinal; Maxim; Concordia; Rex TRZAW: Bánkúti, Cellule, CH Combin, GK Csillag, GK Körös, GK KÖRÖS, Illico, Kraljica, KWS Sirtaki, Miranda, MV Nádor, Nádor, Nexera 86, Nexera 88, Panaso, PG. 102 TRZDW: GK Julidur
	Sowing period	15/09-15/11
<b>Application</b>	Crop stage (BBCH) at application	1 appl. Trials: 61 2 appl. Trials - A:31-33; B:39-59
	Number of applications	1 (9 trials); 2 (17 trials)
	Intervals between applications	19-32
	Spray volumes	200 L/ha
<b>Assessment</b>	Assessment types	PESSEV% (summarized) PESINC% FHB index (summarized) YIELD (sumamrized)
	Assessment dates	1) 2-3 weeks after 1st. Appl. 2) 2-3 weeks after 2nd. Appl 3) 4-6 weeks after 2nd. Appl 3) Harvest
<b>Other relevant information</b>	Soil types	clay loam, fine gravelly loam, loam, loamy clay, loamy sand, sand, sandy clay loam, sandy loam, silty sand
	Natural / artificial inoculation...	6 trials artificial inoculation (Fusarium sp.)
	Field / Greenhouse...	Field
	GEP	All trials were performed according to GEP

An overview on the reference standards used in the trials is presented in the table below.

**Table 3.2-14: Presentation of reference standards used in cereal trials (efficacy trials)**

Reference Standard	Countries where the product is registered	Authorization number	Active substance(s)	Formulation		Registered application rate	Application rate in trials (x treatment)	Re-mark
				Type	Concentration of a.s.			
Praktis	PT	1485	Prothioconazole	EC	250 g/L	0.8 L/ha	0.8 L/ha	
Protendo 300 EC	CZ	5683-0	Prothioconazole	EC	300 g/L	0.65 L/ha	0.65 L/ha	
	BE	11111P/B	Prothioconazole	EC	300 g/L	0.65 L/ha	0.65 L/ha	Max 2
	LV	714	Prothioconazole	EC	300 g/L	0.65 Lha	0.65 L/ha	
	NL	16355 N	Prothioconazole	EC	300 g/L	0.65 L/ha	0.65 L/ha	
	PL	R-224/2019	Prothioconazole	EC	300 g/L	0.65 L/ha	0.65 L/ha	
	EE	00800	Prothioconazole	EC	300 g/L	0.33 l/ha - 0.65 l/ha	0.65 L/ha	
	HR	UP/I-320-20/20-03/38	Prothioconazole	EC	300 g/L	0.65 L/ha	0.65 L/ha	
	PT	-	Prothioconazole	EC	300 g/L	0.65 L/ha	0.65 L/ha	
	SI	U34330-70/18/9	Prothioconazole	EC	300 g/L	0.65 L/ha	0.65 L/ha	
	EL	-	Prothioconazole	EC	300 g/L	0.65 L/ha	0.65 L/ha	
	IT	17987	Prothioconazole	EC	300 g/L	0.65 L/ha	0.65 L/ha	
Procer 300	PL	R-208/2019	Prothioconazole	EC	300 g/L	0.65 L/ha	0.65 L/ha	
Protikon	PL	R-127/2021	Prothioconazole	EC	250 g/L	0.8 L/ha	0.8 L/ha	

Reference Standard	Countries where the product is registered	Authorization number	Active substance(s)	Formulation		Registered application rate	Application rate in trials (x treatment)	Re-mark
				Type	Concentration of a.s.			
Proline 250 EC	CZ	4523-1	Prothioconazole	EC	250 g/L	0.8 L/ha	0.8 L/ha	Max 2
	NL	12725	Prothioconazole	EC	250 g/L	0.8 L/ha	0.8 L/ha	Max 2
	LV	0637	Prothioconazole	EC	250 g/L	0.8 L/ha	0.8 L/ha	
	HU	6300/1205-1/2020	Prothioconazole	EC	250 g/L	0.8 L/ha	0.8 L/ha	
	RO	457PC/15.11.2018	Prothioconazole	EC	250 g/L	0.8 L/ha	0.8 L/ha	
	EL	60838	Prothioconazole	EC	250 g/L	0.8 L/ha	0.8 L/ha	Max 2
	HR	UP/I-320-20/17-03/357	Prothioconazole	EC	250 g/L	0.8 L/ha	0.8 L/ha	
Hutton	CZ	4662-2	prothioconazole + spiroxamine + tebuconazole		100+250+100 g/L	0.8 L/ha	0.8 L/ha	
Zantara	PL	R-54/2014	bixafen + tebuconazole	EC	50+166 g/L	1-1.2 L/ha	1.2 L/ha	
	RO	2859/18.04.2011	bixafen + tebuconazole	EC	50+166 g/L	1-1.2 L/ha	1.2 L/ha	
Ascra Xpro	LV	549	bixafen + fluopyram + prothioconazole	EC	65 + 65 + 130g/L	0.6-1.2 L/ha	1.2-1.5 L/ha	
	PL	R-172/2018	bixafen + fluopyram + prothioconazole	EC	65 + 65 + 130g/L	1.5 L/ha	1.2-1.5 L/ha	Not auth. on oats
	HR	UP/I-320-20/14-01/459	bixafen + fluopyram + prothioconazole	EC	65 + 65 + 130g/L	1 – 1.5 l/ha	1.2-1.5 L/ha	
Aviator Xpro	PL	R- 11/2013	bixafen + prothioconazole	EC	75 + 150 g/L	0.8-1 L/ha	0.8-1 L/ha	
	CZ	5635-0	bixafen + prothioconazole	EC	75 + 150 g/L	0.8-1 L/ha	0.8 L/ha	
	RO	352PC	bixafen + prothioconazole	EC	75 + 150 g/L	0.8-1 L/ha on wheat 0.6-0.8 L/ha on barley	0.8-1 L/ha	
	PT	936	bixafen + prothioconazole	EC	75 + 150 g/L	0.8-1.25 L/ha	1-1.25 L/ha	
	GR	61125	bixafen + prothioconazole	EC	75 + 150 g/L	1.25 L/ha	1.25 L/ha	
	SE	5292	bixafen + prothioconazole	EC	75 + 150 g/L	0.3-1.0 L/ha	1 L/ha	
	LV		bixafen + prothioconazole	EC	75 + 150 g/L			
	HR		bixafen + prothioconazole	EC	75 + 150 g/L			
	IE		bixafen + prothioconazole	EC	75 + 150 g/L			
Siltra Xpro	SE	5284	bixafen + prothioconazole	EC	60 + 200 g/L	0.75 L/ha	0.75 L/ha	Max 2
	CZ	5569-0	bixafen + prothioconazole	EC	60 + 200 g/L	1 L/ha	1 L/ha	
	EE	527	bixafen + prothioconazole	EC	60 + 200 g/L	0.75-1 L/ha	1 L/ha	
	LV	479	bixafen + prothioconazole	EC	60 + 200 g/L	0.75-1 L/ha	1 L/ha	
	HU	6300/1204-1/2020	bixafen + prothioconazole	EC	60 + 200 g/L	0.8-1 L/ha	1 L/ha	
	SI	U34330-43/17/6	bixafen + prothioconazole	EC	60 + 200 g/L	1 L/ha	1 L/ha	
	NO	2017.23	bixafen + prothioconazole	EC	60 + 200 g/L	1 L/ha	1 L/ha	

In the following summary tables, the name *Protendo 300 EC* or *Prothioconazole ref.* is used in headers as a collective name for related products in an EC formulation containing prothioconazole which are registered

in several countries. The treatments always provided a sufficiently similar amount of active substance, namely 195 to 200 g a.s./ha. In the same way, all products based in a mixture of bixafen and a triazole (usually prothioconazole) were gathered and the name *bixafen+triazole mixtures* is used in tables headers. Exact product names for each trial can be found in right column in raw data tables in the BAD.

## Maritime EPPO Zone

A total of 41 trials were carried out in the Maritime EPPO Zone to evaluate the Efficacy of GLOB2020aF and GLOB2111F for the control of foliar and ear diseases on cereals. Those trials have been conducted between 2021 and 2023 in the northern part of France, Germany, Denmark, the Czech Republic, Ireland, Norway and Sweden.

The reference product according to authorized uses in the countries where trials were performed is based on bixafen mixtures with a triazole (as Siltra Xpro and Aviator Xpro). These mixtures were used as uniform reference in nearly all trials. Additionally or in trials where a reference product with bixafen was not available, Protendo 300 EC (prothioconazole 300 EC) applied at 0.65 L/ha or Proline (prothioconazole 250 g/L) applied at 0.8 L/ha were set as the reference PPP.

Data were summarized at the end of each table by an orthogonal comparison of the control achieved by the proposed rate of GLOB2020aF and GLOB2111F to the reference products at each relevant assessment timing. As a lower dose rate was tested only in part of the trials, these data are summarized only when representative and, if different, the relative number of trials is showed close to the mean value.

NOTE: Efficacy results are also presented for another coded formulation under development, GLOB2020aF, which applied at 1 L/ha provides 100 g bixafen + 100 g difenoconazole. The data are relevant to demonstrate the usefulness of the straight formulation GLOB2111F in combination with azoles.

Results where the untreated check had a severity percentage below 5% or a second assessment falling within the same assessment timing window were not considered for means calculation and those data are shaded in grey in the BAD. Figures presented in italics for Untreated check in calculated control rows stand for the pressure.

Exceptionally, infestation between 4 and 5% were used when a tendency could be seen in disease development. The number of trials where product is statistically >, <, = compared to the reference standard is provided for each grouping.

## Results

### FUSASP – *Fusarium* spp.

Infection by *Fusarium* species was verified at acceptable levels in a total of 7 trials on wheat. Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was good especially regarding the FHB index. Control levels were slightly lower than those of standard products based on bixafen + triazole mixtures.

The results presented for another formulation where bixafen is in mixture with a DMI a.s. (i.e. difenoconazole in GLOB2020aF, not target of this submission) clearly demonstrates the benefit of such mixtures. Following FRAC guidelines, the number of applications with Starinta is limited to 1 per season and recommendation to be used with a mixing partner will be stated on the label.

No specific EPPO extrapolation table is available on foliar and ear diseases. Nevertheless, the Dutch guidance states that for *Fusarium* spp., it is possible to extrapolate from winter wheat to spring wheat, rye, triticale and spelt because in these crops same diseases can be found and their susceptibility to infection is lower. Also on UK, extrapolation is acceptable from winter wheat to minor cereals including oats, spring wheat, durum wheat, rye, triticale. Therefore, acceptability of the data provided on winter wheat to other crops may be taken into account by each cMS.

**Table 3.2-15 Efficacy of LOB2020aF and LOB2111F against FUSASP (PESSEV on ear and FHB index -severity x incidence) on wheat – 1 application– Maritime EPPO zone**

EPPO zone	Target code	Crop Code	Group-ing	Part rated	Type	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
													GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixture		
										Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	FUSASP	TRZAW	All valid ass. BBCH 75-83	EAR	PESSEV	61-65	7	20-32	20-32	24.5	5.7-68.6	8.3	50.2	15.2-83.2	61.2	60.2	19.4-92.1	65.1	48.7	12.4-78.9	51.6	58.9	15.7-92.2	64.2	71.3	38.3-90.8	70.6
MAR	FUSASP	TRZAW	All valid ass. BBCH 75-83	EAR	SEVIND	61-65	7	20-29	20-29	1611.1	7.7-5248.8	237.1	61.7	23.3-91.6	70.1	71.0	32-97.6	84.1	59.9	16.3-93	75.9	70.3	20.9-99	86.5	83.5	38.3-96.5	91.3

number of trials summarized: 7

#### Efficacy against FUSASP in winter wheat

The presented data correspond with the requirements of the EPPO Standards PP 1/26 (Foliar and ear diseases on cereals) PP 1/214 (Principles of acceptable efficacy), PP 1/223 (Introduction to the efficacy evaluation of plant protection products) and PP 1/226 (Number of efficacy trials).

In the trials treatments were applied at BBCH 61-65. The disease infestation level in untreated plots was sufficient (at least 5% of pests in at least one leaf stage) to validate the trials and reliably assess the efficacy of LOB2111F. The data demonstrated that the efficacy of LOB2111F, applied at the proposed label rate of 1.0 L/ha, was statistically inferior at 58.9% compared to the efficacy of the standard bixafen+triazole mixtures, which was 71.3%. Considering the EPPO Standard PP 1/214 (Principles of acceptable efficacy), the trials do not show sufficient effectiveness.

#### SEPTTR – *Zymoseptoria tritici*

Infection by *Zymoseptoria tritici* was verified at acceptable levels in a total of 18 trials between 2021 and 2023 (10 on wheat, 2 on spelt, 2 on rye, 4 on triticale). Data demonstrated that the Efficacy of LOB2020aF and LOB2111F at the proposed rate of 1 L/ha was very good, especially on the top leaves including the flag leaf. Control levels were comparable to those of standard products based on bixafen + triazole mixtures in about 2/3 of the assessments, and even more comparable when taking into account the protection of the flag leaf.

No specific EPPO extrapolation table is available on foliar and ear diseases. Nevertheless, the Dutch guidance states that for leaf and ear diseases, it is possible to extrapolate from winter wheat to spring wheat, rye, triticale and spelt because in these crops same diseases can be found and their susceptibility to infection is lower. Also on UK, extrapolation is acceptable from winter wheat to minor cereals including oats, spring wheat, durum wheat, rye, triticale. Therefore, acceptability of the substantial data provided on winter wheat as well as supportive data on minor cereals in support of other crops may be taken into account by each cMS. In addition, based on practical experience it is known that if *Zymoseptoria tritici* can be well controlled, LEPTNO *Parastagonospora nodorum* (syn.= *Leptosphaeria nodorum*, leaf infection) can also be well controlled. Therefore, the data provided will support by extrapolation all used claimed in the table “All intended uses” in



Part B – Section 0.

**Table 3.2-16: Efficacy of GLOB2020aF and GLOB2111F against SEPTTR (PESSEV %) on cereals (wheat, rye, spelt, triticale) at different leaf levels– Maritime EPPO zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control																	
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	SEPTTR	TRZAW	All valid ass. (2-3w after A)	FL-2	32-32	4	21-24	21-24	13.6	5-25.9	11.7	66.3	35.3-100	65.0	71.1	40.2-100	72.1	79.1	51.8-100	82.2	85.1	70.8-100	84.8	-	-	-	78.7	46.6-100	84.1
			FL-3	32-32	4	21-22	21-22	24.8	4.3-48.4	23.3	60.6	29-86.4	63.5	65.4	40.4-93.5	63.8	72.2	54.6-89.2	72.4	71.5	47.1-96.7	71.1	70.9 (n=2)	67.7-74.1	70.9	76.9 (n=3)	45.3-100	85.3	
			All valid ass. (2-3w after B)	FLAG	32-32	2	45-46	21-25	7.4	4.5-10.3	7.4	80.1	72-88.1	80.1	92.6	85.1-100	92.6	67.5	55.1-79.8	67.5	81.2	62.3-100	81.2	67.1	67.1-67.1	67.1	89.1	78.2-100	89.1
				FL-1	32-32	8	31-46	10-25	14.1	5.6-30.3	11.3	71.1	26.8-100	83.3	87.2	43.5-100	93.6	67.9	20-100	76.9	82.1	30.5-100	93.3	79.4	58.6-92.9	87.7	90.7	74.6-100	96.1
				FL-2	32-32	8	31-48	10-25	37.8	14.4-70.2	34.4	66.1	32.1-92	66.5	78.1	41.3-95.6	80.8	60.5	28.3-93.3	59.2	68.4	31.2-97.3	70.9	66.2	43.9-94.2	62.6	76.1	48.8-100	77.6
			All valid ass. (4-6w after B)	FLAG	32-33	2	65-66	35-38	13.0	10-15.9	13.0	42.4	22.4-62.3	42.4	60.6	44-77.1	60.6	46.1	12.5-79.6	46.1	49.3	16.5-82.1	49.3	50.6	40.6-60.6	50.6	38.4	38.4-38.4	38.4
MAR	SEPTTR	TRZSP	All valid ass. (2-3w after A)	FL-2	32.0	1	22.0	22.0	7.5	-	-	43.9	-	-	50.6	-	-	89.3	-	-	100.0	-	-	-	-	-	100.0	-	-
			FL-3	32.0	1	22.0	22.0	38.8	-	-	42.7	-	-	53.4	-	-	84.1	-	-	79.2	-	-	-	-	-	79.9	-	-	
			All valid ass. (2-3w after B)	FLAG	32.0	1	28.0	7.0	14.7	-	-	54.3	-	-	100.0	-	-	80.5	-	-	100.0	-	-	-	-	-	100.0	-	-
				FL-1	32.0	1	28.0	7.0	26.6	-	-	70.7	-	-	91.9	-	-	83.6	-	-	89.6	-	-	-	-	-	100.0	-	-
			FL-2	32.0	1	28.0	7.0	37.5	-	-	76.7	-	-	85.0	-	-	69.2	-	-	92.5	-	-	-	-	-	-	95.0	-	-
			All valid ass. (4-6w after B)	FLAG	32.0	1	50.0	29.0	75.0	-	-	89.6	-	-	98.3	-	-	90.0	-	-	95.0	-	-	-	-	-	-	100.0	-
MAR	SEPTTR	SECCW	All valid ass. (2-3w after A)	FL-2	32.0	1	25.0	25.0	41.3	-	-	42.4	-	-	57.2	-	-	84.9	-	-	81.3	-	-	-	-	-	80.7	-	-
			All valid ass. (2-3w after B)	FL-1	32.0	1	46.0	21.0	17.5	-	-	77.3	-	-	76.1	-	-	95.5	-	-	100.0	-	-	-	-	-	100.0	-	-
			All valid ass. (4-6w after B)	FLAG	32.0	1	50.0	29.0	20.3	-	-	90.5	-	-	92.0	-	-	89.1	-	-	93.2	-	-	-	-	-	100.0	-	-
MAR	SEPTTR	TTLWI	All valid ass. (2-3w after A)	FL-2	32-32	1	21-21	21-21	8.0	8-8	8.0	52.4	52.4-52.4	52.4	52.8	52.8-52.8	52.8	85.3	85.3-85.3	85.3	98.7	98.7-98.7	98.7	-	-	-	98.7	98.7-98.7	98.7
			FL-3	32-32	1	21-21	21-21	41.9	-	-	43.4	-	-	58.3	-	-	85.4	-	-	80.5	-	-	-	-	-	81.6	-	-	
			All valid ass. (2-3w after B)	FLAG	32-32	1	38-38	17-17	7.8	7.8-7.8	7.8	100.0	100-100	100.0	100.0	100-100	100.0	100-100	100.0	100-100	100.0	100.0	-	-	-	100.0	100-100	100.0	
				FL-1	32-32	2	38-42	17-21	12.1	6.6-17.5	12.1	75.3	66.7-83.9	75.3	82.6	75.8-89.3	82.6	79.4	65.8-92.9	79.4	84.2	75.8-92.5	84.2	-	-	-	90.4	80.8-100	90.4
				FL-2	32-32	3	35-42	14-21	21.9	10.6-37.5	17.5	67.0	36.2-87.5	77.3	71.0	47.2-90.8	74.9	80.0	52.5-94.2	93.3	88.4	72.7-100	92.5	-	-	-	87.7	68.9-100	94.1
			All valid ass. (4-6w after B)	FLAG	32-32	1	50-50	29-29	35.9	-	-	88.7	-	-	90.3	-	-	93.0	-	-	94.7	-	-	-	-	-	97.4	-	-
				FL-1	32-32	1	52-52	31-31	8.4	-	-	75.2	-	-	77.9	-	-	72.7	-	-	86.6	-	-	-	93.5	-	-		

number of trials summarized: 10 wheat, 2 spelt, 2 rye, 4 triticale

### Efficacy against *Zymoseptoria tritici* in winter wheat

The number of trials conducted (four) with assessments after first application is insufficient according to EPPO standard PP 1/226 (3). This standard clearly states that for major crops 6 to 15 results demonstrating sufficient efficacy against a major pest are required. In these trials, GLOB2111F in the majority of cases shown reasonable control of *Zymoseptoria tritici* with an average 78.3% recorded about 21 - 24 days after treatment with infection in the untreated ranging from 5 to 48.4%. The efficacy of the product varied from 47.1 to 100%. Standard products products based on bixafen + triazole mixtures performed in average on similar level.

The CMS concerned should consider whether there is sufficient evidence to support this use, depending on whether the use is major or minor in their area and taking into account the experience with the active substance bixafen.

### Efficacy against *Zymoseptoria tritici* in rye , spelt and triticale.

The applicant showed single results from trials (assessment after first application) against *Zymoseptoria tritici* in rye (81,3%), spelt (100%) and triticale (winter). According to the EPPO Standard PP 1/226 (Number of efficacy trials), a number of 10 (6-15) trials is required for a major pathogen in a major crop and 3 (2 – 6) trials for minor uses to demonstrate adequate efficacy.

Furthermore the applicant assumes that extrapolation of the efficacy data from wheat to spring wheat, rye, triticale and spelt is acceptable for this intended use due to the similarity of these crops to wheat and their susceptibility to infection is lower. PL, as the zRMS, does not accept the applicant's explanation or the extrapolation from wheat based on only four trial results with a single application. The concerned Member States, where rye, spelt, or triticale are minor crops, are invited to decide for themselves whether or not to accept the single result and the extrapolation from the wheat data.

### PUCCRE/PUCCRT/PUCCRR - *Puccinia recondita*, *Puccinia triticina* (syn. *Puccinia recondita* f. sp. *tritricina*), *Puccinia recondita* f. sp. *recondita*

Infection by brown rusts *Puccinia recondita* and related “*forma specialis*” was verified at acceptable levels in a total of 6 trials in Maritime zone carried out in 2023 (2 on rye, 3 on wheat, 1 on triticale), mainly after the second application. Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was very good, being in general equivalent to the standard products based either on prothioconazole alone or on bixafen + triazole mixtures.

**Table 3.2-17 Efficacy of GLOB2020aF and GLOB2111F against PUCCRE (PESSEV) on cereals (rye, wheat, triticale) at different leaf levels - Maritime EPPO Zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control																	
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	PUCCRE	SECCW	All valid ass. (2-3w after B)	FL-1	32	1	42	21	5	-	-	92.5	-	-	100.0	-	-	96.3	-	-	100.0	-	-	-	-	-	100.0	-	-
			All valid ass. (4-6w after B)	FLAG	32-32	1	50-50	29-29	60.9	-	-	96.4	-	-	96.9	-	-	93.8	-	-	97.3	-	-	-	-	-	100.0	-	-

		TRZAW	All valid ass. (2-3w after A, late appl.)	FLAG	61-61	1	15-15	15-15	28.1	-	-	100.0	-	-	100.0	-	-	71.8	-	-	92.3	-	-	-	-	-	52.8	-	-
		TRZAW	All valid ass. (4-6w after B)	FLAG	32-37	2	47-55	34-47	64.1	62.5-65.6	64.1	90.6	90.6-90.6	90.6	90.0	80-100	90.0	89.0	89-89	89.0	90.4	87.1-93.7	90.4	95.0	94.7-95.2	95.0	-	-	-
		TTLWI	All valid ass. (4-6w after B)	FLAG	32.0	1	50.0	29.0	60.9	-	-	80.9	-	-	86.2	-	-	92.8	-	-	88.2	-	-	-	-	-	100.0	-	-

number of trials summarized: 6 (2 rye, 3 wheat, 1 triticale)

#### **Efficacy against *Puccinia recondite* on rye, wheat, and triticale**

The number of trials conducted on rye (2), wheat (3), and triticale (1) in the maritime EPPO zone in 2023 did not meet the requirements set by EPPO Standard PP 1/226 (Number of Efficacy Trials). Only trials from one growing season were presented, which is insufficient to properly assess the effectiveness. Additionally, the data includes results from trials with two applications, whereas the applicant is requesting to register GLOB2111F for a single application. Consequently, the provided data does not reflect the requested use. It can be concluded that, due to the low number of trials and the lack of single-use trial data, the plant protection product cannot be proposed for authorization against *Puccinia recondita*.

### PUCCSI/PUCCST – *Puccinia striiformis tritici*, *Puccinia striiformis*

Infection by stripe (yellow) rusts *Puccinia striiformis* identified also by its “*forma specialis*” *Puccinia striiformis* f. sp. *tritici* was verified at acceptable levels in one trial conducted in 2023 on the host crop wheat. Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was very good and equivalent to the standard product based on bixafen + triazole mixture. Good results were also observed in other rusts in the Maritime zone and against *Puccinia striiformis* in the Noth East EPPO zone. Given the long use of the active substances, the applicant deems that the limited data set can be used to support the use against *Puccinia striiformis* in countries belonging to the Maritime zone.

**Table 3.2-18: Efficacy of GLOB2020aF and GLOB2111F against PUCCSI/PUCCST (PESSEV) on wheat at different leaf levels – Maritime EPPO zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	PUCCSI/PUCCST	TRZAW	All valid ass. (2-3w after B)	FLAG	32	1	45	21	15.5	-	-	82.8	-	-	90.0	-	-	74.0	-	-	88.3	-	-	87.6	-	-
									18.0	18-18	18.0	62.6	62.6-62.6	62.6	92.0	92-92	92.0	60.6	60.6-60.6	60.6	95.4	95.4-95.4	95.4	97.3	97.3-97.3	97.3

Number of trials summarized: 1

#### Efficacy against *Puccinia striiformis* on wheat

The number of trials conducted on wheat (1) in the maritime EPPO zone in 2023 was below the requirements set by EPPO Standard PP 1/226 (Number of Efficacy Trials). For this intended use, data is presented from trial results with two applications. As the applicant requests to register GLOB2111F for a single application, the provided data does not reflect the requested use. It can be concluded that due to the low number of trials and the lack of single-application trial data, the plant protection product cannot be proposed for authorization against *Puccinia striiformis*.

### PUCCHD – *Puccinia hordei*

Infection by brown rust *Puccinia hordei* on barley was verified at acceptable levels in a total of 2 trials on winter barley in 2023 (1 on winter barley and one on spring barley). Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was good and in general comparable to those of standard products based on prothioconazole alone or on bixafen + triazole mixtures.

**Table 3.2-19: Efficacy of GLOB2020aF and GLOB2111F against PUCCHD (PESSEV) on barley at different leaf levels – Maritime EPPO zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control																	
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	PUCCHD	HORVW	All valid ass. (2-3w after B)	FLAG	32-32	1	33-33	12-12	7.5	7.5-7.5	7.5	74.8	74.8-74.8	74.8	100.0	100-100	100.0	71.1	71.1-71.1	71.1	95.6	95.6-95.6	95.6	-	-	-	95.6	95.6-95.6	95.6
		HORVS	All valid ass. (2-3w after B)	FL-2	33	1	37	23	6.8	-	-	96.8	-	-	97.8	-	-	83.3	-	-	90.8	-	-	97.8	-	-	-	-	-
			All valid ass. (4-6w after B)	FL-1	33	1	44	30	45	-	-	96.9	-	-	96.6	-	-	96.6	-	-	95.5	-	-	94.7	-	-	-	-	-

number of trials summarized: 1 winter + 1 spring barley

#### Efficacy against *Puccinia hordei* on barley

The number of trials conducted on barley (2) in the maritime EPPO zone in 2023 did not meet the requirements set by EPPO Standard PP 1/226 (Number of Efficacy Trials). Only trials from one growing season were presented, which is insufficient to assess effectiveness properly. The data includes results from trials with two applications, whereas the applicant is requesting GLOB2111F for a single application. Consequently, the provided data does not reflect the requested use. Due to the low number of trials and the lack of single-application trial data, the product cannot be proposed for authorization against *Puccinia hordei*.

#### **PUCCCA – *Puccinia coronata* var. *avenae***

Data on crown rust of oats *Puccinia coronata* var. *avenae* is available from 1 trial in the Maritime EPPO zone, reaching total control. Reference is made to table presented below in the North-East EPPO zone section, where this trial is combined with other 5 trials, which provided high levels of control at the target rate of 1 L/ha, being in the vast majority of assessments equivalent to the efficacy of the reference standards for the crop oat in the zone (bixafen+triazole mixtures).

The applicant deems that, taking into account the very limited number of plant protection products available for the control of crown rust of oats and the data provided from 5 trials in the North-east EPPO zone, the use against *Puccinia coronata* var. *avenae* in countries belonging to the Maritime zone can also be supported.

#### **PYRNAV - *Pyrenophora chaetomioides* (syn *P. avenae*)**

Data on leaf blotch of oat *Pyrenophora chaetomioides* (syn *P. avenae*) is available from 1 trial in the Maritime EPPO zone, reaching close to 90% of control. Reference is made to table presented below in the North-East EPPO zone section, where this trial is combined with 5 trials carried out in Poland and Latvia, being always equivalent or superior to the efficacy of the reference standards for the crop oat in the zone (bixafen+triazole mixtures).

The applicant deems that, taking into account the very limited number of plant protection products available for the control of leaf blotch of oats and the data provided from 5 trials in the North-east EPPO zone in addition to the trial in Maritime zone, the use against *Pyrenophora chaetomioides* (syn *P. avenae*) in countries belonging to the Maritime zone can also be supported.

### PYRNTE - *Pyrenophora teres*

Infection by Net blotch of barley *Pyrenophora teres* was verified at acceptable levels in 8 trials carried out in the Maritime zone during 2021 and 2023 (being 1 on spring barley). The trials were characterized by a late appearance of the disease.

Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was good and control levels were in general comparable to those of standard products based on prothioconazole alone or on bixafen + triazole mixtures.

The results presented for another formulation where bixafen is in mixture with a DMI a.s. (i.e. difenoconazole in GLOB2020aF, not target of this submission) clearly demonstrates the benefit of such mixtures. Following FRAC guidelines, the number of applications with Starinta is limited to 1 per season and recommendation to be used with a mixing partner will be stated on the label.

**Table 3.2-20: Efficacy of GLOB2020aF and GLOB2111F against PYRNTE on winter barley (PESSEV) at different leaf levels – Maritime EPPO Zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control																	
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	PYRNTE	HORVW	All valid ass. (2-3w after B)	FLAG	32-32	2	38-40	18-19	23.4	4.5-42.2	23.4	85.0	76.7-93.3	85.0	98.1	96.2-100	98.1	92.6	88.1-97	92.6	98.5	97-100	98.5	-	-	-	94.4	91.7-97	94.4
			FL-1	32-32	4	33-46	12-21	10.3	6.8-14.1	10.1	72.2	49.3-83	78.3	83.5	61.3-97.5	87.7	74.2	61.3-86.4	74.5	84.3	70.8-95	85.7	-	-	-	84.0	64.9-93.9	88.6	
			FL-2	32-32	6	33-44	12-21	11.3	4.5-19.1	10.6	61.6	24.2-78.9	67.9	68.2	34.4-96.4	74.4	70.7	35.1-100	77.0	75.3	30.5-100	84.2	80.8	61.6-100	80.8	80.2	67.4-94.6	79.9	
MAR	PYRNTE	HORVS	All valid ass. (4-6w after B)	FL-1	33.0	1	44.0	30.0	17.5	-	-	79.4	-	-	87.1	-	-	80.8	-	-	79.6	-	-	64.6	-	-	-	-	-
			FL-2	33.0	1	44.0	30.0	35.0	-	-	76.3	-	-	70.8	-	-	70.8	-	-	65.6	-	-	58.3	-	-	-	-	-	

Number of trials summarized: 8 (7winter, 1 spring barley)

#### Efficacy against *Pyrenophora teres* on barley

The efficacy of GLOB2111F against *Pyrenophora teres* in barley was evaluated in 8 trials. The fungicide GLOB2111F applied twice, provided good control at 80.6%. However, no efficacy results were presented with the single treatment (A). As the applicant proposes to register GLOB2111F with a maximum of one treatment per season, the data collected are insufficient to support authorization for this intended use.

## RAMUCC – *Ramularia collo-cygni*

Infection by ramularia leaf spot of barley was verified at acceptable levels in a total of 6 trials in the Maritime zone in 2021 and 2023 (including one trial on spring barley), mostly after the second application. Reference is also made to 1 trial performed in the northern part of Slovenia (South-East EPPO zone), very close to the Austrian border being considered relevant also for Maritime zone countries. In support of France, reference is also made to 2 trials in Mediterranean zone.

Data demonstrated that the Efficacy of GLOB2111F at the proposed rate of 1 L/ha was moderate and in general slightly lower than the efficacy of standard products based on prothioconazole alone or on bixafen + triazole mixtures. The results presented for another formulation where bixafen is in mixture with a DMI a.s. (i.e. difenoconazole in GLOB2020aF, not target of this submission) clearly demonstrates the benefit of such mixtures. Following FRAC guidelines, the number of applications with Starinta is limited to 1 per season and recommendation to be used with a mixing partner will be stated on the label.

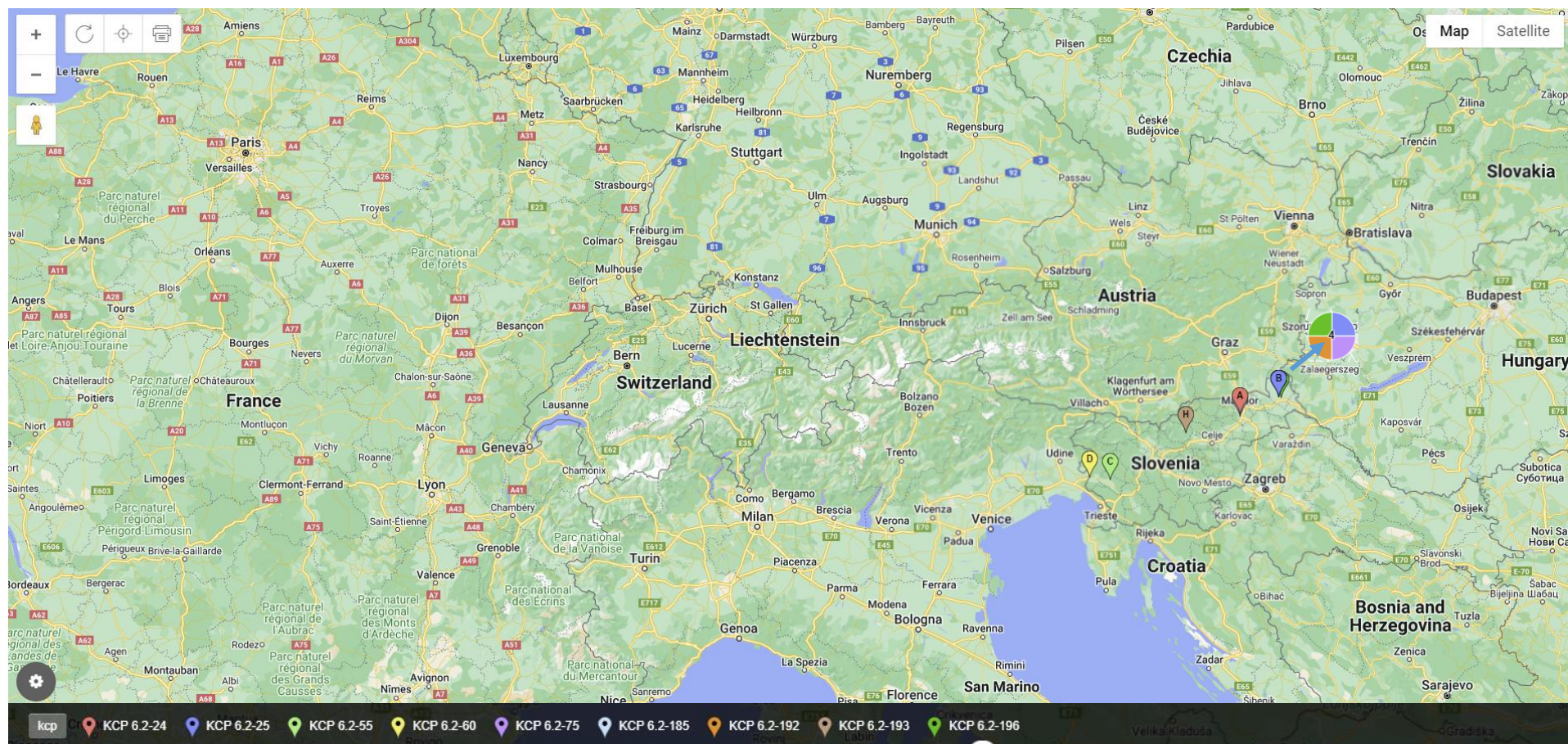
**Table 3.2-21 Efficacy of GLOB2020aF and GLOB2111F against RAMUCC (PESSEV) on cereals (barley) at different leaf levels – Maritime EPPO zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)	% control																			
										GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures				
										Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max
MAR	RAMUCC	HORVW	All valid ass. (2-3w after B)	FLAG	31-32	3	40-42	15-21	24.3	4.9-51.6	16.3	47.9	21.5-66.7	55.4	58.4	39.3-81.7	54.2	57.8	25-84.1	64.2	62.0	39.3-87.2	59.6	-	-	-	70.3	41.9-92.2	76.7
			FL-1	31-32	3	40-42	15-21	37.7	7.6-65.6	40.0	53.6	27.8-77.5	55.6	63.7	48-80.3	62.9	56.7	27.3-89.6	53.3	54.7	34.6-90.4	39.0	-	-	-	74.0	46.5-94.6	80.8	
			FL-2	31-32	3	29-42	8-21	33.4	8-80	12.3	52.0	27.5-68.9	59.6	66.5	45.5-85.4	68.6	44.8	22.8-70.4	41.3	51.4	37.3-73.9	42.9	-	-	-	70.8	53.7-86.4	72.2	
			All valid ass. (4-6w after B)	FLAG	32-32	2	62-63	36-40	51.8	29.7-73.8	51.8	63.6	51.3-75.8	63.6	71.2	62.3-80	71.2	55.4	35.4-75.3	55.4	59.4	39.1-79.6	59.4	-	-	-	74.0	69.2-78.8	74.0
MAR	RAMUCC	HORVS	All valid ass. (2-3w after B)	FL-2	33	1	37	23	5	-	-	97.5	-	-	99.0	-	-	85.0	-	-	72.5	-	-	98.0	-	-	-	-	-
			All valid ass. (4-6w after B)	FL-1	33	1	44	30	10	-	-	93.3	-	-	93.5	-	-	50.0	-	-	25.0	-	-	72.5	-	-	-	-	-
			FL-2	33	1	44	30	15	-	-	88.3	-	-	92.5	-	-	53.3	-	-	50.0	-	-	66.7	-	-	-	-	-	

Number of trials summarized: 6 (5 winter barley, 1 spring barley)



Supportive data from SI close to Maritime zone border:



**Table 3.2-22 Efficacy of GLOB2020aF and GLOB2111F against RAMUCC (PESSEV) on cereals (barley) at different leaf levels – Northern Slovenia data**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixture		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	RAMUCC	HORVW	All valid ass. (2-3w after A)	FL-1	32-0	1	24-0	24-0	7.5	-	-	100.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-
			FL-2	32-32	1	24-24	24-24	21.5	-	-	100.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	
			All valid ass. (2-3w after B)	FLAG	32-32	1	40-40	16-16	11.5	-	-	84.3	68.5-100	84.3	99.4	98.7-100	99.4	96.2	92.3-100	96.2	98.5	96.9-100	98.5	100.0	-	-
			FL-1	32-32	1	40-40	16-16	29.4	-	-	69.9	41.6-98.2	69.9	98.1	96.1-100	98.1	81.0	67.4-94.5	81.0	89.4	79.4-99.4	89.4	100.0	-	-	
			FL-2	32-32	1	40-40	16-16	54.5	-	-	60.1	25-92	63.2	83.7	69.5-91.6	90.0	59.8	25-84.6	69.8	63.9	25-96.5	70.2	98.7	-	-	

Number of trials summarized: 1

#### **Efficacy against RAMUCC – *Ramularia collo-cygni* on barley.**

The effectiveness of GLOB2111F against *Ramularia collo-cygni* on barley was investigated in 6 trials. The fungicide GLOB2111F, when applied twice, provided a low to moderate control level of 53.5% (ranging from 25.0% to 90.4%). Considering the EPPO Standard PP 1/214 (*Principles of acceptable efficacy*), the trials do not demonstrate sufficient effectiveness. Additionally, no efficacy results were presented with the single treatment (A). As the applicant proposes to register GLOB2111F with a maximum of one treatment per season, the data collected are insufficient to support authorization for this intended use.

#### **RHYNSE - *Rhynchosporium secalis***

Infection by Leaf blotch of cereals *Rhynchosporium secalis* was verified at acceptable levels in a total of 8 trials carried out in 2023 (3 on winter barley, 4 on rye, 1 on triticale).

Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was very good and in general comparable to those of standard products based on prothioconazole alone or on bixafen + triazole mixtures.

No specific EPPO extrapolation table is available on foliar and ear diseases. Nevertheless, the Dutch guidance states that for *Rhynchosporium secalis*, data on winter barley and spring barley are equally supportive because no differences exist in disease pressure or susceptibility. Therefore, results on major host winter barley will also support the use on spring barley.

**Table 3.2-23: Efficacy of GLOB2020aF and GLOB2111F against RHYNSE (PESSEV) on cereals (barley, rye and triticale) at different leaf levels – Maritime EPPO zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control																	
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	RHYNSE	HORVW	All valid ass. (2-3w after A)	FL-2	32-32	3	20-25	20-25	6.1	5.7-6.3	6.2	71.9	63.4-78.6	73.8	89.3	84.7-96.7	86.4	73.6	69.7-75.7	75.5	87.9	83.5-93.3	86.9	-	-	-	87.9	83.7-90	90.0
			FL-3	32-32	2	20-20	20-20	10.3	5.6-15	10.3	75.2	73.6-76.7	75.2	86.4	82.5-90.3	86.4	82.6	78.7-86.5	82.6	86.5	84-89	86.5	83.4	-	-	-	95.8	-	-
			FLAG	32-32	1	38-38	18-18	18.0	-	-	87.0	-	-	84.3	-	-	97.3	-	-	100.0	-	-	-	-	-	-	98.0	-	-
			FL-1	32-32	2	38-46	18-21	28.1	6.1-1.4	28.1	79.7	64.3-34.2	79.7	90.4	82.3-59.2	90.4	85.6	75.5-51.7	85.6	92.3	87.6-68.3	92.3	-	-	-	93.7	88.9-76.7	93.7	
			FL-2	32-32	1	38-38	18-18	62.5	-	-	75.8	-	-	86.0	-	-	88.3	-	-	96.7	-	-	-	-	-	-	96.5	-	-
MAR	RHYNSE	SECCW	All valid ass. (2-3w after A)	FL-2	32-32	2	21-25	21-25	5.3	5-5.6	5.3	94.4	88.8-100	94.4	98.2	96.3-100	98.2	90.3	89.2-91.3	90.3	94.2	92.5-95.9	94.2	-	-	-	98.8	97.5-100	98.8
			FL-3	32-32	1	24-24	24-24	8.8	-	-	60.2	-	-	83.4	-	-	33.4	-	-	70.3	-	-	-	-	-	66.3	-	-	
			All valid ass. (2-3w after B)	FL-1	32-32	4	27-46	6-21	8.5	5.8-15.6	6.3	85.8	77-96.9	84.7	91.4	80.2-100	92.7	72.6	59.4-90.5	70.3	87.9	82.8-94.8	87.1	-	-	-	95.6	92.5-100	95.0
			FL-2	32-32	2	27-45	6-21	22.8	6.4-39.1	22.8	68.4	47.2-89.6	68.4	76.4	60.8-91.9	76.4	69.1	50.1-88.1	69.1	78.3	62.3-94.3	78.3	-	-	-	81.8	66.7-96.8	81.8	
MAR	RHYNSE	TTLWI	All valid ass. (2-3w after A)	FL-2	32	1	21	21	4.7	-	-	66.0	-	-	79.6	-	-	79.6	-	-	82.7	-	-	-	-	-	68.9	-	-
			All valid ass. (2-3w after B)	FL-1	32	1	42	21	8.1	-	-	90.7	-	-	94.8	-	-	93.0	-	-	96.1	-	-	-	-	-	93.7	-	-
			FL-2	32	1	42	21	8.8	-	-	78.2	-	-	87.7	-	-	86.0	-	-	89.8	-	-	-	-	-	-	84.3	-	-

number of trials summarized: 8 (3 w barley, 4 rye, 1 triticale)

#### Efficacy against *Rhynchosporium secalis* on winter barley, rye, and triticale.

The number of trials conducted in 2023 on winter barley (3 trials), rye (4 trials), and triticale (1 trial) in the maritime EPPO zone was underestimated according to EPPO standard PP 1/226 (Number of Efficacy Trials). Despite the limited data, the product tested effectively protected cereals against RHYNSE (assessment for the single treatment (A)). The efficacy was 87.2% on winter barley, 82.2% on rye, and 82.7% on triticale. The concerned Member States are kindly asked to decide whether to accept the reduced data for barley, rye, and triticale conducted out of one growing season.



## ERYSGR – *Blumeria graminis*

Infection by powdery mildew of cereals *Blumeria graminis* was verified at acceptable levels in 8 trials in the Maritime zone (3 on winter barley, 1 on rye, 1 on winter wheat, 1 on spelt, 1 on triticale and 1 on oats) carried out during 2023.

According to EPPO Guideline 1/226(3) the number of trials required to demonstrate the efficacy against a certain pest can be reduced for closely related pest or against the same pests on different crops. Case in point is powdery mildew of cereals (*Blumeria graminis*) and its host-specific forms ERYSGT (*Blumeria graminis* f. sp. *Tritici*, powdery mildew of wheat), ERYSGH (*Blumeria graminis* f. sp. *Hordei*, powdery mildew of barley) and ERYSGA (*Blumeria graminis* f. sp. *Avenae*, powdery mildew of oat). It is important to note that these are not sub-species but rather specialised varieties of the same pathogen with no morphological differences that allow them to be distinguished from one-another. Rather, the EPPO code that is given to the pathogen is inferred from the host it is observed on. Thus, the representative results split for individual host crops are presented afterwards.

Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was on average good. Lower levels were observed on barley. Moreover, there is a clear added value of a second application. As GLOB2020aF and GLOB2111F are to be applied once in the season, in case of high pressure of the disease, a second application may be carried out with another approved plant protection product. The results presented for another formulation where bixafen is in mixture with a DMI a.s. (i.e. difenoconazole in GLOB2020aF, not target of this submission) clearly demonstrates the benefit of such mixtures. Following FRAC guidelines, the number of applications with Starinta is limited to 1 per season and recommendation to be used with a mixing partner will be stated on the label.

