

**FINAL** REGISTRATION REPORT

**Part B**

**Section 3**

**Efficacy Data and Information**

Concise summary

Product code: CHR/F/PYRA 250 EC

Product name(s): Etiuda 250 EC/ Fermata 250 EC

Chemical active substance:

pyraclostrobin 250 g/L

Central Zone

Zonal Rapporteur Member State: Poland

**CORE ASSESSMENT**

(authorization)

Applicant: Innvigo Sp. z o.o.

Submission date: August 2022

**MS Finalisation date: 15/12/2022**

## Version history

When	What
December 2021	Dossier sent for evaluation
August 2022	Updates based on feedback from zRMS Poland
September 2022	Updates based on feedback from zRMS Poland
September 2022	zRMS evaluation of dRR
December 2022	Final version prepared by zRMS after Commenting period

## Table of Contents

<b>3</b>	<b>Efficacy Data and Information (including Value Data) on the Plant Protection Product (KCP 6) .....</b>	<b>5</b>
3.1	Summary and conclusions of zRMS on Section 3: Efficacy (KCP 6) .....	5
3.2	Efficacy data (KCP 6) .....	10
3.2.1	Preliminary tests (KCP 6.1) .....	17
3.2.2	Minimum effective dose tests (KCP 6.2) .....	18
3.2.3	Efficacy tests (KCP 6.2) .....	18
3.2.3-1.1	The efficacy of CHR/F/PYRA in control of SEPTTR <i>Zymoseptoria tritici</i> .....	29
3.2.3-1.2	The efficacy of CHR/F/PYRA in control of PYRNTR <i>Pyrenophora tritici-repentis</i> .....	29
3.2.3-1.3	The efficacy of CHR/F/PYRA in control of PUCCST/PUCCSI <i>Puccinia striiformis tritici</i> .....	30
3.2.3-1.4	The efficacy of CHR/F/PYRA in control of PUCCRE <i>Puccinia recondita</i> .....	30
3.2.3-1.5	The efficacy of CHR/F/PYRA in control of ERYSGR <i>Blumeria graminis</i> .....	30
3.2.3-1.6	The efficacy of CHR/F/PYRA in control of RHYNSE <i>Rhynchosporium secalis</i> .....	30
3.2.3-1.7	The efficacy of CHR/F/PYRA in control of ERYSGR <i>Blumeria graminis</i> .....	31
3.2.3-1.8	The efficacy of CHR/F/PYRA in control of PUCCST <i>Puccinia striiformis</i> .....	31
3.2.3-1.9	The efficacy of CHR/F/PYRA in control of PYRNTR <i>Pyrenophora tritici-repentis</i> .....	31
3.2.3-1.10	The efficacy of CHR/F/PYRA in control of RHYNSE <i>Rhynchosporium secalis</i> .....	32
3.2.3-1.11	The efficacy of CHR/F/PYRA in control of PUCCRE <i>Puccinia recondita</i> .....	32
3.2.3-1.12	The efficacy of CHR/F/PYRA in control of SEPTTR <i>Zymoseptoria tritici</i> .....	32
3.2.3-1.13	The efficacy of CHR/F/PYRA in control of ERYSGR <i>Blumeria graminis</i> .....	32
3.2.3-1.14	The efficacy of CHR/F/PYRA in control of PYRNTE <i>Pyrenophora teres</i> .....	33
3.2.3-1.15	The efficacy of CHR/F/PYRA in control of ERYSGR <i>Blumeria graminis</i> .....	33
3.2.3-1.16	The efficacy of CHR/F/PYRA in control of RHYNSE <i>Rhynchosporium secalis</i> .....	33
3.2.3-1.17	The efficacy of CHR/F/PYRA in control of PUCCHD <i>Puccinia hordei</i> .....	34

3.3	Information on the occurrence or possible occurrence of the development of resistance (KCP 6.3) .....	44
3.4	Adverse effects on treated crops (KCP 6.4).....	51
3.4.1	Phytotoxicity to host crop (KCP 6.4.1).....	52
3.4.2	Effect on the yield of treated plants or plant product (KCP 6.4.2) .....	59
3.4.3	Effects on the quality of plants or plant products (KCP 6.4.3).....	64
3.4.4	Effects on transformation processes (KCP 6.4.4).....	83
3.4.5	Impact on treated plants or plant products to be used for propagation (KCP 6.4.5)The results should be summarised, in tabular form, if appropriate. ....	83
3.5	Observations on other undesirable or unintended side-effects (KCP 6.5)...	88
3.5.1	Impact on succeeding crops (KCP 6.5.1).....	88
3.5.2	Impact on other plants including adjacent crops (KCP 6.5.2) .....	89
3.5.3	Effects on beneficial and other non-target organisms (KCP 6.5.3) .....	90
3.6	Other/special studies .....	91
3.7	List of test facilities including the corresponding certificates .....	91
<b>Appendix 1</b>	<b>Lists of data considered in support of the evaluation .....</b>	<b>92</b>
<b>Appendix 2</b>	<b>Additional information provided by the applicant.....</b>	<b>109</b>
<b>Appendix 3:</b>	<b>Summary of data on trials site and application details per use .....</b>	<b>121</b>
<b>Appendix 4:</b>	<b>Summary of data on effectiveness trials per use .....</b>	<b>130</b>
<b>Appendix 5:</b>	<b>Summary of detailed data on fungicide effectiveness trials .....</b>	<b>146</b>
<b>Appendix 6:</b>	<b>Summary of phytotoxicity trials data in summary form.....</b>	<b>180</b>
<b>Appendix 7</b>	<b>Summary of available studies: Adverse effects on beneficial organisms. ..</b>	<b>205</b>
<b>Appendix 8:</b>	<b>Summary of data on succeeding crop.....</b>	<b>205</b>

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

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

Comments of zRMS:	Conclusions from the assessment were prepared using grey commenting boxes placed at the end of each chapter. The parts of the text amended or added by the zRMS evaluator are highlighted in grey and the parts struck off are <del>visibly marked with the grey font.</del>
-------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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

##### Abstract

zRMS	
<p>The submitted efficacy data (reports from field trials) fulfil requirements and conditions determined in the EPPO guidelines, the Commission Regulation (EU) No 545/2011 of 10 June 2011 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards the data requirements for plant protection products. The reports and data were submitted to support the evaluation for the authorization CHR/F/PYRA 250 EC.</p> <p>CHR/F/PYRA 250 EC contains 250 g/L of pyraclostrobin as active substance and is formulated as an emulsifiable concentrate (EC). The plant protection product will be used in winter wheat, winter triticale, winter rye, spring barley for the control of a wide range of diseases at a dose rate of 1,0 l/ha with maximum two applications in a season.</p> <p>The applicant submitted 61 reports from trials conducted in different regions of Poland and also trials conducted in the Czech Republic, where cereals are grown commercially. CHR/F/PYRA 250 EC showed similar or higher levels of disease control compared with the reference product.</p>	
winter wheat, at a dose of 1,0 l/ha	ERYSGR (ME) PYRNTR (ME) PUCCRE (E) SEPTTR (E) PUCSST (E)
winter triticale, at a dose of 1,0 l/ha	ERYSGR (E) PYRNTR (E) RHYNSE (ME) PUCSST (E)
winter rye, at a dose of 1,0 l/ha,	ERYSGR (E) PUCCRE (E) RHYNSE (E) SEPTTR (E)
spring barley at a dose of 1,0 l/ha,	PUCCHD (E) PYRNTE (E) ERYSGR (E) RHYNSE (E)
<p>Results from efficacy trials demonstrate that CHR/F/PYRA 250 EC is a good alternative to standard fungicides for the control of several diseases in winter wheat, winter triticale, winter rye, spring barley. It is proposed to maintain the resistance management strategy of CHR/F/PYRA 250 EC recommended by the FRAC.</p> <p>CHR/F/PYRA 250 EC was safe to the crops on which it was applied as no phytotoxicity symptoms were observed in the efficacy tests. The product did not cause any negative impact on the yield of winter wheat, winter triticale, winter rye, spring barley in the presence of diseases. No particular problems are linked to CHR/F/PYRA 250 EC use in succeeding and adjusted crops, when product have been used in</p>	

accordance with the label recommendations.

According to the above, the plant protection product CHR/F/PYRA 250 EC can be approved to use according to the table of intended uses for CHR/F/PYRA 250 EC. The evaluation was carried out in accordance with the Uniform Principles.

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

		GAP rev. , date: 2021-09-02	
PPP product name:	Etiuda 250 EC/ Fermata 250 EC	Formulation type:	EC <sup>(a, b)</sup>
product code:	CHR/F/PYRA		
Active substance 1:	pyraclostrobin	Conc. of as 1:	250 g/L <sup>(c)</sup>
Active substance 2:	-	Conc. of as 2:	- <sup>(c)</sup>
Active substance 3:	-	Conc. of as 3:	-
Safener:	-	Conc. of safener:	- <sup>(c)</sup>
Synergist:	-	Conc. of synergist:	- <sup>(c)</sup>
Applicant:	Innvigo Sp. z o.o.	Professional use:	<input checked="" type="checkbox"/>
Zone(s):	Central <sup>(d)</sup>	Non professional use:	<input type="checkbox"/>
Verified by MS:	no		

Field of use: fungicide

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use- No. <sup>(e)</sup>	Member state(s)	Crop and/ or situation  (crop destina- tion / purpose of crop)	F, Fn, G, Gn, Gpn or I	Pests or Group of pests controlled  (additionally: devel- opmental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks:  e.g. g safen- er/synergist per ha <sup>(f)</sup>	ZRMs Conclusion
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. inter- val between applications (days)	kg or L product / ha a) max. rate per appl. b) max. total rate per crop/season	g or kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha  min / max			

[illegible]



Minor uses according to Article 51 (interzonal uses)														
9														
10														

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

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

**Remarks table heading:**

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

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

**Remarks columns:**

1 Numeration necessary to allow references  
2 Use official codes/nomenclatures of EU Member States  
3 For crops, the EU and Codex classifications (both) should be used; when relevant, the use situation should be described (e.g. fumigation of a structure)  
4 F: professional field use, Fn: non-professional field use, Fpn: professional and non-professional field use, G: professional greenhouse use, Gn: non-professional greenhouse use, Gpn: professional and non-professional greenhouse use, I: indoor application  
5 Scientific names and EPPO-Codes of target pests/diseases/ weeds or, when relevant, the common names of the pest groups (e.g. biting and sucking insects, soil born insects, foliar fungi, weeds) and the developmental stages of the pests and pest groups at the moment of application must be named.  
6 Method, e.g. high volume spraying, low volume spraying, spreading, dusting, drench  
Kind, e.g. overall, broadcast, aerial spraying, row, individual plant, between the plants - type of equipment used must be indicated.

7 Growth stage at first and last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including where relevant, information on season at time of application  
8 The maximum number of application possible under practical conditions of use must be provided.  
9 Minimum interval (in days) between applications of the same product  
10 For specific uses other specifications might be possible, e.g.: g/m<sup>3</sup> in case of fumigation of empty rooms. See also EPPO-Guideline PP 1/239 Dose expression for plant protection products.  
11 The dimension (g, kg) must be clearly specified. (Maximum) dose of a.s. per treatment (usually g, kg or L product / ha).  
12 If water volume range depends on application equipments (e.g. ULVA or LVA) it should be mentioned under "application: method/kind".  
13 PHI - minimum pre-harvest interval  
14 Remarks may include: Extent of use/economic importance/restrictions

## 3.2 Efficacy data (KCP 6)

### Introduction

This document summarizes the information related to the efficacy of the product CHR/F/PYRA containing active substance pyraclostrobin.

CHR/F/PYRA applies in the Central Registration Zone for the registration of in winter wheat, winter triticale, winter rye and spring barley at BBCH 25-69 applied twice per season at the maximum rate of 250 g a.s/ha pyraclostrobin per application for the control of most important fungal diseases.

### General information:

#### Description of the plant protection product

Marketing name:

product submitted to registration under three different marketing names: Etiuda 250 EC/ Fermata 250 EC

Formulants content:

The information concerning ingredients of product CHR/F/PYRA are included in the confidential part of the registration dossier: Registration Report – Part C.

Formulation of use:

EC – Emulsifiable Concentrate

#### General information on the plant protection product:

CHR/F/PYRA is to be applied in spring to summer:

**Winter wheat, winter triticale, winter rye in BBCH 25-69 and spring barley in BBCH 25-59.**

The suggested dose of the product:

Used solo:

1.0 L/ha twice a season in winter wheat, winter triticale, winter rye and spring barley which are corresponding to 250 g a.s./ha of pyraclostrobin.

CHR/F/PYRA containing pyraclostrobin as the active substance is prepared for the use in agricultural practice as a fungicide in the form EC – Emulsifiable Concentrate.

Information on the composition of product CHR/F/PYRA are included in the confidential part of the registration dossier: Registration Report – Part C.

### Description of active substances

The descriptions of active substances will be provided in Section 1, 2, 4 to 8 and Part C.

### Mode of action

Active substance: pyraclostrobin 250 g/L

Chemical name (IUPAC): methyl {2-[1-(4-chlorophenyl)pyrazol-3-ylloxymethyl]phenyl}(methoxy)carbamate

CAS No.: 175013-18-0

*According to Prothioconazole\_RAR\_05\_Vol\_3CA\_B-3\_public.pdf*

Pyraclostrobin belongs to the QoI group of fungicides. The mode of action is the inhibition of mitochondrial respiration resulting from a blockage of the electron transport from ubihydroquinone to cytochrome c by means of a binding to the ubihydroquinone oxidation centre (Qo) of the cytochrome bc1 complex

(Complex III). This disrupts the mitochondrial electron transport chain, thus blocking phosphorylation further down in the respiratory chain. In consequence, this leads to a reduction of energy-rich ATP which is required to support a range of essential processes in the fungal cell such as maintenance of membrane potentials and concentration gradients up to DNA, RNA and protein biosynthesis. In the end, the various fungal development processes of spore germination, formation of infection structures, mycelium growth and sporulation are permanently disrupted.

Table 3.2-1: Details of the active substances

Active substance	pyraclostrobin	Active substance 2	Active substance 3
Concentration (Unit: g/kg or g/L...)	250 g/L	n/a	n/a
Chemical group	strobilurine fungicide	n/a	n/a
Mode of action	Inhibition of mitochondrial respiration resulting (QoI group)	n/a	n/a
Biological action	Pyraclostrobin is a strobilurine fungicide which is used worldwide in many crops for the control of a broad range of important pathogens from the classes of ascomycetes, basidiomycetes, deuteromycetes and oomycetes. Pyraclostrobin is active against different fungal stages both on the plant surface and in the plant tissue. After application to the plant, the active ingredient is taken up via the leaf and then translocated at low rates via the transpiration flow. Due its relatively low mobility, it shows local systemic and translaminar activity. Because of its very high intrinsic activity, pyraclostrobin has been observed to have systemic effects in a number of authorised uses. By that, it can control fungal stages which have already become established in deeper tissue layers. Pyraclostrobin is thus suitable for preventative and curative treatments. Since the vapour pressure of pyraclostrobin is very low, a marked gas phase activity was not observed. In addition to the fungicidal effects, plant physiology is also affected by the application of pyraclostrobin. Especially, a reduction of physiological leaf spots in cereals has been observed after treatment with pyraclostrobin-containing products. Among these physiological effects higher yield and better product quality in absence of diseases as well as improvement of the assimilation rate and delayed senescence have been reported. Some studies showed better stress tolerance to abiotic stresses (e.g. drought or frost). Based on these effects, pyraclostrobin is approved as plant growth regulator in the EU in addition to its approval as fungicide.	n/a	n/a
...		n/a	n/a

Comments of zRMS: This report summarizes the information concerning the efficacy of the plant

	<p>protection product CHR/F/PYRA 250 EC. The product contains 250 g/L of pyraclostrobin as active substance and is formulated as an Emulsifiable Concentrate (EC). It is used as fungicide in cereals. The reports and data were submitted to support of the evaluation of the authorization CHR/F/PYRA 250 EC in Central Zone: Poland.</p> <p>The active substance pyraclostrobin is included in the Annex to Commission Implementing Regulation (EU) No 540/2011 containing the active substances approved for use in plant protection products under Regulation (EC) No 1107/2009 with the expiration of approval on 31/01/2023.</p> <p>According to general provisions applying to all substances listed in the Annex to commission Implementing Regulation (EU) No 540/2011 of 25 May 2011 implementing Regulation (EC) No1107/2009 of the European Parliament and of the Council as regards the list of approved active substances. Specific provisions of Regulation (EU) No 540/2011 were as follows:</p> <p>Only uses as fungicide or plant growth regulator may be authorised.</p> <p>For the implementation of the uniform principles as referred to in Article 29(6) of Regulation (EC) No 1107/2009, the conclusions of the review report on pyraclostrobin, and in particular Appendices I and II thereof, as finalised in the Standing Committee on the Food Chain and Animal Health on 28 November 2003 shall be taken into account. In this overall assessment Member States:</p> <ul style="list-style-type: none"> <li>— should pay particular attention to the protection of aquatic organisms, especially fish,</li> <li>— should pay particular attention to the protection of terrestrial arthropods and earthworms.</li> </ul> <p>Risk mitigation measures should be applied where appropriate.</p> <p>The Member States shall inform the Commission in accordance with Article 38 of Regulation (EC) No 1107/2009 on the specification of the technical material as commercially manufactured.</p> <p>Appendix 1 of this document contains the list of data considered in support of the the evaluation.</p> <p>Table 3.1-1 of this document contains the table of intended uses for CHR/F/PYRA 250 EC.</p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Table 3.2-2: Simplified table of currently registered uses and requested uses for the product code.**

Uses		Member State	Currently registered rate(s)		Requested rate(s)		Comments / Other relevant details on GAPs
Crop(s)	Target(s)		max. rate per appl	max. total rate per crop/season	max. rate per appl	max. total rate per crop/season	
winter wheat	<i>Pyrenophora tritici-repentis</i> , <i>Zymoseptoria tritici</i> , <i>Blumeria graminis</i> , <i>Puccinia recondita</i> , <i>Puccinia striiformis tritici</i>	PL			1.0 L/ha	1.0 L/ha	
Winter triticales	<i>Rhynchosporium secalis</i> , <i>Blumeria graminis</i> , <i>Puccinia striiformis tritici</i> , <i>Pyrenophora tritici-repentis</i>	PL			1.0 L/ha	1.0 L/ha	

Winter rye	<i>Rhynchosporium secalis</i> , <i>Puccinia recondita</i> , <i>Zymoseptoria tritici</i> , <i>Blumeria graminis</i>	PL			1.0 L/ha	1.0 L/ha	
Spring barley	<i>Pyrenophora teres</i> , <i>Blumeria graminis</i> , <i>Rhynchosporium secalis</i> , <i>Puccinia hordei</i>	PL			1.0 L/ha	1.0 L/ha	

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

## Description of the target pests

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

### Winter wheat

EPPO code	Scientific name	Common name*
PYRNTR	<i>Pyrenophora tritici-repentis</i>	n/a
SEPTTR	<i>Zymoseptoria tritici</i>	n/a
ERYSGR	<i>Blumeria graminis</i>	n/a
PUCCRE	<i>Puccinia recondita</i>	n/a
PUCCST	<i>Puccinia striiformis tritici</i>	n/a

\* optional

### Winter triticale

EPPO code	Scientific name	Common name*
RHYNSE	<i>Rhynchosporium secalis</i>	n/a
ERYSGR	<i>Blumeria graminis</i>	n/a
PUCCST	<i>Puccinia striiformis tritici</i>	n/a
PYRNTR	<i>Pyrenophora tritici-repentis</i>	n/a

\* optional

### Winter Rye

EPPO code	Scientific name	Common name*
RHYNSE	<i>Rhynchosporium secalis</i>	n/a
PUCCRE	<i>Puccinia recondita</i>	n/a
SEPTTR	<i>Zymoseptoria tritici</i>	n/a
ERYSGR	<i>Blumeria graminis</i>	n/a

### Spring barley

EPPO code	Scientific name	Common name*
PYRNTE	<i>Pyrenophora teres</i>	n/a
ERYSGR	<i>Blumeria graminis</i>	n/a

EPPO code	Scientific name	Common name*
RHYNSE	<i>Rhynchosporium secalis</i>	n/a
PUCCHD	<i>Puccinia hordei</i>	n/a

\* optional

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

Crop and/or situation	Crop status		Pests or group of pests controlled	Pest status	
	Major	minor		Major	minor
Winter wheat	PL, CZ	-	<i>Puccinia striiformis tritici</i>	-	PL, CZ
			<i>Blumeria graminis</i>	PL, CZ	-
			<i>Pyrenophora tritici-repentis</i>	PL, CZ	-
			<i>Zymoseptoria tritici</i>	PL, CZ	-
			<i>Puccinia recondita</i>	PL, CZ	-
Winter triticale	PL, CZ	-	<i>Rhynchosporium secalis</i>	PL, CZ	-
			<i>Puccinia striiformis tritici</i>	-	PL, CZ
			<i>Blumeria graminis</i>	PL, CZ	-
			<i>Pyrenophora tritici-repentis</i>	PL, CZ	-
Winter rye	PL, CZ	-	<i>Rhynchosporium secalis</i>	PL, CZ	-
			<i>Puccinia recondita</i>	PL, CZ	-
			<i>Zymoseptoria tritici</i>	-	PL, CZ
			<i>Blumeria graminis</i>	PL, CZ	-
Spring barley	PL, CZ	-	<i>Pyrenophora teres</i>	PL, CZ	-
			<i>Blumeria graminis</i>	PL, CZ	-
			<i>Rhynchosporium secalis</i>	PL, CZ	-
			<i>Puccinia hordei</i>	PL, CZ	-

### Compliance with the Uniform Principles

The overall assessment was performed according to the uniform principles. There were no deviations from the EPPO guidelines with the trials conducted in North-East EPPO zone and Maritime EPPO zone.

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

A total of 61 trials (winter wheat 20 trials, winter triticale 10 trials, winter rye 11 trials, spring barley 20 trials) have been carried out in 2020 and 2021 in the North-East EPPO zone and Maritime EPPO Zone within the Central registration zone to evaluate the efficacy of applied at the proposed label rate of 250 g a.s./ha per application (in winter wheat, winter triticale, winter rye and spring barley twice application per season) for the control of most important fungal diseases in winter wheat, winter triticale, winter rye and spring barley (Table 3.2 6). Trials were conducted in the main winter wheat, winter triticale, winter rye and spring barley growing areas in the North-East EPPO zone in Poland and and Maritime EPPO Zone in Czech Republic.

**Table 3.2-5: Presentation of trials (efficacy trials)**

### Winter wheat

Crop(s) *	Target(s)*	Country	Years	Type of trial**	Number of trials		GEP, non-GEP, official***	Comments (any other relevant information)
					(number of valid trials)			
					North-East zone	Maritime EPPO Zone		
Winter wheat	<i>Puccinia striiform- is tritici</i>	Poland	2020	E	1(1)	-	GEP	-
			2021	E	3(1)	-		-
		TOTAL	-	-	4(4)	-	-	-
	<i>Blumeria graminis</i>	Poland	2020	E	3(3)	-	GEP	-
			2021	E	8(8)	-		-
		TOTAL	-	-	11(11)	-	-	-
	<i>Pyrenophora triti- ci-repentis</i>	Poland	2020	E	5(5)	-	GEP	-
			2021	E	2(2)	-		-
		TOTAL	-	-	7(7)	-	-	-
	<i>Zymoseptoria tritic</i>	Poland	2020	E	7(7)	-	GEP	-
			2021	E	5(5)	-		-
		Czech Republic	2020	E	-	3(3)	-	-
		TOTAL	-	-	-	12(12)	3(3)	-
	<i>Puccinia recondita</i>	Poland	2021	E	7(7)	-	GEP	-
		Czech Republic	2020	E	-	1(1)		-
		TOTAL	-	-	-	7(7)	1(1)	-

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

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

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

### Winter triticales

Crop(s) *	Target(s)*	Country	Years	Type of trial**	Number of trials		GEP, non-GEP, official***	Comments (any other relevant information)
					(number of valid trials)			
					North-East zone	Maritime EPPO Zone		
Winter triticales	Rhynchosporium secalis	Poland	2020	E	2(2)	-	GEP	-
		Czech Republic	2020	E	-	2(2)		
	TOTAL	-	-	-	2(2)	2(2)	-	-
	Puccinia striiformis tritici	Poland	2021	E	3(3)	-	GEP	-
	TOTAL	-	-	-	3(3)	-	-	-
	Blumeria graminis	Poland	2020		2(2)			
		Poland	2021		5(5)			
		Czech Republic	2021	E	-	1(1)	GEP	
	TOTAL	-	-	-	7(7)	1(1)	-	-

	<i>Pyrenophora tritici-repentis</i>	Poland	2020		1(1)			
		Poland	2021		3(3)			
		Czech Republic	2021	E	-	2(2)	GEP	
	TOTAL	-	-	-	4(4)	2(2)	-	-

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

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

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

### Winter rye

Crop(s) *	Target(s)*	Country	Years	Type of trial**	Number of trials		GEP, non-GEP, official***	Comments (any other relevant information)	
					(number of valid trials)				
					North-East zone	Maritime EPPO Zone			
Winter rye	Rhynchosporium secalis	Poland	2020	E	3(3)	-	GEP	-	
			2021	E	3(3)	-			
		Czech Republic	2020	E	-	2(2)			
	TOTAL	-	-	-	-	6(6)	2(2)	-	-
	Puccinia recondita	Poland	2020	E	2(2)	-	GEP	-	
			2021	E	4(4)	-			
		Czech Republic	2020	E	-	1(1)			
	TOTAL	-	-	-	-	6(6)	1(1)	-	-
	Zymoseptoria tritici	Poland	2020	E	1(1)	-	GEP	-	
			2021	E	2(2)	-			
		TOTAL	-	-	-	3(3)	-	-	-
	Blumeria graminis	Poland	2020	E	2(2)	-	-	-	
			2021	E	4(4)	-			
		TOTAL	-	-	-	6(6)	-	-	-

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

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

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

### Spring barley

Crop(s) *	Target(s)*	Country	Years	Type of trial**	Number of trials		GEP, non-GEP, official***	Comments (any other relevant information)
					(number of valid trials)			
					North-East zone	Maritime EPPO Zone		
Spring barley	Pyrenophora teres	Poland	2020	E	9(9)	-	GEP	-
			2021	E	2(2)			
		Czech Republic	2020	E		4(4)		



	TOTAL	-	-	-	11 (11)	4(4)	-	-
Blumeria graminis	Poland	2020	E	1(1)	-	GEP	-	
		2021	E	1(1)	-			
	Czech Republic	2020	E	-	4(4)			
TOTAL	-	-	-	2(2)	4(4)	-	-	
Rhynchosporium secalis	Poland	2020	E	8(8)	-	GEP	-	
	Czech Republic	2020	E	-	3(3)			
TOTAL	-	-	-	8(8)	3(3)	-	-	
Puccinia hordei	Poland	2020	E	3(3)		GEP	-	
		2021	E	2(2)				
	Czech Republic	2020	E	-	4(4)			
TOTAL	-	-	-	5(5)	4(4)	-	-	

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

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

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

**Table 3.2-6: Presentation of reference standards used in trials (efficacy trials)**

Crop(s)	Reference standard	Country(ies) where the product is registered <sup>(1)</sup>	Authorization number	Active substance(s)	Formulation		Registered application rate <sup>(3)</sup>	Application rate in trials (per treatment)	Remark <sup>(4)</sup>
					Type <sup>(2)</sup>	Concentration of a.s.			
winter wheat, winter triticale, winter rye, spring barley	Makler 250 SE	Poland	R-207/2017	azoxystrobin	SE – suspoe-mulsion	250 g/L	1.0 L/ha	1.0 L/ha	-
	Makler 250 SE	Czech Republic	5536-0	azoxystrobin	SE – suspoe-mulsion	250 g/L	1.0 L/ha	1.0 L/ha	-

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

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

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

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

### 3.2.1 Preliminary tests (KCP 6.1)

Preliminary studies on product CHR/F/PYRA were not carried out because this fungicide contains pyraclostrobin which is a well-known active substance that has been used for many years in agricultural practice.

According to EPPO PP1/225(2) lower doses have been tested in the efficacy studies, therefore no specific studies were conducted to fill this data point.

Comments of zRMS:	Preliminary range finding tests are not reported. The active substance pyraclostrobin has well been known and used in many authorised products with a known range of action.
-------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Table 3.2-7: Efficacy of active substance components in test product – not applicable**

Not applicable

**Table 3.2-8: Percentage of control of the different ratios at timing of assessment.**

Not applicable

**Summary and conclusions on the preliminary trials**

Not applicable

**3.2.2 Minimum effective dose tests (KCP 6.2)**

No specific studies were conducted to fill this data point.

On the basis of information included in KCP point 3.2.3 the assessment of efficacy and phytotoxicity trials in KCP point 3.2.3 of fungicide CHR/F/PYRA in winter wheat, winter triticale, winter rye and spring barley the minimum effective dose of product CHR/F/PYRA used is:

Used solo:

1.0 L/ha once a season in winter wheat, winter triticale, winter rye and spring barley which are corresponding to 250 g a.s./ha of pyraclostrobin.

According to EPPO PP1/225(2) lower doses have been tested in the efficacy studies, therefore the minimum effective trials were not conducted.

**Crop(s) 1 AND/OR Target(s) 1**

Not applicable

**Table 3.2-9: Minimum effective dose. Efficacy of product at proposed label rate, at X% and Y% dose rates on target 1 at assessment timing against “Crop(s) 1 AND/OR Target(s) 1”.**

Not applicable

**Crop(s) 2 AND/OR Target(s) 2**

Not applicable

**Summary and conclusions on the minimum effective dose**

Not applicable

Comments of zRMS:	The claimed dose rate is 1,0 l/ha applied two times in one season. The dose justification of 1,0 l/ha of CHR/F/PYRA applied two times in one season, containing pyraclostrobin is supported by data from efficacy trials. In the 61 trials lower doses rates were also tested (0,6; 0,8 l/ha). In the efficacy trials of CHR/F/PYRA showed in general a higher level of efficacy against all diseases, when it was applied in the highest dose rate of 1,0 l/ha.
-------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**3.2.3 Efficacy tests (KCP 6.2)**

Materials and methods

The applicant submitted 61 reports (in total) showing the results in research into product efficacy carried out in 2020 and 2021 in winter wheat (20 trials), winter triticale (10 trials), winter rye (11 trials) and spring barley (20 trials). List of these reports is contained in Appendix 1.

#### Site

Trials were conducted in different regions in Poland and Czech Republic where winter wheat, winter triticale, winter rye and spring barley are grown commercially. The experiment was established on a set of complete randomized blocks in 4 replications. Details on trial sites, applications and data on effectiveness are included in Appendix 4 and 5.

#### Testing units

Efficacy studies on fungicide CHR/F/PYRA 250 EC were performed in 2020 and 2021 by:

- A.T Sp. z o.o., ul. Przemysłowa 3, 88-300 Mogilno, Poland
- Poznań University of Life Sciences, Research and Education Center Gorzyń, ul. Wojska Polskiego 28, 60-637 Poznań, Poland
- SynTech Research Poland Sp. z o.o., ul. Jagiellońska 69/1, 85-027 Bydgoszcz, Poland
- SynTech Research Czech Republic s.r.o., Semčice 245 294 46 Semčice, Czech Republic
- SynTech Research Czech s.r.o., Horní Kounice 1 671 40 Horní Kounice, Czech Republic

#### Experimental details

The efficacy trials were designed, conducted and reported according to the following EPPO guidelines:

- PP 1/135 (3) Phytotoxicity assessment
- PP 1/152 (3) Design and analysis of efficacy evaluation trials
- PP 1/181 (3) Conduct and reporting of efficacy evaluation trials including good experimental practice

They were carried out on the field in the conditions of natural agrofag infestation. The efficacy trials were concluded according to the EPPO standards:

- PP 1/26(4) Foliar and ear diseases on cereals

#### Assessment methods

##### Statistical Analysis

Software for analysis of the results was ARM Revision 2020.3 from Gylling Data Management. Data were analysed using analysis of variance (ANOVA) on untransformed data and on transformed ones when the Bartlett's test indicated so. If transformation did not improve the distribution, original values were used and therefore significant differences reported should be interpreted with caution. The probability of no significant differences occurring between treatment means was calculated as the F probability value (Treatment Prob(F)). Student-Newman-Keuls tests were applied when treatment differences were identified on the basis of the ANOVA test. Mean comparison performed only when AOV Treatment P(F) is significant at level selected. Results obtained were indicated by a letter-treatment means with no letters in common are significantly different in accordance with a Student-Newman-Keuls conducted at a 95% confidence level. Where data have been transformed, letters are included in the transformed data.

The treatment means of the assessment dates were calculated and compared using Student-Newman-Keuls test ( $P=0.05$ ). The statistical procedures were applied using ARM 2021.2 software.

#### Assessment of efficacy

##### Leaf diseases:

Efficacy was recorded by estimating and counting the severity and incidence of disease. The level of infection was assessed of the leaf surface on 10 randomly selected plants from each plot.

##### Leaf assessment:

Assess the % of area infected by individual diseases per leaf level (LEAF1, LEAF2, LEAF3, LEAF4) on at least 10-20 tillers selected randomly in each plot: visual evaluation of the attacked surface of the leaf expressed as a % of the total surface (PESSEV). Determine the pest incidence (PESINC).

Record the actual leaf which was assessed.

For all assessments, record the crop BBCH stage (min-max and average).

Ear assessment:

Assess the % of area infected by individual diseases per ear on at least 10-20 tillers selected randomly in each plot: visual evaluation of the attacked surface of the ear expressed as a % of the total surface (PESSEV). Determine the pest incidence (PESINC).

Assessment of phytotoxicity

Phytotoxicity of whole symptoms of injuries observed on the crop plants. Recording all the symptoms of possible phytotoxic effect of tested product, mainly: changes in the growth, thinning out of plants, discolorations (without destruction of plant tissue), necroses, deformations, yield quantity and quality. The occurrence and intensity of outside symptoms of crop damages were determined using 0-100 % scale (0 % = no damage; 100 % = total plant destruction).

Phytotoxicity were assessed by visual estimation of the intensity on an overall plot basis on a percentage scale 0-100 % (0=no damage).

Applications methods and rates

The applications were carried out by a T-BOOM – BACCAI, plot sprayer – BACSPR, plot sprayer BICSPR in cereals.

Tested fungicide was applied at the growth stage:

BBCH 27-71 in winter wheat,

BBCH 25-69 in winter triticale,

BBCH 28-71 in winter rye,

and BBCH 25-69 in spring barley.

The product CHR/F/PYRA 250 EC has been used:

in winter wheat, winter triticale, winter rye, spring barley at the following rates of 0.6, 0.8 and 1.0 L/ha  
Makler 250 SE was used as a reference product in winter wheat, winter triticale, winter rye and spring barley.

The experiment was established on a set of complete randomized blocks in 4 replications.

Experiment pattern:

Winter wheat

No.	Name	Rate (L/ha)	other rate (g a.s./ha)	Appl code	Growth Stage BBCH
1	Untreated Check				
2	CHR/F/PYRA 250 EC	0.60	150 g a.s./ha	A B	A: BBCH 27-51 B: BBCH 43-71
3	CHR/F/PYRA 250 EC	0.80	200 g a.s./ha	A B	A: BBCH 27-51 B: BBCH 43-71
4	CHR/F/PYRA 250 EC	1.00	250 g a.s./ha	A B	A: BBCH 27-51 B: BBCH 43-71
5	Makler 250 SE	1.00	250 g a.s./ha	A B	A: BBCH 27-51 B: BBCH 43-71

### Winter triticale

No.	Name	Rate (L/ha)	other rate (g a.s./ha)	Appl code	Growth Stage BBCH
1	Untreated Check				
2	CHR/F/PYRA 250 EC	0.6	150 g a.s./ha	A B	A: BBCH 25-51 B: BBCH 49-69
3	CHR/F/PYRA 250 EC	0.8	200 g a.s./ha	A B	A: BBCH 25-51 B: BBCH 49-69
4	CHR/F/PYRA 250 EC	1.0	250 g a.s./ha	A B	A: BBCH 25-51 B: BBCH 49-69
5	Makler 250 SE	1.0	250 g a.s./ha	A B	A: BBCH 25-51 B: BBCH 49-69

### Winter rye

No.	Name	Rate (L/ha)	other rate (g a.s./ha)	Appl code	Growth Stage BBCH
1	Untreated Check				
2	CHR/F/PYRA 250 EC	0.6	150 g a.s./ha	A B	A: BBCH 28-59 B: BBCH 51-71
3	CHR/F/PYRA 250 EC	0.8	200 g a.s./ha	A B	A: BBCH 28-59 B: BBCH 51-71
4	CHR/F/PYRA 250 EC	1.0	250 g a.s./ha	A B	A: BBCH 28-59 B: BBCH 51-71
5	Makler 250 SE	1.0	250 g a.s./ha	A B	A: BBCH 28-59 B: BBCH 51-71

### Spring barley

No.	Name	Rate (L/ha)	other rate (g a.s./ha)	Appl code	Growth Stage BBCH
1	Untreated Check				
2	CHR/F/PYRA 250 EC	0.6	150 g a.s./ha	A B	A: BBCH 25-51 B: BBCH 35-69
3	CHR/F/PYRA 250 EC	0.8	200 g a.s./ha	A B	A: BBCH 25-51 B: BBCH 35-69
4	CHR/F/PYRA 250 EC	1.0	250 g a.s./ha	A B	A: BBCH 25-51 B: BBCH 35-69
5	Makler 250 SE	1.0	250 g a.s./ha	A B	A: BBCH 25-51 B: BBCH 35-69

## Details of experiments

### Winter wheat

Report code	A.T/2020/094/PO	A.T/2020/095/PO	A.T/2020/096/PO	A.T/2021/039/PO	A.T/2021/040/PO	A.T/2021/041/PO	A.T/2021/042/PO	AF/20/PO/23/Mr/0 1	AF/20/PO/23/Mr/0 2	AF/20/PO/23/ZI/03
Location	Modrze/ Poland	Sitowiec/ Poland	Stare Gralewo/ Poland	Brzeźno k. Gołańczy/ Poland	Mirosław/ Poland	Angowice/ Poland	Studzieniec/ Poland	Mrowino/ Poland	Mrowino/ Poland	Złotniki/ Poland
Plant /cultivar	winter wheat/ Euforia	winter wheat/ Arkadia	winter wheat/ Kilimanja- ro	winter wheat/ Arkadia	winter wheat/ Wilejka	winter wheat/ Admont	winter wheat/ Ostoga	winter wheat/ Honda	winter wheat/ Emil	winter wheat/ Bogatka
Seeding date	27.09.2019	17.09.2019	05.10.2019	25.09.2020	01.10.2020	16.10.2020	12.10.2020	27.09.2019	26.09.2019	25.09.2019
Seeding rate	160 kg/ha	200 kg/ha	200 kg/ha	190 kg/ha	185 kg/ha	200 kg/ha	230 kg/ha	220 kg/ha	230 kg/ha	133 kg/ha
Forecrop	winter wheat	winter wheat	maize	winter oilseed rape	winter barley	potato	sugar beet	winter barley	winter barley	spring barley
Type of sprayer	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BICSPR	BICSPR	BICSPR
Date of treatment A	09.05.2020	15.05.2020	22.05.2020	11.05.2021	20.04.2021	31.05.2021	19.04.2021	22.05.2020	22.05.2020	21.05.2020
Date of treatment B	26.05.2020	09.06.2020	09.06.2020	09.06.2021	08.06.2021	23.06.2021	11.06.2021	17.06.2020	17.06.2020	09.06.2020
Plant development phase A	BBCH 37-39	BBCH 43-47	BBCH 37-41	BBCH 34-36	BBCH 27-30	BBCH 39-41	BBCH 25-29	BBCH 47-51	BBCH 47-51	BBCH 39-43
Plant development phase B	BBCH 53-55	BBCH 61-65	BBCH 53-59	BBCH 59-61	BBCH 51-55	BBCH 65-69	BBCH 51-55	BBCH 55-69	BBCH 65-71	BBCH 61-69
Soil type	loamy sand	sandy loam	sandy loam	loamy sand	loamy sand	sandy loam	loamy sand	loamy sand	loamy sand	loamy sand
pH	6,1	6,0	7,7	6,1	5,2	5,1	6,2	6,5	6,7	6,1
Water (L/ha) ( application A and B)	200 L/ha	200 L/ha	200 L/ha	300 L/ha	200 L/ha	200 L/ha	200 L/ha	250 L/ha	250 L/ha	200 L/ha

## Winter wheat

Report code	AF/21/PO/12/Pr	SRPL20-239-336FE	SRPL20-240-336HE	SRPL21-421-336FE	SRPL21-422-336FE	SRPL21-423-336FE	SRPL21-424-336FE	SRCZ20-068-301FE	SRCZ20-070-301FE	SRCZ20-069-301FE
Location	Przybroda/ Poland	Teresin/ Poland	Murczyn/ Poland	Kapłityny/ Poland	Osówka/ Poland	Jankowice Wielkie/ Poland	Žnin/ Poland	Sekerkovy Loučky/ Czech Republic	Hořkovice/ Czech Republic	Tavíkovice/ Czech Republic
Plant /cultivar	winter wheat/ Princeps	winter wheat/ Kili-manjaro	winter wheat/ Hondia	winter wheat/ Euforia	winter wheat/ Arkadia	winter wheat/ Argument	winter wheat/ Arkadia	winter wheat/ Balitus	winter wheat/ Rivero	winter wheat/ Tobak
Seeding date	25.09.2020	30.09.2019	21.09.2019	29.09.2020	15.09.2020	06.10.2020	28.09.2020	27.09.2019	30.09.2019	26.09.2019
Seeding rate	200 kg/ha	200 kg/ha	170 kg/ha	180 kg/ha	200 kg/ha	200 kg/ha	180 kg/ha	190 kg/ha	120 kg/ha	220 kg/ha
Forecrop	sugar beet	winter oilseed rape	winter oilseed rape	potato	winter oilseed rape	winter oilseed rape	winter triticale	winter wheat	winter wheat	
Type of sprayer	BICSPR	BACCAI	BACCAI	BACCAI	SPRBIC	BACCAI	BACCAI	BACSPR	BACSPR	BACCAI
Date of treatment A	24.04.2021	20.05.2020	20.05.2020	24.05.2021	28.04.2021	22.04.2021	15.05.2021	19.05.2020	20.05.2020	27.05.2020
Date of treatment B	15.06.2021	01.06.2020	03.06.2020	14.06.2021	01.06.2021	27.05.2021	02.06.2021	03.06.2020	04.06.2020	08.06.2020
Plant development phase A	BBCH 28-30	BBCH 45-49	BBCH 47-49	BBCH 31-33	BBCH 31-32	BBCH 30-32	BBCH 32-35	BBCH 49	BBCH 49	BBCH 45-51
Plant development phase B	BBCH 59-65	BBCH 55-59	BBCH 61-63	BBCH 51-53	BBCH 51-53	BBCH 51-55	BBCH 43-45	BBCH 60-61	BBCH 59-60	BBCH 59-63
Soil type	loamy sand	sandy clay loam	calyey sand	silt loam	sandy loam	sandy loam	sandy clay loam	sandy loam	loam	loamy clay
pH	6,0	6,5	6,8	5,6	6,9	6,6	6,3	6,3	6,4	6,2
Water (L/ha) (application A and B)	250 L/ha	200 L/ha	300 L/ha	200 L/ha	200 L/ha	300 L/ha	300 L/ha	225 L/ha	225 L/ha	300 L/ha

## Winter triticale

Report code	A.T/2020/097/PŽO	A.T/2020/098/PŽO	A.T/2021/043/PŽO	A.T/2021/044/PŽO	A.T/2021/045/PŽO	A.T/2021/046/PŽO	SRPL21-425-336FE	SRPL21-426-336FE	SRCZ20-071-301FE	SRCZ20-072-301FE
Location	Modrze/ Poland	Białe Błoto/ Poland	Nowa Wieś Ujska/ Poland	Zamarte/ Poland	Lichnowy/ Poland	Studzieniec/ Poland	Tonowo/ Poland	Osówka/ Poland	Sekerkovy Loučky/ Czech Republic	Tetín/ Czech Republic
Plant /cultivar	winter triticale/ Orinoko	winter triticale/ Borowik	winter triticale/ Lombardo	winter triticale/ Orinoko	winter triticale/ Belcanto	winter triticale/ Meloman	winter triticale/ Balcanto	winter triticale/ ROTONDO	winter triticale/ Agostino	winter triticale/ Agostino
Seeding date	23.09.2019	21.09.2019	24.09.2020	26.09.2020	19.10.2020	30.09.2020	02.10.2020	29.10.2020	05.10.2019	30.10.2019
Seeding rate	150 kg/ha	200 kg/ha	160 kg/ha	170 kg/ha	160 kg/ha	230 kg/ha	160 kg/ha	280 kg/ha	200 kg/ha	250 kg/ha
Forecrop	winter wheat	spring barley	winter wheat	winter wheat	potato	winter wheat	winter wheat	winter wheat	non-crop land	lucerne
Type of sprayer	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	SPRBIC	BACSPR	BACSPR
Date of treatment A	08.05.2020	15.05.2020	19.04.2021	17.04.2021	31.05.2021	19.04.2021	08.05.2021	04.05.2021	18.05.2020	22.05.2020
Date of treatment B	22.05.2020	02.06.2020	04.06.2021	04.06.2021	23.06.2021	07.06.2021	02.06.2021	01.06.2021	03.06.2020	11.06.2020
Plant development phase A	BBCH 37-39	BBCH 37-41	BBCH 29-31	BBCH 29-30	BBCH 39-41	BBCH 25-30	BBCH 33-35	BBCH 29-31	BBCH 47-51	BBCH 49-51
Plant development phase B	BBCH 57-61	BBCH 49-55	BBCH 59-61	BBCH 53-55	BBCH 65-69	BBCH 55-61	BBCH 51-53	BBCH 51-53	BBCH 61-65	BBCH 65-69
Soil type	loamy sand	sandy loam	sandy loam	loamy sand	sandy loam	sand	sandy loam	sandy clay loam	fine clay loam	clay loam
pH	7.1	5.0	4.6	6.2	5.3	6.1	6.1	6.87	6.9	6.7
Water (L/ha) ( application A and B)	200 L/ha	200 L/ha	300 L/ha	200 L/ha	200 L/ha	200 L/ha	200 L/ha	300 L/ha	225 L/ha	225 L/ha



## Winter rye

Report code	A.T/2020/099/ŽO	A.T/2021/047/ŽO	A.T/2021/048/ŽO	A.T/2021/049/ŽO	AF/21/ŽO/12/ZI	AF/21/ŽO/12/Br	SRPL20-237-336FE	SRPL20-238-336FE	SRPL21-427-336FE	SRCZ20-073-301FE	SRCZ20-074-301FE
Location	Wilkowo/ Poland	Świerkówki/ Poland	Jęczniki Wielkie/ Poland	Stare Gralewo/ Poland	Złotniki/ Poland	Brody/ Poland	Charlęż/ Poland	Samborowo/ Poland	Ląjsy/ Poland	Roprachtice/ Czech Republic	Bělá pod Bezdězem/ Czech Republic
Plant /cultivar	winter rye/ Serafino	winter rye/ KWS Serafino	winter rye/ KWS Berado	winter rye/ Dańkowskie Diamant	winter rye/ Dolaro	winter rye/ Poznańskie	winter rye/ KWS Dolaro	winter rye/ Dańkowskie Skand	winter rye/ KWS Jethro	winter rye/ Herakles	winter rye/ SU Cossani
Seeding date	10.09.2019	01.10.2020	18.09.2020	21.09.2020	24.09.2020	23.09.2020	03.10.2019	27.09.2019	10.09.2020	17.10.2019	29.09.2019
Seeding rate	70 kg/ha	66 kg/ha	70 kg/ha	100 kg/ha	65 kg/ha	150 kg/ha	100 kg/ha	480 P/m <sup>2</sup>	200 P/m <sup>2</sup>	100 kg/ha	85 kg/ha
Forecrop	winter wheat	winter wheat	winter oilseed rape	maize	winter oilseed rape	spring wheat	yellow lupin	winter triticale	winter triticale	winter rye	winter barley
Type of sprayer	BACCAI	BACCAI	BACCAI	BACCAI	BICSPR	BICSPR	BACCAI	BACCAI	BACCAI	BACSPR	BACSPR
Date of treatment A	07.05.2020	19.04.2021	17.04.2021	19.04.2021	21.04.2021	21.04.2021	15.05.2020	15.05.2020	13.05.2021	18.05.2020	20.05.2020
Date of treatment B	22.05.2020	24.05.2021	24.05.2021	20.05.2021	20.05.2021	26.05.2021	28.05.2020	29.05.2020	03.06.2021	03.06.2020	04.06.2020
Plant development phase A	BBCH 39-41	BBCH 30-33	BBCH 29-30	BBCH 28-32	BBCH 34-36	BBCH 33-37	BBCH 39	BBCH 48-49	BBCH 33-39	BBCH 39	BBCH 49-59
Plant development phase B	BBCH 59-61	BBCH 61-65	BBCH 53-55	BBCH 53-57	BBCH 54-56	BBCH 54-56	BBCH 51-55	BBCH 59-61	BBCH 61-65	BBCH 58-59	BBCH 65-71
Soil type	sandy loam	loamy sand	loamy sand	sand	loamy sand	loamy sand	slit loam	sandy loam	slit loam	sandy loam	fine sand
pH	5.6	7.1	5.4	5.1	7.0	5.8	4.2	5.30	4.8	6.3	6.2
Water (L/ha) (application A and B)	300 L/ha	200 L/ha	200 L/ha	200 L/ha	250 L/ha	250 L/ha	300 L/ha	300 L/ha	200 L/ha	225 L/ha	225 L/ha

## Spring barley

Report code	A.T/2020/101/JJ	A.T/2020/102/JJ	A.T/2020/103/JJ	A.T/2020/104/JJ	A.T/2020/105/JJ	A.T/2020/106/JJ	A.T/2021/050/JJ	A.T/2021/051/JJ	AF/20/JJ/23/Br/01	AF/20/JJ/23/Pr/02	AF/20/JJ/23/Zl/03	AF/20/JJ/23/Br/04	AF/20/JJ/23/Pr/05	AF/20/JJ/23/Zl/06	SRCZ20-075-301FE	SRCZ20-076-301FE	SRCZ20-077-301FE	SRCZ20-078-301FE	SRCZ20-079-301FE	SRCZ20-080-301FE
Location	Modrze /Poland	Nowy Dwór /Poland	Białe Błoto /Poland	Maniewo /Poland	Wilkowo /Poland	Czachowo /Poland	Mirosław /Poland	Karsy /Poland	Brody /Poland	Przybroda /Poland	Złotniki /Poland	Brody /Poland	Przybroda /Poland	Złotniki /Poland	Roprah-tice /Czech Republic	Dobronice /Czech Republic	Dobřín-sko /Czech Republic	Vinařice /Czech Republic	Křepice /Czech Republic	Dobřín-sko /Czech Republic
Plant/cultivar	spring barley/ RGT Planet	spring barley/ Quench	spring barley/ Propino	spring barley/ Ellinor	spring barley/ Laureate	spring barley/ KWS IRINA	spring barley/ Avatar	spring barley/ KWS Vermont	spring barley/ Iron	spring barley/ Penquin	spring barley/ Stratus	spring barley/ Iron	spring barley/ Penquin	spring barley/ Stratus	spring barley/ Olympic	spring barley/ Laudis	spring barley/ KWS Amadora	spring barley/ Overture	spring barley/ Solist	spring barley/ KWS Iris
Seeding date	28.03.2020	03.04.2020	28.03.2020	09.03.2020	20.03.2020	26.03.2020	01.04.2021	27.04.2021	24.03.2020	18.03.2020	26.03.2020	24.03.2020	18.03.2020	26.03.2020	06.04.2020	25.03.2020	28.03.2020	16.03.2020	18.03.2020	28.03.2020
Seeding rate	107 kg/ha	175 kg/ha	200 kg/ha	150 kg/ha	150 kg/ha	110 kg/ha	170 kg/ha	140 kg/ha	160 kg/ha	175 kg/ha	147 kg/ha	160 kg/ha	175 kg/ha	147 kg/ha	240 kg/ha	180 kg/ha	200 kg/ha	170 kg/ha	220 kg/ha	200 kg/ha
Forecrop	sugar beet	potato	winter triticale	winter wheat	winter oilseed rape	maize	winter wheat	maize	winter wheat	winter oilseed rape	winter wheat	winter wheat	winter rye	winter wheat	maize	maize	maize	winter wheat	white mustard	potato
Type of sprayer	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BICSPR	BICSPR	BICSPR	BICSPR	BICSPR	BICSPR	BACSPR	BACCAI	BACCAI	BACSPR	BACCAI	BACCAI
Date of treatment A	08.05.2020	15.05.2020	15.05.2020	21.05.2020	22.05.2020	04.06.2020	20.05.2021	24.05.2021	27.05.2020	26.05.2020	08.05.2020	09.06.2020	04.06.2020	27.05.2020	03.06.2020	22.05.2020	22.05.2020	29.05.2020	27.05.2020	27.05.2020
Date of treatment B	29.05.2020	03.06.2020	02.06.2020	05.06.2020	05.06.2020	18.06.2020	11.06.2021	14.06.2021	09.06.2020	09.06.2020	27.05.2020	23.06.2020	15.06.2020	09.06.2020	24.06.2020	04.06.2020	04.06.2020	15.06.2020	09.06.2020	15.06.2020
Plant development phase A	BBCH 28-30	BBCH 29-31	BBCH 25-28	BBCH 37-39	BBCH 39-43	BBCH 39-45	BBCH 27-31	BBCH 31-33	BBCH 36-39	BBCH 31-33	BBCH 29-31	BBCH 47-51	BBCH 39	BBCH 39-43	BBCH 32-33	BBCH 29-32	BBCH 32-39	BBCH 47	BBCH 45-49	BBCH 39-49
Plant development phase B	BBCH 37-39	BBCH 47-49	BBCH 35-39	BBCH 49-55	BBCH 51-55	BBCH 59-61	BBCH 51-55	BBCH 49-57	BBCH 45-51	BBCH 45-50	BBCH 37-41	BBCH 55-59	BBCH 59	BBCH 53-55	BBCH 49-51	BBCH 49-59	BBCH 49-55	BBCH 56-58	BBCH 57-59	BBCH 65-69
Soil type	loamy sand	sandy loam	loamy sand	loamy sand	sandy loam	sandy loam	sandy loam	loamy sand	loamy sand	loamy sand	loamy sand	loamy sand	loamy sand	loamy sand	loamy clay	loam	loam	loam	loam	loam
pH	6,5	5,6	4,7	6,4	5,3	6,6	5,4	6,2	6,8	6,0	6,4	6,8	6,0	6,4	6,3	6,2	6,5	6,5	6,2	6,5
Water (L/ha) (application A and B)	200 L/ha	200 L/ha	200 L/ha	200 L/ha	200 L/ha	300 L/ha	300 L/ha	200 L/ha	230 L/ha	200 L/ha	200 L/ha	200 L/ha	200 L/ha	200 L/ha	225 L/ha	300 L/ha	300 L/ha	225 L/ha	300 L/ha	300 L/ha

Details of agricultural measures, fertilization, and other plant protection products applied during the experiments are included in detailed field study reports listed above.