**Table 3.2-24 Efficacy of GLOB2020aF and GLOB2111F against *Blumeria graminis* species (PESSEV) on cereals (wheat, barley, rye, spelt and triticale) at different leaf levels – Maritime EPPO Zone**

EPPO zone	Target code	Crop Code	Grouping	Part rate d	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control																	
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	ERYSGR	HORVW	All valid ass. (2-3w after A)	FL-1	55-55	1	21-21	21-21	5.3	5.3-5.3	5.3	29.3	-	-	51.8	-	-	39.3	-	-	32.0	-	-	-	-	-	75.2	-	-
			All valid ass. (2-3w after B)	FL-1	32-32	2	38-41	17-20	8.3	5.3-11.3	8.3	41.5	40.4-42.5	41.5	63.6	50-77.1	63.6	45.9	32.5-59.2	45.9	39.6	32.5-46.7	39.6	100.0	100-100	100.0	-	-	-
				FL-2	32-32	1	38-38	17-17	7.6	-	-	44.4	-	-	84.4	-	-	72.7	-	-	60.0	-	-	100.0	-	-	-	-	-
		SECCW	All valid ass. (2-3w after A)	FL-2	32	1	21	21	5.0	-	-	100.0	-	-	100.0	-	-	88.8	-	-	93.8	-	-	-	-	-	100.0	-	-
			All valid ass. (2-3w after B)	FL-2	32-32	1	44-44	22-22	21.8	21.8-21.8	21.8	82.5	82.5-82.5	82.5	88.4	88.4-88.4	88.4	71.8	71.8-71.8	71.8	83.0	83-83	83.0	-	-	-	100.0	-	-
			All valid ass. (2-3w after A)	FL-2	32	1	22	22	19	-	-	80.0	-	-	89.4	-	-	65.5	-	-	81.6	-	-	-	-	-	100.0	-	-
		TTLWI	All valid ass. (2-3w after A)	FL-2	32-32	1	21-21	21-21	19.0	-	-	77.3	-	-	87.7	-	-	67.5	-	-	80.5	-	-	-	-	-	100.0	-	-
			All valid ass. (2-3w after B)	FL-2	32	1	35	18	10.9	-	-	100	-	-	100	-	-	100	-	-	100	-	-	-	-	-	100	-	-
	AVESA		All valid ass. (2-3w after B)	FL-2	32	1	35	18	17.2	-	-	100	-	-	100	-	-	100	-	-	100	-	-	-	-	-	100	-	-

number of trials summarized: 8 (3 w barley, 1 rye, 1 w wheat, 1 spelt, 1 triticale, 1 oats)

**Efficacy against *Blumeria graminis***

The number of trials conducted in 2023 on winter barley (3 trials), rye (1 trial), winter wheat (1 trial), spelt (1 trial), oats (1 trial), and triticale (1 trial) in the maritime EPPO zone was underestimated according to EPPO standard PP 1/226 (number of efficacy trials). Based on a single result, a significantly lower efficacy level against *Blumeria graminis* was observed on barley at 32.0%, compared to the results achieved on rye at 93.8% and triticale at 80.5%. It can be concluded not to accept the data provided by the applicant to demonstrate the effectiveness against *Blumeria graminis*.

### Summary (Maritime EPPO zone)

The summary tables below present the results shown above for the maximum proposed rate of 1 L/ha and combines, for each disease, the most biologically relevant results (i.e. FHB index (SEVIND) for *Fusarium* sp. and PESSEV % up to L-3 for other diseases) obtained across all timings and plant parts. The overall susceptibility level of each disease is indicated.

**Table 3.2-25 Overall efficacy and susceptibility level to GLOB2111F at the target rate of 1 L/ha on cereals - Maritime EPPO zone**

EPPO ZONE	PEST CODE	CROP CODE	Nb. of trials	All timings, rating types and parts	Control provided
MAR	FUSASP	TRZAW	7	70%	Moderate control
	SEPTTR	TRZAW TRZSP SECCW TTLWI	18	86%	Control
	PUCCRE	SECCW TRZAW TRZAW TTLWI	6	94%	Control
	PUCCSI/ PUCCST	TRZAW	1	92%	Control
	PUCCHD	HORVW HORVS	2	94%	Control
	PYRNTE	HORVW HORVS	8	81%	Control
	RAMUCC	HORVW HORVS	6+1	54% (MAR trials) 90% (SE close to MAR border)	Moderate control
	RHYNSE	HORVW SECCW TTLWI	8	89%	Control
	ERYSGR	HORVW SECCW TRZAW TRZSP TTLWI AVESA	8	75%	Moderate control

Additional uses for which reference was made to another zone.

EPPO ZONE	PEST	CROP	Nb. of trials	All timings, rating types and parts	Control provided
MAR (reference to other zone data)	PUCCA	AVESA	1 MAR+5 NE	85%	Control
	PYRNAV	AVESA	1 MAR+5 NE	78%	Moderate control

### North-East EPPO Zone

A total of 56 trials were carried out in the North-East EPPO Zone to evaluate the Efficacy of GLOB2020aF and GLOB2111F for the control of foliar and ear diseases on cereals. Those trials have been conducted between 2021 and 2023 in Poland, Estonia and Latvia.

Those were combined with the results of the Czech trials (27 trials) since this is a neighbouring country and considered as valid to Poland, the only MS in the Central zone belonging to the North-East climatic zone. The combined results from 64 trials are thus shown in the tables below.

The reference product according to authorized uses in the countries where trials were performed is based on bixafen mixtures with a triazole (as Siltra Xpro, Aviator Xpro). These mixtures were used as uniform reference in nearly all trials. Additionally or in trials where a reference product with bixafen was not available, Protendo 300 EC (prothioconazole 300 EC) applied at 0.65 L/ha or Proline (prothioconazole 250 g/L) applied at 0.8 L/ha were set as the reference PPP.

NOTE: Efficacy results are also presented for another coded formulation under development, GLOB2020aF, which applied at 1 L/ha provides 100 g bixafen + 100 g difenoconazole. The data are relevant to demonstrate the usefulness of the straight formulation GLOB2111F in combination with azoles.

Data were summarized at the end of each table by an orthogonal comparison of the control achieved by maximum proposed rate of GLOB2020aF and GLOB2111F to the reference product at each relevant assessment timing. As a lower dose rate was tested only in part of the trials, these data are summarized only when representative and, if different, the relative number of trials is showed close to the mean value.

Results where the untreated check had a severity percentage below 5% or a second assessment falling within the same assessment timing window were not considered for means calculation and those data are shaded in grey in the BAD. Figures presented in italics for Untreated check in calculated control rows stand for the pressure.

Exceptionally, infestation between 4 and 5% were used when a tendency could be seen in disease development. The number of trials where product is statistically >, <, = compared to the reference standard is provided for each grouping.

### Results

#### FUSASP – *Fusarium* spp.

Infection by *Fusarium* species was assessed in 15 valid trials on wheat as well as 1 trial on triticale performed in the North-East EPPO climatic zone (1 additional trial in Estonia had not significant levels, KCP 6.2-09). In support of Poland, data from 4 trials conducted on wheat in CZ are also summarized.

Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F in controlling FHB at the proposed rate of 1 L/ha was moderate. Control levels were slightly lower than those of standard products based on bixafen + triazole mixtures.

The results presented for another formulation where bixafen is in mixture with a DMI a.s. (i.e. difenoconazole in GLOB2020aF, not target of this submission) clearly demonstrates the benefit of such mixtures. Following FRAC guidelines, the number of applications with Starinta is limited to 1 per season and recommendation to be used with a mixing partner will be stated on the label.

No specific EPPO extrapolation table is available on foliar and ear diseases. Nevertheless, the Dutch guidance states that for *Fusarium* spp., it is possible to extrapolate from winter wheat to spring wheat, rye, triticale and spelt because in these crops same diseases can be found and their susceptibility to infection is

lower. Also on UK, extrapolation is acceptable from winter wheat to minor cereals including oats, spring wheat, durum wheat, rye, triticale. Therefore, acceptability of the substantial data provided on winter wheat as well as supportive data on triticale in support of other crops may be taken into account by each cMS.



**Table 3.2-26: Efficacy of GLOB2020aF and GLOB2111F against FUSASP (PESSEV on ear and FHB index -severity x incidence) on wheat – 1 application– North-East EPPO Zone**

Means valid for Poland:

EPPO zone	Target code	Crop Code	Grouping	Part rated	Type	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
													GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
										Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	FUSASP	TRZAW	All valid ass. BBCH 75-83	EAR	PESSEV	51-65	19	14-66	14-66	33.4	6.4-75.1	29.7	-	-	-	57.7	19.4-92.1	57.1	-	-	-	50.5	15.7-92.2	43.1	69.5	38.7-90.8	70.6
NE (+CZ)	FUSASP	TRZAW	All valid ass. BBCH 75-83	EAR	SEVIND	51-65	19	14-66	14-66	2488.7	1.6-7510	1922.3	-	-	-	69.3	32-97.6	70.7	-	-	-	62.9	20.9-99	52.7	83.2	57.5-96.5	88.6
NE	FUSASP	TTLWI	All valid ass. BBCH 75-83	EAR	PESSEV	60	1	42	42	5.3	-	-	-	-	-	84.2	-	-	-	-	-	81.6	-	-	82.4	-	-
NE	FUSASP	TTLWI	All valid ass. BBCH 75-83	EAR	SEVIND	60	1	42	42	313.2	-	-	-	-	-	90.1	-	-	-	-	-	88.3	-	-	89.5	-	-

Number of trials summarized: 20 (19 on wheat, 1 on triticale)

Means valid for Northern zone

Means valid for Northern zone																											
EPPO zone	Target code	Crop Code	Grouping	Part rated	Type	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
													GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixture		
										Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	FUSASP	TRZAW	All valid ass. BBCH 75-83	EAR	PESSEV	51-65	15	14-66	14-66	32.7	8.5-75.1	29.7	41.7 (n=7)	16.9-71.7	39.0	55.3	26.7-83	52.8	33.2 (n=7)	16.1-73.8	30.8	46.9	19.2-78.5	42.2	67.0	38.7-90.6	68.5
			All valid ass. BBCH 75-83	EAR	SEVIND	51-65	15	14-66	14-66	2438.0	1.6-7510	1922.3	56.3 (n=7)	29.5-88.8	55.6	66.8	39.8-93.2	70.1	45.7 (n=7)	22.8-90.8	41.4	59.7	37.5-92.5	52.3	80.7	57.5-96.5	87.4
		TTLWI	All valid ass. BBCH 75-83	EAR	PESSEV	60	1	42	42	5.3	-	-	0	-	-	84.2	-	-	0	-	-	81.6	-	-	82.4	-	-
			All valid ass. BBCH 75-83	EAR	SEVIND	60	1	42	42	313.2	-	-	0	-	-	90.1	-	-	0	-	-	88.3	-	-	89.5	-	-

Number of trials summarized: 16 (15 on wheat, 1 on triticale)

#### **Efficacy against FUSASP in winter wheat**

The presented data correspond with the requirements of the EPPO Standards PP 1/26 (Foliar and ear diseases on cereals) PP 1/214 (Principles of acceptable efficacy), PP 1/223 (Introduction to the efficacy evaluation of plant protection products) and PP 1/226 (Number of efficacy trials).

In the trials treatments were applied at BBCH 61-65. The disease infestation level in untreated plots was sufficient (at least 5% of pests in at least one leaf stage) to validate the trials and reliably assess the efficacy of GLOB2111F. The data from 19 trials demonstrated that the efficacy of GLOB2111F, applied at the proposed label rate of 1.0 L/ha, was statistically inferior at 50.5% compared to the efficacy of the standard bixafen+triazole mixtures, which was 69.5%. Considering the EPPO Standard PP 1/214 (Principles of acceptable efficacy), the trials do not show sufficient effectiveness.

#### **SEPTTR – *Zymoseptoria tritici***

Infection by *Zymoseptoria tritici* was verified at acceptable levels in a total of 17 trials carried out between 2021 and 2023 in N-E zone (14 on wheat, 3 on triticale). Those were combined with the results of the 13 Czech trials since this is a neighbouring country and considered as valid to Poland, the only MS in the Central zone belonging to the North-East climatic zone. The combined results from 30 trials are thus shown in the tables below.

Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was very good, especially on the top leaves after the second application. Control levels were comparable to those of standard products based on bixafen + triazole mixtures in about 2/3 of the assessments.

The results presented for another formulation where bixafen is in mixture with a DMI a.s. (i.e. difenoconazole in GLOB2020aF, not target of this submission) clearly demonstrates the benefit of such mixtures. Following FRAC guidelines, the number of applications with Starinta is limited to 1 per season and recommendation to be used with a mixing partner will be stated on the label.

No specific EPPO extrapolation table is available on foliar and ear diseases. Nevertheless, the Dutch guidance states that for leaf and ear diseases, it is possible to extrapolate from winter wheat to spring wheat, rye, triticale and spelt because in these crops same diseases can be found and their susceptibility to infection is lower. Also on UK, extrapolation is acceptable from winter wheat to minor cereals including oats, spring wheat, durum wheat, rye, triticale. Therefore, acceptability of the substantial data provided on winter wheat as well as supportive data on minor cereals in support of other crops may be taken into account by each cMS. In addition, based on practical experience it is known that if *Zymoseptoria tritici* can be well controlled, LEPTNO *Parastagonospora nodorum* (syn.= *Leptosphaeria nodorum*, leaf infection) can also be well controlled. Therefore, the data provided will support by extrapolation all used claimed in the table “All intended uses” in Part B – Section 0.

**Table 3.2-27: Efficacy of GLOB2020aF and GLOB2111F against SEPTTR (PESSEV %) on cereals (wheat, spelt, rye, triticale) at different leaf levels– North-East EPPO zone – 2 applications**

Means valid for Poland

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control															
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures			
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	
NE (+CZ)	SEPTTR	TRZAW	All valid ass. (2-3w after A)	FL-1	32	1	26	26	5	-	-	100.0	-	-	90.0	-	-	50.0	-	-	90.0	-	-	80.0	-	-	
				FL-2	32-32	5	21-26	21-26	12.6	5-25.9	11.6	65.0	35.3-100	60.0	71.9	40.2-100	75.0	73.7	51.8-100	72.5	78.6	52.5-100	72.1	77.9	46.6-100	75	
				FL-3	31-32	5	20-23	20-23	22.0	5.2-48.4	18.4	65.1	29-86.4	73.7	76.1	52-93.5	78.1	75.3	54.6-91.3	79.6	82.2	55.7-96.7	86.5	79.5	45.3-100	85	
			All valid ass. (2-3w after B)	FLAG	32-32	2	38-45	12-21	4.8	4.5-5	4.8	89.1	88.1-90	89.1	77.5	55-100	77.5	64.9	50-79.8	64.9	95.0	90-100	95.0	87.5	75-100	87.5	
				FL-1	32-33	10	31-48	10-26	12.5	4.3-30.3	8.2	73.5	28.8-100	75.8	83.3	30-100	90.6	66.4	20-100	70.0	81.3	40.8-100	87.3	88.0	63-100	90.0	
				FL-2	31-32	9	31-45	10-22	24.2	4-62.5	14.4	72.7	32.1-95	75.0	79.6	41.3-97.9	88.8	72.2	53.6-99.7	63.0	79.6	50-100	79.3	86.3	61.1-100	94.0	
			All valid ass. (4-6w after B)	FLAG	31-33	5	50-61	24-35	15.5	5-47.5	7.6	54.1	15-97.1	58.2	68.8	40-94.1	75.3	56.6	25-83.1	71.9	57.8	25-74.3	68.8	77.1	50-91	81.8	
				FL-1	32	1	75	43	8.8	-	-	96.9	-	-	99.2	-	-	88.1	-	-	93.8	-	-	100.0	-	-	-
				FL-2	32	1	22	22	7.5	-	-	43.9	-	-	50.6	-	-	89.3	-	-	100.0	-	-	100.0	-	-	-
NE (+CZ)	SEPTTR	TRZSP	All valid ass. (2-3w after A)	FL-3	32	1	22	22	38.8	-	-	42.7	-	-	53.4	-	-	84.1	-	-	79.2	-	-	79.9	-	-	
				FLAG	32	1	28	7	14.7	-	-	54.3	-	-	100.0	-	-	80.5	-	-	100.0	-	-	100.0	-	-	
				FL-1	32	1	28	7	26.6	-	-	70.7	-	-	91.9	-	-	83.6	-	-	89.6	-	-	100.0	-	-	
			All valid ass. (2-3w after B)	FL-2	32	1	28	7	37.5	-	-	76.7	-	-	85.0	-	-	69.2	-	-	92.5	-	-	95.0	-	-	
				FLAG	32	1	50	29	75.0	-	-	89.6	-	-	98.3	-	-	90.0	-	-	95.0	-	-	100.0	-	-	
				All valid ass. (4-6w after B)	FL-2	32	1	25	25	41.3	-	-	42.4	-	-	57.2	-	-	84.9	-	-	81.3	-	-	80.7	-	-
			FL-1		32	1	46	21	17.5	-	-	77.3	-	-	76.1	-	-	95.5	-	-	100.0	-	-	100.0	-	-	
			FLAG		32	1	50	29	20.3	-	-	90.5	-	-	92.0	-	-	89.1	-	-	93.2	-	-	100.0	-	-	
			NE (+CZ)	SEPTTR	SECCW	All valid ass. (2-3w after A)	FL-2	32	1	25	25	41.3	-	-	42.4	-	-	57.2	-	-	84.9	-	-	81.3	-	-	80.7
FL-1	32	1					46	21	17.5	-	-	77.3	-	-	76.1	-	-	95.5	-	-	100.0	-	-	100.0	-	-	
FLAG	32	1					50	29	20.3	-	-	90.5	-	-	92.0	-	-	89.1	-	-	93.2	-	-	100.0	-	-	
All valid ass. (4-6w after B)	FLAG	32-32				1	25-25	25-25	10.0	-	-	82.5	-	-	97.5	-	-	82.5	-	-	95.0	-	-	95.0	-	-	
	All valid ass. (2-3w after A)	FL-1				32-33	3	14-25	14-25	9.2	5-17.5	5.0	87.8	80-100	83.3	94.3	90-100	92.9	81.5	65-100	79.6	92.4	80-100	97.1	96.7	90-100	100.0
		FL-2				32-33	4	14-25	14-25	9.0	5-15	8.0	64.3	46.5-83.3	63.7	67.0	50-93.3	62.3	77.1	56.3-100	76.0	66.3	0-98.7	83.2	79.3	50-98.7	84.2
FL-3		32-32				1	21-21	21-21	41.9	-	-	43.4	-	-	58.3	-	-	85.4	-	-	80.5	-	-	81.6	-	-	
All valid ass. (2-3w after B)	FLAG	32-33				3	38-46	17-21	12.2	5-23.8	7.8	95.9	87.8-100	100.0	98.8	96.5-100	100.0	96.5	89.5-100	100.0	99.3	97.8-100	100.0	99.7	99-100	100.0	
	FL-1	32-33				4	38-46	17-21	14.8	6.6-25	13.8	70.2	50-83.9	73.4	77.0	50-93	82.6	73.7	50-92.9	75.9	78.3	50-95	84.2	82.2	50-100	89.4	
	FL-2	32-33	6	35-50	14-26	23.5	10-50	16.5	62.7	25-87.5	70.0	72.0	37.5-94.5	80.9	74.1	37.5-94.2	83.5	79.0	25-100	89.9	81.4	37.5-100	92.3				
All valid ass. (4-6w after B)	FLAG	32-32	1	50-50	29-29	35.9	-	-	88.7	-	-	90.3	-	-	93.0	-	-	94.7	-	-	97.4	-	-				
	FL-1	32-32	1	52-52	31-31	8.4	-	-	75.2	-	-	77.9	-	-	72.7	-	-	86.6	-	-	93.5	-	-				

number of trials summarized: 25

Means valid for Northern zone

Means valid for Northern zone																													
EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control																	
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures					
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	SEPTTR	TRZAW	All valid ass. (2-3w after A)	FL-1	32	1	26	26	5	-	-	100.0	-	-	90.0	-	-	50.0	-	-	90.0	-	-	80.0	-	-			
				FL-2	32-32	1	26-26	26-26	8.8	8.8-8.8	8.8	60.0	60-60	60.0	75.0	75-75	75.0	52.5	52.5-52.5	52.5	52.5	52.5-52.5	52.5	75.0	75-75	75			
				FL-3	31-31	2	20-23	20-23	7.6	5.2-10	7.6	67.4	61-73.7	67.4	79.7	78.1-81.3	79.7	76.5	61.7-91.3	76.5	86.1	78.6-93.6	86.1	83.6	82.3-84.8	84			
			All valid ass. (2-3w after B)	FLAG	32-32	1	38-38	12-12	5.0	5-5	5.0	90.0	90-90	90.0	55.0	55-55	55.0	50.0	50-50	50.0	90.0	90-90	90.0	75.0	75-75	75.0			
				FL-1	32-33	4	38-48	12-26	10.2	4.3-25	5.8	68.1	56-81.7	67.4	65.1	30-79.3	75.6	51.8	37.5-69	50.3	61.0	40.8-82.3	60.4	76.2	63-84.2	78.8			
				FL-2	31-32	4	37-42	12-22	6.9	4-10	6.9	70.8	55.6-95	66.3	75.9	60-97.9	72.9	66.6	53.6-99.7	56.5	72.1	50-100	69.1	82.5	65-99.1	83.0			
			All valid ass. (4-6w after B)	FLAG	31-33	5	50-61	24-35	15.5	5-47.5	7.6	54.1	15-97.1	58.2	68.8	40-94.1	75.3	56.6	25-83.1	71.9	57.8	25-74.3	68.8	77.1	50-91	81.8			
				FL-1	32	1	75	43	8.8	-	-	96.9	-	-	99.2	-	-	88.1	-	-	93.8	-	-	100.0	-	-			
			NE	SEPTTR	TTLWI	All valid ass. (2-3w after A)	FLAG	32-32	1	25-25	25-25	10.0	-	-	82.5	-	-	97.5	-	-	82.5	-	-	95.0	-	-	95.0	-	-
							FL-1	32-33	3	14-25	14-25	9.2	5-17.5	5.0	87.8	80-100	83.3	94.3	90-100	92.9	81.5	65-100	79.6	92.4	80-100	97.1	96.7	90-100	100.0
FL-2	32-33	3					14-25	14-25	9.3	5-15	8.0	68.3	46.5-83.3	75.0	71.7	50-93.3	71.7	74.3	56.3-100	66.7	55.4	0-95	71.3	72.8	50-93.3	75.1			
All valid ass. (2-3w after B)	FLAG	32-33				2	42-46	17-21	14.4	5-23.8	14.4	93.9	87.8-100	93.9	98.3	96.5-100	98.3	94.8	89.5-100	94.8	98.9	97.8-100	98.9	99.5	99-100	99.5			
	FL-1	32-33				2	42-46	17-21	17.5	10-25	17.5	65.0	50-80	65.0	71.5	50-93	71.5	68.0	50-86	68.0	72.5	50-95	72.5	74.0	50-98	74.0			
	FL-2	32-33				3	42-50	17-26	25.2	10-50	15.5	58.4	25-87.5	62.7	72.9	37.5-94.5	86.8	68.1	37.5-91.5	75.4	69.6	25-96.5	87.2	75.2	37.5-97.5	90.5			

number of trials summarized: 12 (9 wheat, 3 triticale)

**Table 3.2-28: Efficacy of GLOB2020aF and GLOB2111F against SEPTTR (PESSEV %) on cereals (wheat) at different leaf levels– North-East EPPO zone – 1 application**

Means valid for Northern zone and Poland

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control																	
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	SEPTTR	TRZAW	All valid ass. (2-3w after A)	FL-1	39-39	1	28-28	28-28	4.4	4.4-4.4	4.4	-	-	-	75.4	75.4-75.4	75.4	-	-	-	72.6	72.6-72.6	72.6	79.4	79.4-79.4	79.4	-	-	-
				FL-2	39-39	2	14-28	14-28	7.1	5.6-8.5	7.1	-	-	-	84.2	78.7-89.7	84.2	-	-	-	82.1	74.9-89.2	82.1	82.1	76.4-87.7	82.1	90.6	90.6-90.6	90.6
				FL-3	39-39	2	14-28	14-28	7.9	5.3-10.4	7.9	-	-	-	89.1	78.1-100	89.1	-	-	-	88.2	79.9-96.4	88.2	83.8	77.6-90	83.8	83.1	83.1-83.1	83.1
			All valid ass. (4-6w after A)	FLAG	39-51	3	35-49	35-49	5.1	4.8-5.5	5.0	-	-	-	90.1	70.3-100	100.0	-	-	-	85.9	77.7-100	80.0	100.0 (n=1)	-	-	73.8 (n=2)	70-77.6	73.8
				FL-1	39-51	4	35-49	35-49	13.3	7.5-20.4	12.6	-	-	-	64.2	37.5-93.2	63.1	-	-	-	61.4	37.5-91.2	58.4	84.9 (n=2)	72-97.7	84.9	58.4 (n=3)	37.5-79.5	58.3

number of trials summarized: 5 NE

#### Efficacy against *Zymoseptoria tritici* in winter wheat

The presented data correspond with the requirements of the EPPO Standards PP 1/26 (Foliar and ear diseases on cereals) PP 1/214 (Principles of acceptable efficacy), PP 1/223 (Introduction to the efficacy evaluation of plant protection products) and PP 1/226 (Number of efficacy trials).

The efficiency of GLOB2111F against *Zymoseptoria tritici* collected from 5 valid trials (assessments after first application data) conducted in the north east zone gave good control with an average 78.0% recorded about 14-49 days after treatment with infection in the untreated ranging from 4.4 to 20.4 % (~7.6%). The efficacy of the product varied from 37.5 to 100%. Standard products performed in average on similar level of 81.0%.

#### The results of the combined wheat trials conducted in the maritime (CZ) and north-eastern (PL) zones.

The efficiency of GLOB2111F against *Zymoseptoria tritici* collected from 6 valid trials (assessments after first application data) conducted in the maritime and north east zones gave good control with an average 81.2% recorded about 22 (20 – 26) days after treatment with infection in the untreated ranging from 5 to 48.4 % (~16.2%). The efficacy of the product varied from 43 to 100%. Standard products performed in average on similar level of 78.8%.

It can be concluded to accept the data provided by the applicant to demonstrate the effectiveness against *Septoria* spp. in wheat.

#### Efficacy against *Zymoseptoria tritici* in triticale

The number of trials (4) conducted in the north-eastern EPPO zone in 2023 was understated according to the EPPO Standard PP 1/226 (Number of efficacy trials). The efficacy for the control of *Zymoseptoria tritici* in triticale was satisfactory at 79.6% (after a single application assessment). The efficacy against *Zymoseptoria tritici* in wheat was also good at 81.2% and can be extrapolated. Therefore, the low number of trials can be accepted for this intended use.

### Efficacy against *Zymoseptoria tritici* in rye

The number of trials (1) conducted in the north-eastern EPPO zone in 2023 was understated according to the EPPO Standard PP 1/226 (Number of efficacy trials). The efficacy for the control of *Zymoseptoria tritici* in rye was satisfactory at 81.3% (after a single application assessment). The efficacy against *Zymoseptoria tritici* in wheat was also good at 81.2% and can be extrapolated. Therefore, the low number of trials can be accepted for this intended use.

### Efficacy against *Zymoseptoria tritici* in spelt

The number of trials (1) conducted in the north-eastern EPPO zone in 2023 was understated according to the EPPO Standard PP 1/226 (Number of efficacy trials). The efficacy for the control of *Zymoseptoria tritici* in spelt wheat was good at 89.6% (after a single application assessment). The efficacy against *Zymoseptoria tritici* in wheat was also good at 81.2% and can be extrapolated. Therefore, the low number of trials can be accepted for this intended use.

### PUCCRE/PUCCRT/PUCCRR - *Puccinia recondita*, *Puccinia triticina* (syn. *Puccinia recondita* f. sp. *tritricina*), *Puccinia recondita* f. sp. *recondita*

Infection by brown rusts *Puccinia recondita* and related “*forma specialis*” was verified at acceptable levels in a total of 4 trials in N-E zone carried out between 2022 and 2023 (3 on rye and one on wheat) mainly after the second application. Those were combined with the results of 5 Czech trials (2 on rye, 3 on wheat, 1 on triticale carried out in 2023) since this is a neighbouring country and considered as valid to Poland, the only MS in the Central zone belonging to the North-East climatic zone. The combined results from 9 trials are thus shown in the tables below. Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was very good, being in general equivalent to the standard products based either on prothioconazole alone or on bixafen + triazole mixtures.

**Table 3.2-29 Efficacy of GLOB2020aF and GLOB2111F against PUCCRE (PESSEV) on cereals (rye, wheat, triticale) at different leaf levels - North-East EPPO Zone**

Means valid for Poland

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control																	
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	PUCCRE	SECCW	All valid ass. (2-3w after B)	FL-1	32	1	42	21	5	-	-	92.5	-	-	100.0	-	-	96.3	-	-	100.0	-	-	-	-	-	100.0	-	-
				FL-3	32	1	35	14	5.4	-	-	90.3	-	-	94.7	-	-	91.4	-	-	96.8	-	-	-	-	-	100.0	-	-
			All valid ass. (4-6w after B)	FLAG	32-32	3	50-56	29-35	24.2	4-60.9	7.6	86.0	77.4-96.4	84.1	92.7	88.8-96.9	92.3	84.2	72.8-93.8	85.9	93.3	88.8-97.3	93.7	-	-	-	97.1	92.5-100	98.9
				FL-1	32	1	52	31	5.5	-	-	100.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	-	-	-	100.0	-	-
NE (+CZ)	PUCCRE	TRZAW	All valid ass. (2-3w after B)	FLAG	61-65	2	15-21	15-21	17.3	6.4-28.1	17.3	100.0	100-100	100.0	93.0	86-100	93.0	71.8	71.8-71.8	71.8	94.4	92.3-96.4	94.4	-	-	-	73.3	52.8-93.8	73.3
				FL-1	65-65	1	21-21	21-21	4.0	-	-	-	-	-	83.3	-	-	-	-	-	96.3	-	-	95.4	-	-	95.4	-	-

number of trials summarized: 4 NE (1 wheat, 3 rye) + 6 CZ (3 wheat, 2 rye, 1 triticale)

Means valid for Northern zone																													
EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control																	
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixture		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	PUCCRE	SECCW	All valid ass. (2-3w after B)	FL-3	32	1	35	14	5.4	-	-	90.3	-	-	94.7	-	-	91.4	-	-	96.8	-	-	-	-	-	100.0	-	-
			FLAG	32-32	2	56-56	35-35	5.8	4-7.6	5.8	80.8	77.4-84.1	80.8	90.6	88.8-92.3	90.6	79.4	72.8-85.9	79.4	91.3	88.8-93.7	91.3	-	-	-	95.7	92.5-98.9	95.7	
			FL-1	32	1	52	31	5.5	-	-	100.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	-	-	-	100.0	-	-	
NE	PUCCRE	TRZAW	All valid ass. (2-3w after A, late appl.)	FLAG	65-65	1	21-21	21-21	6.4	-	-	-	-	-	86.0	-	-	-	-	-	96.4	96.4-96.4	96.4	95.0	-	-	93.8	-	-
			FL-1	65-65	1	21-21	21-21	4.0	-	-	-	-	-	83.3	-	-	-	-	-	96.3	-	-	95.4	-	-	95.4	-	-	

The number of trials on conducted in the north-eastern EPPO zone in 2023 for control of *Puccinia recondita* was understated according to the EPPO PP 1/226 (Number of efficacy trials). The single results obtained with one application in wheat, triticale and rye are negligible and cannot provide evidence of effectiveness against PUCCRE.

### PUCCSI/PUC CST – *Puccinia striiformis tritici*, *Puccinia striiformis*

Infection by stripe (yellow) rusts *Puccinia striiformis* identified also by its “*forma specialis*” *Puccinia striiformis* f. sp. *Tritici* was verified at acceptable levels in a total of 3 trials on wheat in N-E zone between 2022 and 2023. Those were combined with the results of 1 Czech trial since this is a neighbouring country and considered as valid to Poland, the only MS in the Central zone belonging to the North-East climatic zone. During the trials one or 2 applications were performed. Results are analysed after each application timing.

Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was moderate to good. Control levels were slightly lower than those of standard products based on bixafen + triazole mixtures but still providing a good control after a long time after the applications, i.e. 4 to 6 weeks, well protecting the flag leaf.

The results presented for another formulation where bixafen is in mixture with a DMI a.s. (i.e. difenoconazole in GLOB2020aF, not target of this submission) clearly demonstrates the benefit of such mixtures. Following FRAC guidelines, the number of applications with Starinta is limited to 1 per season and recommendation to be used with a mixing partner will be stated on the label.

**Table 3.2-30: Efficacy of GLOB2020aF and GLOB2111F against PUCCSI/PUC CST (PESSEV) on wheat at different leaf levels – North-East EPPO zone**

Means valid for Poland

Means valid for 1 trial																										
EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (CZ)	PUCCSI/ PUCST	TRZAW	All valid ass. (2-3w after A)	FL-1	39-39	1	14-14	14-14	5.0	5-5	5.0	96.3	-	-	84.1	-	-	79.9	-	-	87.3	-	-	93.2	-	-
			FL-2	39	1	14	14	5.3	-	-	77.4	-	-	81.9	-	-	80.1	-	-	75.7	-	-	85.5	-	-	
			All valid ass. (2-3w after B)	FLAG	32	1	45	21	15.5	-	-	82.8	-	-	90.0	-	-	74.0	-	-	88.3	-	-	87.6	-	-
			FL-1	32-32	2	37-45	15-21	11.3	4.6-18	11.3	60.1	57.6-62.6	60.1	80.1	68.2-92	80.1	61.7	60.6-62.7	61.7	77.8	60.1-95.4	77.8	95.1	92.9-97.3	95.1	
			FL-2	32-32	1	37-37	15-15	5.1	-	-	68.3	-	-	62.7	-	-	76.0	-	-	62.8	-	-	97.0	-	-	
			All valid ass. (4-6w after A)	FLAG	39	1	35	35	5.8	-	-	61.4	-	-	69.4	-	-	23.9	-	-	51.9	-	-	87.1	-	-
			All valid ass. (4-6w after B)	FLAG	31-32	2	56-61	34-35	8.9	5.4-12.4	8.9	64.6	37.4-91.7	64.6	81.9	67.1-96.7	81.9	69.9	39.8-100	69.9	81.6	63.2-100	81.6	97.6	95.2-100	97.6

number of trials summarized: 3 NE + 1CZ



Means valid for Northern zone

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			%control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	PUCCSI/ PUCCST	TRZAW	All valid ass. (2-3w after A)	FL-1	39-39	1	14-14	14-14	5.0	5-5	5.0	96.3	-	-	84.1	-	-	79.9	-	-	87.3	-	-	93.2	-	-
				FL-2	39	1	14	14	5.3	-	-	77.4	-	-	81.9	-	-	80.1	-	-	75.7	-	-	85.5	-	-
			All valid ass. (2-3w after B)	FL-1	32-32	1	37-37	15-15	4.6	-	-	57.6	-	-	68.2	-	-	62.7	-	-	60.1	-	-	92.9	-	-
				FL-2	32-32	1	37-37	15-15	5.1	-	-	68.3	-	-	62.7	-	-	76.0	-	-	62.8	-	-	97.0	-	-
			All valid ass. (4-6w after A)	FLAG	39	1	35	35	5.8	-	-	61.4	-	-	69.4	-	-	23.9	-	-	51.9	-	-	87.1	-	-
			All valid ass. (4-6w after B)	FLAG	31-32	2	56-61	34-35	8.9	5.4-12.4	8.9	64.6	37.4-91.7	64.6	81.9	67.1-96.7	81.9	69.9	39.8-100	69.9	81.6	63.2-100	81.6	97.6	95.2-100	97.6

number of trials summarized: 3 NE

**Efficacy against *Puccinia striiformis* in wheat**

The number of trials conducted in the north-eastern EPPO zone in 2023 to control *Puccinia striiformis* was insufficient according to the EPPO Standard PP 1/226 (Number of efficacy trials). The single result obtained after the first application on wheat is not useful and cannot provide evidence of effectiveness against PUCCSI.

### PUCCHD – *Puccinia hordei*

Infection by brown rust *Puccinia hordei* on barley was verified at acceptable levels in a total of 5 trials in N-E zone carried out between 2021 and 2023 (of which 2 on spring barley). During the trials one or 2 applications were performed. Results are analysed after each application timing.

Some trials were characterized by a late appearance of the disease. Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was moderate to good. Control levels were slightly lower than those of standard products based on bixafen + triazole mixtures but comparable when taking into account the protection of the flag leaf.

**Table 3.2-31: Efficacy of GLOB2020aF and GLOB2111F against PUCCHD (PESSEV) on cereals (barley) at different leaf levels – North-East EPPO zone**

Means valid for Poland and Northern zone

Means valid for Poland and Northern zone																										
EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	PUCCHD	HORVW	All valid ass.	FL-2	31-45	2	14-29	14-29	5.6	5.2-6	5.6	-	-	-	65.0	57-73	65.0	-	-	-	67.2	60.7-73.7	67.2	92.8	85.6-100	92.8
			(2-3w after A)	FL-3	31-45	2	14-29	14-29	7.2	6.3-8	7.2	-	-	-	71.7	66-77.3	71.7	-	-	-	72.9	71.5-74.3	72.9	90.9	87.7-94	90.9
			All valid ass.	FLAG	31-32	2	50-53	21-32	9.0	8.8-9.2	9.0	-	-	-	85.6	82.1-89.1	85.6	-	-	-	89.3	85.2-93.5	89.3	92.4	88-96.8	92.4
			(2-3w after B)	FL-1	31-31	2	50-50	21-21	18.4	15.3-21.5	18.4	-	-	-	68.9	67.3-70.5	68.9	-	-	-	86.8	85.2-88.4	86.8	93.3	92.1-94.4	93.3
			FL-2	31-31	1	50-50	21-21	21.5	-	-	-	-	-	67.3	-	-	-	-	-	88.4	-	-	94.4	-	-	
NE	PUCCHD	HORVS	All valid ass.	FLAG	55	1	14	14	12.9	-	-	-	-	-	93.7	-	-	-	-	-	82.7	-	-	97.6	-	-
			(2-3w after A)	FL-1	37-55	2	14-16	14-16	10.3	7.4-13.1	10.3	-	-	-	80.1	69.2-90.9	80.1	-	-	-	84.2	83.6-84.8	84.2	98.8	97.6-100	98.8
			FL-2	37-55	2	14-16	14-16	13.7	10.9-16.5	13.7	-	-	-	73.1	54.2-92	73.1	-	-	-	73.5	66-81	73.5	97.4	96.9-97.8	97.4	

number of trials summarized: 5 NE

### Efficacy against *Puccinia hordei* in barley

The number of trials conducted in the north-eastern EPPO zone in 2023 to control *Puccinia hordei* was insufficient according to the EPPO Standard PP 1/226 (Number of efficacy trials). The two results presented achieved after the first application from trials on winter barley (70.0%) and two results on spring barley (79.6%) are not sufficient evidence to confirm the efficacy of the product for this use.

### PUCCCA – *Puccinia coronata* var. *avenae*

Data on crown rust of oats *Puccinia coronata* var. *avenae* is available from 5 trials in the North-East zone in 2022 and 2023. Those were combined with the results of 1 Czech trial carried out in 2023 since this is a neighbouring country and considered as valid to Poland, the only MS in the Central zone belonging to the North-East climatic zone for a total of 6 trials. Results showed high levels of control at the target rate of 1 L/ha, being in the vast majority of cases equivalent to the efficacy of the reference standards for the crop oat in the zone (bixafen+triazole mixtures).

**Table 3.2-32: Efficacy of GLOB2020aF and GLOB2111F against PUCCCA (PESSEV) on cereals (oats) at different leaf levels – North-East EPPO zone**

Means valid for Poland

Means valid for Poland																											
EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control												bixafen+triazole mixtures at 1.2 L/ha			
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha						
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean
NE	PUCCCA	AVESA	All valid ass. (2-3w after A)	FL-1	32-59	2	21-22	21-22	6.9	6.3-7.5	6.9	77.6	75.1-80	77.6	85.7	78.8-92.5	85.7	82.8	75.6-90	82.8	85.8	79.1-92.5	85.8	90.8	81.5-100	90.8	
			FL-2	32-37	4	19-22	19-22	4.8	4.3-5	5.0	90.0	75-100	92.5	86.3	50-100	97.5	87.9	75-100	88.2	97.1	88.2-100	100.0	93.8	75-100	100.0		
NE	PUCCCA	AVESA	All valid ass. (2-3w after B)	FLAG	32-37	4	32-43	13-21	10.3	5-22.5	6.9	81.8	40-100	93.5	90.4	75-100	93.3	85.5	72.4-97	86.3	85.2	65-100	87.8	84.8	40-100	99.5	
			FL-1	32-37	4	32-43	13-21	9.6	7.5-12.5	9.3	82.1	50-100	89.2	83.9	50-100	92.8	77.4	50-90.8	84.3	80.0	37.5-100	91.3	84.2	37.5-100	99.7		
			FL-2	32	1	32	13	17.5	-	-	50.0	-	-	50.0	-	-	68.8	-	-	62.5	-	-	62.5	-	-		
NE (+CZ)	PUCCCA	AVESA	All valid ass. (4-6w after B)	FL-1	32	1	48	31	20.5	-	-	100.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	

number of trials summarized: 5 NE+1 CZ

Means valid for Northern zone

Means valid for Northern zone																										
EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures at 1.2 L/ha		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	PUCCCA	AVESA	All valid ass. (2-3w after A)	FL-1	32-59	2	21-22	21-22	6.9	6.3-7.5	6.9	77.6	75.1-80	77.6	85.7	78.8-92.5	85.7	82.8	75.6-90	82.8	85.8	79.1-92.5	85.8	90.8	81.5-100	90.8
				FL-2	32-37	4	19-22	19-22	4.8	4.3-5	5.0	90.0	75-100	92.5	86.3	50-100	97.5	87.9	75-100	88.2	97.1	88.2-100	100.0	93.8	75-100	100.0
NE	PUCCCA	AVESA	All valid ass. (2-3w after B)	FLAG	32-37	4	32-43	13-21	10.3	5-22.5	6.9	81.8	40-100	93.5	90.4	75-100	93.3	85.5	72.4-97	86.3	85.2	65-100	87.8	84.8	40-100	99.5
				FL-1	32-37	4	32-43	13-21	9.6	7.5-12.5	9.3	82.1	50-100	89.2	83.9	50-100	92.8	77.4	50-90.8	84.3	80.0	37.5-100	91.3	84.2	37.5-100	99.7
				FL-2	32	1	32	13	17.5	-	-	50.0	-	-	50.0	-	-	68.8	-	-	62.5	-	-	62.5	-	-

number of trials summarized: 5 NE

### Efficacy against *Puccinia coronata* in oats

The number of trials conducted in the north-eastern EPPO zone in 2022 and 2023 to control *Puccinia coronata* was insufficient according to the EPPO Standard PP 1/226 (Number of efficacy trials). The applicant showed in 5 trials good efficacy of 93.3% for the control of PUCCCA on oats based on trials from 2022 and 2023 in the maritime and northeast EPPO zones. The observed levels of control were similar compared to the efficacy of the standard products which was 92.7%. Crown/leaf rust, caused by the fungal pathogen *Puccinia coronata* f. sp. *avenae*, is one of the major oats diseases in Poland. It can be concluded that due to the low number of trials the plant protection product cannot be proposed for authorization against *Puccinia coronata*.

### PYRNAV – *Pyrenophora chaetomioides* (syn *P. avenae*)

Infection by leaf blotch of oat *Pyrenophora chaetomioides* (syn *P. avenae*) was verified at acceptable levels in 5 trials in the North-East zone in 2022 and 2023. Those were combined with the results of 1 Czech trial carried out in 2023 since this is a neighbouring country and considered as valid to Poland, the only MS in the Central zone belonging to the North-East climatic zone for a total of 6 trials.

Results showed good levels of control at the target rate of 1 L/ha, especially after the second application, being always equivalent or superior to the efficacy of the reference standards for the crop oat in the zone (bixafen+triazole mixtures).

The results presented for another formulation where bixafen is in mixture with a DMI a.s. (i.e. difenoconazole in GLOB2020aF, not target of this submission) clearly demonstrates the benefit of such mixtures. Following FRAC guidelines, the number of applications with Starinta is limited to 1 per season and recommendation to be used with a mixing partner will be stated on the label.

**Table 3.2-33: Efficacy of GLOB2020aF and GLOB2111F against PYRNAV (PESSEV) on cereals (oats) at different leaf levels – North-East EPPO zone**

Means valid for Poland

Means found for Poland																										
EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control												bixafen+triazole mixtures at 1.2 L/ha		
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha					
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	PYRNAV	AVESA	All valid ass. (2-3w after A)	FLAG	32	1	22	22	6.3	-	-	65.0	-	-	70.0	-	-	12.5	-	-	57.5	-	-	77.5	-	-
				FL-1	32-59	2	21-22	21-22	13.6	8.3-18.8	13.6	61.8	43.1-80.4	61.8	72.2	53.9-90.4	72.2	66.9	48.4-85.4	66.9	74.3	56.9-91.7	74.3	78.4	63.5-93.3	78.4
				FL-2	32-59	4	14-22	14-22	12.1	5-23.8	9.8	67.4	48.2-85.2	68.2	82.1	60.8-93.3	87.2	82.4	60.3-92.5	88.5	82.9	62.2-92.5	88.4	80.4	58.1-93.5	84.9
				FL-3	32-32	2	15-20	15-20	6.4	5-7.8	6.4	69.0	43-95	69.0	65.2	40.4-90	65.2	62.6	30.1-95	62.6	72.3	44.6-100	72.3	64.8	34.6-95	64.8
NE	PYRNAV	AVESA	All valid ass. (2-3w after B)	FLAG	32-37	2	35-43	14-21	11.1	4.6-17.5	11.1	81.3	75.8-86.7	81.3	90.4	90-90.7	90.4	71.0	58.3-83.6	71.0	84.6	79.1-90	84.6	96.8	95.8-97.8	96.8
NE (+CZ)	PYRNAV	AVESA	All valid ass. (2-3w after B)	FL-1	32-37	4	35-54	14-33	13.5	5.2-22.5	13.2	87.4	77.6-100	86.0	88.6	75.3-100	89.5	77.3	52.4-100	78.4	84.9	74-100	82.8	94.6	90.2-100	94.1
				FL-2	32-32	4	38-54	16-33	17.3	5.5-25.6	19.0	77.9	67.1-100	72.3	90.6	78.9-100	91.8	80.4	70.8-100	75.5	92.9	76.6-100	97.5	94.1	87.7-100	94.3

number of trials summarized: 5 NE+1 CZ

Means valid for Northern zone

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control												bixafen+triazole mixtures at 1.2 L/ha		
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha					
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	PYRNAV	AVESA	All valid ass.	FLAG	32	1	22	22	6.3	-	-	65.0	-	-	70.0	-	-	12.5	-	-	57.5	-	-	77.5	-	-
			FL-1	32-59	2	21-22	21-22	13.6	8.3-18.8	13.6	61.8	43.1-80.4	61.8	72.2	53.9-90.4	72.2	66.9	48.4-85.4	66.9	74.3	56.9-91.7	74.3	78.4	63.5-93.3	78.4	
			FL-2	32-59	4	14-22	14-22	12.1	5-23.8	9.8	67.4	48.2-85.2	68.2	82.1	60.8-93.3	87.2	82.4	60.3-92.5	88.5	82.9	62.2-92.5	88.4	80.4	58.1-93.5	84.9	
			FL-3	32-32	2	15-20	15-20	6.4	5-7.8	6.4	69.0	43-95	69.0	65.2	40.4-90	65.2	62.6	30.1-95	62.6	72.3	44.6-100	72.3	64.8	34.6-95	64.8	
NE	PYRNAV	AVESA	All valid ass. (2-3w after B)	FLAG	32-37	2	35-43	14-21	11.1	4.6-17.5	11.1	81.3	75.8-86.7	81.3	90.4	90-90.7	90.4	71.0	58.3-83.6	71.0	84.6	79.1-90	84.6	96.8	95.8-97.8	96.8
NE	PYRNAV	AVESA	All valid ass.	FL-1	32-37	3	35-54	14-33	12.5	5.2-22.5	9.7	83.2	77.6-91	81.0	84.7	75.3-95.5	83.4	69.7	52.4-84.3	72.4	79.8	74-87.3	78.2	92.8	90.2-95.8	92.4
			FL-2	32-32	3	38-54	16-33	14.5	5.5-23.8	14.1	70.5	67.1-73.8	70.7	87.5	78.9-95	88.5	73.9	70.8-78.8	72.1	90.5	76.6-100	95.0	94.1	87.7-100	94.5	

number of trials summarized: 5 NE

### Efficacy against *Pyrenophora chaetomioides* in oats

The number of trials conducted in the north-eastern EPPO zone in 2022 and 2023 to control *Pyrenophora chaetomioides* was insufficient according to the EPPO Standard PP 1/226 (Number of efficacy trials).

The applicant demonstrated good efficacy of 71.7% for controlling *Pyrenophora chaetomioides* (PYRNAV) on oats in 5 trials (assessment after the first application) conducted in the maritime and northeast EPPO zones. However, this efficacy was slightly lower than that of the standard products, which was 76.1%. *Pyrenophora chaetomioides* is a major oat disease in Poland.

In conclusion, due to the low number of trials, the plant protection product cannot be proposed for authorization against *Pyrenophora chaetomioides*.

### PYRNTE – *Pyrenophora teres*

Infection by Net blotch of barley *Pyrenophora teres* was verified at acceptable levels in 7 trials on barley (of which one spring barley) conducted between 2021 and 2023 in N-E zone. Those were combined with the results of 5 Czech trial carried out in 2023 since this is a neighbouring country and considered as valid to Poland, the only MS in the Central zone belonging to the North-East climatic zone for a total of 13 trials. Most trials were characterized by a late appearance of the disease.

Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was moderate. Control levels were in general comparable to the standard products based on bixafen + triazole mixtures. The results presented for another formulation where bixafen is in mixture with a DMI a.s. (i.e. difenconazole in GLOB2020aF, not target of this submission) clearly demonstrates the benefit of such mixtures. Following FRAC guidelines, the number of applications

with Starinta is limited to 1 per season and recommendation to be used with a mixing partner will be stated on the label.

No specific EPPO extrapolation table is available on foliar and ear diseases. Nevertheless, according to EPPO Guideline 1/226(3) the number of trials required to demonstrate the efficacy against a certain pest can be reduced for closely related pest or against the same pests on different crops. Case in point is net blotch of barley (PYRNTE, *Pyrenophora teres*) and it's leaf-specific form *Pyrenophora teres f. sp. maculata* (PYRNTM). It is important to note that these are not different species or sub-species but rather specialised varieties of the same pathogen. Given that PYRNTE is prevalent in European conditions, data provided here can be extrapolated to cover also PYRNTM on barley.

**Table 3.2-34: Efficacy of GLOB2020aF and GLOB2111F against PYRNTE on barley (PESSEV) at different leaf levels – North-East EPPO Zone**

Means valid for Poland

Means valid for EU only																										
EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	PYRNTE	HORVW	All valid ass. (2-3w after A)	FL-1	33-33	1	14-14	14-14	5.0	-	-	25.0	-	-	75.0	-	-	25.0	-	-	40.0	-	-	65.0	-	-
				FL-2	31-45	3	14-21	14-21	9.9	5.6-15.4	8.8	62.3	52.5-74.8	59.7	65.8	47.5-81.6	68.2	61.2	52.5-76.4	54.6	62.6	52.5-73.7	61.5	67.6	45-87.8	70.0
				FL-3	31-45	4	14-29	14-29	11.2	5.7-25.3	6.8	60.0	32.3-83.7	62.0	66.6	50.7-85.9	65.0	58.8	44.4-83.7	53.5	68.5	50.6-87	68.3	73.1	61.3-90.3	70.5
			All valid ass. (2-3w after B)	FLAG	31-33	5	26-50	7-21	14.4	4.5-42.2	8.8	74.7	49.7-100	76.7	84.1	55.8-100	96.2	74.2	42.2-100	88.1	77.1	55.8-100	75.0	88.0	69.4-100	91.7
				FL-1	31-33	7	26-50	7-21	11.9	6.8-18.1	13.4	64.1	19.8-87.5	77.5	69.7	24.5-97.5	66.8	62.3	35.6-86.4	62.5	66.3	25-95	70.8	80.5	64.9-93.9	85.1
				FL-2	31-33	7	26-50	7-21	16.6	5-47.5	11.9	60.6	22.2-78.9	69.1	69.2	36.2-96.4	72.3	61.1	29.7-91.4	71.6	68.8	36.7-100	75.9	77.9	50-94.6	79.9
			All valid ass. (4-6w after B)	FLAG	32-33	2	50-50	27-29	11.5	10.6-12.3	11.5	45.6	35.9-55.2	45.6	47.3	34.5-60.1	47.3	38.1	19-57.1	38.1	45.5	28.9-62.1	45.5	67.6	64.8-70.4	67.6
NE (+CZ)	PYRNTE	HORVS	All valid ass. (2-3w after A)	FLAG	37.0	1	26.0	26.0	5.5	-	-	-	-	-	82.0	-	-	-	-	-	71.2	-	-	100.0	-	-
			All valid ass. (2-3w after A)	FL-1	37.0	1	26.0	26.0	15.4	-	-	-	-	-	76.3	-	-	-	-	-	66.5	-	-	96.3	-	-
			All valid ass. (2-3w after A)	FL-2	37.0	1	26.0	26.0	18.1	-	-	-	-	-	68.0	-	-	-	-	-	60.8	-	-	86.5	-	-

Number of trials summarized: 8 N-E + 5 CZ

Means valid for Northern zone

Means and control																										
EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control												bixafen+triazole mixtures		
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha					
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	PYRNTE	HORVW	All valid ass. (2-3w after A)	FL-1	33-33	1	14-14	14-14	5.0	-	-	25.0	-	-	75.0	-	-	25.0	-	-	40.0	-	-	65.0	-	-
				FL-2	31-45	3	14-21	14-21	9.9	5.6-15.4	8.8	62.3	52.5-74.8	59.7	65.8	47.5-81.6	68.2	61.2	52.5-76.4	54.6	62.6	52.5-73.7	61.5	67.6	45-87.8	70.0
				FL-3	31-45	4	14-29	14-29	11.2	5.7-25.3	6.8	60.0	32.3-83.7	62.0	66.6	50.7-85.9	65.0	58.8	44.4-83.7	53.5	68.5	50.6-87	68.3	73.1	61.3-90.3	70.5
			All valid ass. (2-3w after B)	FLAG	31-33	3	26-50	7-21	8.4	7.5-9	8.8	67.9	49.7-100	54.0	74.7	55.8-100	68.3	62.0	42.2-100	43.9	62.9	55.8-75	57.8	83.7	69.4-100	81.8
				FL-1	31-33	3	26-50	7-21	14.0	7.5-18.1	16.3	53.3	19.8-87.5	52.6	51.3	24.5-66.8	62.5	46.4	35.6-62.5	41.0	42.3	25-56.1	45.8	75.8	67.5-87.5	72.4

				FL-2	31-33	3	26-50	7-21	20.8	5-47.5	10.0	47.1	22.2-69.1	50.0	52.4	36.2-71	50.0	46.3	29.7-71.6	37.5	51.0	36.7-78.7	37.5	70.5	50-88	73.6
			All valid ass. (4-6w after B)	FLAG	32-33	2	50-50	27-29	11.5	10.6-12.3	11.5	45.6	35.9-55.2	45.6	47.3	34.5-60.1	47.3	38.1	19-57.1	38.1	45.5	28.9-62.1	45.5	67.6	64.8-70.4	67.6
NE	PYRNTE	HORVS	All valid ass. (2-3w after A)	FLAG	37.0	1	26.0	26.0	5.5	-	-	-	-	-	82.0	-	-	-	-	-	71.2	-	-	100.0	-	-
				FL-1	37.0	1	26.0	26.0	15.4	-	-	-	-	-	76.3	-	-	-	-	-	66.5	-	-	96.3	-	-
				FL-2	37.0	1	26.0	26.0	18.1	-	-	-	-	-	68.0	-	-	-	-	-	60.8	-	-	86.5	-	-

Number of trials summarized: 8 N-E

### Efficacy against *Pyrenophora teres* in barley

The presented data correspond with the requirements of the EPPO Standards PP 1/26 (Foliar and ear diseases on cereals), PP 1/223 (Introduction to the efficacy evaluation of plant protection products) and PP 1/226 (Number of efficacy trials). The applicant showed an efficacy of 57.0% (inadequate achievement) for the control *Pyrenophora teres* in barley based on valid trials from 2021 and 2023 in the maritime and northeast EPPO zones. Taking into account the EPPO-Standard PP 1/214 (Principles of acceptable efficacy) the trials do not show a sufficient effectiveness.

### RAMUCC - *Ramularia collo-cygni*

Infection by ramularia leaf spot of barley was verified at acceptable levels, mostly after the second application, in 1 trial carried out during 2022 in the N-E. Those were combined with the results of the Czech trials (3 trials on barley carried out in 2022 and 2023) since this is a neighbouring country and considered as valid to Poland, the only MS in the Central zone belonging to the North-East climatic zone. The combined results from 4 trials are thus shown in the table below.

The data available show a variable control. On the contrary of expected, low control levels are not observed in the high pressure trials but in the low pressure ones. High variability was also observed for the standard products based on bixafen + triazole mixtures.

**Table 3.2-35 Efficacy of GLOB2020aF and GLOB2111F against RAMUCC (PESSEV) on cereals (barley) at different leaf levels – North-East EPPO zone**

Means valid for Poland

Wheat yield (t/ha)																										
EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	RAMUCC	HORVW	All valid ass. (2-3w after B)	FLAG	31-32	2	40-40	15-19	28.3	4.9-51.6	28.3	-	-	-	60.5	39.3-81.7	60.5	-	-	-	63.3	39.3-87.2	63.3	67.1	41.9-92.2	67.1
				FL-1	31-32	3	40-42	15-20	26.5	6.3-65.6	7.6	-	-	-	50.3	22.6-80.3	48.0	-	-	-	54.7	34.6-90.4	39.0	62.8	46.5-94.6	47.2
				FL-2	31-32	2	40-42	15-20	11.1	9.8-12.3	11.1	-	-	-	35.2	24.9-45.5	35.2	-	-	-	39.9	37.3-42.4	39.9	48.1	42.4-53.7	48.1

			All valid ass. (4-6w after B)	FLAG	32-32	1	63-63	36-36	29.7	-	-	-	-	-	80.0	-	-	-	-	79.6	-	-	78.8	-	-
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Number of trials summarized: 1 NE + 3 CZ

Means valid for Northern zone

Means Value for Northern Zone																										
EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	RAMUCC	HORVW	All valid ass. (2-3w after B)	FL-1	32-32	1	42-42	20-20	6.3	6.3-6.3	6.3	-	-	-	22.6	22.6-22.6	22.6	-	-	-	39.0	39-39	39.0	47.2	47.2-47.2	47.2
				FL-2	32-32	1	42-42	20-20	9.8	9.8-9.8	9.8	-	-	-	24.9	24.9-24.9	24.9	-	-	-	42.4	42.4-42.4	42.4	42.4	42.4-42.4	42.4

**Efficacy against RAMUCC – Ramularia collo-cygni on barley**

The number of trials conducted on barley (3) in the maritime and north east EPPO zones in 2022 - 2023 was below the requirements set by EPPO Standard PP 1/226 (Number of Efficacy Trials). For this intended use, data is presented from trial results with two applications. As the applicant requests to register GLOB2111F for a single application, the provided data does not reflect the requested use. It can be concluded that due to the low number of trials and the lack of single-application trial data, the plant protection product cannot be proposed for authorization against RAMUCC.



### RHYNSE - *Rhynchosporium secalis*

Infection by Leaf blotch of cereals *Rhynchosporium secalis* was verified at acceptable levels in a total of 10 trials on barley between 2021 and 2023 (7 on winter barley, 3 on rye) in N-E zone. Those were combined with the results of 7 Czech trials (2 on winter barley, 4 on rye, 1 on triticale carried out during 2023) since this is a neighbouring country and considered as valid to Poland, the only MS in the Central zone belonging to the North-East climatic zone. Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was moderate to good and, in general equivalent to the efficacy of standard products based on prothioconazole alone as well as on bixafen + triazole mixtures.

No specific EPPO extrapolation table is available on foliar and ear diseases. Nevertheless, the Dutch guidance states that for *Rhynchosporium secalis*, data on winter barley and spring barley are equally supportive because no differences exist in disease pressure or susceptibility. Therefore, results on major host winter barley will also support the use on spring barley.

**Table 3.2-36: Efficacy of GLOB2020aF and GLOB2111F against RHYNSE (PESSEV) on cereals (barley, rye, triticale) at different leaf levels – North-East EPPO zone**

Means valid for Poland:

Means valid for Poland																													
EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control																	
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	RHYNSE	HORVW	All valid ass. (2-3w after A)	FL-2	31-33	5	14-25	14-25	5.9	4.9-6.3	6.2	77.3	63.4-100	73.8	85.5	75-96.7	84.7	77.0	64-100	75.5	87.6	74.4-100	86.9	80.7	80.7-80.7	80.7	89.8	83.7-100	90.0
			FL-3	31-33	4	14-23	14-23	14.2	4.5-27.5	12.5	54.6	22.9-76.7	59.3	64.1	25-90.3	70.6	59.9	35.4-78.7	62.8	64.0	33.3-89	66.9	62.1	53.9-70.3	62.1	70.2	49.3-95.8	67.9	
			FLAG	31-32	3	37-44	14-21	9.5	4.1-18	6.5	67.2	43.3-87	71.4	78.1	68.3-84.3	81.7	84.2	61.9-97.3	93.3	78.2	63.3-100	71.4	81.6	81.6-81.6	81.6	85.5	73.3-98	85.3	
			FL-1	31-32	5	26-46	7-21	14.8	4.3-6.5	6.1	80.7	63.3-71.4	79.7	79.8	68.2-81.7	75.0	81.0	52.8-93.3	85.6	72.3	46-71.4	65.8	70.3	67-81.6	70.3	88.3	76-85.3	88.9	
			FL-2	32-33	4	26-42	7-20	22.1	5.4-62.5	10.2	75.4	75-75.8	75.4	72.0	50-86	76.0	74.2	60-88.3	74.2	74.7	58.5-96.7	71.7	82.2	69.9-94.4	82.2	77.3	45-96.5	83.9	
			All valid ass. (4-6w after B)	FLAG	32	1	50	27	10.0	-	-	76.4	-	-	87.6	-	-	55.0	-	-	93.3	-	-	60.6	-	-	92.7	-	-
			FL-1	32-33	2	50-50	27-29	11.8	6.6-16.9	11.8	64.7	63-66.4	64.7	77.7	69.9-85.4	77.7	73.3	70.9-75.7	73.3	51.0	28.4-73.6	51.0	70.0	61.1-78.9	70.0	76.2	67.1-85.3	76.2	
			NE (+CZ)	RHYNSE	SECCW	All valid ass. (2-3w after A)	FL-2	32-32	2	21-25	21-25	5.3	5-5.6	5.3	94.4	88.8-100	94.4	98.2	96.3-100	98.2	90.3	89.2-91.3	90.3	94.2	92.5-95.9	94.2	-	-	-
FL-3	32-32	2				21-24	21-24	8.6	8.3-8.8	8.6	53.3	46.3-60.2	53.3	77.6	71.7-83.4	77.6	46.8	33.4-60.2	46.8	72.2	70.3-74.1	72.2	-	-	-	63.8	61.2-66.3	63.8	
All valid ass. (2-3w after B)	FL-1	32-32				4	27-46	6-21	8.5	5.8-15.6	6.3	85.8	77-96.9	84.7	91.4	80.2-100	92.7	72.6	59.4-90.5	70.3	87.9	82.8-94.8	87.1	-	-	-	95.6	92.5-100	95.0
FL-2	32-32	3				27-45	6-21	16.6	4.3-39.1	6.4	71.8	47.2-89.6	78.7	75.9	60.8-91.9	75.0	68.3	50.1-88.1	66.7	75.0	62.3-94.3	68.4	-	-	-	80.5	66.7-96.8	78.0	
All valid ass. (4-6w after B)	FLAG	32				1	52	31	10	-	-	100.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	-	-	-	100.0	-	-
NE (+CZ)	RHYNSE	TTLWI				All valid ass. (2-3w after A)	FL-2	32	1	21	21	4.7	-	-	66.0	-	-	79.6	-	-	79.6	-	-	82.7	-	-	-	-	-
			All valid ass. (2-3w after B)	FL-1	32	1	42	21	8.1	-	-	90.7	-	-	94.8	-	-	93.0	-	-	96.1	-	-	-	-	-	93.7	-	-
			FL-2	32	1	42	21	8.8	-	-	78.2	-	-	87.7	-	-	86.0	-	-	89.8	-	-	-	-	-	84.3	-	-	

Number of trials summarized: 10 NE (7 w barley, 3 rye) + 7 CZ (2 w barley, 4 rye, 1 triticale)

Means valid for Northern zone:

			Means valid for Northern zone:									% control																				
EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixture					
												Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	RHYNSE	HORVW	All valid ass. (2-3w after A)	FL-2	31-33	2	14-21	14-21	5.6	4.9-6.3	5.6	85.3	70.5-100	85.3	79.8	75-84.6	79.8	82.0	64-100	82.0	87.2	74.4-100	87.2	80.7	80.7-80.7	80.7	92.6	85.2-100	92.6			
				FL-3	31-33	3	14-23	14-23	14.0	4.5-27.5	9.9	47.2	22.9-62.7	55.9	55.4	25-70.9	70.3	53.6	35.4-71.1	54.4	55.7	33.3-69.3	64.5	62.1	53.9-70.3	62.1	61.7	49.3-73.3	62.5			
			All valid ass. (2-3w after B)	FLAG	31-32	2	37-44	14-21	5.3	4.1-6.5	5.3	57.4	43.3-71.4	57.4	75.0	68.3-81.7	75.0	77.6	61.9-93.3	77.6	67.4	63.3-71.4	67.4	81.6	81.6-81.6	81.6	79.3	73.3-85.3	79.3			
				FL-1	31-32	3	26-44	7-21	6.0	4.3-6.5	5.9	81.7	63.3-71.4	81.7	72.7	68.2-81.7	74.8	76.4	52.8-93.3	76.4	58.9	46-71.4	65.0	70.3	67-81.6	70.3	84.7	76-85.3	78.2			
			All valid ass. (4-6w after B)	FL-2	32-33	3	26-42	7-20	8.6	5.4-11.5	8.8	75.0	75-75	75.0	67.3	50-79.6	72.4	60.0	60-60	60.0	67.3	58.5-75.9	67.5	82.2	69.9-94.4	82.2	70.9	45-88.9	78.9			
				FLAG	32	1	50	27	10.0	-	-	76.4	-	-	87.6	-	-	55.0	-	-	93.3	-	-	60.6	-	-	92.7	-	-			
							FL-1	32-33	2	50-50	27-29	11.8	6.6-16.9	11.8	64.7	63-66.4	64.7	77.7	69.9-85.4	77.7	73.3	70.9-75.7	73.3	51.0	28.4-73.6	51.0	70.0	61.1-78.9	70.0	76.2	67.1-85.3	76.2
NE	RHYNSE	SECCW	All valid ass. (2-3w after A)	FL-3	32-32	1	21-21	21-21	8.3	8.3-8.3	8.3	46.3	46.3-46.3	46.3	71.7	71.7-71.7	71.7	60.2	60.2-60.2	60.2	74.1	74.1-74.1	74.1	-	-	-	61.2	61.2-61.2	61.2			
			All valid ass. (2-3w after B)	FL-2	32-32	1	35-35	14-14	4.3	4.3-4.3	4.3	78.7	78.7-78.7	78.7	75.0	75-75	75.0	66.7	66.7-66.7	66.7	68.4	68.4-68.4	68.4	-	-	-	78.0	78-78	78.0			
			All valid ass. (4-6w after B)	FLAG	32	1	52	31	10	-	-	100.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	-	-	-	100.0	-	-			

Number of trials summarized: 10 NE (7 w barley, 3 rye)

**Efficacy against *Rhynchosporium secalis* in barley.**

The number of valid trials (5) conducted in the north-eastern EPPO zone in 2001-2023 to control *Rhynchosporium secalis* was insufficient according to the EPPO Standard PP 1/226 (Number of efficacy trials). The applicant showed in 5 trials (assessment after first application) acceptable efficacy of 75.8% for the control of RHYNSE on barley based on trials from 2022 and 2023 in the maritime and northeast EPPO zones. The observed levels of control were slightly inferior compared to the efficacy of the standard products which was 81.0%. Given the results obtained on rye and triticale, conditional registration for this use may be considered acceptable, provided that the applicant submits at least three trials (as part of the post-registration process) to confirm efficacy against *Rhynchosporium secalis*. These trials must be conducted in the northeastern zone.

Given the demonstrated efficacy of the product against *Rhynchosporium secalis* (RHYNSE), the evaluator considers it appropriate to grant conditional authorisation for its use on spring barley. The applicant should submit at least two trials as part of the post-registration process.

**Efficacy against *Rhynchosporium secalis* in rye**

The number of trials (4) conducted in the north-eastern EPPO zone in 2001- 2023 to control *Rhynchosporium secalis* was insufficient according to the EPPO Standard PP 1/226 (Number of efficacy trials). The applicant showed in 4 trials (assessment after first application) acceptable efficacy of 83.2% for the control

of RHYNSE on rye based on trials from 2022 and 2023 in the maritime and northeast EPPO zones. The observed levels of control were similar compared to the efficacy of the standard products which was 81.2%. It can be concluded to accept the submitted data for rye and the extrapolation from barley.

#### Efficacy against *Rhynchosporium secalis* in triticale

The single result obtained after the first application on triticale 82.7%. In this case, data from barley can be extrapolated to triticale.

#### ERYSGR - *Blumeria graminis*

Infection by powdery mildew of cereals *Blumeria graminis* was verified at acceptable levels in a total of 9 trials carried out between 2021 and 2023 in N-E zone (2 on barley, 1 on rye, 4 on wheat and 2 on triticale). Those were combined with the results of 5 Czech trials (1 on barley, 1 on rye, 1 on wheat, 1 on triticale and 1 on oats) since this is a neighbouring country and considered as valid to Poland, the only MS in the Central zone belonging to the North-East climatic zone. The combined results from 13 trials are thus shown in the tables below. In most of the trials 2 applications were performed.

According to EPPO Guideline 1/226(3) the number of trials required to demonstrate the efficacy against a certain pest can be reduced for closely related pest or against the same pests on different crops. Case in point is powdery mildew of cereals (*Blumeria graminis*) and its host-specific forms ERYSGT (*Blumeria graminis* f. sp. tritici, powdery mildew of wheat), ERYSGH (*Blumeria graminis* f. sp. hordei, powdery mildew of barley) and ERYSGA (*Blumeria graminis* f. sp. avenae, powdery mildew of oat). It is important to note that these are not sub-species but rather specialised varieties of the same pathogen with no morphological differences that allow them to be distinguished from one-another. Rather, the EPPO code that is given to the pathogen is inferred from the host it is observed on. Thus, the representative results split for individual host crops are presented afterwards.

Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was on average good. Lower levels were observed on barley. Moreover, there is a clear added value of a second application. As GLOB2020aF and GLOB2111F are to be applied once in the season, in case of high pressure of the disease, a second application may be carried out with another approved plant protection product.

**Table 3.2-37 Efficacy of GLOB2020aF and GLOB2111F against *Blumeria graminis* species (PESSEV) on cereals (wheat, barley, rye, spelt and triticale) at different leaf levels – North-East EPPO Zone**

Means valid for Poland:

Means and SDs (%)																										
EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	ERYSGR	HORVW	All valid ass. (2-3w after A)	FL-1	32-32	1	22-22	22-22	7.1	-	-	3.6	-	-	53.5	-	-	54.2	-	-	47.2	-	-	41.9	-	-
				FL-2	32	1	22	22	16.3	-	-	18.0	-	-	35.6	-	-	50.0	-	-	42.9	-	-	41.4	-	-
				FL-3	32-32	2	22-24	22-24	7.2	5.6-8.8	7.2	47.4	33.3-61.5	47.4	48.8	8.9-88.7	48.8	39.6	32-47.1	39.6	42.2	0-84.4	42.2	83.4	66.7-100	83.4
			All valid ass. (2-3w after B)	FLAG	32	1	37	14	12.5	-	-	36.7	-	-	65.7	-	-	63.3	-	-	63.3	-	-	85.7	-	-
				FL-2	32-32	1	40-40	16-16	9.4	-	-	65.3	-	-	75.7	-	-	59.8	-	-	60.9	-	-	92.3	-	-
CZ	ERYSGR	SECCW	All valid ass. (2-3w after A)	FL-2	32	1	21	21	5.0	-	-	100.0	-	-	100.0	-	-	88.8	-	-	93.8	-	-	100.0	-	-

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)	% control																
										GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures				
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	ERYSGR	TRZAW	All valid ass. (2-3w after B)	FLAG	32	1	52	31	5.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	-		
			FL-1	32	1	52	31	15.0	-	-	76.7	-	-	78.3	-	-	73.3	-	-	71.7	-	-	83.3	-	-	
			FL-1	33	1	15	15	10	-	-	50.0	-	-	25.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	
			All valid ass. (2-3w after A)	FL-2	33-33	3	7-20	7-20	29.2	22.5-32.5	32.5	32.7	27.1-41.7	29.2	34.7	29.2-37.5	37.5	18.1	8.3-29.2	16.7	41.7	29.2-54.2	41.7	56.3	54.2-60.4	54.2
			FL-3	31-31	1	23-23	23-23	7.8	7.8-7.8	7.8	56.1	56.1-56.1	56.1	56.3	56.3-56.3	56.3	46.2	46.2-46.2	46.2	53.6	53.6-53.6	53.6	72.4	72.4-72.4	72.4	
			All valid ass. (2-3w after B)	FL-2	31-33	4	28-44	8-22	18.6	7.6-32.5	17.2	57.4	29.2-82.5	58.9	62.9	37.5-88.4	62.9	46.4	16.7-71.8	48.5	61.8	41.7-83	61.3	76.8	54.2-100	76.5
CZ	ERYSGR	TRZSP	All valid ass. (4-6w after B)	FLAG	31-39	2	43-61	35-43	6.5	6.1-6.9	6.5	59.5	59.5-59.5	59.5	82.1	64.2-100	82.1	60.6	60.6-60.6	60.6	83.4	71.7-95	83.4	80.5	80.5-80.5	80.5
			All valid ass. (2-3w after A)	FL-2	32	1	22	22	19	-	-	80.0	-	-	89.4	-	-	65.5	-	-	81.6	-	-	100.0	-	-
NE (+CZ)	ERYSGR	TTLWI	All valid ass.	FLAG	32	1	25	25	5	-	-	95.0	-	-	95.0	-	-	95.0	-	-	100.0	-	-	95.0	-	-
			All valid ass. (2-3w after A)	FL-1	32-32	3	14-25	14-25	7.7	6.8-8.8	7.5	82.5	75-92.5	80.0	90.5	78.9-97.5	95.0	60.7	40-87.5	54.6	74.6	55-85	83.9	86.8	72.9-95	92.5
			FL-2	32-32	4	14-25	14-25	19.5	15-23.8	19.5	83.2	73.3-92.5	83.4	90.3	80-97	92.0	70.5	58.3-82.5	70.7	80.7	59.6-91.5	85.9	90.0	64.6-100	97.8	
			FL-2	65	1	21	25	7.5	-	-	90.0	-	-	97.5	-	-	95.0	-	-	92.5	-	-	97.5	-	-	
			All valid ass. (2-3w after B)	FL-1	32-32	2	34-46	20-21	10.2	10-10.3	10.2	94.7	94.4-95	94.7	100.0	100-100	100.0	91.0	87.5-94.4	91.0	85.9	85-86.7	85.9	95.9	95-96.7	95.9
			FL-2	65	1	21	25	15	-	-	96.7	-	-	96.7	-	-	90.0	-	-	95.0	-	-	96.7	-	-	
CZ	ERYSGR	AVESA	All valid ass.	FL-1	32	1	35	18	10.9	-	-	100	-	-	100	-	-	100	-	-	100	-	-			
			(2-3w after B)	FL-2	32	1	35	18	17.2	-	-	100	-	-	100	-	-	100	-	-	100	-	-			

number of trials summarized: 9 NE (2 barley, 1 rye, 4 wheat, 2 triticale) + 5 CZ (1 barley, 1 rye, 1 wheat, 1 triticale, 1 oats)

#### Means valid for Northern zone:

Means valid for Northern zone.																											
EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control															
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures			
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean
NE	ERYSGR	HORVW	All valid ass. (2-3w after A)	FL-1	32-32	1	22-22	22-22	7.1	-	-	3.6	-	-	53.5	-	-	54.2	-	-	47.2	-	-	41.9	-	-	
				FL-2	32	1	22	22	16.3	-	-	18.0	-	-	35.6	-	-	50.0	-	-	42.9	-	-	41.4	-	-	
				FL-3	32-32	2	22-24	22-24	7.2	5.6-8.8	7.2	47.4	33.3-61.5	47.4	48.8	8.9-88.7	48.8	39.6	32-47.1	39.6	42.2	0-84.4	42.2	83.4	66.7-100	83.4	
			All valid ass. (2-3w after B)	FLAG	32	1	37	14	12.5	-	-	36.7	-	-	65.7	-	-	63.3	-	-	63.3	-	-	85.7	-	-	
				FL-2	32-32	1	40-40	16-16	9.4	-	-	65.3	-	-	75.7	-	-	59.8	-	-	60.9	-	-	92.3	-	-	
NE	ERYSGR	SECCW	All valid ass. (2-3w after B)	FLAG	32	1	52	31	5.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	
				FL-1	32	1	52	31	15.0	-	-	76.7	-	-	78.3	-	-	73.3	-	-	71.7	-	-	83.3	-	-	
NE	ERYSGR	TRZAW		FL-1	33	1	15	15	10	-	-	50.0	-	-	25.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	
			All valid ass. (2-3w after A)		FL-2	33-33	3	7-20	7-20	29.2	22.5-32.5	32.5	32.7	27.1-41.7	29.2	34.7	29.2-37.5	37.5	18.1	8.3-29.2	16.7	41.7	29.2-54.2	41.7	56.3	54.2-60.4	54.2
				FL-3	31-31	1	23-23	23-23	7.8	-	-	56.1	-	-	56.3	-	-	46.2	-	-	53.6	-	-	72.4	-	-	
			All valid ass. (2-3w after B)		FL-2	31-33	3	28-40	8-15	17.6	7.6-32.5	12.6	49.0	29.2-65.2	52.6	54.4	37.5-65.5	60.2	37.9	16.7-54.8	42.2	54.7	41.7-65.4	57.1	69.0	54.2-85.7	67.2
			All valid ass. (4-6w after B)		FLAG	31-39	2	43-61	35-43	6.5	6.1-6.9	6.5	59.5	59.5-59.5	59.5	82.1	64.2-100	82.1	60.6	60.6-60.6	60.6	83.4	71.7-95	83.4	80.5	80.5-80.5	80.5
NE	ERYSGR	TTLWI	All valid ass. (2-3w after A)	FLAG	32	1	25	25	5	-	-	95.0	-	-	95.0	-	-	95.0	-	-	100.0	-	-	95.0	-	-	
				FL-1	32-32	3	14-25	14-25	7.7	6.8-8.8	7.5	82.5	75-92.5	80.0	90.5	78.9-97.5	95.0	60.7	40-87.5	54.6	74.6	55-85	83.9	86.8	72.9-95	92.5	

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)		% control															
											GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures			
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
			All valid ass. (2-3w after B)	FL-2	32-32	3	14-25	14-25	19.6	15-23.8	20.0	85.1	73.3-92.5	89.5	91.1	80-97	96.3	71.5	58.3-82.5	73.8	80.8	59.6-91.5	91.3	86.7	64.6-98	97.5
		FLAG		65	1	21	25	7.5	-	-	90.0	-	-	97.5	-	-	95.0	-	-	92.5	-	-	97.5	-	-	
		FL-1		32-32	2	34-46	20-21	10.2	10-10.3	10.2	94.7	94.4-95	94.7	100.0	100-100	100.0	91.0	87.5-94.4	91.0	85.9	85-86.7	85.9	95.9	95-96.7	95.9	
		FL-2		65	1	21	25	15	-	-	96.7	-	-	96.7	-	-	90.0	-	-	95.0	-	-	96.7	-	-	

number of trials summarized: 9 NE (2 barley, 1 rye, 4 wheat, 2 triticale)

### Efficacy against *Blumeria graminis* winter wheat, winter barley, spelt, and triticale .

The number of trials conducted in 2021 and 2023 on winter wheat (3 trials), winter barley (2 trials), spelt (1 trial), and triticale (3 trials) in the north-eastern and maritime EPPO zones was underestimated according to EPPO standard PP 1/226 (number of efficacy trials). Based on limited data, a significantly lower efficacy level against *Blumeria graminis* was observed on barley at 46.0% and winter wheat at 62.2%, compared to the results achieved on triticale at 80.8%. It can be concluded that due to the low number of trials and the lack of single-application trial data, the plant protection product cannot be proposed for authorization against *Blumeria graminis*.

## Summary (North-East EPPO zone)

The summary table below presents the results shown above for the maximum proposed rate of 1 L/ha and combines, for each disease, the most biologically relevant results (i.e. FHB index (SEVIND) for *Fusarium* sp. and PESSEV % up to L-3 for other diseases) obtained across all timings and plant parts. The overall susceptibility level of each disease is indicated.

**Table 3.2-38 Overall efficacy and susceptibility level to GLOB2111F at the target rate of 1 L/ha on cereals - North-East EPPO zone (means valid for Poland)**

EPPO ZONE	PEST CODE	CROP CODE	Nb. of trials	All timings, rating types and parts	Control provided
N-E (+CZ)	FUSASP	TRZAW TTLWI	20	76	Moderate control
	SEPTTR	TRZAW TRZSP SECCW TTLWI	25	87	Control
	PUCCRE	SECCW TRZAW TTLWI	10	95	Control
	PUCCSI/ PUCCST	TRZAW	4	75	Moderate control
	PUCCHD	HORVW HORVS	5	81	Control
	PUCCCA	AVESA	6	85	Control
	PYRNAV	AVESA	6	78	Moderate control
	PYRNTE	HORVW HORVS	13	63	Moderate control
	RAMUCC	HORVW	4	59	Some control
	RHYNSE	HORVW SECCW TTLWI	17	81	Control
	ERYSGR	HORVW SECCW TRZAW TRZSP TTLWI AVESA	14	76	Moderate control

## Mediterranean EPPO Zone

A total of 39 trials were carried out in the Mediterranean EPPO Zone to evaluate the Efficacy of GLOB2020aF and GLOB2111F for the control of foliar and ear diseases on cereals. Those trials have been conducted between 2021 and 2023 in Croatia, Greece, Portugal.

The reference product according to authorized uses in the countries where trials were performed is based on bixafen mixtures with a triazole (as Siltra Xpro and Aviator Xpro). These mixtures were used as uniform reference in nearly all trials. Additionally or in trials where a reference product with bixafen was not available, Protendo 300 EC (prothioconazole 300 EC) applied at 0.65 L/ha or Proline (prothioconazole 250 g/L) applied at 0.8 L/ha were set as the reference PPP.

NOTE: Efficacy results are also presented for another coded formulation under development, GLOB2020aF, which applied at 1 L/ha provides 100 g bixafen + 100 g difenoconazole. The data are relevant to demonstrate the usefulness of the straight formulation GLOB2111F in combination with azoles.

Data were summarized at the end of each table by an orthogonal comparison of the control achieved by maximum proposed rate of GLOB2020aF and GLOB2111F to the reference product at each relevant assessment timing. As a lower dose rate was tested only in part of the trials, these data are summarized only when representative and, if different, the relative number of trials is showed close to the mean value.

Results where the untreated check had a severity percentage below 5% or a second assessment falling within the same assessment timing window were not considered for means calculation and those data are shaded in grey in the BAD. Figures presented in italics for Untreated check in calculated control rows stand for the pressure.

Exceptionally, infestation between 4 and 5% were used when a tendency could be seen in disease development. The number of trials where product is statistically >, <, = compared to the reference standard is provided for each grouping.

## Results

### FUSASP – *Fusarium* spp.

Infection by *Fusarium* species was assessed in total of 11 trials carried out between 2021 and 2023. Relevant levels were identified in 8 trials (5 trials on soft wheat and 3 on durum wheat). 3 trials in Greece had low severity levels due to dry weather, nevertheless the incidence of 6 to 6.5% was totally controlled by the test product at 1 L/ha (KCP 6.2-17, 22 and 23), data not summarized below as no significant severity). Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was good after one application at BBCH 61-65, especially regarding pest severity. Control levels were comparable to those of standard products based on prothioconazole alone or on bixafen + triazole mixtures on soft wheat and slightly lower on durum wheat.

No specific EPPO extrapolation table is available on foliar and ear diseases. Nevertheless, the Dutch guidance states that for *Fusarium* spp., it is possible to extrapolate from winter wheat to spring wheat, rye, triticale and spelt because in these crops same diseases can be found and their susceptibility to infection is lower. Also on UK, extrapolation is acceptable from winter wheat to minor cereals including oats, spring wheat, durum wheat, rye, triticale. Therefore, acceptability of the data provided on winter wheat to other crops may be taken into account by each cMS.

**Table 3.2-39: Efficacy of GLOB2020aF and GLOB2111F against FUSASP (PESSEV) on wheat - 1 application– Mediterranean EPPO Zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Type	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control																	
													GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
										Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	FUSASP	TRZAW	All valid ass. BBCH 75-83	EAR	PESSEV	61-65	5	21-44	21-44	16.4	7.4-40.6	12.4	88.2	69.2-100	97.8	92.8	80.5-100	99.3	86.3	65.6-100	94.5	84.9	53-100	97.7	87.8	57.9-100	97.1	89.2	78.2-100	89.3
MED	FUSASP	TRZDW	All valid ass. BBCH 75-83	EAR	PESSEV	61-61	3	21-28	21-28	22.3	18.1-27.2	21.5	41.0	24.4-66.2	32.3	59.8	40.3-79.5	59.7	49.0	19.4-73.4	54.2	57.2	37.6-78.3	55.8	85.7 (n=2)	74-97.3	85.7	96.3 (n=1)	-	-

Number of trials summarized: 5 on soft wheat, 3 on durum wheat

**Table 3.2-40: Efficacy of GLOB2020aF and GLOB2111F against FUSASP (FHB index -severity x incidence) on wheat - 1 application– Mediterranean EPPO Zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Type	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control																	
													GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
										Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	FUSASP	TRZAW	All valid ass. BBCH 75-83	EAR	SEVIND	61-65	5	21-44	21-44	964.7	120.1-3140.6	362.3	93.6	81.1-100	99.7	96.9	90.8-100	99.9	92.1	77.4-100	98.8	90.6	66.5-100	99.7	92.0	65.6-100	99.3	95.6	90-100	96.3
MED	FUSASP	TRZDW	All valid ass. BBCH 75-83	EAR	SEVIND	61-61	3	21-28	21-28	1692.9	1548.8-1788.8	1741.2	47.4	27.6-74.2	40.4	68.5	47.1-85.4	73.0	56.1	23.9-81.3	63.1	66.1	41.8-86.9	69.7	90.6 (n=2)	81.5-99.6	90.6	99.3 (n=1)	-	-

Number of trials summarized: 5 on soft wheat, 3 on durum wheat



### SEPTTR - *Zymoseptoria tritici*

Infection by *Zymoseptoria tritici* was verified at acceptable levels in a total of 14 trials between 2021 and 2023 (7 on soft wheat, 6 on durum wheat, as well as 1 on triticale). In most of the trials 2 applications were performed. Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was very from moderate to good, and efficacious already after only 1 application. Control levels were slightly lower than those of standard products based on bixafen + triazole mixtures.

The results presented for another formulation where bixafen is in mixture with a DMI a.s. (i.e. difenoconazole in GLOB2020aF, not target of this submission) clearly demonstrates the benefit of such mixtures. Following FRAC guidelines, the number of applications with Starinta is limited to 1 per season and recommendation to be used with a mixing partner will be stated on the label.

No specific EPPO extrapolation table is available on foliar and ear diseases. Nevertheless, the Dutch guidance states that for leaf and ear diseases, it is possible to extrapolate from winter wheat to spring wheat, rye, triticale and spelt because in these crops same diseases can be found and their susceptibility to infection is lower. Also on UK, extrapolation is acceptable from winter wheat to minor cereals including oats, spring wheat, durum wheat, rye, triticale. Therefore, acceptability of the substantial data provided on winter wheat as well as supportive data on minor cereals in support of other crops may be taken into account by each cMS. In addition, based on practical experience it is known that if *Zymoseptoria tritici* can be well controlled, LEPTNO *Parastagonospora nodorum* (syn.= *Leptosphaeria nodorum*, leaf infection) can also be well controlled. Therefore, the data provided will support by extrapolation all used claimed in the table “All intended uses” in Part B – Section 0.

**Table 3.2-41: Efficacy of GLOB2020aF and GLOB2111F against SEPTTR (PESSEV %) on cereals (soft and durum wheat) at different leaf levels– Mediterranean EPPO zone – 2 applications**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control												bixafen+triazole mixtures					
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha						Protendo 300 EC at 0.65 L/ha		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	SEPTTR	TRZAW	All valid ass. (2-3w after A)	FL-1	32-36	5	21-23	21-23	8.3	5.1-14.7	7.5	86.3	52.7-100	92.8	87.7	53.8-100	93.7	84.7	49.9-100	92.5	84.9	43.3-100	93.4	88.8	59.5-100	94.4	83.2 (n=3)	59.6-96.5	93.6
				FL-2	32-36	6	21-23	21-23	12.4	5.3-22.3	11.4	82.2	39.5-92.3	90.2	82.9	35.9-95.7	91.7	69.9	34.8-89.8	86.2	70.7	22.7-91.1	89.0	82.7	40.2-95.9	89.5	73.9 (n=3)	40.9-91.2	89.5
				FL-3	32-32	1	21-21	21-21	11.2	11.2-11.2	11.2	91.4	91.4-91.4	91.4	94.1	94.1-94.1	94.1	37.6	37.6-37.6	37.6	46.5	46.5-46.5	46.5	93.8	93.8-93.8	93.8	-	-	-
			All valid ass. (2-3w after B)	FLAG	32-36	5	36-42	14-21	9.2	5.2-18.4	6.8	86.6	58.3-100	91.9	94.5	84.6-100	95.4	73.5	36.4-100	85.6	80.3	44.7-100	88.9	94.8	89.9-100	95.2	93.1 (n=2)	92.7-93.4	93.1
				FL-1	32-36	5	36-42	14-21	16.8	6.1-28.7	17.0	86.5	58.1-97.2	92.0	91.4	74-98.8	94.3	73.0	36.9-90.6	86.3	77.6	42.8-94.6	91.5	92.0	81-95.5	94.6	87.0 (n=2)	78.9-95.1	87.0
				FL-2	32-36	5	36-42	14-21	27.2	9.3-36.7	30.5	83.4	53.4-92.7	90.9	86.8	60.5-93.8	93.6	70.4	37.2-88.6	85.2	71.2	41.6-91.4	90.3	87.7	63.8-98	92.7	76.8 (n=2)	59.7-93.9	76.8
		TRZDW	All valid ass. (2-3w after A)	FL-2	32-33	5	21-21	21-21	7.6	4.6-15.1	5.8	87.0	78.9-93.9	88.2	93.8	87.2-97.5	95.0	60.6	35.6-90	61.7	68.9	49.9-91.7	68.1	98.1 (n=3)	96.5-100	97.8	95.1 (n=4)	88.8-100	95.9
				FL-3	32-32	3	21-21	21-21	11.1	10.1-11.9	11.2	84.5	80.1-87	86.5	93.1	83.7-98.4	97.3	46.6	30.9-75.6	33.3	55.0	43.3-76.9	44.7	98.0 (n=2)	97.7-98.2	98.0	89.7 (n=2)	80.8-98.6	89.7
			All valid ass. (2-3w after B)	FLAG	32-33	5	35-42	14-21	8.8	6.1-13.8	7.0	83.7	70.5-100	84.8	94.1	87-100	92.8	66.0	38.7-88.9	73.4	72.2	44.1-95	79.2	96.4 (n=3)	94.1-100	95.2	90.2 (n=4)	82.1-100	89.4
				FL-1	32-33	5	35-42	14-21	17.2	13.6-21.3	16.0	88.8	81.9-97.5	87.3	94.2	88.4-97.5	94.0	65.3	37.4-86.7	79.4	74.2	46.5-92.1	85.7	97.0 (n=3)	95.4-99.2	96.3	92.9 (n=4)	82.6-98.8	95.0
				FL-2	32-33	4	42-42	21-21	31.8	30-32.5	32.3	89.7	87.3-90.6	90.5	95.3	93.5-96.9	95.3	61.0	35.1-85.3	61.8	66.1	43.2-89	66.2	96.9 (n=3)	96-97.8	96.8	95.3 (n=3)	92.5-98.2	95.2
			TTLWI	All valid ass. (2-3w after A)	FLAG	32	1	14	14	20.2	-	-	74.6	-	-	83.9	-	-	74.1	-	-	85.2	-	-	-	-	-	87.3	-
		FL-1			32	1	14	14	23.9	-	-	73.4	-	-	83.7	-	-	73.7	-	-	82.2	-	-	-	-	-	87.1	-	-
		FL-2			32	1	14	14	27	-	-	74.4	-	-	84.3	-	-	72.8	-	-	82.2	-	-	-	-	-	85.0	-	-
		All valid ass. (2-3w after B)		FLAG	32	1	49	21	35.9	-	-	77.5	-	-	84.4	-	-	74.8	-	-	83.1	-	-	-	-	-	85.7	-	-
				FL-1	32	1	49	21	39.5	-	-	77.3	-	-	85.3	-	-	76.7	-	-	83.5	-	-	-	-	-	88.6	-	-
				FL-2	32	1	49	21	43.9	-	-	76.5	-	-	83.6	-	-	74.9	-	-	81.4	-	-	-	-	-	87.0	-	-

number of trials summarized: 6 soft wheat, 5 durum wheat, 1 triticale

**Table 3.2-42: Efficacy of GLOB2020aF and GLOB2111F against SEPTTR (PESSEV %) on cereals (soft and durum wheat) at different leaf levels– Mediterranean EPPO zone – 1 application**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control								
												GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	SEPTTR	TRZAW	All valid ass. (2-3w after A)	FL-2	39-39	1	14-14	14-14	8.7	-	-	89.4	89.4-89.4	89.4	88.6	88.6-88.6	88.6	87.2	-	-
			All valid ass. (4-6w after A)	FL-1	39-39	1	28-28	28-28	5.0	-	-	91.2	91.2-91.2	91.2	88.6	88.6-88.6	88.6	92.0	-	-
				FL-2	39-39	1	28-28	28-28	24.9	-	-	93.0	93-93	93.0	94.4	94.4-94.4	94.4	92.9	-	-
		TRZDW	All valid ass. (2-3w after A)	FL-2	39	1	15	15	5.8	-	-	81.3	-	-	68.8	-	-	74.3	-	-
				FL-3	39	1	15	15	11.8	-	-	74.5	-	-	72.1	-	-	73.2	-	-
			All valid ass. (4-6w after A)	FLAG	39	1	42	42	5.9	-	-	74.0	-	-	64.0	-	-	68.3	-	-
				FL-1	39	1	42	42	13	-	-	76.3	-	-	71.2	-	-	75.6	-	-

number of trials summarized: 1 wheat, 1 durum wheat

**PUCCRE/PUCCRT/PUCCRR - *Puccinia recondita*, *Puccinia triticina* (syn. *Puccinia recondita* f. sp. *triticina*), *Puccinia recondita* f. sp. *recondita***

Infection by brown rusts *Puccinia recondita* was verified at acceptable levels in a total of 1 trials in Mediterranean zone carried out in 2021 on wheat. The trial was characterized by a high pressure. Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was moderate to good, being slightly lower to the standard products based either on prothioconazole alone or on bixafen + triazole mixtures.