Summary of the data from effectiveness trials can be found at Appendix 5.

#### Efficacy tests

The 61 trials (winter wheat 20 trials, winter triticale 10 trials, winter rye 11 trials, spring barley 20 trials) have been carried out in 2020 and in 2021 in Poland and Czech Republic.

The fungicide CHR/F/PYRA 250 EC was applied twice per season in the spring:

in winter wheat, winter triticale, winter rye and spring barley at the following rates of 0.6, 0.8, 1.0 L/ha.

Tested fungicide was applied at the growth stage:

BBCH 27-71 in winter wheat,

BBCH 25-69 in winter triticale,

BBCH 28-71 in winter rye,

and BBCH 25-69 in spring barley.

Table 3.2-10: Details on trial methodology

Guidelines	General guidelines	PP 1/152 (3) Design and analysis of efficacy evaluation trials
		PP 1/181 (3) Conduct and reporting of efficacy evaluation trials including good experimental practice
		PP 1/135 (3) Phytotoxicity assessment
	Specific guidelines	PP 1/26(4) Foliar and ear diseases on cereals
Experimental design	Plot design	Randomized Complete Block (RCB) – (61)
	Plot size	Winter wheat: 16.00-24.0 m <sup>2</sup> Winter triticale: 17.5-27.5 m <sup>2</sup> Winter rye: 17.5-25.0 m <sup>2</sup> Spring barley: 15.0-25.0 m <sup>2</sup>
	Number of replications	4 (61)
Crop	Trials per crop	Winter wheat (20) Winter triticale (10) Winter rye (11) Spring barley (20)
	Varieties per crop	Winter wheat: Euforia, Arkadia, Kilimanjaro, Wilejka, Admont, Ostroga, Hondia, Emil, Bogatka, Princeps, Argument, Balitus, Rivero, Tobak Winter triticale: Orinoko, Borowik, Lombardo, Belcanto, Meloman, RO-TONDO, Agostino Winter rye: Serafino, KWS Serafino, KWS Berado, Dańkowskie Diament, Dolaro, Poznańskie, KWS Dolaro, Dańkowskie Skand, KWS Jethro, Herakles, SU Cossani Spring barley: RGT Planet, Quench, Propino, Ellinor, Laureate, KWS IRINA, Avatar, KWS Vermont, Iron, Penguin, Stratus, Olympic, Laudis, KWS Amadora, Overture, KWS Iris
	Sowing period	Winter wheat: 17.09.2019-05.10.2019, 15.09.2020-12.10.2020 Winter triticale: 21.09.2019-30.10.2019, 24.09.2020-29.10.2020 Winter rye: 10.09.2019-03.10.2019, 10.09.2020-01.10.2020 Spring barley: 09.03.2020-06.04.2020, 01.04.2021-27.04.2021
Application	Crop stage (BBCH)* at application	Winter wheat: BBCH 27-71 Winter triticale: BBCH 25-69 Winter rye: BBCH 28-71 Spring barley: BBCH 25-69

	Timing Pest stage at application (1)	The data available in Appendix 4
	Number of applications Intervals between applications	2 (61 trials), interval: Winter wheat: 12-53 Winter triticale: 14-48 Winter rye: 13-37 Spring barley: 11-22
	Spray volumes	Winter wheat: 200-300 L/ha Winter triticale: 200-300 L/ha Winter rye: 200-300 L/ha Spring barley: 200-300 L/ha
Assessment	Assessment types	Assessment of efficacy Assessment of phytotoxicity
	Assessment dates	Assessment dates deatalis is available in Appendix 4
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	Winter wheat pH: 5.2-7.7 Winter triticale pH: 4.6-7.1 Winter rye pH: 4.2-7.1 Spring barley pH: 4.7-6.8
	e.g. Natural / artificial inoculation...	n/a
	e.g. Field / Green-house...	n/a
	...	n/a

\* BBCH for weeds, pre-emergence, preventive / curative application, insect stage...

### Crop(s) 1 AND/OR Target(s) 1

A total of 61 trials were carried out to evaluate the efficacy of product CHR/F/PYRA for the control of most important fungal diseases in winter wheat, winter triticale, winter rye and spring barley.

Efficacy data for fungal diseases are presented from 61 efficacy trials assessed. The trials have been conducted in 2020 and 2021 in Poland and Czech Republic.

#### 3.2.3-1 Efficacy tests of CHR/F/PYRA

##### Winter wheat

The 20 trials were carried out in winter wheat in 2020 and 2021. The fungicide CHR/F/PYRA was applied twice per season at the following rates of 0.6, 0.8, 1.0, L/ha. The treatments was conducted at the growth stage:

- from 5 tillers detectable to the end of flowering: all spikelets have completed flowering but some dehydrated anthers may remain (from BBCH 25 to BBCH 69).

##### Winter triticale

The 10 trials were carried out in winter triticale in 2020 and 2021. The fungicide CHR/F/PYRA was applied twice per season at the following rates of 0.6, 0.8, 1.0, L/ha. The treatments was conducted at the growth stage:

- from 5 tillers detectable to the end of flowering: all spikelets have completed flowering but some dehydrated anthers may remain (from BBCH 25 to BBCH 69).

### **Winter rye**

The 11 trials were carried out in winter rye in 2020 and 2021. The fungicide CHR/F/PYRA was applied twice per season at the following rates of 0.6, 0.8, 1.0, L/ha. The treatments were conducted at the growth stage:

- from 5 tillers detectable to the end of flowering: all spikelets have completed flowering but some dehydrated anthers may remain (from BBCH 25 to BBCH 69),

### **Spring barley**

The 20 trials were carried out in winter wheat in 2020 and 2021. The fungicide CHR/F/PYRA was applied twice per season at the following rates of 0.6, 0.8, 1.0, L/ha. The treatments were conducted at the growth stage:

- from 5 tillers detectable to the end of flowering: all spikelets have completed flowering but some dehydrated anthers may remain (from BBCH 25 to BBCH 69).

### **Winter wheat**

#### **3.2.3-1.1 The efficacy of CHR/F/PYRA in control of SEPTTR *Zymoseptoria tritici***

The efficiency of CHR/F/PYRA in control of *Zymoseptoria tritici* were investigated in 15 trials.

##### **Leaf**

The efficiency of CHR/F/PYRA in control of *Zymoseptoria tritici* was investigated in 15 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the low to high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 5.9 % (16 DA-A) to 96.7 % (14 DA-B), at rate 0.8 L/ha from 31.3 % (19 DA-B) to 100.0 % (21 DA-A), at rate 1.0 L/ha from 60.6 % (19 DA-B) to 100.0 % (21 DA-A, 14 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 84 % during the assessment (Appendix 5 tab. 1).

##### **Plant**

The efficiency of CHR/F/PYRA in control of *Zymoseptoria tritici* was investigated in 2 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the medium to high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 67.8 % (30 DA-B) to 72.5 % (14 DA-B), at rate 0.8 L/ha from 69.9 % (30 DA-B) to 78.6 % (14 DA-B), at rate 1.0 L/ha from 81.1 % (30 DA-B) to 84.3 % (14 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 82 % during the assessment (Appendix 5 tab. 2).

#### **3.2.3-1.2 The efficacy of CHR/F/PYRA in control of PYRNTR *Pyrenophora tritici-repentis***

The efficiency of CHR/F/PYRA in control of *Pyrenophora tritici-repentis* were investigated in 7 trials.

##### **Leaf**

The efficiency of CHR/F/PYRA in control of *Pyrenophora tritici-repentis* were investigated in 7 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the medium to high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 23.6 % (28 DA-B) to 93.89 % (16 DA-B), at rate 0.8 L/ha from 34.1 % (28 DA-B) to 94.45 % (0 DA-B), at rate 1.0 L/ha from 57.4 % (28 DA-B) to 96.3 % (0 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 83 % during the assessment (Appendix 5 tab. 3).

##### **Plant**

The efficiency of CHR/F/PYRA in control of *Pyrenophora tritici-repentis* were investigated in 2 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the low to medium level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 52.5 % (28 DA-B) to 64.4 % (17 DA-B), at rate 0.8 L/ha from 55.7 % (28 DA-B) to 68.3 % (28 DA-B), at rate 1.0 L/ha from 66.0 % (28 DA-B) to 77.8 % (28 DA-B). The efficacy of the tested fungicide was higher than the standard product. In

the trial efficacy amounted above 71 % during the assessment (Appendix 5 tab. 4).

### **3.2.3-1.3 The efficacy of CHR/F/PYRA in control of PUC CST/PUC CSI *Puccinia striiformis tritici***

The efficiency of CHR/F/PYRA in control of *Puccinia striiformis tritici* was investigated in 4 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the medium to high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 54.0 % (14 DA-B) to 100.0 % (21 DA-A; 21, 35 DA-B), at rate 0.8 L/ha from 71.4 % (14 DA-B) to 100.0 % (21 DA-A; 21, 35 DA-B), at rate 1.0 L/ha from 84.73 % (16 DA-B) to 100.0 % (21 DA-A; 21, 35 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 94 % during the assessment (Appendix 5 tab. 5).

### **3.2.3-1.4 The efficacy of CHR/F/PYRA in control of PUC CRE *Puccinia recondita***

The efficiency of CHR/F/PYRA in control of *Puccinia recondita* were investigated in 8 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 31.5 % (21 DA-A) to 98.7 % (28 DA-B), at rate 0.8 L/ha from 46.4 % (21 DA-A) to 100.0 % (28 DA-B), at rate 1.0 L/ha from 54.2 % (21 DA-A) to 100.0 % (19, 28, 30 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 87 % during the assessment (Appendix 5 tab. 6).

### **3.2.3-1.5 The efficacy of CHR/F/PYRA in control of ERY SGR *Blumeria graminis***

The efficiency of CHR/F/PYRA in control of *Blumeria graminis* were investigated in 11 trials.

#### **Leaf**

The efficiency of CHR/F/PYRA in control of ERY SGR *Blumeria graminis* was investigated in 11 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 0.0 % (0 DA-B) to 85.67 % (21 DA-B), at rate 0.8 L/ha from 23.4 % (0 DA-B) to 96.0 % (21 DA-B), at rate 1.0 L/ha from 32.3 % (21 DA-A) to 100.0 % (0, 21 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 75 % during the assessment (Appendix 5 tab. 7).

#### **Plant**

The efficiency of CHR/F/PYRA in control of *Blumeria graminis* was investigated in 3 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the low to medium level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 42.1 % (28 DA-B) to 61.3 % (14 DA-B), at rate 0.8 L/ha from 60.2 % (0 DA-B) to 73.5 % (28 DA-B), at rate 1.0 L/ha from 65.1 % (30 DA-B) to 80.2 % (28 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 70 % during the assessment (Appendix 5 tab. 8).

#### **Winter triticale**

### **3.2.3-1.6 The efficacy of CHR/F/PYRA in control of RHY NSE *Rhynchosporium secalis***

The efficiency of CHR/F/PYRA in control of *Rhynchosporium secalis* were investigated in 4 trials.

#### **Leaf**

The efficiency of CHR/F/PYRA in control of *Rhynchosporium secalis* were investigated in 4 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the medium level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 28.8 % (14 DA-A) to 86.9 % (15 DA-B), at rate 0.8 L/ha from 28.8 % (14 DA-A) to 88.8 % (15 DA-B), at rate 1.0 L/ha from 35.4 % (14 DA-A) to 93.4 % (15 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 62.3% during the assessment (Appendix 5 tab. 9).

#### **Plant**

The efficiency of CHR/F/PYRA in control of *Rhynchosporium secalis* were investigated in 2 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the low to medium level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 40.9% (14 DA-A) to 55.3 % (35 DA-B), at rate 0.8 L/ha from 41.3 % (14 DA-A) to 70.8 % (35 DA-B), at rate 1.0 L/ha from 48.0 % (14 DA-A) to 83.0 % (28 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 49.3% during the assessment (Appendix 5 tab. 10).

#### **3.2.3-1.7 The efficacy of CHR/F/PYRA in control of ERYSGR *Blumeria graminis***

The efficiency of CHR/F/PYRA in control of *Blumeria graminis* were investigated in 8 trials.

#### **Leaf**

The efficiency of CHR/F/PYRA in control of *Blumeria graminis* were investigated in 8 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the medium to high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 5.1 % (46 DA-A) to 91.7 % (21 DA-A), at rate 0.8 L/ha from 23.3 % (46 DA-A) to 95.2 % (21 DA-A), at rate 1.0 L/ha from 42.9 % (46 DA-A) to 100.0 % (14 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 71.1% during the assessment (Appendix 5 tab. 11).

#### **Plant**

The efficiency of CHR/F/PYRA in control of *Blumeria graminis* were investigated in 2 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the low to medium level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 54.2 % (14 DA-A) to 71.8 % (18 DA-A), at rate 0.8 L/ha from 66.2 % (14 DA-A) to 78.6 % (18 DA-A), at rate 1.0 L/ha from 70.2 % (14 DA-A) to 83.8 % (18 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 39.2% during the assessment (Appendix 5 tab. 12).

#### **3.2.3-1.8 The efficacy of CHR/F/PYRA in control of PUC CST *Puccinia striiformis***

The efficiency of CHR/F/PYRA in control of *Puccinia striiformis* were investigated in 3 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the low to high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 12.4 % (14 DA-B) to 81.5 % (21 DA-A), at rate 0.8 L/ha from 38.9 % (46 DA-A) to 98.2 % (14 DA-B), at rate 1.0 L/ha from 57.7 % (46 DA-A) to 99.1 % (14 DA-B). The efficacy of the tested fungicide was slightly lower than the standard product. In the trial efficacy amounted above 86.4% during the assessment (Appendix 5 tab. 13).

#### **3.2.3-1.9 The efficacy of CHR/F/PYRA in control of PYRNTR *Pyrenophora tritici-repentis***

The efficiency of CHR/F/PYRA in control of *Pyrenophora tritici-repentis* were investigated in 6 trials.

#### **Leaf**

The efficiency of CHR/F/PYRA in control of *Pyrenophora tritici-repentis* were investigated in 6 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the medium to high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 41.4 % (21 DA-B) to 89.5 % (21 DA-B), at rate 0.8 L/ha from 53.4 % (21 DA-B) to 92.6 % (21 DA-A), at rate 1.0 L/ha from 72.9 % (21 DA-B) to 97.9 % (28 DA-A). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 80.3% during the assessment (Appendix 5 tab. 14).

#### **Plant**

The efficiency of CHR/F/PYRA in control of *Pyrenophora tritici-repentis* was investigated in 1 trial. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the low to medium level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 48.3 % (28 DA-B) to 53.7 % (21 DA-B), at rate 0.8 L/ha from 63.9 % (21 DA-B) to 68.7 % (28 DA-B), at rate 1.0 L/ha from 78.1 % (21 DA-B) to 80.1 % (28 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial



efficacy amounted above 74.7% during the assessment (Appendix 5 tab. 15).

#### **Winter rye**

##### **3.2.3-1.10 The efficacy of CHR/F/PYRA in control of RHYNSE *Rhynchosporium secalis***

The efficiency of CHR/F/PYRA in control of *Rhynchosporium secalis* was investigated in 8 trials.

#### **Leaf**

The efficiency of CHR/F/PYRA in control of RHYNSE *Rhynchosporium secalis* was investigated in 8 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the medium to high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 32.03% (14 DA-B) to 83.42% (21 DA-A), at rate 0.8 L/ha from 50.14% (14 DA-B) to 91.15% (21 DA-A), at rate 1.0 L/ha from 65.81% (27 DA-B) to 95.30% (21 DA-B). The efficacy of the tested fungicide was comparable to the standard product. In the trial efficacy amounted above 77.23% during the assessment (Appendix 5 tab. 16).

#### **Plant**

The efficiency of CHR/F/PYRA in control of RHYNSE *Rhynchosporium secalis* was investigated in 1 trial. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the medium to high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 69.60 % (19 DA-B) to 78.20% (0 DA-B), at rate 0.8 L/ha from 75.40% (19 DA-B) to 84.50% (0 DA-B), at rate 1.0 L/ha from 81.00% (19 DA-B) to 86.70% (0 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 67.97% during the assessment (Appendix 5 tab. 17).

##### **3.2.3-1.11 The efficacy of CHR/F/PYRA in control of PUCCRE *Puccinia recondita***

The efficiency of CHR/F/PYRA in control of PUCCRE *Puccinia recondita* was investigated in 7 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the medium to high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 54.14% (36 DA-B) to 100% (35 DA-B), at rate 0.8 L/ha from 60.40% (21 DA-B) to 100% (35 DA-B), at rate 1.0 L/ha from 80.20% (21 DA-B) to 100% (35 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 89.86% during the assessment (Appendix 5 tab. 18).

##### **3.2.3-1.12 The efficacy of CHR/F/PYRA in control of SEPTTR *Zymoseptoria tritici***

The efficiency of CHR/F/PYRA in control of SEPTTR *Zymoseptoria tritici* was investigated in 3 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the medium to high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 41.67% (21 DA-B) to 69.40% (21 DA-B), at rate 0.8 L/ha from 58.77% (21 DA-B) to 77.10% (21 DA-B), at rate 1.0 L/ha from 78.12% (21 DA-B) to 85.90% (21 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 80.27% during the assessment (Appendix 5 tab. 19).

##### **3.2.3-1.13 The efficacy of CHR/F/PYRA in control of ERYSGR *Blumeria graminis***

The efficiency of CHR/F/PYRA in control of ERYSGR *Blumeria graminis* was investigated in 6 trials.

#### **Leaf**

The efficiency of CHR/F/PYRA in control of ERYSGR *Blumeria graminis* was investigated in 6 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the medium to high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 39.20% (15 DA-A) to 83.40% (21 DA-A), at rate 0.8 L/ha from 63.60% (31 DA-B) to 93.70% (41 DA-B), at rate 1.0 L/ha from 69.90% (31 DA-B) to 98.30% (41 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 61.95% during the assessment (Appendix 5 tab. 20).



#### **Plant**

The efficiency of CHR/F/PYRA in control of ERYSGR *Blumeria graminis* was investigated in 1 trial. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the medium level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 63.00% (31 DA-B) to 72.30% (19 DA-B), at rate 0.8 L/ha from 65.70% (31 DA-B) to 76.00% (19 DA-B), at rate 1.0 L/ha from 70.90% (31 DA-B) to 78.80% (19 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 38.10% during the assessment (Appendix 5 tab. 21).

#### **Spring barley**

##### **3.2.3-1.14 The efficacy of CHR/F/PYRA in control of PYRNTE *Pyrenophora teres***

The efficiency of CHR/F/PYRA in control of *Pyrenophora teres* was investigated in 15 trials.

#### **Leaf**

The efficiency of CHR/F/PYRA in control of PYRNTE *Pyrenophora teres* was investigated in 15 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the medium to high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 8.30% (38 DA-B) to 89.95% (24 DA-B), at rate 0.8 L/ha from 31.10% (38 DA-B) to 94.59% (24 DA-B), at rate 1.0 L/ha from 59.00% (28 DA-B) to 97.10 (21 DA-B). The efficacy of the tested fungicide was comparable to the standard product. In the trial efficacy amounted above 83.14% during the assessment (Appendix 5 tab. 22).

#### **Plant**

The efficiency of CHR/F/PYRA in control of PYRNTE *Pyrenophora teres* was investigated in 5 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the medium to high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 48.30% (20 DA-B) to 80.60% (14 DA-b), at rate 0.8 L/ha from 53.20% (28 DA-B) to 91.10% (28 DA-), at rate 1.0 L/ha from 64.40% (28 DA-B) to 93.40% (0 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 73.85% during the assessment (Appendix 5 tab. 23).

##### **3.2.3-1.15 The efficacy of CHR/F/PYRA in control of ERYSGR *Blumeria graminis***

The efficiency of CHR/F/PYRA in control of ERYSGR *Blumeria graminis* was investigated in 6 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the medium to high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 45.10% (17 DA-B) to 90.77% (17 DA-B), at rate 0.8 L/ha from 63.70% (17 DA-B) to 92.84% (17 DA-B), at rate 1.0 L/ha from 80.62% (30 DA-B) to 100% (17-21 DA-B). The efficacy of the tested fungicide was comparable to the standard product. In the trial efficacy amounted above 88.80% during the assessment (Appendix 5 tab. 24).

##### **3.2.3-1.16 The efficacy of CHR/F/PYRA in control of RHYNSE *Rhynchosporium secalis***

The efficiency of CHR/F/PYRA in control of *Rhynchosporium secalis* was investigated in 11 trials.

#### **Leaf**

The efficiency of CHR/F/PYRA in control of RHYNSE *Rhynchosporium secalis* was investigated in 11 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the medium to high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 36.00% (28 DA-B) to 94.33% (13 DA-A), at rate 0.8 L/ha from 45.10% (28 DA-B) to 96.89% (19 DA-A), at rate 1.0 L/ha from 62.90% (28 DA-B) to 100% (13 DA-A). The efficacy of the tested fungicide was comparable to the standard product. In the trial efficacy amounted above 81.44% during the assessment (Appendix 5 tab. 25).

#### **Plant**

The efficiency of CHR/F/PYRA in control of RHYNSE *Rhynchosporium secalis* was investigated in 3 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the low to medium level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 40.70% (28 DA-B) to

70.10% (35 DA-B), at rate 0.8 L/ha from 53.60% (28 DA-B) to 78.00% (18 DA-B), at rate 1.0 L/ha from 66.20% (28 DA-B) to 85.60% (18 DA-B). The efficacy of the tested fungicide was lower than the standard product. In the trial efficacy amounted above 54.80% during the assessment (Appendix 5 tab. 26).

### **3.2.3-1.17 The efficacy of CHR/F/PYRA in control of PUCCHD *Puccinia hordei***

The efficiency of CHR/F/PYRA in control of *Puccinia hordei* was investigated in 9 trials.

#### **Leaf**

The efficiency of CHR/F/PYRA in control of PUCCHD *Puccinia hordei* was investigated in 9 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 54.60% (38 DA-B) to 100% (24 DA-B), at rate 0.8 L/ha from 50.14% (13 DA-A) to 100% (24 DA-B), at rate 1.0 L/ha from 78.37% (13 DA-A) to 100% (24 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 94.57% during the assessment (Appendix 5 tab. 27).

#### **Plant**

The efficiency of CHR/F/PYRA in control of PUCCHD *Puccinia hordei* was investigated in 3 trials. The tested product at rates 0.6, 0.8, 1.0 L/ha controlled this species of fungal from the high level of efficacy. The effectiveness fluctuated from at rate 0.6 L/ha from 85.70% (28 DA-B) to 99.20% (28 DA-B), at rate 0.8 L/ha from 92.90% (28 DA-B) to 99.50% (28 DA-B), at rate 1.0 L/ha from 95.70% (28 DA-B) to 100% (28 DA-B). The efficacy of the tested fungicide was higher than the standard product. In the trial efficacy amounted above 96.20% during the assessment (Appendix 5 tab. 28).

### **Conclusions on the biological efficacy**

The obtained data in performed trials show that CHR/F/PYRA provides benefits against the most important fungal diseases in winter wheat, winter triticale, winter rye and spring barley. On the basis of submitted research, it is possible to state that CHR/F/PYRA used at dose controlled:

### **Winter wheat application BBCH 25-69**

#### **Dose 0.6 L/ha**

Effectively controlled: *Puccinia recondita* (PUCCRE)

Medium effectively: *Zymoseptoria tritici* (SEPTTR), *Pyrenophora tritici-repentis* (PYRNTR), *Puccinia striiformis tritici* (PUCCST)

Resistant: *Blumeria graminis* (ERYSGR)

#### **Dose 0.8 L/ha**

Effectively controlled: *Puccinia striiformis tritici* (PUCCST)

Medium effectively: *Puccinia recondita* (PUCCRE), *Zymoseptoria tritici* (SEPTTR), *Pyrenophora tritici-repentis* (PYRNTR), *Blumeria graminis* (ERYSGR)

#### **Dose 1.0 L/ha**

Effectively controlled: *Puccinia recondita* (PUCCRE), *Puccinia striiformis tritici* (PUCCST), *Zymoseptoria tritici* (SEPTTR)

Medium effectively: *Pyrenophora tritici-repentis* (PYRNTR), *Blumeria graminis* (ERYSGR)

### **Winter triticale application BBCH 25-69**

#### **Dose 0.6 L/ha**

Medium effectively: *Blumeria graminis* (ERYSGR)

Resistant: *Rhynchosporium secalis* (RHYNSE), *Pyrenophora tritici-repentis* (PYRNTR), *Puccinia striiformis tritici* (PCCST)

**Dose 0.8 L/ha**

Medium effectively: *Blumeria graminis* (ERYSGR), *Rhynchosporium secalis* (RHYNSE), *Pyrenophora tritici-repentis* (PYRNTR), *Puccinia striiformis tritici* (PCCST)

**Dose 1.0 L/ha**

Effectively controlled: *Blumeria graminis* (ERYSGR), *Pyrenophora tritici-repentis* (PYRNTR), *Puccinia striiformis tritici* (PCCST)

Medium effectively: *Rhynchosporium secalis* (RHYNSE)

**Winter rye application BBCH 25-69**

**Dose 0.6 L/ha**

Medium effectively: *Rhynchosporium secalis* (RHYNSE), *Puccinia recondita* (PCCRE), *Blumeria graminis* (ERYSGR)

Resistant: *Zymoseptoria tritici* (SEPTTR)

**Dose 0.8 L/ha**

Effectively controlled: *Puccinia recondita* (PCCRE),

Medium effectively: *Rhynchosporium secalis* (RHYNSE), *Blumeria graminis* (ERYSGR), *Zymoseptoria tritici* (SEPTTR)

**Dose 1.0 L/ha**

Effectively controlled: *Puccinia recondita* (PCCRE), *Rhynchosporium secalis* (RHYNSE), *Blumeria graminis* (ERYSGR), *Zymoseptoria tritici* (SEPTTR)

**Spring barley application BBCH 25-59**

**Dose 0.6 L/ha**

Effectively controlled: *Puccinia hordei* (PCCHD)

Medium effectively: *Pyrenophora teres* (PYRNTE), *Blumeria graminis* (ERYSGR), *Rhynchosporium secalis* (RHYNSE)

**Dose 0.8 L/ha**

Effectively controlled: *Puccinia hordei* (PCCHD), *Blumeria graminis* (ERYSGR)

Medium effectively: *Pyrenophora teres* (PYRNTE), *Rhynchosporium secalis* (RHYNSE)

**Dose 1.0 L/ha**

Effectively controlled: *Puccinia hordei* (PCCHD), *Blumeria graminis* (ERYSGR), *Pyrenophora teres* (PYRNTE), *Rhynchosporium secalis* (RHYNSE)

**Table 3.2-1: Efficacy of CHR/F/PYRA 250 EC at the timing of assessment.**

Winter wheat

Target	CHR/F/PYRA at rate	Number of trials	Infestation in the un- treated control (% leaf area/stems/ears)		% control				No of trials where Product is >, <, = com- pared to stand- ard(s)**
					CHR/F/PYRA 250 EC		Makler 250 SC		
			Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	
SEPTTR <i>Zymoseptoria tritici</i> – leaf	0.6 L/ha	15	23.3	5.0 & 85.0	60.71	5.90 & 96.70	81.40	43.50 & 100	
	0.8 L/ha				74.53	31.30 & 100			
	1.0 L/ha				84.88	60.60 & 100			
SEPTTR <i>Zymoseptoria tritici</i> – plant	0.6 L/ha	2	8.5	7.2 & 9.6	70.70	67.80 & 72.50	65.47	64.00 & 66.30	
	0.8 L/ha				74.60	69.90 & 78.60			
	1.0 L/ha				82.53	81.10 & 84.30			
PYRNTR <i>Pyrenophora tritici- repentis</i> – leaf	0.6 L/ha	7	13.3	5.0 & 42.9	63.91	23.60 & 93.89	68.34	11.50 & 93.90	
	0.8 L/ha				75.05	34.10 & 94.45			
	1.0 L/ha				83.34	57.40 & 96.30			
PYRNTR <i>Pyrenophora tritici- repentis</i> – plant	0.6 L/ha	2	24.2	9.4 & 55.3	56.80	52.50 & 64.40	46.15	15.20 & 62.60	
	0.8 L/ha				64.15	55.70 & 68.30			
	1.0 L/ha				71.93	66.00 & 77.80			
PUCCST <i>Puccinia striiformis tritici</i>	0.6 L/ha	3	18.7	5.0 & 41.38	83.33	54.00 & 100	94.33	77.66 & 100	
	0.8 L/ha				90.94	71.40 & 100			
	1.0 L/ha				94.92	84.73 & 100			
PUCCRE <i>Puccinia recondita</i>	0.6 L/ha	5	9.4	5.0 & 24.4	68.19	31.50 & 98.70	84.41	52.50 & 100	
	0.8 L/ha				79.48	46.40 & 100			
	1.0 L/ha				87.28	54.20 & 100			
ERYSGR <i>Blumeria graminis</i> – leaf	0.6 L/ha	9	11.4	5.0 & 55.0	45.42	0.00 & 85.67	63.46	12.30 & 100	
	0.8 L/ha				63.16	23.40 & 96.00			
	1.0 L/ha				75.41	32.30 & 100			
ERYSGR <i>Blumeria graminis</i> – plant	0.6 L/ha	3	9.1	6.0 & 13.1	53.81	42.10 & 61.30	36.37	20.50 & 46.30	
	0.8 L/ha				64.97	60.20 & 73.50			
	1.0 L/ha				70.50	65.10 & 80.20			

\* A, B, C can be a “trial group” (as defined in page 10, e.g. EPPO climatic zone A) or a specific target (e.g. weed A, weed B...). In order to adapt the table to the data presented, it is possible:

- to add lines or columns,
- to duplicate the table (e.g. one table for “trial group 1”, one table for “trial group 2”, one table for “all”).

\*\* Optional

Winter triticales

Target	CHR/F/PYR A at rate	Number of trials	Infestation in the un- treated control (% leaf area/stems/ears)		% control				No of trials where Product is >, <, = com- pared to stand- ard(s)**
					CHR/F/PYRA 250 EC		Makler 250 SC		
			Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	
RHYNSE <i>Rhynchosporium secalis</i> – leaf	0.6 L/ha	4	21.5	5.0 & 70.9	59.44	28.80 & 86.92	62.32	16.00 & 89.81	
	0.8 L/ha				67.99	28.80 & 88.83			
	1.0 L/ha				76.51	35.40 & 93.41			
RHYNSE <i>Rhynchosporium secalis</i> – plant	0.6 L/ha	2	15.8	6.7 & 22.8	46.28	40.90 & 55.30	49.28	26.40 & 72.30	
	0.8 L/ha				61.76	41.30 & 70.80			
	1.0 L/ha				71.12	48.00 & 83.00			
ERYSGR <i>Blumeria graminis</i> – leaf	0.6 L/ha	8	8.1	5.0 & 33.3	63.68	5.10 & 91.72	71.12	16.20 & 98.58	
	0.8 L/ha				75.54	23.30 & 95.16			
	1.0 L/ha				86.32	42.90 & 100			
ERYSGR <i>Blumeria graminis</i> – plant	0.6 L/ha	2	5.9	5.5 & 6.4	61.90	54.20 & 71.80	39.18	16.20 & 66.80	
	0.8 L/ha				70.78	66.20 & 78.60			
	1.0 L/ha				79.90	70.20 & 83.80			
PUCCST <i>Puccinia strii- formis</i>	0.6 L/ha	3	12.7	5.0 & 32.0	48.97	12.40 & 81.50	86.39	62.90 & 100	
	0.8 L/ha				70.86	38.90 & 98.20			
	1.0 L/ha				85.93	57.70 & 99.10			
PYRNTR <i>Pyrenophora tritici-repentis</i> – leaf	0.6 L/ha	6	10.7	5.0 & 48.1	66.38	41.40 & 89.46	80.30	64.25 & 92.46	
	0.8 L/ha				77.51	53.40 & 92.57			
	1.0 L/ha				86.39	72.90 & 97.88			
PYRNTR <i>Pyrenophora tritici-repentis</i> – plant	0.6 L/ha	1	10.5	9.4 & 11.6	51.00	48.30 & 53.70	74.65	72.90 & 76.40	
	0.8 L/ha				66.30	63.90 & 68.70			
	1.0 L/ha				79.10	78.10 & 80.10			

\* A, B, C can be a “trial group” (as defined in page 10, e.g. EPPO climatic zone A) or a specific target (e.g. weed A, weed B...). In order to adapt the table to the data presented, it is possible:

- to add lines or columns,
- to duplicate the table (e.g. one table for “trial group 1”, one table for “trial group 2”, one table for “all”).

\*\* Optional

Target	CHR/F/PYRA at rate	Number of trials	Infestation in the un- treated control (% leaf area/stems/ears)		% control				No of trials where Product is >, <, = com- pared to stand- ard(s)**
					CHR/F/PYRA 250 EC		Makler 250 SC		
			Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	
RHYNSE <i>Rhynchosporium secalis</i> – leaf	0.6 L/ha	8	17.6	5.0 & 81.4	60.40	32.03 & 83.42	77.23	46.90 & 97.00	
	0.8 L/ha				75.78	50.14 & 91.15			
	1.0 L/ha				84.43	65.81 & 95.30			
RHYNSE <i>Rhynchosporium secalis</i> – plant	0.6 L/ha	1	11.9	8.9 & 13.9	73.07	69.60 & 78.20	67.97	60.70 & 75.10	
	0.8 L/ha				79.23	75.40 & 84.50			
	1.0 L/ha				83.23	81.00 & 86.70			
PUCCRE <i>Puccinia recondita</i>	0.6 L/ha	7	10.1	5.0 & 23.8	76.96	54.14 & 100	89.86	71.70 & 100	
	0.8 L/ha				85.28	60.40 & 100			
	1.0 L/ha				92.42	80.20 & 100			
SEPTTR <i>Zymoseptoria tritici</i>	0.6 L/ha	3	17.1	5.1 & 54.5	59.33	41.67 & 69.40	80.27	63.99 & 88.02	
	0.8 L/ha				71.68	58.77 & 77.10			
	1.0 L/ha				81.48	78.12 & 85.90			
ERYSGR <i>Blumeria graminis</i> – leaf	0.6 L/ha	6	12.8	5.0 & 45.3	68.70	39.20 & 83.40	61.95	13.20 & 97.90	
	0.8 L/ha				79.16	63.60 & 93.70			
	1.0 L/ha				85.89	69.90 & 98.30			
ERYSGR <i>Blumeria graminis</i> – plant	0.6 L/ha	1	11.2	5.3 & 14.9	67.97	63.00 & 72.30	38.10	30.00 & 45.70	
	0.8 L/ha				71.37	65.70 & 76.00			
	1.0 L/ha				75.77	70.90 & 78.80			

\* A, B, C can be a “trial group” (as defined in page 10, e.g. EPPO climatic zone A) or a specific target (e.g. weed A, weed B...). In order to adapt the table to the data presented, it is possible:

- to add lines or columns,

- to duplicate the table (e.g. one table for “trial group 1”, one table for “trial group 2”, one table for “all”).

\*\* Optional

Spring barley

Target	CHR/F/PYRA at rate	Number of trials	Infestation in the un- treated control (% leaf area/stems/ears)		% control				No of trials where Product is >, <, = com- pared to stand- ard(s)**
					CHR/F/PYRA 250 EC		Makler 250 SC		
			Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	
PYRNTE Pyre- nophora teres – leaf	0.6 L/ha	15	19.4	5.0 & 48.5	62.67	8.30 & 89.95	83.14	57.60 & 96.20	
	0.8 L/ha				76.15	31.10 & 94.59			
	1.0 L/ha				85.42	59.00 & 97.10			
PYRNTE, Pyre- nophora teres – plant	0.6 L/ha	5	29.3	6.3 & 96.5	67.48	48.30 & 80.60	73.85	55.60 & 86.90	
	0.8 L/ha				76.42	53.20 & 91.10			
	1.0 L/ha				83.88	64.40 & 93.40			
ERYSGR Blumeria graminis	0.6 L/ha	6	9.6	5.2 & 22.4	71.18	45.10 & 90.77	88.80	75.12 & 97.81	
	0.8 L/ha				81.42	63.70 & 92.84			
	1.0 L/ha				90.80	80.62 & 100			
RHYNSE Rhynchosporium secalis – leaf	0.6 L/ha	11	13.1	5.1 & 21.6	66.61	36.00 & 94.33	81.44	35.40 & 97.56	
	0.8 L/ha				77.76	45.10 & 96.89			
	1.0 L/ha				86.58	62.90 & 100			
RHYNSE Rhynchosporium secalis – plant	0.6 L/ha	3	11.8	6.1 & 18.0	56.35	40.70 & 70.10	54.80	42.50 & 69.50	
	0.8 L/ha				66.63	53.60 & 78.00			
	1.0 L/ha				75.33	66.20 & 85.60			
PUCCHD Puccinia hordei – leaf	0.6 L/ha	9	8.4	5.0 & 19.7	84.89	54.60 & 100	94.57	81.70 & 100	
	0.8 L/ha				90.90	50.14 & 100			
	1.0 L/ha				95.11	78.37 & 100			
PUCCHD Puccinia hordei – plant	0.6 L/ha	3	17.3	12.3 & 24.1	91.97	85.70 & 99.20	96.20	91.00 & 99.10	
	0.8 L/ha				96.40	92.90 & 99.50			
	1.0 L/ha				97.77	95.70 & 100			

\* A, B, C can be a “trial group” (as defined in page 10, e.g. EPPO climatic zone A) or a specific target (e.g. weed A, weed B...). In order to adapt the table to the data presented, it is possible:

- to add lines or columns,
- to duplicate the table (e.g. one table for “trial group 1”, one table for “trial group 2”, one table for “all”).

\*\* Optional

## Crop(s) 2 / Target(s)

Not applicable

## Minor use

Not applicable

## Comments of zRMS:

The applicant submitted 61 reports showing the results in research into product efficacy carried out in,

2020, 2021 on cultivars of:

- winter wheat (20 trials) against: *Zymoseptoria tritici*, *Blumeria graminis*, *Pyrenophora tritici-repentis*, *Puccinia recondita*, *Puccinia striiformis*;
- winter triticale (10 trials) against: *Blumeria graminis*, *Pyrenophora tritici-repentis*, *Puccinia striiformis*, *Rhynchosporium secalis*;
- winter rye (11 trials) against: *Rhynchosporium secalis*, *Zymoseptoria tritici*, *Blumeria graminis*, *Puccinia recondita*;
- spring barley (20 trials) against: *Pyrenophora teres*, *Blumeria graminis*, *Rhynchosporium secalis*, *Puccinia hordei*;

In these trials, the efficacy of CHR/F/PYRA 250 EC was compared to the reference product Makler 250 SE.

Trials were conducted in several region in Poland the Czech Republic. To be able to accept data the from CZ – the Maritime EPPO climatic zone, the Applicant presented the document „Comparison of climatic and agricultural conditions in Poland and the Czech Republic in reference to registration of plant protection product CHR/F/PYRA 250 EC”(Appendix 2).

Data from the Czech Republic were taken under account in the evaluation of the product efficacy.

In all mentioned regions winter wheat, winter triticale, spring barley and winter rye were grown commercially with natural diseases infection. Trials were of randomized block design with a minimum of four replicates. Details on trial sites, applications are included in the Appendix 3 and in the tables „Details of experiment”.

All trials were conducted by: A.T Sp. z o. o.; SynTech Research Poland sp. z o. o.; Poznań University of Life Sciences, Research and Education Center Gorzyń; SynTech Research Czech Republic s.r.o.; which are units with rights for performing investigation on efficacy of plant protection products. Investigations were performed according to principles of “Good Experimental Practice” (GEP).

The efficacy trials were designed, conducted and reported according to the following EPPO guidelines:

- PP 1/135 (4) Phytotoxicity assessment
- PP 1/152 (4) Design and analysis of efficacy evaluation trials
- PP 1/181 (4) Conduct and reporting of efficacy evaluation trials including good experimental practice
- PP 1/26 (4) Foliar and ear diseases on cereals

The product CHR/F/PYRA has been tested:

- in winter wheat at the following rates of 0,6; 0,8; 1,0 L/ha and was applied two times with an interval mainly 12 - 35 days and in the three trials with the interval 49-53 days (first dose rate - BBCH 25-29 and second dose rate up to BBCH 65 – 71, spray volume 200 – 300 l/ha);
- in winter triticale at the following rates of 0,6; 0,8; 1,0 L/ha and was applied two times with interval 18-49 days (first dose rate -BBCH 25-30 and second dose rate up to BBCH 65 – 69, spray volume 200 – 300 l/ha);
- in winter rye at the following rates of 0,6; 0,8; 1,0 L/ha and was applied two times with interval 13-46 days (first dose rate -BBCH 28-32 and second dose rate up tp BBCH 65 – 71, spray volume 200 – 300 l/ha);
- in spring barley at the following rates of 0,6; 0,8; 0, 1,0 L/ha and was applied two times with interval 13 - 34 days (first dose rate -BBCH 25-28 and second dose rate up to BBCH 65 – 69, spray volume 200 – 300 l/ha);

The recommended dose rate of product is 1,0 L/ha, applied up to two times per season.

The effectiveness of the product was describe according to the following scale

≥ 80% – Effectively controlled (E)

60 – 80% – Medium effectively controlled (ME)

0 – 60% – Limiting the number of pest (R)



< 40% - Not effective (N)

**Up to twice applications per season 1,0 L/ha + 1,0 L/ha**

The effectiveness of CHR/F/PYRA 250 EC on **winter wheat** was evaluated:

- against *Blumeria graminis* **ERYSGR** in the total number of 11 trials on **LEAVES** and in 3 trials on **PLANT** and achieved a medium level of disease control:
  - after I application (9 trials, **LEAVES**) 75,6 % and performed better than the reference product – **ME**;
  - after II application (9 trials, **LEAVES**) 77,4 % and performed better than the reference product – **ME**;
  - after II application (3 trials, **PLANT**) 70,5 % and performed better than the reference product – **ME**;
- against *Pyrenophora tritici-repentis* **PYRNTR** in the total number of 7 trials on **LEAVES** and in 2 trials on **PLANT** and the tested product:
  - after I application effectively controlled the disease (4 trials, **LEAVES**) – 90,4% and performed better than the reference product – **E**;
  - after II application effectively controlled the disease (7 trials, **LEAVES**) 80,6 % and performed better than the reference product – **E**;
  - after II application medium effectively controlled the disease (2 trials, **PLANT**) 71,3 % and performed better than the reference product – **ME**;
- against *Puccinia recondita* **PUCCRE** in the total number of 8 trials on **LEAVES** and the tested product:
  - after I application medium effectively controlled the disease (2 trials) – 74,6% and performed similarly to the reference product – **ME**;
  - after II application effectively controlled the disease (8 trials) 91,2 % and performed similarly to the reference product – **E**;
- against *Zymoseptoria tritici* **SEPTTR** in the total number of 15 trials on **LEAVES** and in 2 trials on **PLANT** and the tested product:
  - after I application effectively controlled the disease (13 trials, **LEAVES**) – 85,6% and performed similarly to the reference product – **E**;
  - after II application effectively controlled the disease (15 trials, **LEAVES**) 80,5 % and performed similarly to the reference product – **E**;
  - after II application effectively controlled the disease (2 trials, **PLANT**) 82,5 % and performed better than the reference product – **E**;
- against *Puccinia striiformis* **PUCSST** in the total number of 4 trials on **LEAVES** and the tested product:
  - after I application effectively controlled the disease (2 trials) – 95,3% and performed similarly to the reference product – **E**;
  - after II application effectively controlled the disease (4 trials) 94,8 % and performed similarly to the reference product – **E**;

The Applicant presented only four trials for control of *Puccinia striiformis*. This disease is considered minor relevance in so less number of trials might be sufficient to confirm efficacy.

The control of three leaf diseases-PUCCRE, PUCSST and PYRNTR-after the first application was assessed in a smaller number of trials, since these diseases occurred in the appropriate intensity at later developmental stages (BBCH) of wheat. The product performed efficiently or medium efficiently after the first and the second applications. Only in the case of PUCCRE is there an apparent difference in the product's effectiveness between the first and second applications. In this case, the product was evaluated after the first application in only two trials, and these results do not fully reflect the high efficacy of the

product. The second application showed high efficacy of the product, especially in many trials where the disease appeared at a later stage of wheat development and was controlled for the first time.