The results presented for another formulation where bixafen is in mixture with a DMI a.s. (i.e. difenoconazole in GLOB2020aF, not target of this submission) clearly demonstrates the benefit of such mixtures. Following FRAC guidelines, the number of applications with Starinta is limited to 1 per season and recommendation to be used with a mixing partner will be stated on the label.

**Table 3.2-43 Efficacy of GLOB2020aF and GLOB2111F against PUCCRE (PESSEV) on cereals (wheat) at different leaf levels - Mediterranean EPPO Zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% CONTROL																	
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	PUCCRE	TRZAW	All valid ass. (2-3w after A)	FLAG	32-32	1	21-21	21-21	7.5	7.5-7.5	7.5	97.5	-	-	100.0	-	-	45.0	-	-	55.0	-	-	100.0	-	-	100.0	-	-
			All valid ass. (2-3w after A)	FL-1	32-32	1	21-21	21-21	17.5	17.5-17.5	17.5	99.0	-	-	99.0	-	-	93.0	-	-	95.5	-	-	100.0	-	-	100.0	-	-
			All valid ass. (2-3w after A)	FL-2	32	1	21	21	33.8	-	-	96.5	-	-	99.5	-	-	84.5	-	-	89.5	-	-	99.5	-	-	100.0	-	-
			All valid ass. (2-3w after B)	FLAG	32	1	37	14	23.8	-	-	99.3	-	-	97.5	-	-	46.4	-	-	78.9	-	-	100.0	-	-	100.0	-	-
			All valid ass. (2-3w after B)	FL-1	32	1	37	14	30	-	-	97.0	-	-	97.0	-	-	56.4	-	-	52.9	-	-	96.3	-	-	98.8	-	-
			All valid ass. (2-3w after B)	FL-2	32	1	37	14	56.3	-	-	92.8	-	-	96.8	-	-	76.7	-	-	90.8	-	-	97.2	-	-	97.5	-	-

number of trials summarized: 1

### PYRNTE - *Pyrenophora teres*

Infection by Net blotch of barley *Pyrenophora teres* was verified at acceptable levels in 1 trial carried out in the Mediterranean zone in 2022. The trial was characterized by a moderate pressure.

Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was moderate and control levels were always statistically comparable to those of standard products based on prothioconazole alone as well as on bixafen + triazole mixtures.

No specific EPPO extrapolation table is available on foliar and ear diseases. Nevertheless, according to EPPO Guideline 1/226(3) the number of trials required to demonstrate the efficacy against a certain pest can be reduced for closely related pest or against the same pests on different crops. Case in point is net blotch of barley (PYRNTE, *Pyrenophora teres*) and it's leaf-specific form *Pyrenophora teres f. sp. maculata* (PYRNTM). It is important to note that these are not different species or sub-species but rather specialised varieties of the same pathogen. Given that PYRNTE is prevalent in European conditions, data provided here can be extrapolated to cover also PYRNTM on barley.

**Table 3.2-44: Efficacy of GLOB2020aF and GLOB2111F against PYRNTE on winter barley (PESSEV) at different leaf levels – Mediterranean EPPO Zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control																	
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	PYRNTE	HORVW	All valid ass.	FL-2	33-33	1	21-21	21-21	6.8	6.8-6.8	6.8	35.4	35.4-35.4	35.4	38.9	38.9-38.9	38.9	24.6	24.6-24.6	24.6	43.9	43.9-43.9	43.9	60.4	60.4-60.4	60.4	73.9	73.9-73.9	73.9
			(2-3w after A)	FL-3	33-33	1	21-21	21-21	17.5	17.5-17.5	17.5	59.2	59.2-59.2	59.2	59.2	59.2-59.2	59.2	42.1	42.1-42.1	42.1	63.8	63.8-63.8	63.8	80.4	80.4-80.4	80.4	86.7	86.7-86.7	86.7
			All valid ass.	FLAG	33-33	1	42-42	21-21	16.9	16.9-16.9	16.9	53.4	53.4-53.4	53.4	61.6	61.6-61.6	61.6	60.8	60.8-60.8	60.8	72.4	72.4-72.4	72.4	72.3	72.3-72.3	72.3	88.4	88.4-88.4	88.4
			(2-3w after B)	FL-1	33-33	1	42-42	21-21	19.8	19.8-19.8	19.8	35.6	35.6-35.6	35.6	59.2	59.2-59.2	59.2	48.7	48.7-48.7	48.7	67.7	67.7-67.7	67.7	73.6	73.6-73.6	73.6	75.8	75.8-75.8	75.8
				FL-2	33-33	1	42-42	21-21	32.9	32.9-32.9	32.9	40.6	40.6-40.6	40.6	52.6	52.6-52.6	52.6	38.1	38.1-38.1	38.1	44.1	44.1-44.1	44.1	66.2	66.2-66.2	66.2	73.4	73.4-73.4	73.4

Number of trials summarized: 1

## RAMUCC - *Ramularia collo-cygni*

Infection by ramularia leaf spot of barley was verified at acceptable levels, after the second application, in 2 trials in the Mediterranean zone in 2022.

Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was very good and equal to the efficacy of the standard products based on prothioconazole alone.

**Table 3.2-45 Efficacy of GLOB2020aF and GLOB2111F against RAMUCC (PESSEV) on cereals (barley) at different leaf levels - Mediterranean EPPO zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	RAMUCC	HORVW	All valid ass. (2-3w after B)	FL-1	33-33	2	32-32	13-13	8.7	4.8-12.5	8.7	100.0	100-100	100.0	100.0	100-100	100.0	100.0	100-100	100.0	99.6	99.2-100	99.6	100.0	100-100	100.0
			FL-2	33-33	2	32-32	13-13	10.9	9.3-12.5	10.9	99.1	98.2-100	99.1	100.0	100-100	100.0	98.1	96.2-100	98.1	95.0	94.4-95.6	95.0	99.3	98.5-100	99.3	
			All valid ass. (4-6w after B)	FLAG	33-33	2	45-45	26-26	5.9	4-7.8	5.9	100.0	100-100	100.0	100.0	100-100	100.0	100.0	100-100	100.0	100.0	100-100	100.0	100.0	100-100	100.0

Number of trials summarized: 2

## RHYNSE - *Rhynchosporium secalis*

Infection by Leaf blotch of cereals *Rhynchosporium secalis* was verified at acceptable levels in a total of 11 trials between 2022 and 2023 (10 on winter barley and 1 on rye), characterized by a moderate to high pressure level.

Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was very good and in general comparable to those of standard products based on prothioconazole alone or on bixafen + triazole mixtures.

No specific EPPO extrapolation table is available on foliar and ear diseases. Nevertheless, the Dutch guidance states that for *Rhynchosporium secalis*, data on winter barley and spring barley are equally supportive because no differences exist in disease pressure or susceptibility. Therefore, results on major host winter barley will also support the use on spring barley.

**Table 3.2-46: Efficacy of GLOB2020aF and GLOB2111F against RHYNSE (PESSEV) on cereals (barley, rye) at different leaf levels – Mediterranean EPPO zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control																		
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures			
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean
MED	RHYNSE	HORVW	All valid ass. (2-3w after A)	FLAG	32-37	4	21-22	21-22	11.1	4-21.3	9.6	88.1	75.1-100	88.7	92.1	82.2-100	93.1	84.4	65.2-100	86.1	87.9	71-100	90.2	98.8	97.5-100	98.8	90.3	81.7-100	89.1	
				FL-1	32-37	6	21-22	21-22	13.5	5-26	10.3	80.9	52.9-96.9	84.6	88.6	73.7-98.3	90.2	79.4	54.4-96.9	83.2	85.6	66.4-97.9	88.2	87.1	62.9-99	93.3	86.8	81.4-96.4	84.7	
				FL-2	32-37	10	19-22	19-22	14.9	5.1-33.4	11.3	82.7	58-100	85.1	89.3	72.2-100	91.9	80.1	35.5-100	84.4	83.2	40.7-97.1	87.8	89.4	70.3-100	93.5	89.8	79.8-96.7	93.8	
			All valid ass. (2-3w after B)	FLAG	32-37	9	37-42	15-21	15.7	5.2-29.8	7.3	90.9	75-100	93.3	94.2	84.1-100	97.5	88.5	71.9-100	90.8	92.9	81.6-100	94.6	96.7	91.8-100	97.5	95.0	85.4-100	97.6	
				FL-1	32-37	9	37-42	15-21	21.0	7.1-29.8	15.1	85.2	71.2-100	87.9	91.2	80.6-100	93.2	79.0	63.6-100	79.2	86.9	75.6-100	85.8	91.4	84.2-100	93.2	93.5	86.2-100	94.5	
				FL-2	32-37	7	37-42	15-21	30.9	14.2-51.2	24.8	85.2	73.9-94.4	86.1	89.3	78-95.6	91.8	84.1	68.3-96.5	86.2	87.3	78.1-93.4	86.6	90.9	82-95.5	93.0	91.4	87-96.7	89.9	
		SECCW	All valid ass. (2-3w after A)	FLAG	32	1	21	21	8	-	-	75.0	-	-	85.4	-	-	67.9	-	-	82.9	-	-	-	-	-	-	87.2	-	-
				FL-1	32	1	21	21	18.9	-	-	72.2	-	-	82.6	-	-	72.4	-	-	82.8	-	-	-	-	-	-	84.4	-	-
				FL-2	32-32	1	21-21	21-21	24.2	-	-	73.5	-	-	85.1	-	-	70.1	-	-	82.5	-	-	-	-	-	-	84.2	-	-
			All valid ass. (2-3w after B)	FLAG	32	1	42	21	26.5	-	-	75.0	-	-	84.1	-	-	72.4	-	-	81.3	-	-	-	-	-	-	87.9	-	-
				FL-1	32-32	1	42-42	21-21	34.4	-	-	79.5	-	-	88.1	-	-	73.2	-	-	87.0	-	-	-	-	-	-	87.1	-	-
				FL-2	32-32	1	42-42	21-21	35.2	-	-	78.8	-	-	84.6	-	-	75.7	-	-	84.8	-	-	-	-	-	-	87.2	-	-

number of trials summarized: 11 (10 w barley, 1 rye)

### Summary (Mediterranean EPPO zone)

The summary table below presents the results shown above for the maximum proposed rate of 1 L/ha and combines, for each disease, the most biologically relevant results (i.e. FHB index (SEVIND) for *Fusarium* sp. and PESSEV % up to L-3 for other diseases) obtained across all timings and plant parts. The overall susceptibility level of each disease is indicated.

**Table 3.2-47 Overall efficacy and susceptibility level to GLOB2111F at the target rate of 1 L/ha on cereals - Mediterranean EPPO zone**

EPPO ZONE	PEST CODE	CROP CODE	Nb. of trials	All timings, rating types and parts	Control provided
MED	FUSASP	TRZAW TRZDW	8	78	Moderate control
	SEPTTR	TRZAW TRZDW TTLWI	13	76	Moderate control
	PUCCRE	TRZAW	1	77%	Moderate control
	PYRNTE	HORVW	1	58	Some control
	RAMUCC	HORVW	2	98	Control
	RHYNSE	HORVW SECCW	11	85	Control



## South-East EPPO Zone

A total of 26 trials were carried out in the South-East EPPO Zone to evaluate the Efficacy of GLOB2020aF and GLOB2111F for the control of foliar and ear diseases on cereals. Those trials were conducted between 2021 and 2023 in Hungary, Romania and Slovenia.

The reference product according to authorized uses in the countries where trials were performed is based on bixafen mixtures with a triazole (as Siltra Xpro, Aviator Xpro and Zantara). These mixtures were used as uniform reference in nearly all trials. Additionally or in trials where a reference product with bixafen was not available, Protendo 300 EC (prothioconazole 300 EC) applied at 0.65 L/ha or Proline (prothioconazole 250 g/L) applied at 0.8 L/ha were set as the reference PPP.

NOTE: Efficacy results are also presented for another coded formulation under development, GLOB2020aF, which applied at 1 L/ha provides 100 g bixafen + 100 g difenoconazole. The data are relevant to demonstrate the usefulness of the straight formulation GLOB2111F in combination with azoles.

Data were summarized at the end of each table by an orthogonal comparison of the control achieved by the proposed rate of GLOB2020aF and GLOB2111F to the reference products at each relevant assessment timing. In the South-East zone, a lower dose rate was tested in most of the trials and are as well summarized below.

Results where the untreated check had a severity percentage below 5% or a second assessment falling within the same assessment timing window were not considered for means calculation and those data are shaded in grey in the BAD. Figures presented in italics for Untreated check in calculated control rows stand for the pressure.

Exceptionally, infestation between 4 and 5% were used when a tendency could be seen in disease development. The number of trials where product is statistically >, <, = compared to the reference standard is provided for each grouping.

## Results

### FUSASP – *Fusarium* spp.

Infection by *Fusarium* species was assessed in 7 trials on wheat conducted between 2022 and 2023. Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha at BBCH 61-65 was good especially regarding the FHB index. Control levels were slightly lower than those of standard products based on bixafen + triazole mixtures.

The results presented for another formulation where bixafen is in mixture with a DMI a.s. (i.e. difenoconazole in GLOB2020aF, not target of this submission) clearly demonstrates the benefit of such mixtures. Following FRAC guidelines, the number of applications with Starinta is limited to 1 per season and recommendation to be used with a mixing partner will be stated on the label.

No specific EPPO extrapolation table is available on foliar and ear diseases. Nevertheless, the Dutch guidance states that for *Fusarium* spp., it is possible to extrapolate from winter wheat to spring wheat, rye, triticale and spelt because in these crops same diseases can be found and their susceptibility to infection is lower. Also on UK, extrapolation is acceptable from winter wheat to minor cereals including oats, spring wheat, durum wheat, rye, triticale. Therefore, acceptability of the data provided on winter wheat to other crops may be taken into account by each CMS.

**Table 3.2-48: Efficacy of GLOB2020aF and GLOB2111F against FUSASP (PESSEV) on wheat - 1 application– South-East EPPO Zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Type	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
													GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
										Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	FUSASP	TRZAW	All valid ass. BBCH 75-83	EAR	PESSEV	61-61	6	21-31	21-31	17.3	8.5-28.3	16.0	78.4 (n=5)	39.8-97.5	86.5	83.3	55-97.4	88.3	76.2 (n=5)	34.7-94	81.2	79.4	39.2-96.9	84.6	92.7	80.5-99.7	96.6
SE	FUSASP	TRZDW	All valid ass. BBCH 75-83	EAR	PESSEV	61-61	1	24-24	24-24	33.6	33.6-33.6	33.6	51.6	51.6-51.6	51.6	54.5	54.5-54.5	54.5	43.3	43.3-43.3	43.3	50.1	50.1-50.1	50.1	69.3	69.3-69.3	69.3

Number of trials summarized: 6 soft wheat, 1 durum wheat

**Table 3.2-49: Efficacy of GLOB2020aF and GLOB2111F against FUSASP (FHB index -severity x incidence) on wheat - 1 application– South-East EPPO Zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Type	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
													GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
										Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	FUSASP	TRZAW	All valid ass. BBCH 75-83	EAR	SEVIND	61-61	6	21-31	21-31	863.2	252.5-1425	912.4	84.3 (n=5)	45.8-99.8	95.3	90.9	66.5-99.5	96.8	83.2 (n=5)	38.4-98.6	90.8	86.4	48.5-99.4	93.3	96.8	89.6-100	99.3
SE	FUSASP	TRZDW	All valid ass. BBCH 75-83	EAR	SEVIND	61-61	1	24-24	24-24	2732.2	2732.2-2732.2	2732.2	62.5	62.5-62.5	62.5	63.3	63.3-63.3	63.3	48.5	48.5-48.5	48.5	57.6	57.6-57.6	57.6	77.0	77-77	77.0

Number of trials summarized: 6 soft wheat, 1 durum wheat

#### Efficacy against *Fusarium spp.* in winter wheat

The presented data comply with the requirements of EPPO Standards PP 1/26 (*Foliar and ear diseases on cereals*), PP 1/214 (*Principles of acceptable efficacy*), PP 1/223 (*Introduction to the efficacy evaluation of plant protection products*), and PP 1/226 (*Number of efficacy trials*). The applicant demonstrated satisfactory efficacy of 79.4% (an acceptable level) for the control of *Fusarium spp.* on wheat in 7 trials conducted in 2022 and 2023 in the South-East EPPO Zone. However, the observed levels of control were inferior to the efficacy of the standard products, which was 92.7%.

The data provided by the applicant supports the conclusion that GLOB2111F is effective against against *Fusarium spp.* in winter wheat.

#### SEPTTR - *Zymoseptoria tritici*

Infection by *Zymoseptoria tritici* was verified at acceptable levels in a total of 11 trials between 2021 and 2023 carried out on wheat in the S-E zone. In most of the trials 2 applications were performed. Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was from good to very

good. Control levels were slightly lower than those of standard products based on bixafen + triazole mixtures.

The results presented for another formulation where bixafen is in mixture with a DMI a.s. (i.e. difenoconazole in GLOB2020aF, not target of this submission) clearly demonstrates the benefit of such mixtures. Following FRAC guidelines, the number of applications with Starinta is limited to 1 per season and recommendation to be used with a mixing partner will be stated on the label.

No specific EPPO extrapolation table is available on foliar and ear diseases. Nevertheless, the Dutch guidance states that for leaf and ear diseases, it is possible to extrapolate from winter wheat to spring wheat, rye, triticale and spelt because in these crops same diseases can be found and their susceptibility to infection is lower. Also on UK, extrapolation is acceptable from winter wheat to minor cereals including oats, spring wheat, durum wheat, rye, triticale. Therefore, acceptability of the substantial data provided on winter wheat in support of other crops may be taken into account by each cMS. In addition, based on practical experience it is known that if *Zymoseptoria tritici* can be well controlled, *LEPTNO Parastagonospora nodorum* (syn.= *Leptosphaeria nodorum*, leaf infection) can also be well controlled. Therefore, the data provided will support by extrapolation all used claimed in the table “All intended uses” in Part B – Section 0.

**Table 3.2-50: Efficacy of GLOB2020aF and GLOB2111F against SEPTTR (PESSEV %) on cereals (soft wheat) at different leaf levels– South-East EPPO zone – 2 applications**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	SEPTTR	TRZAW	All valid ass. (2-3w after A)	FLAG	31-31	1	21-21	21-21	7.6	7.6-7.6	7.6	75.2	75.2-75.2	75.2	87.6	87.6-87.6	87.6	90.2	90.2-90.2	90.2	100.0	100-100	100.0	100.0	100-100	100.0
				FL-1	31-31	1	21-21	21-21	14.3	14.3-14.3	14.3	53.2	53.2-53.2	53.2	82.5	82.5-82.5	82.5	69.2	69.2-69.2	69.2	78.3	78.3-78.3	78.3	87.5	87.5-87.5	87.5
				FL-2	31-37	5	19-23	19-23	13.9	4.1-36.1	5.3	63.3	33-100	60.5	68.1	39.1-100	65.0	68.9	36.9-100	72.4	73.8	40.7-100	82.0	78.0	47.6-100	83.8
			All valid ass. (2-3w after B)	FL-3	31-33	4	19-23	19-23	25.9	7.4-43.8	26.3	64.1	35.4-97.1	61.9	71.7	36.4-100	75.1	69.7	37-97.3	72.3	70.8	39.4-100	71.8	78.0	39.5-100	86.2
				FLAG	31-33	4	35-52	14-25	10.0	4.5-20.4	7.5	71.6	65.3-81.7	69.8	84.0	73-100	81.6	70.6	55.7-78.9	73.8	79.3	65.7-90.2	80.7	93.2	83.9-100	94.4
				FL-1	31-33	5	35-52	14-25	20.4	13.8-38	16.6	68.5	45.7-88.9	68.8	86.1	71-100	86.3	69.8	57.2-86.4	68.8	78.3	63.2-100	78.8	90.4	78.3-100	96.3
			FL-2	31-33	7	34-52	15-25	28.9	5.3-53.6	39.5	71.1	40.4-96.7	82.8	78.0	45.8-100	90.2	73.6	40.1-100	77.3	78.5	50.8-100	78.4	84.1	50.8-100	95.4	
			All valid ass. (4-6w after B)	FLAG	31-33	2	56-57	33-38	43.5	11.9-75	43.5	88.2	84.1-92.2	88.2	95.9	91.8-100	95.9	90.2	86.8-93.5	90.2	93.2	91.9-94.4	93.2	97.4	94.8-100	97.4

number of trials summarized: 9 wheat

**Table 3.2-51: Efficacy of GLOB2020aF and GLOB2111F against SEPTTR (PESSEV %) on cereals (soft wheat) at different leaf levels– South-East EPPO zone – 1 application**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control											
												GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	SEPTTR	TRZAW	All valid ass. (2-3w after A)	FLAG	39-39	1	16-16	16-16	5.2	5.2-5.2	5.2	74.8	74.8-74.8	74.8	54.3	54.3-54.3	54.3	69.8	-	-	-	-	-
				FL-1	39-39	2	14-16	14-16	6.9	5-8.7	6.9	77.4	62.1-92.6	77.4	67.8	44.4-91.1	67.8	77.9	63.4-92.4	77.9	-	-	-
				FL-2	39-39	2	14-16	14-16	9.9	8.2-11.5	9.9	61.9	32.4-91.4	61.9	58.1	26.5-89.6	58.1	61.7	31.6-91.8	61.7	-	-	-
			All valid ass. (4-6w after A)	FLAG	39	1	28	28	7.8	-	-	67.4	-	-	59.3	-	-	66.8	-	-	-	-	-
				FL-1	39-39	2	28-28	28-28	10.8	10.5-11	10.8	67.4	55.5-79.2	67.4	55.9	34.4-77.3	55.9	66.7	57.2-76.2	66.7	-	-	-
				FL-2	39-39	2	28-28	28-28	17.3	15.6-19	17.3	56.7	39.6-73.7	56.7	56.5	39.8-73.1	56.5	58.0	43.8-72.1	58.0	-	-	-

number of trials summarized: 2 wheat

#### Efficacy against *Zymoseptoria tritici* in winter wheat

The presented data comply with the requirements of EPPO Standards PP 1/26 (*Foliar and ear diseases on cereals*), PP 1/214 (*Principles of acceptable efficacy*), PP 1/223 (*Introduction to the efficacy evaluation of plant protection products*), and PP 1/226 (*Number of efficacy trials*). The applicant showed in 7 valid trials (assessment after first application - 0 DA-B) acceptable efficacy of 80.7% for the control of *Zymoseptoria tritici* on winter wheat based on trials from 2021 and 2023 in the southeast EPPO zone. The observed levels of control were slightly inferior compared to the efficacy of the standard products which was 85.8%.

#### PUCCSI/PUCCST – *Puccinia striiformis tritici*, *Puccinia striiformis*

Infection by stripe (yellow) rusts *Puccinia striiformis* identified also by its “*forma specialis*” *Puccinia striiformis* f. sp. *tritici* was verified at acceptable levels in a total of 2 trials in 2023 on wheat. One of those trials was aimed for the control of Fusarium with a single late application (BBCH 61-65), however high levels of PUCCST were observed. Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was very good and even one late application still provided moderate control. The results were always equivalent to the standard products based on bixafen + triazole mixtures.

The results presented for another formulation where bixafen is in mixture with a DMI a.s. (i.e. difenoconazole in GLOB2020aF, not target of this submission)

clearly demonstrates the benefit of such mixtures. Following FRAC guidelines, the number of applications with Starinta is limited to 1 per season and recommendation to be used with a mixing partner will be stated on the label.

**Table 3.2-52: Efficacy of GLOB2020aF and GLOB2111F against PUCCSI/PUC CST (PESSEV) on wheat at different leaf levels – South-East EPPO zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	PUCCSI/ PUC CST	TRZAW	All valid ass. (2-3w after A)	FLAG	33	1	23	23	5.8	-	-	47.5	-	-	79.2	-	-	61.7	-	-	81.7	-	-	100.0	-	-
			FL-1	33-33	1	23-23	23-23	5.5	-	-	79.5	-	-	83.1	-	-	66.7	-	-	86.7	-	-	100.0	-	-	
SE	PUCCSI/ PUC CST	TRZAW	All valid ass. (2-3w after B)	FL-1	33-33	1	43-43	20-20	5.0	-	-	77.4	-	-	91.7	-	-	69.0	-	-	70.2	-	-	100.0	-	-
			FL-2	33-33	1	43-43	20-20	11.0	-	-	79.5	-	-	90.2	-	-	69.8	-	-	72.0	-	-	100.0	-	-	

number of trials summarized: 1 wheat

### Supportive data from FUSASP trials

**Table 3.2-53: Efficacy of GLOB2020aF and GLOB2111F against PUCCSI/PUC CST (PESSEV) on cereals (wheat) at different leaf levels – 1 late application – South-East EPPO zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	PUC CST	TRZAW	All valid ass. (2-3w after A)	FLAG	61	1	15	15	21.7	-	-	74.3	-	-	77.9	-	-	74.4	-	-	79.5	-	-	72.0	-	-
			FL-1	61	1	15	15	16.6	-	-	74.3	-	-	78.5	-	-	75.5	-	-	80.9	-	-	76.1	-	-	
			FL-2	61	1	15	15	13.4	-	-	74.7	-	-	78.1	-	-	75.2	-	-	79.6	-	-	70.7	-	-	

number of trials summarized: 1 wheat

### Efficacy against *Puccinia striiformis* in wheat

The number of trials conducted in the south eastern EPPO zone in 2023 to control *Puccinia striiformis* was insufficient according to the EPPO Standard PP 1/226 (Number of efficacy trials). The single result obtained after the first application on wheat is inconclusive and cannot provide evidence of effectiveness against PUCCSI.

### PUCCHD – *Puccinia hordei*

Infection by brown rust *Puccinia hordei* on barley was verified in one trial on winter barley in 2023. The disease reached significant levels only after the second application. Data demonstrated that GLOB2111F at the proposed rate of 1 L/ha provided some control of PUCCHD.

The results presented for another formulation where bixafen is in mixture with a DMI a.s. (i.e. difenoconazole in GLOB2020aF, not target of this submission) clearly demonstrates the benefit of such mixtures. Following FRAC guidelines, the number of applications with Starinta is limited to 1 per season and recommendation to be used with a mixing partner will be stated on the label. When mixed, a control comparable to that of standard products can be reached.

**Table 3.2-54: Efficacy of GLOB2020aF and GLOB2111F against PUCCHD (PESSEV) on cereals (barley) at different leaf levels – South-East EPPO zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	PUCCHD	HORVW	All valid ass. (2-3w after B)	FLAG	32-32	1	43-43	21-21	5.2	5.2-5.2	5.2	64.9	64.9-64.9	64.9	86.2	86.2-86.2	86.2	47.0	47-47	47.0	54.3	54.3-54.3	54.3	85.5	-	-
				FL-1	32-32	1	43-43	21-21	6.6	6.6-6.6	6.6	62.3	62.3-62.3	62.3	72.1	72.1-72.1	72.1	52.1	52.1-52.1	52.1	55.6	55.6-55.6	55.6	77.6	-	-
				FL-2	32-32	1	43-43	21-21	8.0	8-8	8.0	56.7	56.7-56.7	56.7	70.7	70.7-70.7	70.7	28.6	28.6-28.6	28.6	37.4	37.4-37.4	37.4	70.1	-	-

number of trials summarized: 1

#### Efficacy against *Puccinia hordei* in barley

The number of trials conducted in the south eastern EPPO zone in 2023 to control *Puccinia hordei* was insufficient according to the EPPO Standard PP 1/226 (Number of efficacy trials). The single result obtained after the first application on barley is inconclusive and cannot provide evidence of effectiveness against PUCCHD.

### PYRNTE - *Pyrenophora teres*

Infection by Net blotch of barley *Pyrenophora teres* was verified at acceptable levels in 3 trials carried out in the South-East zone in 2021 and 2023. Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was very good and control levels were in general comparable to those of standard products based on bixafen + triazole mixtures.

No specific EPPO extrapolation table is available on foliar and ear diseases. Nevertheless, according to EPPO Guideline 1/226(3) the number of trials required to demonstrate the efficacy against a certain pest can be reduced for closely related pest or against the same pests on different crops. Case in point is net blotch of barley (PYRNTE, *Pyrenophora teres*) and it's leaf-specific form *Pyrenophora teres f. sp. maculata* (PYRNTM). It is important to note that these are not different species or sub-species but rather specialised varieties of the same pathogen. Given that PYRNTE is prevalent in European conditions, data provided here can be extrapolated to cover also PYRNTM on barley.

**Table 3.2-55: Efficacy of GLOB2020aF and GLOB2111F against PYRNTE on winter barley (PESSEV) at different leaf levels – South-East EPPO Zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	PYRNTE	HORVW	All valid ass. (2-3w after A)	FL-1	32-32	1	20-20	20-20	4.0	-	-	74.2	-	-	100.0	-	-	91.5	-	-	100.0	-	-	100.0	-	-
				FL-2	32-32	3	20-24	20-24	17.3	6.2-33	12.8	76.8	60.8-100	69.5	79.7	63.9-100	75.3	75.8	63.4-100	63.9	83.4	69.1-100	81.0	82.9	69.4-100	79.2
			All valid ass. (2-3w after B)	FL-1	32-32	3	39-43	16-21	9.9	5.2-15	9.4	84.6	61.4-100	92.5	91.0	73-100	100.0	80.9	53.9-100	88.7	88.1	67.1-100	97.3	92.2	76.5-100	100.0
				FL-2	32-32	3	39-43	16-21	34.5	9.3-51.5	42.8	81.4	67.5-88.6	88.0	86.9	72.5-97.8	90.5	81.7	70.3-89.3	85.5	88.0	74.3-97.1	92.6	87.9	74.2-97.3	92.1
			All valid ass. (4-6w after B)	FLAG	32-32	1	48-48	27-27	4.6	-	-	94.4	-	-	100.0	-	-	87.4	-	-	97.5	-	-	100.0	-	-

Number of trials summarized: 3

#### Efficacy against *Pyrenophora teres* in barley

The number of trials (3) conducted in the south-eastern EPPO zone to control *Pyrenophora teres* was insufficient according to the EPPO Standard PP 1/226 (Number of efficacy trials). The applicant showed in 3 valid trials (assessment after first application) acceptable efficacy of 87.5% for the control of PYRNTE on winter barley based on trials from 2021 and 2023. The observed levels of control were similar compared to the efficacy of the standard products which was 87.1%. The concerned Member States in the southeast EPPO zones are kindly asked to decide for themselves whether to accept the limited data.

## RAMUCC - *Ramularia collo-cygni*

Infection by ramularia leaf spot of barley was verified at acceptable levels in a total of 4 trials in the South-East zone in 2022 and 2023 on winter barley, mostly after the second application.

Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was very good and in the vast majority of cases, equivalent to the efficacy of standard products based on bixafen + triazole mixtures.

**Table 3.2-56 Efficacy of GLOB2020aF and GLOB2111F against RAMUCC (PESSEV) on cereals (barley) at different leaf levels - South-East EPPO zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixture		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	RAMUCC	HORVW	All valid ass. (2-3w after A)	FL-1	32.0	1	24.0	24.0	7.5	-	-	100.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-	100.0	-	-
			FL-2	32-32	2	19-24	19-24	12.9	4.3-21.5	12.9	100.0	100-100	100.0	100.0	100-100	100.0	100.0	100-100	100.0	100.0	100-100	100.0	100.0	100-100	100.0	
			All valid ass. (2-3w after B)	FLAG	32-32	2	40-41	16-21	15.6	11.5-19.7	15.6	84.3	68.5-100	84.3	99.4	98.7-100	99.4	96.2	92.3-100	96.2	98.5	96.9-100	98.5	99.4	98.8-100	99.4
			FL-1	32-32	3	30-41	11-21	32.1	17-50	29.4	77.8	41.6-98.2	93.5	98.7	96.1-100	100.0	86.1	67.4-96.3	94.5	91.8	79.4-99.4	96.6	98.8	96.9-100	99.6	
			FL-2	32-32	4	30-43	11-21	55.0	4-100	57.9	69.6	25-98.1	77.6	87.7	69.5-99.7	90.8	67.6	25-91	77.2	71.7	25-96.5	82.7	82.0	50-99.5	89.2	

Number of trials summarized: 4

### Efficacy against *Ramularia collo-cygni* in barley

The number of trials (2) conducted in the south-eastern EPPO zone to control *Ramularia collo-cygni* was insufficient according to the EPPO Standard PP 1/226 (Number of efficacy trials). The applicant showed in 2 valid trials (assessment after first application) very good efficacy of 100% for the control of ramularia leaf spot of barley based on trials from 2022 and 2023. The observed levels of control were similar compared to the efficacy of the standard products which was also 100%.

## RHYNSE - *Rhynchosporium secalis*

Infection by Leaf blotch of cereals *Rhynchosporium secalis* was verified at acceptable levels in a total of 5 trials in 2022 and 2023 on winter barley. Data demonstrated that the Efficacy of GLOB2020aF and GLOB2111F at the proposed rate of 1 L/ha was good and in general comparable to those of standard products based on bixafen + triazole mixtures.



No specific EPPO extrapolation table is available on foliar and ear diseases. Nevertheless, the Dutch guidance states that for *Rhynchosporium secalis*, data on winter barley and spring barley are equally supportive because no differences exist in disease pressure or susceptibility. Therefore, results on major host winter barley will also support the use on spring barley.

**Table 3.2-57: Efficacy of GLOB2020aF and GLOB2111F against RHYNSE (PESSEV) on cereals (barley) at different leaf levels – South-East EPPO zone**

EPPO zone	Target code	Crop Code	Grouping	Part rated	Crop BBCH at 1st appl.	Nb. trials	Days After First Appl.	Days After Last Appl.	Infestation in the untreated control (PESSEV%)			% control														
												GLOB2020aF at 0.6 L/ha			GLOB2020aF at 1 L/ha			GLOB2111F at 0.6 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixture		
									Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	RHYNSE	HORVW	All valid ass. (2-3w after A)	FL-1	32-32	2	21-21	21-21	4.6	4-5.2	4.6	98.1	96.1-100	98.1	100.0	100-100	100.0	96.0	92-100	96.0	100.0	100-100	100.0	100-100	100.0	
				FL-2	32-39	5	14-22	14-22	8.4	4.2-11.8	7.6	72.9	54.1-86.3	73.9	81.6	69-90.4	80.2	67.0	33.7-79.6	72.8	79.8	65.6-88.1	81.1	83.0	72.3-90.1	85.1
			All valid ass. (2-3w after B)	FLAG	32-39	3	28-43	14-22	9.0	5.2-11.8	9.9	70.5	63.3-74.2	74.0	86.8	77.5-100	83.0	76.1	67.3-85.6	75.5	87.1	82.6-93.7	85.0	91.0	84.4-100	88.6
				FL-1	32-39	4	28-43	14-22	13.1	6.3-11.8	14.2	70.3	55.5-74.2	65.7	83.7	66.3-100	84.3	74.9	68.2-85.6	72.2	83.4	72.4-93.7	83.8	87.1	77.7-100	85.4
				FL-2	32-32	3	42-43	21-22	15.8	5.2-22.1	20.0	68.1	56.2-91	57.0	75.9	64.4-94.3	69.0	62.0	36.2-81.9	67.9	74.2	55.3-91.6	75.6	76.7	64.1-91.7	74.3

number of trials summarized: 5

#### Efficacy against *Rhynchosporium secalis* in barley

The number of trials (5) conducted in the south-eastern EPPO zone to control *Rhynchosporium secalis* was insufficient according to the EPPO Standard PP 1/226 (Number of efficacy trials). The applicant showed in 5 valid trials (assessment after first application) acceptable efficacy of 89.9% for the control of RHYNSE on winter barley based on trials from 2022 and 2023. The observed levels of control were similar compared to the efficacy of the standard products which was 91.5%

The concerned Member States in the southeast EPPO zones are kindly asked to decide for themselves whether to accept the limited data.

### Summary (South-East EPPO zone)

The summary table below presents the results shown above for the maximum proposed rate of 1 L/ha and combines, for each disease, the most biologically relevant results (i.e. FHB index (SEVIND) for *Fusarium* sp. and PESSEV % up to L-3 for other diseases) obtained across all timings and plant parts. The overall susceptibility level of each disease is indicated.

**Table 3.2-58 Overall efficacy and susceptibility level to GLOB2111F at the target rate of 1 L/ha on cereals South-East EPPO zone**

EPPO ZONE	PEST CODE	CROP CODE	Nb. of trials	All timings, rating types and parts	Control provided
S-E	FUSASP	TRZAW	6	86	Control
		TRZDW	1	58	Some control
	SEPTTR	TRZAW	11	72	Moderate control
	PUCCSI/ PUCCST	TRZAW	2	79	Moderate control
	PUCCHD	HORVW	1	49	Some control
	PYRNTE	HORVW	3	91	Control
	RAMUCC	HORVW	4	92	Control
	RHYNSE	HORVW	5	85	Control

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

#### 3.3.1 Mode of action

GLOB2111F is based on a single active substance: Bixafen.

Bixafen belongs to SDHI fungicides (FRAC group 7). All fungicides of this group inhibit complex II of the fungal mitochondrial respiration by binding and blocking SDH-mediated electron transfer from succinate to ubiquinone.

#### 3.3.2 Resistance mechanism

Mechanism of Resistance SDHI resistance is mostly based on single target site mutations. In contrast to the situation with QoIs, several mutations have been detected up to now which often occur at different positions or subunits of the target enzyme, dependant on the pathogen. The consequences of each of the different mutations for the performance of the entire group of SDHI fungicides are not yet fully understood. Resistance against DMIs is mostly based on the accumulation of several target site mutations. Thus, the resistance type characteristic for DMIs is often described as “continuous selection” or “shifting”. Bixafen shows a medium to high risk of development of resistance, together with all other members of entire group of Succinate-dehydrogenase inhibitors (SDHI).

According to the FRAC Code List (2020) Resistance to SDHI fungicides is known for several fungal species in field populations and lab mutants. Target site mutations in *sdh* gene, e.g. H/Y (or H/L) at 257, 267, 272 or P225L, dependent on fungal species. Members of the SDHI group of fungicides require resistance management.

#### 3.3.3 Evidence of resistance

As mentioned in the pathogen risk list of the FRAC which was released in September 2019, resistance has been observed in the following target species for GLOB2111F:

##### Cereals

High risk:

-*Blumeria graminis* in wheat and barley

Medium risk:

*Mycosphaerella graminicola* (*Zymoseptoria tritici*) in wheat

*Pyrenophora tritici-repentis* in wheat

*Pyrenophora teres* in barley

Low risk:

*Puccinia* spp. in wheat and barley

*Rhynchosporium secalis* in barley

*Fusarium* spp. in various crops

According to the FRAC Pathogen risk list, all pathogens apart from those categorized in the “high risk” group pose a much lower risk, because resistance is not a major problem or has been slow to develop. Cases of specific isolates being classed as resistant may be known in some instances, but in commercial practice resistance has not created major disease problems.

Also according to FRAC, the application of fungicides with different modes of action in mixtures (both ready formulations and tank mixtures) and the alternation between non-cross-resistant fungicide classes are both suitable approaches to minimize the risk of resistance development alongside good agronomic practices.

Based on this information, it is considered that the risk of resistance development is medium for GLOB2111F.

### 3.3.4 Cross resistance

The SDHI fungicides (benodanil, benzovindiflupyr, bixafen, boscalid, carboxin, fenfuram, fluindapyr, fluopyram, flutolanil, fluxapyroxad, furametpyr, inpyrfluxam, isofetamid, isoflucypram, isopyrazam, mepronil, oxycarboxin, penflufen, penthiopyrad, pydiflumetofen, sedaxane, thifluzamide) are in the same cross-resistance group. However, in FRAC group 7 fungicides, there seem to be differences in sensitivity between fungicides within the group after resistance has been detected in one particular fungicide. This therefore means that some FRAC group 7 fungicides may retain their efficacy even in case of resistance to another group 7 fungicide.

There is no known cross-resistance between the DMI's and SDHI. Therefore, DMI's can be used in tank mixtures with GLOB2111F to reduce the resistance risk.

### 3.3.5 Sensitivity data

No proprietary studies on baseline sensitivity data are available to the applicant.

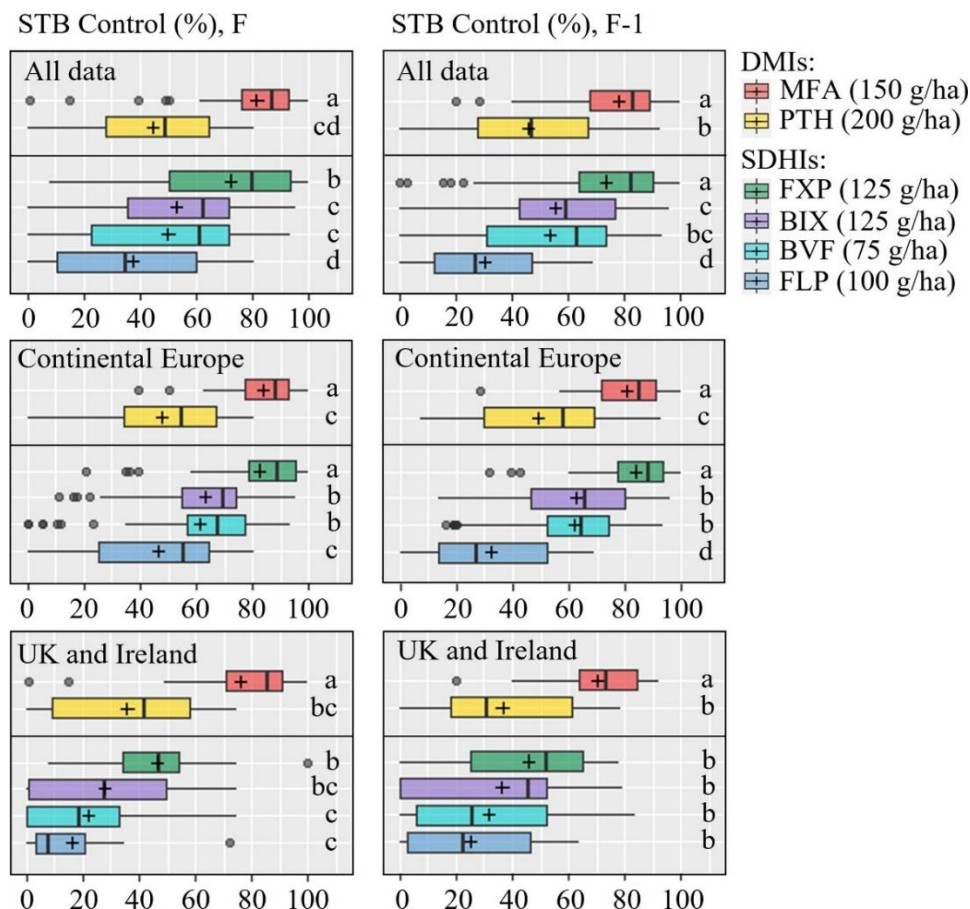
Recent study (Jørgensen et al., 2022) investigated in large scale differences in azoles and SDHI's performances against *Mycosphaerella graminicola*/ *Zymoseptoria tritici* (SEPTTR) in 55 field trials were carried out during several seasons (2019- 2021 azoles and SDHI'S) across Europe covering a diversity of climatic zones and agricultural practices. The trials were carried out in Denmark, Scotland, England, Poland, France, Germany, Ireland, Belgium, Latvia and Hungary by local scientific organisations and following EPPO standards. Bixafen was included in the analysis.

In the study published in 2022, the efficacy of only mefentrifluconazole (MFA) and prothioconazole (PTH) were tested among azoles and the SDHIs fluxapyroxad (FXP), bixafen (BIX) and benzovindiflupyr (BVF) investigated as solo products. Azole/SDHI mixtures & QiI fenpicoxamid were as well tested in the following co-formulations: FXP+MFA, BVF+PTH, and BIX+FLP+PTH, the SDHIs BIX+FLP and the QiI fenpicoxamid (FPX).

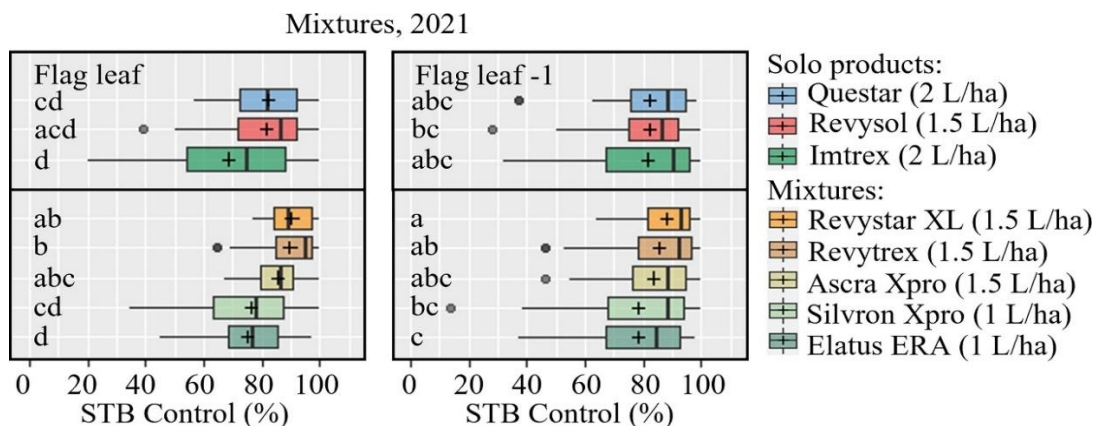
The figures below shows EC50 values for the azoles+SDHI's in the 2022 study, where significant differences across the different regions were observed.

Those data were also compared with the average yield responses. Despite variability in the performances and in the frequencies of single mutations observed across Europe, yield responses were always significant.

### Jørgensen, 2022 study:



**Figure 3.3-1:** STB control (%) on flag leaves (left) and F-1 (right) were assessed at growth stage 65-85, 22-58 days after application in 18 trials on flag leaf and 19 on F-1 from 2019-2021. Trials from Continental Europe were carried out in Denmark, France, Germany, Poland and Belgium. Tested fungicides included mefentrifluconazole (MFA), prothioconazole (PTH), fluxapyroxad (FXP), bixafen (BIX), benzovindiflupyr (BVF), fluopyram (FLP). FLP was not included in 2021. The line inside the boxes indicates the median and '+' indicates the average.



**Figure 3.3-2:** STB control (%) of mixtures on flag leaves (left) and F-1 leaves (right) were assessed at growth stage 65-83, 27-51 days after application in 9 trials in 2021. The trials were carried out in Denmark, the United Kingdom, Ireland, Belgium, France, Poland, and Germany. The tested fungicides included Questar (fenpicoxamid), Revysol (mefentrifluconazole), Imtrex (fluxapyroxad), Revystar and Revytrex (fluxapyroxad + mefentrifluconazole), Ascra Xpro (bixafen + fluopyram + prothioconazole), Silvron Xpro (bixafen + fluopyram), Elatus ERA (benzovindiflupyr + prothioconazole).

## **CONCLUSION**

Extensive testings in Europe confirm that shifting in fungicide efficacy against STB is challenged in some countries, while the efficacy is still good in other countries. The efficacy assessments based on field data, supported by in vitro testing, also clearly confirmed a significant shifting *Z. tritici*'s sensitivity from Eastern to Western Europe for all SDHIs tested. These changes were supported by differences in the composition of specific SDH-C mutations between local *Z. tritici* populations. A high degree of cross-resistance between the SDHIs tested was seen based on EC50 values; however, the values of FLP were slightly less correlated with those of the other actives. The sensitivity to PTH also showed an East-West gradient across Europe based both on EC50 values and CYP51 mutations.

**Co-formulations based on azoles and SDHIs, and the new Qil fungicide FPX proved to be the most effective solutions for the control of STB. This benefit was clearest where the populations had shifted to lower sensitivity to both azoles and SDHIs.**

Finally, shifts to lower efficacy does not imply widespread of resistance to an active substance throughout a region, as it is often connected to a misuse, it is commonly a localized phenomenon and generalizations should therefore be avoided.

The applicant is not aware of a recent extensive study on the sensitivity of other target pests in the concerned countries. Nevertheless, a strategy including azole/SDHI mixtures have been successfully used along the years to prolong the effectiveness of such products.

### **3.3.6 Use pattern**

The use pattern is detailed in the GAP table.

### **3.3.7 Resistance risk assessment of unrestricted use pattern**

As point mutations are responsible for the development of resistance, sensitivity to both active substances could decrease fast in the absence of resistance management.

According to FRAC, the application of fungicides with different modes of action in mixtures is a suitable approach to minimize the risk of resistance development alongside good agronomic practices. The strategy is particularly valuable for sustaining the effectiveness of site-specific fungicides by preventing upcome or further spread of pathogens with decreased sensitivity towards those fungicides with site-specific mode of action, if already present in farmers' field.

The combination of GLOB2111F with a mixing partner will decrease the agronomic risk and can be regarded as a resistance risk modifier. This recommendation will be stated on the label.

### 3.3.8 Acceptability of the resistance risk

In an unrestricted use pattern, the resistance risk for Bixafen is unacceptable. The limitation of 1 application per season and combination of GLOB2111F with a mixing partner decreases the agronomic risk and can be regarded as resistance risk modifiers. Moreover, the incomplete cross-resistance pattern as described above for different chemical classes of SDHI fungicides and specific SDHI target site mutants together with the broad fungicidal spectrum of GLOB2111F in cereals covering several non high-risk pathogens reduces the overall resistance risk. Thus, if the resistance management strategy is respected, resistance can be kept under control, bringing the risk to an acceptable level.

### 3.3.9 Management strategy

SDHI FRAC Working Group indicates recommendations that include

- Do not use repeated applications SDHIs alone on the same crop in one season
- For crop/pathogen situations requiring multiple spray applications, use mixtures or alternate (in block sprays or in sequence) with effective non-cross-resistant fungicides.
- To ensure good performance in situations of high disease pressure it is of importance to adhere to dosages and spray timings as recommended by manufacturers. Highly curative applications should be avoided. Application timing has to be appropriate to all mix partner's characteristics. Mixing with a non-cross resistant fungicide at effective dose rates may contribute to a higher level disease control.
- Complementary use of other fungicide classes with different modes of action should be maximised.
- Use as recommended on the label. Do not use reduced doses.
- Use other measures such as resistant varieties, good agronomic practice, plant hygiene.

Specific Recommendations for SDHIs on Cereals:

Apply SDHI fungicides always in mixtures.

The mixture partner should provide satisfactory disease control when used alone on the target disease and must have a different mode of action.

Apply a maximum of 2 SDHI fungicide containing sprays per cereal crop.

Apply the SDHI fungicide preventively or as early as possible in the disease cycle. Do not rely only on the curative potential of SDHI fungicides.

Strongly reduced rate programs including multiple applications must not be used. Refer to manufacturers' recommendations for rates.

Therefore, the following general recommendations should be followed for GLOB2111F:

- GLOB2111F must be always applied in mixture with an effective, systemic non cross-resistance partner;
- GLOB2111F should not be used more than once per cereal crop and season;
- When applied in mixture, adhere to the recommended dose rate;
- Wherever feasible, several anti-resistance strategies should be used together.

### 3.3.10 Implementation of the management strategy

The guidelines for the proper use of GLOB2111F will be added to the label (see 3.3.9-management strategy).



**Conclusion** to “Information on possible occurrence of the development of resistance”

The applicant does address all points of the EPPO Standard PP 1/213 in the dRR Status to evaluate the actual resistance risk of GLOB2111F.

Bixafen is an SDHI fungicide (FRAC code 7) from the pyrazole carboxamide chemical group. SDHIs are considered to have a medium to high risk of resistance, requiring careful resistance management. Resistance to SDHIs has been reported in several diseases, including *Zymoseptoria tritici* (wheat), *Pyrenophora teres* (barley), *Botrytis cinerea* (various crops) and *Sclerotinia sclerotiorum* (oilseed rape).

The latest FRAC monitoring (FRAC 2024 minutes) indicate that for Septoria leaf blotch, the C-N86S mutation, which is associated with low resistance factors, was the most frequently detected mutation in 2023 and its frequency is increasing. Despite the high frequency of this and other mutations (e.g. C-T79N), which are expected to have a noticeable impact on field performance, SDHIs continue to make a significant contribution to disease control and remain essential for *Septoria* management in wheat-growing regions.

The mutation frequency for net blotch (*Pyrenophora teres*) in barley in 2023 has increased compared to the previous season and is at a high level in north-western Europe.

The risk of resistance developing to bixafen requires monitoring data on Septoria leaf blotch in wheat and net blotch on barley. To avoid the development of resistance of Septoria leaf blotch to bixafen, the number of applications of GLOB2111F is limited to one per season for all diseases of wheat. To avoid the development of net blotch resistance to bixafen, the number of applications of GLOB2111F is limited to one per season for all barley diseases.

Overall, it is necessary to implement resistance management recommendations for SDHI fungicides according to the latest FRAC monitoring (FRAC 2024 minutes).

**SDHI-Guidelines – Cereals**

**3.7.1. Foliar applications**

- Apply SDHI fungicides always in mixtures
- The mixture partner:
  - should provide satisfactory disease control when used alone on the target disease
  - must have a different mode of action
- Apply a maximum of 2 SDHI fungicide containing sprays per cereal crop (see below for specifics on seed treatments).

Apply the SDHI fungicide preventively or as early as possible in the disease cycle. Do not rely only on the curative potential of SDHI fungicides. Strongly reduced rate programs including multiple applications must not be used. Refer to manufacturers' recommendations for rates.

It is expected that cMS will implement FRAC recommendations unless their national guidelines indicate more restrictive resistance management measures are required.

### 3.4 Adverse effects on treated crops (KCP 6.4)

Adverse effects on the treated crops were assessed in all efficacy trials. In total, 162 efficacy trials were submitted to demonstrate the safety of GLOB2020aF and GLOB2111F towards the target crops. In Addition to the 162 trials presented for efficacy, one additional trial in Slovenia on wheat is presented for adverse effects only as the only disease occurred was not a target disease. All trials were carried out between 2021 and 2023 by GEP certified research institutions in the northern part of France, Germany, Denmark, the Czech Republic, Ireland, Norway and Sweden (41 trials, belonging to the Maritime EPPO Zone), in Poland, Estonia and Latvia (56 trials, belonging to the North-East EPPO Zone), in Croatia, Greece, Portugal (39 trials belonging to the Mediterranean EPPO Zone), as well as in Hungary, Romania and Slovenia (27 trials belonging to the South-East EPPO Zone).

Information on trial distribution, methodology and reference standards is presented in point 3.2.3.1. Trial



site information and application details are presented in Appendix 3 of the BAD for each EPPO zone.

### 3.4.1 Phytotoxicity to host crop (KCP 6.4.1)

Plant protection products containing bixafen have been applied to a wide variety of crops in different countries for many years without any reports of damage symptoms to the crops. Consequently, reference is made to the efficacy trials (KCP 6.2). The phytotoxicity of GLOB2111F was assessed in these trials according to EPPO PP 1/135 (4). This guideline states that for fungicides it is considered enough to demonstrate the crop safety at the N dose rate when no phytotoxicity is expected.

In all the efficacy trials, the test product GLOB2111F was applied according to the GAP table at the maximum rate of 1 L/ha (N).

The following table aims to give an overview of submitted trials per crop and climatic zone, regardless of the diseases occurred.

CROP GROUP	CROP	Number of trials			
		Marit. zone	North-East zone	Medit. zone	South-East zone
Cereals (2021-2023)	AVESA	1	7		
	HORVW	11	10	12	8
	HORVS	1	2		
	SECCW	4	3	1	
	TRZAW	19	29	14	18
	TRZDW			11	1
	TRZSP	2			
	TTLWI	4	5	1	
Total		41	56	39	27

No significant adverse effects were recorded at the proposed dose rates on any tested crop.

No specific crop safety extrapolation tables are proposed for the target crops of this submission, as referred to PP1/257(2) - Efficacy and crop safety extrapolations for minor uses. Nevertheless, a sound data set has been provided on major crops (e.g. winter wheat and winter barley), with the product being tested under variable environmental and pest conditions and performing consistently, demonstrating no phytotoxicity. Therefore, extrapolation regarding crop safety is claimed to all crops requested on the table “All intended uses” in Part B - Section 0.

### Maritime EPPO Zone:

Number of trials with...		Efficacy trials	
		Cereals (41 trials)	
		GLOB2111F (1 L/ha)	Standard(s)*
Maximum of phytotoxicity recorded during the trials	0% to 5%	41	41
	>5% to 10%	-	-
	>10% to 15%	-	-
	>15 %	-	-
Level of symptoms at the last assessments	0% to 5%	41	41
	>5% to 10%	-	-
	>10% to 15%	-	-
	>15 %	-	-

\* standards were different formulations providing 195-200 g of prothioconazole/ha or bixafen + triazole mixtures. See point 3.2.3.2 for details on commercial names and composition.

### North-East EPPO Zone:

Number of trials with...		Efficacy trials	
		Cereals (56 trials)	
		GLOB2111F (1 L/ha)	Standard(s)*
Maximum of phytotoxicity recorded during the trials	0% to 5%	56	56
	>5% to 10%	-	-
	>10% to 15%	-	-
	>15 %	-	-
Level of symptoms at the last assessments	0% to 5%	56	56
	>5% to 10%	-	-
	>10% to 15%	-	-
	>15 %	-	-

\* standards were different formulations providing 195-200 g of prothioconazole/ha or bixafen + triazole mixtures. See point 3.2.3.2 for details on commercial names and composition.

### Mediterranean EPPO Zone:

Number of trials with...		Efficacy trials	
		Cereals (39 trials)	
		GLOB2111F (1 L/ha)	Standard(s)*
Maximum of phytotoxicity recorded during the trials	0% to 5%	39	39
	>5% to 10%	-	-
	>10% to 15%	-	-
	>15 %	-	-
Level of symptoms at the last assessments	0% to 5%	39	39
	>5% to 10%	-	-
	>10% to 15%	-	-

\* standards were different formulations providing 195-200 g of prothioconazole/ha or bixafen + triazole mixtures. See point 3.2.3.2 for details on commercial names and composition.

### **South-East EPPO Zone:**

Number of trials with...		Efficacy trials	
		Cereals (27 trials)	
		GLOB2111F (1 L/ha)	Standard(s)*
<b>Maximum of phytotoxicity recorded during the trials</b>	0% to 5%	27	27
	>5% to 10%	-	-
	>10% to 15%	-	-
	>15 %	-	-
<b>Level of symptoms at the last assessments</b>	0% to 5%	27	27
	>5% to 10%	-	-
	>10% to 15%	-	-
	>15 %	-	-

\* standards were different formulations providing 195-200 g of prothioconazole/ha or bixafen + triazole mixtures. See point 3.2.3.2 for details on commercial names and composition.

#### **Conclusion to “Phytotoxicity to host crop”**

No specific crop selectivity trials have been conducted in support of GLOB2111F. All selectivity data have been generated from efficacy trials. Based on the substantial evidence showing a lack of significant effects across a cereals, it is considered that the proposed uses is unlikely to result in any significant adverse effects.

### **3.4.2 Effect on the yield of treated plants or plant product (KCP 6.4.2)**

The effect on yield and quality was determined in nearly all the efficacy trials discussed in section 3.2 in accordance with the EPPO standard PP 1/135 requirements. Plots were harvested individually to give results in kg per plot, and then converted to metric tons per ha which is shown in the below tables for the untreated check. The percentage relative to the control is shown for each treatment in the tables below.

In total, 151 trials evaluated the effects on the yield of cereals (40 trials in the Maritime, 48 in the North-East, 39 in the Mediterranean EPPO zones and 24 in the South-East EPPO zone). Trials were carried out between 2021 and 2023. All trials were carried out by GEP certified research institutions.

In support of the North-East EPPO Zone, results were combined with those results from Czech trials since this is a neighbouring country and considered as valid to Poland, the only MS in the Central zone belonging to the North-East climatic zone. Trials highlighted in yellow in detailed tables are those conducted in Poland, while blue ones are those conducted in DE and CZ. Green ones were conducted in other countries of the Maritime EPPO zone.

In all the efficacy trials, the test product GLOB2020aF and GLOB2111F was applied according to the GAP table at the maximum rates of 1 L/ha (N). The test product was applied either once or twice according to the GAP and results are analysed separately.

Statistical analysis was made as letter test based on Student-Newman-Keuls ( $P = 0.05$ ). Where no letter is presented, no difference was registered among treatments. Letters accompanying yield absolute values correspond to the post-hoc test result for the UTC value set at 100%.

A wide range of commercially grown varieties were tested and are listed in trial methodology tables in point 3.2.3.1 above, split by EPPO zone.

## Cereals

### Maritime EPPO Zone:

#### Winter wheat – 1 application

**Table 3.4-1 Effect on yield of GLOB2020aF and GLOB2111F on winter wheat - 1 application – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			Protendo 300 EC			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha			300 G/L EC 0.65 l/ha					
KCP 6.2-01	TRZAW	Torp	16/08/21	YIELD	8.9	100		110.6			109.8			104.7			109		Aviator Xpro 1.25L/ha
KCP 6.2-130	TRZAW	Julius	30/08/23	YIELD	7.3	100	-	103.1	-		102	-					110.7	-	Siltra Xpro 0.75L/ha
KCP 6.2-131	TRZAW	Halfreda	11/09/23	YIELD	7.4	100	-	99.1	-		101.4	-					103.3	-	Siltra Xpro 0.75L/ha
KCP 6.2-119	TRZAW	TOBAK	31/07/23	YIELD	9.2	100	c	142.7	ab		139	b		143.6	ab	Proline 0.8L/ha			
KCP 6.2-132	TRZAW	TOBAK	20/07/23	YIELD	7.3	100	d	168.4	a		158.1	b					173.7	a	Siltra Xpro 1L/ha
KCP 6.2-133	TRZAW	Vanessa	31/07/23	YIELD	7.4	100	-	104.8	-		103.6	-					104.8	-	Siltra Xpro 1L/ha
KCP 6.2-134	TRZAW	Kalbex	13/08/23	YIELD	8.3	100	-	105.7	-		100.1	-					106.5	-	Siltra Xpro 1L/ha
KCP 6.2-135	TRZAW	LG Mocca	16/08/23	YIELD	4.9	100	c	116.6	c		114.7	c					168.6	a	Siltra Xpro 1L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	TRZAW	All	8	Yield (t/ha)	7.6	4.9-9.2	7.4	118.9	99.1-168.4	108.2	116.1	100.1-158.1	106.7	124.2 (n=2)	104.7-143.6	124.2	125.2 (n=7)	103.3-173.7	109.0

#### Winter wheat – 2 applications

**Table 3.4-2 Effect on yield of GLOB2020aF and GLOB2111F on winter wheat - 2 applications – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			Protendo 300 EC			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha			300 G/L EC 0.65 l/ha					
KCP 6.2-30	TRZAW	Costello	24/08/21	YIELD	7.7	100	b	111.2	a		109.5	a		109.3	a		108	a	Aviator Xpro 1.25L/ha
KCP 6.2-31	TRZAW	Costello	27/08/21	YIELD	9.1	100	b	110.6	a		107.9	a		107.3	a		110.3	a	Aviator Xpro 1.25L/ha
KCP 6.2-32	TRZAW	Jantarka	10/08/22	YIELD	9.1	100	b	107.8	ab		102.6	ab		104.6	ab	Proline 0.8L/ha	111.6	a	Siltra Xpro 1L/ha
KCP 6.2-117	TRZAW	Pondus	09/08/23	YIELD	9.1	100	-	97.1	-		100.3	-		99.9	-	Proline 0.8L/ha			
KCP 6.2-121	TRZAW	Zyatt	06/08/23	YIELD	9.5	100	-	98.7	-		114.3	-		110.6	-	Proline 0.8L/ha			

KCP	Crop Code	Crop Vari-ety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			Protendo 300 EC			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha	125 g/L EC 1 l/ha	300 G/L EC 0.65 l/ha									
KCP 6.2-124	TRZAW	TOBAK	31/07/23	YIELD	9.3	100	b	140.5	a		140.9	a		143.2	a		145	a	Aviator Xpro 1 L/ha
KCP 6.2-125	TRZAW	Patras	31/07/23	YIELD	10.4	100	b	103.7	ab		104.4	a		103.4	ab		104.7	a	Aviator Xpro 1 L/ha
KCP 6.2-126	TRZAW	Energo	16/08/23	YIELD	5	100	b	110.4	a		109.4	a					109.9	a	Aviator Xpro 1 L/ha
KCP 6.2-127	TRZAW	Illusion	23/08/23	YIELD	9.2	100	-	101.2	-		100.6	-					101.5	-	Aviator Xpro 1 L/ha
KCP 6.2-128	TRZAW	VIRIATO	15/08/23	YIELD	4.7	100	f	112.3	de		136.8	b					121.1	cd	Aviator Xpro 1 L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	TRZAW	All	10	Yield (t/ha)	8.3	4.7-10.4	9.1	109.4	97.1-140.5	109.1	112.7	100.3-140.9	108.7	111.2 (n=7)	99.9-143.2	107.3	114.0 (n=8)	101.5-145	110.1

Winter barley– 1 application

**Table 3.4-3 Effect on yield of GLOB2020aF and GLOB2111F on winter barley - 1 application – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha					
KCP 6.2-105	HORVW	Bordeaux	30/08/23	YIELD	6.9	100	-	108.5	-		103.1	-		103.3	-	Aviator Xpro 1L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
								Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	HORVW	All	1	Yield (t/ha)	6.9	-	-	108.5	-	-	103.1	-	-	103.3	-	-

Winter barley– 2 applications

**Table 3.4-4 Effect on yield of GLOB2020aF and GLOB2111F on winter barley - 2 applications – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			Protendo 300 EC			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)					
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha			300 G/L EC 0.65 l/ha								
KCP 6.2-28	HORVW	Pixel	20/07/21	YIELD	7.1	100	b	107.8	ab		102.9	ab		113.4	ab		116.9	a	Aviator Xpro 1.25L/ha			
KCP 6.2-29	HORVW	Pixel	22/07/21	YIELD	7	100	b	119.2	a		111.6	ab		114.1	ab		114.1	ab	Aviator Xpro 1.25L/ha			
KCP 6.2-104	HORVW	KWS Meridian	08/07/23	YIELD	8.3	100	-	104.3	-		102.8	-		110.1	-	Proline 0.8L/ha						
KCP 6.2-106	HORVW	KWS Tardis	10/07/23	YIELD	9.1	100	-	102.2	-		98.2	-		103.8	-	Proline 0.8L/ha						
KCP 6.2-107	HORVW	RUMCAJS	14/07/23	YIELD	10	100	c	119.3	b		119.2	b					120.6	b	Aviator Xpro 0.8L/ha			
KCP 6.2-108	HORVW	Kosmos	11/07/23	YIELD	5.9	100	h	120.6	d		119.6	e					122.8	a	Aviator Xpro 0.8L/ha			
KCP 6.2-109	HORVW	Breunskyli	11/07/23	YIELD	5.4	100	b	107	a		106.6	a					107.5	a	Aviator Xpro 0.8L/ha			
KCP 6.2-110	HORVW	Titus	13/07/23	YIELD	9.4	100	b	115.4	a		119.5	a					114.2	a	Aviator Xpro 0.8L/ha			
KCP 6.2-111	HORVW	LG Zoro	18/07/23	YIELD	9	100	d	103.9	bc		104.2	bc					108.5	a	Aviator Xpro 0.8L/ha			
KCP 6.2-112	HORVW	KWS Higgins	11/07/23	YIELD	7.1	100	b	108.1	a		105.2	ab					106.6	a	Aviator Xpro 0.8L/ha			
EPPO zone	Crop Code	Grouping	Nb. trials	Assess-ment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)												bixafen+triazole mixtures		
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha								
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	HORVW	All	10	Yield (t/ha)	7.8	5.4-10	7.7	110.8	102.2-120.6	108.0	109.0	98.2-119.6	105.9	110.4 (n=4)	103.8-114.1	111.8	113.9 (n=8)	106.6-122.8	114.2			

Spring barley– 2 applications

**Table 3.4-5 Effect on yield of GLOB2020aF and GLOB2111F on spring barley - 2 applications – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF	GLOB2111F	Protendo 300 EC	bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)
					assessed value	%control	SNK	200 g/L EC 1 l/ha	125 g/L EC 1 l/ha	300 G/L EC 0.65 l/ha	
KCP 6.2-103	HORVS	RGT Planet	21/08/23	YIELD	6.5	100	-	103.5	-	108.2	Proline 0.8L/ha

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	HORVS	All	1	Yield (t/ha)	6.5	-	-	103.5	-	-	106.2	-	-	108.2	-	-	-	-	-

Spelt – 2 applications

**Table 3.4-6 Effect on yield of GLOB2020aF and GLOB2111F on spelt - 2 applications – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF		GLOB2111F		bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha		125 g/L EC 1 l/ha				
KCP 6.2-136	TRZSP	ROKOSZ	31/07/23	YIELD	6.5	100	b	121.8	a	130.4	a	130.2	a	Aviator Xpro 1 L/ha
KCP 6.2-137	TRZSP	Wirtas	23/08/23	YIELD	4.5	100	-	119.3	-	111.3	-	124.1	-	Aviator Xpro 1 L/ha

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
								Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	TRZSP	All	2	Yield (t/ha)	5.5	4.5-6.5	5.5	120.6	119.3-121.8	120.6	120.9	111.3-130.4	120.9	127.2	124.1-130.2	127.2

Rye – 2 applications

**Table 3.4-7 Effect on yield of GLOB2020aF and GLOB2111F on rye - 2 applications – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF		GLOB2111F		bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha		125 g/L EC 1 l/ha				
KCP 6.2-113	SECCW	DAŇKOVSKÉ TURKU	14/07/23	YIELD	8.4	100	b	121.5	a	122.7	a	124	a	Aviator Xpro 1 L/ha
KCP 6.2-114	SECCW	Bojko	24/08/23	YIELD	4.6	100	-	118.3	-	122.9	-	138.1	-	Aviator Xpro 1 L/ha
KCP 6.2-115	SECCW	Inspector	22/08/23	YIELD	7.7	100	-	103	-	101	-	100.5	-	Aviator Xpro 1 L/ha
KCP 6.2-116	SECCW	Herakles	21/08/23	YIELD	5.3	100	f	107.9	cde	106.6	de	115.9	a	Aviator Xpro 1 L/ha

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
								Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	SECCW	All	4	Yield (t/ha)	6.5	4.6-8.4	6.5	112.7	103-121.5	113.1	113.3	101-122.9	114.7	119.6	100.5-138.1	120.0



*Winter triticales*

**Table 3.4-8 Effect on yield of GLOB2020aF and GLOB2111F on winter triticales - 2 applications – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					<i>assessed value</i>	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha					
KCP 6.2-138	TTLWI	CLAUDIUS	14/07/23	YIELD	7.9	100	b	125.1	a		121.7	a		125.3	a	Aviator Xpro 1 L/ha
KCP 6.2-139	TTLWI	Avokado	23/08/23	YIELD	6.4	100	cd	96.9	d		111.4	ab		118.7	a	Aviator Xpro 1 L/ha
KCP 6.2-140	TTLWI	Tenor	13/07/23	YIELD	5	100	g	117.3	e		119.5	c		123.1	a	Aviator Xpro 1 L/ha
KCP 6.2-141	TTLWI	Agostino	22/08/23	YIELD	6.6	100	g	106.6	de		110.6	cd		120.5	a	Aviator Xpro 1 L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	TTLWI	All	4	Yield (t/ha)	6.5	5-7.9	6.5	111.5	96.9-125.1	112.0	115.8	110.6-121.7	115.5	121.9	118.7-125.3	121.8

# North-East EPPO Zone:

*Winter wheat – 1 application*

**Table 3.4-9 Effect on yield of GLOB2020aF and GLOB2111F on winter wheat - 1 application – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF		GLOB2111F		Protendo 300 EC		bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)					
					assessed value	%control	SNK	200 g/L EC 1 l/ha		125 g/L EC 1 l/ha		300 G/L EC 0.65 l/ha							
KCP 6.2-119	TRZAW	TOBAK	31/07/23	YIELD	9.2	100	c	142.7	ab	139	b	143.6	ab	Proline 0.8L/ha					
KCP 6.2-132	TRZAW	TOBAK	20/07/23	YIELD	7.3	100	d	168.4	a	158.1	b			173.7	a	Siltra Xpro 1L/ha			
KCP 6.2-133	TRZAW	Vanessa	31/07/23	YIELD	7.4	100	-	104.8	-	103.6	-			104.8	-	Siltra Xpro 1L/ha			
KCP 6.2-134	TRZAW	Kalbex	13/08/23	YIELD	8.3	100	-	105.7	-	100.1	-			106.5	-	Siltra Xpro 1L/ha			
KCP 6.2-135	TRZAW	LG Mocca	16/08/23	YIELD	4.9	100	c	116.6	c	114.7	c			168.6	a	Siltra Xpro 1L/ha			
KCP 6.2-03	TRZAW	Formacja	08/08/21	YIELD	7.3	100	b	109.8	a	113.3	a	109.1	a	112.7	a	Aviator Xpro 1L/ha			
KCP 6.2-03	TRZAW	Formacja	08/08/21	YIELD	7.3	100	b	109.8	a	113.3	a	109.1	a	112.7	a	Aviator Xpro 1L/ha			
KCP 6.2-04	TRZAW	Zyta	21/08/21	YIELD	6.1	100	c	110	b	111.7	b	119.4	a	121.2	a	Aviator Xpro 1L/ha			
KCP 6.2-05	TRZAW	RGT KILIMANJORO	22/07/22	YIELD	7.9	100	c	104.6	abc	104.8	abc	109.8	a	108.2	ab	Ascra Xpro 1.5L/ha			
KCP 6.2-06	TRZAW	Dubai	05/08/22	YIELD	5.4	100	b	112.7	ab	114.7	a	106.8	ab	113.1	ab	Ascra Xpro 1.5L/ha			
KCP 6.2-07	TRZAW	Tobak	25/07/22	YIELD	5.7	100	-	92.1	-	101.5	-	95.9	-	110.5	-	Ascra Xpro 1.5L/ha			
KCP 6.2-08	TRZAW	Arkadia	26/07/22	YIELD	5.5	100	c	119.1	ab	121.2	ab	121.2	ab	125.1	a	Ascra Xpro 1.5L/ha			
KCP 6.2-09	TRZAW	Edvins	08/08/22	YIELD	5.8	100	-	102.4	-	106.3	-	100.1	-	107.3	-	Siltra Xpro 1L/ha			
KCP 6.2-10	TRZAW	Skagen	09/08/22	YIELD	5.4	100	-	108.6	-	104.3	-	100.4	-	108.2	-	Siltra Xpro 1L/ha			
KCP 6.2-11	TRZAW	SKAGEN	13/08/22	YIELD	4.5	100	c	123.3	ab	117.4	b	128.6	ab	135.7	a	Siltra Xpro 1L/ha			
KCP 6.2-12	TRZAW	SKAGEN	11/08/22	YIELD	7.8	100	b	111.2	a	111.4	a	115.5	a	115.8	a	Siltra Xpro 1L/ha			
KCP 6.2-13	TRZAW	SKAGEN	15/08/22	YIELD	5.8	100	b	118.3	a	117.8	a	128.8	a	129.4	a	Siltra Xpro 1L/ha			
KCP 6.2-14	TRZAW	SKAGEN	17/08/22	YIELD	5.1	100	b	103.8	ab	105.5	ab	108.4	ab	110.9	a	Siltra Xpro 1L/ha			
KCP 6.2-155	TRZAW	EUFORIA	18/07/23	YIELD	8.3	100	-	105.6	-	108.9	-	108.5	-	Protikon 0.8L/ha					
KCP 6.2-157	TRZAW	ARKADIA	03/08/23	YIELD	9	100	b	107.3	ab	105.5	ab	111	a	109.2	a	Aviator Xpro 1L/ha			
KCP 6.2-158	TRZAW	Belissa	13/08/23	YIELD	10.5	100	-	99.7	-	101.8	-			100.9	-	Aviator Xpro 1L/ha			
KCP 6.2-159	TRZAW	Fredis	24/07/23	YIELD	5	100	-	106	-	112.4	-			103.4	-	Siltra Xpro 1L/ha			
KCP 6.2-160	TRZAW	Informer	17/08/23	YIELD	8.8	100	-	97.7	-	97.5	-			102.1	-	Siltra Xpro 1L/ha			
KCP 6.2-161	TRZAW	EUFORIA	25/07/23	YIELD	9	100	c	105.7	abc	102.7	bc			105.4	abc	Ascra Xpro 1.5L/ha			
KCP 6.2-162	TRZAW	Natula	23/08/23	YIELD	6.8	100	-	98	-	102.6	-			101.1	-	Ascra Xpro 1.5L/ha			
EPPO zone	Crop Code	Grouping	Nb. trials	Assess- ment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	TRZAW	All	25	Yield (t/ha)	7.0	4.5-10.5	7.3	111.4	92.1-168.4	107.3	111.6	97.5-158.1	108.9	113.5 (n=16)	95.9-143.6	109.5	116.8 (n=23)	100.9-173.7	110.5

Means valid for the Northern zone:

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	TRZAW	All	20	Yield (t/ha)	6.9	4.5-10.5	6.5	107.3	92.1-123.3	106.7	108.7	97.5-121.2	107.6	111.5 (n=15)	95.9-128.8	109.1	112.3 (n=19)	100.9-135.7	110.5

*Winter wheat – 2 applications*

**Table 3.4-10 Effect on yield of GLOB2020aF and GLOB2111F on winter wheat - 2 applications – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF 200 g/L EC 1 l/ha	GLOB2111F 125 g/L EC 1 l/ha	Protendo 300 EC 300 G/L EC 0.65 l/ha	bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)
					assessed value	%control	SNK				
KCP 6.2-124	TRZAW	TOBAK	31/07/23	YIELD	9.3	100	b	140.5 a	140.9 a	143.2 a	Aviator Xpro 1 L/ha
KCP 6.2-125	TRZAW	Patras	31/07/23	YIELD	10.4	100	b	103.7 ab	104.4 a	103.4 ab	Aviator Xpro 1 L/ha
KCP 6.2-126	TRZAW	Energo	16/08/23	YIELD	5	100	b	110.4 a	109.4 a		Aviator Xpro 1 L/ha
KCP 6.2-127	TRZAW	Illusion	23/08/23	YIELD	9.2	100	-	101.2 -	100.6 -		Aviator Xpro 1 L/ha
KCP 6.2-128	TRZAW	VIRIATO	15/08/23	YIELD	4.7	100	f	112.3 de	136.8 b		Aviator Xpro 1 L/ha
KCP 6.2-45	TRZAW	SKAGEN	31/07/21	YIELD	8.2	100	-	107 -	105.4 -	103.4 -	Aviator Xpro 1.25L/ha
KCP 6.2-46	TRZAW	ARKADIA	26/07/21	YIELD	6	100	-	107.6 -	102.3 -	109 -	Aviator Xpro 1 L/ha
KCP 6.2-47	TRZAW	Gordian	27/07/21	YIELD	6.6	100	b	108.4 a	107.8 a	110.4 a	Aviator Xpro 1 L/ha
KCP 6.2-48	TRZAW	ARKADIA	25/07/22	YIELD	8.8	100	c	107.1 abc	107.1 abc	113.7 ab	Aviator Xpro 1 L/ha
KCP 6.2-49	TRZAW	Skagen	15/08/22	YIELD	7.5	100	c	108.8 ab	104 bc	106.9 abc	Siltra Xpro 1L/ha
KCP 6.2-50	TRZAW	Edvins	05/08/22	YIELD	6.6	100	b	108.2 ab	110.9 ab	109.3 ab	Siltra Xpro 1L/ha
KCP 6.2-51	TRZAW	SKAGEN	13/08/22	YIELD	7.6	100	b	112.7 a	107.5 ab	112.1 a	Siltra Xpro 1L/ha
KCP 6.2-52	TRZAW	SKAGEN	16/08/22	YIELD	5.8	100	c	112.5 ab	115.1 ab	112.1 ab	Siltra Xpro 1L/ha
KCP 6.2-156	TRZAW	Skagen	21/08/23	YIELD	8.6	100	-	103.6 -	101.7 -		Siltra Xpro 1L/ha

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	TRZAW	All	14	Yield (t/ha)	7.5	4.7-10.4	7.6	110.3	101.2-140.5	108.3	111.0	100.6-140.9	107.3	112.4 (n=10)	103.4-143.2	109.9	112.5	101-145	110.4

Means valid for the Northern zone:

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment Type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	TRZAW	All	9	Yield (t/ha)	7.3	5.8-8.8	7.5	108.4	103.6-112.7	108.2	106.9	101.7-115.1	107.1	109.6 (n=8)	103.4-113.7	109.9	110.4	101-118	110.9

Winter barley – 1 application

**Table 3.4-11 Effect on yield of GLOB2020aF and GLOB2111F on winter barley - 1 application – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					<i>assessed value</i>	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha					
KCP 6.2-148	HORVW	KWS KOSMOS	14/07/23	YIELD	7.5	100	e	110.5	cd		111.6	bcd		117	a	Aviator Xpro 0.8L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	HORVW	All	1	Yield (t/ha)	7.5	-	-	110.5	-	-	111.6	-	-	117.0	-	-

Winter barley – 2 applications

**Table 3.4-12 Effect on yield of GLOB2020aF and GLOB2111F on winter barley - 2 applications – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF	GLOB2111F	Protendo 300 EC	bixafen+triazole mixtures		
					assessed value	%control	SNK	200 g/L EC 1 l/ha	125 g/L EC 1 l/ha	300 G/L EC 0.65 l/ha	(e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
KCP 6.2-107	HORVW	RUMCAJS	14/07/23	YIELD	10	100	c	119.3 b	119.2 b		120.6 b	Aviator Xpro 0.8L/ha	
KCP 6.2-108	HORVW	Kosmos	11/07/23	YIELD	5.9	100	h	120.6 d	119.6 e		122.8 a	Aviator Xpro 0.8L/ha	
KCP 6.2-109	HORVW	Breunskyliie	11/07/23	YIELD	5.4	100	b	107 a	106.6 a		107.5 a	Aviator Xpro 0.8L/ha	
KCP 6.2-110	HORVW	Titus	13/07/23	YIELD	9.4	100	b	115.4 a	119.5 a		114.2 a	Aviator Xpro 0.8L/ha	
KCP 6.2-111	HORVW	LG Zoro	18/07/23	YIELD	9	100	d	103.9 bc	104.2 bc		108.5 a	Aviator Xpro 0.8L/ha	
KCP 6.2-112	HORVW	KWS Higgins	11/07/23	YIELD	7.1	100	b	108.1 a	105.2 ab		106.6 a	Aviator Xpro 0.8L/ha	
KCP 6.2-38	HORVW	CAROLA	13/07/21	YIELD	7.4	100	b	104.7 ab	104.8 ab	105.3 ab	110.9 a	Aviator Xpro 1.25L/ha	
KCP 6.2-39	HORVW	SY Baracooda	19/07/21	YIELD	5.3	100	b	137 ab	129.1 ab	132.8 ab	146 a	Aviator Xpro 1 L/ha	
KCP 6.2-40	HORVW	Bažant	21/07/21	YIELD	5	100		124.9 a	127.5 a	124.4 a	129.4 a	Aviator Xpro 1 L/ha	
KCP 6.2-41	HORVW	SY GALILEOO	22/07/22	YIELD	8.1	100	d	107.8 abc	107.3 a-d	111.6 ab	113.4 a	Siltra Xpro 1L/ha	
KCP 6.2-42	HORVW	SANDRA	05/07/22	YIELD	5.9	100	b	107.4 a	111.6 a	109.6 a	106.5 a	Procera Xpro 1.2L/ha	
KCP 6.2-43	HORVW	KWS Kosmos	22/07/22	YIELD	9.5	100	b	104.4 ab	106.3 a	107.2 a	109.3 a	Siltra Xpro 1L/ha	
KCP 6.2-44	HORVW	Morris	29/06/22	YIELD	5	100	b	119.2 a	121.5 a	125.1 a	124.4 a	Ascra Xpro 1.2L/ha	
KCP 6.2-149	HORVW	Anja	21/07/23	YIELD	5.2	100	-	101.8 -	98.3 -		99.3 -	Siltra Xpro 1L/ha	
KCP 6.2-150	HORVW	BARACOODA	15/07/23	YIELD	4.6	100	-	93.1 -	103.4 -		100.5 -	Ascra Xpro 1.2L/ha	

					Grouping			% yield increase (UTC=100%)				
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EPPO zone	Crop Code		Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	HORVW	All	15	Yield (t/ha)	6.9	4.6-10	5.9	111.6	93.1-137	107.8	112.3	98.3-129.1	107.3	116.6 (n=7)	105.3-132.8	111.6	114.7	99.3-146	110.9

Means valid for the Northern zone:

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment Type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	HORVW	All	9	Yield (t/ha)	6.2	4.6-9.5	5.3	111.1	93.1-137	107.4	112.2	98.3-129.1	107.3	116.6 (n=7)	105.3-132.8	111.6	115.5	99.3-146	110.9

Spring barley – 1 application

**Table 3.4-13 Effect on yield of GLOB2020aF and GLOB2111F on spring barley - 1 application – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF 200 g/L EC 1 l/ha		GLOB2111F 125 g/L EC 1 l/ha		bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)				
					assessed value	%control	SNK									
KCP 6.2-146	HORVS	RAPTUS	04/08/23	YIELD	5.3	100	b	108.2	a	110.6	a	114.1	a			
KCP 6.2-147	HORVS	Amadora	22/08/23	YIELD	4.8	100	b	116.1	a	115.1	a	117.3	a			
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	HORVS	All	2	Yield (t/ha)	5.1	4.8-5.3	5.1	112.2	108.2-116.1	112.2	112.9	110.6-115.1	112.9	115.7	114.1-117.3	115.7

Spelt – 2 applications

**Table 3.4-14 Effect on yield of GLOB2020aF and GLOB2111F on spelt - 2 applications – North-East EPPO zone**

Means valid for Poland

Means valid for Poland

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha					
KCP 6.2-136	TRZSP	ROKOSZ	31/07/23	YIELD	6.5	100	b	121.8	a		130.4	a		130.2	a	Aviator Xpro 1 L/ha
KCP 6.2-137	TRZSP	Wirtas	23/08/23	YIELD	4.5	100	-	119.3	-		111.3	-		124.1	-	Aviator Xpro 1 L/ha

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (CZ)	TRZSP	All	2	Yield (t/ha)	5.5	4.5-6.5	5.5	120.6	119.3-121.8	120.6	120.9	111.3-130.4	120.9	127.2	124.1-130.2	127.2

Rye – 2 applications

**Table 3.4-15 Effect on yield of GLOB2020aF and GLOB2111F on rye - 2 applications – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF 200 g/L EC 1 l/ha			GLOB2111F 125 g/L EC 1 l/ha			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK									
KCP 6.2-113	SECCW	DAŇKOVSKÉ TURKU	14/07/23	YIELD	8.4	100	b	121.5	a		122.7	a		124	a	Aviator Xpro 1 L/ha
KCP 6.2-114	SECCW	Bojko	24/08/23	YIELD	4.6	100	-	118.3	-		122.9	-		138.1	-	Aviator Xpro 1 L/ha
KCP 6.2-115	SECCW	Inspector	22/08/23	YIELD	7.7	100	-	103	-		101	-		100.5	-	Aviator Xpro 1 L/ha
KCP 6.2-116	SECCW	Herakles	21/08/23	YIELD	5.3	100	f	107.9	cde		106.6	de		115.9	a	Aviator Xpro 1 L/ha
KCP 6.2-151	SECCW	ELIAS	12/08/23	YIELD	4.4	100	-	100.1	-		115.2	-		127.4	-	Ascra Xpro 1.5L/ha
KCP 6.2-152	SECCW	KWS SERAFINO	25/07/23	YIELD	4.3	100	-	114	-		106.9	-		110.1	-	Aviator Xpro 1 L/ha
KCP 6.2-153	SECCW	Vinetto	17/08/23	YIELD	7.5	100	b	111.3	ab		110.2	ab		111.7	a	Aviator Xpro 1 L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	SECCW	All	7	Yield (t/ha)	6.0	4.3-8.4	5.3	110.9	100.1-121.5	111.3	112.2	101-122.9	110.2	118.2	100.5-138.1	115.9

Means valid for the Northern zone:

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	SECCW	All	3	Yield (t/ha)	5.4	4.3-7.5	4.4	108.5	100.1-114	111.3	110.8	106.9-115.2	110.2	116.4	110.1-127.4	111.7

**Table 3.4-16**      **Effect on yield of GLOB2020aF and GLOB2111F on triticale - 1 application – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED <i>assessed value</i> %control      SNK			GLOB2020aF 200 g/L EC 1 U/ha			GLOB2111F 125 g/L EC 1 U/ha			bixafen+triazole mixtures (e.g. Zantara, Ascra/Aviator/Siltra Xpro)		
KCP 6.2-167	TTLWI	Trismart	17/07/23	YIELD	7.7	100	c	101	bc		101.4	bc		107.9	a	Zantara 1.2L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	TTLWI	All	1	Yield (t/ha)	7.7	7.7-7.7	7.7	101.0	101-101	101.0	101.4	101.4-101.4	101.4	107.9	107.9-107.9	107.9