The effectiveness of CHR/F/PYRA 250 EC on **winter triticale** was evaluated:

- against *Blumeria graminis* **ERYSGR** in the total number of 8 trials on **LEAVES** and in 2 trials on **PLANT** and the tested product:
  - after I application effectively controlled the disease (8 trials, **LEAVES**) – 85,7% and performed better than the reference product – **E**;
  - after II application effectively controlled the disease (5 trials, **LEAVES**) 87,2 % and performed similarly to the reference product – **E**;
  - after I and II application controlled the disease (2 trials, **PLANT**) medium effectively 78,6% and effectively 83,8 % respectively and performed better than the reference product
- against *Pyrenophora tritici-repentis* **PYRNTR** in the total number of 6 trials on **LEAVES** and in 1 trial on **PLANT** and the tested product:
  - after I application effectively controlled the disease (4 trials, **LEAVES**) – 86,4% and performed better than the reference product – **E**;
  - after II application effectively controlled the disease (6 trials, **LEAVES**) 86,4 % and performed similarly to the reference product – **E**;
  - after II application medium effectively controlled the disease (1 trial, **PLANT**) 79,1 % and performed similarly to the reference product – **ME**;
- against *Rhynchosprum secalis* **RHYNSE** in the total number of 4 trials on **LEAVES** and the tested product:
  - after I application medium effectively controlled the disease (4 trials) – 71,0% and performed better than the reference product – **ME**;
  - after II application effectively controlled the disease (4 trials) 79,0 % and performed better than the reference product – **ME**;
- against *Puccinia striiformis* **PUCSST** in the total number of 3 trials on **LEAVES** and the tested product:
  - after I application effectively controlled the disease (3 trials) – 82,0% and performed similarly to the reference product – **E**;
  - after II application effectively controlled the disease (3 trials) 89,9 % and performed similarly to the reference product – **E**;

The Applicant presented only four trials each for control of *Puccinia striiformis* and *Rhynchosprum secalis*. These diseases are considered minor relevance so less number of trials might be sufficient to confirm efficacy. The product performed efficiently or medium efficiently after the first and the second applications.

The effectiveness of CHR/F/PYRA 250 EC on **winter rye** was evaluated:

- against *Blumeria graminis* **ERYSGR** in the total number of 6 trials on **LEAVES** and in 2 trials on **PLANT** and the tested product:
  - after I application effectively controlled the disease (5 trials, **LEAVES**) – 87,5% and performed better than the reference product – **E**;
  - after II application effectively controlled the disease (4 trials, **LEAVES**) 84,8 % and performed better than the reference product – **E**;
  - after I and II application controlled the disease (2 trials, **PLANT**) medium effectively 77,6% and effectively 74,8 % respectively and performed better than the reference product
- against *Pyrenophora tritici-repentis* **PUCCRE** in the total number of 7 trials on **LEAVES** and

the tested product after the II application effectively controlled the disease 92,4 % and performed similarly to the reference product – **E**;

The control of leaf disease PUCCRE was assessed only after the second product application, since this disease occurred in the appropriate intensity at later developmental stages (BBCH) of rye. The second application showed high efficacy of the product and was the first application to control this disease.

- against *Rhynchosporium secalis* **RHYNSE** in the total number of 8 trials on **LEAVES** and in 2 trials on **PLANT** and the tested product:
  - after I application effectively controlled the disease (7 trials, **LEAVES**) – 86,6% and performed a litter better than the reference product – **E**;
  - after II application effectively controlled the disease (8 trials, **LEAVES**) - 83,5 % and performed better than the reference product – **E**;
  - after I and II application effectively controlled the disease (2 trials, **PLANT**) 87,% and 81,5 % respectively and performed better than the reference product
- against *Zymoseptoria tritici* **SEPTTR** in the total number of 3 trials on **LEAVES** and the tested product after the II application effectively controlled the disease 81,5 % and performed similarly to the reference product – **E**;

The Applicant presented only three trials for control of *Zymoseptoria tritici* in rye. This disease is considered minor relevance in rye so less number of trials might be sufficient to confirm efficacy. What is more the control of leaf disease SEPTTR was assessed only after the second product application, since this disease occurred in the appropriate intensity at later developmental stages (BBCH) of rye. The second application showed high efficacy of the product and was the first application to control this disease.

The effectiveness of CHR/F/PYRA 250 EC on spring barley was evaluated:

- against *Puccinia hordei* **PUCCHD** in the total number of 9 trials on **LEAVES** and in 3 trials on **PLANT** and the tested product:and the tested product:
  - after I application effectively controlled the disease (2 trials) – 89,9% and performed similarly to the reference product – **E**;
  - after II application effectively controlled the disease (7 trials) 96,4 % and performed similarly to the reference product – **E**
  - after II application effectively controlled the disease (3 trials, **PLANT**) 97,8 % and performed similarly to the reference product – **E**;
- against *Pyrenophora teres* **PYRNTE** in the total number of 15 trials on **LEAVES** and in 6 trials on **PLANT** and the tested product:
  - after I application effectively controlled the disease (8 trials, **LEAVES**) – 87,6% and comparable to the reference product – **E**;
  - after II application effectively controlled the disease (14 trials, **LEAVES**) 84,5 % and performed comparable to the reference product – **E**;
  - after I and II application controlled the disease effectively - 93,4% (1 trial, **PLANT**) and effectively - 82,8 % (5 trials, **PLANT**) respectively and performed better than the reference product
- against *Erysiphe graminis* **ERYSGR** in the total number of 6 trials on **LEAVES** and the tested product:
  - after I application effectively controlled the disease (5 trials) – 92,5% and performed comparable to the reference product – **E**;
  - after II application effectively controlled the disease (4 trials) - 82,8 % and performed comparable to the reference product – **E**;
- against *Rhynchosporium secalis* **RHYNSE** in the total number of 9 trials on **LEAVES** and in 4

trials on **PLANT** and the tested product:

- after I application effectively controlled the disease (9 trials, **LEAVES**) – 91,7% and comparable to the reference product – **E**;
- after II application effectively controlled the disease (8 trials, **LEAVES**) - 82,7% and performed a little better than the reference product – **E**;
- after I and II application controlled the disease medium effectively – 72,5% (1 trial, **PLANT**) and 75,9% (3 trials, **PLANT**) respectively and performed better than the reference product

The control of leaf disease PUCCHD after the first application was assessed in a smaller number of trials, since this disease occurred in the appropriate intensity at later developmental stages (BBCH) of barley. The product performed efficiently after the first and the second applications.

#### **Yield (and relevant quality indicators), from efficacy trials (in the presence of challenging pest populations)**

Not applicable

#### **Table 3.2-2: Yield (quality) effect of product in efficacy trials on crop \* target 1**

Not applicable

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

#### **1. Resistance Risk Assessment (according to EPPO PP 1/213 (4) Resistance risk analysis)**

##### **1.1 Mode of action**

CHR/F/PYRA 250 EC is a fungicide containing active substances: pyraclostrobin 250 g/L, which belong to C3 FRAC group. Pyraclostrobin is strobilurine fungicide which is used worldwide in many crops for the control of a broad range of important pathogens from the classes of *Ascomycetes*, *Basidiomycetes*, *Deuteromycetes* and *Oomycetes*. Pyraclostrobin is active against different fungal stages both on the plant surface and in the plant tissue. When applied protectively, pyraclostrobin prevents not only the germination of fungal spores landing on the plant surface but also reinfection, since during these extremely energy consuming phases fungi react very sensitively to disturbances of their mitochondrial respiratory chain (Mode of action FRAC: C3) Due to its ability to penetrate into the leaf and its further translocation as well as its high intrinsic activity, it can also control fungal stages which have already become established in deeper tissue layers. Pyraclostrobin is thus suitable for preventative and curative treatments.

##### **1.2 Mechanism of resistance**

CHR/F/PYRA 250 EC is a fungicide containing active substances: pyraclostrobin 250 g/L, which belong to C3 FRAC group.

According to EPPO PP 1/213 (4) Resistance risk analysis

The risk of resistance has generally been shown to be significantly higher for fungi possessing a combination of some of the following characteristics:

- short life cycle and/or the ability to infect during a high proportion of the crop growing season, resulting in many life cycles during the growing season;

- high epidemic growth rates (resulting, for example, from prolific spore production or a short latent period arising from the inherent characteristics of the pathogen and/or the environment including climate);
- fungi which are 'specialist' pathogens (defined as pathogens which are only able to infect one or a few crop host species)
- high genetic variability, e.g. seen as ability to easily generate stable insensitive mutant variants in the laboratory. The speed of geographic spread of insensitive strains, and the impact of resistance, will be greater for pathogens which:
- can achieve widespread dispersal of spores or other propagules in space and time;
- have high epidemic growth rates;
- infect host crop species which are extensively grown with short crop rotations, monocropping or continuous crop-ping.

Many types of resistance mechanism are known. These include: alteration of the biochemical target site so that it is no longer sensitive; increased production of the target protein; developing an alternative metabolic pathway that bypasses the target site; metabolic breakdown of the fungicide; exclusion or expulsion of the fungicide through ATP-ase dependent transporter proteins. By far the commonest mechanism appears to be an alteration to the biochemical target site of the fungicide. This could explain why many of the older products have not encountered resistance problems. Once they have penetrated the fungal cell, the older fungicides act as general enzyme inhibitors, affecting many target sites (hence they are sometimes called 'multi-site' inhibitors). They act selectively on fungi, rather than on plants and animals, because they penetrate and accumulate much more readily in fungi. Many sites in the fungus would have to change simultaneously in order to stop the fungicide from working. The chances of the many necessary genetic changes happening are negligible, and in any case an organism with so many alterations would be highly unlikely to be pathogenic or even viable. The occasional cases of resistance to multi-site fungicides presumably have resulted from other types of mechanism, not involving the sites of action. In contrast, modern fungicides act primarily at single target sites, and are often referred to as 'single-site' or 'site-specific' fungicides. Thus just a single gene mutation can cause the target site to alter, so as to become much less vulnerable to the fungicide. The rapid development over the past 10 years of PCR-based diagnostic methods for detection of point mutations causing resistance has aided the identification of resistance mechanisms, especially those involving target site changes. Several major resistance genes have now been isolated and characterised. In each case a single point mutation causes a change in a single amino acid in the target protein so that the fungicide no longer binds so tightly. Different amino acid changes in a target protein can cause different levels of resistance. For instance, as mentioned earlier, the G143A mutation (causing glycine to be replaced by alanine) at amino acid position 143 in the b-cytochrome of mitochondrial Complex III, causes higher levels of resistance to QoIs than the less common F129L mutation (replacing phenylalanine by leucine at position 129).

### 1.3 Evidence of resistance

**Pyraclostrobin** is grouped into the methoxy-carbamates chemical group. The Qo fungicides inhibit plant pathogens by blocking the pathogens ability to produce energy. They do this by blocking the transfer of electrons at the Quinone "outside" site of the bc1 complex (complex III in the electron transport chain). This group of fungicides is quite well known and has been applied commercially for decades. Resistance is known in various fungal species (Target site mutations in cyt b gene (G143A, F129L) and additional mechanisms).

According to <https://www.frac.info/docs/default-source/working-groups/qoi-quick-references/species->

with-qo-resistance-(updated-2012).pdf?sfvrsn=c8db449a\_4 :

**Table 1. List of pathogens with field resistance towards QoI fungicides**

Species name	Host	Geographical distribution
<i>Alternaria alternata</i> , <i>Alternaria tenuissima</i> , <i>Alternaria arborescens</i> A	pistachio	USA
<i>Alternaria alternata</i>	potato and tomato	EU
<i>Alternaria mali</i>	apple	USA
<i>Alternaria solani</i>	potato	USA
<i>Ascochyta rabiei</i>	chickpeas	USA
<i>Blumeria graminis</i> f. sp. <i>tritici</i> and <i>hordei</i>	wheat and barley	EU
<i>Botrytis cinerea</i>	strawberries	EU
<i>Cercospora soja</i>	soybeans	USA
<i>Cercospora beticola</i>	sugar beet	USA
<i>Cladosporium carpophilum</i>	almonds	USA
<i>Colletotrichum graminicola</i>	turf grass	USA
<i>Corynespora cassicola</i>	cucumber	Japan
<i>Didymella bryoniae</i>	cucurbit	USA
<i>Erysiphe necator</i>	grapes	USA, EU
<i>Glomerella cingulata</i> (= <i>Colletotrichum gloeosporioides</i> )	strawberries	Japan
<i>Microdochium nivale</i> <i>Microdochium majus</i>	wheat	EU, Japan
<i>Mycosphaerella fijiensis</i>	banana	Central and South America
<i>Mycosphaerella graminicola</i>	wheat	EU
<i>Mycosphaerella musicola</i>	banana	South America, Australia
<i>Mycovellosiella nattrassii</i>	eggplant	Japan
<i>Passalora fulva</i>	tomato	Japan
<i>Phaeosphaeria nodorum</i>	wheat	EU
<i>Plasmopara viticola</i>	grape	EU
<i>Pseudoperonospora cubensis</i>	cucurbits	EU, Asia
<i>Pyrenophora teres</i>	barley	EU
<i>Pyrenophora. Tritici-repentis</i>	wheat	EU
<i>Pyricularia grisea</i>	turf grass	USA
<i>Pythium aphanidermatum</i>	turf grass	USA
<i>Ramularia areola</i>	cotton	Brazil
<i>Ramularia collo-cygni</i>	barley	EU
<i>Rhynchosporium secalis</i>	barley	EU
<i>Rhizoctonia solani</i> AG1.1A	rice	USA
<i>Sphaerotheca fuliginea</i>	cucurbits	EU, Asia
<i>Stemphylium vesicarium</i>	asparagus and pear	EU
<i>Venturia inaequalis</i>	apple	EU
<i>Venturia pirina</i>	pears	USA

## 1.4 Cross-resistance

According to The Fungicide Resistance Action Committee (FRAC)

Fungicides active at the same target site (i.e. that is within the same FRAC code # on the FRAC Code List) are generally considered to be cross-resistant to each other. Cross-resistance is a phenomenon that

occurs when resistance arises to one fungicide that also results in resistance to another fungicide. Occasionally, cross-resistance can occur between compounds active at different target sites. The actual target site is not completely understood for some fungicides so the target site description remains rather generic. For example, the target site description of the azanaphthalenes is signal transduction. The two azanaphthalenes, quinoyxfen and proquinazid, are grouped together in the same FRAC group since cross resistance was observed in *Erysiphe necator*. Interestingly, no cross-resistance was observed in another powdery mildew species, *Blumeria graminis*. Negative cross-resistance can also occur. Negative cross resistance is when a change results in a reduction in sensitivity to one fungicide and an increase in sensitivity to another fungicide. For example, isolates of *Botrytis cinerea* with reduced sensitivity to the benzimidazole fungicides (FRAC group #1 on the FRAC code list) have an increased sensitivity to the N-phenyl carbamates (FRAC group #10 on the FRAC code list).

### 1.5 Sensitivity data

Applicant didn't conduct separately trials for sensitivity data, this data was evaluated in efficacy trials. The 61 field trials use were established in order to determine the sensitivity of fungi in the winter wheat, winter triticale, winter rye and spring barley. The CHR/F/PYRA 250 EC was tested at doses: 0.6, 0.8 and 1.0 L/ha (150-250 g of active substances) in winter wheat, winter triticale, winter rye and spring barley for the control of fungi. None of the tested fungi showed high tolerance to the product CHR/F/PYRA 250 EC. Detailed studies on the fungi sensitivity are submitted and summarised in 3.2 Efficacy data (KCP 6).

### 1.6 Use pattern

Fungicide CHR/F/PYRA 250 EC has demonstrated good crop tolerance to winter wheat, winter triticale, winter rye and spring barley. Therefore concluded that CHR/F/PYRA 250 EC is safe usage at proposed rate and this support the label claim for the use in winter wheat, winter triticale, winter rye and spring barley.

Undesirable effects are not expected on succeeding crops, adjacent crop, part of plants used for propagating purposes and beneficial organisms.

Based on submitted data the following regulation on the label is proposed:

Winter wheat, winter triticale, winter rye, spring barley:

Recommended dose at:

CHR/F/PYRA 250 EC 1.0 L/ha

The product CHR/F/PYRA 250 EC should be use twice per season at spring.

CHR/F/PYRA 250 EC is to be applied in spring:

BBCH 25-69 in winter wheat,

BBCH 25-69 in winter triticale,

BBCH 25-69 in winter rye,

BBCH 25-59 in spring barley.

Recommended volume of water 200-300 L/ha (winter wheat, winter triticale, winter rye, spring barley)

Recommended medium droplet spraying

Use of CHR/F/PYRA 250 EC according to the proposed GAP does not represent a hazard to rotational crops. CHR/F/PYRA 250 EC is not persistent in soil nor is it tak-en up by succeeding crops.

To avoid resistance, products contain active substance with the same group shouldn't be used year after year on the same field. Product CHR/F/PYRA 250 EC need a specific labelig with management strategy to avoid resistance.

### 1.7 Resistance risk assessment of unrestricted use pattern

Not applicable. Product CHR/F/PYRA 250 EC can not be applied without any limitations as a unrestricted use. To minimize the risk of practical resistance avoid use products contain active substance with the same group year after year on the same field. Fungicide programmes must deliver effective disease management. Apply CHR/F/PYRA 250 EC product at effective rates and intervals according to manufacturers' recommendations. Use crop rotation and good field practice to avoid resistance on field. The number of applications of CHR/F/PYRA 250 EC based product within a total disease management program must be limited whether applied solo or in mixtures with other fungicides.

On the label is proposed:

Recommended dose at:

CHR/F/PYRA 250 EC 1.0 L/ha use twice per season at spring

CHR/F/PYRA 250 EC is to be applied in spring:

BBCH 25-69 in winter wheat,

BBCH 25-69 in winter triticale,

BBCH 25-69 in winter rye,

BBCH 25-59 in spring barley.

### 1.8 Test methods

Not applicable

### 1.9 Acceptability of the resistance risk

CHR/F/PYRA 250 EC is a fungicide containing active substances: pyraclostrobin 250 g/L, which belong to C3 FRAC group. Pyraclostrobin is strobilurine fungicide which is used worldwide in many crops for the control of a broad range of important pathogens from the classes of *Ascomycetes*, *Basidiomycetes*, *Deuteromycetes* and *Oomycetes*. Pyraclostrobin is active against different fungal stages both on the plant surface and in the plant tissue. This group of fungicides is quite well known and has been applied commercially for decades.

There are many cases of fungi resistance to QoI fungicides, but only eight of them showed resistance in cereals (wheat and barley).

According to submitted efficacy data none of the tested fungi showed high tolerance to the product CHR/F/PYRA 250 EC.

In conclusion, in the applicant's opinion, this level of fungi resistance risk should be considered to be not acceptable, so why management strategy is evaluated.

### 1.10 Management strategy

According to Fungicide Resistance Action Committee (FRAC) (<https://www.frac.info/frac-teams/working-groups/sbi-fungicides/recommendations-for-qoi>)

A fundamental principle that must be adhered to when applying resistance management strategies for QoI fungicides is that:

- The QoI fungicides (azoxystrobin, coumoxystrobin, dimoxystrobin, enoxastrobin, famoxadone, fenamidone, fenaminostrobin, fluoxastrobin, flufenoxystrobin, kresoxim-methyl, mandestrobin, metominostrobin, orysastrobin, pyraoxystrobin, picoxystrobin, pyraclostrobin, pyrametastrobin,



pyribencarb, triclopyricarb trifloxystrobin) are in the same cross-resistance group; FRAC Code 11.

- The QoI fungicide in subgroup A (metiltetraprole), Code 11A fungicide, is not cross resistant with Code 11 fungicides on the pathogens with G143A mutation.
- Fungicide programmes must deliver effective disease management. Apply QoI fungicide based products at effective rates and intervals according to manufacturers' recommendations. Effective disease management is a critical component to delay the build-up of resistant pathogen populations.
- The number of applications of QoI fungicide based products within a total disease management program must be limited whether applied solo or in mixtures with other fungicides. This limitation is inclusive to all QoI fungicides. Limitation of QoI fungicides within a spray programme provides time and space when the pathogen population is not influenced by QoI fungicide selection pressure.
- Limitation of the total number of QoI applications is detailed in the specific crop recommendations. In consideration of the cross-resistance profile of subgroups 11 and 11A, the maximum allowed number of QoI-containing sprays is increased by one, where both QoI fungicides (code 11) and QoI fungicides in subgroup A (code 11A) are included in a spray program in a given cropping season. All crop-specific recommendations will be regularly reviewed based on sensitivity monitoring.
- A consequence of limitation of QoI fungicide based products is the need to alternate them with effective fungicides from different cross-resistance groups (refer to the specific crop recommendations).
- QoI fungicides, containing only the solo product, should be used in single or block applications in alternation with fungicides from a different cross-resistance group. Specific recommendation on size of blocks is given for specific crops.
- QoI fungicides, applied as tank mix or as a co-formulated mixture with an effective mixture partner, should be used in single or block applications in alternation with fungicides from a different cross-resistance group. Specific recommendations on size of blocks are given for specific crops.
- Mixture partners for QoI fungicides should be chosen carefully to contribute to effective control of the targeted pathogen(s). The mixture partner must have a different mode of action, and in addition it may increase spectrum of activity or provide needed curative activity. Use of mixtures containing only QoI fungicides (including two-way mixtures of code 11 fungicide and code 11A fungicide) must not be considered as an anti-resistance measure.
- Where local regulations do not allow mixtures, then strict alternations with non-cross resistant fungicides (no block applications) are necessary.
- An effective partner for a QoI fungicide is one that provides satisfactory disease control when used alone on the target disease.
- QoI fungicides are very effective at preventing spore germination and should therefore be used at the early stages of disease development (preventive treatment).

#### Guidelines for using QoI fungicides on cereal crops.

- Apply QoI fungicides always in mixtures with non-cross resistant fungicides to control cereal pathogens. At the rate chosen the respective partner(s) on its/ their own has/ have to provide effective disease control. Refer to manufacturers recommendations for rates.
- Apply a maximum of 2 QoI fungicide containing sprays per cereal crop. Limiting the number of sprays is an important factor in delaying the build-up of resistant pathogen populations.

- Apply QoI fungicides according to manufacturers recommendations for the target disease (or complex) at the specific crop growth stage indicated.
- Apply the QoI fungicide preventively or as early as possible in the disease cycle. Do not rely only on the curative potential of QoI fungicides.
- Split / reduced rate program, using repeated applications, which provide continuous selection pressure, accelerate the development of resistant populations and therefore must not be used.

#### 1.11 Implementation of the management strategy

The fungicide label provides all the necessary information for preventing fungi resistance to fungicides.

#### 1.12 Monitoring, reporting and reaction to changes in performance

According to <https://www.frac.info/knowledge-database/monitoring-methods>

To establish a baseline using bioassay procedures, a reliable technique must be developed. The technique must also be able to be used in subsequent monitoring operations investigating possible development of resistance. If and when resistance develops, the same method may be used to identify resistant isolates, but it is possible that more specific methods will have been developed at that time.

The following requirements were considered while establishing these techniques:

- The method must be robust, reliable and repeatable
- It must be as simple as possible to operate in terms of technology and user skills
- It should be as cheap to operate as possible and capable of a high throughput in a short time
- The data obtained must be able to be related to sensitivity responses in the field.

Comments of zRMS:	<p>Pyraclostobin belongs to FRAC Group 11 – inhibitor of respiration in complex II at Qo-site, Chemical Group: methoxy-carbamates (strobilurine fungicide). According to Fungicide Resistance Action Committee, active substance Pyraclostobin belongs to the group of fungicides that present a high risk for resistance development. In accordance with “Meeting on April 7, 2022, each 8:00 am - 12:00 am Protocol of the discussions and use recommendations of the QoI Working Group of the Fungicide Resistance Action Committee (FRAC), “field experience in 2019 has confirmed that, when used according to FRAC guidelines, the performance of QoI containing products within spray programmes was good. QoIs continue to contribute to overall disease management in cereals”.</p> <p>The performance of QoI continues to be essential to use non-cross resistant mixture partners (e.g. SBIs, multisites) to ensure robust disease management. Nevertheless QoI active substances and target diseases are considered by the FRAC high risk that is why a risk management strategy is essential.</p> <p>Guidelines for using QoI fungicides on cereal crops recommend the following:</p> <ul style="list-style-type: none"> <li>• Apply QoI fungicides always in mixtures with non-cross resistant fungicides to control cereal pathogens. At the rate chosen the respective partner(s) on its/ their own has/ have to provide effective disease control. Refer to manufacturers recommendations for rates.</li> <li>• Apply a maximum of 2 QoI fungicide containing sprays per cereal crop. Limiting the number of sprays is an important factor in delaying the build-up of resistant pathogen populations.</li> <li>• Apply QoI fungicides according to manufacturers recommendations for the target disease (or complex) at the specific crop growth stage indicated.</li> </ul>
-------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<ul style="list-style-type: none"> <li>Apply the QoI fungicide preventively or as early as possible in the disease cycle. Do not rely only on the curative potential of QoI fungicides.</li> <li>Split/reduced rate program, using repeated applications, which provide continuous selection pressure, accelerate the development of resistant populations and therefore must not be used.</li> </ul>
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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

Information on trials submitted (3.4: Adverse effects on treated crops)

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

The applicant did not conduct separately selectivity trials. Phytotoxicity was observed during efficacy trials.

Crop*	Country	Type of trial**	Number of efficacy trials		Years	GEP, non-GEP, official***	Comments (any other relevant information)
			North-East zone	Maritime Zone			
Winter wheat	Poland	S + Y + Q	8		2020	GEP	-
	Czech Republic	S + Y + Q		3	2020	GEP	-
	Poland	S + Y + Q	9		2021	GEP	-
Winter triticalee	Poland	S + Y + Q	2		2020	GEP	-
	Czech Republic	S + Y + Q		2	2020	GEP	-
	Poland	S + Y + Q	6		2021	GEP	-
Winter rye	Poland	S + Y + Q	3		2020	GEP	-
	Czech Republic	S + Y + Q		2	2020	GEP	-
	Poland	S + Y + Q	6		2021	GEP	-
Spring barley	Poland	S + Y + Q	12		2020	GEP	-
	Czech Republic	S + Y + Q		6	2020	GEP	-
	Poland	S + Y + Q	2		2021	GEP	-

\* According to the GAP table

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

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

**Table 3.4-2: Presentation of reference standards used in trials (selectivity trials, transformation trials...)**

Crop(s)	Reference standard	Country(ies) where the product is registered <sup>(1)</sup>	Authorization number	Active substance(s)	Formulation		Registered application rate <sup>(3)</sup>	Application rate in trials (per treatment)	Remark <sup>(4)</sup>
					Type <sup>(2)</sup>	Concentration of a.s.			

winter wheat, winter triticale, winter rye, spring barley	Makler 250 SE	Poland	R-207/2017	azoxystrobin	SE – suspo-emulsion	250 g/L	1.0 L/ha	1.0 L/ha	-
	Makler 250 SE	Czech Republic	5536-0	azoxystrobin	SE – suspo-emulsion	250 g/L	1.0 L/ha	1.0 L/ha	-

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

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

#### Materials and methods

The applicant did not conduct separately selectivity trials. Phytotoxicity was observed during efficacy trials. The applicant submitted 61 efficacy reports (in total) showing the results in research into product efficacy. Phytotoxicity carried out in 2020 and 2021 in winter wheat (20 trials), winter triticale (10 trials), winter rye (11 trials) and spring barley (20 trials). List of these reports is contained in Appendix 1.

#### Site

Trials were conducted in different regions in Poland and Czech Republic where winter wheat, winter triticale, winter rye and spring barley are grown commercially. The experiment was established on a set of complete randomized blocks in 4 replications. Details on trial sites, applications and data on effectiveness are included in Appendix 4 and 5.

#### Testing units

Efficacy studies on fungicide CHR/F/PYRA 250 EC were performed in 2020 and 2021 by:

- A.T Sp. z o.o., ul. Przemysłowa 3, 88-300 Mogilno, Poland
- Poznań University of Life Sciences, Research and Education Center Gorzyń, ul. Wojska Polskiego 28, 60-637 Poznań, Poland
- SynTech Research Poland Sp. z o.o., ul. Jagiellońska 69/1, 85-027 Bydgoszcz, Poland
- SynTech Research Czech Republic s.r.o., Semčice 245 294 46 Semčice, Czech Republic
- SynTech Research Czech s.r.o., Horní Kounice 1 671 40 Horní Kounice, Czech Republic

#### Experimental details

The efficacy trials were designed, conducted and reported according to the following EPPO guidelines:

- PP 1/135 (3) Phytotoxicity assessment
- PP 1/152 (3) Design and analysis of efficacy evaluation trials
- PP 1/181 (3) Conduct and reporting of efficacy evaluation trials including good experimental practice

They were carried out on the field in the conditions of natural agrofag infestation. The efficacy trials were concluded according to the EPPO standards:

- PP 1/26(4) Foliar and ear diseases on cereals

#### Assessment methods

#### Statistical Analysis

Software for analysis of the results was ARM Revision 2020.3 from Gylling Data Management. Data were analysed using analysis of variance (ANOVA) on untransformed data and on transformed ones when the Bartlett's test indicated so. If transformation did not improve the distribution, original values were used and therefore significant differences reported should be interpreted with caution. The probability of no significant differences occurring between treatment means was calculated as the F probability value (Treatment Prob(F)). Student-Newman-Keuls tests were applied when treatment differences were identified on the basis of the ANOVA test. Mean comparison performed only when AOV Treatment P(F) is significant at level selected. Results obtained were indicated by a letter-treatment means with no let-

ters in common are significantly different in accordance with a Student-Newman-Keuls conducted at a 95% confidence level. Where data have been transformed, letters are included in the transformed data.

The treatment means of the assessment dates were calculated and compared using Student-Newman-Keuls test ( $P=0.05$ ). The statistical procedures were applied using ARM 2021.2 software.

#### Assessment of efficacy

##### Leaf diseases:

Efficacy was recorded by estimating and counting the severity and incidence of disease. The level of infection was assessed of the leaf surface on 10 randomly selected plants from each plot.

##### Leaf assessment:

Assess the % of area infected by individual diseases per leaf level (LEAF1, LEAF2, LEAF3, LEAF4) on at least 10-20 tillers selected randomly in each plot: visual evaluation of the attacked surface of the leaf expressed as a % of the total surface (PESSEV). Determine the pest incidence (PESINC).

Record the actual leaf which was assessed.

For all assessments, record the crop BBCH stage (min-max and average).

##### Ear assessment:

Assess the % of area infected by individual diseases per ear on at least 10-20 tillers selected randomly in each plot: visual evaluation of the attacked surface of the ear expressed as a % of the total surface (PESSEV). Determine the pest incidence (PESINC).

#### Assessment of phytotoxicity

Phytotoxicity of whole symptoms of injuries observed on the crop plants. Recording all the symptoms of possible phytotoxic effect of tested product, mainly: changes in the growth, thinning out of plants, discolorations (without destruction of plant tissue), necroses, deformations, yield quantity and quality. The occurrence and intensity of outside symptoms of crop damages were determined using 0-100 % scale (0 % = no damage; 100 % = total plant destruction).

Phytotoxicity were assessed by visual estimation of the intensity on an overall plot basis on a percentage scale 0-100 % (0=no damage).

#### Applications methods and rates

The applications were carried out by a T-BOOM – BACCAI, plot sprayer – BACSPR, plot sprayer BICSPR in cereals.

Tested fungicide was applied at the growth stage:

BBCH 25-69 in winter wheat,

BBCH 25-69 in winter triticales,

BBCH 25-69 in winter rye

and BBCH 25-69 in spring barley.

The product CHR/F/PYRA 250 EC has been used:

in winter wheat, winter triticales, winter rye, spring barley at the following rates of 0.6, 0.8 and 1.0 L/ha

Makler 250 SE was used as a reference product in winter wheat, winter triticales, winter rye and spring barley.

The experiment was established on a set of complete randomized blocks in 4 replications.

#### Experiment pattern:

##### Winter wheat

No.	Name	Rate (L/ha)	other rate (g a.s./ha)	Appl code	Growth Stage BBCH
1	Untreated Check				
2	CHR/F/PYRA 250 EC	0.6	150 g a.s./ha	A B	A: BBCH 27-51 B: BBCH 43-71

3	CHR/F/PYRA 250 EC	0.8	200 g a.s./ha	A B	A: BBCH 27-51 B: BBCH 43-71
4	CHR/F/PYRA 250 EC	1.0	250 g a.s./ha	A B	A: BBCH 27-51 B: BBCH 43-71
5	Makler 250 SE	1.0	250 g a.s./ha	A B	A: BBCH 27-51 B: BBCH 43-71

#### Winter triticale

No.	Name	Rate (L/ha)	other rate (g a.s./ha)	Appl code	Growth Stage BBCH
1	Untreated Check				
2	CHR/F/PYRA 250 EC	0.6	150 g a.s./ha	A B	A: BBCH 25-51 B: BBCH 49-69
3	CHR/F/PYRA 250 EC	0.8	200 g a.s./ha	A B	A: BBCH 25-51 B: BBCH 49-69
4	CHR/F/PYRA 250 EC	1.0	250 g a.s./ha	A B	A: BBCH 25-51 B: BBCH 49-69
5	Makler 250 SE	1.0	250 g a.s./ha	A B	A: BBCH 25-51 B: BBCH 49-69

#### Winter rye

No.	Name	Rate (L/ha)	other rate (g a.s./ha)	Appl code	Growth Stage BBCH
1	Untreated Check				
2	CHR/F/PYRA 250 EC	0.6	150 g a.s./ha	A B	A: BBCH 28-59 B: BBCH 51-71
3	CHR/F/PYRA 250 EC	0.8	200 g a.s./ha	A B	A: BBCH 28-59 B: BBCH 51-71
4	CHR/F/PYRA 250 EC	1.0	250 g a.s./ha	A B	A: BBCH 28-59 B: BBCH 51-71
5	Makler 250 SE	1.0	250 g a.s./ha	A B	A: BBCH 28-59 B: BBCH 51-71

#### Spring barley

No.	Name	Rate (L/ha)	other rate (g a.s./ha)	Appl code	Growth Stage BBCH
1	Untreated Check				
2	CHR/F/PYRA 250 EC	0.6	150 g a.s./ha	A B	A: BBCH 25-51 B: BBCH 35-69
3	CHR/F/PYRA 250 EC	0.8	200 g a.s./ha	A B	A: BBCH 25-51 B: BBCH 35-69
4	CHR/F/PYRA 250 EC	1.0	250 g a.s./ha	A B	A: BBCH 25-51 B: BBCH 35-69
5	Makler 250 SE	1.0	250 g a.s./ha	A B	A: BBCH 25-51 B: BBCH 35-69

## Details of experiments

### Winter wheat

Report code	A.T/2020/094/PO	A.T/2020/095/PO	A.T/2020/096/PO	A.T/2021/039/PO	A.T/2021/040/PO	A.T/2021/041/PO	A.T/2021/042/PO	AF/20/PO/23/Mr/01	AF/20/PO/23/Mr/02	AF/20/PO/23/ZI/03	AF/21/PO/12/Pr	SRPL20-239-336FE	SRPL20-240-336HE	SRPL21-421-336FE	SRPL21-422-336FE	SRPL21-423-336FE	SRPL21-424-336FE	SRCZ20-068-301FE	SRCZ20-070-301FE	SRCZ20-069-301FE
Location	Modrzej/ Poland	Sitowiec/ Poland	Stare Gralew/ Poland	Brzeźno k. Gołan- czy/ Poland	Mirowsław/ Poland	Angowi- ce/ Poland	Studzie- niec/ Poland	Mrowino/ Poland	Mrowino/ Poland	Złotniki/ Poland	Przybro- da/ Poland	Teresin/ Poland	Murczyn/ Poland	Kapłityny/ Poland	Osówka/ Poland	Jankowice Wielkie/ Poland	Znin/ Poland	Sekerkovy Loučky/ Czech Republic	Hoškovi- ce/ Czech Republic	Tavikovi- ce/ Czech Republic
Plant /cultivar	winter wheat/ Euforia	winter wheat/ Arkadia	winter wheat/ Kili- manjaro	winter wheat/ Arkadia	winter wheat/ Wilejka	winter wheat/ Admont	winter wheat/ Ostroga	winter wheat/ Hondia	winter wheat/ Emil	winter wheat/ Bogatka	winter wheat/ Princeps	winter wheat/ Kili- manjaro	winter wheat/ Hondia	winter wheat/ Euforia	winter wheat/ Arkadia	winter wheat/ Argument	winter wheat/ Arkadia	winter wheat/ Balitus	winter wheat/ Rivero	winter wheat/ Tobak
Seeding date	27.09.2019	17.09.2019	05.10.2019	25.09.2020	01.10.2020	16.10.2020	12.10.2020	27.09.2019	26.09.2019	25.09.2019	25.09.2020	30.09.2019	21.09.2019	29.09.2020	15.09.2020	06.10.2020	28.09.2020	27.09.2019	30.09.2019	26.09.2019
Seeding rate	160 kg/ha	200 kg/ha	200 kg/ha	190 kg/ha	185 kg/ha	200 kg/ha	230 kg/ha	220 kg/ha	230 kg/ha	133 kg/ha	200 kg/ha	200 kg/ha	170 kg/ha	180 kg/ha	200 kg/ha	200 kg/ha	180 kg/ha	190 kg/ha	120 kg/ha	220 kg/ha
Forecrop	winter wheat	winter wheat	maize	winter oilseed rape	winter barley	potato	sugar beet	winter barley	winter barley	spring barley	sugar beet	winter oilseed rape	winter oilseed rape	potato	winter oilseed rape	winter oilseed rape	winter triticale	winter wheat	winter wheat	winter oilseed rape
Type of sprayer	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BICSPR	BICSPR	BICSPR	BICSPR	BACCAI	BACCAI	BACCAI	SPRBIC	BACCAI	BACCAI	BACSPR	BACSPR	BACCAI
Date of treatment A	09.05.2020	15.05.2020	22.05.2020	11.05.2021	20.04.2021	31.05.2021	19.04.2021	22.05.2020	22.05.2020	21.05.2020	24.04.2021	20.05.2020	20.05.2020	24.05.2021	28.04.2021	22.04.2021	15.05.2021	19.05.2020	20.05.2020	27.05.2020
Date of treatment B	26.05.2020	09.06.2020	09.06.2020	09.06.2021	08.06.2021	23.06.2021	11.06.2021	17.06.2020	17.06.2020	09.06.2020	15.06.2021	01.06.2020	03.06.2020	14.06.2021	01.06.2021	27.05.2021	02.06.2021	03.06.2020	04.06.2020	08.06.2020
Plant development phase A	BBCH 37-39	BBCH 43-47	BBCH 37-41	BBCH 34-36	BBCH 27-30	BBCH 39-41	BBCH 25-29	BBCH 47-51	BBCH 47-51	BBCH 39-43	BBCH 28-30	BBCH 45-49	BBCH 47-49	BBCH 31-33	BBCH 31-32	BBCH 30-32	BBCH 32-35	BBCH 49	BBCH 49	BBCH 45-51
Plant development phase B	BBCH 53-55	BBCH 61-65	BBCH 53-59	BBCH 59-61	BBCH 51-55	BBCH 65-69	BBCH 51-55	BBCH 55-69	BBCH 65-71	BBCH 61-69	BBCH 59-65	BBCH 55-59	BBCH 61-63	BBCH 51-53	BBCH 51-53	BBCH 51-55	BBCH 43-45	BBCH 60-61	BBCH 59-60	BBCH 59-63
Soil type	loamy sand	sandy loam	sandy loam	loamy sand	loamy sand	sandy loam	loamy sand	loamy sand	loamy sand	loamy sand	loamy sand	sandy clay loam	calyey sand	silt loam	sandy loam	sandy loam	sandy clay loam	sandy loam	loam	loamy clay
pH	6.1	6.0	7.7	6.1	5.2	5.1	6.2	6.5	6.7	6.1	6.0	6.5	6.8	5.6	6.9	6.6	6.3	6.3	6.4	6.2
Water (L/ha) ( application A and B)	200 L/ha	200 L/ha	200 L/ha	300 L/ha	200 L/ha	200 L/ha	200 L/ha	250 L/ha	250 L/ha	200 L/ha	250 L/ha	200 L/ha	300 L/ha	200 L/ha	200 L/ha	300 L/ha	300 L/ha	225 L/ha	225 L/ha	300 L/ha

## Winter triticale

Report code	A.T/2020/097/PŻ O	A.T/2020/098/PŻ O	A.T/2021/043/PŻ O	A.T/2021/044/PŻ O	A.T/2021/045/PŻ O	A.T/2021/046/PŻ O	SRPL21-425- 336FE	SRPL21-426- 336FE	SRCZ20-071- 301FE	SRCZ20-072- 301FE
Location	Modrze/ Poland	Białe Błoto/ Poland	Nowa Wieś Ujska/ Poland	Zamarte/ Poland	Lichnowy/ Poland	Studzieniec/ Poland	Tonowo/ Poland	Osówka/ Poland	Sekerkovy Loučky/ Czech Republic	Tetín/ Czech Republic
Plant /cultivar	winter triticale/ Orinoko	winter triticale/ Borowik	winter triticale/ Lombardo	winter triticale/ Orinoko	winter triticale/ Belcanto	winter triticale/ Meloman	winter triticale/ Balcanto	winter triticale/ ROTONDO	winter triticale/ Agostino	winter triticale/ Agostino
Seeding date	23.09.2019	21.09.2019	24.09.2020	26.09.2020	19.10.2020	30.09.2020	02.10.2020	29.10.2020	05.10.2019	30.10.2019
Seeding rate	150 kg/ha	200 kg/ha	160 kg/ha	170 kg/ha	160 kg/ha	230 kg/ha	160 kg/ha	280 kg/ha	200 kg/ha	250 kg/ha
Forecrop	winter wheat	spring barley	winter wheat	winter wheat	potato	winter wheat	winter wheat	winter wheat	non-crop land	lucerne
Type of sprayer	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	SPRBIC	BACSPR	BACSPR
Date of treat- ment A	08.05.2020	15.05.2020	19.04.2021	17.04.2021	31.05.2021	19.04.2021	08.05.2021	04.05.2021	18.05.2020	22.05.2020
Date of treat- ment B	22.05.2020	02.06.2020	04.06.2021	04.06.2021	23.06.2021	07.06.2021	02.06.2021	01.06.2021	03.06.2020	11.06.2020
Plant deve- lopment phase A	BBCH 37-39	BBCH 37-41	BBCH 29-31	BBCH 29-30	BBCH 39-41	BBCH 25-30	BBCH 33-35	BBCH 29-31	BBCH 47-51	BBCH 49-51
Plant deve- lopment phase B	BBCH 57-61	BBCH 49-55	BBCH 59-61	BBCH 53-55	BBCH 65-69	BBCH 55-61	BBCH 51-53	BBCH 51-53	BBCH 61-65	BBCH 65-69
Soil type	loamy sand	sandy loam	sandy loam	loamy sand	sandy loam	sand	sandy loam	sandy clay loam	fine clay loam	clay loam
pH	7.1	5.0	4.6	6.2	5.3	6.1	6.1	6.87	6.9	6.7
Water (L/ha) ( application A and B)	200 L/ha	200 L/ha	300 L/ha	200 L/ha	200 L/ha	200 L/ha	200 L/ha	300 L/ha	225 L/ha	225 L/ha



## Winter rye

Report code	A.T/2020/099/Ž O	A.T/2021/047/Ž O	A.T/2021/048/Ž O	A.T/2021/049/Ž O	AF/21/ŽO/12/Z I	AF/21/ŽO/12/B r	SRPL20-237- 336FE	SRPL20-238- 336FE	SRPL21-427- 336FE	SRCZ20-073- 301FE	SRCZ20-074- 301FE
Location	Wilkowo/ Poland	Świerkówki/ Poland	Jęczniki Wiel- kie/ Poland	Stare Gralewo/ Poland	Złotniki/ Poland	Brody/ Poland	Charlęż/ Poland	Samborowo/ Poland	Łajsy/ Poland	Roprachtice/ Czech Republic	Bělá pod Bezdězem/ Czech Republic
Plant /cultivar	winter rye/ Serafino	winter rye/ KWS Serafino	winter rye/ KWS Berado	winter rye/ Dańkowskie Diament	winter rye/ Dolaro	winter rye/ Poznańskie	winter rye/ KWS Dolaro	winter rye/ Dańkowskie Skand	winter rye/ KWS Jethro	winter rye/ Herakles	winter rye/ SU Cossani
Seeding date	10.09.2019	01.10.2020	18.09.2020	21.09.2020	24.09.2020	23.09.2020	03.10.2019	27.09.2019	10.09.2020	17.10.2019	29.09.2019
Seeding rate	70 kg/ha	66 kg/ha	70 kg/ha	100 kg/ha	65 kg/ha	150 kg/ha	100 kg/ha	480 P/m <sup>2</sup>	200 P/m <sup>2</sup>	100 kg/ha	85 kg/ha
Forecrop	winter wheat	winter wheat	winter oilseed rape	maize	winter oilseed rape	spring wheat	yellow lupin	winter triticale	winter triticale	winter rye	winter barley
Type of spray- er	BACCAI	BACCAI	BACCAI	BACCAI	BICSPR	BICSPR	BACCAI	BACCAI	BACCAI	BACSPR	BACSPR
Date of treat- ment A	07.05.2020	19.04.2021	17.04.2021	19.04.2021	21.04.2021	21.04.2021	15.05.2020	15.05.2020	13.05.2021	18.05.2020	20.05.2020
Date of treat- ment B	22.05.2020	24.05.2021	24.05.2021	20.05.2021	20.05.2021	26.05.2021	28.05.2020	29.05.2020	03.06.2021	03.06.2020	04.06.2020
Plant deve- lopment phase A	BBCH 39-41	BBCH 30-33	BBCH 29-30	BBCH 28-32	BBCH 34-36	BBCH 33-37	BBCH 39	BBCH 48-49	BBCH 33-39	BBCH 39	BBCH 49-59
Plant deve- lopment phase B	BBCH 59-61	BBCH 61-65	BBCH 53-55	BBCH 53-57	BBCH 54-56	BBCH 54-56	BBCH 51-55	BBCH 59-61	BBCH 61-65	BBCH 58-59	BBCH 65-71
Soil type	sandy loam	loamy sand	loamy sand	sand	loamy sand	loamy sand	slit loam	sandy loam	slit loam	Sandy loam	Fine sand
pH	5.6	7.1	5.4	5.1	7.0	5.8	4.2	5.30	4.8	6.3	6.2
Water (L/ha) ( application A and B)	300 L/ha	200 L/ha	200 L/ha	200 L/ha	250 L/ha	250 L/ha	300 L/ha	300 L/ha	200 L/ha	225 L/ha	225 L/ha

## Spring barley

Report code	A.T/2020 /101/JJ	A.T/2020 /102/JJ	A.T/2020 /103/JJ	A.T/2020 /104/JJ	A.T/2020 /105/JJ	A.T/2020 /106/JJ	A.T/2021 /050/JJ	A.T/2021 /051/JJ	AF/20/JJ /23/Br/01	AF/20/JJ /23/Pr/02	AF/20/JJ /23/ZI/03	AF/20/JJ /23/Br/04	AF/20/JJ /23/Pr/05	AF/20/JJ /23/ZI/06	SRCZ20 -075-301FE	SRCZ20 -076-301FE	SRCZ20 -077-301FE	SRCZ20 -078-301FE	SRCZ20 -079-301FE	SRCZ20 -080-301FE
Location	Modrze /Poland	Nowy Dwór /Poland	Białe Błoto /Poland	Maniewo /Poland	Wilkowo /Poland	Czacho-wo /Poland	Mirosław /Poland	Karsy /Poland	Brody /Poland	Przybro-da /Poland	Złotniki /Poland	Brody /Poland	Przybro-da /Poland	Złotniki /Poland	Roprach-tice /Czech Republic	Dobroni-ce /Czech Republic	Dobřín-sko/Czec h Repu-blic	Vinařice /Czech Republic	Křepice /Czech Republic	Dobřín-sko /Czech Republic
Plant /cultivar	spring barley/ RGT Planet	spring barley/ Quench	spring barley/ Propino	spring barley/ Ellinor	spring barley/ Laureate	spring barley/ KWS IRINA	spring barley/ Avatar	spring barley/ KWS Vermont	spring barley/ Iron	spring barley/ Penquin	spring barley/ Stratus	spring barley/ Iron	spring barley/ Penquin	spring barley/ Stratus	spring barley/ Olympic	spring barley/ Laudis	spring barley/ KWS Amadora	spring barley/ Overture	spring barley/ Solist	spring barley/ KWS Iris
Seeding date	28.03.2020	03.04.2020	28.03.2020	09.03.2020	20.03.2020	26.03.2020	01.04.2021	27.04.2021	24.03.2020	18.03.2020	26.03.2020	24.03.2020	18.03.2020	26.03.2020	06.04.2020	25.03.2020	28.03.2020	16.03.2020	18.03.2020	28.03.2020
Seeding rate	107 kg/ha	175 kg/ha	200 kg/ha	150 kg/ha	150 kg/ha	110 kg/ha	170 kg/ha	140 kg/ha	160 kg/ha	175 kg/ha	147 kg/ha	160 kg/ha	175 kg/ha	147 kg/ha	240 kg/ha	180 kg/ha	200 kg/ha	170 kg/ha	220 kg/ha	200 kg/ha
Forecrop	sugar beet	potato	winter triticale	winter wheat	winter oilseed rape	maize	winter wheat	maize	winter wheat	winter oilseed rape	winter wheat	winter wheat	winter rye	winter wheat	maize	maize	maize	winter wheat	white mustard	potato
Type of sprayer	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI	BICSPR	BICSPR	BICSPR	BICSPR	BICSPR	BICSPR	BACSPR	BACCAI	BACCAI	BACSPR	BACCAI	BACCAI
Date of treatment A	08.05.2020	15.05.2020	15.05.2020	21.05.2020	22.05.2020	04.06.2020	20.05.2021	24.05.2021	27.05.2020	26.05.2020	08.05.2020	09.06.2020	04.06.2020	27.05.2020	03.06.2020	22.05.2020	22.05.2020	29.05.2020	27.05.2020	27.05.2020
Date of treatment B	29.05.2020	03.06.2020	02.06.2020	05.06.2020	05.06.2020	18.06.2020	11.06.2021	14.06.2021	09.06.2020	09.06.2020	27.05.2020	23.06.2020	15.06.2020	09.06.2020	24.06.2020	04.06.2020	04.06.2020	15.06.2020	09.06.2020	15.06.2020
Plant development phase A	BBCH 28-30	BBCH 29-31	BBCH 25-28	BBCH 37-39	BBCH 39-43	BBCH 39-45	BBCH 27-31	BBCH 31-33	BBCH 36-39	BBCH 31-33	BBCH 29-31	BBCH 47-51	BBCH 38-41	BBCH 39-43	BBCH 32-33	BBCH 29-32	BBCH 32-39	BBCH 47	BBCH 45-49	BBCH 39-49
Plant development phase B	BBCH 37-39	BBCH 47-49	BBCH 35-39	BBCH 49-55	BBCH 51-55	BBCH 59-61	BBCH 51-55	BBCH 49-57	BBCH 45-51	BBCH 45-50	BBCH 37-41	BBCH 55-59	BBCH 59	BBCH 53-55	BBCH 49-51	BBCH 49-59	BBCH 49-55	BBCH 56-58	BBCH 57-59	BBCH 65-69
Soil type	loamy sand	sandy loam	loamy sand	loamy sand	sandy loam	sandy loam	sandy loam	loamy sand	loamy sand	loamy sand	loamy sand	loamy sand	loamy sand	loamy sand	loamy clay	loam	loam	loam	loam	loam
pH	6.5	5.6	4.7	6.4	5.3	6.6	5.4	6.2	6.8	6.0	6.4	6.8	6.0	6.4	6.3	6.2	6.5	6.5	6.2	6.5
Water (L/ha) (application A and B)	200 L/ha	200 L/ha	200 L/ha	200 L/ha	200 L/ha	300 L/ha	300 L/ha	200 L/ha	230 L/ha	200 L/ha	200 L/ha	200 L/ha	200 L/ha	200 L/ha	225 L/ha	300 L/ha	300 L/ha	225 L/ha	300 L/ha	300 L/ha

**Table 3.4-3: Phytotoxicity of product**

The applicant did not conduct separately selectivity trials. Phytotoxicity was observed during efficacy trials. The 61 efficacy trials were carried out on winter wheat, winter triticale, winter rye and spring barley in Poland and Czech Republic in 2020 and 2021 on a wide range of commercially grown varieties. There were not observed any phytotoxicity symptoms on tested product and standard in trials.  
Not applicable

Number of trials with		Efficacy trials (61)				Selectivity trials	
		Test product		Standard I		CHR/F/PYRA	Standard products Makler 250 SE
		N	2N (or other)	N	2N (or other)	N	N
Maximum of phytotoxicity recorded during the trials	0% to 5%	n/a	n/a	n/a	n/a	-	-
	>5% to 10%	n/a	n/a	n/a	n/a	-	-
	>10% to 15%	n/a	n/a	n/a	n/a	-	-
	>15 %	n/a	n/a	n/a	n/a	-	-
Level of symptoms at the last assessments	0% to 5%	n/a	n/a	n/a	n/a	-	-
	>5% to 10%	n/a	n/a	n/a	n/a	-	-
	>10% to 15%	n/a	n/a	n/a	n/a	-	-
	>15 %	n/a	n/a	n/a	n/a	-	-

Comments of zRMS:	The applicant submitted 61 reports showing the results in research into product phytotoxicity carried out in 2020 and 2021 in winter wheat (20 trials), winter triticale (10 trials), winter rye (11 trials) spring barley (20 trials) No phytotoxicity symptoms were observed in the efficacy tests.
-------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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

Influence of CHR/F/PYRA on the yield of grains was evaluated in efficacy research. The yield was evaluated on the basis of harvested grains quantity from one hectare (t/ha). The influence of the tested product on quantity of grain was evaluated in 61 field experiments in Poland and Czech Republic in 2020 and 2021. There weren't difference between the treatment objects and standard.