**Table 3.4-17**      **Effect on yield of GLOB2020aF and GLOB2111F on triticale - 2 applications – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF 200 g/L EC 1 l/ha			GLOB2111F 125 g/L EC 1 l/ha			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					<i>assessed value</i>	%control	SNK									
KCP 6.2-138	TTLWI	CLAUDIUS	14/07/23	YIELD	7.9	100	b	125.1	a		121.7	a		125.3	a	Aviator Xpro 1 L/ha
KCP 6.2-139	TTLWI	Avokado	23/08/23	YIELD	6.4	100	cd	96.9	d		111.4	ab		118.7	a	Aviator Xpro 1 L/ha
KCP 6.2-140	TTLWI	Tenor	13/07/23	YIELD	5	100	g	117.3	e		119.5	c		123.1	a	Aviator Xpro 1 L/ha
KCP 6.2-141	TTLWI	Agostino	22/08/23	YIELD	6.6	100	g	106.6	de		110.6	cd		120.5	a	Aviator Xpro 1 L/ha
KCP 6.2-163	TTLWI	Meloman	17/07/23	YIELD	7.2	100	-	100	-		102.5	-		102.5	-	Aviator Xpro 1 L/ha
KCP 6.2-164	TTLWI	Ruja	02/08/23	YIELD	6.4	100	-	93.4	-		94.6	-		99.4	-	Siltra Xpro 1L/ha
KCP 6.2-165	TTLWI	CAPPRICIA	06/08/23	YIELD	3.4	100	-	104.4	-		91.5	-		95.9	-	Ascra Xpro 1.5L/ha
KCP 6.2-166	TTLWI	Trismart	14/08/23	YIELD	8.7	100	d	111.8	bc		110.5	bc		120	a	Aviator Xpro 1 L/ha

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	TTLWI	All	8	Yield (t/ha)	6.5	3.4-8.7	6.5	106.9	93.4-125.1	105.5	107.8	91.5-121.7	110.6	113.2	95.9-125.3	119.4

Grouping		Assessment	% yield increase (UTC=100%)
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EPPO zone	Crop Code		Nb. trials	type (unit)	Assessed value in the untreated control (=100%)			GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	TTLWI	All	4	Yield (t/ha)	6.4	3.4-8.7	6.8	102.4	93.4-111.8	102.2	99.8	91.5-110.5	98.6	104.5	95.9-120	101.0
NE	TTLWI	All	4	TKW (g)	43.7	38.6-49.8	43.3	101.4	98.7-103.9	101.5	101.9	99-105.6	101.5	101.4	96.5-104.5	102.4

### Winter oat

**Table 3.4-18 Effect on yield of GLOB2020aF and GLOB2111F on winter oat - 2 applications – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			bixafen+triazole mixtures		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha			(e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
KCP 6.2-34	AVESA	Kusta	15/08/22	YIELD	6.2	100	-	103.5	-		101.6	-		103.6	-	Zantara 1.2 L/ha
KCP 6.2-35	AVESA	STENDES DARTA	08/09/22	YIELD	5.3	100	b	109.1	ab		111.7	a		111.6	a	Ascra Xpro 1.2L/ha
KCP 6.2-36	AVESA	BINGO	25/07/22	YIELD	4.8	100	-	108	-		111.3	-		110	a	Ascra Xpro 1.2L/ha
KCP 6.2-37	AVESA	GEPARD	09/08/22	YIELD	2.1	100	f	120.5	b		112.7	d		125.4	a	Ascra Xpro 1.2L/ha
KCP 6.2-142	AVESA	Kalle	16/08/23	YIELD	1.7	100	-	96.1	-		121.8	-		115.4	-	Ascra Xpro 1.2L/ha
KCP 6.2-144	AVESA	Montrose	23/08/23	YIELD	3.9	100	-	96.6	-		96.8	-		98.9	-	Ascra Xpro 1.2L/ha
KCP 6.2-145	AVESA	Bingo	18/08/23	YIELD	4	100	-	122.2	-		120.1	-		122.6	-	Ascra Xpro 1.2L/ha
KCP 6.2-101	AVESA	MARCO POLO	20/07/23	YIELD	6.3	100	b	127	a		123.9	a		124.2	a	Hutton
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)								
					Mean	Min & Max	Mdn	GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
								Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	AVESA	All	8	Yield (t/ha)	4.3	1.7-6.3	4.4	110.4	96.1-127	108.6	112.5	96.8-123.9	112.2	114.0	98.9-125.4	113.5

Means valid for the Northern zone:

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)								
					Mean	Min & Max	Mdn	GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
								Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	AVESA	All	7	Yield (t/ha)	4.0	1.7-6.2	4.0	108.0	96.1-122.2	108.0	110.9	96.8-121.8	111.7	112.5	98.9-125.4	111.6

### Mediterranean EPPO Zone:

#### Winter soft and durum wheat – 1 application

**Table 3.4-19 Effect on yield of GLOB2020aF and GLOB2111F on winter soft wheat - 1 application – Mediterranean EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			Protendo 300 EC			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	g/L EC 1 l/ha			g/L EC 1 l/ha			G/L EC 0.65 l/ha					
KCP 6.2-15	TRZAW	Nogal	31/07/21	YIELD	5.7	100		156.8	-		116.8	-		143	-		116.2	-	Aviator Xpro 1.25L/ha
KCP 6.2-16	TRZAW	Ingenio	27/06/22	YIELD	3.7	100	b	113.3	a		110.4	a		111.3	a				
KCP 6.2-17	TRZAW	Cosaco	14/06/22	YIELD	6.7	100	-	99.6	-		101.2	-		99.5	-	Proline 0.8L/ha	99.1	-	Aviator Xpro 1.25L/ha
KCP 6.2-18	TRZAW	Mandica	28/06/22	YIELD	4.4	100	b	114.2	a		114.1	a		114.4	a		113.2	a	Ascra Xpro 1.5L/ha
KCP 6.2-19	TRZAW	Ingenio	28/06/22	YIELD	5.4	100	b	112.4	a		114	a		113.2	a		114.3	a	Ascra Xpro 1.5L/ha
KCP 6.2-20	TRZAW	Acorazado	22/06/22	YIELD	5.4	100	-	113.9	-		101.6	-		108.2	-	Praktis 0.8L/ha	102.6	-	Aviator Xpro 1.25L/ha
KCP 6.2-174	TRZAW	Valbona	05/07/23	YIELD	3.8	100	b	116.7	a		119.1	a		119.5	a	Praktis 0.8L/ha			
EPPO zone	Crop Code	Grouping	Nb. trials	Assess- ment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	TRZAW	All	7	Yield (t/ha)	5.0	3.7-6.7	5.4	118.1	99.6-156.8	113.9	111.0	101.2-119.1	114.0	115.6	99.5-143	113.2	109.1 (n=5)	99.1-116.2	113.2

**Table 3.4-20 Effect on yield of GLOB2020aF and GLOB2111F on winter durum wheat - 1 application – Mediterranean EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			Protendo 300 EC			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	g/L EC 1 l/ha			g/L EC 1 l/ha			G/L EC 0.65 l/ha					
KCP 6.2-21	TRZDW	Simeto	30/06/22	YIELD	3.2	100	-	106.4	-		105.8	-		117.8	-	Proline 0.8L/ha			
KCP 6.2-22	TRZDW	Bronte	16/06/22	YIELD	6.8	100	-	110	-		112	-		108.4	-	Proline 0.8L/ha			
KCP 6.2-23	TRZDW	Claudio	17/06/22	YIELD	3.7	100	-	114.2	-		107	-		110.6	-	Proline 0.8L/ha	109.4	-	Aviator Xpro 1.25L/ha
KCP 6.2-175	TRZDW	Quadratto	20/06/23	YIELD	4.8	100	-	114.8	-		109.6	-		110.3	-	Proline 0.8L/ha			
KCP 6.2-179	TRZDW	Don Ricardo	25/07/23	YIELD	6.5	100	-	101.04	-		104.3	-					110.33	-	Aviator Xpro 1.25L/ha
KCP 6.2-178	TRZDW	Simeto	27/06/23	YIELD	2.1	100	b	101.1	b		102.1	b		144.9	a	Proline 0.8L/ha			
EPPO zone	Crop Code	Grouping	Nb. trials	Assess- ment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	TRZDW	All	6	Yield (t/ha)	4.5	2.1-6.8	4.3	107.9	101-114.8	108.2	106.8	102.1-112	106.4	118.4 (n=5)	108.4-144.9	110.6	109.9 (n=5)	109.4-110.3	109.9

*Winter soft and durum wheat – 2 applications*

**Table 3.4-21 Effect on yield of GLOB2020aF and GLOB2111F on soft winter wheat - 2 applications – Mediterranean EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			Protendo 300 EC			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L	EC	1 l/ha	125 g/L	EC	1 l/ha	300 G/L	EC	0.65 l/ha			
KCP 6.2-61	TRZAW	DIM 401	29/06/21	YIELD	3.5	100	b	115.7	a		108.7	a		118.1	a	Proline 0.8L/ha	113.4	a	Aviator Xpro 1.25L/ha
KCP 6.2-62	TRZAW	Ingenio	30/06/21	YIELD	5.1	100	b	116.6	a		117.1	a		119.2	a		115.9	a	Aviator Xpro 1.25L/ha
KCP 6.2-63	TRZAW	Mandica	28/06/22	YIELD	4.2	100	b	117.6	a		121.5	a		122.7	a		123.4	a	Ascra Xpro 1.5L/ha
KCP 6.2-64	TRZAW	Elisavet	17/06/22	YIELD	4.6	100	-	98.9	-		99.5	-		100.8	-	Proline 0.8L/ha			
KCP 6.2-65	TRZAW	Kraljica	27/06/22	YIELD	4.4	100	b	120.9	a		117.3	a		122	a				
KCP 6.2-66	TRZAW	Ingenio	28/06/22	YIELD	5.1	100	b	116.1	a		112.2	a		114.6	a				
KCP 6.2-67	TRZAW	Andino	12/07/22	YIELD	3.7	100	-	97.9	-		102.2	-		103.7	-	Praktis 0.8L/ha	100.6	-	Aviator Xpro 1.25L/ha
KCP 6.2-70	TRZAW	Claudio	15/06/22	YIELD	4.7	100	-	100.8	-		102.5	-		99	-	Proline 0.8L/ha			
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	TRZAW	All	8	Yield (t/ha)	4.4	3.5-5.1	4.5	110.6	97.9-120.9	115.9	110.1	99.5-121.5	110.5	112.5	99-122.7	116.4	113.3 (n=4)	100.6-123.4	114.7

**Table 3.4-22 Effect on yield of GLOB2020aF and GLOB2111F on durum winter wheat - 2 applications – Mediterranean EPPO zone**

KCP	Crop Code	Crop Vari- ety	Rating Date	Rating Type	UNTREATED  assessed value      %control      SNK			GLOB2020aF 200 g/L EC 1 l/ha			GLOB2111F 125 g/L EC 1 l/ha			Protendo 300 EC 300 G/L EC 0.65 l/ha			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
KCP 6.2-68	TRZDW	Simeto	24/06/22	YIELD	3.5	100	-	105.1	-		103.6	-		104.7	-	Proline 0.8L/ha	105.7	-	Aviator Xpro 1.25L/ha
KCP 6.2-69	TRZDW	Claudio	16/06/22	YIELD	5.6	100	-	102.7	-		101.9	-		100.7	-	Proline 0.8L/ha	103.5	-	Aviator Xpro 1.25L/ha
KCP 6.2-176	TRZDW	Simeto	20/06/23	YIELD	4.5	100	b	114.5	a		108.5	ab					106.9	ab	Aviator Xpro 1.25L/ha
KCP 6.2-177	TRZDW	Antalis	30/06/23	YIELD	3.7	100	b	114.7	a		116.9	a					112.3	a	Aviator Xpro 1 L/ha

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)		% yield increase (UTC=100%)												
							GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures			
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	TRZDW	All	4	Yield (t/ha)	4.3	3.5-5.6	4.1	109.3	102.7-114.7	109.8	107.7	101.9-116.9	106.1	102.7 (n=2)	100.7-104.7	102.7	107.1	103.5-112.3	106.3

*Winter barley – 2 applications*

**Table 3.4-23 Effect on yield of GLOB2020aF and GLOB2111F on winter barley - 2 applications – Mediterranean EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF		GLOB2111F		Protendo 300 EC		bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)					
					assessed value	%control	SNK	200 g/L EC 1 l/ha		125 g/L EC 1 l/ha		300 G/L EC 0.65 l/ha							
KCP 6.2-53	HORVW	Maxim	24/06/22	YIELD	4.1	100	b	116 a		112.7 a		115.4 a	Proline 0.8L/ha	114.9 a	Ascra Xpro 1.2L/ha				
KCP 6.2-55	HORVW	Sandra	28/06/22	YIELD	7.78	100	-	92.3 -		100.7 -		98.7 -		94 -	Aviator Xpro 1 L/ha				
KCP 6.2-56	HORVW	Zlatko	24/06/22	YIELD	4.7	100	b	118.6 a		120.2 a		121.8 a	Proline 0.8L/ha						
KCP 6.2-57	HORVW	Zlatko	24/06/22	YIELD	4.2	100	b	120.9 a		128.7 a		124.9 a	Proline 0.8L/ha						
KCP 6.2-58	HORVW	RGT Planet	29/07/22	YIELD	6.1	100	c	118.1 abc		112.6 abc		128.5 ab		125.8 abc	Aviator Xpro 1 L/ha				
KCP 6.2-59	HORVW	Pewter	29/06/22	YIELD	4.4	100	-	95.9 -		99.9 -		112.2 -		96 -	Aviator Xpro 1 L/ha				
KCP 6.2-60	HORVW	Sandra	06/07/22	YIELD	4.2	100	-	101 -		111.7 -		114.1 -							
KCP 6.2-168	HORVW	Zana	10/06/23	YIELD	4.8	100	-	111.7 -		112.9 -				112.9 -	Aviator Xpro 1.25L/ha				
KCP 6.2-169	HORVW	Colorado	10/06/23	YIELD	5.3	100	c	105.9 a		105.2 ab				106 a	Aviator Xpro 1.25L/ha				
KCP 6.2-170	HORVW	Sandra RWA	30/06/23	YIELD	4.3	100	b	131.4 a		132.6 a				131.5 a	Ascra Xpro 1.2L/ha				
KCP 6.2-171	HORVW	Sandra RWA	30/06/23	YIELD	3.2	100	b	128.4 a		129.2 a				129.5 a	Ascra Xpro 1.2L/ha				
KCP 6.2-172	HORVW	Planet	29/06/23	YIELD	4	100	b	121.2 a		119.5 a				116.2 a	Aviator Xpro 1 L/ha				
EPPO zone	Crop Code	Grouping	Nb. trials	Assess-ment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	HORVW	All	12	Yield (t/ha)	4.8	3.2-7.8	4.4	113.5	92.3-131.4	117.1	115.5	99.9-132.6	112.8	116.5 (n=7)	98.7-128.5	115.4	114.1 (n=9)	94-131.5	114.9

Rye – 2 applications

**Table 3.4-24 Effect on yield of GLOB2020aF and GLOB2111F on rye - 2 applications – Mediterranean EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha					
KCP 6.2-173	SECCW	Vector RWA	03/07/23	YIELD	4.1	100	b	117.2	a		117	a		118.1	a	Ascra Xpro 1.5L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	SECCW	All	1	Yield (t/ha)	4.1	-	-	117.2	-	-	117.0	-	-	118.1	-	-

Triticale – 2 applications

**Table 3.4-25 Effect on yield of GLOB2020aF and GLOB2111F on triticale - 2 applications – Mediterranean EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha					
KCP 6.2-180	TTLWI	Riparo RWA	29/06/23	YIELD	3.2	100	b	120.1	a		118.6	a		122.7	a	Ascra Xpro 1.5L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	TTLWI	All	1	Yield (t/ha)	3.2	3.2-3.2	3.2	120.1	120.1-120.1	120.1	118.6	118.6-118.6	118.6	122.7	122.7-122.7	122.7

### South-East EPPO Zone:

#### Winter soft wheat – 1 application

**Table 3.4-26 Effect on yield of GLOB2020aF and GLOB2111F on winter soft wheat - 1 application – South-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			Protendo 300 EC			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha			300 G/L EC 0.65 l/ha					
KCP 6.2-24	TRZAW	Illico	25/07/22	YIELD	7.2	100	-	107.8	-		106.1	-		121.4	-		126.1	-	Siltra Xpro 1L/ha
KCP 6.2-25	TRZAW	Nexera 88	25/07/22	YIELD	5.5	100	c	109.8	bc		108.8	bc		120.2	ab		130.6	a	Siltra Xpro 1L/ha
KCP 6.2-186	TRZAW	Nádor	19/07/23	YIELD	4.2	100	-	96.2	-		101.6	-		85.7	-	Proline 0.8L/ha			
KCP 6.2-187	TRZAW	PG. 102	18/07/23	YIELD	4.3	100	b	110.2	a		111.5	a		110.7	a	Proline 0.8L/ha			
KCP 6.2-194	TRZAW	GK Csillag	13/07/23	YIELD	7.3	100	-	111.4	-		116.6	-					122	-	Siltra Xpro 1L/ha
KCP 6.2-195	TRZAW	Miranda	14/07/23	YIELD	4.5	100	b	116.4	a		115.1	a					115.1	a	Zantara 1.2L/ha
KCP 6.2-196	TRZAW	Panaso	28/07/23	YIELD	4.4	100	e	112	cde		104.7	de					156.9	a	Siltra Xpro 1L/ha
KCP 6.2-26	TRZAW	MV Nádor	14/07/22	YIELD	55(g/20 ears)	100	b	127.9	a		119.4	ab		130.5	a		132.4	a	Siltra Xpro 1L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	TRZAW	All	8	Yield (t/ha)	5.3	4.2-7.3	4.5	111.5	96.2-127.9	110.8	110.5	101.6-119.4	110.2	113.7 (n=5)	85.7-130.5	120.2	130.5 (n=6)	115.1-156.9	128.4

#### Winter durum wheat – 1 application

KCP	Crop Code	Crop Vari-ety	Rating Date	Rating Type	UNTREATED			GLOB2020aF 200 g/L EC 1 l/ha			GLOB2111F 125 g/L EC 1 l/ha			Protendo 300 EC 300 G/L EC 0.65 l/ha			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
KCP 6.2-27	TRZDW	GK Julidur	15/07/22	YIELD	3.7	100	b	126.7	a		119.4	a		118.2	a		119.7	a	Siltra Xpro 1L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	TRZDW	All	1	Yield (t/ha)	3.7	-	-	126.7	-	-	119.4	-	-	118.2	-	-	119.7	-	-

*Winter soft wheat – 2 applications*

**Table 3.4-27 Effect on yield of GLOB2020aF and GLOB2111F on winter soft wheat - 2 applications – South-East EPPO zone**

KCP	Crop Code	Crop Vari-ety	Rating Date	Rating Type	UNTREATED			GLOB2020aF 200 g/L EC 1 l/ha		GLOB2111F 125 g/L EC 1 l/ha		Protendo 300 EC 300 G/L EC 0.65 l/ha		bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
KCP 6.2-74	TRZAW	Cellule	26/07/21	YIELD	5.6	100	-	106	-	101.2	-	102.4	-	103	-	Siltra Xpro 1L/ha
KCP 6.2-75	TRZAW	Nexera 88	25/07/22	YIELD	6.9	100	-	105.8	-	102.8	-	113.1	-	117.3	-	Siltra Xpro 1L/ha
KCP 6.2-76	TRZAW	GK KÖRÖS	15/07/22	YIELD	3.9	100	-	120.7	-	131.4	-	110.9	-	109.8	-	Siltra Xpro 1L/ha
KCP 6.2-188	TRZAW	KWS Sirtaki	10/07/23	YIELD	6.1	100	de	108.9	b-e	113.7	a-d			114	a-d	Siltra Xpro 1L/ha
KCP 6.2-190	TRZAW	CH Combin	17/07/23	YIELD	7.9	100	c	106.9	ab	108.4	a			108.3	a	Siltra Xpro 1L/ha
KCP 6.2-191	TRZAW	Miranda	13/07/23	YIELD	4.1	100	b	123.1	a	113	ab			111.9	ab	Aviator Xpro 1 L/ha
KCP 6.2-193	TRZAW	Kraljica	28/07/23	YIELD	4.8	100	-	119.3	-	122.1	-			127.8	-	Siltra Xpro 1L/ha

EPPO zone	Crop Code	Grouping	Nb. trials	Assess-ment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	TRZAW	All	7	Yield (t/ha)	5.6	3.9-7.9	5.6	113.0	105.8-123.1	108.9	113.2	101.2-131.4	113.0	108.8 (n=3)	102.4-113.1	110.9	113.2	103-127.8	111.9

*Barley – 2 applications*

**Table 3.4-28 Effect on yield of GLOB2020aF and GLOB2111F on barley - 2 applications – South-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			Protendo 300 EC			bixafen+triazole mixtures		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha			300 G/L EC 0.65 l/ha			(e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
KCP 6.2-71	HORVW	Rex	28/06/21	YIELD	5.7	100	b	125.7	a		106.1	b		106.6	b		103.2	b	Siltra Xpro 1L/ha
KCP 6.2-72	HORVW	KWS Daxor	20/06/22	YIELD	4.9	100	c	126.1	a		114.8	b		120.3	ab		127.5	a	Siltra Xpro 1L/ha
KCP 6.2-73	HORVW	KWS SCALA	01/07/22	YIELD	5.2	100	-	108.8	-		108	-		109.2	-		111	-	Siltra Xpro 1L/ha
KCP 6.2-181	HORVW	KWS Meridian	26/06/23	YIELD	5.6	100	b	120.6	a		121.7	a					124.4	a	Siltra Xpro 1L/ha
KCP 6.2-182	HORVW	Meridián	03/07/23	YIELD	4.2	100	-	109.2	-		118.9	-					99.3	-	Siltra Xpro 1L/ha
KCP 6.2-183	HORVW	CARDINAL	17/07/23	YIELD	4.5	100	-	104.2	-		107.4	-					112.3	-	Aviator Xpro 0.8L/ha
KCP 6.2-184	HORVW	MAXIM	25/07/23	YIELD	4.4	100	b	120.5	a		120	a					122.2	a	Aviator Xpro 0.8L/ha
KCP 6.2-185	HORVW	Concordia	11/07/23	YIELD	4.4	100	-	114.5	-		100.5	-					115.5	-	Siltra Xpro 1L/ha

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% yield increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	HORVW	All	8	Yield (t/ha)	4.9	4.2-5.7	4.7	116.2	104.2-126.1	117.5	112.2	100.5-121.7	111.4	112.0 (n=3)	106.6-120.3	109.2	114.4	99.3-127.5	113.9

## Conclusion

From the results above, it can be concluded that GLOB2020aF and GLOB2111F has a positive effect on cereals (up to 21 % of mean yield increase) compared to the untreated control. Furthermore, at the maximum dose rates of 1 L/ha, the results are comparable to the reference products. Overall these results fully support the authorization of GLOB2020aF and GLOB2111F at the requested dose rates.

### **Conclusion to yield from efficacy trials (in the presence of the specific diseases)**

No specific disease-free trials have been conducted with GLOB2111F. This section presents the effect on the yield of treated plants from efficacy trials. It is considered that the amount of data from three zones is limited, but regardless of zone, sufficient evidence is only available from trials conducted on wheat. A mean grain yield increase of 16% in the maritime zone, 11.6% in the north-eastern zone, and 10.5% in the south-eastern zone for wheat was achieved with a single application of GLOB2111F. Based on the limited data, it can be cautiously concluded that the observed yield increases attributable to GLOB2111F are directly related to the reduction of the target diseases present in these trials.



### 3.4.3 Effects on the quality of plants or plant products (KCP 6.4.3)

The effect on qualitative yield was also determined in nearly all the efficacy trials discussed in section 3.2 in accordance with the EPPO standard PP 1/135 requirements.

The assessments presented for cereals are:

- Hectolitre weight: HLW (kg) measured at harvest, calculated in % compared to the untreated
- Thousand kernel weight: TKW (g) measured at harvest, calculated in % compared to the untreated

The absolute assessed values are shown for the untreated check, while the percentage relative to the control is shown for each treatment in the tables below.

In total, 151 trials evaluated the effects on the qualitative yield of cereals (40 trials in the Maritime, 48 in the North-East, 39 in the Mediterranean EPPO zones and 24 in the South-East EPPO zone). Trials were carried out between 2021 and 2023. All trials were carried out by GEP certified research institutions.

In support of the North-East EPPO Zone, results were combined with those results from Czech trials since this is a neighbouring country and considered as valid to Poland, the only MS in the Central zone belonging to the North-East climatic zone. Trials highlighted in yellow in detailed tables are those conducted in Poland, while blue ones are those conducted in DE and CZ. Green ones were conducted in other countries of the Maritime EPPO zone.

In all the efficacy trials, the test product GLOB2020aF and GLOB2111F was applied according to the GAP table at the maximum rates of 1 L/ha (N). The test product was applied either once or twice according to the GAP and results are analysed separately.

Statistical analysis was made as letter test based on Student-Newman-Keuls ( $P = 0.05$ ). Where no letter is presented, no difference was registered among treatments. Letters accompanying yield absolute values correspond to the post-hoc test result for the UTC value set at 100%.

A wide range of commercially grown varieties were tested and are listed in trial methodology tables in point 3.2.3.1 above, split by EPPO zone.

## Cereals

### Maritime EPPO Zone:

#### Winter wheat – 1 application

**Table 3.4-29 Effect on quality of GLOB2020aF and GLOB2111F on winter wheat - 1 application – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED assessed value	%control	SNK	GLOB2020aF 200 g/L EC 1 l/ha	GLOB2111F 125 g/L EC 1 l/ha	Protendo 300 EC 300 G/L EC 0.65 l/ha	bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)
KCP 6.2-01	TRZAW	Torp	02/09/21	TKW	45.2	100		107.8	101.6	105.6	103.8 Aviator Xpro 1.25L/ha
KCP 6.2-130	TRZAW	Julius	31/08/23	TKW	46.3	100	-	103.2	100.5		104.2 - Siltra Xpro 0.75L/ha
KCP 6.2-131	TRZAW	Hallfreda	11/09/23	TKW	44.5	100	-	100.8	99.8		100.6 - Siltra Xpro 0.75L/ha
KCP 6.2-119	TRZAW	TOBAK	08/08/23	TKW	40.5	100	d	104.9	103.7	105.1 a	Proline 0.8L/ha
KCP 6.2-132	TRZAW	TOBAK	08/08/23	TKW	37.8	100	e	111.6	108.6		111.9 a Siltra Xpro 1L/ha
KCP 6.2-133	TRZAW	Vanessa	09/08/23	TKW	42.5	100	b	102.4	99.5		102 ab Siltra Xpro 1L/ha
KCP 6.2-134	TRZAW	Kalbex	29/08/23	TKW	39.8	100	ab	102.3	101.5		102.8 a Siltra Xpro 1L/ha
KCP 6.2-135	TRZAW	LG Mocca	28/08/23	TKW	28.2	100	-	101.6	101		110 - Siltra Xpro 1L/ha
KCP 6.2-130	TRZAW	Julius	31/08/23	HLW	74.2	100	-	101.2	101.2		101.5 - Siltra Xpro 0.75L/ha
KCP 6.2-132	TRZAW	TOBAK	11/09/23	GERMIN	97.5	100	-	101.3	101		101 - Siltra Xpro 1L/ha
KCP 6.2-133	TRZAW	Vanessa	29/08/23	GERMIN	97	100	-	100.5	100		99.8 - Siltra Xpro 1L/ha

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	TRZAW	All	8	TKW (g)	40.6	28.2-46.3	41.5	104.3	100.8-111.6	102.8	102.0	99.5-108.6	101.3	105.4 (n=2)	105.1-105.6	105.4	105 (n=7)	100.6-111.9	103.8
MAR	TRZAW	All	1	HLW	74.2	-	-	101.2	-	-	101.2	-	-	-	-	-	101.5	-	-

*Winter wheat – 2 applications*

**Table 3.4-30 Effect on quality of GLOB2020aF and GLOB2111F on winter wheat - 2 applications – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED	GLOB2020aF	GLOB2111F	Protendo 300 EC	bixafen+triazole mixtures
					assessed value %control SNK	200 g/L EC 1 l/ha	125 g/L EC 1 l/ha	300 G/L EC 0.65 l/ha	(e.g. Zantara, Ascra/ Aviator/Siltra Xpro)
KCP 6.2-30	TRZAW	Costello	31/08/21	TKW	37.8 100 b	106.6 ab	103.6 ab	103.4 ab	107.8 a Aviator Xpro 1.25L/ha
KCP 6.2-31	TRZAW	Costello	08/09/21	TKW	39.9 100 -	106.7 -	103.3 -	102.2 -	107.8 - Aviator Xpro 1.25L/ha
KCP 6.2-117	TRZAW	Pondus	09/08/23	TKW	59.6 100 -	103.8 -	100.3 -	101.5 - Proline 0.8L/ha	
KCP 6.2-121	TRZAW	Zyatt	06/08/23	TKW	47.9 100 -	100.7 -	101.1 -	104.8 - Proline 0.8L/ha	
KCP 6.2-124	TRZAW	TOBAK	01/08/23	TKW	40.6 100 e	103.5 cd	104.1 bc	105.2 a	105.4 a Aviator Xpro 1 L/ha
KCP 6.2-125	TRZAW	Patras	04/08/23	TKW	46.7 100 -	100 -	101.8 -	101.9 -	99.8 - Aviator Xpro 1 L/ha
KCP 6.2-126	TRZAW	Energo	17/08/23	TKW	49.2 100 -	104.6 -	103.8 -		104.1 - Aviator Xpro 1 L/ha
KCP 6.2-127	TRZAW	Illusion	23/08/23	TKW	45.5 100 b	102.9 a	102.6 a		102.2 a Aviator Xpro 1 L/ha
KCP 6.2-128	TRZAW	VIRIATO	08/09/23	TKW	41.7 100 ab	103.6 ab	105.3 ab		96.8 ab Aviator Xpro 1 L/ha
KCP 6.2-128	TRZAW	VIRIATO	15/08/23	HLW	68.2 100 -	96.3 -	101.5 -		96.2 - Aviator Xpro 1 L/ha

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	TRZAW	All	9	TKW (g)	45.4	37.8-59.6	45.5	103.6	100-106.7	103.6	102.9	100.3-105.3	103.3	103.2 (n=6)	101.5-105.2	102.8	103.4 (n=7)	96.8-107.8	104.1
MAR	TRZAW	All	1	HLW	68.2	-	-	96.3	-	-	101.5	-	-	-	-	-	96.2	-	-

*Winter barley– 1 application*

**Table 3.4-31 Effect on quality of GLOB2020aF and GLOB2111F on winter barley - 1 application – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC	1 l/ha		125 g/L EC	1 l/ha				
KCP 6.2-105	HORVW	Bordeaux	20/07/23	TKW	59.1	100	-	99.8	-		100.2	-		99.8	-	Aviator Xpro 1L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
								Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	HORVW	All	1	TKW (g)	59.1	-	-	99.8	-	-	100.2	-	-	99.8	-	-

*Winter barley– 2 applications*

**Table 3.4-32 Effect on quality of GLOB2020aF and GLOB2111F on winter barley - 2 applications – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF		GLOB2111F		Protendo 300 EC		bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)			
					assessed value	%control	SNK	200 g/L EC 1 l/ha		125 g/L EC 1 l/ha		300 G/L EC 0.65 l/ha					
KCP 6.2-28	HORVW	Pixel	27/08/21	TKW	35.2	100	c	107.1	ab	102.6	abc	106.8	ab		107.8	a	Aviator Xpro 1.25L/ha
KCP 6.2-29	HORVW	Pixel	22/07/21	TKW	39.4	100	-	101.9	-	102.3	-	104.4	-		108.5	-	Aviator Xpro 1.25L/ha
KCP 6.2-104	HORVW	KWS Meridian	08/07/23	TKW	42.4	100	-	98.6	-	99.5	-	103.2	-	Proline 0.8L/ha			
KCP 6.2-106	HORVW	KWS Tardis	10/07/23	TKW	45.6	100	-	103	-	99.5	-	105.8	-	Proline 0.8L/ha			
KCP 6.2-107	HORVW	RUMCAJS	01/08/23	TKW	48.9	100	d	113.1	c	113.2	c				116.4	a	Aviator Xpro 0.8L/ha
KCP 6.2-108	HORVW	Kosmos	03/08/23	TKW	39.6	100	e	104.9	c	104.7	c				106	a	Aviator Xpro 0.8L/ha
KCP 6.2-109	HORVW	Breunskyli	11/07/23	TKW	51.7	100	b	104.3	a	102.7	a				102.6	a	Aviator Xpro 0.8L/ha
KCP 6.2-110	HORVW	Titus	17/07/23	TKW	43.4	100	b	106	a	103	b				102.6	b	Aviator Xpro 0.8L/ha
KCP 6.2-111	HORVW	LG Zoro	26/07/23	TKW	40.1	100	e	103.1	bc	103.6	bc				104	bc	Aviator Xpro 0.8L/ha
KCP 6.2-112	HORVW	KWS Higgins	24/07/23	TKW	45.2	100	b	105.2	ab	104.9	ab				109.6	a	Aviator Xpro 0.8L/ha

EPPO zone	Crop Code	Grouping	Nb. trials	Assess-ment type (unit)	Assessed value in the untreated control (=100%)		% increase (UTC=100%)												bixafen+triazole mixtures		
							GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha								
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max
MAR	HORVW	All	10	TKW (g)	43.2	35.2-51.7	42.9	104.7	98.6-113.1	104.6	103.6	99.5-113.2	102.9	105.1 (n=4)	103.2-106.8	105.1	107.2 (n=8)	102.6-116.4	106.9		

Spring barley– 2 applications

**Table 3.4-33 Effect on quality of GLOB2020aF and GLOB2111F on spring barley - 2 applications – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF 200 g/L EC 1 l/ha	GLOB2111F 125 g/L EC 1 l/ha	Protendo 300 EC 300 G/L EC 0.65 l/ha	bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)
KCP 6.2-103	HORVS	RGT Planet	21/09/23	TKW	assessed value	%control	SNK	107.5 -	105.3 -	107.1 - Proline 0.8L/ha	
					52.3	100	-				

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	HORVS	All	1	TKW (g)	52.3	-	-	107.5	-	-	105.3	-	-	107.1	-	-	-	-	-

Spelt – 2 applications

**Table 3.4-34 Effect on quality of GLOB2020aF and GLOB2111F on spelt - 2 applications – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF	GLOB2111F	bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha	125 g/L EC 1 l/ha			
KCP 6.2-136	TRZSP	ROKOSZ	09/08/23	TKW	39.7	100	d	104.2 c	111.5 a	111.5 a	Aviator Xpro 1 L/ha	
KCP 6.2-137	TRZSP	Wirtas	06/09/23	TKW	36.8	100	b	101.8 ab	101.8 ab	101.8 ab	Aviator Xpro 1 L/ha	
KCP 6.2-137	TRZSP	Wirtas	23/08/23	HLW	38.4	100	-	105.9 -	102.4 -	100.6 -	Aviator Xpro 1 L/ha	

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
								Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	TRZSP	All	2	TKW (g)	38.3	36.8-39.7	38.3	103.0	101.8-104.2	103.0	106.7	101.8-111.5	106.7	106.7	101.8-111.5	106.7
MAR	TRZSP	All	1	HLW	38.4	38.4-38.4	38.4	105.9	105.9-105.9	105.9	102.4	102.4-102.4	102.4	100.6	100.6-100.6	100.6

Rye – 2 applications

**Table 3.4-35 Effect on quality of GLOB2020aF and GLOB2111F on rye - 2 applications – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF	GLOB2111F	bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha	125 g/L EC 1 l/ha			
KCP 6.2-113	SECCW	DAŇKOVSKÉ TURKU	09/08/23	TKW	38.2	100	e	105.3 b	105.3 b	106.7 a	Aviator Xpro 1 L/ha	
KCP 6.2-114	SECCW	Bojko	07/09/23	TKW	20	100	-	101.5 -	101.4 -	103.9 -	Aviator Xpro 1 L/ha	
KCP 6.2-115	SECCW	Inspector	22/08/23	TKW	36.9	100	-	101.2 -	100.4 -	101 -	Aviator Xpro 1 L/ha	
KCP 6.2-116	SECCW	Herakles	26/08/23	TKW	37.1	100	-	103.5 -	103.1 -	103.5 -	Aviator Xpro 1 L/ha	
KCP 6.2-114	SECCW	Bojko	24/08/23	HLW	70.3	100	-	100 -	98.8 -	100.4 -	Aviator Xpro 1 L/ha	

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
								Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	SECCW	All	4	TKW (g)	33.1	20-38.2	37.0	102.9	101.2-105.3	102.5	102.6	100.4-105.3	102.3	103.8	101-106.7	103.7
MAR	SECCW	All	1	HLW	70.3	70.3-70.3	70.3	100.0	100-100	100.0	98.8	98.8-98.8	98.8	100.4	100.4-100.4	100.4

*Winter triticales*

**Table 3.4-36 Effect on quality of GLOB2020aF and GLOB2111F on winter triticales - 2 applications – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha					
KCP 6.2-138	TTLWI	CLAUDIUS	08/08/23	TKW	44	100	e	106.5	bc		106.2	c		108.4	a	Aviator Xpro 1 L/ha
KCP 6.2-139	TTLWI	Avokado	07/09/23	TKW	37.5	100	b	107	ab		102.6	ab		108.1	ab	Aviator Xpro 1 L/ha
KCP 6.2-140	TTLWI	Tenor	07/08/23	TKW	45.8	100	d	106.2	bc		107.2	b		108.4	a	Aviator Xpro 1 L/ha
KCP 6.2-141	TTLWI	Agostino	24/08/23	TKW	43.6	100	-	100.3	-		100.8	-		100.9	-	Aviator Xpro 1 L/ha
KCP 6.2-139	TTLWI	Avokado	23/08/23	HLW	69.4	100	-	96.9	-		96.5	-		96.4	-	Aviator Xpro 1 L/ha

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MAR	TTLWI	All	4	TKW (g)	42.7	37.5-45.8	43.8	105.0	100.3-107	106.4	104.2	100.8-107.2	104.4	106.5	100.9-108.4	108.3
MAR	TTLWI	All	1	HLW	69.4	69.4-69.4	69.4	96.9	96.9-96.9	96.9	96.5	96.5-96.5	96.5	96.4	96.4-96.4	96.4

# North-East EPPO Zone:

*Winter wheat – 1 application*

**Table 3.4-37 Effect on quality of GLOB2020aF and GLOB2111F on winter wheat - 1 application – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF		GLOB2111F		Protendo 300 EC		bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)
					assessed value	%control	SNK	200 g/L EC 1 l/ha		125 g/L EC 1 l/ha		300 G/L EC 0.65 l/ha		
KCP 6.2-119	TRZAW	TOBAK	08/08/23	TKW	40.5	100	d	104.9	a	103.7	bc	105.1	a	Proline 0.8L/ha
KCP 6.2-132	TRZAW	TOBAK	08/08/23	TKW	37.8	100	e	111.6	a	108.6	c			111.9 a Siltra Xpro 1L/ha
KCP 6.2-133	TRZAW	Vanessa	09/08/23	TKW	42.5	100	b	102.4	ab	99.5	b			102 ab Siltra Xpro 1L/ha
KCP 6.2-134	TRZAW	Kalbex	29/08/23	TKW	39.8	100	ab	102.3	a	101.5	a			102.8 a Siltra Xpro 1L/ha
KCP 6.2-135	TRZAW	LG Mocca	28/08/23	TKW	28.2	100	-	101.6	-	101	-			110 - Siltra Xpro 1L/ha
KCP 6.2-03	TRZAW	Formacja	17/08/21	TKW	42.3	100	-	101.8	-	100.7	-	102.3	-	101.9 - Aviator Xpro 1L/ha
KCP 6.2-03	TRZAW	Formacja	17/08/21	TKW	42.3	100	-	101.8	-	100.7	-	102.3	-	101.9 - Aviator Xpro 1L/ha
KCP 6.2-04	TRZAW	Zyta	16/09/21	TKW	40.1	100	-	101.3	-	100.5	-	99.3	-	99.3 - Aviator Xpro 1L/ha
KCP 6.2-05	TRZAW	RGT KILIMANJORO	05/08/22	TKW	39.9	100	-	104.7	-	103.7	-	102.8	-	107.7 - Ascra Xpro 1.5L/ha
KCP 6.2-06	TRZAW	Dubai	12/08/22	TKW	48.6	100	b	104.2	a	103.1	ab	103.1	ab	99.4 b Ascra Xpro 1.5L/ha
KCP 6.2-07	TRZAW	Tobak	12/08/22	TKW	35.3	100	-	101.5	-	100.6	-	99.8	-	101.6 - Ascra Xpro 1.5L/ha
KCP 6.2-08	TRZAW	Arkadia	26/07/22	TKW	49.8	100	ab	100.8	ab	101.6	ab	101.4	ab	100.9 ab Ascra Xpro 1.5L/ha
KCP 6.2-09	TRZAW	Edvins	08/08/22	TKW	45.3	100	-	99.4	-	95.8	-	98	-	99.4 - Siltra Xpro 1L/ha
KCP 6.2-10	TRZAW	Skagen	08/09/22	TKW	42.2	100	-	99.8	-	101.3	-	102	-	101 - Siltra Xpro 1L/ha
KCP 6.2-11	TRZAW	SKAGEN	21/09/22	TKW	31.7	100	ab	106.4	ab	101.7	ab	104.5	ab	107.4 a Siltra Xpro 1L/ha
KCP 6.2-12	TRZAW	SKAGEN	14/09/22	TKW	33.5	100	b	106.9	ab	110.2	ab	114	a	112.5 a Siltra Xpro 1L/ha
KCP 6.2-13	TRZAW	SKAGEN	14/09/22	TKW	33	100	b	104.9	ab	104.7	ab	108.9	ab	112.3 a Siltra Xpro 1L/ha
KCP 6.2-14	TRZAW	SKAGEN	08/09/22	TKW	42.7	100	-	100.8	-	104.7	-	106.4	-	104.8 - Siltra Xpro 1L/ha
KCP 6.2-155	TRZAW	EUFORIA	25/07/23	TKW	41.8	100	-	100.9	-	102.2	-	101.8	-	Protikon 0.8L/ha
KCP 6.2-157	TRZAW	ARKADIA	07/08/23	TKW	42.8	100	-	102.2	-	102.6	-	100.6	-	102.1 - Aviator Xpro 1L/ha
KCP 6.2-158	TRZAW	Belissa	13/08/23	TKW	47	100	-	102.9	-	103.1	-			102.6 - Aviator Xpro 1L/ha
KCP 6.2-159	TRZAW	Fredis	24/07/23	TKW	47.8	100	-	100.3	-	102	-			98.8 - Siltra Xpro 1L/ha
KCP 6.2-160	TRZAW	Informer	28/08/23	TKW	51.4	100	-	101.2	-	100.1	-			103.2 - Siltra Xpro 1L/ha
KCP 6.2-161	TRZAW	EUFORIA	01/08/23	TKW	39.8	100	-	103.3	-	105	-			102.6 - Ascra Xpro 1.5L/ha
KCP 6.2-162	TRZAW	Natula	08/09/23	TKW	41.7	100	b	102.5	b	102.2	b			106.7 a Ascra Xpro 1.5L/ha
KCP 6.2-05	TRZAW	RGT KILIMANJORO	22/07/22	HLW	73	100	b	101.9	ab	105.6	ab	104.9	ab	107.4 a Ascra Xpro 1.5L/ha
KCP 6.2-155	TRZAW	EUFORIA	18/07/23	HLW	76.1	100	-	101.6	-	101.4	-	101.4	-	Protikon 0.8L/ha
KCP 6.2-157	TRZAW	ARKADIA	03/08/23	HLW	69.9	100	-	102.5	-	101.4	-	102.9	-	104 - Aviator Xpro 1L/ha
KCP 6.2-161	TRZAW	EUFORIA	25/07/23	HLW	73	100	-	101.6	-	101.2	-			103.5 - Ascra Xpro 1.5L/ha
KCP 6.2-132	TRZAW	TOBAK	11/09/23	GERMIN	97.5	100	-	101.3	-	101	-			101 - Siltra Xpro 1L/ha
KCP 6.2-133	TRZAW	Vanessa	29/08/23	GERMIN	97	100	-	100.5	-	100	-			99.8 - Siltra Xpro 1L/ha



EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	TRZAW	All	25	TKW (g)	41.1	28.2-51.4	41.8	102.8	99.4-111.6	102.2	102.4	95.8-110.2	102.0	103.3 (n=16)	98-114	102.3	104.0 (n=23)	98.8-112.5	102.6
NE (+CZ)	TRZAW	All	4	HLW	73.0	69.9-76.1	73.0	101.9	101.6-102.5	101.8	102.4	101.2-105.6	101.4	103.1 (n=3)	101.4-104.9	102.9	105.0 (n=3)	103.5-107.4	104.0

Means valid for the Northern zone:

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	TRZAW	All	20	TKW (g)	42.0	31.7-51.4	42.3	102.4	99.4-106.9	101.8	102.3	95.8-110.2	102.1	103.1 (n=15)	98-114	102.3	103.5 (n=19)	98.8-112.5	102.1
NE	TRZAW	All	4	HLW	73.0	69.9-76.1	73.0	101.9	101.6-102.5	101.8	102.4	101.2-105.6	101.4	103.1 (n=3)	101.4-104.9	102.9	105.0 (n=3)	103.5-107.4	104.0