Table 3.4.2.1-1 The influence of the CHR/F/PYRA on yield quantity [t/ha].

Winter wheat

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
winter wheat yield t/ha	A.T/2020/094/PO	22.07.2020	57 DA-B	BBCH 99		8,51	8,40	8,34	8,36	8,51	0,381
	A.T/2020/095/PO	08.08.2020	60 DA-B	BBCH 99		7,81	8,02	8,21	8,18	8,14	0,364
	A.T/2020/096/PO	07.08.2020	59 DA-B	BBCH 89-93		10,10	10,83	10,65	10,78	10,67	0,296
	A.T/2021/039/PO	25.07.2021	56 DA-B	BBCH 99		9,13	9,89	10,07	9,90	9,47	0,553
	A.T/2021/040/PO	30.07.2021	52 DA-B	BBCH 99		4,50	4,61	5,34	5,19	4,73	1,294
	A.T/2021/041/PO	03.08.2021	41 DA-B	BBCH 89		6,16	6,96	7,30	7,02	6,77	0,516
	A.T/2021/042/PO	13.08.2021	63 DA-B	BBCH 99		5,80	6,65	6,66	6,51	9,95	0,339
	AF/20/PO/23/Mr/01	31.07.2020	44 DA-B	BBCH 89		6,20	6,40	6,50	6,60	6,80	0,380
	AF/20/PO/23/Mr/02	31.07.2020	44 DA-B	BBCH 89		5,90	6,00	6,30	6,50	6,80	0,370
	AF/20/PO/23/ZI/03	25.07.2020	46 DA-B	BBCH 89		8,20	8,60	8,60	8,70	8,90	0,250
	AF/21/PO/12/Pr	30.07.2021	45 DA-B	BBCH 89		8,60	8,70	8,90	9,00	8,90	0,190
	SRPL20-239-336FE	06.08.2020	66 DA-B	BBCH 89		6,40	7,10	7,20	7,60	7,50	0,350
	SRPL20-240-336HE	10.08.2020	68 DA-B	BBCH 99		6,95	8,48	8,92	9,05	8,46	0,449
	SRPL21-421-336FE	13.08.2021	60 DA-B	BBCH 89		6,20	6,90	7,00	6,90	6,80	0,360
	SRPL21-422-336FE	09.08.2021	69 DA-B	BBCH 99		6,20	6,20	6,20	6,20	6,20	0,080
	SRPL21-423-336FE	29.07.2021	63 DA-B	BBCH 99		6,20	6,60	6,80	7,20	7,20	0,570
	SRPL21-424-336FE	30.07.2021	58 DA-B	BBCH 99		4,55	5,85	5,86	5,99	5,90	0,471
	SRCZ20-068-301FE	12.08.2020	70 DA-B	BBCH 99		6,96	7,46	7,34	5,84	7,03	1,488
	SRCZ20-070-301FE	10.08.2020	67 DA-B	BBCH 99		7,60	7,90	7,71	7,93	7,87	0,960
	SRCZ20-069-301FE	29.07.2020	51 DA-B	BBCH 99		9,28	8,79	9,23	9,31	9,35	1,442
	Average					7,06	7,52	7,66	7,64	7,80	
	Min.					4,50	4,61	5,34	5,19	4,73	
	Max.					10,10	10,83	10,65	10,78	10,67	

Table 3.4.2.1-2 The influence of the CHR/F/PYRA on yield quantity [t/ha].

Winter triticale

Crop code	Report code	Assessment date	Days after application DA-B	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
winter triticale yield t/ha	A.T/2020/097/PŽO	29.07.2020	68 DA-B	BBCH 99		9,26	9,27	9,27	9,22	9,36	0,346
	A.T/2020/098/PŽO	07.08.2020	66 DA-B	BBCH 89		4,31	4,33	4,43	4,67	4,99	0,488
	A.T/2021/043/PŽO	05.08.2021	62 DA-B	BBCH 97		7,01	7,05	6,74	7,02	7,25	0,680
	A.T/2021/044/PŽO	04.08.2021	61 DA-B	BBCH 89		7,29	8,08	8,15	8,22	8,31	0,322
	A.T/2021/045/PŽO	02.08.2021	40 DA-B	BBCH 89		6,29	7,00	7,12	7,19	7,18	0,498
	A.T/2021/046/PŽO	13.08.2021	67 DA-B	BBCH 89		6,09	6,46	6,61	6,52	6,45	0,485
	SRPL21-425-336FE	05.08.2021	64 DA-B	BBCH 99		5,60	6,20	6,20	6,20	6,30	0,110
	SRPL21-426-336FE	10.08.2021	70 DA-B	BBCH 99		4,10	4,10	4,10	4,10	4,10	0,040
	SRCZ20-071-301FE	12.08.2020	70 DA-B	BBCH 99		3,51	3,52	3,44	3,43	3,48	0,162
	SRCZ20-072-301FE	11.08.2020	61 DA-B	BBCH 99		4,57	5,68	5,71	5,89	5,25	0,724
Average						5,80	6,17	6,18	6,25	6,27	
Min.						3,51	3,52	3,44	3,43	3,48	
Max.						9,26	9,27	9,27	9,22	9,36	

Table 3.4.2.1-3 The influence of the CHR/F/PYRA on yield quantity [t/ha].

Winter rye

Crop code	Report code	Assessment date	Days after application DA-B	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Na-me	Untreated Check	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
winter rye yield t/ha	A.T/2020/099/ŽO	14.08.2020	84 DA-B	BBCH 99		11,02	11,98	11,67	11,72	11,70	0,508
	A.T/2021/047/ŽO	30.07.2021	67 DA-B	BBCH 97		4,96	5,17	5,30	5,37	5,25	0,717
	A.T/2021/048/ŽO	05.08.2021	73 DA-B	BBCH 89		9,18	9,66	9,91	9,86	9,79	0,139
	A.T/2021/049/ŽO	28.07.2021	69 DA-B	BBCH 89		5,76	5,87	6,05	6,08	5,72	0,647
	AF/21/ŽO/12/ZI	30.07.2021	71 DA-B	BBCH 89		6,10	6,50	6,60	6,90	6,80	0,580
	AF/21/ŽO/12/Br	29.07.2021	64 DA-B	BBCH 89		7,90	9,00	8,40	8,80	8,90	0,870
	SRPL20-237-336FE	30.07.2020	63 DA-B	BBCH 99		5,12	5,70	5,89	6,07	6,14	0,297
	SRPL20-238-336FE	13.08.2020	76 DA-B	BBCH 89		6,20	6,50	6,40	7,20	6,90	0,730
	SRPL21-427-336FE	02.08.2021	30 DA-B	BBCH 89		4,70	4,70	4,80	4,70	4,80	0,390
	SRCZ20-073-301FE	17.08.2020	75 DA-B	BBCH 99		5,32	5,48	5,48	5,57	5,32	0,240
	SRCZ20-074-301FE	06.08.2020	63 DA-B	BBCH 99		6,02	6,34	6,04	6,12	6,16	0,512
	Average					6,57	6,99	6,96	7,13	7,04	
	Min.					4,70	4,70	4,80	4,70	4,80	
	Max.					11,02	11,98	11,67	11,72	11,70	

Table 3.4.2.1-4 The influence of the CHR/F/PYRA on yield quantity [t/ha].

Spring barley

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=0.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
spring barley yield t/ha	A.T/2020/101/JJ	24.07.2020	56 DA-B	BBCH 99		6,03	6,13	6,24	6,23	6,11	0,325
	A.T/2020/102/JJ	06.08.2020	64 DA-B	BBCH 99		7,65	8,13	8,12	8,19	8,12	0,142
	A.T/2020/103/JJ	07.08.2020	66 DA-B	BBCH 89-93		4,86	5,45	5,61	5,80	5,71	0,251
	A.T/2020/104/JJ	29.07.2020	54 DA-B	BBCH 99		4,74	4,94	4,93	5,02	4,97	0,379
	A.T/2020/105/JJ	05.08.2020	61 DA-B	BBCH 99		5,69	6,16	6,17	6,24	6,09	0,428
	A.T/2020/106/JJ	11.08.2020	54 DA-B	BBCH 89-93		6,43	8,62	8,63	8,89	8,74	0,468
	A.T/2021/050/JJ	27.07.2021	46 DA-B	BBCH 97		4,74	5,26	5,40	5,50	5,59	0,421
	A.T/2021/051/JJ	13.08.2021	60 DA-B	BBCH 89		4,04	4,13	4,34	4,82	4,52	0,298
	AF/20/JJ/23/Br/01	31.07.2020	52 DA-B	BBCH 87-92		4,20	4,70	5,10	5,40	5,30	0,900
	AF/20/JJ/23/Pr/02	31.07.2020	52 DA-B	BBCH 87-92		9,80	10,50	10,30	10,90	10,80	0,850
	AF/20/JJ/23/ZI/03	22.07.2020	56 DA-B	BBCH 87-92		5,40	5,60	6,00	5,90	6,10	0,580
	AF/20/JJ/23/Br/04	31.07.2020	38 DA-B	BBCH 87-92		4,50	4,70	5,40	5,50	6,00	1,800
	AF/20/JJ/23/Pr/05	31.07.2020	45 DA-B	BBCH 87-92		9,80	10,50	10,90	11,00	11,40	0,860
	AF/20/JJ/23/ZI/06	22.07.2020	43 DA-B	BBCH 87-92		5,50	6,00	6,20	6,30	6,30	0,470
	SRCZ20-075-301FE	17.08.2020	54 DA-B	BBCH 99		8,75	9,42	9,35	9,38	9,12	0,488
	SRCZ20-076-301FE	07.08.2020	64 DA-B	BBCH 99		6,02	6,02	5,66	5,91	6,19	1,015
	SRCZ20-077-301FE	31.07.2020	57 DA-A	BBCH 99		6,90	6,80	7,10	7,10	6,70	0,540
	SRCZ20-078-301FE	14.08.2020	60 DA-B	BBCH 99		6,76	6,54	7,7,53	7,31	6,92	0,921
	SRCZ20-079-301FE	07.08.2020	59 DA-B	BBCH 99		6,50	6,60	6,60	6,76	6,73	0,649
	SRCZ20-080-301FE	30.07.2020	45 DA-B	BBCH 99		7,30	7,40	7,70	7,36	7,99	0,625
Average						6,28	6,68	10,36	6,98	6,97	
Min.						4,04	4,13	4,34	4,82	4,52	
Max.						9,80	10,50	7,7,53	11,00	11,40	

**Table 3.4-4: Relationship between phytotoxicity and yield.**

Not applicable.

There were not observed any phytotoxicity symptoms on tested product and standard in trials. This effects didn't have any negative effect on the yield of winter wheat, winter triticale, winter rye and spring barley.

Comments of zRMS:	The fungicide CHR/F/PYRA at dose rate 1,0 l/ha applied two times resulted in an increase of yield of winter wheat, winter triticale, winter rye and spring barley in comparison to the untreated check. The yield was check in efficacy trials carried out in 2020 and 2021.
-------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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

61 studies conducted in 2020 and 2021 in Poland and Czech Republic on winter wheat, winter triticale, winter rye and spring barley revealed had no negative impact of CHR/F/PYRA on quality of plants. Influence of CHR/F/PYRA on the yield of grains was evaluated in efficacy research. The yield was evaluated on the basis of harvested grains quantity from one hectare (t/ha). The influence of the tested product on quantity of grain was evaluated in 61 field experiments in Poland and Czech Republic in 2020 and 2021. There weren't difference between the treatment objects and standard. Details of the data shows tables below.



table 3.4.3.1-1 The influence of the CHR/F/PYRA on quality of yield  
Winter wheat (HLW = weight 100 Ltr (hl))

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
winter wheat HLW kg/Hl	A.T/2020/094/PO	05.08.2020	71 DA-B	BBCH 99		79,30	79,55	79,48	79,25	79,53	0,522
	A.T/2020/095/PO	17.09.2020	100 DA-B	BBCH 99		75,68	76,33	76,88	76,53	76,40	0,633
	A.T/2020/096/PO	17.09.2020	100 DA-B	BBCH 99		74,10	75,23	75,03	74,90	74,70	0,792
	A.T/2021/039/PO	10.09.2021	93 DA-B	BBCH 99		74,25	74,50	74,80	75,13	74,30	0,857
	A.T/2021/040/PO	10.10.2021	94 DA-B	BBCH 99		79,68	76,85	81,43	80,03	79,08	3,904
	A.T/2021/041/PO	15.09.2021	84 DA-B	BBCH 99		70,20	72,83	72,18	72,70	72,93	0,827
	A.T/2021/042/PO	13.09.2021	94 DA-B	BBCH 99		67,33	66,75	68,33	67,35	66,05	1,876
	AF/20/PO/23/Mr/01	18.08.2020	62 DA-B	BBCH 99		63,40	63,50	63,00	62,40	62,80	1,330
	AF/20/PO/23/Mr/02	11.08.2020	55 DA-B	BBCH 99		62,60	62,60	61,90	61,60	62,80	2,160
	AF/20/PO/23/ZI/03	18.08.2020	70 DA-B	BBCH 99		71,80	72,50	72,40	72,50	72,80	1,290
	AF/21/PO/12/Pr	11.08.2021	57 DA-B	BBCH 99		77,90	79,70	79,30	78,50	78,20	2,370
	SRPL20-239-336FE	06.08.2020	66 DA-B	BBCH 89		72,98	76,70	80,38	80,03	79,50	2,597
	SRPL20-240-336HE	02.08.2020	60 DA-B	BBCH 99		76,75	79,75	80,38	80,60	79,60	0,736
	SRPL21-421-336FE	13.08.2021	60 DA-B	BBCH 89		69,20	73,78	75,15	73,70	74,88	5,158
	SRPL21-422-336FE	09.08.2021	69 DA-B	BBCH 99		76,50	76,10	76,00	76,50	76,10	0,740
	SRPL21-423-336FE	29.07.2021	63 DA-B	BBCH 99		80,40	81,50	74,60	81,30	74,30	6,670
	SRPL21-424-336FE	30.07.2021	58 DA-B	BBCH 99		73,48	77,35	76,43	76,45	77,38	1,306
	SRCZ20-068-301FE	12.08.2020	70 DA-B	BBCH 99		76,25	77,00	77,25	76,75	77,00	1,024
	SRCZ20-070-301FE	10.08.2020	67 DA-B	BBCH 99		73,75	74,25	74,75	74,75	74,00	1,616
	SRCZ20-069-301FE	29.07.2020	51 DA-B	BBCH 99		77,25	76,50	78,50	78,25	78,25	0,808
	Average					73,64	74,66	74,91	74,96	74,53	
	Min.					62,60	62,60	61,90	61,60	62,80	
	Max.					80,40	81,50	81,43	81,30	79,60	

table 3.4.3.1-2 The influence of the CHR/F/PYRA on quality of yield  
Winter triticale (HLW = weight 100 Ltr (hl))

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
winter triticale HLW kg/Hl	A.T/2020/097/PŽO	21.09.2020	122 DA-B	BBCH 99		75,63	75,50	76,10	76,00	75,50	1,030
	A.T/2020/098/PŽO	21.09.2020	111 DA-B	BBCH 99		59,63	61,30	61,93	61,05	63,53	1,765
	A.T/2021/043/PŽO	14.09.2021	102 DA-B	BBCH 99		66,55	67,03	66,48	66,45	66,88	1,292
	A.T/2021/044/PŽO	16.09.2021	104 DA-B	BBCH 99		71,23	72,45	72,88	72,93	72,95	1,032
	A.T/2021/045/PŽO	17.09.2021	86 DA-B	BBCH 99		71,40	72,20	72,00	72,30	71,95	0,427
	A.T/2021/046/PŽO	09.09.2021	94 DA-B	BBCH 90		65,40	67,38	67,55	67,53	66,65	1,147
	SRPL21-425-336FE	05.08.2021	64 DA-B	BBCH 99		66,40	66,30	66,60	66,50	66,50	0,280
	SRPL21-426-336FE	10.08.2021	70 DA-B	BBCH 99		64,70	63,80	65,00	64,70	64,90	1,230
	SRCZ20-071-301FE	12.08.2020	70 DA-B	BBCH 99		74,00	74,25	74,25	74,50	74,25	1,218
	SRCZ20-072-301FE	11.08.2020	61 DA-B	BBCH 99		63,25	65,00	65,63	65,00	64,00	1,406
Average						67,82	68,52	68,84	68,70	68,71	
Min.						59,63	61,30	61,93	61,05	63,53	
Max.						75,63	75,50	76,10	76,00	75,50	

table 3.4.3.1-3 The influence of the CHR/F/PYRA on quality of yield  
Winter rye (HLW = weight 100 Ltr (hl))

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
winter rye HLW kg/Hl	A.T/2020/099/ŽO	21.09.2020	122 DA-B	BBCH 99		72,05	72,40	72,43	72,05	72,23	0,338
	A.T/2021/047/ŽO	13.09.2021	112 DA-B	BBCH 99		70,68	69,73	68,60	68,98	70,65	2,679
	A.T/2021/048/ŽO	13.09.2021	112 DA-B	BBCH 99		76,00	76,05	76,18	76,13	75,93	0,578
	A.T/2021/049/ŽO	09.09.2021	112 DA-B	BBCH 99		69,10	70,00	69,78	70,45	70,05	1,892
	AF/21/ŽO/12/ZI	11.08.2021	83 DA-B	BBCH 99		72,10	74,30	73,30	74,00	73,30	3,390
	AF/21/ŽO/12/Br	11.08.2021	77 DA-B	BBCH 99		70,30	71,50	71,30	71,20	71,30	1,330
	SRPL20-237-336FE	30.07.2020	63 DA-B	BBCH 99		66,90	66,98	68,48	68,53	71,10	2,442
	SRPL20-238-336FE	13.08.2020	76 DA-B	BBCH 89		70,65	71,80	71,80	72,28	71,78	1,767
	SRPL21-427-336FE	02.08.2021	30 DA-B	BBCH 89		78,13	76,05	75,50	76,50	75,43	2,214
	SRCZ20-073-301FE	17.08.2020	75 DA-B	BBCH 99		76,75	77,38	76,13	76,63	76,25	0,870
	SRCZ20-074-301FE	06.08.2020	63 DA-B	BBCH 99		74,25	74,75	74,50	74,50	74,75	0,645
	Average					72,45	72,81	72,55	72,84	72,98	
	Min.					66,90	66,98	68,48	68,53	70,05	
	Max.					78,13	77,38	76,18	76,63	76,25	

table 3.4.3.1-4 The influence of the CHR/F/PYRA on quality of yield  
Spring barley (HLW = weight 100 Ltr (hl))

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
spring barley HLW kg/Hl	A.T/2020/101/JJ	18.08.2020	81 DA-B	BBCH 99		65,30	64,65	65,03	64,73	64,83	1,717
	A.T/2020/102/JJ	17.08.2020	75 DA-B	BBCH 99		61,75	62,68	63,58	62,68	63,83	1,562
	A.T/2020/103/JJ	21.09.2020	111 DA-B	BBCH 99		51,45	53,80	55,18	53,55	54,23	2,123
	A.T/2020/104/JJ	21.09.2020	108 DA-B	BBCH 99		59,08	58,93	58,00	56,90	59,15	1,481
	A.T/2020/105/JJ	21.09.2020	108 DA-B	BBCH 99		62,75	63,13	62,53	62,70	62,18	1,266
	A.T/2020/106/JJ	21.09.2020	95 DA-B	BBCH 99		56,23	60,20	60,25	60,20	62,30	1,166
	A.T/2021/050/JJ	09.09.2021	90 DA-B	BBCH 99		67,08	68,43	67,95	67,23	69,03	1,540
	A.T/2021/051/JJ	09.09.2021	87 DA-B	BBCH 99		56,23	59,78	60,68	60,20	60,30	1,019
	AF/20/JJ/23/Br/01	03.08.2020	55 DA-B	BBCH 99		66,10	68,25	67,45	65,23	68,25	1,751
	AF/20/JJ/23/Pr/02	03.08.2020	55 DA-B	BBCH 99		62,80	60,70	62,20	62,75	60,45	3,740
	AF/20/JJ/23/ZI/03	05.08.2020	70 DA-B	BBCH 99		66,63	67,13	66,33	66,75	66,15	1,224
	AF/20/JJ/23/Br/04	03.08.2020	41 DA-B	BBCH 99		64,55	66,13	66,73	66,33	67,23	4,546
	AF/20/JJ/23/Pr/05	03.08.2020	49 DA-B	BBCH 99		59,43	61,60	60,10	60,13	59,30	7,309
	AF/20/JJ/23/ZI/06	04.08.2020	56 DA-B	BBCH 99		66,73	65,78	67,10	65,88	66,98	2,277
	SRCZ20-075-301FE	17.08.2020	54 DA-B	BBCH 99		65,75	66,50	66,25	66,25	66,75	1,071
	SRCZ20-076-301FE	18.08.2020	75 DA-B	BBCH 99		65,80	67,10	67,30	65,70	66,50	1,704
	SRCZ20-077-301FE	06.08.2020	63 DA-A	BBCH 99		62,25	63,25	62,75	62,75	63,00	1,304
	SRCZ20-078-301FE	14.08.2020	60 DA-B	BBCH 99		60,50	60,75	60,25	60,75	60,00	1,534
	SRCZ20-079-301FE	07.08.2020	59 DA-B	BBCH 99		67,50	66,13	67,78	67,53	67,45	2,507
	SRCZ20-080-301FE	30.07.2020	45 DA-B	BBCH 99		59,50	59,00	59,25	59,25	59,75	2,263
Average						62,37	63,20	63,33	62,87	63,38	
Min.						51,45	53,80	55,18	53,55	54,23	
Max.						67,50	68,43	67,95	67,53	69,03	

table 3.4.3.1-5 The influence of the CHR/F/PYRA on quality of yield  
Winter wheat thousand weight grain [g]

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
winter wheat TGW g	A.T/2020/094/PO	05.08.2020	71 DA-B	BBCH 99		46,48	45,98	46,82	45,95	46,12	1,930
	A.T/2020/095/PO	17.09.2020	100 DA-B	BBCH 99		49,52	49,52	50,89	50,94	49,69	2,480
	A.T/2020/096/PO	17.09.2020	100 DA-B	BBCH 99		44,27	43,98	44,36	43,91	44,53	1,769
	A.T/2021/039/PO	10.09.2021	93 DA-B	BBCH 99		35,05	34,77	35,62	35,19	32,79	4,444
	A.T/2021/040/PO	10.10.2021	94 DA-B	BBCH 99		34,12	32,29	36,24	34,63	33,98	5,300
	A.T/2021/041/PO	15.09.2021	84 DA-B	BBCH 99		30,20	30,56	32,86	31,73	30,89	3,357
	A.T/2021/042/PO	13.09.2021	94 DA-B	BBCH 99		34,13	34,76	36,05	35,00	34,35	2,238
	AF/20/PO/23/Mr/01	18.08.2020	62 DA-B	BBCH 99		46,78	48,56	48,38	49,07	49,37	0,942
	AF/20/PO/23/Mr/02	11.08.2020	55 DA-B	BBCH 99		47,05	48,89	48,94	48,53	48,93	1,598
	AF/20/PO/23/ZI/03	18.08.2020	70 DA-B	BBCH 99		37,76	38,72	38,90	40,00	41,15	2,523
	AF/21/PO/12/Pr	11.08.2021	57 DA-B	BBCH 99		41,76	42,26	42,29	42,24	42,01	1,374
	SRPL20-239-336FE	06.08.2020	66 DA-B	BBCH 89		38,04	37,51	38,09	38,94	38,96	1,902
	SRPL20-240-336HE	02.08.2020	60 DA-B	BBCH 99		42,13	49,05	51,55	51,73	49,33	1,412
	SRPL21-421-336FE	13.08.2021	60 DA-B	BBCH 89		35,40	37,68	38,03	36,53	37,25	2,702
	SRPL21-422-336FE	09.08.2021	69 DA-B	BBCH 99		46,10	46,10	46,20	46,20	46,00	0,250
	SRPL21-423-336FE	29.07.2021	63 DA-B	BBCH 99		36,40	38,40	39,80	36,50	36,80	2,740
	SRPL21-424-336FE	30.07.2021	58 DA-B	BBCH 99		38,03	44,50	44,88	45,15	44,88	1,223
	SRCZ20-068-301FE	12.08.2020	70 DA-B	BBCH 99		51,53	52,56	53,39	53,85	52,77	2,830
	SRCZ20-070-301FE	10.08.2020	67 DA-B	BBCH 99		38,78	40,29	40,04	39,59	40,51	1,530
	SRCZ20-069-301FE	29.07.2020	51 DA-B	BBCH 99		43,20	41,33	45,69	44,39	44,43	2,371
	Average					40,84	41,89	42,95	42,50	42,24	
	Min.					30,20	30,56	32,86	31,73	30,89	
	Max.					51,53	52,56	53,39	53,85	52,77	

table 3.4.3.1-6 The influence of the CHR/F/PYRA on quality of yield  
Winter tritcale thousand weight grain [g]

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
winter tritcale TGW g	A.T/2020/097/PŽO	21.09.2020	122 DA-B	BBCH 99		49,47	50,40	50,89	50,30	50,68	2,628
	A.T/2020/098/PŽO	21.09.2020	111 DA-B	BBCH 99		42,61	42,14	42,96	42,62	45,44	4,487
	A.T/2021/043/PŽO	14.09.2021	102 DA-B	BBCH 99		40,25	40,78	40,15	39,80	41,58	2,279
	A.T/2021/044/PŽO	16.09.2021	104 DA-B	BBCH 99		44,05	45,15	47,07	47,88	46,51	2,916
	A.T/2021/045/PŽO	17.09.2021	86 DA-B	BBCH 99		42,80	43,87	43,55	43,88	43,65	1,021
	A.T/2021/046/PŽO	09.09.2021	94 DA-B	BBCH 90		41,89	43,91	44,12	43,86	42,84	1,705
	SRPL21-425-336FE	05.08.2021	64 DA-B	BBCH 99		41,40	41,40	41,50	41,50	41,60	0,140
	SRPL21-426-336FE	10.08.2021	70 DA-B	BBCH 99		41,90	42,00	41,80	42,00	41,80	0,310
	SRCZ20-071-301FE	12.08.2020	70 DA-B	BBCH 99		46,42	46,35	46,97	47,60	46,97	2,677
	SRCZ20-072-301FE	11.08.2020	61 DA-B	BBCH 99		47,26	49,10	49,83	48,86	48,30	1,262
Average						43,81	44,51	44,88	41,83	44,94	
Min.						40,25	40,78	40,15	13,86	41,58	
Max.						49,47	50,40	50,89	50,30	50,68	

table 3.4.3.1-7 The influence of the CHR/F/PYRA on quality of yield  
Winter rye thousand weight grain [g]

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)	1	0,60	0,80	1,00	1,00	
winter rye TGW g	A.T/2020/099/ŽO	21.09.2020	122 DA-B	BBCH 99		43,34	44,92	43,67	44,66	43,77	3,789
	A.T/2021/047/ŽO	13.09.2021	112 DA-B	BBCH 99		20,64	19,43	19,08	18,69	19,23	3,773
	A.T/2021/048/ŽO	13.09.2021	112 DA-B	BBCH 99		30,08	29,25	31,27	30,37	29,76	1,875
	A.T/2021/049/ŽO	09.09.2021	112 DA-B	BBCH 99		28,20	28,92	28,54	31,02	29,71	3,377
	AF/21/ŽO/12/ZI	11.08.2021	83 DA-B	BBCH 99		21,61	23,69	23,31	22,48	22,49	1,362
	AF/21/ŽO/12/Br	11.08.2021	77 DA-B	BBCH 99		22,80	25,11	24,31	24,50	24,74	1,965
	SRPL20-237-336FE	30.07.2020	63 DA-B	BBCH 99		30,40	30,98	31,04	31,55	32,21	1,589
	SRPL20-238-336FE	13.08.2020	76 DA-B	BBCH 89		31,97	31,20	30,55	31,06	31,67	1,567
	SRPL21-427-336FE	02.08.2021	30 DA-B	BBCH 89		27,75	28,93	28,35	29,70	29,75	2,493
	SRCZ20-073-301FE	17.08.2020	75 DA-B	BBCH 99		42,98	45,35	44,86	44,74	44,57	1,155
	SRCZ20-074-301FE	06.08.2020	63 DA-B	BBCH 99		36,90	37,76	37,66	37,09	37,76	1,184
	Average					30,61	31,41	31,15	31,44	31,42	
	Min.					20,64	19,43	19,08	18,69	19,23	
	Max.					43,34	45,35	44,86	44,74	44,57	

table 3.4.3.1-8 The influence of the CHR/F/PYRA on quality of yield  
Spring barley thousand weight grain [g]

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
spring barley TGW g	A.T/2020/101/JJ	18.08.2020	81 DA-B	BBCH 99		44,51	45,11	45,68	45,98	45,03	1,625
	A.T/2020/102/JJ	17.08.2020	75 DA-B	BBCH 99		45,61	46,14	47,33	46,21	46,65	2,665
	A.T/2020/103/JJ	21.09.2020	111 DA-B	BBCH 99		48,43	51,01	52,33	54,03	48,33	4,116
	A.T/2020/104/JJ	21.09.2020	108 DA-B	BBCH 99		45,23	46,23	46,31	45,87	45,24	3,345
	A.T/2020/105/JJ	21.09.2020	108 DA-B	BBCH 99		48,54	51,41	50,99	51,12	52,29	2,729
	A.T/2020/106/JJ	21.09.2020	95 DA-B	BBCH 99		47,39	51,13	51,88	51,63	49,89	2,648
	A.T/2021/050/JJ	09.09.2021	90 DA-B	BBCH 99		42,84	44,73	44,37	43,91	45,41	3,151
	A.T/2021/051/JJ	09.09.2021	87 DA-B	BBCH 99		47,39	50,65	52,86	51,13	49,89	2,257
	AF/20/JJ/23/Br/01	03.08.2020	55 DA-B	BBCH 99		39,53	42,85	43,09	43,26	43,02	3,447
	AF/20/JJ/23/Pr/02	03.08.2020	55 DA-B	BBCH 99		40,70	42,52	42,78	42,59	43,49	1,711
	AF/20/JJ/23/ZI/03	05.08.2020	70 DA-B	BBCH 99		50,09	51,33	51,44	51,93	51,71	1,195
	AF/20/JJ/23/Br/04	03.08.2020	41 DA-B	BBCH 99		39,98	41,65	42,28	42,60	42,38	3,999
	AF/20/JJ/23/Pr/05	03.08.2020	49 DA-B	BBCH 99		40,94	41,75	41,77	41,97	42,21	1,346
	AF/20/JJ/23/ZI/06	04.08.2020	56 DA-B	BBCH 99		49,91	51,56	51,99	51,35	52,48	1,613
	SRCZ20-075-301FE	17.08.2020	54 DA-B	BBCH 99		44,78	46,54	45,38	48,05	46,98	1,986
	SRCZ20-076-301FE	18.08.2020	75 DA-B	BBCH 99		41,49	42,23	41,48	41,24	42,21	1,632
	SRCZ20-077-301FE	06.08.2020	63 DA-A	BBCH 99		49,86	51,58	52,35	52,18	51,94	2,430
	SRCZ20-078-301FE	14.08.2020	60 DA-B	BBCH 99		42,21	44,48	42,64	43,96	43,47	2,864
	SRCZ20-079-301FE	07.08.2020	59 DA-B	BBCH 99		50,28	50,75	52,01	49,94	50,01	1,570
	SRCZ20-080-301FE	30.07.2020	45 DA-B	BBCH 99		41,85	42,00	44,09	43,06	43,31	3,697
Average						45,08	46,78	47,15	47,10	46,80	
Min.						39,53	41,65	41,48	41,24	42,21	
Max.						50,28	51,58	52,86	54,03	52,48	



table 3.4.3.1-9 The influence of the CHR/F/PYRA on quality of yield  
Winter wheat moisture content [%]

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
winter wheat moisture content %	A.T/2020/094/PO	22.07.2020	57 DA-B	BBCH 99		13,08	13,05	13,03	13,00	12,98	0,237
	A.T/2020/095/PO	08.08.2020	60 DA-B	BBCH 99		13,10	12,95	13,08	13,15	13,08	0,185
	A.T/2020/096/PO	07.08.2020	59 DA-B	BBCH 89-93		13,18	13,15	13,18	13,25	13,18	0,290
	A.T/2021/039/PO	25.07.2021	56 DA-B	BBCH 99		12,95	13,05	13,00	13,05	13,03	0,278
	A.T/2021/040/PO	30.07.2021	52 DA-B	BBCH 99		12,60	12,63	12,83	12,78	12,73	0,355
	A.T/2021/041/PO	03.08.2021	41 DA-B	BBCH 89		14,53	14,35	14,48	14,48	14,40	0,329
	A.T/2021/042/PO	13.08.2021	63 DA-B	BBCH 99		13,15	13,08	13,00	13,18	13,03	0,221
	AF/20/PO/23/Mr/01	31.07.2020	44 DA-B	BBCH 89		12,40	12,43	12,40	12,20	12,35	0,332
	AF/20/PO/23/Mr/02	31.07.2020	44 DA-B	BBCH 89		12,48	12,48	12,50	12,45	12,53	0,344
	AF/20/PO/23/ZI/03	25.07.2020	46 DA-B	BBCH 89		12,53	12,53	12,55	12,70	12,63	0,232
	AF/21/PO/12/Pr	30.07.2021	45 DA-B	BBCH 89		11,80	11,80	11,80	11,85	11,80	0,116
	SRPL20-239-336FE	06.08.2020	66 DA-B	BBCH 89		12,10	12,15	12,18	12,08	12,13	0,125
	SRPL20-240-336HE	02.08.2020	60 DA-B	BBCH 99		13,35	13,53	13,55	13,65	13,45	0,248
	SRPL21-421-336FE	13.08.2021	60 DA-B	BBCH 89		12,10	12,60	12,60	12,83	12,73	0,491
	SRPL21-422-336FE	09.08.2021	69 DA-B	BBCH 99		14,00	14,10	14,00	14,00	14,10	0,130
	SRPL21-423-336FE	29.07.2021	63 DA-B	BBCH 99		11,20	11,40	11,00	11,20	11,50	0,540
	SRPL21-424-336FE	30.07.2021	58 DA-B	BBCH 99		13,18	13,33	13,33	13,25	13,40	0,287
	SRCZ20-068-301FE	12.08.2020	70 DA-B	BBCH 99		12,95	13,18	13,03	13,03	13,18	0,259
	SRCZ20-070-301FE	10.08.2020	67 DA-B	BBCH 99		12,38	12,55	12,28	12,45	12,50	0,348
	SRCZ20-069-301FE	29.07.2020	51 DA-B	BBCH 99		8,80	8,58	8,85	8,75	8,60	0,469
Average						12,59	12,65	12,63	12,67	12,67	
Min.						8,80	8,58	8,85	8,75	8,60	
Max.						14,53	14,35	14,48	14,48	14,40	

table 3.4.3.1-10 The influence of the CHR/F/PYRA on quality of yield  
Winter triticale moisture content [%]

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
winter triticale moisture content %	A.T/2020/097/PŽO	29.07.2020	68 DA-B	BBCH 99		13,25	13,25	13,23	12,93	13,33	0,260
	A.T/2020/098/PŽO	07.08.2020	66 DA-B	BBCH 89		13,55	13,63	13,60	13,55	13,68	0,140
	A.T/2021/043/PŽO	05.08.2021	62 DA-B	BBCH 97		13,08	13,25	13,28	13,20	13,13	0,297
	A.T/2021/044/PŽO	04.08.2021	61 DA-B	BBCH 89		14,95	14,90	14,93	14,88	14,98	0,128
	A.T/2021/045/PŽO	02.08.2021	40 DA-B	BBCH 89		14,33	14,23	14,28	14,25	14,28	0,139
	A.T/2021/046/PŽO	13.08.2021	67 DA-B	BBCH 89		13,20	13,08	13,35	13,33	13,10	0,451
	SRPL21-425-336FE	05.08.2021	64 DA-B	BBCH 99		11,50	11,40	11,50	11,50	11,50	0,180
	SRPL21-426-336FE	10.08.2021	70 DA-B	BBCH 99		12,70	12,70	12,70	12,70	12,60	0,230
	SRCZ20-071-301FE	12.08.2020	70 DA-B	BBCH 99		11,83	11,85	11,73	11,83	11,85	0,123
	SRCZ20-072-301FE	11.08.2020	61 DA-B	BBCH 99		14,48	14,68	14,68	14,68	14,58	0,306
Average						13,29	13,30	13,33	13,29	13,30	
Min.						11,50	11,40	11,50	11,50	11,50	
Max.						14,95	14,90	14,93	14,88	14,98	

table 3.4.3.1-11 The influence of the CHR/F/PYRA on quality of yield  
Winter rye moisture content [%]

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
winter rye moisture content %	A.T/2020/099/ŽO	14.08.2020	84 DA-B	BBCH 99		12,48	12,53	12,58	12,70	12,60	0,475
	A.T/2021/047/ŽO	30.07.2021	67 DA-B	BBCH 97		12,35	12,60	12,18	12,23	12,35	0,363
	A.T/2021/048/ŽO	05.08.2021	73 DA-B	BBCH 89		13,90	13,83	13,90	13,90	13,80	0,153
	A.T/2021/049/ŽO	28.07.2021	69 DA-B	BBCH 89		12,35	12,48	12,40	12,65	12,43	0,292
	AF/21/ŽO/12/ZI	30.07.2021	71 DA-B	BBCH 89		12,63	12,50	12,73	12,50	12,63	0,503
	AF/21/ŽO/12/Br	29.07.2021	64 DA-B	BBCH 89		10,53	10,95	10,90	10,55	10,70	0,556
	SRPL20-237-336FE	30.07.2020	63 DA-B	BBCH 99		12,18	12,18	12,18	12,18	12,18	0,151
	SRPL20-238-336FE	13.08.2020	76 DA-B	BBCH 89		13,65	13,60	13,65	13,58	13,63	0,304
	SRPL21-427-336FE	02.08.2021	30 DA-B	BBCH 89		14,80	14,78	14,90	14,50	14,93	0,562
	SRCZ20-073-301FE	17.08.2020	75 DA-B	BBCH 99		17,03	18,10	17,73	17,53	18,43	1,336
	SRCZ20-074-301FE	06.08.2020	63 DA-B	BBCH 99		14,70	14,80	14,68	14,78	14,58	0,264
	Average					13,33	13,49	13,44	13,37	13,48	
	Min.					10,53	10,95	10,90	10,55	10,70	
	Max.					17,03	18,10	17,73	17,53	18,43	

table 3.4.3.1-12 The influence of the CHR/F/PYRA on quality of yield  
Spring barley moisture content [%]

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
spring barley moisture content %	A.T/2020/101/JJ	24.07.2020	56 DA-B	BBCH 99		12,05	12,15	11,90	12,18	12,10	0,355
	A.T/2020/102/JJ	06.08.2020	64 DA-B	BBCH 99		12,15	12,25	12,15	12,20	12,30	0,239
	A.T/2020/103/JJ	07.08.2020	66 DA-B	BBCH 89-93		13,68	13,50	13,55	13,53	13,48	0,237
	A.T/2020/104/JJ	29.07.2020	54 DA-B	BBCH 99		13,50	13,68	13,73	13,85	13,80	0,303
	A.T/2020/105/JJ	05.08.2020	61 DA-B	BBCH 99		14,28	14,48	14,55	14,50	14,55	0,325
	A.T/2020/106/JJ	11.08.2020	54 DA-B	BBCH 89-93		12,95	13,20	13,18	13,15	13,15	0,191
	A.T/2021/050/JJ	27.07.2021	46 DA-B	BBCH 97		13,15	12,93	13,00	13,05	13,15	0,201
	A.T/2021/051/JJ	13.08.2021	60 DA-B	BBCH 89		12,95	13,13	13,20	13,20	13,15	0,186
	AF/20/JJ/23/Br/01	31.07.2020	52 DA-B	BBCH 87-92		11,05	10,93	11,33	11,13	11,08	0,646
	AF/20/JJ/23/Pr/02	31.07.2020	52 DA-B	BBCH 87-92		10,58	10,50	10,53	10,65	10,45	0,334
	AF/20/JJ/23/ZI/03	22.07.2020	56 DA-B	BBCH 87-92		15,05	15,25	15,38	15,40	15,53	0,807
	AF/20/JJ/23/Br/04	31.07.2020	38 DA-B	BBCH 87-92		10,90	11,13	11,15	11,13	11,10	0,673
	AF/20/JJ/23/Pr/05	31.07.2020	45 DA-B	BBCH 87-92		10,28	10,33	10,35	10,33	10,18	0,182
	AF/20/JJ/23/ZI/06	22.07.2020	43 DA-B	BBCH 87-92		15,23	15,75	15,75	15,70	15,63	0,338
	SRCZ20-075-301FE	17.08.2020	54 DA-B	BBCH 99		12,50	12,68	12,68	12,90	12,73	0,258
	SRCZ20-076-301FE	07.08.2020	64 DA-B	BBCH 99		10,05	9,28	9,38	9,78	9,23	1,465
	SRCZ20-077-301FE	31.07.2020	57 DA-A	BBCH 99		10,73	10,98	10,83	10,75	11,45	1,206
	SRCZ20-078-301FE	14.08.2020	60 DA-B	BBCH 99		12,85	12,73	12,83	12,83	12,75	0,364
	SRCZ20-079-301FE	07.08.2020	59 DA-B	BBCH 99		11,90	12,98	12,00	11,48	12,60	0,875
	SRCZ20-080-301FE	30.07.2020	45 DA-B	BBCH 99		9,30	9,38	9,55	9,25	9,23	0,450
	Average					12,26	12,36	12,35	12,35	12,38	
	Min.					9,30	9,28	9,38	9,25	9,23	
	Max.					15,23	15,75	15,75	15,70	15,63	

table 3.4.3.1-13 The influence of the CHR/F/PYRA on quality of yield  
Winter wheat protein content [%]

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
winter wheat protein content %	A.T/2020/094/PO	05.08.2020	71 DA-B	BBCH 99		12,08	12,00	11,90	12,00	12,30	0,443
	A.T/2020/095/PO	17.09.2020	100 DA-B	BBCH 99		10,35	11,68	11,18	11,05	11,50	1,081
	A.T/2020/096/PO	17.09.2020	100 DA-B	BBCH 99		11,38	11,40	11,58	11,28	11,33	0,833
	A.T/2021/039/PO	10.09.2021	93 DA-B	BBCH 99		15,28	15,23	15,23	15,35	15,45	0,616
	A.T/2021/040/PO	10.10.2021	94 DA-B	BBCH 99		12,05	12,13	11,93	12,40	12,58	1,494
	A.T/2021/041/PO	15.09.2021	84 DA-B	BBCH 99		13,80	13,75	13,65	13,65	11,25	3,393
	A.T/2021/042/PO	13.09.2021	94 DA-B	BBCH 99		12,60	12,58	12,40	12,53	12,63	0,577
	AF/20/PO/23/Mr/01	18.08.2020	62 DA-B	BBCH 99		14,60	14,70	14,70	14,80	14,70	
	AF/20/PO/23/Mr/02	11.08.2020	55 DA-B	BBCH 99		14,50	14,60	14,60	14,70	14,60	
	AF/20/PO/23/ZI/03	25.07.2020	46 DA-B	BBCH 89		13,80	13,90	13,90	13,90	13,90	
	AF/21/PO/12/Pr	11.08.2021	57 DA-B	BBCH 99		14,30	14,40	14,30	14,20	14,30	
	SRPL20-239-336FE	03.09.2020	94 DA-B	BBCH 89		12,65	12,70	12,70	12,75	12,65	0,109
	SRPL20-240-336HE	10.08.2020	68 DA-B	BBCH 99		12,88	13,25	13,43	13,45	13,33	0,315
	SRPL21-421-336FE	28.09.2021	106 DA-B	BBCH 89		14,40	14,43	14,15	14,25	13,98	0,683
	SRPL21-422-336FE	03.09.2021	94 DA-B	BBCH 99		12,30	12,30	12,30	12,30	12,40	0,190
	SRPL21-423-336FE	15.09.2021	111 DA-B	BBCH 99		15,80	15,70	15,40	15,60	15,80	0,560
	SRPL21-424-336FE	30.08.2021	89 DA-B	BBCH 99		12,75	12,63	12,53	12,58	12,48	0,257
	SRCZ20-068-301FE	12.08.2020	70 DA-B	BBCH 99		11,58	11,04	11,41	11,17	11,57	0,312
	SRCZ20-070-301FE	10.08.2020	67 DA-B	BBCH 99		11,81	12,10	11,98	11,84	11,98	0,629
	SRCZ20-069-301FE	29.07.2020	51 DA-B	BBCH 99		12,98	12,86	12,70	12,78	12,89	0,636
Average						12,79	12,86	12,78	12,81	12,76	
Min.						10,35	11,04	11,18	11,05	11,25	
Max.						15,80	15,70	15,40	15,60	15,80	

table 3.4.3.1-14 The influence of the CHR/F/PYRA on quality of yield  
Winter tritcale protein content [%]

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
winter tritcale protein content %	A.T/2020/097/PŽO	21.09.2020	122 DA-B	BBCH 99		11,65	11,90	11,68	11,98	12,05	0,578
	A.T/2020/098/PŽO	21.09.2020	111 DA-B	BBCH 99		11,30	11,15	11,75	11,50	11,63	0,558
	A.T/2021/043/PŽO	14.09.2021	102 DA-B	BBCH 99		11,08	10,75	10,33	10,98	11,43	1,544
	A.T/2021/044/PŽO	16.09.2021	104 DA-B	BBCH 99		12,25	12,25	12,08	11,90	12,05	0,259
	A.T/2021/045/PŽO	17.09.2021	86 DA-B	BBCH 99		11,45	11,63	11,43	11,35	11,38	0,311
	A.T/2021/046/PŽO	09.09.2021	94 DA-B	BBCH 90		12,25	12,33	12,10	12,38	12,33	0,655
	SRPL21-425-336FE	05.08.2021	64 DA-B	BBCH 99		11,40	11,40	11,50	11,40	11,40	0,310
	SRPL21-426-336FE	10.08.2021	70 DA-B	BBCH 99		13,40	13,40	13,60	13,50	13,50	0,380
	SRCZ20-071-301FE	16.09.2020	105 DA-B	BBCH 99		13,27	13,40	13,35	13,31	13,24	0,421
	SRCZ20-072-301FE	16.09.2020	97 DA-B	BBCH 99		13,83	13,60	12,58	13,39	12,71	1,172
	Average					12,19	12,18	12,04	12,17	12,17	
	Min.					11,08	10,75	10,33	10,98	11,38	
	Max.					13,83	13,60	13,60	13,50	13,50	

table 3.4.3.1-15 The influence of the CHR/F/PYRA on quality of yield  
Winter rye protein content [%]

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
winter rye protein content %	A.T/2020/099/ŽO	21.09.2020	122 DA-B	BBCH 99		8,85	8,73	8,68	8,55	8,98	0,465
	A.T/2021/047/ŽO	13.09.2021	112 DA-B	BBCH 99		9,98	10,73	9,95	10,10	10,30	0,653
	A.T/2021/048/ŽO	13.09.2021	112 DA-B	BBCH 99		8,83	8,95	8,88	8,90	9,05	0,364
	A.T/2021/049/ŽO	09.09.2021	112 DA-B	BBCH 99		8,93	8,75	8,65	8,98	8,70	0,752
	SRCZ20-073-301FE	17.09.2020	106 DA-B	BBCH 99		7,85	7,97	7,62	7,91	7,91	0,582
	SRCZ20-074-301FE	17.09.2020	105 DA-B	BBCH 99		9,28	9,18	8,79	9,20	8,97	0,487
Average						8,95	9,05	8,76	8,94	8,99	
Min.						7,85	7,97	7,62	7,91	7,91	
Max.						9,98	10,73	9,95	10,10	10,30	

table 3.4.3.1-16 The influence of the CHR/F/PYRA on quality of yield  
spring barley protein content [%]

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
spring barley protein content %	A.T/2020/101/JJ	18.08.2020	81 DA-B	BBCH 99		10,88	10,93	11,35	11,55	11,70	0,718
	A.T/2020/102/JJ	17.08.2020	75 DA-B	BBCH 99		10,00	10,55	10,48	10,18	10,18	0,732
	A.T/2020/103/JJ	21.09.2020	111 DA-B	BBCH 99		13,35	13,28	13,95	13,05	13,30	0,715
	A.T/2020/104/JJ	21.09.2020	108 DA-B	BBCH 99		12,08	11,68	12,15	11,80	11,43	0,425
	A.T/2020/105/JJ	21.09.2020	108 DA-B	BBCH 99		11,33	11,28	11,38	11,25	11,30	0,442
	A.T/2020/106/JJ	21.09.2020	95 DA-B	BBCH 99		12,23	12,35	12,38	12,43	12,23	0,550
	A.T/2021/050/JJ	09.09.2021	90 DA-B	BBCH 99		11,15	11,30	11,38	11,13	11,30	0,614
	A.T/2021/051/JJ	09.09.2021	87 DA-B	BBCH 99		12,23	12,38	12,43	12,35	12,23	0,550
	AF/20/JJ/23/Br/01	03.08.2020	55 DA-B	BBCH 99		10,70	10,80	10,90	10,90	10,80	
	AF/20/JJ/23/Pr/02	03.08.2020	55 DA-B	BBCH 99		11,00	11,00	11,10	11,10	11,10	
	AF/20/JJ/23/ZI/03	05.08.2020	70 DA-B	BBCH 99		10,60	10,50	10,60	10,70	10,70	
	AF/20/JJ/23/Br/04	03.08.2020	41 DA-B	BBCH 99		10,30	10,40	10,40	10,40	10,40	
	AF/20/JJ/23/Pr/05	03.08.2020	49 DA-B	BBCH 99		10,60	10,60	10,60	10,60	10,50	
	AF/20/JJ/23/ZI/06	04.08.2020	56 DA-B	BBCH 99		10,80	10,80	10,70	10,80	10,80	
	SRCZ20-075-301FE	17.08.2020	54 DA-B	BBCH 99		10,29	9,80	10,11	9,84	9,85	0,568
	SRCZ20-078-301FE	14.08.2020	60 DA-B	BBCH 99		10,96	10,84	11,04	10,66	10,61	1,182
Average						11,45	11,44	11,67	11,42	11,41	
Min.						10,00	9,80	10,11	9,84	9,85	
Max.						13,35	13,28	13,95	13,05	13,30	



table 3.4.3.1-17 The influence of the CHR/F/PYRA on quality of yield  
Winter wheat gluten content [%]

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
winter wheat gluten content %	A.T/2020/094/PO	05.08.2020	71 DA-B	BBCH 99		24,65	24,48	24,25	24,43	25,13	0,940
	A.T/2020/095/PO	17.09.2020	100 DA-B	BBCH 99		20,60	23,80	22,75	22,20	23,15	2,703
	A.T/2020/096/PO	17.09.2020	100 DA-B	BBCH 99		22,98	23,00	23,35	22,88	22,88	1,908
	A.T/2021/039/PO	10.09.2021	93 DA-B	BBCH 99		32,90	32,68	32,75	32,83	33,05	1,472
	A.T/2021/040/PO	10.10.2021	94 DA-B	BBCH 99		23,40	23,80	22,43	24,28	24,85	3,628
	A.T/2021/041/PO	15.09.2021	84 DA-B	BBCH 99		27,58	27,18	26,88	27,05	27,30	0,643
	A.T/2021/042/PO	13.09.2021	94 DA-B	BBCH 99		25,33	25,38	24,78	25,35	25,93	1,610
	AF/20/PO/23/Mr/01	18.08.2020	62 DA-B	BBCH 99		30,10	30,20	30,60	30,40	30,50	
	AF/20/PO/23/Mr/02	11.08.2020	55 DA-B	BBCH 99		31,20	31,90	31,50	32,10	32,00	
	AF/20/PO/23/ZI/03	25.07.2020	46 DA-B	BBCH 89		31,10	31,10	31,20	31,10	31,20	
	AF/21/PO/12/Pr	11.08.2021	57 DA-B	BBCH 99		29,80	30,10	29,90	29,80	30,10	
	SRPL20-240-336HE	10.08.2020	68 DA-B	BBCH 99		25,93	26,43	26,88	27,08	26,56	0,577
	SRPL21-422-336FE	03.09.2021	94 DA-B	BBCH 99		25,70	25,50	25,30	25,60	25,60	0,620
	Average					25,45	25,81	25,49	25,74	26,05	
	Min.					20,60	23,00	22,43	22,20	22,88	
	Max.					32,90	32,68	32,75	32,83	33,05	

table 3.4.3.1-18 The influence of the CHR/F/PYRA on quality of yield  
Winter triticale gluten content [%]

Crop code	Report code	Assessment date	Days after application DA-A	Crop stage majority	No.	1	2	3	4	5	LSD(P=.05)
					Name	Untreated Check	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
					Rate (L, kg/ha)		0,60	0,80	1,00	1,00	
winter triticale gluten content %	SRPL21-425-336FE	05.08.2021	64 DA-B	BBCH 99		25,3	25,5	25,5	25,5	25,4	0,26
	SRPL21-426-336FE	10.08.2021	70 DA-B	BBCH 99		26,60	26,50	26,70	26,80	26,80	0,590
	Average					25,95	26,00	26,10	26,15	26,10	
	Min.					25,30	25,50	25,50	25,50	25,40	
	Max.					26,60	26,50	26,70	26,80	26,80	

Comments of zRMS:	<p>The applicant submitted 61 efficacy/phytotoxicity trials carried out in 2020 and 2021 at dose rates: 0,6; 0,8; 1,0 l/ha applied two times. For winter wheat, winter triticale, spring barley there were assessed the following quality parameters: thousand grain weight [g], hectolitre of grain weight, protein content [%], moisture content [%], gluten content [%].</p> <p>There were no negative effects on yield quality after the application of CHR/F/PYRA.</p>
-------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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

Lack of additional tests in this range. Active substance comprising in this product has been applied for many years, not only in Poland but also in the other countries of Europe.

According to magnitude of residues in plants provided in Section B7 in core dossier no significant residues, i.e. >0.1 mg/kg, were found in grain and therefore processing studies are not required. No further studies have been performed. Therefore, no impact for effects on processed commodities has been predicted.

According to EPPO PP 1/243 (2) and information above, additional studies are not required.

Comments of zRMS:	<p>According to the EFSA Journal 2011;9(8):2344 - Studies investigating the magnitude of residues in processed commodities of table and wine grapes, barley and wheat were also reported in the framework of the peer review (Germany, 2001). In accordance with the opinion in Section B7 "Further processing studies are not required as they are not expected to affect the outcome of the risk assessment".</p> <p>Data on east in baking, malting and brewing are not demanded.</p>
-------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

#### 3.4.5 Impact on treated plants or plant products to be used for propagation (KCP 6.4.5) The results should be summarised, in tabular form, if appropriate.

There is no information available pointing to presence of any limitations to using of CHR/F/PYRA in seed crops of winter wheat, winter triticale, winter rye and spring barley.

In the course of studies carried out in Poland and Czech Republic in the season of 2020 and 2021 on product CHR/F/PYRA the fungicide has not been observed to have any negative influence on yield. The product may be used in seed crops of winter wheat, winter triticale, winter rye and spring barley.

Comments of zRMS:	<p>There is neither negative effects on yield after the application of CHR/F/PYRA nor phytotoxic effects are seen on crops. Impact on treated plants or plant products to be used for propagation is not expected after application of CHR/F/PYRA.</p>
-------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

#### Summary and conclusion

The submitted efficacy/selectivity data (reports from 61 field trials) and additional information fulfill requirements and conditions determined in the following EPPO guidelines:

- PP 1/135 (3) Phytotoxicity assessment
- PP 1/152 (3) Design and analysis of efficacy evaluation trials
- PP 1/181 (3) Conduct and reporting of efficacy evaluation trials including good experimental practice

They were carried out on the field in the conditions of natural agrofag infestation. The efficacy trials were concluded according to the EPPO standards:

- PP 1/26(4) Foliar and ear diseases on cereals

The studies fulfill also requirements of the Commission Regulation (EC) No 1490/2002 as amended by Commission Regulation (EC) No 1095/2007 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards the data requirements for plant protection products.

The formulation of CHR/F/PYRA is emulsifiable concentrate (EC) and it comprises active substance pyraclostrobin 250 g a.s./L.

The applicant submitted 61 reports in total (winter wheat 20 trials, winter triticale 10 trials, winter rye 11 trials and spring barley 20 trials) showing the results in research into product efficacy carried out in 2020 and 2021 in winter wheat, winter triticale, winter rye and spring barley.

The obtained data in performed trials show that CHR/F/PYRA provides benefits against the most important fungal diseases in winter wheat, winter triticale, winter rye and spring barley as shown in the table below.

The following table describes the effectiveness of fungal diseases

≥ 80% – Effectively controlled (E)

60 – 80% – Medium effectively controlled (ME)

0 – 60% – Limiting the number of pest (R)

## Winter wheat

No.	Product dose ( L/ha)	EPPO code	Scientific name	Average (%)		Efficacy
				leaf	plant	
1.	CHR/F/PYRA 250 EC 0.6 L/ha	PYRNTR	<i>Pyrenophora tritici-repentis</i>	63.91	56.80	ME
		SEPTTR	<i>Zymoseptoria tritici</i>	60.71	70.70	ME
		ERYSGR	<i>Blumeria graminis</i>	45.42	53.81	R
		PUCCRE	<i>Puccinia recondita</i>	68.19		ME
		PUCCST	<i>Puccinia striiformis tritici</i>	83.33		E
2.	CHR/F/PYRA 250 EC 0.8 L/ha	PYRNTR	<i>Pyrenophora tritici-repentis</i>	75.05	64.15	ME
		SEPTTR	<i>Zymoseptoria tritici</i>	74.53	74.60	ME
		ERYSGR	<i>Blumeria graminis</i>	63.16	64.97	ME
		PUCCRE	<i>Puccinia recondita</i>	79.48		ME
		PUCCST	<i>Puccinia striiformis tritici</i>	90.94		E
3.	CHR/F/PYRA 250 EC 1.0 L/ha	PYRNTR	<i>Pyrenophora tritici-repentis</i>	83.34	71.93	ME
		SEPTTR	<i>Zymoseptoria tritici</i>	84.88	82.53	E
		ERYSGR	<i>Blumeria graminis</i>	75.41	70.50	ME
		PUCCRE	<i>Puccinia recondita</i>	87.28		E
		PUCCST	<i>Puccinia striiformis tritici</i>	94.92		E
5	Makler 250 SE 1.0 L/ha	PYRNTR	<i>Pyrenophora tritici-repentis</i>	68.34	46.15	R
		SEPTTR	<i>Zymoseptoria tritici</i>	81.40	65.47	ME
		ERYSGR	<i>Blumeria graminis</i>	63.46	36.37	R
		PUCCRE	<i>Puccinia recondita</i>	84.41		E
		PUCCST	<i>Puccinia striiformis tritici</i>	94.33		E

## Winter triticale

No.	Product dose ( L/ha)	EPPO code	Scientific name	Average (%)		Efficacy
				leaf	plant	
1.	CHR/F/PYRA 250 EC 0.6 L/ha	RHYNSE	<i>Rhynchosporium secalis</i>	59.44	46.28	R
		ERYSGR	<i>Blumeria graminis</i>	63.68	61.90	ME
		PUCCST	<i>Puccinia striiformis tritici</i>	48.97		R
		PYRNTR	<i>Pyrenophora tritici-repentis</i>	66.38	51.00	R
2.	CHR/F/PYRA 250 EC 0.8 L/ha	RHYNSE	<i>Rhynchosporium secalis</i>	67.99	61.76	ME
		ERYSGR	<i>Blumeria graminis</i>	75.54	70.78	ME
		PUCCST	<i>Puccinia striiformis tritici</i>	70.86		ME
		PYRNTR	<i>Pyrenophora tritici-repentis</i>	77.51	66.30	ME
3.	CHR/F/PYRA 250 EC 1.0 L/ha	RHYNSE	<i>Rhynchosporium secalis</i>	76.51	71.12	ME
		ERYSGR	<i>Blumeria graminis</i>	86.32	79.90	E
		PUCCST	<i>Puccinia striiformis tritici</i>	85.93		E
		PYRNTR	<i>Pyrenophora tritici-repentis</i>	86.39	79.10	E
5	Makler 250 SE 1.0 L/ha	RHYNSE	<i>Rhynchosporium secalis</i>	62.32	49.28	R
		ERYSGR	<i>Blumeria graminis</i>	71.12	39.18	R
		PUCCST	<i>Puccinia striiformis tritici</i>	86.39		E
		PYRNTR	<i>Pyrenophora tritici-repentis</i>	80.30	74.65	ME

## Winter rye

No.	Product dose ( L/ha)	EPPO code	Scientific name	Average (%)		Efficacy
				leaf	plant	
1.	CHR/F/PYRA 250 EC 0.6 L/ha	RHYNSE	<i>Rhynchosporium secalis</i>	60.40	73.07	ME
		PUCCRE	<i>Puccinia recondita</i>	76.96		ME
		SEPTTR	<i>Zymoseptoria tritici</i>	59.33		R
		ERYSGR	<i>Blumeria graminis</i>	68.70	67.97	ME
2.	CHR/F/PYRA 250 EC 0.8 L/ha	RHYNSE	<i>Rhynchosporium secalis</i>	75.78	79.23	ME
		PUCCRE	<i>Puccinia recondita</i>	85.28		E
		SEPTTR	<i>Zymoseptoria tritici</i>	71.68		ME
		ERYSGR	<i>Blumeria graminis</i>	79.16	71.37	ME
3.	CHR/F/PYRA 250 EC 1.0 L/ha	RHYNSE	<i>Rhynchosporium secalis</i>	84.43	83.23	E
		PUCCRE	<i>Puccinia recondita</i>	92.42		E
		SEPTTR	<i>Zymoseptoria tritici</i>	81.48		E
		ERYSGR	<i>Blumeria graminis</i>	85.89	75.77	E
5	Makler 250 SE 1.0 L/ha	RHYNSE	<i>Rhynchosporium secalis</i>	77.23	67.97	ME
		PUCCRE	<i>Puccinia recondita</i>	89.86		E
		SEPTTR	<i>Zymoseptoria tritici</i>	80.27		E
		ERYSGR	<i>Blumeria graminis</i>	61.95	38.10	R

## Spring barley

No.	Product dose ( L/ha)	EPPO code	Scientific name	Average (%)		Efficacy
				leaf	plant	
1.	CHR/F/PYRA 250 EC 0.6 L/ha	PYRNTE	<i>Pyrenophora teres</i>	62.67	67.48	ME
		ERYSGR	<i>Blumeria graminis</i>	71.18		ME
		RHYNSE	<i>Rhynchosporium secalis</i>	66.61	56.35	ME
		PUCCHD	<i>Puccinia hordei</i>	84.89	91.97	E
2.	CHR/F/PYRA 250 EC 0.8 L/ha	PYRNTE	<i>Pyrenophora teres</i>	76.15	76.42	ME
		ERYSGR	<i>Blumeria graminis</i>	81.42		E
		RHYNSE	<i>Rhynchosporium secalis</i>	77.76	66.63	ME
		PUCCHD	<i>Puccinia hordei</i>	90.90	96.40	E
3.	CHR/F/PYRA 250 EC 1.0 L/ha	PYRNTE	<i>Pyrenophora teres</i>	85.42	83.88	E
		ERYSGR	<i>Blumeria graminis</i>	90.80		E
		RHYNSE	<i>Rhynchosporium secalis</i>	86.58	75.33	E
		PUCCHD	<i>Puccinia hordei</i>	95.11	97.77	E
5	Makler 250 SE 1.0 L/ha	PYRNTE	<i>Pyrenophora teres</i>	83.14	73.85	ME
		ERYSGR	<i>Blumeria graminis</i>	88.80		E
		RHYNSE	<i>Rhynchosporium secalis</i>	81.44	54.80	ME
		PUCCHD	<i>Puccinia hordei</i>	94.57	96.20	E

On the basis of submitted research, it is possible to state that the CHR/F/PYRA controlled crop of winter wheat, winter triticale, winter rye and spring barley at level:

CHR/F/PYRA used at dose controlled:

### Winter wheat application BBCH 25-69

#### Dose 0.6 L/ha

Effectively controlled: *Puccinia recondita* (PUCCRE)

Medium effectively: *Zymoseptoria tritici* (SEPTTR), *Pyrenophora tritici-repentis* (PYRNTR), *Puccinia striiformis tritici* (PUCCST)

Resistant: *Blumeria graminis* (ERYSGR)

#### Dose 0.8 L/ha

Effectively controlled: *Puccinia striiformis tritici* (PUCCST)

Medium effectively: *Puccinia recondita* (PUCCRE), *Zymoseptoria tritici* (SEPTTR), *Pyrenophora tritici-repentis* (PYRNTR), *Blumeria graminis* (ERYSGR)

#### Dose 1.0 L/ha

Effectively controlled: *Puccinia recondita* (PUCCRE), *Puccinia striiformis tritici* (PUCCST), *Zymoseptoria tritici* (SEPTTR)

Medium effectively: *Pyrenophora tritici-repentis* (PYRNTR), *Blumeria graminis* (ERYSGR)

### Winter triticale application BBCH 25-69

#### Dose 0.6 L/ha

Medium effectively: *Blumeria graminis* (ERYSGR)

Resistant: *Rhynchosporium secalis* (RHYNSE), *Pyrenophora tritici-repentis* (PYRNTR), *Puccinia striiformis tritici* (PUCCST)

#### Dose 0.8 L/ha

Medium effectively: *Blumeria graminis* (ERYSGR), *Rhynchosporium secalis* (RHYNSE), *Pyrenophora tritici-repentis* (PYRNTR), *Puccinia striiformis tritici* (PUCCST)

#### Dose 1.0 L/ha

Effectively controlled: *Blumeria graminis* (ERYSGR), *Pyrenophora tritici-repentis* (PYRNTR), *Puccinia striiformis tritici* (PUCCST)

Medium effectively: *Rhynchosporium secalis* (RHYNSE)

### Winter rye application BBCH 25-69

#### Dose 0.6 L/ha

Medium effectively: *Rhynchosporium secalis* (RHYNSE), *Puccinia recondita* (PUCCRE), *Blumeria graminis* (ERYSGR)

Resistant: *Zymoseptoria tritici* (SEPTTR)

#### Dose 0.8 L/ha

Effectively controlled: *Puccinia recondita* (PUCCRE),

Medium effectively: *Rhynchosporium secalis* (RHYNSE), *Blumeria graminis* (ERYSGR), *Zymoseptoria tritici* (SEPTTR)

#### Dose 1.0 L/ha

Effectively controlled: *Puccinia recondita* (PUCCRE), *Rhynchosporium secalis* (RHYNSE), *Blumeria graminis* (ERYSGR), *Zymoseptoria tritici* (SEPTTR)

### **Spring barley application BBCH 25-59**

#### **Dose 0.6 L/ha**

Effectively controlled: *Puccinia hordei* (PUCCHD)

Medium effectively: *Pyrenophora teres* (PYRNTE), *Blumeria graminis* (ERYSGR), *Rhynchosporium secalis* (RHYNSE)

#### **Dose 0.8 L/ha**

Effectively controlled: *Puccinia hordei* (PUCCHD), *Blumeria graminis* (ERYSGR)

Medium effectively: *Pyrenophora teres* (PYRNTE), *Rhynchosporium secalis* (RHYNSE)

#### **Dose 1.0 L/ha**

Effectively controlled: *Puccinia hordei* (PUCCHD), *Blumeria graminis* (ERYSGR), *Pyrenophora teres* (PYRNTE), *Rhynchosporium secalis* (RHYNSE)

The product CHR/F/PYRA should be use twice per season at spring post – emergence in winter wheat, winter triticale, winter rye and spring barley. To avoid resistance, products contain active substance with the same group shouldn't be used year after year on the same field.

CHR/F/PYRA is to be applied in spring to summer:

Winter wheat, winter triticale, winter rye: BBCH 25-69

spring barley: BBCH 25-59

Recommended dose: cereals: 1,0 l/ha,

Recommended volume of water 200-300 l/ha

Recommended medium droplet spraying

Use of CHR/F/PYRA 250 EC according to the proposed GAP does not represent a hazard to rotational crops and does not justify a specific labelling. CHR/F/PYRA is not persistent in soil nor is it taken up by succeeding crops.

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

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

#### **Conclusion on rotational crops studies**

Considering the overdosing factor of the rotational crop metabolism study and the fact that Pyraclostrobin was applied to bare soil, it is expected that residues of Pyraclostrobin resulting from soil uptake will not exceed 0.01 mg/kg. Specific plant-back restrictions related to the use of Pyraclostrobin are therefore not required, provided that Pyraclostrobin is applied in compliance with the Gap table.

Comments of zRMS:	Pyraclostrobin is well-known fungicide, which has been used for many years in wide cropping situations. No particular problem linked to pyraclostrobin uses in succeeding crops has been reported when products have been used in accordance with the label recommendations. In addition, no phytotoxic or other adverse effects were observed at the recommended dose rate during efficacy trials reported
-------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



	in this document.
--	-------------------

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

No phytotoxic effects were observed in the commissioned trials. Tested fungicides did not influence on yield, degree of plant lodging and tillering, weight of 1000 grains (regardless of fungicide dose). Therefore It is expected the product is safe for plants of adjacent crops. According to EPPO PP 1/256 no specific studies were conducted to fill this data point.

The table below shows the toxicity to exposure ratio of other crops.

#### Assessment of the risk for non-target plants due to the use of CHR/F/PYRA in cereals

<b>Intended use</b>		Cereals		
<b>Active substance/product</b>		CHR/F/PYRA 250 EC		
<b>Application rate (g/ha)</b>		250		
<b>MAF</b>		1.7		
<b>Test species</b>	<b>ER<sub>50</sub> (g/ha)</b>	<b>Drift rate</b>	<b>PER<sub>off-field</sub> (g/ha)</b>	<b>TER criterion: TER ≥ 5</b>
Sunflower ( <i>Helianthus annuus</i> ) (CHR/F/PYRA 250 EC)	500	0.0238	5.950	21008.4
Cabbage ( <i>Brassica oleracea</i> var. <i>capitata</i> ) (CHR/F/PYRA 250 EC)	500	0.0238	5.950	21008.4
Pea ( <i>Pisum sativum</i> ) (CHR/F/PYRA 250 EC)	500	0.0238	5.950	21008.4
Carrot ( <i>Daucus carota</i> ) (CHR/F/PYRA 250 EC)	500	0.0238	5.950	21008.4
Perennial ryegrass ( <i>Lolium perenne</i> ) (CHR/F/PYRA 250 EC)	500	0.0238	5.950	21008.4
Oats ( <i>Avena sativa</i> ) (CHR/F/PYRA 250 EC)	500	0.0238	5.950	21008.4
Sunflower ( <i>Helianthus annuus</i> ) (CHR/F/PYRA 250 EC)	500	0.0238	5.950	21008.4
Cabbage ( <i>Brassica oleracea</i> var. <i>capitata</i> ) (CHR/F/PYRA 250 EC)	500	0.0238	5.950	21008.4
Pea ( <i>Pisum sativum</i> ) (CHR/F/PYRA 250 EC)	500	0.0238	5.950	21008.4
Carrot ( <i>Daucus carota</i> ) (CHR/F/PYRA 250 EC)	500	0.0238	5.950	21008.4
Onion ( <i>Allium cepa</i> ) (CHR/F/PYRA 250 EC)	500	0.0238	5.950	21008.4

Perennial ryegrass ( <i>Lolium perenne</i> ) (CHR/F/PYRA 250 EC)	500	0.0238	5.950	21008.4
---------------------------------------------------------------------	-----	--------	-------	---------

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

Comments of zRMS:	Based on the opinion in Section B9, no impact on other plants including adjacent crops is expected when product will be applied according to the GAP table.
-------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------

### Tank cleaning

Cleaning of equipment should be conducted according to the following procedure:

- Immediately after spraying drain tank completely. Any contamination on the outside of the spraying equipment should be removed by washing with clean water.
- Rinse inside of tank with clean water and flush through boom and hoses using at least one tenth of the spray tank volume. Drain completely.
- Fill the tank with clean water and add one of the cleaning agents recommended for clean-up of spraying equipment. Agitate for a minimum of 10 min. and then flush the boom and hoses with the cleaning solution. Nozzles and filters should be removed and cleaned up separately with a recommended cleaning agent.
- Rinse the tank with clean water and flush through the boom and hoses using at least one tenth of the spray tank volume. Drain tank completely.
- CHR/F/PYRA 250 EC is non-corrosive to equipment, non-flammable and non-volatile.

**Table 27: Effectiveness of Cleaning Results**

Table 27: Effectiveness of Cleaning Results								
Analysis/Test	Method	Sample DNA5713/1						
Effectiveness of Cleaning	David Norris Analytical In House Methodology	Using three 400mL Water rinses						
		Using approximately 80mL of sample DNA5713/1 in 8L Water						
		<table><tr><th>Sample</th><th>Percentage residue in tank</th></tr><tr><td>DNA5713/1A</td><td>0.00251%</td></tr><tr><td>DNA5713/1B</td><td>0.00274%</td></tr></table>	Sample	Percentage residue in tank	DNA5713/1A	0.00251%	DNA5713/1B	0.00274%
		Sample	Percentage residue in tank					
		DNA5713/1A	0.00251%					
DNA5713/1B	0.00274%							
Mean of 2 results: 0.00263% residue in tank								

The CHR/F/PYRA 250 EC has a mean effectiveness of cleaning result of 0.00263% residue for Pyraclostrobin using three water rinses.

Comments of zRMS:	<b>Tank cleaning</b> Rinse procedure with a cleaning agent were tested. It might be concluded that the three-stage cleaning of field sprayer with water and the cleaning agent immediately after the use of CHR/F/PYRA 250 EC makes the contamination in the immediately following application negligible.
-------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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

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

Not applicable

### Summary and conclusion

Not applicable

### 3.6 Other/special studies

No performed

Comments of zRMS:	<p>The Applicant has presented document – „ COMPARISON OF CLIMATIC AND AGRICULTURAL CONDITIONS IN POLAND AND THE CZECH REPUBLIC IN REFERENCE TO REGISTRATION OF PLANT PROTECTION PRODUCT CHR/F/PYRA 250 EC” where the climatic and agricultural conditions of Poland and the Czech Republic has been compared to support data for PL with data conducted in CZ. The document has presented high similarities in many elements of climatic and agricultural conditions (yearly temperature, pest problems, development phases of cereals). Only average monthly precipitation in Poland and in the Czech Republic is slightly different. There is slightly more precipitation in the Czech Republic in the first half of the year and the situation changes in the second half of the year. It may be stated that the precipitation conditions are more challenging for fungicide performance in CZ than in PL, at the beginning of the season.</p> <p>To sum up it can be concluded that efficacy data from CZ can be supportive for PL in terms of efficacy and phytotoxicity assessment.</p>
-------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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

Table 3.5-1: List of test facilities

Test facility	Address	Certificate (Yes or No)
A.T Sp. z o.o.	ul. Przemysłowa 3, 88-300 Mogilno, Poland	Yes
Poznań University of Life Sciences, Research and Education Center Gorzyń	ul. Wojska Polskiego 28, 60-637 Poznań, Poland	Yes
SynTech Research Poland Sp. z o.o.	ul. Jagiellońska 69/1, 85-027 Bydgoszcz, Poland	Yes
SynTech Research Czech Republic s.r.o.	Semčice 245 294 46 Semčice, Czech Republic	Yes
SynTech Research Czech s.r.o.	Horní Kounice 1 671 40 Horní Kounice, Czech Republic	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	Data Vertebrate study Y/N	Owner
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guzińska	2020	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter wheat, to control cereal diseases. Poland, 2020  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2020/094/PO  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guzińska	2020	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter wheat, to control cereal diseases. Poland, 2020  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2020/095/PO  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guzińska	2020	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter wheat, to control cereal diseases. Poland, 2020  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2020/096/PO  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guzińska	2021	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter wheat to control cereal diseases. Poland, 2021.  A.T Sp. z o.o.	N	PUH Chemirol Sp. z o.o.

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Vertebrate study Y/N	Owner
			ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2021/039/PO  GEP - yes Unpublished		
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guzińska	2021	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter wheat to control cereal diseases. Poland, 2021.  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2021/040/PO  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guzińska	2021	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter wheat to control cereal diseases. Poland, 2021.  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2021/041/PO  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guzińska	2021	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter wheat to control cereal diseases. Poland, 2021.  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2021/042/PO  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1	Artur Strzeński	2020	The evaluation of efficacy and phytotoxicity treatment of CHR/F/PYRA in fungal diseases control in winter wheat cultivation	N	PUH Chemirol Sp. z o.o.

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Vertebrate study Y/N	Owner
KCP 6.4.2 KCP 6.4.3			Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań  Report no.: AF/20/PO/23/Mr/01  GEP - yes Unpublished		
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Artur Strzeński	2020	The evaluation of efficacy and phytotoxicity treatment of CHR/F/PYRA in fungal diseases control in winter wheat cultivation  Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań  Report no.: AF/20/PO/23/Mr/02  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Artur Strzeński	2020	The evaluation of efficacy and phytotoxicity treatment of CHR/F/PYRA in fungal diseases control in winter wheat cultivation  Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań  Report no.: AF/20/PO/23/Zł/03  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Artur Strzeński	2021	The evaluation of efficacy and phytotoxicity treatment of CHR/F/PYRA in fungal diseases control in winter wheat cultivation  Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań  Report no.: AF/21/PO/12/Pr	N	PUH Chemirol Sp. z o.o.

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Ver- brate study Y/N	Owner
			GEP - yes Unpublished		
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Piotr Maluga	2002	Efficacy of pyraclostrobin in winter wheat 2020  SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland  Report no.: SRPL20-239-336FE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Mateusz Świtkowski	2020	Efficacy of pyraclostrobin in winter wheat 2020  SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland  Report no.: SRPL20-240-336HE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Klaudia Potocka	2021	Efficacy of pyraclostrobin in cereals 2021  SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland  Report no.: SRPL21-421-336FE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Piotr Maluga	2021	Efficacy of pyraclostrobin in cereals 2021  SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland  Report no.: SRPL21-422-336FE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Vertebrate study Y/N	Owner
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Jacek Kozłowski	2021	Efficacy of pyraclostrobin in cereals 2021  SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland  Report no.: SRPL21-423-336FE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Mateusz Świtkowski	2021	Efficacy of pyraclostrobin in cereals 2021  SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland  Report no.: SRPL21-424-336FE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Stanislav Křížek	2020	Efficacy of prothioconazole and pyraclostrobin (CHR/F/PYRA) against foliar diseases in winter wheat. 2020, Czech Republic  SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic  Report no.: SRCZ20-068-301FE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Stanislav Křížek	2020	Efficacy of prothioconazole and pyraclostrobin (CHR/F/PYRA) against foliar diseases in winter wheat. 2020, Czech Republic  SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic  Report no.: SRCZ20-070-301FE	N	PUH Chemirol Sp. z o.o.



Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Veri- brate study Y/N	Owner
			GEP - yes Unpublished		
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Petr Šmahel	2020	Efficacy of prothioconazole and pyraclostrobin (CHR/F/PYRA) against foliar diseases in winter wheat. 2020, Czech Republic  SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic  Report no.: SRCZ20-069-301FE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guz- ińska	2020	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter triticales, to control cereal diseases. Poland, 2020  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2020/097/PZO  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guz- ińska	2020	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter triticales, to control cereal diseases. Poland, 2020  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2020/098/PZO  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2	Joanna Guz- ińska	2021	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter triticales to control cereal diseases. Poland, 2021	N	PUH Chemirol Sp. z o.o.

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Ver- brate study Y/N	Owner
KCP 6.4.3			A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2021/043/PŻO  GEP - yes Unpublished		
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guz- ińska	2021	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter triticale to control cereal diseases. Poland, 2021  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2021/044/PŻO  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guz- ińska	2021	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter triticale to control cereal diseases. Poland, 2021  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2021/045/PŻO  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guz- ińska	2021	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter triticale to control cereal diseases. Poland, 2021  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2021/046/PŻO  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4	Łukasz Pejka	2021	Efficacy of pyraclostrobin in cereals 2021	N	PUH Chemirol Sp. z o.o.

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Ver- brate study Y/N	Owner
KCP 6.4.1 KCP 6.4.2 KCP 6.4.3			SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz  Report no.: SRPL21-425-336FE  GEP - yes Unpublished		
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Maciej Kasperek	2021	Efficacy of pyraclostrobin in cereals 2021  SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz  Report no.: SRPL21-426-336FE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Stanislav Křížek	2021	Efficacy of prothioconazole and pyraclostrobin (CHR/F/PYRA) against foliar diseases in winter triticale.2020, Czech Republic  SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic  Report no.: SRCZ20-071-301FE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Stanislav Křížek	2021	Efficacy of prothioconazole and pyraclostrobin (CHR/F/PYRA) against foliar diseases in winter triticale.2020, Czech Republic  SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic  Report no.: SRCZ20-072-301FE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4	Joanna Guz- ińska	2020	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter rye,	N	PUH Chemirol Sp. z o.o.

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Ver- brate study Y/N	Owner
KCP 6.4.1 KCP 6.4.2 KCP 6.4.3			to control cereal diseases. Poland, 2020  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2020/099/ŻO  GEP - yes Unpublished		
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guz- ińska	2021	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter rye to control cereal diseases. Poland, 2021.  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2021/047/ŻO  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guz- ińska	2021	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter rye to control cereal diseases. Poland, 2021.  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2021/048/ŻO  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guz- ińska	2021	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in winter rye to control cereal diseases. Poland, 2021.  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2021/049/ŻO  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Veri- brate study Y/N	Owner
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Artur Strzeński	2021	The evaluation of efficacy and phytotoxicity treatment of CHR/F/PYRA in fungal diseases control in winter rye cultivation  Poznań University of Life Sciences, Research and Education Center Gorzyń, Agronomy Department; ul. Wojska Polskiego 28, 60-637 Poznań  Report no.: AF/21/ŻO/12/Zł  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Artur Strzeński	2021	The evaluation of efficacy and phytotoxicity treatment of CHR/F/PYRA in fungal diseases control in winter rye cultivation  Poznań University of Life Sciences, Research and Education Center Gorzyń, Agronomy Department; ul. Wojska Polskiego 28, 60-637 Poznań  Report no.: AF/21/ŻO/12/Br  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Piotr Maluga	2020	Efficacy of pyraclostrobin in rye 2020.  SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz  Report no.: SRPL20-237-336FE GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Zdzisław Jaskólski	2020	Efficacy of pyraclostrobin in rye 2020.  SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz  Report no.: SRPL20-238-336FE	N	PUH Chemirol Sp. z o.o.

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Ver- brate study Y/N	Owner
			GEP - yes Unpublished		
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Klaudia Potocka	2021	Efficacy of pyraclostrobin in cereals 2021  SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz  Report no.: SRPL21-427-336FE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Stanislav Křížek	2020	Efficacy of prothioconazole and pyraclostrobin (CHR/F/PYRA) against foliar diseases in winter rye. 2020, Czech Republic  SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic  Report no.: SRCZ20-073-301FE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Stanislav Křížek	2020	Efficacy of prothioconazole and pyraclostrobin (CHR/F/PYRA) against foliar diseases in winter rye. 2020, Czech Republic  SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic  Report no.: SRCZ20-074-301FE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guz- ińska	2020	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in spring barley, to control cereal diseases. Poland, 2020  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	N	PUH Chemirol Sp. z o.o.

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Vertebrate study Y/N	Owner
			Report no.: A.T/2020/101/JJ  GEP - yes Unpublished		
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guzińska	2020	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in spring barley, to control cereal diseases. Poland, 2020  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2020/102/JJ  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guzińska	2020	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in spring barley, to control cereal diseases. Poland, 2020  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2020/103/JJ  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guzińska	2020	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in spring barley, to control cereal diseases. Poland, 2020  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2020/104/JJ  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4	Joanna Guzińska	2020	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in spring barley,	N	PUH Chemirol Sp. z o.o.

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Vertebrate study Y/N	Owner
KCP 6.4.1 KCP 6.4.2 KCP 6.4.3			to control cereal diseases. Poland, 2020  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2020/105/JJ  GEP - yes Unpublished		
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guzińska	2020	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in spring barley, to control cereal diseases. Poland, 2020  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno  Report no.: A.T/2020/106/JJ  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guzińska	2021	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in spring barley to control cereal diseases. Poland, 2021.  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2021/050/JJ  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Joanna Guzińska	2021	Efficacy evaluation of fungicide CHR/F/PYRA 250 EC when applied in spring barley to control cereal diseases. Poland, 2021.  A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2021/051/JJ  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.



Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Vertebrate study Y/N	Owner
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Artur Strzeliński	2020	The evaluation of efficacy and phytotoxicity treatment of CHR/F/PYRA in fungal diseases control in spring barley cultivation  Poznań University of Life Sciences, Research and Education Center Gorzyń, Agronomy Department; ul. Wojska Polskiego 28, 60-637 Poznań  Report no.: AF/20/JJ/23/Br/01  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Artur Strzeliński	2020	The evaluation of efficacy and phytotoxicity treatment of CHR/F/PYRA in fungal diseases control in spring barley cultivation  Poznań University of Life Sciences, Research and Education Center Gorzyń, Agronomy Department; ul. Wojska Polskiego 28, 60-637 Poznań  Report no.: AF/20/JJ/23/Pr/02  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Artur Strzeliński	2020	The evaluation of efficacy and phytotoxicity treatment of CHR/F/PYRA in fungal diseases control in spring barley cultivation  Poznań University of Life Sciences, Research and Education Center Gorzyń, Agronomy Department; ul. Wojska Polskiego 28, 60-637 Poznań  Report no.: AF/20/JJ/23/Zł/03  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2	Artur Strzeliński	2020	The evaluation of efficacy and phytotoxicity treatment of CHR/F/PYRA in fungal diseases control in spring barley cultivation	N	PUH Chemirol Sp. z o.o.

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Vertebrate study Y/N	Owner
KCP 6.4.3			Poznań University of Life Sciences, Research and Education Center Gorzyń, Agronomy Department; ul. Wojska Polskiego 28, 60-637 Poznań  Report no.: AF/20/JJ/23/Br/04  GEP - yes Unpublished		
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Artur Strzeński	2020	The evaluation of efficacy and phytotoxicity treatment of CHR/F/PYRA in fungal diseases control in spring barley cultivation  Poznań University of Life Sciences, Research and Education Center Gorzyń, Agronomy Department; ul. Wojska Polskiego 28, 60-637 Poznań  Report no.: AF/20/JJ/23/Pr/05  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Artur Strzeński	2020	The evaluation of efficacy and phytotoxicity treatment of CHR/F/PYRA in fungal diseases control in spring barley cultivation  Poznań University of Life Sciences, Research and Education Center Gorzyń, Agronomy Department; ul. Wojska Polskiego 28, 60-637 Poznań  Report no.: AF/20/JJ/23/Zl/06  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Stanislav Křížek	2020	Efficacy of prothioconazole and pyraclostrobin (CHR/F/PYRA) against foliar diseases in spring barley. 2020, Czech Republic  SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	N	PUH Chemirol Sp. z o.o.

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Veri- brate study Y/N	Owner
			Report no.: SRCZ20-075-301FE  GEP - yes Unpublished		
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Petr Smahel	2020	Evaluation of the efficacy of prothioconazole and pyraclostrobin (CHR_F_PYRA 250 EC) in spring barley, Czech Republic 2020  SynTech Research Czech s.r.o. Horní Kounice 1 671 40 Horní Kounice, Czech Republic  Report no.: SRCZ20-076-301FE GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Petr Smahel	2020	Evaluation of the efficacy of prothioconazole and pyraclostrobin (CHR_F_PYRA 250 EC) in spring barley, Czech Republic 2020  SynTech Research Czech s.r.o. Horní Kounice 1 671 40 Horní Kounice, Czech Republic  Report no.: SRCZ20-077-301FE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Stanislav Křížek	2020	Efficacy of prothioconazole and pyraclostrobin (CHR/F/PYRA) against foliar diseases in spring barley. 2020, Czech Republic  SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic  Report no.: SRCZ20-078-301FE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1	Petr Smahel	2020	Evaluation of the efficacy of prothioconazole and pyraclostrobin (CHR_F_PYRA 250 EC) in spring barley, Czech Republic 2020	N	PUH Chemirol Sp. z o.o.

Data point	Author(S)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Vertebrate study Y/N	Owner
KCP 6.4.2 KCP 6.4.3			SynTech Research Czech s.r.o. Horní Kounice 1 671 40 Horní Kounice, Czech Republic  Report no.: SRCZ20-079-301FE  GEP - yes Unpublished		
KCP 6 KCP 6.2 KCP 6.4 KCP 6.4.1 KCP 6.4.2 KCP 6.4.3	Petr Smahel	2020	Evaluation of the efficacy of prothioconazole and pyraclostrobin (CHR_F_PYRA 250 EC) in spring barley, Czech Republic 2020  SynTech Research Czech s.r.o. Horní Kounice 1 671 40 Horní Kounice, Czech Republic  Report no.: SRCZ20-080-301FE  GEP - yes Unpublished	N	PUH Chemirol Sp. z o.o.

## Appendix 2 Additional information provided by the applicant

### COMPARISON OF CLIMATIC AND AGRICULTURAL CONDITIONS IN POLAND AND THE CZECH REPUBLIC IN REFERENCE TO REGISTRATION OF PLANT PROTECTION PRODUCT CHR/F/PYRA 250 EC

#### 1. Introduction

The purpose of the following document is to compare climatic and agricultural conditions of Poland and the Czech Republic in order to enable data from efficacy and phytotoxicity trials conducted in Poland and Czech Republic to be used for registration purposes of spring, foliar applied, cereal fungicide CHR/F/PYRA 250 EC in the Czech Republic.

#### 2. Plant protection products under consideration

##### 2.1. General

The efficacy and phytotoxicity studies were conducted in Poland and in Czech Republic in 2020 and 2021 in winter wheat, winter triticale, winter rye and spring barley on the plant protection product CHR/F/PYRA 250 EC containing the active substances: pyraclostrobin 250 g/L and a standard fungicide Makler 250 SE containing the active substance azoxystrobin 250 g/L. Total of 61 efficacy and phytotoxicity GEP trials (20 trials in winter wheat, 10 trials in winter triticale, 11 trials in winter rye and 20 trials in spring barley) were carried out to assess the product's efficacy and phytotoxic potential.

##### 2.2. Products' characteristics:

Table 1. Products' characteristics

PRODUCT	CHR/F/PYRA 250 EC	Makler 250 SE
active substance content	pyraclostrobin 250 g/L	azoxystrobin 250 g/L
formulation	EC – emulsifiable concentrate	SE – suspoemulsion

The following information originates from Conclusion on the peer review of the pesticide risk assessment of the active substance *Pyraclostrobin\_RAR\_01\_Volume\_1\_2018-02-15.pdf* for the active substance pyraclostrobin.

Table 2. Properties of active substances

active substance common name	pyraclostrobin
active substance chemical name	Methyl N-(2-([1-(4-chlorophenyl)-1H-pyrazol-3-yl]oxymethyl})phenyl)-(Nmethoxy) carbamate
function	Pyraclostrobin is strobilurine fungicide which is used worldwide in many crops for the control of a broad range of important pathogens from the classes of ascomycetes, basidiomycetes, deuteromycetes and oomycetes. Pyraclostrobin is active against different fungal stages both on the plant surface and in the plant tissue. When applied protectively, pyraclostrobin prevents not only the germination of fungal spores landing on the plant surface but also re-infection, since during these extremely energyconsuming phases fungi react very sensitively to disturbances of their mitochondrial respiratory

	chain (Mode of action FRAC: C3) Due to its ability to penetrate into the leaf and its further translocation as well as its high intrinsic activity, it can also control fungal stages which have already become established in deeper tissue layers. Pyraclostrobin is thus suitable for preventative and curative treatments.
<b>mode of action</b>	The Qo fungicides inhibit plant pathogens by blocking the pathogens ability to produce energy. They do this by blocking the transfer of electrons at the Quinone "outside" site of the bc1 complex (complex III in the electron transport chain).
<b>application</b>	apply twice per season, between growth stage BBCH 25-69 in cereals

### 3. Climatic conditions

Poland and the Czech Republic are geographically very close to one another. The geographical coordinates of the Czech Republic are: latitude 49.45°N, longitude 15.30°E. The geographical coordinates of Poland are: latitude 52.00°N, longitude 20.00°E. The two countries share 615 km border.

The following map (originating from maps.google.com) illustrates the two countries.

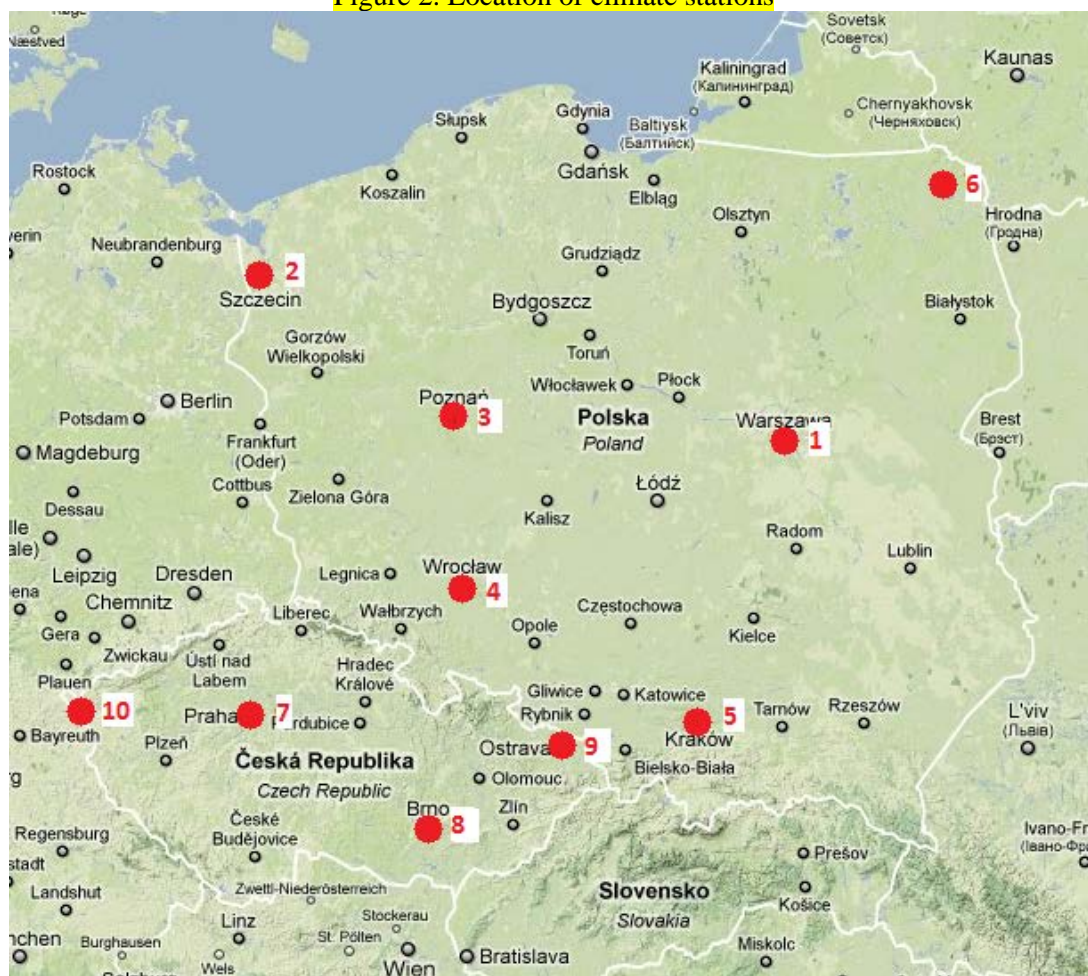
Figure 1. Location of Poland and the Czech Republic



The following sections present and compare particular elements of Polish and Czech climate. The following parameters are compared: average monthly temperature, average maximum monthly temperature, average minimum monthly temperature, average monthly precipitation sum. To compare data in each country there were selected several locations from which average readings were calculated. The following map presents the location of climate stations included in calculations.