Winter wheat – 2 applications

**Table 3.4-38 Effect on quality of GLOB2020aF and GLOB2111F on winter wheat - 2 applications – North-East EPPO zone**

KCP	Crop Code	Crop Va- riety	Rating Date	Rating Type	UNTREATED			GLOB2020aF 200 g/L EC 1 l/ha		GLOB2111F 125 g/L EC 1 l/ha		Protendo 300 EC 300 G/L EC 0.65 l/ha		bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)	
					assessed value	%control	SNK								
KCP 6.2-124	TRZAW	TOBAK	01/08/23	TKW	40.6	100	e	103.5	cd	104.1	bc	105.2	a		Aviator Xpro 1 L/ha
KCP 6.2-125	TRZAW	Patras	04/08/23	TKW	46.7	100	-	100	-	101.8	-	101.9	-	99.8	Aviator Xpro 1 L/ha
KCP 6.2-126	TRZAW	Energio	17/08/23	TKW	49.2	100	-	104.6	-	103.8	-			104.1	Aviator Xpro 1 L/ha
KCP 6.2-127	TRZAW	Illusion	23/08/23	TKW	45.5	100	b	102.9	a	102.6	a			102.2	Aviator Xpro 1 L/ha
KCP 6.2-128	TRZAW	VIRIATO	08/09/23	TKW	41.7	100	ab	103.6	ab	105.3	ab			96.8	Aviator Xpro 1 L/ha
KCP 6.2-45	TRZAW	SKAGEN	27/09/21	TKW	41.4	100	-	101.1	-	100.5	-	100.1	-	102.3	Aviator Xpro 1.25L/ha
KCP 6.2-46	TRZAW	ARKADIA	29/07/21	TKW	35.6	100	c	110.3	a	101.2	bc	108.1	abc	108.9	Aviator Xpro 1 L/ha
KCP 6.2-47	TRZAW	Gordian	02/08/21	TKW	37	100	-	101.4	-	101.8	-	101.7	-	102	Aviator Xpro 1 L/ha
KCP 6.2-48	TRZAW	ARKADIA	08/08/22	TKW	43.9	100	b	103.3	ab	101.6	ab	108.1	a	106.5	Aviator Xpro 1 L/ha
KCP 6.2-49	TRZAW	Skagen	15/08/22	TKW	43	100	b	103.3	ab	101.2	b	103.5	ab	104.9	Siltra Xpro 1L/ha
KCP 6.2-50	TRZAW	Edvins	05/08/22	TKW	46	100	-	101.9	-	101.2	-	100.6	-	104.6	Siltra Xpro 1L/ha
KCP 6.2-51	TRZAW	SKAGEN	28/09/22	TKW	37.8	100	c	102.7	abc	102.6	abc	105	ab	106.7	Siltra Xpro 1L/ha
KCP 6.2-52	TRZAW	SKAGEN	21/09/22	TKW	37.3	100	b	107.7	a	107.5	a	101	ab	107.7	Siltra Xpro 1L/ha
KCP 6.2-156	TRZAW	Skagen	28/08/23	TKW	53.2	100	-	101.6	-	100	-			99.9	Siltra Xpro 1L/ha
KCP 6.2-128	TRZAW	VIRIATO	15/08/23	HLW	68.2	100	-	96.3	-	101.5	-			96.2	Aviator Xpro 1 L/ha
KCP 6.2-46	TRZAW	ARKADIA	26/07/21	HLW	72.2	100	-	102.4	-	101.3	-	100.5	-	103	Aviator Xpro 1 L/ha
KCP 6.2-48	TRZAW	ARKADIA	25/07/22	HLW	71.9	100	b	105	ab	102.6	b	102.1	b	107.7	Aviator Xpro 1 L/ha
KCP 6.2-45	TRZAW	SKAGEN	27/09/21	HLW	73	100	-	100.2	-	99.5	-	99.1	-	99.6	Aviator Xpro 1.25L/ha
KCP 6.2-50	TRZAW	Edvins	05/08/22	HLW	78.9	100	-	101.9	-	101.2	-	100.6	-	104.6	Siltra Xpro 1L/ha

EPPO zone	Crop Code	Group-ing	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	TRZAW	All	14	TKW (g)	42.8	35.6-53.2	42.4	103.4	100-110.3	103.1	102.5	100-107.5	101.8	103.5 (n=10)	100.1-108.1	102.7	103.7	96.8-108.9	104.4
NE (+CZ)	TRZAW	All	5	HLW	72.8	68.2-78.9	72.2	101.2	96.3-105	101.9	101.2	99.5-102.6	101.3	100.6 (n=4)	99.1-102.1	100.6	102.2	96.2-107.7	103.0

Means valid for the Northern zone:

Means valid for the Northern zone.																			
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment Type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	TRZAW	All	9	TKW (g)	41.7	35.6-53.2	41.4	103.7	101.1-110.3	102.7	102.0	100-107.5	101.2	103.5 (n=8)	100.1-108.1	102.6	104.8	99.9-108.9	104.9
NE	TRZAW	All	4	HLW	74.0	71.9-78.9	72.6	102.4	100.2-105	102.2	101.2	99.5-102.6	101.3	100.6 (n=4)	99.1-102.1	100.6	103.7	99.6-107.7	103.8

**Table 3.4-39      Effect on quality of GLOB2020aF and GLOB2111F on winter barley - 1 application – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF 200 g/L EC 1 l/ha		GLOB2111F 125 g/L EC 1 l/ha		bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)				
					assessed value	%control	SNK									
KCP 6.2-148	HORVW	KWS KOSMOS	25/07/23	TKW	44.1	100	b	107.8	a		104.2	ab		108	a	Aviator Xpro 0.8L/ha
KCP 6.2-148	HORVW	KWS KOSMOS	14/07/23	HLW	62.6	100	d	103	bc		101.5	bcd		104.1	ab	Aviator Xpro 0.8L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	HORVW	All	1	TKW (g)	44.1	-	-	107.8	-	-	104.2	-	-	108.0	-	-
NE	HORVW	All	1	HLW	62.6	-	-	103.0	-	-	101.5	-	-	104.1	-	-

**Table 3.4-40**      **Effect on quality of GLOB2020aF and GLOB2111F on winter barley - 2 applications – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			200 g/L EC 1 l/ha	125 g/L EC 1 l/ha	300 G/L EC 0.65 l/ha	bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)				
					assessed value	%control	SNK								
KCP 6.2-107	HORVW	RUMCAJS	01/08/23	TKW	48.9	100	d	113.1	c	113.2	c		116.4	a	Aviator Xpro 0.8L/ha
KCP 6.2-108	HORVW	Kosmos	03/08/23	TKW	39.6	100	e	104.9	c	104.7	c		106	a	Aviator Xpro 0.8L/ha
KCP 6.2-109	HORVW	Breunskylie	11/07/23	TKW	51.7	100	b	104.3	a	102.7	a		102.6	a	Aviator Xpro 0.8L/ha
KCP 6.2-110	HORVW	Titus	17/07/23	TKW	43.4	100	b	106	a	103	b		102.6	b	Aviator Xpro 0.8L/ha
KCP 6.2-111	HORVW	LG Zoro	26/07/23	TKW	40.1	100	e	103.1	bc	103.6	bc		104	bc	Aviator Xpro 0.8L/ha
KCP 6.2-112	HORVW	KWS Higgins	24/07/23	TKW	45.2	100	b	105.2	ab	104.9	ab		109.6	a	Aviator Xpro 0.8L/ha
KCP 6.2-38	HORVW	CAROLA	21/07/21	TKW	47.1	100	-	99.5	-	97	-	96.3	-	-	Aviator Xpro 1.25L/ha
KCP 6.2-39	HORVW	SY Baracooda	13/08/21	TKW	47.2	100	b	102.1	ab	101.6	ab	101.3	ab	-	Aviator Xpro 1 L/ha
KCP 6.2-40	HORVW	Bažant	23/07/21	TKW	26.1	100	-	119.2	b	112.3	d	114.2	c	a	Aviator Xpro 1 L/ha
KCP 6.2-41	HORVW	SY GALILEO	29/07/22	TKW	48.6	100	-	103.2	-	102.9	-	103	-	-	Siltra Xpro 1L/ha
KCP 6.2-42	HORVW	SANDRA	21/07/22	TKW	57.9	100	-	101.3	-	100.6	-	95.8	-	Procer	Ascra Xpro 1.2L/ha
KCP 6.2-43	HORVW	KWS Kosmos	29/07/22	TKW	48.6	100	-	100.7	-	101.8	-	101.2	-	-	Siltra Xpro 1L/ha
KCP 6.2-44	HORVW	Morris	30/06/22	TKW	35	100	b	109.1	a	108.8	a	109.7	a	Procer	Ascra Xpro 1.2L/ha
KCP 6.2-149	HORVW	Anja	21/07/23	TKW	42.3	100	-	104.7	-	102.6	-		-	-	Siltra Xpro 1L/ha
KCP 6.2-150	HORVW	BARACOODA	28/07/23	TKW	47.8	100	-	100.6	-	100.4	-		-	-	Ascra Xpro 1.2L/ha
KCP 6.2-42	HORVW	SANDRA	05/07/22	HLW	62.1	100	-	100.3	-	106.5	-	101.3	-	Procer	Ascra Xpro 1.2L/ha
		Grouping						% increase (UTC=100%)							

EPPO zone	Crop Code		Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	HORVW	All	15	TKW (g)	44.6	26.1-57.9	47.1	105.1	99.5-119.2	104.3	104.0	97-113.2	102.9	103.1 (n=7)	95.8-114.2	101.3	105.6	100.4-120.6	103.4
NE (+CZ)	HORVW	All	1	HLW	62.1	-	-	100.3	-	-	106.5	-	-	101.3	-	-	102.3	-	-

Means valid for the Northern zone:

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment Type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	HORVW	All	9	TKW (g)	44.5	26.1-57.9	47.2	104.5	99.5-119.2	102.1	103.1	97-112.3	101.8	103.1 (n=7)	95.8-114.2	101.3	104.8	100.4-120.6	101.8
NE	HORVW	All	1	HLW	62.1	-	-	100.3	-	-	106.5	-	-	101.3	-	-	102.3	-	-

Spring barley – 1 application

**Table 3.4-41 Effect on quality of GLOB2020aF and GLOB2111F on spring barley - 1 application – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF 200 g/L EC 1 l/ha			GLOB2111F 125 g/L EC 1 l/ha			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK									
KCP 6.2-146	HORVS	RAPTUS	08/08/23	TKW	24.1	100	b	102.4	ab		102	ab		106.3	a	Aviator Xpro 0.8L/ha
KCP 6.2-147	HORVS	Amadora	23/08/23	TKW	40.7	100	b	110.5	a		111.4	a		114.8	a	Aviator Xpro 0.8L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	HORVS	All	2	TKW (g)	32.4	24.1-40.7	32.4	106.5	102.4-110.5	106.5	106.7	102-111.4	106.7	110.6	106.3-114.8	110.6

Spelt – 2 applications

**Table 3.4-42 Effect on quality of GLOB2020aF and GLOB2111F on spelt - 2 applications – North-East EPPO zone**

Means valid for Poland

Means valid for Poland

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF 200 g/L EC 1 l/ha			GLOB2111F 125 g/L EC 1 l/ha			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK									
KCP 6.2-136	TRZSP	ROKOSZ	09/08/23	TKW	39.7	100	d	104.2	c		111.5	a		111.5	a	Aviator Xpro 1 L/ha
KCP 6.2-137	TRZSP	Wirtas	06/09/23	TKW	36.8	100	b	101.8	ab		101.8	ab		101.8	ab	Aviator Xpro 1 L/ha
KCP 6.2-137	TRZSP	Wirtas	23/08/23	HLW	38.4	100	-	105.9	-		102.4	-		100.6	-	Aviator Xpro 1 L/ha

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (CZ)	TRZSP	All	2	TKW (g)	38.3	36.8-39.7	38.3	103.0	101.8-104.2	103.0	106.7	101.8-111.5	106.7	106.7	101.8-111.5	106.7
NE (CZ)	TRZSP	All	1	HLW	38.4	-	-	105.9	-	-	102.4	-	-	100.6	-	-

Rye – 2 applications

**Table 3.4-43 Effect on quality of GLOB2020aF and GLOB2111F on rye - 2 applications – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF 200 g/L EC 1 l/ha	GLOB2111F 125 g/L EC 1 l/ha	bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK					
KCP 6.2-113	SECCW	DAŇKOVSKÉ TURKU	09/08/23	TKW	38.2	100	e	105.3	b	105.3	b	106.7 a Aviator Xpro 1 L/ha
KCP 6.2-114	SECCW	Bojko	07/09/23	TKW	20	100	-	101.5	-	101.4	-	103.9 - Aviator Xpro 1 L/ha
KCP 6.2-115	SECCW	Inspector	22/08/23	TKW	36.9	100	-	101.2	-	100.4	-	101 - Aviator Xpro 1 L/ha
KCP 6.2-116	SECCW	Herakles	26/08/23	TKW	37.1	100	-	103.5	-	103.1	-	103.5 - Aviator Xpro 1 L/ha
KCP 6.2-151	SECCW	ELIAS	28/08/23	TKW	36.9	100	-	101.9	-	100.4	-	102.8 - Ascra Xpro 1.5L/ha
KCP 6.2-152	SECCW	KWS SERAFINO	26/07/23	TKW	28.7	100	-	102.2	-	100.8	-	101.3 - Aviator Xpro 1 L/ha
KCP 6.2-153	SECCW	Vinetto	29/08/23	TKW	35.2	100	-	101.8	-	102.4	-	103.4 - Aviator Xpro 1 L/ha
KCP 6.2-114	SECCW	Bojko	24/08/23	HLW	70.3	100	-	100	-	98.8	-	100.4 - Aviator Xpro 1 L/ha
KCP 6.2-152	SECCW	KWS SERAFINO	25/07/23	HLW	67.1	100	-	101.9	-	101.4	-	101.8 - Aviator Xpro 1 L/ha

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	SECCW	All	7	TKW (g)	33.3	20-38.2	36.9	102.5	101.2-105.3	101.9	102.0	100.4-105.3	101.4	103.2	101-106.7	103.4
NE (+CZ)	SECCW	All	2	HLW	68.7	67.1-70.3	68.7	101.0	100-101.9	101.0	100.1	98.8-101.4	100.1	101.1	100.4-101.8	101.1

Means valid for the Northern zone:

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	SECCW	All	3	TKW (g)	33.6	28.7-36.9	35.2	102.0	101.8-102.2	101.9	101.2	100.4-102.4	100.8	102.5	101.3-103.4	102.8
NE	SECCW	All	1	HLW	67.1	67.1-67.1	67.1	101.9	101.9-101.9	101.9	101.4	101.4-101.4	101.4	101.8	101.8-101.8	101.8

Triticale – 1 application

**Table 3.4-44 Effect on quality of GLOB2020aF and GLOB2111F on triticale - 1 application – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha					
KCP 6.2-167	TTLWI	Trismart	17/07/23	TKW	44.8	100	-	100.3	-		102.8	-		102	-	Zantara 1.2L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
								Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	TTLWI	All	1	TKW (g)	44.8	44.8-44.8	44.8	100.3	100.3-100.3	100.3	102.8	102.8-102.8	102.8	102.0	102-102	102.0

Triticale – 2 applications

**Table 3.4-45 Effect on quality of GLOB2020aF and GLOB2111F on triticale - 2 applications – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha					
KCP 6.2-138	TTLWI	CLAUDIUS	08/08/23	TKW	44	100	e	106.5	bc		106.2	c		108.4	a	Aviator Xpro 1 L/ha
KCP 6.2-139	TTLWI	Avokado	07/09/23	TKW	37.5	100	b	107	ab		102.6	ab		108.1	ab	Aviator Xpro 1 L/ha
KCP 6.2-140	TTLWI	Tenor	07/08/23	TKW	45.8	100	d	106.2	bc		107.2	b		108.4	a	Aviator Xpro 1 L/ha
KCP 6.2-141	TTLWI	Agostino	24/08/23	TKW	43.6	100	-	100.3	-		100.8	-		100.9	-	Aviator Xpro 1 L/ha
KCP 6.2-163	TTLWI	Meloman	17/07/23	TKW	42.5	100	-	102.3	-		103.8	-		103.8	-	Aviator Xpro 1 L/ha
KCP 6.2-164	TTLWI	Ruja	02/08/23	TKW	49.8	100	-	98.7	-		99.1	-		100.9	-	Siltra Xpro 1L/ha
KCP 6.2-165	TTLWI	CAPPRICIA	25/08/23	TKW	38.6	100	-	100.7	-		99	-		96.5	-	Ascra Xpro 1.5L/ha
KCP 6.2-166	TTLWI	Trismart	14/08/23	TKW	44	100	b	103.9	ab		105.6	a		104.5	a	Aviator Xpro 1 L/ha
KCP 6.2-139	TTLWI	Avokado	23/08/23	HLW	69.4	100	-	96.9	-		96.5	-		96.4	-	Aviator Xpro 1 L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
								Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	TTLWI	All	8	TKW (g)	43.2	37.5-49.8	43.8	103.2	98.7-107	103.1	103.0	99-107.2	103.2	103.9	96.5-108.4	104.2
NE (+CZ)	TTLWI	All	1	HLW	69.4	69.4-69.4	69.4	96.9	96.9-96.9	96.9	96.5	96.5-96.5	96.5	96.4	96.4-96.4	96.4

Means valid for the Northern zone:

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
								Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	TTLWI	All	4	TKW (g)	43.7	38.6-49.8	43.3	101.4	98.7-103.9	101.5	101.9	99-105.6	101.5	101.4	96.5-104.5	102.4

### Winter oat

**Table 3.4-46 Effect on quality of GLOB2020aF and GLOB2111F on winter oat - 2 applications – North-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			bixafen+triazole mixtures		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha			(e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
KCP 6.2-34	AVESA	Kusta	15/08/22	TKW	45.4	100	-	101	-		101.2	-		101.3	-	Zantara 1.2 L/ha
KCP 6.2-35	AVESA	STENDES DARTA	27/09/22	TKW	34.2	100	-	98.7	-		99	-		100.8	-	Ascra Xpro 1.2L/ha
KCP 6.2-36	AVESA	BINGO	08/08/22	TKW	30.7	100	b	100.4	b		105.7	ab		104.1	ab	Ascra Xpro 1.2L/ha
KCP 6.2-37	AVESA	GEPARD	09/08/22	TKW	35.7	100	f	105.3	a		102.4	d		105.1	a	Ascra Xpro 1.2L/ha
KCP 6.2-142	AVESA	Kalle	16/08/23	TKW	42.2	100	-	99.2	-		101.7	-		99.7	-	Ascra Xpro 1.2L/ha
KCP 6.2-144	AVESA	Montrose	30/08/23	TKW	35.3	100	-	99.4	-		100.9	-		99.2	-	Ascra Xpro 1.2L/ha
KCP 6.2-145	AVESA	Bingo	18/08/23	TKW	34.2	100	-	100.6	-		101.9	-		103.6	-	Ascra Xpro 1.2L/ha
KCP 6.2-101	AVESA	MARCO POLO	01/08/23	TKW	51.4	100	e	105.8	b		107.6	a		104.3	c	Hutton
KCP 6.2-36	AVESA	BINGO	25/07/22	HLW	36.6	100	-	102.2	-		103.7	-		100.44	a	Ascra Xpro 1.2L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
								Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE (+CZ)	AVESA	All	8	TKW (g)	38.6	30.7-51.4	35.5	101.3	98.7-105.8	100.5	102.6	99-107.6	101.8	102.3	99.2-105.1	102.5
NE (+CZ)	AVESA	All	1	HLW	36.6	-	-	102.2	-	-	103.7	-	-	100.4	-	-



Means valid for the Northern zone:

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
NE	AVESA	All	7	TKW (g)	36.8	30.7-45.4	35.3	100.7	98.7-105.3	100.4	101.8	99-105.7	101.7	102.0	99.2-105.1	101.3
NE	AVESA	All	1	HLW	36.6	-	-	102.2	-	-	103.7	-	-	100.4	-	-

*Winter soft and durum wheat – 1 application*

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			Protendo 300 EC			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha	200 g/L EC 1 l/ha	125 g/L EC 1 l/ha	300 g/L EC 0.65 l/ha								
KCP 6.2-15	TRZAW	Nogal	31/07/21	TKW	49.4	100		102.6	-		104.8	-		108.4	-		100.5	-	Aviator Xpro 1.25L/ha
KCP 6.2-16	TRZAW	Ingenio	27/06/22	TKW	38.8	100	b	106.3	a		106.8	a		106.8	a				
KCP 6.2-17	TRZAW	Cosaco	14/06/22	TKW	33.3	100	-	104.5	-		100.5	-		102.1	-	Proline 0.8L/ha	103.4	-	Aviator Xpro 1.25L/ha
KCP 6.2-18	TRZAW	Mandica	28/06/22	TKW	42.4	100	-	102.5	-		102.1	-		102.5	-		103	-	Ascra Xpro 1.5L/ha
KCP 6.2-19	TRZAW	Ingenio	28/06/22	TKW	42	100	-	101.7	-		102.5	-		100.1	-		102.2	-	Ascra Xpro 1.5L/ha
KCP 6.2-20	TRZAW	Acorazado	22/06/22	TKW	45.9	100	-	103	-		104.1	-		96.3	-	Praktis 0.8L/ha	101.2	-	Aviator Xpro 1.25L/ha
KCP 6.2-174	TRZAW	Valbona	05/07/23	TKW	38.7	100	-	104	-		104.2	-		102.6	-	Praktis 0.8L/ha			
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)											
								GLOB2020aF at 1 l/ha			GLOB2111F at 1 l/ha			Protendo 300 EC at 0.65 l/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	TRZAW	All	7	TKW (g)	41.5	33.3-49.4	42.0	103.5	101.7-106.3	103.0	103.6	100.5-106.8	104.1	102.7	96.3-108.4	102.5	102.1 (n=5)	100.5-103.4	102.2

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED				GLOB2020aF		GLOB2111F		Protendo 300 EC		bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)
					assessed value	%control	SNK	200		125		300			
								g/L	EC	g/L	EC	G/L	EC		
KCP 6.2-21	TRZDW	Simeto	30/06/22	TKW	53.7	100	b	104.9	ab	103.7	ab	109.5	a	Proline 0.8L/ha	
KCP 6.2-22	TRZDW	Bronte	16/06/22	TKW	44.6	100	-	102.3	-	103.7	-	104.5	-	Proline 0.8L/ha	
KCP 6.2-23	TRZDW	Claudio	17/06/22	TKW	33.2	100	-	100.7	-	107.2	-	100.8	-	Proline 0.8L/ha	98.4      -      Aviator Xpro 1.25L/ha
KCP 6.2-175	TRZDW	Quadratto	20/06/23	TKW	44	100	-	100.9	-	100.5	-	102	-	Proline 0.8L/ha	
KCP 6.2-178	TRZDW	Simeto	27/06/23	TKW	32	100	b	101.9	b	110.5	b	129	a	Proline 0.8L/ha	
KCP 6.2-179	TRZDW	Don Ricardo	25/07/23	TKW	36.5	100	c	107	bc	105.7	bc				112.7      ab      Aviator Xpro 1.25L/ha

		Grouping					% increase (UTC=100%)
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KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED assessed value %control SNK	GLOB2020aF 200 g/L EC 1 l/ha	GLOB2111F 125 g/L EC 1 l/ha	Protendo 300 EC 300 G/L EC 0.65 l/ha	bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)
EPPO zone	Crop Code		Nb. trials	As-sessment type (unit)	Assessed value in the untreated control (=100%)	GLOB2020aF at 1 L/ha	GLOB2111F at 1 L/ha	Protendo 300 EC at 0.65 L/ha	bixafen+triazole mixtures
					Mean Min & Max Mdn	Mean Min & Max Mdn	Mean Min & Max Mdn	Mean Min & Max Mdn	Mean Min & Max Mdn
MED	TRZDW	All	6	TKW (g)	40.7 32-53.7 40.3	103.0 100.7-107 102.1	105.2 100.5-110.5 104.7	109.2 (n=5) 100.8-129 104.5	105.6 (n=5) 98.4-112.7 105.6

*Winter soft and durum wheat – 2 applications*

**Table 3.4-49 Effect on quality of GLOB2020aF and GLOB2111F on soft winter wheat - 2 applications – Mediterranean EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF		GLOB2111F		Protendo 300 EC		bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)					
					assessed value	%control	SNK	200 g/L EC 1 l/ha	125 g/L EC 1 l/ha	300 G/L EC 0.65 l/ha									
KCP 6.2-61	TRZAW	DIM 401	29/06/21	TKW	39.5	100	b	107.1	a	109.2	a	108	a	Proline 0.8L/ha	108.3	a	Aviator Xpro 1.25L/ha		
KCP 6.2-62	TRZAW	Ingenio	30/06/21	TKW	37.3	100	-	103.6	-	107.5	-	105.8	-		104.7	-	Aviator Xpro 1.25L/ha		
KCP 6.2-63	TRZAW	Mandica	28/06/22	TKW	41.4	100	-	104	-	106.3	-	106.7	-		104	-	Ascra Xpro 1.5L/ha		
KCP 6.2-64	TRZAW	Elisavet	17/06/22	TKW	31.4	100	-	102.2	-	101.3	-	101.1	-	Proline 0.8L/ha					
KCP 6.2-65	TRZAW	Kraljica	27/06/22	TKW	39.5	100	-	103.9	-	104	-	105	-						
KCP 6.2-66	TRZAW	Ingenio	28/06/22	TKW	41.7	100	-	103.3	-	101.5	-	100.6	-						
KCP 6.2-67	TRZAW	Andino	12/07/22	TKW	34.5	100	-	104.6	-	97.7	-	99.5	-	Praktis 0.8L/ha	100.9	-	Aviator Xpro 1.25L/ha		
KCP 6.2-70	TRZAW	Claudio	15/06/22	TKW	33	100	-	100.2	-	99.2	-	101.3	-	Proline 0.8L/ha					
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)		% increase (UTC=100%)												
							GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures			
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	TRZAW	All	8	TKW (g)	37.3	31.4-41.7	38.4	103.6	100.2-107.1	103.8	103.3	97.7-109.2	102.8	103.5	99.5-108	103.2	104.5 (n=4)	100.9-108.3	104.4

**Table 3.4-50 Effect on quality of GLOB2020aF and GLOB2111F on durum winter wheat - 2 applications – Mediterranean EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			Protendo 300 EC			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	g/L EC 1 l/ha			g/L EC 1 l/ha			G/L EC 0.65 l/ha					
KCP 6.2-68	TRZDW	Simeto	24/06/22	TKW	47.7	100	-	100.7	-		101.4	-		101.7	-	Proline 0.8L/ha	100.9	-	Aviator Xpro 1.25L/ha
KCP 6.2-69	TRZDW	Claudio	16/06/22	TKW	33.5	100	-	99.9	-		100.2	-		98.1	-	Proline 0.8L/ha	102.8	-	Aviator Xpro 1.25L/ha
KCP 6.2-176	TRZDW	Simeto	20/06/23	TKW	43.2	100	-	100.7	-		99.3	-					100.4	-	Aviator Xpro 1.25L/ha
KCP 6.2-177	TRZDW	Antalis	30/06/23	TKW	38.2	100	c	105.7	a		103.9	ab					101	bc	Aviator Xpro 1 L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	TRZDW	All	4	TKW (g)	40.7	33.5-47.7	40.7	101.8	99.9-105.7	100.7	101.2	99.3-103.9	100.8	99.9 (n=2)	98.1-101.7	99.9	101.3	100.4-102.8	101.0

*Winter barley – 2 applications*

**Table 3.4-51 Effect on quality of GLOB2020aF and GLOB2111F on winter barley - 2 applications – Mediterranean EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF		GLOB2111F		Protendo 300 EC		bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)			
					assessed value	%control	SNK	200 g/L EC 1 l/ha		125 g/L EC 1 l/ha		300 G/L EC 0.65 l/ha					
KCP 6.2-53	HORVW	Maxim	24/06/22	TKW	49.2	100	-	103.5	-	101.7	-	103.4	-	Proline 0.8L/ha	102	-	Ascra Xpro 1.2L/ha
KCP 6.2-55	HORVW	Sandra	28/06/22	TKW	47.8	100	-	103.1	-	102.4	-	99.8	-				
KCP 6.2-56	HORVW	Zlatko	24/06/22	TKW	44.7	100	b	108	a	108.5	a	108.2	a	Proline 0.8L/ha			
KCP 6.2-57	HORVW	Zlatko	24/06/22	TKW	44.4	100	b	106.4	a	104	a	108	a	Proline 0.8L/ha			
KCP 6.2-58	HORVW	RGT Planet	01/08/22	TKW	40.8	100	b	105.2	ab	105.8	ab	108.7	a		111.1	a	Aviator Xpro 1 L/ha
KCP 6.2-59	HORVW	Pewter	29/06/22	TKW	50.1	100	-	100.5	-	100.5	-	100.7	-		106.8	-	Aviator Xpro 1 L/ha
KCP 6.2-60	HORVW	Sandra	06/07/22	TKW	45.5	100	-	87.5	-	88.6	-	98.1	-				
KCP 6.2-168	HORVW	Zana	10/06/23	TKW	46.9	100	-	100.9	-	102.6	-				101.6	-	Aviator Xpro 1.25L/ha
KCP 6.2-169	HORVW	Colorado	10/06/23	TKW	54.7	100	f	101.8	ab	102	a				100.9	de	Aviator Xpro 1.25L/ha
KCP 6.2-170	HORVW	Sandra RWA	30/06/23	TKW	40.9	100	-	107.4	-	107.4	-				109.5	-	Ascra Xpro 1.2L/ha
KCP 6.2-171	HORVW	Sandra RWA	30/06/23	TKW	37.6	100	b	116.5	a	118.2	a				115.5	a	Ascra Xpro 1.2L/ha
KCP 6.2-172	HORVW	Planet	29/06/23	TKW	46.5	100	b	104.7	a	105	a				101.7	b	Aviator Xpro 1 L/ha
KCP 6.2-60	HORVW	Sandra	06/07/22	HLW	60.7	100	-	98.3	-	101.2	-	102.3	-				
KCP 6.2-55	HORVW	Sandra	28/06/22	HLW	64.8	100	-	100.4	-	101.4	-	99.4	-				

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	HORVW	All	12	TKW (g)	4.8	3.2-7.8	4.4	113.5	92.3-131.4	117.1	115.5	99.9-132.6	112.8	116.5 (n=7)	98.7-128.5	115.4	114.1 (n=9)	94-131.5	114.9
MED	HORVW	All	2	HLW	62.8	60.7-64.8	62.8	99.4	98.3-100.4	99.4	101.3	101.2-101.4	101.3	100.9	99.4-102.3	100.9	-	-	-

Rye – 2 applications

**Table 3.4-52 Effect on quality of GLOB2020aF and GLOB2111F on rye - 2 applications – Mediterranean EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha					
KCP 6.2-173	SECCW	Vector RWA	03/07/23	TKW	26.1	100	b	110	a		104.3	ab		105.9	ab	Ascra Xpro 1.5L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	SECCW	All	1	TKW (g)	26.1	-	-	110.0	-	-	104.3	-	-	105.9	-	-

Triticale – 2 applications

**Table 3.4-53 Effect on quality of GLOB2020aF and GLOB2111F on triticale - 2 applications – Mediterranean EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha					
KCP 6.2-180	TTLWI	Riparo RWA	29/06/23	TKW	38.6	100	b	108.9	a		108.9	a		111.7	a	Ascra Xpro 1.5L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)								
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
MED	TTLWI	All	1	TKW (g)	38.6	38.6-38.6	38.6	108.9	108.9-108.9	108.9	108.9	108.9-108.9	108.9	111.7	111.7-111.7	111.7

**South-East EPPO Zone:**

**Winter soft wheat – 1 application**

**Table 3.4-54 Effect on quality of GLOB2020aF and GLOB2111F on winter soft wheat - 1 application – South-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			Protendo 300 EC			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha			300 G/L EC 0.65 l/ha					
KCP 6.2-26	TRZAW	MV Nádor	14/07/22	TKW	22.4	100	d	104.7	abc		102.3	bcd		106.1	ab		107.9	a	Siltra Xpro 1L/ha
KCP 6.2-24	TRZAW	Illico	25/07/22	TKW	40.6	100	-	96.2	-		98.2	-		98	-		93.2	-	Siltra Xpro 1L/ha
KCP 6.2-25	TRZAW	Nexera 88	25/07/22	TKW	32.7	100	-	100.7	-		96.7	-		108.9	-		109.2	-	Siltra Xpro 1L/ha
KCP 6.2-186	TRZAW	Nádor	25/07/23	TKW	50.3	100	-	99.1	-		100.8	-		98.7	-	Proline 0.8L/ha			
KCP 6.2-187	TRZAW	PG. 102	18/07/23	TKW	45.4	100	-	100	-		99.7	-		100.9	-	Proline 0.8L/ha			
KCP 6.2-194	TRZAW	GK Csillag	13/07/23	TKW	42.7	100	ab	102.1	ab		104.8	ab					108	a	Siltra Xpro 1L/ha
KCP 6.2-195	TRZAW	Miranda	14/07/23	TKW	45.1	100	b	103	a		103	a					103.5	a	Zantara 1.2L/ha
KCP 6.2-196	TRZAW	Panaso	28/07/23	TKW	32.8	100	ab	102.4	ab		111.5	a					114.4	a	Siltra Xpro 1L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	TRZAW	All	8	TKW (g)	39.0	22.4-50.3	41.7	101.0	96.2-104.7	101.4	102.1	96.7-111.5	101.6	102.5 (n=5)	98-108.9	100.9	106.0 (n=6)	93.2-114.4	108.0

**Winter durum wheat – 1 application**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF			GLOB2111F			Protendo 300 EC			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK	200 g/L EC 1 l/ha			125 g/L EC 1 l/ha			300 G/L EC 0.65 l/ha					
KCP 6.2-27	TRZDW	GK Julidur	03/08/22	TKW	40.7	100	e	103.7	cd		106.1	b		101.1	e		104.6	c	Siltra Xpro 1L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	TRZDW	All	1	TKW (g)	40.7	-	-	103.7	-	-	106.1	-	-	101.1	-	-	104.6	-	-

*Winter soft wheat – 2 applications*

**Table 3.4-55 Effect on quality of GLOB2020aF and GLOB2111F on winter soft wheat - 2 applications – South-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED			GLOB2020aF 200 g/L EC 1 l/ha			GLOB2111F 125 g/L EC 1 l/ha			Protendo 300 EC 300 G/L EC 0.65 l/ha			bixafen+triazole mixtures (e.g. Zantara, Ascra/ Aviator/Siltra Xpro)		
					assessed value	%control	SNK												
KCP 6.2-74	TRZAW	Cellule	26/07/21	TKW	44.8	100	-	101.3	-		100.8	-		101.5	-		101.3	-	Siltra Xpro 1L/ha
KCP 6.2-75	TRZAW	Nexera 88	25/07/22	TKW	33.6	100	-	98.5	-		99	-		102.9	-		110.6	-	Siltra Xpro 1L/ha
KCP 6.2-76	TRZAW	GK KÖRÖS	21/07/22	TKW	38.8	100	-	102.4	-		105.3	-		101	-		103.7	-	Siltra Xpro 1L/ha
KCP 6.2-188	TRZAW	KWS Sirtaki	15/08/23	TKW	59.1	100	-	103.8	-		102.8	-					103.5	-	Siltra Xpro 1L/ha
KCP 6.2-190	TRZAW	CH Combin	17/07/23	TKW	51.1	100	-	100.6	-		99.7	-					99.2	-	Siltra Xpro 1L/ha
KCP 6.2-191	TRZAW	Miranda	14/07/23	TKW	41.9	100	-	102.4	-		100.7	-					102.1	-	Aviator Xpro 1 L/ha
KCP 6.2-193	TRZAW	Kraljica	28/07/23	TKW	37.7	100	b	107.8	a		106.2	a					106.4	a	Siltra Xpro 1L/ha
EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	Assessed value in the untreated control (=100%)			% increase (UTC=100%)											
								GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	TRZAW	All	7	TKW (g)	43.9	33.6-59.1	41.9	102.4	98.5-107.8	102.4	102.1	99-106.2	100.8	101.8 (n=3)	101-102.9	101.5	103.8	99.2-110.6	103.5



Barley – 2 applications

**Table 3.4-56 Effect on quality of GLOB2020aF and GLOB2111F on barley - 2 applications – South-East EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED	GLOB2020aF	GLOB2111F	Protendo 300 EC	bixafen+triazole mixtures
					assessed value %control SNK	200 g/L EC 1 l/ha	125 g/L EC 1 l/ha	300 G/L EC 0.65 l/ha	(e.g. Zantara, Ascra/ Aviator/Siltra Xpro)
KCP 6.2-71	HORVW	Rex	28/06/21	TKW	46.8 100 de	102.1 cd	103 bc	104.9 a	104.5 ab Siltra Xpro 1L/ha
KCP 6.2-72	HORVW	KWS Daxor	20/06/22	TKW	8.2 100 c	125.1 a	111.6 b	117.2 ab	122.8 a Siltra Xpro 1L/ha
KCP 6.2-73	HORVW	KWS SCALA	15/07/22	TKW	44.9 100 -	103.5 -	103.1 -	102.8 -	103.7 - Siltra Xpro 1L/ha
KCP 6.2-181	HORVW	KWS Meridian	14/08/23	TKW	47.4 100 -	99.7 -	99.9 -		100.3 - Siltra Xpro 1L/ha
KCP 6.2-182	HORVW	Meridián	10/07/23	TKW	46.8 100 -	100.2 -	98.3 -		99.6 - Siltra Xpro 1L/ha
KCP 6.2-183	HORVW	CARDINAL	17/07/23	TKW	45.8 100 -	102.6 -	102.5 -		102.5 - Aviator Xpro 0.8L/ha
KCP 6.2-184	HORVW	MAXIM	25/07/23	TKW	41.6 100 b	105.6 a	104.2 a		105.4 a Aviator Xpro 0.8L/ha
KCP 6.2-185	HORVW	Concordia	11/07/23	TKW	42.3 100 -	108.2 -	113.2 -		113.3 - Siltra Xpro 1L/ha
KCP 6.2-71	HORVW	Rex	28/06/21	HLW	53.6 100 ab	104.4 a	99 ab	98.5 ab	90.4 b Siltra Xpro 1L/ha

EPPO zone	Crop Code	Grouping	Nb. trials	Assessment type (unit)	% increase (UTC=100%)														
					Assessed value in the untreated control (=100%)			GLOB2020aF at 1 L/ha			GLOB2111F at 1 L/ha			Protendo 300 EC at 0.65 L/ha			bixafen+triazole mixtures		
					Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn	Mean	Min & Max	Mdn
SE	HORVW	All	8	TKW (g)	40.5	8.2-47.4	45.4	105.9	99.7-125.1	103.1	104.5	98.3-113.2	103.1	108.3 (n=3)	102.8-117.2	104.9	106.5	99.6-122.8	104.1
SE	HORVW	All	1	HLW	53.6	53.6-53.6	53.6	104.4	104.4-104.4	104.4	99.0	99-99	99.0	98.5	-	-	90.4	90.4-90.4	90.4

## Conclusion

No biologically significant differences were observed in HLW, TKW ~~or oil contents~~ between the untreated and any of the treatments. Furthermore, at the maximum dose rate of 1 L/ha the results are comparable to the reference products. From the results above, it can be concluded that GLOB2020aF and GLOB2111F has no negative effect on the quality of cereals and ~~oilseed rape and~~ the presented results fully support the authorization at the requested dose rates.

**Conclusion** to quality parameters from efficacy trials (in the presence of the specific diseases)

No specific disease-free trials have been conducted with GLOB2111F. This section presents the effect on cereal quality of treated plants from efficacy trials. The effect of GLOB2111F on cereal quality was assessed by measuring thousand kernel weight (TKW) and hectolitre weight of harvested grain. GLOB2111F had no adverse effects on thousand grain weight in wheat. Overall, the application of GLOB2111F resulted in a positive effect on the tested quality parameters.

#### 3.4.4 Effects on transformation processes (KCP 6.4.4)

According to EPPO PP1/243 “*Effects of plant protection products on transformation processes*”, wheat and barley are crops used for industrial processes (such as bread making or brewing) which include transformation (dependent on biological activity).

Also, according to PP1/242(2) - Taint tests, there are no simple rules or cut-off criteria, to decide whether or not taint tests should be conducted, but based on information on the historical occurrence of taint, the risk can be classified as Low (with a taint test not usually required) for *a product used on fresh produce only, and/or an active substance not associated with taint problems or relatively similar in structure to active substances not associated with taint problems, and/or a product leaving no residues at harvest and/or a non-systemic compound not applied to harvestable plant parts.*

Specifically for the crops in this submission, the product GLOB2020aF and GLOB2111F is not to be applied close to harvest (latest application possible at BBCH 69, about 2 months ahead of harvest).

According to EPPO guideline PP 1/243, a taint test is usually not required for *a product leaving no residues at harvest*. The RAR for bixafen states for

- Wheat: Due to low residues in grain not exceeding 0.05 mg/kg at harvest and the consumer intake below 10% of the ADI, no processing studies are required.
- Barley: With respect to that crop, the relevant transformation process is brewing and in the studies evaluated in the EU peer-review of bixafen, the residues had decreased or were not altered.

Changed quality parameters might also be an indication for changes in the transformation processes. As shown under 3.4.3 this is not the case for GLOB2020aF and GLOB2111F, where thousand kernel weight and hectolitre weight were not negatively affected.

Moreover, bixafen is an existing active ingredient that has been previously evaluated and authorised for use in concerned cereal crops, either in straight formulation or in ready mixtures with finally no restrictions and this can be regarded as a supportive evidence for the absence of known negative impact of bixafen on baking, malting or brewing.

Therefore, it can be concluded that GLOB2020aF and GLOB2111F is also safe when applied as recommended to target crops.

It is therefore not expected that GLOB2020aF and GLOB2111F would have any detrimental effect on transformation processes. Thus, no further data is deemed to be necessary. A safe use of GLOB2111F can be considered for all crops.

**Conclusion to “Effects on transformation processes”**

No results from specific studies were submitted for this annex point. The applicant did not consider this to be necessary. zRMS agrees with the applicants explanation.

#### 3.4.5 Impact on treated plants or plant products to be used for propagation (KCP 6.4.5)

Bixafen is a well-known active substance used for many years in cereals, including cereals grown for seed. It may be found as a component of many ready mixtures (e.g. Ascera Xpro and Aviator Xpro/Siltra Xpro). In particular, straight formulations containing 125 g/L are also available as THORE in FR and Bixafen EC125/Inception/Inception Xpro in UK and IE, authorized at a dose rate of 1 L/ha.

GLOB2020aF and GLOB2111F is not to be applied close to harvest (latest application timing BBCH 69, about 2 months ahead of harvest) nor any phytotoxic effect was observed in any of the submitted trials. Under these circumstances, data on plant parts for propagation are not required according to EPPO Guideline PP 135(4).

Moreover, with all approved products containing the same active substance, there have been no reported cases of adverse effect on the germination of harvested grain seed from treated cereal crops.

Nevertheless, results from 2 trials conducted in the EPPO Maritime zone are presented, where grain samples were taken at harvest from both trials conducted on soft wheat in 2 different varieties. The germination tests demonstrated that there was no adverse effect on germination of harvested seeds. A very similar germination pattern was observed between the untreated control, GLOB2020aF and GLOB2111F and the reference product Siltra Xpro. Thus it is concluded that no negative effect is to be expected even in plant parts used for propagation (i.e. seeds).

### **Maritime EPPO Zone:**

#### **Winter wheat – 1 application**

**Table 3.4-57 Effect on germination of GLOB2020aF and GLOB2111F on winter wheat - 1 application – Maritime EPPO zone**

KCP	Crop Code	Crop Variety	Rating Date	Rating Type	UNTREATED <i>assessed value</i>	%control	SNK	GLOB2020aF 200 g/L EC 1 l/ha	GLOB2111F 125 g/L EC 1 l/ha	Siltra Xpro 60+200 g/L (bixafen + prothioconazole) EC 1 l/ha
KCP 6.2-132	TRZAW	TOBAK	11/09/23	GERMIN	97.5	100	-	101.3	-	101
KCP 6.2-133	TRZAW	Vanessa	29/08/23	GERMIN	97	100	-	100.5	-	99.8

#### **Conclusion to “Impact on treated plants to be used for propagation”**

The presented data correspond with the requirements of the EPPO Standard PP 1/135 (Phytotoxicity assessment). Through the application of the fungicide with the active substance bixafen, no negative effects on the germination of wheat seeds were detected.

Based on this submitted data, it can be concluded to accept the data provided by the applicant.

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

#### 3.5.1 Impact on succeeding crops (KCP 6.5.1)

GLOB2111F contains a single active substance (bixafen) known to have no significant effects on plant growth and development. Its activity and selectivity is widely known and it is thus unlikely that the product will cause damage to any succeeding crop.

Still, reference can be made to the seedling emergence study provided for the off-field exposure in Part B9 of the Registration Report (KCP 10.6.2). The seedling emergence study was performed with GLOB2111F deposited on the soil surface after sowing, according to the OECD Guideline No. 208. Six different crops were tested (2 monocots: oat and corn, and 4 dicots: oilseed rape, soybean, tomato, buckwheat). First tier risk assessment indicates that there is no unacceptable risk from GLOB2111F to non-target plants when applied according to the proposed use rates.

As further supportive evidence, no restrictions with respect to succeeding crops following treatments in European countries where approval has been granted to PPPs containing bixafen either in straight formulation or in ready mixtures and as a result it is reasoned that applications of GLOB2111F will not pose risks to succeeding crops

#### Summary and conclusion on the Impact on succeeding crops

The component of GLOB2111F is a known active ingredient already authorised for the use on cereals production with no restrictions on rotational crops. Based on the outcomes of the seedling emergence study for the off-field exposure in Part B9 and the experience with the active substance, it is unlikely that the product will cause any damage to succeeding crops.

##### **Conclusion** to Impact on succeeding crops

The effects on seedling emergence and vegetative vigour of GLOB2111F on six non-target plant species oat (*Avena sativa*), corn (*Zea mays*), tomato (*Solanum lycopersicum*), oilseed rape (*Brassica napus*), soybean (*Glycine max*) and buckwheat (*Fagopyrum acutatum*) were studied at application rates of 62.5, 125, 250, 500 and 1000 mL GLOB2111F /ha. No phytotoxic effects on seedling emergence or vegetative vigour (measured as shoot length, fresh and dry weight) at BBCH stage 12-14 were observed for any of the plant species at any of the concentrations tested.

It can be concluded to accept the data provided by the applicant to demonstrate no negative impacts for succeeding crops.

#### 3.5.2 Impact on other plants including adjacent crops (KCP 6.5.2)

The impact on adjacent crops is calculated in accordance with the EPPO 1/256(1) – Effects on adjacent crops by comparing the drift rates to the lowest EC<sub>50</sub> from the vegetative vigour study (KCP 10.6), discussed in Section B9 Ecotoxicology.

The drift rates are calculated for the highest rate of 1 L/ha using the 90th percentile estimates derived by the BBA (2000) from the spray-drift predictions of Ganzelmeier & Rautmann (2000).

Distance to adjacent crop (m)	% drift	Drift test product (mL/ha)
1	2.77	27.7

**Table 3.5-1: TER calculations for the most sensitive species based on the vegetative-vigour-test**

<b>Intended use</b>		Winer cereals		
<b>Active substance/product</b>		Bixafen/GLOB2111F		
<b>Application rate (mL/ha)</b>		1 x 1000 mL/ha		
<b>MAF</b>		1		
Test species	ER <sub>50</sub> (g/ha)	Drift rate	PER <sub>off-field</sub> (g/ha)	TER criterion: TER ≥ 5
<i>Zea mays</i>	649.90	0.0277	27.7	23.46

MAF: Multiple application factor; PER: Predicted environmental rate; TER: toxicity to exposure ratio. TER values shown in bold fall below the relevant trigger.

## Conclusion

First tier risk assessment indicates that there is no unacceptable risk from GLOB2111F to non-target plants when applied according to the proposed use rates.