**Figure 2. Location of climate stations**



**Table 3. Parameters of climate stations**

Number on map	Location	Latitude	Longitude	Elevation (meters AMSL)
<b>POLAND</b>				
1.	Warsaw	52.10°N	20.58°E	106
2.	Szczecin	52.35°N	14.54°E	1
3.	Poznan	52.25°N	16.50°E	86
4.	Wroclaw	51.06°N	16.53°E	120
5.	Krakow	50.05°N	19.48°E	237
6.	Suwalki	54.08°N	22.57°E	186
<b>THE CZECH REPUBLIC</b>				
7.	Prague	50.00°N	14.40°E	303
8.	Brno	49.15°N	16.70°E	238
9.	Ostrava	49.68°N	18.10°E	256
10.	Cheb	50.08°N	12.40°E	474

data source: <http://pl.allmetsat.com/klimat/>

Climate stations were selected in a way that ensures their equal distribution throughout the area of each country. Data from Poland was collected from six stations while data from the Czech Republic was collected from four stations. The number of Czech stations is smaller than that of Polish stations as detailed climatic data was not readily available from a greater number of stations in the Czech Republic. What is more, the authors of this report believe that the number of stations taken into account is sufficient to perform the comparison of climatic conditions and that it is relative to the acreage of each country.

### 3.1. Average monthly temperature

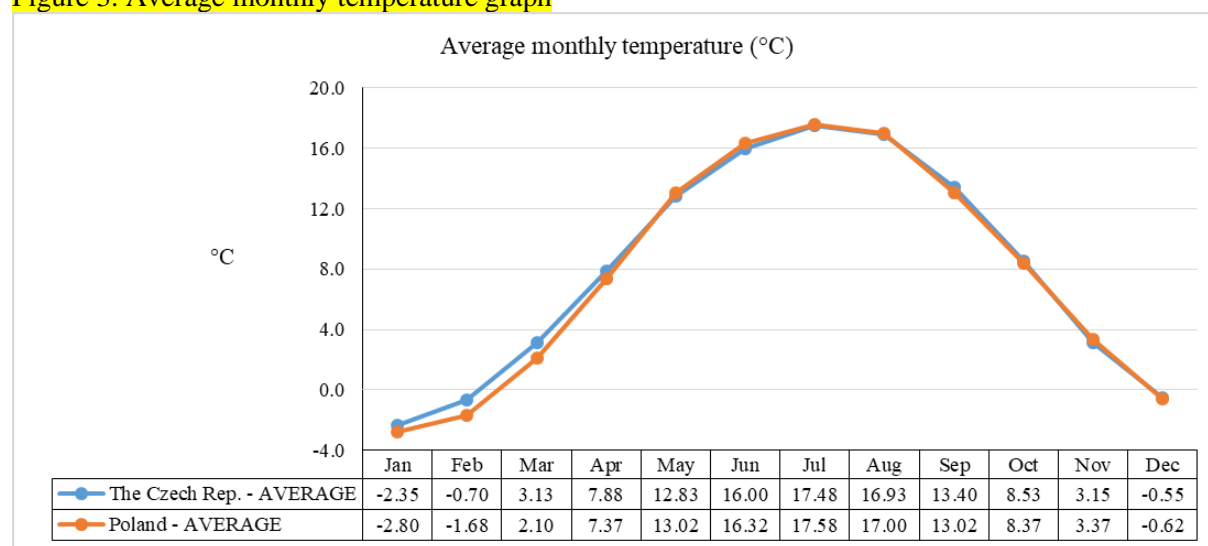
Table 4. Average monthly temperature data

Location	Average monthly temperature (°C)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
The Czech Rep.: Cheb	-2.5	-1.2	2.4	6.7	11.7	15.0	16.5	15.8	12.5	7.8	2.4	-1.0
The Czech Rep.: Prague	-2.0	-0.6	3.1	7.6	12.5	15.6	17.1	16.6	13.2	8.3	3.0	-0.2
The Czech Rep.: Brno	-2.5	-0.3	3.8	9.0	13.9	17.0	18.5	18.1	14.3	9.1	3.5	-0.6
The Czech Rep.: Ostrava	-2.4	-0.7	3.2	8.2	13.2	16.4	17.8	17.2	13.6	8.9	3.7	-0.4
The Czech Rep. - AVERAGE	-2.35	-0.70	3.13	7.88	12.83	16.00	17.48	16.93	13.40	8.53	3.15	-0.55
Poland: Warsaw	-3.3	-2.1	1.9	7.7	13.5	16.7	18.0	17.3	13.1	8.2	3.2	-0.9
Poland: Poznan	-2.0	-1.0	2.7	7.6	13.3	16.7	18.0	17.4	13.4	8.8	3.8	-0.1
Poland: Wroclaw	-1.8	-0.5	3.2	8.0	13.1	16.5	17.7	17.2	13.4	8.9	3.9	0.2
Poland: Krakow	-3.3	-1.6	2.4	7.9	13.1	16.2	17.5	16.9	13.1	8.3	3.2	-1.0
Poland: Szczecin	-1.1	-0.3	3.0	7.4	12.9	16.4	17.7	17.2	13.5	9.2	4.4	0.8
Poland: Suwalki	-5.3	-4.6	-0.6	5.6	12.2	15.4	16.6	16.0	11.6	6.8	1.7	-2.7
Poland - AVERAGE	-2.80	-1.68	2.10	7.37	13.02	16.32	17.58	17.00	13.02	8.37	3.37	-0.62

data source:

<http://www.climate-charts.com/>; NOAA Global Climate Normals 1961-1990; National Oceanic and Atmospheric Administration (NOAA).

Figure 3. Average monthly temperature graph



The table and graph above show that average temperature in Poland and in the Czech Republic is very similar. There are slight differences only in the winter months. The time which is of most importance to the application of product CHR/F/PYRA 250 EC is spring. In the months of March through June there are a very close correlations between average temperatures in Poland and in the Czech Republic.

### 3.2 Average maximum monthly temperature

Table 5. Average maximum monthly temperature data

Location	Average maximum monthly temperature (°C)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
The Czech Rep.: Cheb	0.0	2.3	7.0	12.2	17.4	20.6	22.4	22.2	18.5	12.8	5.2	1.3
The Czech Rep.: Prague	0.4	2.7	7.7	13.2	18.3	21.4	23.3	23.0	19.0	13.1	6.0	1.9

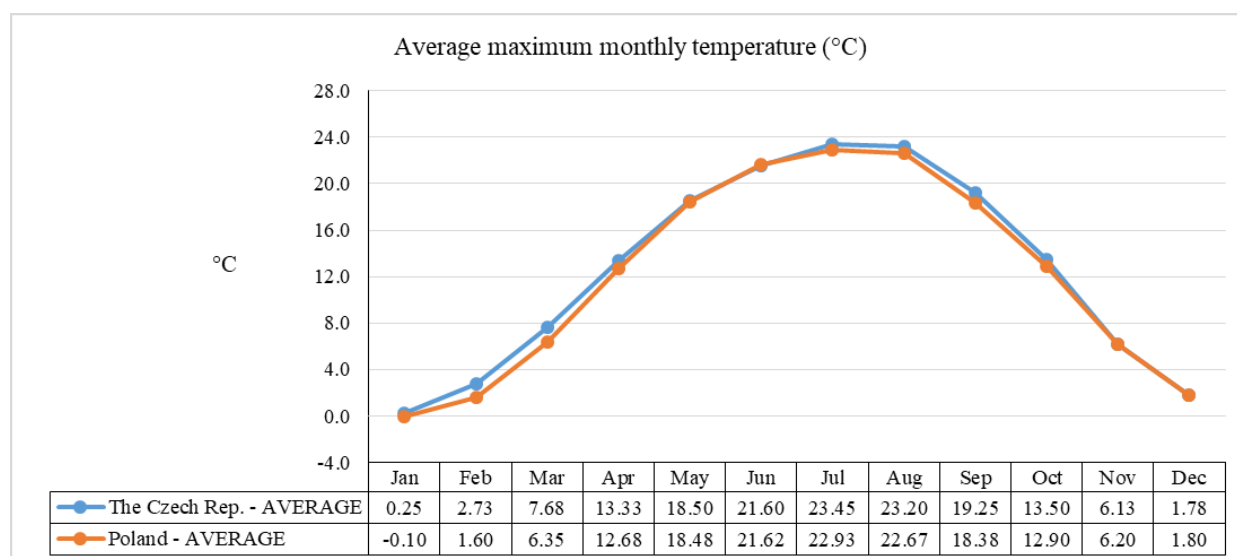


The Czech Rep.: Brno	0.2	3.1	8.4	14.4	19.5	22.5	24.5	24.2	20.1	14.1	6.6	1.9
The Czech Rep.: Ostrava	0.4	2.8	7.6	13.5	18.8	21.9	23.6	23.4	19.4	14.0	6.7	2.0
The Czech Rep. - AVERAGE	0.25	2.73	7.68	13.33	18.50	21.60	23.45	23.20	19.25	13.50	6.13	1.78
Poland: Warsaw	-0.7	1.0	6.0	12.9	18.8	22.0	23.3	22.9	18.3	12.7	5.9	1.4
Poland: Poznan	0.5	2.2	6.8	13.0	18.8	22.1	23.5	23.1	18.7	13.1	6.4	2.2
Poland: Wroclaw	1.3	3.2	7.9	13.6	18.8	22.0	23.4	23.2	19.3	14.1	7.4	3.0
Poland: Krakow	-0.1	2.1	7.1	13.5	18.7	21.6	23.0	22.8	18.8	13.8	6.8	1.8
Poland: Szczecin	1.3	2.8	7.2	12.6	18.4	21.6	22.8	22.6	18.6	13.1	6.9	3.0
Poland: Suwalki	-2.9	-1.7	3.1	10.5	17.4	20.4	21.6	21.4	16.6	10.6	3.8	-0.6
Poland - AVERAGE	-0.10	1.60	6.35	12.68	18.48	21.62	22.93	22.67	18.38	12.90	6.20	1.80

data source:

<http://www.climate-charts.com/>; NOAA Global Climate Normals 1961-1990; National Oceanic and Atmospheric Administration (NOAA).

Figure 4. Average maximum monthly temperature graph



The table and graph above present the average maximum temperature in each month. It is clear that maximum temperature in Poland and in the Czech Republic is very similar. In spring months that are crucial to the application of product CHR/F/PYRA 250 EC average maximum temperature in both countries differs by no more than 0.67°C in March.

### 3.3 Average minimum monthly temperatures

Table 6. Average minimum monthly temperature data

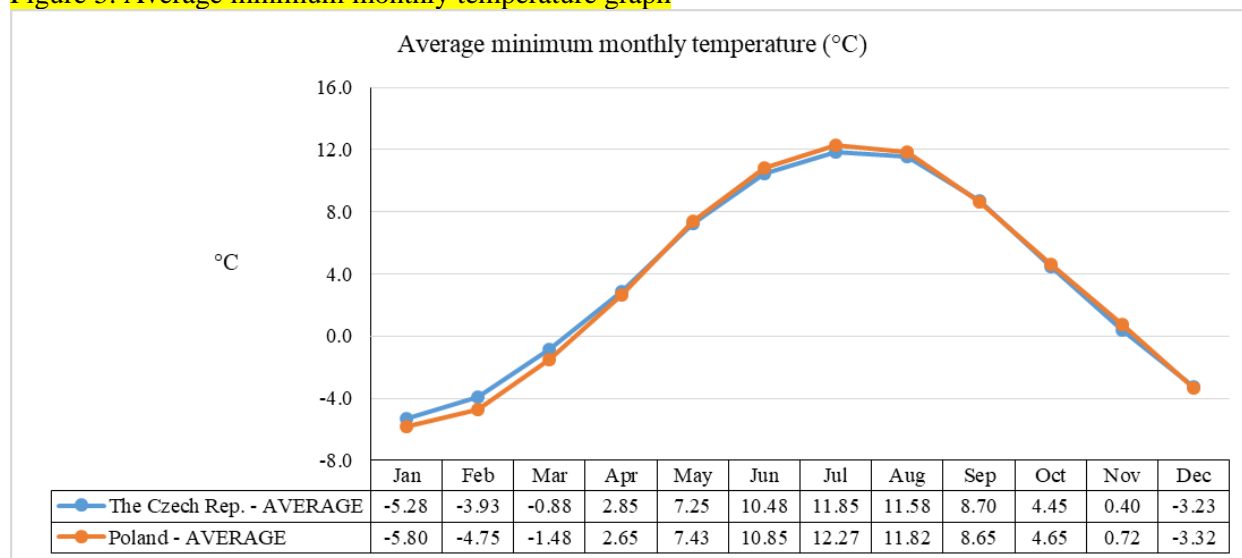
Location	Average minimum monthly temperature (°C)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
The Czech Rep.: Cheb	-5.0	-4.1	-1.2	2.1	6.3	9.6	11.0	10.6	8.0	4.1	0.0	-3.3
The Czech Rep.: Prague	-5.3	-4.2	-1.3	2.4	7.1	10.4	11.8	11.5	8.6	4.0	-0.2	-3.4
The Czech Rep.: Brno	-5.2	-3.3	-0.2	3.9	8.3	11.3	12.7	12.6	9.5	5.0	0.9	-3.0
The Czech Rep.: Ostrava	-5.6	-4.1	-0.8	3.0	7.3	10.6	11.9	11.6	8.7	4.7	0.9	-3.2
The Czech Rep. - AVERAGE	-5.28	-3.93	-0.88	2.85	7.25	10.48	11.85	11.58	8.70	4.45	0.40	-3.23
Poland: Warsaw	-6.1	-5.0	-1.5	3.0	8.0	11.3	12.6	12.1	8.7	4.5	0.8	-3.4

Poland: Poznan	-4.8	-3.9	-0.8	2.8	7.7	11.2	12.5	12.2	9.0	5.3	1.2	-2.6
Poland: Wroclaw	-5.3	-4.0	-0.9	2.8	7.1	10.7	12.0	11.6	8.7	4.6	0.6	-3.1
Poland: Krakow	-6.7	-4.8	-1.3	3.0	7.6	10.8	12.2	11.8	8.6	4.2	0.2	-4.0
Poland: Szczecin	-3.7	-3.1	-0.4	2.9	7.5	11.1	12.9	12.3	9.5	5.8	2.0	-1.6
Poland: Suwalki	-8.2	-7.7	-4.0	1.4	6.7	10.0	11.4	10.9	7.4	3.5	-0.5	-5.2
Poland - AVERAGE	-5.80	-4.75	-1.48	2.65	7.43	10.85	12.27	11.82	8.65	4.65	0.72	-3.32

data source:

<http://www.climate-charts.com/>; NOAA Global Climate Normals 1961-1990; National Oceanic and Atmospheric Administration (NOAA).

Figure 5. Average minimum monthly temperature graph



Average minimum monthly temperature in Poland and in the Czech Republic follows almost the same pattern, therefore, it is comparable. The table and graph above show that minimum monthly temperature in Poland and in the Czech Republic is very similar. There are slight differences only in the winter months. The time which is of most importance to the application of product CHR/F/PYRA 250 EC is spring. In the months of March through June there are a very close correlations between average temperatures in Poland and in the Czech Republic.

### 3.3 Average monthly precipitation sum

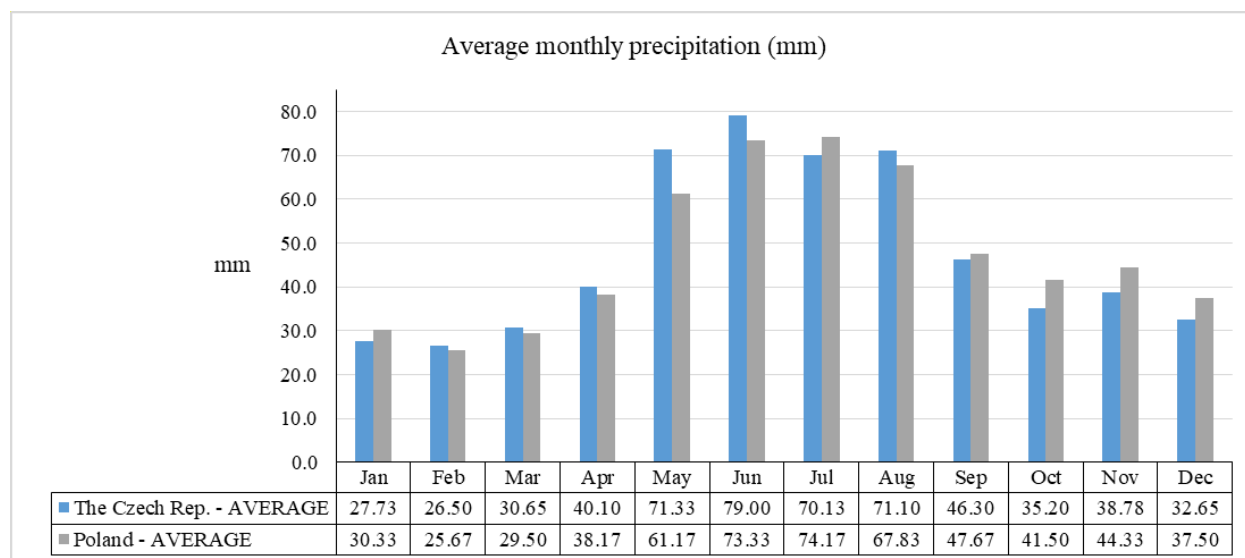
Table 7. Average monthly precipitation sum data

Location	Average monthly precipitation sum (mm)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
The Czech Rep.: Cheb	36.1	29.5	36.3	38.3	56.0	66.9	59.2	66.5	48.4	37.5	41.1	43.9
The Czech Rep.: Prague	23.6	22.6	28.1	38.2	77.2	72.7	66.2	69.6	40.4	30.5	31.9	25.3
The Czech Rep.: Brno	24.5	23.7	24.2	31.5	60.9	72.0	64.0	56.5	37.6	30.5	37.5	27.1
The Czech Rep.: Ostrava	26.7	30.2	34.0	52.4	91.2	104.4	91.1	91.8	58.8	42.3	44.6	34.3
The Czech Rep. - AVERAGE	27.73	26.50	30.65	40.10	71.33	79.00	70.13	71.10	46.30	35.20	38.78	32.65
Poland: Warsaw	22.0	21.0	26.0	33.0	58.0	71.0	69.0	62.0	43.0	37.0	41.0	32.0
Poland: Poznan	30.0	24.0	27.0	36.0	53.0	60.0	69.0	57.0	43.0	39.0	39.0	38.0
Poland: Wroclaw	28.0	26.0	26.0	39.0	64.0	80.0	84.0	78.0	48.0	40.0	43.0	34.0
Poland: Krakow	34.0	32.0	34.0	48.0	83.0	97.0	85.0	87.0	54.0	46.0	45.0	41.0
Poland: Szczecin	36.0	27.0	32.0	38.0	52.0	57.0	61.0	55.0	44.0	38.0	46.0	41.0
Poland: Suwalki	32.0	24.0	32.0	35.0	57.0	75.0	77.0	68.0	54.0	49.0	52.0	39.0

Poland - AVERAGE	30.33	25.67	29.50	38.17	61.17	73.33	74.17	67.83	47.67	41.50	44.33	37.50
------------------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

data source:  
<http://www.climate-charts.com/>; NOAA Global Climate Normals 1961-1990; National Oceanic and Atmospheric Administration (NOAA).

Figure 6. Average monthly precipitation sum graph



Average monthly precipitation sum in Poland and in the Czech Republic is similar.

#### 4. Soil conditions

Soil conditions in Poland and in the Czech Republic are not compared.

As has been mentioned above in Table 2. pyraclostrobin acts primarily through foliar uptake with little or no soil activity. This allows authors of this report to disregard soil conditions as they have very limited or no influence on the efficacy of the product.

#### 5. Agricultural practice

##### 5.1. Winter wheat, winter triticale, winter rye sowing timing

According to the MOCA Study carried out by The MARS STAT Action in Poland sowing of winter wheat takes place in the second half of September (depending on the region term of sowing ranges from September 15<sup>th</sup> till October 5<sup>th</sup>). In the Czech Republic term of sowing of winter wheat is similar – the optimum sowing time is September 15<sup>th</sup> till October 15<sup>th</sup>.

Winter triticale and winter rye follows practically are the same pattern with respect to sowing and entering subsequent development phases. The crops are winter cereals, therefore, it is assumed, they are subject to the same agricultural practices at the same time in each country.

##### 5.2. Winter wheat growth and development

Figure 7. Phenological crop calendar for winter wheat in Poland

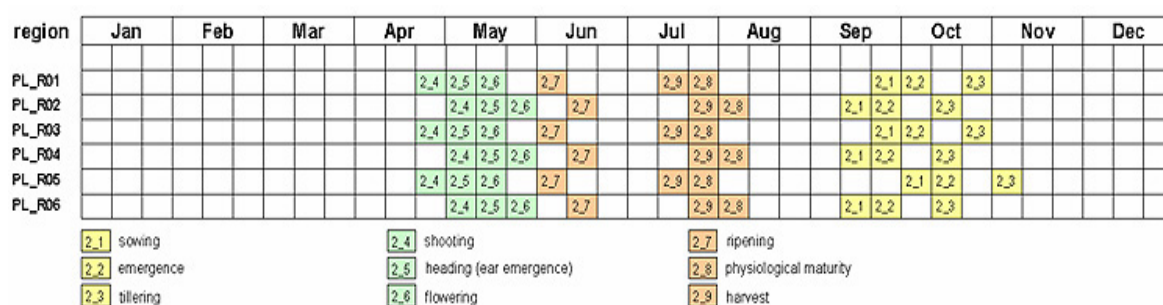


Figure 8. Phenological crop calendar for winter wheat in the Czech Republic



The data tables are incomplete with respect to tillering and shooting phases in the Czech Republic. It is so, because for financial reasons complete phenological data from the Czech Hydrometeorological Institute was not available to the authors of the MOCA Study. However, the distribution of the other available phenological phases allows for the assumption that the missing data is also comparable. In both countries climatic conditions are comparable so the development of winter wheat follows a similar pattern. Tillering starts in the fall in the second half of October and continues in the spring with the start of vegetation season at the end of March until the end of April when shooting follows and ends no later than first half of May.

In general, it may be stated that winter wheat develops in a similar way in Poland and in the Czech Republic.

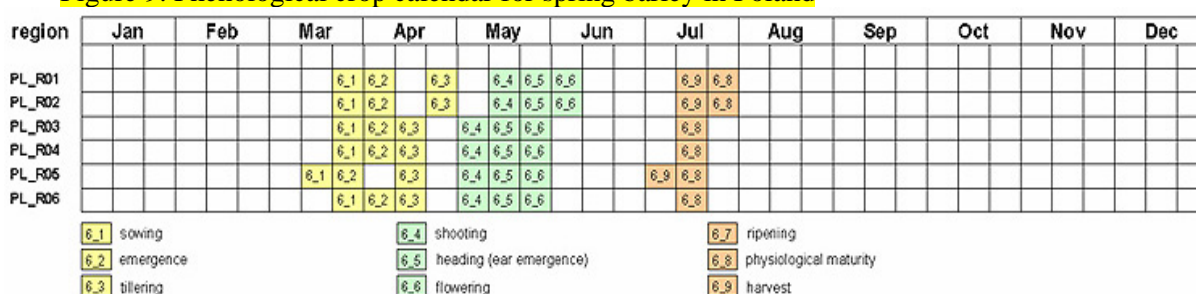
### 5.3.Spring barley sowing timing

According to the MOCA study in Poland sowing of spring barley takes place usually between March 15th and April 15th depending on the region. In Czech Republic spring barley should be planted as soon as possible when allowed by outside conditions.

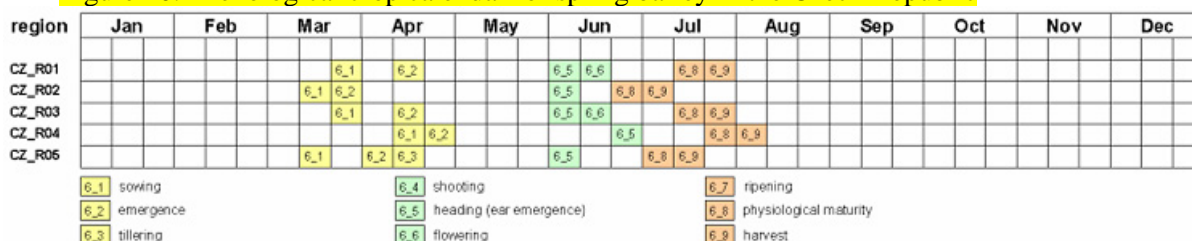
### 5.4.Spring barley growth and development

BBCH phases 33-41 and BBCH 49-56 that are most suitable for the application of difenoconazole encompass the development of winter wheat from the third node to the flag leaf and from first awns visible to the end of heading - 70% of inflorescence emerged.

Figure 9. Phenological crop calendar for spring barley in Poland



**Figure 10. Phenological crop calendar for spring barley in the Czech Republic**



The data tables are incomplete with respect to tillering and shooting phases in the Czech Republic. It is so, because for financial reasons complete phenological data from the Czech Hydrometeorological Institute was not available to the authors of the MOCA Study. However, the distribution of the other available phenological phases allows for the assumption that the missing data is also comparable. In both countries climatic conditions are comparable so the development of spring barley follows a similar pattern. Tillering starts in the fall in the second half of April until the beginning of May, shooting starts in first half of May.

### 5.5. Timing of application

According to *Pyraclostrobin\_RAR\_01\_Volume\_1\_2018-02-15.pdf* pyraclostrobin is applied up to maximum rate 500 g a.s./ha between growth stage BBCH 25-69 of the cereal, usually twice per season, in 100-400 L water/ha.

### 5.6. Target pests

The obtained data in performed trials show that CHR/F/PYRA provides benefits against the most important fungal diseases in winter wheat, winter triticale, winter rye and spring barley as shown in the table below.

The following table describes the effectiveness of fungal diseases

≥ 80% – Effectively controlled (E)

60 – 80% – Medium effectively controlled (ME)

0 – 60% – Limiting the number of pest (R)

### Winter wheat

No.	Product dose ( L/ha)	EPPO code	Scientific name	Average (%)		Efficacy
				leaf	plant	
1.	CHR/F/PYRA 250 EC 0.6 L/ha	PYRNTR	<i>Pyrenophora tritici-repentis</i>	63.91	56.80	ME
		SEPTTR	<i>Zymoseptoria tritici</i>	60.71	70.70	ME
		ERYSGR	<i>Blumeria graminis</i>	45.42	53.81	R
		PUCCRE	<i>Puccinia recondita</i>	68.19		ME
		PUCCST	<i>Puccinia striiformis tritici</i>	83.33		E
2.	CHR/F/PYRA 250 EC 0.8 L/ha	PYRNTR	<i>Pyrenophora tritici-repentis</i>	75.05	64.15	ME
		SEPTTR	<i>Zymoseptoria tritici</i>	74.53	74.60	ME
		ERYSGR	<i>Blumeria graminis</i>	63.16	64.97	ME
		PUCCRE	<i>Puccinia recondita</i>	79.48		ME
		PUCCST	<i>Puccinia striiformis tritici</i>	90.94		E
3.	CHR/F/PYRA 250 EC 1.0 L/ha	PYRNTR	<i>Pyrenophora tritici-repentis</i>	83.34	71.93	ME
		SEPTTR	<i>Zymoseptoria tritici</i>	84.88	82.53	E
		ERYSGR	<i>Blumeria graminis</i>	75.41	70.50	ME
		PUCCRE	<i>Puccinia recondita</i>	87.28		E
		PUCCST	<i>Puccinia striiformis tritici</i>	94.92		E
5	Makler 250 SE 1.0 L/ha	PYRNTR	<i>Pyrenophora tritici-repentis</i>	68.34	46.15	R
		SEPTTR	<i>Zymoseptoria tritici</i>	81.40	65.47	ME
		ERYSGR	<i>Blumeria graminis</i>	63.46	36.37	R
		PUCCRE	<i>Puccinia recondita</i>	84.41		E
		PUCCST	<i>Puccinia striiformis tritici</i>	94.33		E

### Winter triticales

No.	Product dose ( L/ha)	EPPO code	Scientific name	Average (%)		Efficacy
				leaf	plant	
1.	CHR/F/PYRA 250 EC 0.6 L/ha	RHYNSE	<i>Rhynchosporium secalis</i>	59.44	46.28	R
		ERYSGR	<i>Blumeria graminis</i>	63.68	61.90	ME
		PUCCST	<i>Puccinia striiformis tritici</i>	48.97		R
		PYRNTR	<i>Pyrenophora tritici-repentis</i>	66.38	51.00	R
2.	CHR/F/PYRA 250 EC 0.8 L/ha	RHYNSE	<i>Rhynchosporium secalis</i>	67.99	61.76	ME
		ERYSGR	<i>Blumeria graminis</i>	75.54	70.78	ME
		PUCCST	<i>Puccinia striiformis tritici</i>	70.86		ME
		PYRNTR	<i>Pyrenophora tritici-repentis</i>	77.51	66.30	ME
3.	CHR/F/PYRA 250 EC 1.0 L/ha	RHYNSE	<i>Rhynchosporium secalis</i>	76.51	71.12	ME
		ERYSGR	<i>Blumeria graminis</i>	86.32	79.90	E
		PUCCST	<i>Puccinia striiformis tritici</i>	85.93		E
		PYRNTR	<i>Pyrenophora tritici-repentis</i>	86.39	79.10	E
5	Makler 250 SE 1.0 L/ha	RHYNSE	<i>Rhynchosporium secalis</i>	62.32	49.28	R
		ERYSGR	<i>Blumeria graminis</i>	71.12	39.18	R
		PUCCST	<i>Puccinia striiformis tritici</i>	86.39		E
		PYRNTR	<i>Pyrenophora tritici-repentis</i>	80.30	74.65	ME

### Winter rye

No.	Product dose ( L/ha)	EPPO code	Scientific name	Average (%)		Efficacy
				leaf	plant	
1.	CHR/F/PYRA 250 EC 0.6 L/ha	RHYNSE	<i>Rhynchosporium secalis</i>	60.40	73.07	ME
		PUCCRE	<i>Puccinia recondita</i>	76.96		ME
		SEPTTR	<i>Zymoseptoria tritici</i>	59.33		R
		ERYSGR	<i>Blumeria graminis</i>	68.70	67.97	ME
2.	CHR/F/PYRA 250 EC 0.8 L/ha	RHYNSE	<i>Rhynchosporium secalis</i>	75.78	79.23	ME
		PUCCRE	<i>Puccinia recondita</i>	85.28		E
		SEPTTR	<i>Zymoseptoria tritici</i>	71.68		ME
		ERYSGR	<i>Blumeria graminis</i>	79.16	71.37	ME
3.	CHR/F/PYRA 250 EC 1.0 L/ha	RHYNSE	<i>Rhynchosporium secalis</i>	84.43	83.23	E
		PUCCRE	<i>Puccinia recondita</i>	92.42		E
		SEPTTR	<i>Zymoseptoria tritici</i>	81.48		E
		ERYSGR	<i>Blumeria graminis</i>	85.89	75.77	E
5	Makler 250 SE 1.0 L/ha	RHYNSE	<i>Rhynchosporium secalis</i>	77.23	67.97	ME
		PUCCRE	<i>Puccinia recondita</i>	89.86		E
		SEPTTR	<i>Zymoseptoria tritici</i>	80.27		E
		ERYSGR	<i>Blumeria graminis</i>	61.95	38.10	R

### Spring barley

No.	Product dose ( L/ha)	EPPO code	Scientific name	Average (%)		Efficacy
				leaf	plant	
1.	CHR/F/PYRA 250 EC 0.6 L/ha	PYRNTE	<i>Pyrenophora teres</i>	62.67	67.48	ME
		ERYSGR	<i>Blumeria graminis</i>	71.18		ME
		RHYNSE	<i>Rhynchosporium secalis</i>	66.61	56.35	ME
		PUCCHD	<i>Puccinia hordei</i>	84.89	91.97	E
2.	CHR/F/PYRA 250 EC 0.8 L/ha	PYRNTE	<i>Pyrenophora teres</i>	76.15	76.42	ME
		ERYSGR	<i>Blumeria graminis</i>	81.42		E
		RHYNSE	<i>Rhynchosporium secalis</i>	77.76	66.63	ME
		PUCCHD	<i>Puccinia hordei</i>	90.90	96.40	E
3.	CHR/F/PYRA 250 EC 1.0 L/ha	PYRNTE	<i>Pyrenophora teres</i>	85.42	83.88	E
		ERYSGR	<i>Blumeria graminis</i>	90.80		E
		RHYNSE	<i>Rhynchosporium secalis</i>	86.58	75.33	E
		PUCCHD	<i>Puccinia hordei</i>	95.11	97.77	E
5	Makler 250 SE 1.0 L/ha	PYRNTE	<i>Pyrenophora teres</i>	83.14	73.85	ME
		ERYSGR	<i>Blumeria graminis</i>	88.80		E
		RHYNSE	<i>Rhynchosporium secalis</i>	81.44	54.80	ME
		PUCCHD	<i>Puccinia hordei</i>	94.57	96.20	E

In summary, it may be stated that the most problematic pest species in winter wheat, winter triticale, winter rye and spring barley crops in Poland and in the Czech Republic are comparable and they are almost all controlled by CHR/F/PYRA 250 EC. Therefore product CHR/F/PYRA 250 EC is expected to be equally highly efficient in both Poland and in the Czech Republic.

## **6. Conclusion**

Poland and the Czech Republic are neighboring countries. Both lie in central Europe in the moderate climate zone. They share not only the border but also important climatic characteristics. Yearly temperature and precipitation patterns are very similar in both countries. This has influence on the agricultural practice in these countries and on the development of cultivated crops. Winter wheat, winter triticale, winter rye and spring barley which are of interest to the authors of this report, go through its development phases at relatively close calendar dates. What is more, the greatest weed problems are posed by almost the same pest species in both countries. All of these and many more are targeted by pyraclostrobin which are the active substances of product CHR/F/PYRA 250 EC.

In conclusion, authors of this report state that Poland and the Czech Republic share many elements of climatic and agricultural conditions. This allows efficacy and phytotoxicity study results acquired in Poland to be used in registration procedures of spring, foliar applied, cereal fungicide CHR/F/PYRA 250 EC in the Czech Republic.



### Appendix 3: Summary of data on trials site and application details per use

#### Winter wheat

Test report/ research number (1)	Trial location (2); Crop culti- var; F/G (3); N/A (4)	Testing Unit (5)	Test method (6); Plot size; Sample size (7)	Treatment			
				Growth stage (8)	Inter- val	Total number	Spray volume (L/ha)
A.T/2020/094 /PO	Modrze/ Poland winter wheat/ Euforia  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 7.0 m = 17.5 m <sup>2</sup>	A: BBCH 37- 39 B: BBCH 53- 55	17	2	200 L/ha
A.T/2020/095 /PO	Sitowiec/ Poland winter wheat/ Arkadia  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 8.0 m = 20.0 m <sup>2</sup>	A: BBCH 43- 47 B: BBCH 61- 65	25	2	200 L/ha
A.T/2020/096 /PO	Stare Gralewo/ Poland winter wheat/ Kilimanjaro  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 8.0 m = 20.0 m <sup>2</sup>	A: BBCH 37- 41 B: BBCH 53- 59	18	2	200 L/ha
A.T/2021/039 /PO	Brzeźno k. Go- łańczy/ Poland winter wheat/ Arkadia  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 7.0 m = 17.5 m <sup>2</sup>	A: BBCH 34- 36 B: BBCH 59- 61	29	2	300 L/ha
A.T/2021/040 /PO	Mirosław/ Poland winter wheat/ Wilejka  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 7.0 m = 17.5 m <sup>2</sup>	A: BBCH 27- 30 B: BBCH 51- 55	49	2	200 L/ha
A.T/2021/041 /PO	Angowice/ Poland winter wheat/ Admont  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 9.0 m = 22.5 m <sup>2</sup>	A: BBCH 39- 41 B: BBCH 65- 69	23	2	200 L/ha
A.T/2021/042 /PO	Studzieniec/ Poland winter wheat/ Ostroga  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 8.0 m = 20.0 m <sup>2</sup>	A: BBCH 25- 29 B: BBCH 51- 55	53	2	200 L/ha
AF/20/PO/23/ Mr/01	Mrowino/ Poland winter wheat/ Hondia  F N	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poz- nań	EPPO PP 1/26(4)  2.0 m x 8.0 m = 16.0 m <sup>2</sup>	A: BBCH 47- 51 B: BBCH 55- 69	26	2	250 L/ha

<b>AF/20/PO/23/ Mr/02</b>	Mrowino/ Poland winter wheat/ Emil  F N	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poz- nań	EPPO PP 1/26(4)  2.0 m x 8.0 m = 16.0 m <sup>2</sup>	A: BBCH 47- 51 B: BBCH 65- 71	26	2	250 L/ha
<b>AF/20/PO/23/ Zl/03</b>	Złotniki/ Poland winter wheat/ Bogatka  F N	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poz- nań	EPPO PP 1/26(4)  2.5 m x 8.0 m = 20.0 m <sup>2</sup>	A: BBCH 39- 43 B: BBCH 61- 69	19	2	200 L/ha
<b>AF/21/PO/12/ Pr</b>	Przybroda/ Poland winter wheat/ Principes  F N	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poz- nań	EPPO PP 1/26(4)  1.5 m x 12.0 m = 18.0 m <sup>2</sup>	A: BBCH 28- 30 B: BBCH 59- 65	51	2	250 L/ha
<b>SRPL20-240- 336FE</b>	Teresin/ Poland winter wheat/ Kilimanjaro  F N	SynTech Rese- arch Poland Sp. z o.o., 69/1 Jagiellonska 85-027 Byd- goszcz Poland	EPPO PP 1/26(4)  3.0 m x 8.0 m = 24.0 m <sup>2</sup>	A: BBCH 45- 49 B: BBCH 55- 59	12	2	200 L/ha
<b>SRPL20-240- 336HE</b>	Murczyn/ Poland winter wheat/ Hondia  F N	SynTech Rese- arch Poland Sp. z o.o., 69/1 Jagiellonska 85-027 Byd- goszcz Poland	EPPO PP 1/26(4)  3.0 m x 7.0 m = 21.0 m <sup>2</sup>	A: BBCH 47- 49 B: BBCH 61- 63	14	2	300 L/ha
<b>SRPL21-421- 336FE</b>	Kapłityny/ Poland winter wheat/ Euforia  F N	SynTech Rese- arch Poland Sp. z o.o., 69/1 Jagiellonska 85-027 Byd- goszcz Poland	EPPO PP 1/26(4)  3.0 m x 8.0 m = 24.0 m <sup>2</sup>	A: BBCH 31- 33 B: BBCH 51- 53	21	2	200 L/ha
<b>SRPL21-422- 336FE</b>	Osówka/ Poland winter wheat/ Arkadia  F N	SynTech Rese- arch Poland Sp. z o.o., 69/1 Jagiellonska 85-027 Byd- goszcz Poland	EPPO PP 1/26(4)  2.0 m x 10.0 m = 20.0 m <sup>2</sup>	A: BBCH 31- 32 B: BBCH 51- 53	34	2	200 L/ha
<b>SRPL21-423- 336FE</b>	Jankowice Wiel- kie/ Poland winter wheat/ Argument  F N	SynTech Rese- arch Poland Sp. z o.o., 69/1 Jagiellonska 85-027 Byd- goszcz Poland	EPPO PP 1/26(4)  3.0 m x 8.0 m = 24.0 m <sup>2</sup>	A: BBCH 30- 32 B: BBCH 51- 55	35	2	300 L/ha
<b>SRPL21-424- 336FE</b>	Żnin/ Poland winter wheat/ Arkadia  F	SynTech Rese- arch Poland Sp. z o.o., 69/1 Jagiellonska 85-027 Byd-	EPPO PP 1/26(4)  2.0 m x 10.0 m = 20.0 m <sup>2</sup>	A: BBCH 32- 35 B: BBCH 43- 45	21	2	300 L/ha

	N	goszcz Poland					
<b>SRCZ20-068-301FE</b>	Sekerkovy Loučky/ Czech Republic winter wheat/ Balitus  F N	SynTech Rese- arch Czech Repu- blic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	EPPO PP 1/26(4)  3.0 m x 7.0 m = 21.0 m <sup>2</sup>	A: BBCH 49 B: BBCH 60- 61	15	2	225 L/ha
<b>SRCZ20-070-301FE</b>	Hoškovice/ Czech Republic winter wheat/ Rivero  F N	SynTech Rese- arch Czech Repu- blic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	EPPO PP 1/26(4)  3.0 m x 6.0 m = 18.0 m <sup>2</sup>	A: BBCH 49 B: BBCH 59- 60	15	2	225 L/ha
<b>SRCZ20-069-301FE</b>	Tavíkovice/ Czech Republic winter wheat/ Tobak  F N	SynTech Rese- arch Czech Repu- blic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	EPPO PP 1/26(4)  2.5 m x 9.0 m = 22.5 m <sup>2</sup>	A: BBCH 45- 51 B: BBCH 59- 63	12	2	300 L/ha

Notes:

- (1): test report number including the year of establishing the trial
- (2): precise place of the trial followed by the country
- (3): F= field trial, G=protected crop, specify
- (4): N=Natural infestation, A= Artificial inoculation
- (5): Trial responsible entity/ officially recognized organization
- (6): Test guideline used
- (7): Sample size per plot
- (8): Crop growth stage at application timing

## Winter triticale

Test report/ research number (1)	Trial location (2); Crop cultivar; F/G (3); N/A (4)	Testing Unit (5)	Test method (6); Plot size; Sample size (7)	Treatment			
				Growth stage (8)	Inter- val	Total number	Spray volume (L/ha)
A.T/2020/097/PŽ O	Modrze/ Poland winter triticale/ Orinoko  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 7.0 m = 17.5 m <sup>2</sup>	A: BBCH 37-39 B: BBCH 57-61	14	2	200 L/ha
A.T/2020/098/PŽ O	Białe Błoto/ Poland winter triticale/ Borowik  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 8.0 m = 20.0 m <sup>2</sup>	A: BBCH 37-41 B: BBCH 49-55	18	2	200 L/ha
A.T/2021/043/PŽ O	Nowa Wieś Ujska/ Poland winter triticale/ Lombardo  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 7.0 m = 17.5 m <sup>2</sup>	A: BBCH 29-31 B: BBCH 59-61	46	2	300 L/ha
A.T/2021/044/PŽ O	Zamarte/ Poland winter triticale/ Orinoko  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 11.0 m = 27.5 m <sup>2</sup>	A: BBCH 29-30 B: BBCH 53-55	48	2	200 L/ha
A.T/2021/045/PŽ O	Lichnowy/ Poland winter triticale/ Belcanto  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 10.0 m = 25.0 m <sup>2</sup>	A: BBCH 39-41 B: BBCH 65-69	23	2	200 L/ha
A.T/2021/046/PŽ O	Studzieniec/ Poland winter triticale/ Meloman  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 8.0 m = 20.0 m <sup>2</sup>	A: BBCH 25-30 B: BBCH 55-61	49	2	200 L/ha
SRPL21-425- 336FE	Tonowo/ Poland winter triticale/ Balcanto  F N	SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland	EPPO PP 1/26(4)  3.0 m x 7.0 m = 21.0 m <sup>2</sup>	A: BBCH 33-35 B: BBCH 51-53	23	2	200 L/ha
SRPL21-426- 336FE	Osówka/ Poland winter triticale/ ROTONDO  F N	SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland	EPPO PP 1/26(4)  2.0 m x 9.0 m = 18.0 m <sup>2</sup>	A: BBCH 29-31 B: BBCH 51-53	28	2	300 L/ha
SRCZ20-071- 301FE	Sekerkovy Loučky/ Czech Republic winter triticale/ Agostino  F N	SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	EPPO PP 1/26(4)  3.0 m x 7.0 m = 21.0 m <sup>2</sup>	A: BBCH 47-51 B: BBCH 61-65	16	2	225 L/ha
SRCZ20-072- 301FE	Tetín/ Czech Repub- lic winter triticale/ Agostino  F N	SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	EPPO PP 1/26(4)  3.0 m x 6.0 m = 18.0 m <sup>2</sup>	A: BBCH 49-51 B: BBCH 65-69	20	2	225 L/ha

Notes:

(1): test report number including the year of establishing the trial

(2): precise place of the trial followed by the country  
(3): F= field trial, G=protected crop, specify  
(4): N=Natural infestation, A= Artificial inoculation  
(5): Trial responsible entity/ officially recognized organization  
(6): Test guideline used  
(7): Sample size per plot  
(8): Crop growth stage at application timing

## Winter rye

Test report/ research number (1)	Trial location (2); Crop cultivar; F/G (3); N/A (4)	Testing Unit (5)	Test method (6); Plot size; Sample size (7)	Treatment			
				Growth stage (8)	Inter- val	Total number	Spray volume (L/ha)
A.T/2020/099/ŽO	Wilkowo/ Poland winter rye/ Serafino  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 8.0 m = 20.0 m <sup>2</sup>	A: BBCH 39-41 B: BBCH 59-61	15	2	300 L/ha
A.T/2021/047/ŽO	Świerkówki/ Poland winter rye/ KWS Serafino  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 7.0 m = 17.5 m <sup>2</sup>	A: BBCH 30-33 B: BBCH 61-65	35	2	200 L/ha
A.T/2021/048/ŽO	Jęczniki Wielkie/ Poland winter rye/ KWS Berado  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 10.0 m = 25.0 m <sup>2</sup>	A: BBCH 29-30 B: BBCH 53-55	37	2	200 L/ha
A.T/2021/049/ŽO	Stare Gralewo/ Poland winter rye/ Dańkow- skie Diament  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 8.0 m = 20.0 m <sup>2</sup>	A: BBCH 28-32 B: BBCH 53-57	31	2	200 L/ha
AF/21/ŽO/12/ZI	Złotniki/ Poland winter rye/ Dolaro  F N	Poznań University of Life Sciences, Research and Education Center Gorzyń, Agrono- my Department; ul. Wojska Polskiego 28, 60- 637 Poznań	EPPO PP 1/26(4)  2.5 m x 8.0 m = 20.0 m <sup>2</sup>	A: BBCH 34-36 B: BBCH 54-56	29	2	250 L/ha
AF/21/ŽO/12/Br	Brody/ Poland winter rye/ Poznań- skie  F N	Poznań University of Life Sciences, Research and Education Center Gorzyń, Agrono- my Department; ul. Wojska Polskiego 28, 60- 637 Poznań	EPPO PP 1/26(4)  2.0 m x 9.0 m = 18.0 m <sup>2</sup>	A: BBCH 33-37 B: BBCH 54-56	35	2	250 L/ha
SRPL20-237- 336FE	Charleż/ Poland winter rye/ KWS Dolaro  F N	SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland	EPPO PP 1/26(4)  3.0 m x 8.0 m = 24.0 m <sup>2</sup>	A: BBCH 39 B: BBCH 51-55	13	2	300 L/ha
SRPL20-238- 336FE	Samborowo/ Poland winter rye/ Dańkow- skie Skand  F N	SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland	EPPO PP 1/26(4)  3.0 m x 8.0 m = 24.0 m <sup>2</sup>	A: BBCH 48-49 B: BBCH 59-61	14	2	300 L/ha
SRPL21-427- 336FE	Ląjsy/ Poland winter rye/ KWS Jethro	SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz	EPPO PP 1/26(4)	A: BBCH 33-39 B: BBCH 61-65	21	2	200 L/ha

	F N	Poland	3.0 m x 6.0 m = 18.0 m <sup>2</sup>				
<b>SRCZ20-073-301FE</b>	Roprachtice/ Czech Republic winter rye/ Herakles  F N	SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	EPPO PP 1/26(4)  3.0 m x 7.0 m = 21.0 m <sup>2</sup>	A: BBCH 39 B: BBCH 58-59	16	2	225 L/ha
<b>SRCZ20-074-301FE</b>	Bělá pod Bezdězem/ Czech Republic winter rye/ SU Cossani  F N	SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	EPPO PP 1/26(4)  3.0 m x 7.0 m = 21.0 m <sup>2</sup>	A: BBCH 49-59 B: BBCH 65-71	15	2	225 L/ha