### Conclusion to “Impact on adjacent crops”

The presented data meet the requirements of the EPPO Standard PP 1/256 (Effects on adjacent crops). The applicant discussed results from seedling emergence and vegetative vigour tests (section ‘Impact on succeeding crops’) as well as the effects of spray or vapour drift. No visible damage was observed on maize. Additionally, given the excellent selectivity of GLOB2111F and the submitted data, the zRMS believes that the risk to adjacent crops is minimal when GLOB2111F is applied according to the GAP.

## Tank cleaning

Effectiveness of cleaning procedures was investigated in a dedicated study (KCP 4.2). Tank mix is prepared at the highest recommended concentration of the test item and it is transferred into polyethylene bottles and stored overnight. The bottles were then single, double and triple rinsed with 10 mL tap water and the remaining residue was collected with 10 mL acetonitrile. The collected residue was then assayed by HPLC-UV.

It was concluded that the active ingredient removed from the bottles was 99.997% of the initially added amount. This demonstrates that only a very limited amount of residue would remain in the spray tank after cleaning.

EPPO Standard PP 1/292 (1) Cleaning pesticide application equipment (PAE) – efficacy aspects states that Toxicity values can be derived from the tests for non-target plant (ecotoxicology) section and are then compared with predicted concentrations after spraying to develop the toxicity:exposure ratio (TER; calculated as the ED50 value divided by the amount of residue remaining in the spray tank. The TER is then compared with a trigger value that is based on expert judgement or derived empirically. If the TER value of the most sensitive crop is >1 (or the specific national level, if higher), no further testing is necessary.

Test species	ER <sub>50</sub> (g/ha)	Residue rate (%)	Residue rate (g/ha)	TER criterion: TER ≥ 5
<i>Zea mays</i>	649.90	0.003%	3	216.63

It can be observed from the table above that the trigger of 1 is by far overcome and thus it is clear that triple rinse is sufficient for GLOB2111F.

**Conclusion** to Tank cleaning  
The applicants proposal of cleaning to Good Agricultural Practice is acceptable

### 3.5.3 Effects on beneficial and other non-target organisms (KCP 6.5.3)

There were no adverse effects on beneficial and other non-target organisms observed in any of the efficacy trials submitted in this dossier.

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

### Compatibility with current management practices including IPM

No trials were carried out.

### 3.6 Other/special studies

No other/special studies were performed.

### 3.7 List of test facilities including the corresponding certificates

**Table 3.7-1: List of test facilities**

Test facility	Address	Certificate (Yes or No)
University of Aarhus, Department of Agroecology	Blichers Allé 20, 8830 Tjele (DK)	Yes
Agrolab A/S	Røjleskovvej 18, 5500 Middelfart (DK)	Yes
Agri 2000 France SARL	22 Che de L'artisanat 26540 Mours-Saint-Eusebe, France	Yes
Agri 2000 Net S.r.l.	Via Marabini, 14/A Castel Maggiore (BO), Italy	Yes
Agri 2000 Hellas Ltd.	Evagelistrias 20,. Kyparissia P.C. 24500,. Messinia. Greece.	Yes
Estonian Crop Research Institute	J. Aamiseppa 1, Jõgeva 48309 Jõgeva maakond (EE)	Yes
Institute of Plant Protection - National Research Institute IOR Sosnicowice	ul. Gliwicka 29, 44-153 Sosnicowice, Poland	Yes
NIBIO Norwegian Institute of Bioeconomy Research	Postboks 115 NO-1431 Ås, Norway	Yes
Pest Pro d.o.o.	Stjepana Gradica 5, Zagreb – 10010, Croatia	Yes
Qualiphyt	80 Chemin de Riboulain, 26270 Loriol Sur Drome, France	Yes
SAGEA Centro di Saggio s.r.l.	Via San Sudario, 15 12050 Castagnito d'Alba (CN), Italy	Yes
Staphyt Belgium	Rue Laid Burnait, 1348 Loivain-La-Neuve, Belgium	Yes
Staphyt Poland	Ziębicka 2, Poznań-60-164	Yes
VKST field trials	Fulbyvej 15 DK-4180 Sorø, Denmark	Yes
Agricultural Research Institute Kromeriz (Zemědělský výzkumný ústav Kromeriz, s. r. o.)	Havlíčková 2787/121 Kroměříž-767 01, Czech Republic	Yes
Zkusebni stanice Kluky	Boys 201 Boys at Písek-398 19, Czech Republic	Yes
ZKUSEBNI STANICE TRUTNOV s.r.o.	Volanovska 409, Trutnov-541 01, Czech Republic	Yes
Syntech Research Portugal	Rua António Oliveira, 21 Lote 16B – Armazém L	Yes



Test facility	Address	Certificate (Yes or No)
	Zona Industrial das Caldas da Rainha 2500-916 Caldas da Rainha Leiria - Portugal	
UP Poznań - Poznań University of Life Sciences, Research and Education Center Gorzyń, Agronomy Department	Wojska Polskiego 28, 60-637 Poznań, Poland	Yes
Agritec vyzkum slechtění a služby s.r.o. (AGRITEC Research, Breeding and Services, Ltd.)	Zemelska 2520/16 Sumperk-787 01, Czech Republic	Yes
Agro Research Consulting	ul. Nadburzańska 32 99-400 Łowicz, Poland	Yes
Biochem agrar	Kupferstraße 6, 04827 Machern OT Gerichshain, Germany	Yes
CPRP	Török Ignác u. 30, Szombathely, Hungary	Yes
Estonian Crop Research Institute	J. Aamisepa 1, Jõgeva 48309 Jõgeva maakond (EE)	Yes
Field Research Support (PL)	Ul Dworcowa 2, Kościan-64-000, Poland	Yes
Latvian Plant Protection Research Centre (LAAPC)	Struktoru 14a, Rīga, LV 1039, Latvia	Yes
Plant-Art Research Kft.	Ébner György köz 4, 2040 Budaörs, Hungary	Yes
Vertify / Proeftuin Zwaagdijk	1681 ND Zwaagdijk-Oost, the Netherlands	Yes
Staphyt Poland	Ziębicka 2, Poznań-60-164	Yes
SynTech Research Poland Sp. z o.o.	ul. Jagiellonska 69/1, 85-027 Bydgoszcz, Poland	Yes
FieldArm Limited	Willowfields, The Street, Ramsey, Essex, CO12 5HL, UK	Yes
Institute of Agriculture, LAMMC	Lithuania Instituto al. 1, Akademija LT 58344 Kėdainiai distr., Lithuania	Yes
Oxford Agricultural Trials Ltd.	West Farm Barn, Launton Rd, Stratton Audley, Bicester OX27 9AS, UK	Yes
Qualiphyt	80 Chemin de Riboulin, 26270 Lorient Sur Drome, France	Yes
Sagea OOD	Ul. Kasta 22, S. Stargel, 2135 - Bulgaria	Yes
Staphyt Germany	Langenburger Str. 35 74572 Blafielden, Germany	Yes
HS Skåne HUSEC	Borgeby Slottsväg 11 SE-237 91 Bjärred, Sweden	Yes
BIOTEK Francor Agriculture S.R.L.	Str Oituz 28/B, 310038 Arad, Romania	Yes
OSEVA PRO Zubří	Hamerská 698 756 54 Zubří, Czech Republic	Yes
Green & Property	ul. Na Stoku, nr 6/6, 26-600 Radom, Poland	Yes
AGROLIS CONSULTING	Rua Ana De Macedo – Lote BS1 – Loja D – 2000-019 Santarem - Portugal	Yes
Syntech Research Agrico SRL	Str. Marcus Aurelius Nr. 6. Arad, Jud. ARAD, Romania, 310209	Yes
Staphyt Greece	Industrial Area of Thermi, Thessalonikis - Polygrou Road, Triadi 570 01, Greece	Yes
Staphyt Bulgaria	Stopanski dvor, 9307 Dobrich, Bulgaria	Yes
Crop Research Limited	Mountdoyle, Moynalvey, Summerhill co. Meath, Ireland, a83y188	Yes
SIA Agrolab Baltic	Rīga, Elizabetes iela 45/47, Latvia	Yes
MAGMA-AGRO S.A.	Leof. Kifisias 256, Chalandri 152 31, Greece	Yes
EAS Austria	Rudolfstrasse 21. A 8010. Graz Austria	Yes
SGS Ireland Ltd	Hazel House, Millennium Park, Naas, Co. Kildare, W91 PXP3, Ireland	Yes
Agrofil-SZMI Kft.	Püski, Petőfi u. 7, 9235 Hungary	Yes
EUROFINS AGROSCIENCE SERVICES	Szántó Kovács János u.113	Yes

## 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 6.2-01	T. McCabe	2021	Efficacy of triazoles in cereals FE-21-B-GLOB2020F-2111F-IE01 Crop Research Limited GEP Unpublished	N	Globachem NV
KCP 6.2-03	S. CAMUÑEZ	2021	Efficacy of triazoles in cereals. Version 2 FE-21-B-GLOB2020F-2111F-PL03 STAPHYT GEP Unpublished	N	Globachem NV
KCP 6.2-04	S. Drzewiecki	2021	Efficacy of triazoles in cereals FE-21-B-GLOB2020F-2111F-PL04 Institute of Plant Protection - National Research Institute GEP Unpublished	N	Globachem NV
KCP 6.2-05	P. Umiński	2022	Efficacy of fungicides in cereals FE-22-L-GLOB2020F-GLOB2111F-PL01 Field Research Support GEP Unpublished	N	Globachem NV
KCP 6.2-06	S. CAMUÑEZ	2022	Efficacy of fungicides in cereals. Version 1 FE-22-L-GLOB2020F-GLOB2111F-PL02 STAPHYT GEP Unpublished	N	Globachem NV
KCP 6.2-07	A. Szymura	2022	Efficacy of fungicides in cereals FE-22-L-GLOB2020F-GLOB2111F-PL03 Institute of Plant Protection - National Research Institute GEP	N	Globachem NV

Data point	Author(s)	Year	<b>Title</b> <b>Company Report No.</b> <b>Source (where different from company)</b> <b>GLP or GEP status</b> <b>Published or not</b>	Vertebrate study Y/N	Owner
			Unpublished		
KCP 6.2-08	Z. Sawinska	2022	Efficacy of fungicides in cereals FE-22-L-GLOB2020F-GLOB2111F-PL04 University of Life Sciences ZDD Gorzyń GEP Unpublished	N	Globachem NV
KCP 6.2-09	M. Koppel	2022	Efficacy of fungicides in cereals FE-22-M-GLOB2020F-GLOB2111F-EE01 Estonian Crop Research Institute GEP Unpublished	N	Globachem NV
KCP 6.2-10	A. Zaluma	2022	Efficacy of fungicides in cereals FE-22-M-GLOB2020F-GLOB2111F-LV02 SIA Agrolab Baltic GEP Unpublished	N	Globachem NV
KCP 6.2-11	K. Gulbis	2022	Efficacy of fungicides in cereals FE-22-M-GLOB2020F-GLOB2111F-LV03 LAAPC GEP Unpublished	N	Globachem NV
KCP 6.2-12	K. Gulbis	2022	Efficacy of fungicides in cereals FE-22-M-GLOB2020F-GLOB2111F-LV04 LAAPC GEP Unpublished	N	Globachem NV
KCP 6.2-13	K. Gulbis	2022	Efficacy of fungicides in cereals FE-22-M-GLOB2020F-GLOB2111F-LV05 LAAPC GEP Unpublished	N	Globachem NV
KCP 6.2-14	A. Zaluma	2022	Efficacy of fungicides in cereals FE-22-M-GLOB2020F-GLOB2111F-LV06 SIA Agrolab Baltic GEP Unpublished	N	Globachem NV

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 6.2-15	J. Sanders	2021	Efficacy of triazoles in cereals FE-21-B-GLOB2020F-2111F-PT05 Syntech Research Portugal GEP Unpublished	N	Globachem NV
KCP 6.2-16	H. Zagi	2022	Efficacy of fungicides in cereals FE-22-S-GLOB2020F-GLOB2111F-HR02 Pest Pro d.o.o. GEP Unpublished	N	Globachem NV
KCP 6.2-17	M. Savvidis	2022	Efficacy of fungicides in cereals FE-22-T-GLOB2020F-GLOB2111F-GR01 Agri 2000 Hellas Ltd. GEP Unpublished	N	Globachem NV
KCP 6.2-18	H. Zagi	2022	Efficacy of fungicides in cereals FE-22-T-GLOB2020F-GLOB2111F-HR02 Pest Pro d.o.o. GEP Unpublished	N	Globachem NV
KCP 6.2-19	H. Zagi	2022	Efficacy of fungicides in cereals FE-22-T-GLOB2020F-GLOB2111F-HR03 Pest Pro d.o.o. GEP Unpublished	N	Globachem NV
KCP 6.2-20	S. LOPEZ ALVAREZ	2022	Efficacy of fungicides in cereals FE-22-T-GLOB2020F-GLOB2111F-PT05 Syntech Research Portugal GEP Unpublished	N	Globachem NV
KCP 6.2-21	M. Chourdas	2022	Efficacy of fungicides in cereals. FE-22-S-GLOB2020F-GLOB2111F-GR01 MAGMA-AGRO S.A. GEP Unpublished	N	Globachem NV
KCP 6.2-22	M. Savvidis	2022	Efficacy of fungicides in cereals	N	

Data point	Author(s)	Year	<b>Title</b> <b>Company Report No.</b> <b>Source (where different from company)</b> <b>GLP or GEP status</b> <b>Published or not</b>	Vertebrate study Y/N	Owner
			FE-22-S-GLOB2020F-GLOB2111F-GR03 Agri 2000 Hellas Ltd. GEP Unpublished		
KCP 6.2-23	M. Savvidis	2022	Efficacy of fungicides in cereals FE-22-T-GLOB2020F-GLOB2111F-GR04 Agri 2000 Hellas Ltd. GEP Unpublished	N	Globachem NV
KCP 6.2-24	M. Holaschke	2022	Efficacy of fungicides in cereals FE-22-K-GLOB2020F-GLOB2111F-SI01 EAS Austria GEP Unpublished	N	Globachem NV
KCP 6.2-25	M. Holaschke	2022	Efficacy of fungicides in cereals FE-22-K-GLOB2020F-GLOB2111F-SI03 EAS Austria GEP Unpublished	N	Globachem NV
KCP 6.2-26	T. Barasits	2022	Efficacy of fungicides in cereals FE-22-N-GLOB2020F-GLOB2111F-HU02 CPR Europe Kft. GEP Unpublished	N	Globachem NV
KCP 6.2-27	B. LANG	2022	Efficacy of fungicides in cereals FE-22-N-GLOB2020F-GLOB2111F-HU01 Plant-Art Research Kft. GEP Unpublished	N	Globachem NV
KCP 6.2-28	K. Hill	2021	Efficacy of fungicides in cereals FE-21-C-GLOB2020F-2111F-IE02 EAS Ireland GEP Unpublished	N	Globachem NV
KCP 6.2-29	T. McCabe	2021	Efficacy of fungicides in cereals - Winter Barley FE-21-C-GLOB2020F-2111F-IE03	N	Globachem NV

Data point	Author(s)	Year	<b>Title</b> <b>Company Report No.</b> <b>Source (where different from company)</b> <b>GLP or GEP status</b> <b>Published or not</b>	Vertebrate study Y/N	Owner
			Crop Research Limited GEP Unpublished		
KCP 6.2-30	M. Lenane	2021	Efficacy of fungicides in cereals FE-21-A-GLOB2020F-2111F-IE03 SGS Ireland ltd GEP Unpublished	N	Globachem NV
KCP 6.2-31	T. McCabe	2021	Efficacy of fungicides in cereals - Winter Wheat FE-21-A-GLOB2020F-2111F-IE04 Crop Research Limited GEP Unpublished	N	Globachem NV
KCP 6.2-32	A. Ficke	2022	Efficacy of fungicides in cereals FE-22-F-GLOB2020F-GLOB2111F-NO02 NIBIO GEP Unpublished	N	Globachem NV
KCP 6.2-34	M. Koppel	2022	Efficacy of fungicides in cereals FE-22-U-GLOB2020F-GLOB2111F-EE01 Estonian Crop Research Institute GEP Unpublished	N	Globachem NV
KCP 6.2-35	K. Gulbis	2022	Efficacy of fungicides in cereals FE-22-U-GLOB2020F-GLOB2111F-LV02 LAAPC GEP Unpublished	N	Globachem NV
KCP 6.2-36	P. Umiński	2022	Efficacy of fungicides in cereals FE-22-U-GLOB2020F-GLOB2111F-PL03 Field Research Support GEP Unpublished	N	Globachem NV
KCP 6.2-37	G. Piotrowski	2022	Efficacy of fungicides in cereals FE-22-U-GLOB2020F-GLOB2111F-PL04 SynTech Research Poland Sp.z.o.o.	N	Globachem NV

Data point	Author(s)	Year	<b>Title</b> <b>Company Report No.</b> <b>Source (where different from company)</b> <b>GLP or GEP status</b> <b>Published or not</b>	Vertebrate study Y/N	Owner
			GEP Unpublished		
KCP 6.2-38	K. Gulbis	2021	Efficacy of fungicides in cereals FE-21-C-GLOB2020F-2111F-LV04 Latvian Plant Protection Research Centre Ltd GEP Unpublished	N	Globachem NV
KCP 6.2-39	S. CAMUÑEZ	2021	Efficacy of fungicides in cereals. Version 2 FE-21-C-GLOB2020F-2111F-PL05 STAPHYT GEP Unpublished	N	Globachem NV
KCP 6.2-40	S. Drzewiecki	2021	Efficacy of fungicides in cereals FE-21-C-GLOB2020F-2111F-PL06 Institute of Plant Protection - National Research Institute GEP Unpublished	N	Globachem NV
KCP 6.2-41	K. Gulbis	2022	Efficacy of fungicides in cereals FE-22-C-GLOB2020F-GLOB2111F-LV01 LAAPC GEP Unpublished	N	Globachem NV
KCP 6.2-42	P. Umiński	2022	Efficacy of fungicides in cereals FE-22-C-GLOB2020F-GLOB2111F-PL02 Field Research Support GEP Unpublished	N	Globachem NV
KCP 6.2-43	K. Gulbis	2022	Efficacy of fungicides in cereals FE-22-D-GLOB2020F-GLOB2111F-LV01 LAAPC GEP Unpublished	N	Globachem NV
KCP 6.2-44	S. CAMUÑEZ	2022	Efficacy of fungicides in cereals. Version 1 FE-22-D-GLOB2020F-GLOB2111F-PL02 STAPHYT GEP	N	Globachem NV

Data point	Author(s)	Year	<b>Title</b> <b>Company Report No.</b> <b>Source (where different from company)</b> <b>GLP or GEP status</b> <b>Published or not</b>	Vertebrate study Y/N	Owner
			Unpublished		
KCP 6.2-45	K. Gulbis	2021	Efficacy of fungicides in cereals FE-21-A-GLOB2020F-2111F-LV05 Latvian Plant Protection Research Centre Ltd GEP Unpublished	N	Globachem NV
KCP 6.2-46	P. Umiński	2021	Efficacy of fungicides in cereals FE-21-A-GLOB2020F-2111F-PL06 Field Research Support GEP Unpublished	N	Globachem NV
KCP 6.2-47	S. CAMUÑEZ	2021	Efficacy of fungicides in cereals. Version 2 FE-21-A-GLOB2020F-2111F-PL07 STAPHYT GEP Unpublished	N	Globachem NV
KCP 6.2-48	P. Umiński	2022	Efficacy of fungicides in cereals FE-22-H-GLOB2020F-GLOB2111F-PL01 Field Research Support GEP Unpublished	N	Globachem NV
KCP 6.2-49	M. Koppel	2022	Efficacy of fungicides in cereals FE-22-I-GLOB2020F-GLOB2111F-EE01 Estonian Crop Research Institute GEP Unpublished	N	Globachem NV
KCP 6.2-50	M. Koppel	2022	Efficacy of fungicides in cereals FE-22-I-GLOB2020F-GLOB2111F-EE02 Estonian Crop Research Institute GEP Unpublished	N	Globachem NV
KCP 6.2-51	K. Gulbis	2022	Efficacy of fungicides in cereals FE-22-I-GLOB2020F-GLOB2111F-LV03 LAAPC GEP Unpublished	N	Globachem NV



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KCP 6.2-52	K. Gulbis	2022	Efficacy of fungicides in cereals FE-22-I-GLOB2020F-GLOB2111F-LV04 LAAPC GEP Unpublished	N	Globachem NV
KCP 6.2-53	H. Zagi	2022	Efficacy of fungicides in cereals. FE-22-P-GLOB2020F-GLOB2111F-HR02 Pest Pro d.o.o. GEP Unpublished	N	Globachem NV
KCP 6.2-55	M. Holaschke	2022	Efficacy of fungicides in cereals. FE-22-P-GLOB2020F-GLOB2111F-SI01 EAS Austria GEP Unpublished	N	Globachem NV
KCP 6.2-56	H. Zagi	2022	Efficacy of fungicides in cereals. FE-22-R-GLOB2020F-GLOB2111F-HR02 Pest Pro d.o.o. GEP Unpublished	N	Globachem NV
KCP 6.2-57	H. Zagi	2022	Efficacy of fungicides in cereals. FE-22-R-GLOB2020F-GLOB2111F-HR03 Pest Pro d.o.o. GEP Unpublished	N	Globachem NV
KCP 6.2-58	L. FIGUERA	2022	Efficacy of fungicides in cereals. FE-22-R-GLOB2020F-GLOB2111F-PT04 AGROLIS CONSULTING GEP Unpublished	N	Globachem NV
KCP 6.2-59	S. LOPEZ ALVAREZ	2022	Efficacy of fungicides in cereals. FE-22-R-GLOB2020F-GLOB2111F-PT05 Syntech Research Portugal GEP Unpublished	N	Globachem NV
KCP 6.2-60	M. Holaschke	2022	Efficacy of fungicides in cereals.	N	

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			FE-22-R-GLOB2020F-GLOB2111F-SI01 EAS Austria GEP Unpublished		
KCP 6.2-61	M. Chourdas	2021	Efficacy evaluation of the fungicides GLOB1911F, GLOB1813F, GLOB2020aF and GLOB2111F in winter wheat. FE-21-A-GLOB2020F-2111F-GR08 MAGMA-AGRO S.A. GEP Unpublished	N	Globachem NV
KCP 6.2-62	H. Zagi	2021	Efficacy of fungicides in cereals FE-21-A-GLOB2020F-2111F-HR01 Pest Pro d.o.o. GEP Unpublished	N	Globachem NV
KCP 6.2-63	H. Zagi	2022	Efficacy of fungicides in cereals FE-22-O-GLOB2020F-GLOB2111F-HR02 Pest Pro d.o.o. GEP Unpublished	N	Globachem NV
KCP 6.2-64	M. Savvidis	2022	Efficacy of fungicides in cereals FE-22-Q-GLOB2020F-GLOB2111F-GR04 Agri 2000 Hellas Ltd. GEP Unpublished	N	Globachem NV
KCP 6.2-65	H. Zagi	2022	Efficacy of fungicides in cereals FE-22-Q-GLOB2020F-GLOB2111F-HR02 Pest Pro d.o.o. GEP Unpublished	N	Globachem NV
KCP 6.2-66	H. Zagi	2022	Efficacy of fungicides in cereals FE-22-Q-GLOB2020F-GLOB2111F-HR03 Pest Pro d.o.o. GEP Unpublished	N	Globachem NV
KCP 6.2-67	S. LOPEZ ALVAREZ	2022	Efficacy of fungicides in cereals	N	

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			FE-22-Q-GLOB2020G-GLOB2111F-PT05 Syntech Research Portugal GEP Unpublished		
KCP 6.2-68	M. Chourdas	2022	Efficacy of fungicides in cereals. FE-22-O-GLOB2020F-GLOB2111F-GR01 MAGMA-AGRO S.A. GEP Unpublished	N	Globachem NV
KCP 6.2-69	M. Savvidis	2022	Efficacy of fungicides in cereals FE-22-O-GLOB2020F-GLOB2111F-GR03 Agri 2000 Hellas Ltd. GEP Unpublished	N	Globachem NV
KCP 6.2-70	M. Savvidis	2022	Efficacy of fungicides in cereals FE-22-Q-GLOB2020F-GLOB2111F-GR01 Agri 2000 Hellas Ltd. GEP Unpublished	N	Globachem NV
KCP 6.2-71	B. LANG	2021	Efficacy of fungicides in cereals FE-21-C-GLOB2020F-2111F-HU01 Plant-Art Research Kft. GEP Unpublished	N	Globachem NV
KCP 6.2-72	B. LANG	2022	Efficacy of fungicides in cereals FE-22-E-GLOB2020F-GLOB2111F-HU01 Plant-Art Research Kft. GEP Unpublished	N	Globachem NV
KCP 6.2-73	T. Barasits	2022	Efficacy of fungicides in cereals FE-22-E-GLOB2020F-GLOB2111F-HU02 CPR Europe Kft. GEP Unpublished	N	Globachem NV
KCP 6.2-74	B. LANG	2021	Efficacy of fungicides in cereals FE-21-A-GLOB2020F-2111F-HU02	N	Globachem NV

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			Plant-Art Research Kft. GEP Unpublished		
KCP 6.2-75	M. Holaschke	2022	Efficacy of fungicides in cereals FE-22-F-GLOB2020F-GLOB2111F-SI01 EAS Austria GEP Unpublished	N	Globachem NV
KCP 6.2-76	L. Mihály	2022	Efficacy of fungicides in cereals FE-22-J-GLOB2020F-GLOB2111F-HU01 Agrofil-SZMI Kft. GEP Unpublished	N	Globachem NV
KCP 6.2-77	P. Sipos	2022	Efficacy of fungicides in cereals FE-22-J-GLOB2020F-GLOB2111F-HU02 EUROFINS AGROSCIENCE SERVICES GEP Unpublished	N	Globachem NV
KCP 6.2-101	L. Tvaruzek	2023	Efficacy of fungicides in cereals. FE-23-T-GLOB2020F-2111F-2021F-CZ01 Agricultural research institut Kromeriz, Ltd. GEP Unpublished	N	Globachem NV
KCP 6.2-103	L. Jorgensen	2023	Efficacy of fungicides in cereals. FE-23-B-GLOB2020F-2111F-2021F-DK01 Institute of Agroecology, Aarhus University GEP Unpublished	N	Globachem NV
KCP 6.2-104	L. Møller	2023	Efficacy of fungicides in cereals. FE-23-A-GLOB2020F-2111F-2021F-DK01 VKST Field Trials GEP Unpublished	N	Globachem NV
KCP 6.2-105	L. Ewaldz	2023	Efficacy of fungicides in cereals. FE-23-A-GLOB2020F-2111F-2021F-SE02 Hushållningssällskapet Skåne	N	Globachem NV

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			GEP Unpublished		
KCP 6.2-106	L. Møller	2023	Efficacy of fungicides in cereals. FE-23-B-GLOB2020F-2111F-2021F-DK02 VKST Field Trials GEP Unpublished	N	Globachem NV
KCP 6.2-107	L. Tvaruzek	2023	Efficacy of fungicides in cereals. FE-23-D-GLOB2020F-2111F-2021F-CZ01 Agricultural research ins GEP Unpublished	N	Globachem NV
KCP 6.2-108	L. Frydrych	2023	Efficacy of fungicides in cereals. FE-23-D-GLOB2020F-2111F-2021F-CZ02 OSEVA PRO Zubří GEP Unpublished	N	Globachem NV
KCP 6.2-109	L. Mareckova	2023	Efficacy of fungicides in cereals. FE-23-D-GLOB2020F-2111F-2021F-CZ03 Testing station Krasne Udoli GEP Unpublished	N	Globachem NV
KCP 6.2-110	L. Bernardová	2023	Efficacy of fungicides in cereals. FE-23-D-GLOB2020F-2111F-2021F-CZ04 Zkusebni stanice Kluky GEP Unpublished	N	Globachem NV
KCP 6.2-111	L. Trnka	2023	Efficacy of fungicides in cereals. FE-23-D-GLOB2020F-2111F-2021F-CZ05 Zemservis zkusebni stanice Domaninek s.r.o. GEP Unpublished	N	Globachem NV
KCP 6.2-112	L. Bauer	2023	Efficacy of fungicides in cereals. FE-23-D-GLOB2020F-2111F-2021F-CZ06 InTec Agro Trials, s.r.o. GEP	N	Globachem NV

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			Unpublished		
KCP 6.2-113	L. Tvaruzek	2023	Efficacy of fungicides in cereals. FE-23-R-GLOB2020F-2111F-2021F-CZ02 Agricultural research institut Kromeriz, Ltd. GEP Unpublished	N	Globachem NV
KCP 6.2-114	L. Safar	2023	Efficacy of fungicides in cereals. FE-23-R-GLOB2020F-2111F-2021F-CZ03 AGRITEC Research, Breeding and Services, Ltd. GEP Unpublished	N	Globachem NV
KCP 6.2-115	L. Trnka	2023	Efficacy of fungicides in cereals. FE-23-R-GLOB2020F-2111F-2021F-CZ04 Zemservis zkusebni stanice Domaninek s.r.o. GEP Unpublished	N	Globachem NV
KCP 6.2-116	L. Fiala	2023	Efficacy of fungicides in cereals. FE-23-R-GLOB2020F-2111F-2021F-CZ01 Zkušební stanice Kluky spol. s r.o. GEP Unpublished	N	Globachem NV
KCP 6.2-117	L. Krupa	2023	Efficacy of fungicides in cereals. FE-23-H-GLOB2020F-2111F-2021F-DK02 Ytteborg Field Trials GEP Unpublished	N	Globachem NV
KCP 6.2-119	L. Tvaruzek	2023	Efficacy of fungicides in cereals. FE-23-A-GLOB1811F-2021F-BXN-CZ02 Agricultural research ins GEP Unpublished	N	Globachem NV
KCP 6.2-121	L. Møller	2023	Efficacy of fungicides in cereals. FE-23-H-GLOB2020F-2111F-2021F-DK01 VKST Field Trials GEP Unpublished	N	Globachem NV

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 6.2-124	L. Tvaruzek	2023	Efficacy of fungicides in cereals. FE-23-I-GLOB2020F-2111F-2021F-CZ01 Agricultural research institut Kromeriz, Ltd. GEP Unpublished	N	Globachem NV
KCP 6.2-125	L. Fiala	2023	Efficacy of fungicides in cereals. FE-23-I-GLOB2020F-2111F-2021F-CZ02 Zkušební stanice Kluky spol. s r.o. GEP Unpublished	N	Globachem NV
KCP 6.2-126	L. Mareckova	2023	Efficacy of fungicides in cereals. FE-23-I-GLOB2020F-2111F-2021F-CZ03_ Testing station Krasne Udoli GEP Unpublished	N	Globachem NV
KCP 6.2-127	L. Trnka	2023	Efficacy of fungicides in cereals. FE-23-I-GLOB2020F-2111F-2021F-CZ04 Zemservis zkusebni stanice Domaninek s.r.o. GEP Unpublished	N	Globachem NV
KCP 6.2-128	L. Safar	2023	Efficacy of fungicides in cereals. FE-23-I-GLOB2020F-2111F-2021F-CZ05 AGRITEC Research, Breeding and Services, Ltd. GEP Unpublished	N	Globachem NV
KCP 6.2-130	L. Ewaldz	2023	Efficacy of fungicides in cereals. FE-23-N-GLOB2020F-2111F-2021F-SE02 HS Konsult AB GEP Unpublished	N	Globachem NV
KCP 6.2-131	L. Vaitiekienė	2023	Efficacy of fungicides in cereals. FE-23-N-GLOB2020F-2111F-2021F-SE05 Agrolab Sverige AB GEP Unpublished	N	Globachem NV
KCP 6.2-132	L. Tvaruzek	2023	Efficacy of fungicides in cereals.	N	

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			FE-23-O-GLOB2020F-2111F-2021F-CZ01 Agricultural research institut Kromeriz, Ltd. GEP Unpublished		
KCP 6.2-133	L. Fiala	2023	Efficacy of fungicides in cereals. FE-23-O-GLOB2020F-2111F-2021F-CZ02 Zkušební stanice Kluky spol. s r.o. GEP Unpublished	N	Globachem NV
KCP 6.2-134	L. Subr	2023	Efficacy of fungicides in cereals. FE-23-O-GLOB2020F-2111F-2021F-CZ03 Zkusebni stanice Trutnov s.r.o. GEP Unpublished	N	Globachem NV
KCP 6.2-135	L. Bauer	2023	Efficacy of fungicides in cereals. FE-23-O-GLOB2020F-2111F-2021F-CZ04 InTec Agro Trials, s.r.o. GEP Unpublished	N	Globachem NV
KCP 6.2-136	L. Tvaruzek	2023	Efficacy of fungicides in cereals. FE-23-S-GLOB2020F-2111F-2021F-CZ01 Agricultural research institut Kromeriz, Ltd. GEP Unpublished	N	Globachem NV
KCP 6.2-137	L. Safar	2023	Efficacy of fungicides in cereals. FE-23-S-GLOB2020F-2111F-2021F-CZ02 AGRITEC Research, Breeding and Services, Ltd. GEP Unpublished	N	Globachem NV
KCP 6.2-138	L. Tvaruzek	2023	Efficacy of fungicides in cereals. FE-23-M-GLOB2020F-2111F-2021F-CZ01 Agricultural research institut Kromeriz, Ltd. GEP Unpublished	N	Globachem NV
KCP 6.2-139	L. Safar	2023	Efficacy of fungicides in cereals. FE-23-M-GLOB2020F-2111F-2021F-CZ02	N	Globachem NV



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			AGRITEC Research, Breeding and Services, Ltd. GEP Unpublished		
KCP 6.2-140	L. Frydrych	2023	Efficacy of fungicides in cereals. FE-23-M-GLOB2020F-2111F-2021F-CZ03 OSEVA PRO Zubří GEP Unpublished	N	Globachem NV
KCP 6.2-141	L. Trnka	2023	Efficacy of fungicides in cereals. FE-23-M-GLOB2020F-2111F-2021F-CZ04 Zemservis zkusebni stanice Domaninek s.r.o. GEP Unpublished	N	Globachem NV
KCP 6.2-143	L. Gulbis	2023	Efficacy of fungicides in cereals. FE-23-T-GLOB2020F-2111F-2021F-LV04 Latvian Plant Protection Research Centre GEP Unpublished	N	Globachem NV
KCP 6.2-144	L. Gulbis	2023	Efficacy of fungicides in cereals. FE-23-T-GLOB2020F-2111F-2021F-LV05 Latvian Plant Protection Research Centre GEP Unpublished	N	Globachem NV
KCP 6.2-145	L. Strzeliński	2023	Efficacy of fungicides in cereals. FE-23-T-GLOB2020F-2111F-2021F-PL06 UP Poznań ZDD URiR Gorzyń GEP Unpublished	N	Globachem NV
KCP 6.2-146	L. Drzewiecki	2023	Efficacy of fungicides in cereals. FE-23-C-GLOB2020F-2111F-2021F-PL02 Institute of Plant Protection - National Research Institute GEP Unpublished	N	Globachem NV
KCP 6.2-147	L. Piotrowski	2023	Efficacy of fungicides in cereals. FE-23-C-GLOB2020F-2111F-2021F-PL03 SynTech Research Poland Sp. z o.o.	N	Globachem NV

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			GEP Unpublished		
KCP 6.2-148	L. Umiński	2023	Efficacy of fungicides in cereals. FE-23-C-GLOB2020F-2111F-2021F-PL01 Field Research Support GEP Unpublished	N	Globachem NV
KCP 6.2-149	L. Koppel	2023	Efficacy of fungicides in cereals. FE-23-E-GLOB2020F-2111F-2021F-EE01 Centre of Estonian Rural Research and Knowledge GEP Unpublished	N	Globachem NV
KCP 6.2-150	L. Gulbis	2023	Efficacy of fungicides in cereals. FE-23-E-GLOB2020F-2111F-2021F-LV02 Latvian Plant Protection Research Centre GEP Unpublished	N	Globachem NV
KCP 6.2-151	L. Gulbis	2023	Efficacy of fungicides in cereals. FE-23-R-GLOB2020F-2111F-2021F-LV05 Latvian Plant Protection Research Centre GEP Unpublished	N	Globachem NV
KCP 6.2-152	L. Umiński	2023	Efficacy of fungicides in cereals. FE-23-R-GLOB2020F-2111F-2021F-PL06 Field Research Support GEP Unpublished	N	Globachem NV
KCP 6.2-153	L. Drzewiecki	2023	Efficacy of fungicides in cereals. FE-23-R-GLOB2020F-2111F-2021F-PL07 Institute of Plant Protection - National Research Institute GEP Unpublished	N	Globachem NV
KCP 6.2-154	L. Treikale	2023	Efficacy of fungicides in cereals. FE-23-B-GLOB1811F-2021F-BXN-LV01  GEP	0 N	Globachem NV

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			Unpublished		
KCP 6.2-155	L. Umiński	2023	Efficacy of fungicides in cereals. FE-23-B-GLOB1811F-2021F-BXN-PL02 Field Research Support GEP Unpublished	N	Globachem NV
KCP 6.2-156	L. Gulbis	2023	Efficacy of fungicides in cereals. FE-23-I-GLOB2020F-2111F-2021F-LV07 Latvian Plant Protection Research Centre GEP Unpublished	N	Globachem NV
KCP 6.2-157	L. Umiński	2023	Efficacy of fungicides in cereals. FE-23-J-GLOB2020F-2111F-2021F-PL01 Field Research Support GEP Unpublished	N	Globachem NV
KCP 6.2-158	L. Rembisz	2023	Efficacy of fungicides in cereals. FE-23-J-GLOB2020F-2111F-2021F-PL02 Green & Property GEP Unpublished	N	Globachem NV
KCP 6.2-159	L. Koppel	2023	Efficacy of fungicides in cereals. FE-23-N-GLOB2020F-2111F-2021F-EE03 Centre of Estonian Rural Research and Knowledge GEP Unpublished	N	Globachem NV
KCP 6.2-160	L. Gulbis	2023	Efficacy of fungicides in cereals. FE-23-N-GLOB2020F-2111F-2021F-LV04 Latvian Plant Protection Research Centre GEP Unpublished	N	Globachem NV
KCP 6.2-161	L. Umiński	2023	Efficacy of fungicides in cereals. FE-23-P-GLOB2020F-2111F-2021F-PL01 Field Research Support GEP Unpublished	N	Globachem NV

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KCP 6.2-162	L. Drzewiecki	2023	Efficacy of fungicides in cereals. FE-23-P-GLOB2020F-2111F-2021F-PL02 Institute of Plant Protection - National Research Institute GEP Unpublished	N	Globachem NV
KCP 6.2-163	L. Szemendera	2023	Efficacy of fungicides in cereals. FE-23-M-GLOB2020F-2111F-2021F-PL08 Fertico GEP Unpublished	N	Globachem NV
KCP 6.2-164	L. Koppel	2023	Efficacy of fungicides in cereals. FE-23-M-GLOB2020F-2111F-2021F-EE05 Centre of Estonian Rural Research and Knowledge GEP Unpublished	N	Globachem NV
KCP 6.2-165	L. Gulbis	2023	Efficacy of fungicides in cereals. FE-23-M-GLOB2020F-2111F-2021F-LV06 Latvian Plant Protection Research Centre GEP Unpublished	N	Globachem NV
KCP 6.2-166	L. Strzeliński	2023	Efficacy of fungicides in cereals. FE-23-M-GLOB2020F-2111F-2021F-PL07 UP Poznań ZDD URiR Gorzyń GEP Unpublished	N	Globachem NV
KCP 6.2-167	L. Szemendera	2023	Efficacy of fungicides in cereals. FE-23-P-GLOB2020F-2111F-2021F-PL03P Fertico GEP Unpublished	N	Globachem NV
KCP 6.2-168	L. Savvidis	2023	Efficacy of fungicides in cereals. FE-23-F-GLOB2020F-2111F-2021F-GR03 Agri 2000 Hellas Ltd. GEP Unpublished	N	Globachem NV
KCP 6.2-169	L. Savvidis	2023	Efficacy of fungicides in cereals.	N	

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			FE-23-F-GLOB2020F-2111F-2021F-GR04 Agri 2000 Hellas Ltd. GEP Unpublished		
KCP 6.2-170	L. Žagi	2023	Efficacy of fungicides in cereals. FE-23-F-GLOB2020F-2111F-2021F-HR01 Pest Pro doo GEP Unpublished	N	Globachem NV
KCP 6.2-171	L. Žagi	2023	Efficacy of fungicides in cereals. FE-23-F-GLOB2020F-2111F-2021F-HR02 Pest Pro doo GEP Unpublished	N	Globachem NV
KCP 6.2-172	L. Godinho	2023	Efficacy of fungicides in cereals. FE-23-F-GLOB2020F-2111F-2021F-PT05 SAGEA Lda GEP Unpublished	N	Globachem NV
KCP 6.2-173	L. Žagi	2023	Efficacy of fungicides in cereals. FE-23-R-GLOB2020F-2111F-2021F-HR08 Pest Pro doo GEP Unpublished	N	Globachem NV
KCP 6.2-174	L. Godinho	2023	Efficacy of fungicides in cereals. FE-23-C-GLOB1811F-2021F-BXN-PT01 SAGEA Lda GEP Unpublished	N	Globachem NV
KCP 6.2-175	L. Savvidis	2023	Efficacy of fungicides in cereals. FE-23-C-GLOB1811F-2021F-BXN-GR02 Agri 2000 Hellas Ltd. GEP Unpublished	N	Globachem NV
KCP 6.2-176	L. Savvidis	2023	Efficacy of fungicides in cereals. FE-23-L-GLOB2020F-2111F-2021F-GR01	N	Globachem NV

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			Agri 2000 Hellas Ltd. GEP Unpublished		
KCP 6.2-177	L. Godinho	2023	Efficacy of fungicides in cereals. FE-23-L-GLOB2020F-2111F-2021F-PT02 SAGEA Lda GEP Unpublished	N	Globachem NV
KCP 6.2-178	L. Chourdas	2023	Efficacy of fungicides in cereals. FE-23-N-GLOB2020F-2111F-2021F-GR06 MAGMA-AGRO S.A. GEP Unpublished	N	Globachem NV
KCP 6.2-179	L. ALVAREZ Silvia	2023	Efficacy of fungicides in cereals. FE-23-N-GLOB2020F-2111F-2021F-PT07 Syntech Research Portugal GEP Unpublished	N	Globachem NV
KCP 6.2-180	L. Žagi	2023	Efficacy of fungicides in cereals. FE-23-M-GLOB2020F-2111F-2021F-HR09 Pest Pro doo GEP Unpublished	N	Globachem NV
KCP 6.2-181	L. LANG	2023	Efficacy of fungicides in cereals. FE-23-G-GLOB2020F-2111F-2021F-HU01 Plant-Art Research Kft. GEP Unpublished	N	Globachem NV
KCP 6.2-182	L. Sipos	2023	Efficacy of fungicides in cereals. FE-23-G-GLOB2020F-2111F-2021F-HU02 EAS Hungary, Székesfehérvár GEP Unpublished	N	Globachem NV
KCP 6.2-183	L. FERENCZ	2023	Efficacy of fungicides in cereals. FE-23-G-GLOB2020F-2111F-2021F-RO03 Syntech Research Agrico SRL	N	Globachem NV

Data point	Author(s)	Year	<b>Title</b> <b>Company Report No.</b> <b>Source (where different from company)</b> <b>GLP or GEP status</b> <b>Published or not</b>	Vertebrate study Y/N	Owner
			GEP Unpublished		
KCP 6.2-184	L. Ene	2023	Efficacy of fungicides in cereals. FE-23-G-GLOB2020F-2111F-2021F-RO04 Sagea Agromania GEP Unpublished	N	Globachem NV
KCP 6.2-185	L. Holaschke	2023	Efficacy of fungicides in cereals. FE-23-G-GLOB2020F-2111F-2021F-SI05 EAS Austria GEP Unpublished	N	Globachem NV
KCP 6.2-186	L. Sipos	2023	Efficacy of fungicides in cereals. FE-23-D-GLOB1811F-2021F-BXN-HU02 EAS Hungary, Székesfehérvár GEP Unpublished	N	Globachem NV
KCP 6.2-187	L. FERENCZ	2023	Efficacy of fungicides in cereals. FE-23-D-GLOB1811F-2021F-BXN-RO01 Syntech Research Agrico SRL GEP Unpublished	N	Globachem NV
KCP 6.2-188	L. LANG	2023	Efficacy of fungicides in cereals. FE-23-K-GLOB2020F-2111F-2021F-HU01 Plant-Art Research Kft. GEP Unpublished	N	Globachem NV
KCP 6.2-189	L. Mihály	2023	Efficacy of fungicides in cereals. FE-23-K-GLOB2020F-2111F-2021F-HU02 Agrofil-SZMI Kft. GEP Unpublished	N	Globachem NV
KCP 6.2-190	L. Barasits	2023	Efficacy of fungicides in cereals. FE-23-K-GLOB2020F-2111F-2021F-HU04 CPR Europe Kft. GEP	N	Globachem NV

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			Unpublished		
KCP 6.2-191	L. FERENCZ	2023	Efficacy of fungicides in cereals. FE-23-K-GLOB2020F-2111F-2021F-RO03 Syntech Research Agrico GEP Unpublished	N	Globachem NV
KCP 6.2-192	L. Holaschke	2023	Efficacy of fungicides in cereals. FE-23-K-GLOB2020F-2111F-2021F-SI05 EAS Austria GEP Unpublished	N	Globachem NV
KCP 6.2-193	L. Policnik	2023	Efficacy of fungicides in cereals. FE-23-K-GLOB2020F-2111F-2021F-SI06 Slovenian Institute of Hop Research and Brewing GEP Unpublished	N	Globachem NV
KCP 6.2-194	L. Hajnal	2023	Efficacy of fungicides in cereals. FE-23-Q-GLOB2020F-2111F-2021F-HU01 Field Test Hungary Kft. GEP Unpublished	N	Globachem NV
KCP 6.2-195	L. FERENCZ	2023	Efficacy of fungicides in cereals. FE-23-Q-GLOB2020F-2111F-2021F-RO02 Syntech Research Agrico GEP Unpublished	N	Globachem NV
KCP 6.2-196	L. Holaschke	2023	Efficacy of fungicides in cereals. FE-23-Q-GLOB2020F-2111F-2021F-SI03 EAS Austria GEP Unpublished	N	Globachem NV



**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
KCP XX	Author	YYYY	Title Company Report N Source GLP/non GLP/GEP/non GEP Published/Unpublished	Y/N	Owner

The following tables are to be completed by MS

**List of data submitted by the applicant and not relied on**

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

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

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