Notes:

- (1): test report number including the year of establishing the trial
- (2): precise place of the trial followed by the country
- (3): F= field trial, G=protected crop, specify
- (4): N=Natural infestation, A= Artificial inoculation
- (5): Trial responsible entity/ officially recognized organization
- (6): Test guideline used
- (7): Sample size per plot
- (8): Crop growth stage at application timing

## Spring barley

Test report/ research number (1)	Trial location (2); Crop cultivar; F/G (3); N/A (4)	Testing Unit (5)	Test method (6); Plot size; Sample size (7)	Treatment			
				Growth stage (8)	Interval	Total number	Spray volume (L/ha)
A.T/2020/101/JJ	Modrze /Poland spring barley/ RGT Planet  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 7.0 m = 17.5 m <sup>2</sup>	A: BBCH 28-30 B: BBCH 37-39	21	2	200 L/ha
A.T/2020/102/JJ	Nowy Dwór /Poland spring barley/ Quench  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 7.7 m = 18.75 m <sup>2</sup>	A: BBCH 29-31 B: BBCH 47-49	19	2	200 L/ha
A.T/2020/103/JJ	Białe Błoto /Poland spring barley/ Propi- no xxx F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 8.0 m = 20.0 m <sup>2</sup>	A: BBCH 25-28 B: BBCH 35-39	18	2	200 L/ha
A.T/2020/104/JJ	Maniewo /Poland spring barley/ Ellinor  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 7.0 m = 17.5 m <sup>2</sup>	A: BBCH 37-39 B: BBCH 49-55	15	2	200 L/ha
A.T/2020/105/JJ	Wilkowo /Poland spring barley/ Laure- ate  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 8.0 m = 20.0 m <sup>2</sup>	A: BBCH 39-43 B: BBCH 51-55	14	2	200 L/ha
A.T/2020/106/JJ	Czachowo /Poland spring barley/ KWS IRINA  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 8.0 m = 20.0 m <sup>2</sup>	A: BBCH 39-45 B: BBCH 59-61	14	2	300 L/ha
A.T/2021/050/JJ	Mirowsław /Poland spring barley/ Avatar  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 7.0 m = 17.5 m <sup>2</sup>	A: BBCH 27-31 B: BBCH 51-55	22	2	300 L/ha
A.T/2021/051/JJ	Karsy /Poland spring barley/ KWS Vermont  F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/26(4)  2.5 m x 10.0 m = 25.0 m <sup>2</sup>	A: BBCH 31-33 B: BBCH 49-57	21	2	200 L/ha
AF/20/JJ/23/Br/01	Brody /Poland spring barley/ Iron  F N	Poznań University of Life Sciences, Research and Education Center Gorzyń, Agrono- my Department; ul. Wojska Polskiego 28, 60- 637 Poznań	EPPO PP 1/26(4)  2.0 m x 9.0 m = 18.0 m <sup>2</sup>	A: BBCH 36-39 B: BBCH 45-51	13	2	230 L/ha
AF/20/JJ/23/Pr/02	Przybroda /Poland spring barley/ Penguin  F N	Poznań University of Life Sciences, Research and Education Center Gorzyń, Agrono- my Department; ul. Wojska Polskiego 28, 60- 637 Poznań	EPPO PP 1/26(4)  2.0 m x 12.0 m = 24.0 m <sup>2</sup>	A: BBCH 31-33 B: BBCH 45-50	14	2	200 L/ha

<b>AF/20/JJ/23/ZI/03</b>	Złotniki /Poland spring barley/ Stratus  F N	Poznań University of Life Sciences, Research and Education Center Gorzyń, Agrono- my Department; ul. Wojska Polskiego 28, 60- 637 Poznań	EPPO PP 1/26(4)  2.5 m x 8.0 m = 20.0 m <sup>2</sup>	A: BBCH 29-31 B: BBCH 37-41	19	2	200 L/ha
<b>AF/20/JJ/23/Br/04</b>	Brody /Poland spring barley/ Iron  F N	Poznań University of Life Sciences, Research and Education Center Gorzyń, Agrono- my Department; ul. Wojska Polskiego 28, 60- 637 Poznań	EPPO PP 1/26(4)  2.0 m x 9.0 m = 18.0 m <sup>2</sup>	A: BBCH 47-51 B: BBCH 55-59	14	2	200 L/ha
<b>AF/20/JJ/23/Pr/05</b>	Przybroda /Poland spring barley/ Penquin  F N	Poznań University of Life Sciences, Research and Education Center Gorzyń, Agrono- my Department; ul. Wojska Polskiego 28, 60- 637 Poznań	EPPO PP 1/26(4)  2.0 m x 12.0 m = 24.0 m <sup>2</sup>	A: BBCH 37-41 B: BBCH 58-61	11	2	200 L/ha
<b>AF/20/JJ/23/ZI/06</b>	Złotniki /Poland spring barley/ Stratus  F N	Poznań University of Life Sciences, Research and Education Center Gorzyń, Agrono- my Department; ul. Wojska Polskiego 28, 60- 637 Poznań	EPPO PP 1/26(4)  2.5 m x 8.0 m = 20.0 m <sup>2</sup>	A: BBCH 39-43 B: BBCH 53-55	13	2	200 L/ha
<b>SRCZ20-075- 301FE</b>	Roprachtice /Czech Republic spring barley/ Olym- pic  F N	SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	EPPO PP 1/26(4)  3.0 m x 7.0 m = 21.0 m <sup>2</sup>	A: BBCH 32-33 B: BBCH 49-51	21	2	225 L/ha
<b>SRCZ20-076- 301FE</b>	Dobronice /Czech Republic spring barley/ Laudis  F N	SynTech Research Czech s.r.o. Horní Kounice 1 671 40 Horní Kounice, Czech Republic	EPPO PP 1/26(4)  3.0 m x 5.0 m = 15.0 m <sup>2</sup>	A: BBCH 29-32 B: BBCH 49-59	13	2	300 L/ha
<b>SRCZ20-077- 301FE</b>	Dobřínko/Czech Republic spring barley/ KWS Amadora  F N	SynTech Research Czech s.r.o. Horní Kounice 1 671 40 Horní Kounice, Czech Republic	EPPO PP 1/26(4)  2.5 m x 6.0 m = 15.0 m <sup>2</sup>	A: BBCH 32-39 B: BBCH 49-55	13	2	300 L/ha
<b>SRCZ20-078- 301FE</b>	Vinařice /Czech Republic spring barley/ Over- ture  F N	SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	EPPO PP 1/26(4)  3.0 m x 7.0 m = 21.0 m <sup>2</sup>	A: BBCH 47 B: BBCH 56-58	17	2	225 L/ha
<b>SRCZ20-079- 301FE</b>	Křepice /Czech Republic spring barley/Solist	SynTech Research Czech s.r.o. Horní Kounice 1 671 40 Horní	EPPO PP 1/26(4)  2.5 m x 6.0 m =	A: BBCH 45-49 B: BBCH 57-59	13	2	300 L/ha



	F N	Kounice, Czech Republic	15.0 m <sup>2</sup>				
SRCZ20-080- 301FE	Dobřínsko /Czech Republic spring barley/ KWS Iris F N	SynTech Research Czech s.r.o. Horní Kounice 1 671 40 Horní Kounice, Czech Republic	EPPO PP 1/26(4)  2.5 m x 6.0 m = 15.0 m <sup>2</sup>	A: BBCH 39-49 B: BBCH 65-69	19	2	300 L/ha

Notes:

- (1): test report number including the year of establishing the trial
- (2): precise place of the trial followed by the country
- (3): F= field trial, G=protected crop, specify
- (4): N=Natural infestation, A= Artificial inoculation
- (5): Trial responsible entity/ officially recognized organization
- (6): Test guideline used
- (7): Sample size per plot
- (8): Crop growth stage at application timing

## Appendix 4: Summary of data on effectiveness trials per use

### Winter wheat

Test report (1)	Crop/ cultivar Harmful organism/ weed spe- cies or intended use	Assessed part and variable (2) no / m <sup>2</sup>	Untreated  BBCH (during application)	Efficacy treatments (3)				Remarks (4)
				Product		Standard (s)		
				name	Dose [L/ha]	name	dose [L/ha]	
A.T/2020/094/PO	winter wheat/ Euforia  PYRNTR ERYSGR SEPTTR	Plant Leaf  PYRNTR 0.5-1.0% ERYSGR 1.5-4.0% SEPTTR 10.0- 50.0%	A: SEPTTR MIXED 100; PYRNTR MIXED 100; ERYSGR MIXED 100 B: SEPTTR MIXED 100; PYRNTR MIXED 100; ERYSGR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 09.05.2020 26.05.2020 Assessment date: 16.05.2020 22.05.2020 26.05.2020 02.06.2020 12.06.2020 23.06.2020
A.T/2020/095/PO	winter wheat/ Arkadia  ERYSGR SEPTTR LEPTNO	Plant Leaf  ERYSGR 0.2-2.3% SEPTTR 0.5-3.2% LEPTNO 5.3%	A: ERYSGR MIXED 100; SEPTTR MIXED 100; LEPTNO PRINFC 100 B: ERYSGR MIXED 100; SEPTTR MIXED 100; LEPTNO PRINFC 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 15.05.2020 09.06.2020 Assessment date: 15.05.2020 22.05.2020 05.06.2020 09.06.2020 16.06.2020 23.06.2020 09.07.2020 08.08.2020
A.T/2020/096/PO	winter wheat/ Kilimanjaro  PYRNTR ERYSGR	Plant Leaf  PYRNTR 0.3-1.8% ERYSGR 0.3-2.8%	A: PYRNTR MIXED 100; ERYSGR MIXED 100 B: PYRNTR MIXED 100; ERYSGR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 22.05.2020 09.06.2020 Assessment date: 22.05.2020 29.05.2020 09.06.2020 16.06.2020 26.06.2020 07.07.2020 17.09.2020
A.T/2021/039/PO	winter wheat/ Arkadia  ERYSGR SEPTTR PUCCRE	Plant Leaf  ERYSGR 8.8% SEPTTR 5.5% PUCCRE 0.3%	A: ERYSGT MYCELI 100; SEPTTR PRINFC 100; PUCCRE PRINFC 100 B: ERYSGT MYCELI 100; SEPTTR MY- CELI 100; PUCCRE PRINFC 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 11.05.2021 09.06.2021 Assessment date: 11.05.2021 18.05.2021 01.06.2021 16.06.2021 30.06.2021 07.07.2021 25.07.2021

<b>A.T/2021/040/PO</b>	winter wheat/ Wilejka  ERYSGR SEPTTR PUCCRE	Plant Leaf  ERYSGR 5.0% SEPTTR 5.0% PUCCRE 1.0%	A: ERYSGT MYCELI 100; SEPTTRMYCELI 100; PUCCRE PRINFC 100 B: ERYSGT MYCELI 100; SEPTTR MYCELI 100; PUCCRE PRINFC 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 20.04.2021 08.06.2021 Assessment date: 20.04.2021 27.04.2021 06.05.2021 08.06.2021 15.06.2021 28.06.2021 08.07.2021 30.07.2021
<b>A.T/2021/041/PO</b>	winter wheat/ Admont  ERYSGR SEPTTR PUCCST	Plant Leaf  ERYSGR 1.8-15.0% SEPTTR 1.5-10.0% PUCCST 3.7-13.3%	A: ERYSGT MIXED 100; SEPTTR MIXED 100; PUCCST PRINFC B: ERYSGT MIXED 100; SEPTTR MIXED 100; PUCCST MIXED	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 31.05.2021 23.06.2021 Assessment date: 31.05.2021 07.06.2021 21.06.2021 23.06.2021 30.06.2021 07.07.2021 14.07.2021 03.08.2021
<b>A.T/2021/042/PO</b>	winter wheat/ Ostroga  SEPTTR PUCCRE	Plant Leaf  SEPTTR 0.5-4.8% PUCCRE 2.7-5.3%	A: SEPTTR MIXED 100; PUCCRE PRINFC 100 B: SEPTTR MIXED 100; PUCCRE PRINFC 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 19.04.2021 11.06.2021 Assessment date: 19.04.2021 26.04.2021 10.05.2021 11.06.2021 18.06.2021 30.06.2021 09.07.2021 13.08.2021
<b>AF/20/PO/23/Mr/01</b>	winter wheat/ Hondia  SEPTSP PYRNTR	Plant Leaf  SEPTSP 21.3% PYRNTR 26.3%	A: PYRNTR MIXED 100; SEPTTR MIXED 100 B: PYRNTR MIXED 100; SEPTTR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 22.05.2020 17.06.2020 Assessment date: 29.05.2020 05.06.2020 12.06.2020 24.06.2020 01.07.2020 08.07.2020
<b>AF/20/PO/23/Mr/02</b>	winter wheat/ Emil  SEPTSP PYRNTR	Plant Leaf  SEPTSP 26.9% PYRNTR 19.7%	A: PYRNTR MIXED 100; SEPTTR MIXED 100 B: PYRNTR MIXED 100; SEPTTR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 22.05.2020 17.06.2020 Assessment date: 29.05.2020 05.06.2020 12.06.2020 24.06.2020 01.07.2020 08.07.2020

AF/20/PO/23/Z1/03	winter wheat/ Bogatka  SEPTSP PUCCSI	Plant Leaf  SEPTSP 21.6% PUCCSI 20.6%	A: SEPTSP MIXED 100; PUCCSI MIXED 100 B: SEPTSP MIXED 100; PUCCSI MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 21.05.2020 09.06.2020 Assessment date: 28.05.2020 04.06.2020 16.06.2020 23.06.2020 30.06.2020 07.07.2020
AF/21/PO/12/Pr	winter wheat/ Princeps  PUCCRT ERYGSR	Plant Leaf  PUCCRT 0.5% ERYGSR 13.8%	A: PUCCRT MIXED 100; ERYSGR MIXED 100 B: PUCCRT MIXED 100; ERYSGR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 24.04.2021 15.06.2021 Assessment date: 28.04.2021 05.05.2021 19.05.2021 15.06.2021 22.06.2021 06.07.2021
SRPL20-239-336FE	winter wheat/ Kilimanjaro  SEPTTR PYRNTR	Plant Leaf  SEPTTR 1.0% PYRNTR 0.4%	A: SEPTTR MIXED 100; PYRNTR MIXED 100 B: SEPTTR MIXED 100; PYRNTR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 20.05.2020 01.06.2020 Assessment date: 20.05.2020 27.05.2020 03.06.2020 10.06.2020 17.06.2020 01.07.2020 06.08.2020
SRPL20-240-336HE	winter wheat/ Hondia  SEPTTR	Plant Leaf  SEPTTR 1.75%	A: SEPTTR MIXED 100 B: SEPTTR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 20.05.2020 03.06.2020 Assessment date: 20.05.2020 27.05.2020 03.06.2020 17.06.2020 01.07.2020 02.08.2020
SRPL21-421-336FE	winter wheat/ Euforia  PYRNTR ERYSGR SEPTTR	Plant Leaf  PYRNTR 0.5-0.8% ERYSGR 0.1-1.1% SEPTTR 1.0-10.23%	A: PYRNTR MIXED 100; ERYSGR MIXED 100; SEPTTR MIXED 100; B: PYRNTR MIXED 100; ERYSGR MIXED 100; SEPTTR MIXED 100;	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 24.05.2021 14.06.2021 Assessment date: 24.05.2021 31.05.2021 14.06.2021 21.06.2021 30.06.2021 12.07.2021 13.08.2021
SRPL21-422-336FE	winter wheat/ Arkadia  PYRNTR ERYSGR	Plant Leaf  PYRNTR A: 0.33% B: 12.78%	A: PYRNTR MIXED 100; ERYSGR MIXED 100 B: PYRNTR MIXED 100;	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 28.04.2021 01.06.2021 Assessment

		ERYSGR A: 0.62%; B: 5.82%	ERYSGR MIXED 100					date: 28.04.2021 05.05.2021 12.05.2021 01.06.2021 08.06.2021 22.06.2021 06.07.2021 09.08.2021
<b>SRPL21-423-336FE</b>	winter wheat/ Argument  PUCCRE ERYSGR	Plant Leaf  PUCCRE A: 0.5%; B: 8.2% ERYSGR A: 0.7%; B: 9.2%	A: PUCCURE MIXED 100; ERYSGR MIXED 100 B: PUCCURE MIXED 100; ERYSGR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 22.04.2021 27.05.2021 Assessment date: 22.04.2021 29.04.2021 13.05.2021 27.05.2021 03.06.2021 17.06.2021 01.07.2021 29.07.2021
<b>SRPL21-424-336FE</b>	winter wheat/ Arkadia  PUCCSI ERYSGR	Plant Leaf  PUCCSI 8.75- 41.38% ERYSGR 2.1-5.43%	A: PUCCSI PRINFC 100; ERYSGR MIXED 100 B: PUCCSI PRINFC 100; ERYSGR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 15.05.2021 02.06.2021 Assessment date: 12.05.2021 19.05.2021 02.06.2021 09.06.2021 23.06.2021 07.07.2021 30.07.2021
<b>SRCZ20-068-301FE</b>	winter wheat/ Balitus  SEPTTR	Plant Leaf  SEPTTR 0.7-10.8%	A: SEPTTR MIXED 1000 B: SEPTTR MIXED 1000	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 19.05.2020 03.06.2020 Assessment date: 19.05.2020 26.05.2020 03.06.2020 10.06.2020 24.06.2020 01.07.2020 16.07.2020 12.08.2020 17.09.2020
<b>SRCZ20-070-301FE</b>	winter wheat/ Rivero  SEPTTR	Plant Leaf  SEPTTR 0.8-69.5%	A: SEPTTR MIXED 1000 B: SEPTTR MIXED 1000	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 20.05.2020 04.06.2020 Assessment date: 20.05.2020 27.05.2020 04.06.2020 14.06.2020 24.06.2020 08.07.2020 10.08.2020 16.09.2020

<b>SRCZ20-069-301FE</b>	winter wheat/ Tobak	Plant Leaf	A: FUSASP MIXED 100; SEPTTR MIXED 100; PUCCRT MIXED 100 B: FUSASP PRINFC 100; SEPTTR MIXED 100; PUCCRT MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 27.05.2020 08.06.2020 Assessment date: 27.05.2020 03.06.2020 08.06.2020 25.06.2020 07.07.2020 29.07.2020 16.09.2020
	FUSASP SEPTTR PUCCRT	FUSASP 20.94- 34.38% SEPTTR 1.75- 16.88% PUCCRT 0.5-1.31%						

Notes:

- 1): Test report number including the year of establishing the trial
- (2): Plant part assessed and criteria for assessment
- (3): efficacy or intended effect
- (4): Relevant conclusions on effectiveness

## Winter triticale

Test report (1)	Crop/ cultivar Harmful organ- ism/ weed species or in- tended use	Assessed part and variable (2) no / m²	Untreated  BBCH (during application)	Efficacy treatments (3)				Remarks (4)
				Product		Standard (s)		
				name	Dose [L/ha ]	name	dose [L /ha]	
A.T/2020/097/P ŽO	winter triticale/ Orinoko  RHYNSE ERYGSR	Plant Leaf  RHYNSE 0.5- 38% ERYGSR 2.5%	A: RHYN- SE MIXED 100; ERYGSR MIXED 100 B: RHYN- SE MIXED 100; ERYGSR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 08.05.2020 22.05.2020 Assessment date: 08.05.2020 15.05.2020 22.05.2020 29.05.2020 09.06.2020 26.06.2020 30.06.2020 29.07.2020
A.T/2020/098/P ŽO	winter triticale/ Borowik  RHYNSE PYRNTR ERYGSR	Plant Leaf  RHYNSE 1.5% PYRNTR 12.5-35% ERYGSR 30%	A: RHYN- SE MIXED 100; PYRNTR PRINFC 100; ERYGSR MIXED 100 B: RHYN- SE MIXED 100; PYRNTR PRINFC 100; ERYGSR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 15.05.2020 02.06.2020 Assessment date: 15.05.2020 22.05.2020 02.06.2020 09.06.2020 23.06.2020 30.06.2020 07.07.2020 07.08.2020
A.T/2021/043/P ŽO	winter triticale/ Lombardo  ERYSGR PUCCST	Plant Leaf  ERYSGR 0.1- 100% PUCCST 75- 100%	A: ER- YSGR MIXED 100; PUCCST PRINFC 100 B: ERYSGR MIXED 100; PUCCST MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 19.04.2021 04.06.2021 Assessment date: 19.04.2021 26.04.2021 07.05.2021 04.06.2021 11.06.2021 18.06.2021 02.07.2021 05.08.2021
A.T/2021/044/P ŽO	winter triticale/ Orinoko  ERYSGR PYRNTR PUCCST	Plant Leaf  ERYSGR 2.8% PYRNTR 0.9- 11.6% PUCCST 0.6- 7.2%	A: ER- YSGR MIXED 100; PYRNTR PRINFC 100; PUCCST PRINFC 100 A: ER- YSGR MIXED 100; PYRNTR MIXED 100; PUCCST MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 17.04.2021 04.06.2021 Assessment date: 17.04.2021 23.04.2021 07.05.2021 04.06.2021 11.06.2021 23.06.2021 08.07.2021 14.07.2021 04.08.2021

<b>A.T/2021/045/P ŽO</b>	winter triticales/ Belcanto  PYRNTR ERYSGR PUCCST	Plant Leaf  PYRNTR 2.0- 5.5% ERYSGR 2.5- 8.5% PUCCST 1.1- 6.3%	A: PYRNTR MIXED 100; ER- YSGR MIXED 100; PUCCST PRINFC 100 A: PYRNTR MIXED 100; ER- YSGR MIXED 100; PUCCST MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 31.05.2021 23.06.2021 Assessment date: 31.05.2021 07.06.2021 21.06.2021 23.06.2021 30.06.2021 07.07.2021 14.07.2021 02.08.2021
<b>A.T/2021/046/P ŽO</b>	winter triticales/ Meloman  PYRNTR	Plant Leaf  PYRNTR 4.0%	A: PYRNTR MIXED 100 B: PYRNTR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 19.04.2021 07.06.2021 Assessment date: 19.04.2021 26.04.2021 10.05.2021 07.06.2021 14.06.2021 28.06.2021 08.07.2021 13.08.2021
<b>SRPL21-425- 336FE</b>	winter triticales/ Balcanto  PYRNTR ERYSGR	Plant Leaf  PYRNTR 1.1- 5.4% ERYSGR 0.8- 5.1%	A: PYRNTR MIXED 100; ER- YSGR MIXED 100 B: PYRNTR MIXED 100; ER- YSGR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 08.05.2021 02.06.2021 Assessment date: 08.05.2021 15.05.2021 22.05.2021 26.06.2021 07.07.2021 05.08.2021
<b>SRPL21-426- 336FE</b>	winter triticales/ ROTONDO  PYRNTR ERYSGR	Plant Leaf  PYRNTR A: 0.4%; B: 1.47% ERYSGR A: 5.3%; B: 7.68%	A: PYRNTR MIXED 100; ER- YSGR MIXED 100 B: PYRNTR MIXED 100; ER- YSGR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 04.05.2021 01.06.2021 Assessment date: 04.05.2021 14.05.2021 25.05.2021 01.06.2021 08.06.2021 22.06.2021 06.07.2021 10.08.2021
<b>SRCZ20-071- 301FE</b>	winter triticales/ Agostino  RHYNSE ERYSGR	Plant Leaf  RHYNSE 2.5- 14.76% ERYSGR 1.2- 5.2%	A: RHYN- SE MIXED 100; ER- YSGR MIXED 100 B: RHYN- SE MIXED 100; ER- YSGR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 18.05.2020 03.06.2020 Assessment date: 18.05.2020 27.05.2020 03.06.2020 10.06.2020



								24.06.2020 08.07.2020 20.07.2020 12.08.2020 16.09.2020
<b>SRCZ20-072-301FE</b>	winter tritcale/ Agostino  GIBBZE SEPTTR RHYNSE	Plant Leaf  GIBBZE 6.9- 81.3% SEPTTR 1.1- 66.0% RHYNSE 0.5- 27.0%	A: GIBBZE PRINFC 100; SEPTTR MIXED 100; RHYNSE MIXED 100 A: GIBBZE MYCELI 100; SEPTTR MIXED 100; RHYNSE MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 22.05.2020 11.06.2020 Assessment date: 22.05.2020 29.05.2020 11.06.2020 19.06.2020 26.06.2020 15.07.2020 24.07.2020 11.08.2020 16.09.2020

Notes:

- 1): Test report number including the year of establishing the trial
- (2): Plant part assessed and criteria for assessment
- (3): efficacy or intended effect
- (4): Relevant conclusions on effectiveness

## Winter rye

Test report (1)	Crop/ cultivar Harmful organism/ weed species or intended use	Assessed part and variable (2) no / m <sup>2</sup>	Untreated BBCH (during application)	Efficacy treatments (3)				Remarks (4)
				Product		Standard (s)		
				name	Dose [L/ha]	name	dose [L/ha]	
A.T/2020/099/ŽO	winter rye/ Serafino  RHYNSE ERYSGR	Plant Leaf  RHYNSE 0.5-4.0% ERYSGR 0.3-3.2%	A: RHYN-SE MIXED 100; ER-YSGR PRINFC 100 B: RHYN-SE MIXED 100; ER-YSGR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 07.05.2020 22.05.2020 Assessment date: 07.05.2020 14.05.2020 22.05.2020 29.05.2020 10.06.2020 22.06.2020 14.08.2020
A.T/2021/047/ŽO	winter rye/ KWS Serafino  RHYNSE PUCCRE	Plant Leaf  RHYNSE 2.8 % PUCCRE 0.3-1.0%	A: RHYN-SE MIXED 100; PUCCRE PRINFC 100 B: RHYN-SE MIXED 100; PUCCRE PRINFC 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 19.04.2021 24.05.2021 Assessment date: 19.04.2021 26.04.2021 05.05.2021 10.05.2021 24.05.2021 31.05.2021 07.06.2021 18.06.2021 30.07.2021
A.T/2021/048/ŽO	winter rye/ KWS Berado  SEPTTR ERYSGR PUCCRE	Plant Leaf  SEPTTR 0.5% ERYSGR 4.0% PUCCRE 5.0-5.9%	A: SEPTTR MIXED 100; ER-YSGR MIXED 100; PUCCRE PRINFC 100 B: SEPTTR MIXED 100; ER-YSGR MIXED 100; PUCCRE PRINFC 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 17.04.2021 24.05.2021 Assessment date: 17.04.2021 23.04.2021 07.05.2021 24.05.2021 31.05.2021 14.06.2021 28.06.2021 08.07.2021 05.08.2021
A.T/2021/049/ŽO	winter rye/ Dańkowskie Diament  RHYNSE	Plant Leaf  RHYNSE 2.5%	A: RHYN-SE MYCE-LI 100 B: RHYN-SE MYCE-LI 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 19.04.2021 20.05.2021 Assessment date: 19.04.2021 26.04.2021 10.05.2021 20.05.2021 27.05.2021 10.06.2021 22.06.2021 28.07.2021

<b>AF/21/ŽO/12/ZI</b>	winter rye/ Dolaro  PuccRR ERYSGR	Plant Leaf  PuccRR 1.7% ERYSGR 6.4%	A: PuccRR MIXED 100; ER- YSGR MIXED 100 B: PuccRR MIXED 100; ER- YSGR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 21.04.2021 20.05.2021 Assessment date: 28.04.2021 06.05.2021 20.05.2021 03.06.2021 22.06.2021 06.07.2021 30.07.2021
<b>AF/21/ŽO/12/Br</b>	winter rye/ Poznańskie  PuccRR ERYSGR	Plant Leaf  PuccRR 1.7% ERYSGR 4.9%	A: PuccRR MIXED 100; ER- YSGR MIXED 100 B: PuccRR MIXED 100; ER- YSGR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 21.04.2021 26.05.2021 Assessment date: 28.04.2021 06.05.2021 26.05.2021 09.06.2021 22.06.2021 06.07.2021 29.07.2021
<b>SRPL20-237-336FE</b>	winter rye/ KWS Dolaro  RHYNSE PUCCRE	Plant Leaf  RHYNSE 1.0-5.6% PUCCRE 1.68-3.14%	A: RHYN- SE MIXED 100; PuccRR MIXED 100 B: RHYN- SE MIXED 100; PuccRR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 15.05.2020 28.05.2020 Assessment date: 15.05.2020 22.05.2020 29.05.2020 05.06.2020 19.06.2020 03.07.2020 30.07.2020
<b>SRPL20-238-336FE</b>	winter rye/ Dańkowskie Skand  ERYSGR RHYNSE PUCCRE	Plant Leaf  ERYSGR 0.2-1.0% RHYNSE 0.22-0.78% PUCCRE 0.2-1.4%	A: ER- YSGR MIXED 100; RHYNSE MIXED 100; PuccRR MIXED 100 B: ER- YSGR MIXED 100; RHYNSE MIXED 100; PuccRR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 15.05.2020 29.05.2020 Assessment date: 15.05.2020 22.05.2020 29.05.2020 05.06.2020 19.06.2020 29.06.2020 13.07.2020 13.08.2020
<b>SRPL21-427-336FE</b>	winter rye/ KWS Jethro  RHYNSE ERYSGR SEPTTR	Plant Leaf  RHYNSE 0.8-6.7% ERYSGR 0.3-6.4% SEPTTR 5.3-44.8%	A: RHYN- SE MIXED 100; ER- YSGR MIXED 100; SEPTTR MIXED 100 B: RHYN- SE MIXED	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 13.05.2021 03.06.2021 Assessment date: 13.05.2021 20.05.2021 03.06.2021 10.06.2021

			100; ER- YSGR MIXED 100; SEPTTR MIXED 100					17.06.2021 08.07.2021 30.07.2021 02.08.2021
<b>SRCZ20-073- 301FE</b>	winter rye/ Herakles  RHYNSE	Plant Leaf  RHYNSE 0.4-11.4%	A: RHYN- SE MIXED 100 B: RHYN- SE MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 18.05.2020 03.06.2020 Assessment date: 18.05.2020 26.05.2020 03.06.2020 12.06.2020 17.06.2020 30.06.2020 16.07.2020 17.08.2020 17.09.2020
<b>SRCZ20-074- 301FE</b>	winter rye/ SU Cossani  RHYNSE PUCCRE	Plant Leaf  RHYNSE 1.9% PUCCRE 0.1-1.2%	A: RHYN- SE MIXED 100; PUCCRR MIXED 100 B: ERHYNSE MIXED 100; PUCCRR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 20.05.2020 04.06.2020 Assessment date: 20.05.2020 28.05.2020 04.06.2020 12.06.2020 25.06.2020 08.07.2020 06.08.2020 17.09.2020

Notes:

- 1): Test report number including the year of establishing the trial
- (2): Plant part assessed and criteria for assessment
- (3): efficacy or intended effect
- (4): Relevant conclusions on effectiveness

Test report (1)	Crop/ cultivar Harmful organism/ weed species or intended use	Assessed part and variable (2) no / m²	Untreated BBCH (during application)	Efficacy treatments (3)				Remarks (4)	
				Product		Standard (s)			
				name	Dose [L/ha]	name	dose [L/ha]		
A.T/2020/101/JJ	spring barley/ RGT Planet  PYRNTE RHYNSE PUCCHD	Plant Leaf  PYRNTE 1.2% RHYNSE 2.6% PUCCHD 0.2-4.9%	A: PYRNTE PRINFC 100; RHYNSE PRINFC 100; PUC- CHD PRINFC 100 B: PYRNTE MIXED 100; RHYNSE MIXED 100; PUC- CHD PRINFC 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 08.05.2020 29.05.2020 Assessment date: 08.05.2020 15.05.2020 22.05.2020 29.05.2020 05.06.2020 16.06.2020 30.06.2020 24.07.2020	
A.T/2020/102/JJ	spring barley/ Quench  RHYNSE COCHSA	Plant Leaf  RHYNSE 0.1-2.2% COCHSA 0.1-2.9%	A: RHYN- SE PRINFC 100; COCHSA MIXED 100 B: RHYN- SE MIXED 100; COCHSA MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 15.05.2020 03.06.2020 Assessment date: 15.05.2020 22.05.2020 03.06.2020 10.06.2020 18.06.2020 08.07.2020 15.07.2020 06.08.2020	
A.T/2020/103/JJ	spring barley/ Propino  PYRNTE	Plant Leaf  PYRNTE 1.0%	A: PYRNTE MIXED 100 B: PYRNTE MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 15.05.2020 02.06.2020 Assessment date: 15.05.2020 22.05.2020 02.06.2020 09.06.2020 23.06.2020 30.06.2020 03.07.2020 07.08.200	
A.T/2020/104/JJ	spring barley/ Ellinor  PYRNTE RHYNSE PUCCHD	Plant Leaf  PYRNTE 0.9% RHYNSE 6.1% PUCCHD 0.2-3.7%	A: PYRNTE MIXED 100; RHYNSE PRINFC 100; PUC- CHD PRINFC 100 B: PYRNTE MIXED 100;	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 21.05.2020 05.06.2020 Assessment date: 21.05.2020 28.05.2020 05.06.2020 12.06.2020 19.06.2020 03.07.2020	

			RHYNSE MIXED 100; PUC- CHD PRINFC 100					29.07.2020
A.T/2020/105/JJ	spring barley/ Laureate  PYRNTE COCHSA	Plant Leaf  PYRNTE 0.3-1.1% COCHSA 0.5-1.4%	A: PYRNTE PRINFC 100; COCHSA MIXED 100 B: PYRNTE MIXED 100; COCHSA MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 22.05.2020 05.06.2020 Assessment date: 22.05.2020 29.05.2020 05.06.2020 12.06.2020 19.06.2020 09.07.2020 05.08.2020
A.T/2020/106/JJ	spring barley/ KWS IRINA  PYRNTE PUCCHD	Plant Leaf  PYRNTE 0.2-6.8% PUCCHD 1.5-4.8%	A: PYRNTE MIXED 100; PUC- CHD PRINFC 100 B: PYRNTE MIXED 100; PUC- CHD PRINFC 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 04.06.2020 18.06.2020 Assessment date: 04.06.2020 11.06.2020 18.06.2020 25.06.2020 08.07.2020 16.07.2020 11.08.2020
A.T/2021/050/JJ	spring barley/ Avatar  PUCCHD ERYSGH PYRNTE	Plant Leaf  PUCCHD 5.6% ERYSGH 8.8-22.4% PYRNTE 3.5-5.7%	A: PUC- CHD MIXED 100; ER- YSGH PRINFC 100; PYRNTE PRINFC 100 B: PUC- CHD MYCELI 100; ER- YSGH PRINFC 100; PYRNTE PRINFC 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 20.05.2021 11.06.2021 Assessment date: 20.05.2021 26.05.2021 08.06.2021 11.06.2021 18.06.2021 28.06.2021 12.07.2021 27.07.2021
A.T/2021/051/JJ	spring barley/ KWS Ver- mont  PYRNTE PUCCHD	Plant Leaf  PYRNTE 13.-1.5% PUCCHD 6.6-11.2%	A: PYRNTE MIXED 100; PUC- CHD PRINFC 100 B: PYRNTE MIXED 100; PUC- CHD PRINFC 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 24.05.2021 14.06.2021 Assessment date: 24.05.2021 31.05.2021 14.06.2021 21.06.2021 05.07.2021 22.07.2021 13.08.2021

<b>AF/20/JJ/23/Br/01</b>	spring barley/ Iron  PYRNTE RHYNSE	Plant Leaf  PYRNTE 2.6-11.9% RHYNSE 13.4%	A: PYRNTE MIXED 100; RHYNSE MIXED 100 B: PYRNTE MIXED 100; RHYNSE MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 27.05.2020 09.06.2020 Assessment date: 03.06.2020 09.06.2020 17.06.2020 23.06.2020 30.06.2020 15.07.2020 31.07.2020 03.08.2020
<b>AF/20/JJ/23/Pr/02</b>	spring barley/ Penguin  RHYNSE	Plant Leaf  RHYNSE 20.3%	A: RHYN- SE MIXED 100 B: RHYN- SE MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 26.05.2020 09.06.2020 Assessment date: 02.06.2020 09.06.2020 17.06.2020 23.06.2020 15.07.2020 31.07.2020 03.08.2021
<b>AF/20/JJ/23/Z1/03</b>	spring barley/ Stratus  PYRNTE RHYNSE	Plant Leaf  PYRNTE 26.6% RHYNSE 20.3%	A: PYRNTE MIXED 100; RHYNSE MIXED 100 B: PYRNTE MIXED 100; RHYNSE MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 08.05.2020 27.05.2020 Assessment date: 18.05.2020 27.05.2020 03.06.2020 10.06.2020 17.06.2020 08.07.2020 22.07.2020 05.08.2020
<b>AF/20/JJ/23/Br/04</b>	spring barley/ Iron  PYRNTE RHYNSE	Plant Leaf  PYRNTE 17.2% RHYNSE 13.1%	A: PYRNTE MIXED 100; RHYNSE MIXED 100 B: PYRNTE MIXED 100; RHYNSE MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 09.06.2020 23.06.2020 Assessment date: 17.06..2020 23.06.2020 30.06.2020 07.07.2020 15.07.2020 31.07.2020 03.08.2020
<b>AF/20/JJ/23/Pr/05</b>	spring barley/ Penguin  RHYNSE	Plant Leaf  RHYNSE 22.9%	A: RHYN- SE MIXED 100 B: RHYN- SE MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 04.06.2020 15.06.2020 Assessment date: 11.06.2020 15.06.2020 22.06.2020 29.06.2020 06.07.2020 15.07.2020 31.07.2020

<b>AF/20/JJ/23/ZI/06</b>	spring barley/ Stratus  PYRNTE ERYSGR	Plant Leaf  PYRNTE 24.7% ERYSGR 22.2%	A: PYRNTE MIXED 100; ER- YSGR MIXED 100 B: PYRNTE MIXED 100; ER- YSGR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 27.05.2020 09.06.2020 Assessment date: 02.06.2020 09.06.2020 16.06.2020 23.06.2020 30.06.2020 08.07.2020 22.07.2020 04.08.2020
<b>SRCZ20-075-301FE</b>	spring barley/ Olympic  ERYSGR	Plant Leaf  ERYSGR 1.1-1.5%	A: ER- YSGR MIXED 100 B: ER- YSGR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 03.06.2020 24.06.2020 Assessment date: 03.06.2020 11.06.2020 24.06.2020 01.07.2020 15.07.2020 28.07.2020 17.08.2020 17.09.2020
<b>SRCZ20-076-301FE</b>	spring barley/ Laudis  PYRNTE RHYNSE PUCCHD	Plant Leaf  PYRNTE 23.1% RHYNSE 1.9% PUCCHD 0.8%	A: PYRNTE MIXED 100; RHYNSE MIXED 100; PUC- CHD MIXED 100 B: PYRNTE MIXED 100; RHYNSE MIXED 100; PUC- CHD MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 22.05.2020 04.06.2020 Assessment date: 22.05.2020 29.05.2020 04.06.2020 13.06.2020 08.07.2020 07.08.2020 18.08.2020 08.09.2020
<b>SRCZ20-077-301FE</b>	spring barley/ KWS Amado- ra  PYRTNE RHYNSE PUCCHD ERYSGR	Plant Leaf  PYRTNE 2.8% RHYNSE 1.1% PUCCHD 1.4% ERYSGR 2.1%	A: PYRNTE MIXED 100; RHYNSE MIXED 100; PUC- CHD MIXED 100 B: PYRNTE MIXED 100; RHYNSE MIXED 100; PUC- CHD MIXED 100; ER-	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 22.05.2020 04.06.2020 Assessment date: 22.05.2020 01.06.2020 04.06.2020 19.06.2020 09.07.2020 31.07.2020 06.08.2020 08.09.2020



			YSGR MIXED 100					
<b>SRCZ20-078-301FE</b>	spring barley/ Overture  ERYSGR	Plant Leaf  ERYSGR 4.9-46.5%	A: ER- YSGR MIXED 100 B: ER- YSGR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 29.05.2020 15.06.2020 Assessment date: 29.05.2020 05.06.2020 15.06.2020 22.06.2020 06.07.2020 15.07.2020 14.08.2020 17.09.2020
<b>SRCZ20-079-301FE</b>	spring barley/ Solist  PYRNTE 3.5% RHYNSE 2.0% PUCCHD 5.6%	Plant Leaf  PYRNTE 3.5% RHYNSE 2.0% PUCCHD 1.6%	A: PYRNTE MIXED 100; RHYNSE MIXED 100; PUC- CHD MIXED 100 B: PYRNTE MIXED 100; RHYNSE MIXED 100; PUC- CHD MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 27.05.2020 09.06.2020 Assessment date: 27.05.2020 03.06.2020 09.06.2020 17.06.2020 03.07.2020 07.08.2020 18.08.2020 18.09.2020
<b>SRCZ20-080-301FE</b>	spring barley/ KWS Iris  PYRTNE RHYNSE PUCCHD ERYSGR	Plant Leaf  PYRTNE 3.3% RHYNSE 1.7% PUCCHD 0.6% ERYSGR 5.3%	A: PYRNTE MIXED 100; RHYNSE MIXED 100; PUC- CHD MIXED 100; ER- YSGR MIXED 100 B: PYRNTE MIXED 100; RHYNSE MIXED 100; PUC- CHD MIXED 100; ER- YSGR MIXED 100	CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC CHR/F/PYRA 250 EC	0.6 0.8 1.0	Makler 250 SE	1.0	Application date: 27.05.2020 15.06.2020 Assessment date: 27.05.2020 04.06.2020 15.06.2020 25.06.2020 09.07.2020 30.07.2020 06.08.2020

Notes:

- 1): Test report number including the year of establishing the trial
- 2): Plant part assessed and criteria for assessment
- 3): efficacy or intended effect
- 4): Relevant conclusions on effectiveness

## Appendix 5: Summary of detailed data on fungicide effectiveness trials

### Winter wheat

Table 1. The efficacy of CHR/F/PYRA in control of SEPTTR *Zymoseptoria tritici*– leaf

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
						Rate (l/ha)		0,6	0,8	1	1	
SEPTTR/Zymoseptoria tritici	AF/20/PO/23/ZI/03	14 DA-A	04.06.2020	21,6	L3	1	0	67,5	79,4	87,5	90,7	10,55
	AF/20/PO/23/ZI/03	14 DA-B	23.06.2020	20,00	L2	1	0	65,0	76,3	85,3	89,4	14,66
	AF/20/PO/23/ZI/03	28 DA-B	07.07.2020	20,30	L1	1	0	52,3	75,4	82,8	90,2	19,23
	AF/20/PO/23/Mr/02	14 DA-A	05.06.2020	26,90	L3	1	0	73,0	82,6	88,4	91,4	16,94
	AF/20/PO/23/Mr/02	6 DA-B	23.06.2020	23,1	L2	1	0	64,9	79,5	87,0	90,0	11,40
	AF/20/PO/23/Mr/02	21 DA-B	08.07.2020	21,3	L1	1	0	63,2	78,2	87,1	90,9	8,60
	AF/20/PO/23/Mr/01	14 DA-A	05.06.2020	21,3	L3	1	0	65,0	78,5	89,7	92,6	9,03
	AF/20/PO/23/Mr/01	6 DA-B	23.06.2020	25	L2	1	0	65,0	76,5	86,0	89,3	14,22
	AF/20/PO/23/Mr/01	21 DA-B	08.07.2020	20,9	L1	1	0	64,2	72,5	86,0	90,4	8,74
	SRPL20-240-336FE	14 DA-A	03.06.2020	5,49	L3	1	0	80,03	90,35	91,62	86,7	3,452
	SRPL20-240-336FE	14 DA-A	03.06.2020	11,35	L4	1	0	78,97	87,26	88,28	82,67	2,712
	SRPL20-240-336FE	14 DA-B	17.06.2020	14,5	L1	1	0	90,83	97,63	98,27	94,33	0,870
	SRPL20-240-336FE	14 DA-B	17.06.2020	23,25	L2	1	0	86,2	94,33	94,49	89,47	1,575
	SRPL20-240-336FE	14 DA-B	17.06.2020	34,69	L3	1	0	81,46	90,27	89,64	84,43	2,020
	SRPL20-240-336FE	28 DA-B	01.07.2020	30,56	L1	1	0	81,58	91,43	93,17	85,89	2,116
	SRPL20-240-336FE	28 DA-B	01.07.2020	38,5	L2	1	0	72,41	85,39	87,17	76,30	3,339
	SRPL20-239-336FE	14 DA-A	03.06.2020	14,9	L3	1	0	63,79	74,49	83,74	86,38	14,308
	SRPL20-239-336FE	14 DA-A	03.06.2020	6,7	L2	1	0	66,81	72,75	78,07	76,91	21,885
	SRPL20-239-336FE	16 DA-B	17.06.2020	19,3	L2	1	0	69,86	77,00	83,58	84,10	12,129
	SRPL20-239-336FE	30 DA-B	01.07.2020	11,6	L1	1	0	63,61	71,58	78,69	79,50	10,604

SRCZ20-069-301FE	0 DA-B	08.06.2020	10,13	L3		0	51,03	67,26	84,63	78,94	6,746
SRCZ20-069-301FE	17 DA-B	25.06.2020	7,19	L2		0	60,38	72,58	85,79	81,29	4,570
SRCZ20-069-301FE	17 DA-B	25.06.2020	37,19	L3		0	57,90	69,62	86,26	84,34	2,269
SRCZ20-069-301FE	29 DA-B	07.07.2020	12,19	L1		0	62,26	76,28	86,55	85,64	3,153
SRCZ20-069-301FE	29 DA-B	07.07.2020	24,69	L2		0	56,12	74,32	87,45	86,11	2,231
SRCZ20-069-301FE	29 DA-B	07.07.2020	45	L3		0	43,71	65,08	81,90	79,00	2,391
SRCZ20-070-301FE	0 DA-B	04.06.2020	5,15	L3		0	90,65	90,78	94,62	92,27	4,981
SRCZ20-070-301FE	0 DA-B	04.06.2020	18,8	L4		0	74,09	86,09	90,85	88,64	2,954
SRCZ20-070-301FE	20 DA-B	24.06.2020	20,38	L2		0	73,06	83,12	86,77	86,72	2,086
SRCZ20-070-301FE	20 DA-B	24.06.2020	41,38	L3		0	61,88	75,87	85,59	80,18	2,413
SRCZ20-070-301FE	34 DA-B	08.07.2020	28,4	L1		0	57,67	78,26	88,54	87,98	4,611
SRCZ20-070-301FE	34 DA-B	08.07.2020	80,88	L2		0	50,30	69,73	86,51	82,47	5,060
SRCZ20-068-301FE	0 DA-B	03.06.2020	5,75	L3		0	71,78	88,60	92,61	89,39	11,584
SRCZ20-068-301FE	0 DA-B	03.06.2020	6,3	L4		0	69,91	80,62	86,60	83,83	2,990
SRCZ20-068-301FE	21 DA-B	24.06.2020	5,18	L2		0	63,29	77,71	86,96	80,26	1,518
SRCZ20-068-301FE	21 DA-B	24.06.2020	43,88	L3		0	57,23	72,24	84,17	81,53	3,398
SRCZ20-068-301FE	21 DA-B	24.06.2020	85	L4		0	53,78	70,72	74,89	69,57	3,110
SRCZ20-068-301FE	28 DA-B	01.07.2020	28,93	L2		0	55,53	68,79	81,04	72,02	4,888
SRCZ20-068-301FE	28 DA-B	01.07.2020	83,13	L3		0	38,67	48,02	64,06	67,79	3,390
SRCZ20-068-301FE	43 DA-B	16.07.2020	36,5	L1		0	48,44	63,08	73,24	70,65	3,444
A.T/2021/042/PO	21 DA-A	10.05.2021	5	L4		0	34,3	80,7	83,2	88,5	6,53
A.T/2021/042/PO	0 DA-B	11.06.2021	7,2	L3		0	62,9	84,3	93,8	92,4	4,70
A.T/2021/042/PO	0 DA-B	11.06.2021	7,1	L4		0	51,0	74,5	91,4	86,4	6,24
A.T/2021/042/PO	19 DA-B	30.06.2021	5,1	L1		0	65,0	76,2	85,7	86,1	6,57
A.T/2021/042/PO	19 DA-B	30.06.2021	14,1	L2		0	10,5	31,3	60,6	56,6	18,48
A.T/2021/042/PO	28 DA-B	09.07.2021	19,8	L1		0	52,6	64,9	90,6	90,0	11,66
A.T/2021/041/PO	21 DA-A	21.06.2021	6,3	L2		0	81,7	100,0	100,0	96,4	2,85
A.T/2021/041/PO	21 DA-A	21.06.2021	22,9	L3		0	80,1	86,0	87,2	86,3	2,95
A.T/2021/041/PO	21 DA-A	21.06.2021	43,9	L4		0	62,0	68,2	69,0	62,8	4,89

A.T/2021/041/PO	14 DA-B	07.07.2021	10	L1		0	96,7	97,8	100,0	100,0	1,31
A.T/2021/041/PO	14 DA-B	07.07.2021	51	L2		0	81,3	88,6	90,3	87,6	1,64
A.T/2021/041/PO	21 DA-B	14.07.2021	13,3	L1		0	83,9	91,8	94,7	97,5	3,05
A.T/2021/040/PO	16 DA-A	06.05.2021	11,9	L4		0	5,9	64,9	71,2	43,5	37,13
A.T/2021/040/PO	0 DA-B	08.06.2021	8,8	L3		0	33,5	61,9	82,6	57,3	29,62
A.T/2021/040/PO	0 DA-B	08.06.2021	23,9	L4		0	46,2	53,8	61,9	57,8	10,68
A.T/2021/040/PO	20 DA-B	28.06.2021	13,4	L2		0	19,6	33,2	65,8	63,4	7,41
A.T/2021/040/PO	20 DA-B	28.06.2021	30	L3		0	12,7	35,5	61,8	66,3	30,35
A.T/2021/040/PO	30 DA-B	08.07.2021	6,5	L1		0	73,5	75,8	98,7	100,0	18,09
A.T/2021/039/PO	21 DA-A	01.06.2021	5,5	L3		0	59,7	82,4	95,3	77,2	12,51
A.T/2021/039/PO	21 DA-A	01.06.2021	17,7	L4		0	43,3	65,2	84,3	81,2	4,6
A.T/2021/039/PO	21 DA-B	30.06.2021	9	L1		0	35,0	68,3	84,2	81,1	24,02
A.T/2021/039/PO	21 DA-B	30.06.2021	67,4	L2		0	53,1	68,8	84,3	82,9	6,13
A.T/2021/039/PO	28 DA-B	07.07.2021	45,6	L1		0	57,6	72,3	86,7	82,2	4,19
A.T/2020/095/PO	14 DA-B	23.06.2020	6,5	L3		0	69,5	75,9	82,6	57,3	0,38
A.T/2020/095/PO	30 DA-B	09.07.2020	5,3	L2		0	67,0	69,3	81,6	65,1	0,66
A.T/2020/094/PO	28 DA-B	23.06.2020	5,8	L2		0	73,70	77,40	81,70	60,90	1,79
SRPL21-421-336FE	0 DA-B	14.06.2021	60,8	L5		0	44,58	32,63	80,17	64,72	28,327
SRPL21-421-336FE	0 DA-B	14.06.2021	5,3	L4		0	61,48	74,57	82,87	93,01	16,483
SRPL21-421-336FE	16 DA-B	30.06.2021	43,1	L4		0	57,17	76,09	88,86	81,88	4,329
Average			23,33			0,00	60,71	74,53	84,88	81,40	
Min.			5,00			0,00	5,90	31,30	60,60	43,50	
Max.			85,00			0,00	96,70	100,00	100,00	100,00	

Table 2. The efficacy of CHR/F/PYRA in control of SEPTTR *Zymoseptoria tritici* – plant

Pest code/name			SEPTTR/Zymoseptoria tritici					
Report code			A.T/2020/095/PO	A.T/2020/095/PO	A.T/2020/094/PO	Average	Min.	Max.
DA-A/B			14 DA-B	30 DA-B	28 DA-B			
date			23.06.2020	09.07.2020	23.06.2020			
% PESSEV			8,8	7,2	9,6	8,53	7,20	9,60
Part assessed			plant P	plant P	plant P			
No.	Name	Rate (l/ha)						
1	Untreated	0	0	0	0	0,00	0,00	0,00
2	CHR/F/PYRA 250 EC	0,6	72,5	67,8	71,80	70,70	67,80	72,50
3	CHR/F/PYRA 250 EC	0,8	78,6	69,9	75,30	74,60	69,90	78,60
4	CHR/F/PYRA 250 EC	1	84,3	81,1	82,20	82,53	81,10	84,30
5	Makler 250 SE	1	64,0	66,1	66,30	65,47	64,00	66,30
1	LSD		0,38	0,83	2,07			

Table 3. The efficacy of CHR/F/PYRA in control of PYRNTR *Pyrenophora tritici-repentis* – leaf

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
						Rate (l/ha)		0,6	0,8	1	1	
PYRNTR/Pyrenophora tritici-repentis	A.T/2020/096/PO	17 DA-B	26.06.2020	6,30	L2		0	62,8	75,5	83,4	65,6	0,89
	A.T/2020/096/PO	17 DA-B	26.06.2020	12,00	L3		0	54,6	58,6	60,7	51,3	1,14
	A.T/2020/096/PO	28 DA-B	07.07.2020	12,40	L1		0	23,6	34,1	57,4	28,7	1,54
	A.T/2020/096/PO	28 DA-B	07.07.2020	42,90	L2		0	61,2	78,1	83,7	72,4	2,49
	AF/20/PO/23/Mr/02	14 DA-A	05.06.2020	19,70	L3		0	69,2	79,7	87,9	90,2	15,06
	AF/20/PO/23/Mr/02	6 DA-B	23.06.2020	20,6	L2		0	68,2	82,1	88,8	93,9	13,93
	AF/20/PO/23/Mr/02	21 DA-B	08.07.2020	20	L1		0	55,6	77,5	84,4	89,7	12,71
	AF/20/PO/23/Mr/01	14 DA-A	05.06.2020	26,3	L3		0	66,2	79,0	87,4	91,7	18,58
	AF/20/PO/23/Mr/01	6 DA-B	23.06.2020	17,8	L2		0	57,9	73,3	83,5	89,1	14,63
	AF/20/PO/23/Mr/01	21 DA-B	08.07.2020	23,4	L1		0	70,1	82,9	87,5	92,5	12,38
	SRPL20-239-336FE	14 DA-A	03.06.2020	5	L3		0	69,99	73,13	82,87	84,14	12,940
	SRPL20-239-336FE	16 DA-B	17.06.2020	10,4	L2		0	64,45	74,22	79,28	79,60	14,247
	SRPL20-239-336FE	30 DA-B	01.07.2020	7,2	L1		0	63,02	68,53	79,11	78,39	15,107
	A.T/2020/094/PO	17 DAB	12.06.2020	5,2	L2		0	68,30	70,80	80,40	53,80	1,59
	A.T/2020/094/PO	17 DAB	12.06.2020	5,7	L3		0	64,10	65,00	68,80	48,20	1,89
	A.T/2020/094/PO	28 DA-B	23.06.2020	6,1	L2		0	49,20	50,80	62,30	11,50	4,02
	SRPL21-422-336FE	0 DA-B	01.06.2021	23,4	L4		0	69,52	75,18	92,72	49,72	1,751
	SRPL21-422-336FE	0 DA-B	01.06.2021	16,5	L3		0	64,21	83,60	91,51	47,66	2,436
	SRPL21-422-336FE	0 DA-B	01.06.2021	8,3	L2		0	52,65	81,16	94,21	50,29	3,508
	SRPL21-422-336FE	0 DA-B	01.06.2021	5,5	L1		0	83,03	94,45	96,30	85,29	1,169
	SRPL21-422-336FE	21 DA-B	22.06.2021	11,6	L2		0	46,93	75,04	83,58	45,64	4,310
	SRPL21-422-336FE	21 DA-B	22.06.2021	6,3	L1		0	75,28	84,46	93,62	64,14	1,453
	SRPL21-422-336FE	35 DA-B	06.07.2021	9,6	L1		0	65,13	82,09	93,49	66,81	1,498
	SRPL21-421-336FE	16 DA-B	30.06.2021	5,1	L4		0	93,89	92,43	92,63	92,74	7,712
	SRPL21-421-336FE	28 DA-B	12.07.2021	5	L1		0	78,63	84,48	87,87	85,55	6,525
	Average			13,29			0,00	63,91	75,05	83,34	68,34	
	Min.			5,00			0,00	23,60	34,10	57,40	11,50	
	Max.			42,90			0,00	93,89	94,45	96,30	93,90	

Table 4. The efficacy of CHR/F/PYRA in control of PYRNTR *Pyrenophora tritici-repentis* – plant

Pest code/name			PYRNTR/Pyrenophora tritici-repentis						
Report code			A.T/2020/096/PO	A.T/2020/096/PO	A.T/2020/094/PO	A.T/2020/094/PO	Average	Min.	Max.
DA-A/B			17 DA-B	28 DA-B	17 DAB	28 DA-B			
date			26.06.2020	07.07.2020	12.06.2020	23.06.2020			
% PESSEV			19,90	55,30	12,2	9,4	24,20	9,40	55,30
Part assessed			plant P	plant P	plant P	plant P			
No.	Name	Rate (l/ha)							
1	Untreated	1	0	0	0	0	0,00	0,00	0,00
2	CHR/F/PYRA 250 EC	0,6	57,5	52,8	64,40	52,50	56,80	52,50	64,40
3	CHR/F/PYRA 250 EC	0,8	65,6	68,3	67,00	55,70	64,15	55,70	68,30
4	CHR/F/PYRA 250 EC	1	69,9	77,8	74,00	66,00	71,93	66,00	77,80
5	Makler 250 SE	1	57,3	62,6	49,50	15,20	46,15	15,20	62,60
1	LSD		1,21	3,22	3,55	4,45			

Table 5. The efficacy of CHR/F/PYRA in control of PUC CST/PUCCSI *Puccinia striiformis tritici*

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
						Rate (l/ha)		0,6	0,8	1	1	
PUC CST, PUCCSI/ <i>Puccinia striiformis tritici</i>	AF/20/PO/23/ZI/03	14 DA-A	04.06.2020	20,6	L3		0	57,6	78,5	87,9	90,9	16,84
	AF/20/PO/23/ZI/03	14 DA-B	23.06.2020	18,10	L2		0	54,0	71,4	85,1	86,7	15,49
	AF/20/PO/23/ZI/03	28 DA-B	07.07.2020	18,10	L1		0	65,9	79,7	89,7	92,4	17,4
	A.T/2021/041/PO	21 DA-A	21.06.2021	13,30	L2		0	96,9	97,1	98,0	98,8	1,38
	A.T/2021/041/PO	21 DA-A	21.06.2021	9,40	L3		0	100,0	100,0	100,0	100,0	
	A.T/2021/041/PO	14 DA-B	07.07.2021	17,5	L1		0	95,3	95,8	98,2	98,3	1,7
	A.T/2021/041/PO	14 DA-B	07.07.2021	29,5	L2		0	69,4	97,4	98,5	95,1	0,92
	A.T/2021/041/PO	21 DA-B	14.07.2021	17,5	L1		0	95,3	95,8	98,2	98,3	1,7
	SRPL21-421-336FE	16 DA-B	30.06.2021	7,6	L3		0	62,73	74,16	84,73	80,70	2,500
	SRPL21-421-336FE	16 DA-B	30.06.2021	5	L2		0	83,86	88,85	93,13	90,36	10,003
	SRPL21-421-336FE	28 DA-B	12.07.2021	5,5	L1		0	62,22	76,36	85,25	77,66	3,647
	SRPL21-424-336FE	21 DA-B	23.06.2021	38,63	L1		0	92,98	100,00	100,00	100,00	1,083
	SRPL21-424-336FE	21 DA-B	23.06.2021	25,5	L2		0	100,00	100,00	100,00	100,00	
	SRPL21-424-336FE	21 DA-B	23.06.2021	8,75	L3		0	100,00	100,00	100,00	100,00	
	SRPL21-424-336FE	35 DA-B	07.07.2021	41,38	L1		0	97,10	100,00	100,00	100,00	0,567
	SRPL21-424-336FE	35 DA-B	07.07.2021	23	L2		0	100,00	100,00	100,00	100,00	
	Average			18,71			0,00	83,33	90,94	94,92	94,33	
	Min.			5,00			0,00	54,00	71,40	84,73	77,66	
	Max.			41,38			0,00	100,00	100,00	100,00	100,00	



Table 6. The efficacy of CHR/F/PYRA in control of PUCCRE/PUCCRT *Puccinia recondita*

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
						Rate (l/ha)		0.6	0.8	1	1	
PUCCRE/Puccinia recondita	A.T/2021/042/PO	19 DA-B	30.06.2021	5,1	L2		0	93,2	97,6	100,0	97,6	2,60
	A.T/2021/042/PO	28 DA-B	09.07.2021	5,3	L1		0	82,5	95,3	100,0	97,2	3,07
	A.T/2021/040/PO	30 DA-B	08.07.2021	5,1	L1		0	78,5	89,8	100,0	100,0	8,21
	A.T/2021/039/PO	28 DA-B	07.07.2021	5,1	L1		0	98,7	100,0	100,0	100,0	1,81
	AF/21/PO/12/Pr	55 DA-A	15.06.2021	14,1	L2		0	53,8	80,9	91,1	93,3	10,15
	AF/21/PO/12/Pr	21 DA-B	06.07.2021	24,4	L1		0	75,6	92,3	96,2	96,9	4,76
	SRCZ20-069-301FE	17 DA-B	25.06.2020	5,94	L1		0	94,21	94,69	97,35	91,07	2,187
	SRPL21-421-336FE	16 DA-B	30.06.2021	5,05	L3		0	87,58	91,1	93,54	92,14	2,138
	SRPL21-422-336FE	21 DA-B	22.06.2021	5,15	L1		0	85,43	89,31	97,56	90,52	1,632
	SRPL21-422-336FE	35 DA-B	06.07.2021	6,6	L1		0	88,62	90,08	95,09	87,41	1,668
	SRPL21-423-336FE	21 DA-A	13.05.2021	7,4	L4		0	31,5	46,4	54,2	52,5	2,92
	SRPL21-423-336FE	0 DA-B	27.05.2021	5,1	L2		0	64,2	72,1	80,3	75,9	2,91
	SRPL21-423-336FE	0 DA-B	27.05.2021	12,3	L3		0	33,6	56,8	72,8	70	1,86
	SRPL21-423-336FE	21 DA-B	17.06.2021	5	L1		0	44,4	63,1	76,7	73,8	2,14
	SRPL21-423-336FE	21 DA-B	17.06.2021	13,8	L2		0	51,8	62,9	74,9	70,2	2,93
	SRPL21-423-336FE	35 DA-B	01.07.2021	11,9	L1		0	44,2	60,9	76	71,2	2,49
	SRPL21-423-336FE	35 DA-B	01.07.2021	22,1	L2		0	51,4	67,8	78,1	75,3	2,50
	Average			9,4			0	68,19	79,48	87,28	84,41	
	Min.			5,0			0	31,50	46,40	54,20	52,50	
	Max.			24,4			0	98,70	100,00	100,00	100,00	

Table 7. The efficacy of CHR/F/PYRA in control of ERYSGR *Blumeria graminis* – leaf

Pest code	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
						Rate (l/ha)		0,6	0,8	1	1	
ERYSGR/ <i>Blumeria graminis</i>	A.T/2021/041/PO	21 DA-A	21.06.2021	7,1	L4		0	29,50	67,10	81,80	19,40	6,89
	A.T/2021/040/PO	16 DA-A	06.05.2021	6,40	L3		0	22,80	62,30	66,00	66,30	18,45
	A.T/2021/040/PO	16 DA-A	06.05.2021	8,50	L4		0	5,00	44,00	47,80	51,40	36,54
	A.T/2021/040/PO	0 DA-B	08.06.2021	6,8	L3		0	0,00	35,00	59,70	49,30	9,83
	A.T/2021/040/PO	0 DA-B	08.06.2021	9,9	L4		0	4,10	23,40	47,30	59,60	22,6
	A.T/2021/040/PO	20 DA-B	28.06.2021	17,5	L2		0	23,50	54,00	82,10	69,80	17,67
	A.T/2021/040/PO	20 DA-B	28.06.2021	23,3	L3		0	24,10	51,90	83,10	71,50	2,63
	A.T/2021/040/PO	30 DA-B	08.07.2021	5,8	L1		0	14,10	51,90	82,70	54,90	19,52
	A.T/2021/039/PO	21 DA-A	01.06.2021	11	L3		0	16,00	27,70	35,70	41,30	11,6
	A.T/2021/039/PO	21 DA-A	01.06.2021	16,2	L4		0	10,80	25,80	32,30	30,90	10,78
	A.T/2021/039/PO	21 DA-B	30.06.2021	16,8	L1		0	29,10	46,70	66,40	65,70	15,75
	A.T/2021/039/PO	21 DA-B	30.06.2021	21,6	L2		0	32,50	44,60	62,50	61,10	4,18
	A.T/2021/039/PO	28 DA-B	07.07.2021	26,3	L1		0	31,90	45,50	63,20	61,80	2,68
	A.T/2020/096/PO	17 DA-B	26.06.2020	5	L3		0	54,00	61,60	73,20	35,90	0,52
	A.T/2020/096/PO	28 DA-B	07.07.2020	5,7	L2		0	62,90	76,40	81,70	47,60	0,64
	A.T/2020/095/PO	14 DA-B	23.06.2020	5,1	L2		0	62,90	66,30	70,20	43,90	0,81
	A.T/2020/095/PO	14 DA-B	23.06.2020	5,2	L3		0	58,7	62,5	64,9	40,4	1,00
	A.T/2020/095/PO	30 DA-B	09.07.2020	5,3	L2		0	60,7	63,5	64,9	42,7	0,59
	A.T/2020/094/PO	0 DA-B	26.05.2020	5,3	L3		0	53,00	63,30	70,80	28,50	1,35
	A.T/2020/094/PO	0 DA-B	26.05.2020	6	L4		0	45,00	58,90	61,20	40,20	1,81
	A.T/2020/094/PO	17 DA-B	12.06.2020	5	L2		0	53,30	65,90	72,80	41,40	1,52
	A.T/2020/094/PO	17 DA-B	12.06.2020	5,3	L3		0	50,80	67,50	70,70	36,30	1,66
	A.T/2020/094/PO	28 DA-B	23.06.2020	8	L2		0	41,60	60,10	66,50	12,30	2,29

AF/21/PO/12/Pr	14 DA-A	05.05.2021	13,8	L3		0	78,6	90,5	97,7	98,2	8,34
AF/21/PO/12/Pr	55 DA-A	15.06.2021	43,8	L2		0	72,1	94,0	98,3	98,0	14,37
AF/21/PO/12/Pr	21 DA-B	06.07.2021	55	L1		0	81,8	96,0	98,8	99,1	8,27
SRPL21-422-336FE	14 DA-A	12.05.2021	5,3	L5		0	78,47	88,55	92,04	90,05	2,895
SRPL21-422-336FE	0 DA-B	01.06.2021	12,4	L4		0	54,46	78,58	91,11	79,99	5,260
SRPL21-422-336FE	0 DA-B	01.06.2021	7,8	L3		0	56,08	72,23	90,33	76,46	2,010
SRPL21-422-336FE	0 DA-B	01.06.2021	5,3	L2		0	79,70	89,46	93,73	87,89	2,557
SRPL21-422-336FE	21 DA-B	22.06.2021	5,1	L2		0	56,21	78,71	91,26	74,18	1,683
SRPL21-421-336FE	0 DA-B	14.06.2021	14,9	L5		0	62,06	81,1	92,43	90,12	3,546
SRPL21-421-336FE	0 DA-B	14.06.2021	5,4	L4		0	54,84	72,08	85,65	81,9	2,248
SRPL21-421-336FE	16 DA-B	30.06.2021	5,7	L4		0	61,55	77,36	86,56	84,11	2,327
SRPL21-423-336FE	21 DA-A	13.05.2021	5,5	L4		0	31,4	45,6	62	61,5	3,04
SRPL21-423-336FE	21 DA-A	13.05.2021	9,4	L5		0	34,7	46,2	62,1	60,6	2,42
SRPL21-423-336FE	0 DA-B	27.05.2021	5,1	L3		0	36,2	54,1	77,6	72,4	2,73
SRPL21-423-336FE	0 DA-B	27.05.2021	13,8	L4		0	36,5	51,7	73,4	70,3	2,82
SRPL21-424-336FE	0 DA-B	02.06.2021	5,43	L3		0	60,54	83,88	100,00	100,00	5,325
SRPL21-424-336FE	21 DA-B	23.06.2021	5,43	L1		0	85,67	91,59	100,00	100,00	4,128
SRPL21-424-336FE	21 DA-B	23.06.2021	7,1	L2		0	54,19	74,19	88,62	88,20	3,635
SRPL21-424-336FE	21 DA-B	23.06.2021	19,25	L3		0	46,10	60,99	77,88	79,93	8,214
Average			11,40			0,00	45,42	63,16	75,41	63,46	
Min.			5,00			0,00	0,00	23,40	32,30	12,30	
Max.			55,00			0,00	85,67	96,00	100,00	100,00	

Table 8. The efficacy of CHR/F/PYRA in control of ERYSGR *Blumeria graminis* – plant

Pest code			ERYSGR/ <i>Blumeria graminis</i>									
Report code			A.T/2020/096/P O	A.T/2020/096/P O	A.T/2020/095/P O	A.T/2020/095/P O	A.T/2020/094/P O	A.T/2020/094/P O	A.T/2020/094/P O	Average	Min.	Max.
DA-A/B			17 DA-B	28 DA-B	14 DA-B	30 DA-B	0 DA-B	17 DA-B	28 DA-B			
date			26.06.2020	07.07.2020	23.06.2020	09.07.2020	26.05.2020	12.06.2020	23.06.2020			
% PESSEV			6	6,4	10,5	6	13,1	11,2	10,3	9,07	6,00	13,10
Part assessed			plant P	plant P	plant P	plant P	plant P	plant P	plant P			
No	Name	Rate (l/ha)										
1	Untreated		0	0	0	0	0	0	0	0,00	0,00	0,00
2	CHR/F/PYRA 250 EC	0,6	52,80	60,70	61,3	60,1	47,30	52,40	42,10	53,81	42,10	61,30
3	CHR/F/PYRA 250 EC	0,8	62,80	73,50	64,9	63,2	60,20	67,10	63,10	64,97	60,20	73,50
4	CHR/F/PYRA 250 EC	1	74,70	80,20	68,0	65,1	65,30	71,80	68,40	70,50	65,10	80,20
5	Makler 250 SE	1	32,20	46,30	42,5	40,7	35,20	37,20	20,50	36,37	20,50	46,30
	LSD		0,71	0,64	1,47	0,60	3,36	2,99	2,77			

## Winter triticale

Table 9. The efficacy of CHR/F/PYRA in control of RHYNSE *Rhynchosporium secalis* – leaf

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part asses- sed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	Makler 250 SE	
						Rate (l/ha)		0.6	0.8	1.0	1.0	
RHYNSE/Rhynchosporium secalis	A.T/2020/098/PŽO	21 DA-B	23.06.2020	11.6	L2		0.00	38.30	66.90	71.20	56.90	1.320
		28 DA-B	30.06.2020	17.7	L2		0.00	43.70	69.70	84.20	73.60	1.530
	A.T/2020/097/PŽO	14 DA-A	22.05.2020	5.3	L4		0.00	28.80	28.80	35.40	16.00	17.620
		18 DA-B	09.06.2020	5.5	L3		0.00	47.30	67.60	78.80	53.60	1.460
		18 DA-B	09.06.2020	8.6	L4		0.00	46.30	52.50	62.00	30.20	1.770
		35 DA-B	26.06.2020	5.2	L1		0.00	68.00	71.50	89.00	67.60	1.730
		35 DA-B	26.06.2020	8.8	L2		0.00	57.50	70.00	83.60	41.30	1.800
		35 DA-B	26.06.2020	8.8	L3		0.00	45.70	71.10	73.60	46.60	0.690
		20 DA-A	11.06.2020	6.8	L3		0.00	74.27	74.24	73.72	61.21	13.278
		20 DA-A	11.06.2020	27.0	L4		0.00	69.36	77.59	87.26	76.27	10.900
	SRCZ20-072-301FE	15 DA-B	26.06.2020	5.0	L1		0.00	86.92	88.83	93.41	89.81	2.200
		15 DA-B	26.06.2020	6.9	L2		0.00	84.05	84.49	84.60	78.42	6.394
		15 DA-B	26.06.2020	11.3	L3		0.00	57.76	69.95	80.00	64.98	22.878
		34 DA-A	15.07.2020	13.5	L1		0.00	69.58	75.97	79.00	77.46	2.356
		34 DA-A	15.07.2020	22.4	L2		0.00	64.75	72.09	78.46	71.58	8.790
		16 DA-A	03.06.2020	6.4	L3		0.00	69.66	74.38	79.19	84.59	4.671
	SRCZ20-071-301FE	16 DA-A	03.06.2020	39.4	L4		0.00	44.18	53.58	62.50	54.60	25.689
		21 DA-B	24.06.2020	9.8	L1		0.00	45.62	63.05	72.60	74.35	32.811
		21 DA-B	24.06.2020	39.9	L2		0.00	69.55	68.50	81.78	66.77	24.678
		21 DA-B	24.06.2020	63.1	L3		0.00	57.33	52.21	76.51	46.77	26.125
		35 DA-B	08.07.2020	34.1	L1		0.00	71.01	74.28	84.60	71.34	8.959
		35 DA-B	08.07.2020	66.8	L2		0.00	64.13	69.34	80.22	71.06	8.528
		47 DA-B	20.07.2020	70.9	L1		0.00	63.46	67.23	67.97	58.44	8.271
		Average		21.5			0.00	59.44	67.99	76.51	62.32	
		Min.		5.0			0.00	28.80	28.80	35.40	16.00	
		Max.		70.9			0.00	86.92	88.83	93.41	89.81	

Table 10. The efficacy of CHR/F/PYRA in control of RHYNSE *Rhynchosporium secalis* – plant

Pest code/name	Report code	DA-A/B	date	% PES-SEV	Part assessed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
						Rate (l/ha)		0.6	0.8	1.0	1.0	
RHYNSE/Rhynchosporium secalis	A.T/2020/098/PZO	21 DA-B	23.06.2020	14.0	plant P		0.00	43.70	69.40	74.60	58.40	1.550
		28 DA-B	30.06.2020	20.0	plant P		0.00	44.30	67.80	83.00	72.30	1.800
	A.T/2020/097/PZO	14 DA-A	22.05.2020	6.7	plant P		0.00	40.90	41.30	48.00	26.40	0.600
		18 DA-B	09.06.2020	15.3	plant P		0.00	47.20	59.50	69.10	40.00	2.320
		35 DA-B	26.06.2020	22.8	plant P		0.00	55.30	70.80	80.90	49.30	2.670
	Average			15.8			0.00	46.28	61.76	71.12	49.28	
	Min.			6.7			0.00	40.90	41.30	48.00	26.40	
	Max.			22.8			0.00	55.30	70.80	83.00	72.30	

Table 11. The efficacy of CHR/F/PYRA in control of ERYSGR *Blumeria graminis* – leaf

Pest code/name	Report code	DA-A/B	date	% PES-SEV	Part asses-sed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
						Rate (l/ha)		0.6	0.8	1.0	1.0	
ERYSGR/ <i>Blumeria graminis</i>	A.T/2021/044/PŽO	20 DA-A	07.05.2021	5.3	L4		0.00	79.10	86.20	94.00	42.90	6.530
		20 DA-A	07.05.2021	6.2	L5		0.00	72.80	77.50	89.80	27.00	5.350
	A.T/2021/045/PŽO	21 DA-A	21.06.2021	6.5	L4		0.00	50.40	77.30	82.30	32.70	9.360
	A.T/2020/098/PŽO	18 DA-A	02.06.2020	5.5	L3		0.00	71.80	78.60	83.20	66.80	1.570
		21 DA-A	23.06.2020	6.1	L2		0.00	63.00	70.00	81.00	54.00	1.290
	A.T/2020/097/PŽO	14 DA-A	22.05.2020	5.6	L4		0.00	54.20	66.20	70.20	18.20	1.510
		18 DA-B	09.06.2020	6.1	L4		0.00	57.10	66.80	83.80	16.20	1.690
	A.T/2021/043/PŽO	18 DA-A	07.05.2021	5.2	L3		0.00	30.40	56.40	93.40	98.30	13.560
		18 DA-A	07.05.2021	7.2	L4		0.00	46.80	59.90	82.40	85.40	14.260
		46 DA-A	04.06.2021	5.8	L3		0.00	13.00	28.90	64.30	67.20	24.090
		46 DA-A	04.06.2021	12.0	L4		0.00	5.10	23.30	42.90	51.00	26.910
		14 DA-B	18.06.2021	5.3	L1		0.00	45.00	76.40	100.00	89.70	25.330
		14 DA-B	18.06.2021	6.0	L2		0.00	46.10	66.50	75.00	45.80	7.800
		14 DA-B	18.06.2021	15.3	L3		0.00	20.00	34.40	62.00	45.50	25.060
		14 DA-B	18.06.2021	33.3	L4		0.00	6.80	35.80	68.70	57.70	26.930
	SRPL21-425-336HE	14 DA-A	22.05.2021	5.2	L4		0.00	90.75	92.22	92.22	91.70	1.626
		14 DA-B	16.06.2021	6.6	L4		0.00	89.81	90.57	92.07	83.01	1.367
		21 DA-B	23.06.2021	8.5	L2		0.00	87.59	88.49	90.56	82.63	1.521
		35 DA-B	07.07.2021	5.1	L1		0.00	69.62	79.40	85.29	84.81	2.202
	SRPL21-426-336FE	21 DA-A	25.05.2021	6.2	L4		0.00	78.22	95.16	95.98	98.58	1.141
		21 DA-A	25.05.2021	5.1	L3		0.00	91.72	94.12	98.04	97.79	0.666
		28 DA-A	01.06.2021	18.6	L4		0.00	77.02	94.49	98.79	73.19	3.164
		28 DA-A	01.06.2021	5.0	L3		0.00	90.48	94.46	96.38	92.89	1.870
		21 DA-B	22.06.2021	8.0	L2		0.00	75.90	92.46	95.91	68.99	6.939
		21 DA-B	22.06.2021	5.6	L1		0.00	89.68	93.71	95.49	94.18	1.066
		35 DA-B	06.07.2021	7.4	L1		0.00	82.69	91.21	94.22	92.90	1.376
	SRCZ20-071-301FE	16 DA-A	03.06.2020	6.9	L3		0.00	77.20	82.10	94.06	91.68	2.679
		16 DA-A	03.06.2020	7.2	L4		0.00	79.78	91.41	97.26	95.56	1.977
		21 DA-B	24.06.2020	6.9	L2		0.00	85.08	94.17	95.37	93.64	1.845
		21 DA-B	24.06.2020	8.1	L3		0.00	83.18	88.17	95.05	93.75	2.164

Product code: CHR/F/PYRA 250 EC  
Product name: Etiuda 250 EC / Fermata 250 EC  
Part B – Section 3 - Core Assessment  
Applicant version

---

Page 160 /205

	Average			8.1			0.00	63.68	75.54	86.32	71.12
	Min.			5.0			0.00	5.10	23.30	42.90	16.20
	Max.			33.3			0.00	91.72	95.16	100.00	98.58



Table 12. The efficacy of CHR/F/PYRA in control of ERYSGR *Blumeria graminis* – plant

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	Makler 250 SE	
						Rate (l/ha)		0.6	0.8	1.0	1.0	
ERYSGR/ <i>Blumeria graminis</i>	A.T/2020/098/PŽO	18 DA-A	02.06.2020	5.5	plant P		0.00	71.80	78.60	83.20	66.80	1.570
		21 DA-A	23.06.2020	6.4	plant P		0.00	64.50	71.50	82.40	55.50	1.270
	A.T/2020/097/PŽO	14 DA-A	22.05.2020	5.6	plant P		0.00	54.20	66.20	70.20	18.20	1.510
		18 DA-B	09.06.2020	6.1	plant P		0.00	57.10	66.80	83.80	16.20	1.690
	Average			5.9			0.00	61.90	70.78	79.90	39.18	
	Min.			5.5			0.00	54.20	66.20	70.20	16.20	
	Max.			6.4			0.00	71.80	78.60	83.80	66.80	

Table 13. The efficacy of CHR/F/PYRA in control of PUC CST *Puccinia striiformis*

Pest code/name	Report code	DA-A/B	date	% PES-SEV	Part assessed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
						Rate (l/ha)		0.6	0.8	1.0	1.0	
PUC CST/ <i>Puccinia striiformis</i>	A.T/2021/045/PŽO	21 DA-A	21.06.2021	6.1	L3		0.00	73.90	87.50	93.40	87.80	2.670
		21 DA-A	21.06.2021	6.3	L4		0.00	81.50	88.80	92.00	88.40	3.640
		14 DA-B	07.07.2021	5.6	L2		0.00	77.20	98.20	99.10	100.00	4.430
	A.T/2021/044/PŽO	48 DA-A	04.06.2021	6.2	L4		0.00	68.50	81.40	92.00	90.30	5.800
		19 DA-B	23.06.2021	5.0	L2		0.00	66.10	94.90	99.00	100.00	4.130
		19 DA-B	23.06.2021	10.2	L3		0.00	78.70	83.70	94.60	98.40	8.400
		34 DA-B	08.07.2021	5.0	L2		0.00	66.10	94.90	98.00	99.50	4.000
	A.T/2021/043/PŽO	18 DA-A	07.05.2021	5.8	L4		0.00	66.70	76.20	80.90	82.30	16.050
		18 DA-A	07.05.2021	30.6	L1		0.00	24.50	52.90	74.50	84.80	9.680
		46 DA-A	04.06.2021	21.8	L2		0.00	18.60	66.50	81.90	87.00	9.770
		46 DA-A	04.06.2021	10.5	L3		0.00	45.00	65.60	83.50	82.20	13.520
		46 DA-A	04.06.2021	5.0	L4		0.00	33.40	38.90	57.70	62.90	16.530
		14 DA-B	18.06.2021	32.0	L1		0.00	24.50	55.90	81.00	86.30	10.350
		14 DA-B	18.06.2021	25.0	L2		0.00	26.60	56.20	86.20	87.50	19.970
		14 DA-B	18.06.2021	21.9	L3		0.00	12.40	50.50	83.60	79.30	13.210
		14 DA-B	18.06.2021	6.0	L4		0.00	19.80	41.60	77.40	65.50	36.890
	Average			12.7			0.00	48.97	70.86	85.93	86.39	
	Min.			5.0			0.00	12.40	38.90	57.70	62.90	
	Max.			32.0			0.00	81.50	98.20	99.10	100.00	

Table 14. The efficacy of CHR/F/PYRA in control of PYRNTR *Pyrenophora tritici-repentis* – leaf

Pest code/name	Report code	DA-A/B	date	% PES-SEV	Part assessed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PY RA 250 EC	CHR/F/PY RA 250 EC	CHR/F/PY RA 250 EC	Makler 250 SE	
						Rate (l/ha)		0.6	0.8	1.0	1.0	
PYRNTR/Pyrenophora tritici-repentis	A.T/2021/045/PŽO	19 DA-A	21.06.2021	9.0	L3		0.00	56.60	69.60	83.50	79.40	10.460
		14 DA-B	07.07.2021	8.0	L1		0.00	49.40	66.10	82.40	79.90	7.850
		21 DA-B	14.07.2021	11.6	L1		0.00	68.60	76.10	82.80	82.50	3.050
	A.T/2021/044/PŽO	20 DA-A	07.05.2021	11.6	L5		0.00	45.00	68.00	80.50	76.80	3.850
		48 DA-A	04.06.2021	6.0	L4		0.00	58.00	62.70	81.30	71.50	7.580
		19 DA-B	23.06.2021	7.2	L2		0.00	74.00	78.00	87.30	80.70	6.170
		19 DA-B	23.06.2021	10.0	L3		0.00	69.00	76.90	82.90	75.60	4.290
		34 DA-B	08.07.2021	8.4	L1		0.00	79.00	85.00	85.30	81.20	5.550
		34 DA-B	08.07.2021	36.7	L2		0.00	71.20	75.10	84.60	82.40	7.270
		21 DA-B	23.06.2020	5.3	L1		0.00	68.20	76.30	84.40	86.30	0.600
	A.T/2020/098/PŽO	21 DA-B	23.06.2020	6.3	L2		0.00	41.40	53.40	72.90	68.10	0.450
		28 DA-B	30.06.2020	5.5	L1		0.00	53.00	77.20	83.60	77.60	1.350
		21 DA-A	10.05.2021	5.5	L4		0.00	61.60	72.20	80.70	76.90	5.990
	A.T/2021/046/PŽO	49 DA-A	07.06.2021	13.2	L4		0.00	55.30	71.70	94.50	84.10	4.780
		21 DA-B	28.06.2021	6.0	L1		0.00	61.60	74.60	82.70	80.70	5.970
		21 DA-B	28.06.2021	9.2	L2		0.00	62.50	78.00	88.50	84.90	8.000
		21 DA-B	28.06.2021	9.5	L3		0.00	62.60	74.20	83.10	81.60	3.710
		31 DA-B	08.07.2021	16.3	L1		0.00	45.80	74.50	81.50	71.50	16.420
		31 DA-B	08.07.2021	48.1	L2		0.00	68.40	69.90	87.50	86.00	5.850
		14 DA-B	16.06.2021	5.1	L4		0.00	82.28	86.20	89.17	65.51	2.309
	SRPL21-425-336HE	21 DA-B	23.06.2021	8.3	L2		0.00	89.46	90.34	92.15	87.34	0.887
		21 DA-B	23.06.2021	7.0	L1		0.00	86.09	89.98	89.25	87.11	1.536
		35 DA-B	07.07.2021	10.1	L1		0.00	79.72	83.72	84.71	85.40	1.295
		28 DA-A	01.06.2021	5.1	L4		0.00	76.28	88.96	97.88	64.25	8.391
	SRPL21-426-336FE	21 DA-B	22.06.2021	8.8	L2		0.00	79.13	92.57	96.86	87.42	2.725
		21 DA-B	22.06.2021	5.0	L1		0.00	87.46	92.50	96.93	92.46	1.720
		35 DA-B	06.07.2021	6.6	L1		0.00	60.71	89.07	95.47	90.93	1.555
	Average			10.7			0.00	66.38	77.51	86.39	80.30	
	Min.			5.0			0.00	41.40	53.40	72.90	64.25	
	Max.			48.1			0.00	89.46	92.57	97.88	92.46	

**Table 15. The efficacy of CHR/F/PYRA in control of PYRNTR *Pyrenophora tritici-repentis* – plant**

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part asses- sed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PY RA 250 EC	CHR/F/PY RA 250 EC	CHR/F/PY RA 250 EC	Makler 250 SE	
						Rate (l/ha)		0.6	0.8	1.0	1.0	
PYRNTR/Pyrenophora tritici-repentis	A.T/2020/098/PŽO	21 DA-B	23.06.2020	11.6	plant P		0.00	53.70	63.90	78.10	76.40	0.630
		28 DA-B	30.06.2020	9.4	plant P		0.00	48.30	68.70	80.10	72.90	1.510
	Average			10.5		0.00	51.00	66.30	79.10	74.65		
	Min.			9.4		0.00	48.30	63.90	78.10	72.90		
	Max.			11.6		0.00	53.70	68.70	80.10	76.40		

## Winter rye

Table 16. The efficacy of CHR/F/PYRA in control of RHYNSE *Rhynchosporium secalis* – leaf

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	Makler 250 SE	
						Rate (l/ha)		0.6	0.8	1.0	1.0	
RHYNSE/Rhynchosporium secalis	A.T/2020/099/ŽO	19 DA-B	10.06.2020	5.8	L3		0.00	68.70	72.20	79.10	47.80	0.770
		19 DA-B	10.06.2020	5.4	L4		0.00	70.60	79.00	82.70	77.60	0.530
		31 DA-B	22.06.2020	5.7	L2		0.00	71.50	78.90	82.90	69.30	0.890
		31 DA-B	22.06.2020	7.0	L3		0.00	70.80	76.90	81.50	66.90	0.810
	A.T/2021/047/ŽO	21 DA-A	10.05.2021	5.9	L4		0.00	76.50	85.70	93.00	74.60	8.970
		21 DA-A	10.05.2021	13.1	L5		0.00	56.30	64.60	81.70	46.90	18.250
		0 DA-B	24.05.2021	11.2	L4		0.00	57.00	80.20	82.40	55.40	13.620
		14 DA-B	07.06.2021	5.9	L2		0.00	58.10	80.80	88.50	72.30	18.400
		14 DA-B	07.06.2021	12.1	L3		0.00	65.80	86.90	89.60	78.30	5.050
		25 DA-B	18.06.2021	7.6	L1		0.00	59.50	80.30	86.20	63.10	17.750
		25 DA-B	18.06.2021	20.6	L2		0.00	50.60	69.80	76.70	52.90	20.250
		21 DA-A	10.05.2021	5.3	L4		0.00	77.50	87.30	89.20	88.60	6.700
	A.T/2021/049/ŽO	0 DA-B	20.05.2021	6.5	L3		0.00	72.70	88.90	93.40	97.00	10.270
		0 DA-B	20.05.2021	8.9	L4		0.00	35.20	63.40	92.10	75.10	18.880
		21 DA-B	10.06.2021	14.3	L1		0.00	50.30	74.40	95.30	75.90	3.870
		21 DA-B	10.06.2021	34.4	L2		0.00	62.70	71.60	86.30	77.60	5.460
		21 DA-B	10.06.2021	45.8	L3		0.00	64.50	72.90	82.90	70.50	3.510
		33 DA-B	22.06.2021	18.3	L1		0.00	37.70	82.80	92.90	65.20	6.070
		14 DA-A	29.05.2020	5.7	L3		0.00	52.66	67.18	72.86	73.42	11.105
	SRPL20-237-336FE	22 DA-B	19.06.2020	8.7	L1		0.00	50.15	65.82	71.63	72.50	9.586
		22 DA-B	19.06.2020	30.8	L2		0.00	62.87	67.80	81.83	80.25	6.679
		36 DA-B	03.07.2020	33.3	L1		0.00	43.46	67.25	79.10	77.01	9.857
		15 DA-A	04.06.2020	7.3	L3		0.00	60.48	73.78	88.68	89.62	1.961
	SRCZ20-074-301FE	21 DA-B	25.06.2020	16.7	L1		0.00	68.88	83.14	87.97	85.83	2.354
		21 DA-B	25.06.2020	24.9	L2		0.00	66.14	75.46	88.89	86.56	2.358
		34 DA-B	08.07.2020	26.1	L1		0.00	66.32	81.43	89.70	85.94	2.422
		34 DA-B	08.07.2020	59.4	L2		0.00	54.89	82.03	83.68	81.93	2.723
		14 DA-A	29.05.2020	9.7	L4		0.00	37.58	78.26	72.32	91.19	12.886
	SRPL20-238-336FE	14 DA-A	29.05.2020	5.0	L3		0.00	70.10	75.70	86.10	89.80	17.890
		21 DA-B	19.06.2020	8.5	L2		0.00	48.90	74.20	80.10	83.40	16.670

		21 DA-B	19.06.2020	6.4	L1		0.00	41.70	55.60	72.50	69.80	22.040
	SRPL21-427-336FE	21 DA-A	03.06.2021	30.1	L4		0.00	83.42	91.15	92.52	89.80	2.976
		21 DA-A	03.06.2021	12.7	L3		0.00	74.58	88.43	91.34	85.03	8.924
		21 DA-A	03.06.2021	5.2	L2		0.00	78.37	90.27	91.66	85.77	10.130
		14 DA-B	17.06.2021	50.1	L3		0.00	32.03	50.14	78.30	68.22	6.906
		14 DA-B	17.06.2021	15.1	L2		0.00	65.35	73.16	78.00	72.86	14.104
		14 DA-B	17.06.2021	5.2	L1		0.00	75.63	84.41	88.57	86.15	15.021
		35 DA-B	08.07.2021	9.7	L1		0.00	62.99	75.30	80.95	80.46	5.616
	SRCZ20-073-301FE	0 DA-B	03.06.2020	11.8	L4		0.00	61.26	76.56	85.53	86.28	2.673
		14 DA-B	17.06.2020	6.8	L1		0.00	78.01	88.29	92.20	91.02	3.140
		14 DA-B	17.06.2020	16.0	L2		0.00	59.24	82.81	89.77	88.28	5.563
		14 DA-B	17.06.2020	31.9	L3		0.00	62.94	75.38	86.28	85.43	1.934
		27 DA-B	30.06.2020	9.5	L1		0.00	62.44	73.09	85.29	84.08	2.870
		27 DA-B	30.06.2020	26.6	L2		0.00	61.62	76.85	87.88	86.04	5.688
		27 DA-B	30.06.2020	81.4	L3		0.00	35.49	51.25	65.81	67.24	4.393
		43 DA-B	16.07.2020	21.5	L1		0.00	54.67	64.39	78.08	73.82	4.117
	Average			17.6			0.00	60.40	75.78	84.43	77.23	
	Min.			5.0			0.00	32.03	50.14	65.81	46.90	
	Max.			81.4			0.00	83.42	91.15	95.30	97.00	

Table 17. The efficacy of CHR/F/PYRA in control of RHYNSE *Rhynchosporium secalis* – plant

Pest code/name	Report code	DA-A/B	date	% PES-SEV	Part assessed	No.	1	2	3	4	5	
						Name	Untreated	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	LSD
						Rate (l/ha)		0.6	0.8	1.0	1.0	
RHYNSE/Rhynchosporium secalis	A.T/2020/099/Z O	0 DA-B	22.05.2020	8.9	plant P		0.00	78.20	84.50	86.70	75.10	0.780
		19 DA-B	10.06.2020	12.9	plant P		0.00	69.60	75.40	81.00	60.70	1.090
		31 DA-B	22.06.2020	13.9	plant P		0.00	71.40	77.80	82.00	68.10	0.760
	Average			11.9			0.00	73.07	79.23	83.23	67.97	
	Min.			8.9			0.00	69.60	75.40	81.00	60.70	
	Max.			13.9			0.00	78.20	84.50	86.70	75.10	

Table 18. The efficacy of CHR/F/PYRA in control of PUCCRE *Puccinia recondita*

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	Makler 250 SE	
						Rate (l/ha)		0.6	0.8	1.0	1.0	
PUCCRE/ <i>Puccinia recondita</i>	AF/21/ŽO/12/Br	14 DA-B	09.06.2021	9.1	L3		0.00	68.30	85.50	93.10	93.10	41.610
		41 DA-B	06.07.2021	21.9	L3		0.00	73.40	88.60	96.90	95.70	15.770
	AF/21/ŽO/12/ZI	14 DA-B	03.06.2021	15.3	L3		0.00	73.90	85.30	94.70	94.30	8.240
		47 DA-B	06.07.2021	23.8	L3		0.00	68.20	82.40	91.60	94.70	8.350
	A.T/2021/047/ŽO	25 DA-B	18.06.2021	6.0	L1		0.00	88.50	90.70	98.60	87.60	7.470
		25 DA-B	18.06.2021	8.2	L2		0.00	82.70	90.10	92.40	88.60	7.580
	A.T/2021/048/ŽO	35 DA-B	28.06.2021	5.9	L1		0.00	89.80	97.30	100.00	100.00	2.260
		35 DA-B	28.06.2021	5.0	L2		0.00	100.00	100.00	100.00	100.00	!
	SRPL20-237-336FE	22 DA-B	19.06.2020	5.0	L1		0.00	86.10	88.71	89.57	88.21	6.057
		22 DA-B	19.06.2020	5.7	L2		0.00	77.30	82.53	86.47	81.10	8.354
		36 DA-B	03.07.2020	8.4	L1		0.00	54.14	62.57	81.60	77.53	9.899
	SRCZ20-074-301FE	21 DA-B	25.06.2020	5.6	L1		0.00	94.31	94.92	98.11	99.06	4.223
		21 DA-B	25.06.2020	11.3	L2		0.00	67.78	89.93	92.16	88.46	3.683
		21 DA-B	25.06.2020	5.4	L3		0.00	94.53	95.62	98.37	98.74	2.168
		34 DA-B	08.07.2020	13.3	L1		0.00	75.29	83.50	91.76	89.78	2.090
		34 DA-B	08.07.2020	19.8	L2		0.00	75.37	88.21	92.20	91.02	1.965
	SRPL20-238-336FE	21 DA-B	19.06.2020	6.3	L2		0.00	60.50	60.40	80.20	71.70	16.070
		21 DA-B	19.06.2020	5.0	L1		0.00	55.20	68.80	85.90	77.80	20.790
	Average			10.1			0.00	76.96	85.28	92.42	89.86	
	Min.			5.0			0.00	54.14	60.40	80.20	71.70	
	Max.			23.8			0.00	100.00	100.00	100.00	100.00	



Table 19. The efficacy of CHR/F/PYRA in control of SEPTTR *Zymoseptoria tritici*

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	
						Rate (l/ha)		0.6	0.8	1.0	1.0	
SEPTTR/ <i>Zymoseptoria tritici</i>	A.T/2021/048/ŽO	0 DA-B	24.05.2021	5.7	L4		0.00	68.80	76.90	82.20	86.80	3.390
		21 DA-B	14.06.2021	5.4	L2		0.00	69.40	73.50	81.50	84.30	3.070
		21 DA-B	14.06.2021	10.1	L3		0.00	64.10	70.40	80.40	80.40	3.610
		35 DA-B	28.06.2021	16.2	L2		0.00	63.50	68.60	80.80	79.80	3.480
	SRPL20-238-336FE	21 DA-B	19.06.2020	16.9	L2		0.00	65.60	77.10	85.80	78.90	3.060
		21 DA-B	19.06.2020	7.3	L1		0.00	60.30	76.40	85.90	83.00	5.830
	SRPL21-427-336FE	21 DA-A	03.06.2021	44.5	L4		0.00	41.67	58.77	78.12	63.99	11.702
		21 DA-A	03.06.2021	5.3	L3		0.00	54.65	71.80	80.23	74.47	10.671
		14 DA-B	17.06.2021	5.1	L3		0.00	54.23	66.47	80.13	82.97	14.513
		35 DA-B	08.07.2021	54.5	L1		0.00	51.03	76.84	79.72	88.02	12.828
	Average			17.1			0.00	59.33	71.68	81.48	80.27	
	Min.			5.1			0.00	41.67	58.77	78.12	63.99	
	Max.			54.5			0.00	69.40	77.10	85.90	88.02	

Table 20. The efficacy of CHR/F/PYRA in control of ERYSGR *Blumeria graminis* – leaf

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	Makler 250 SE	
						Rate (l/ha)		0.6	0.8	1.0	1.0	
ERYSGR/ <i>Blumeria graminis</i>	AF/21/ŽO/12/Br	14 DA-B	09.06.2021	22.5	L3		0.00	70.30	88.30	96.90	96.10	9.300
		41 DA-B	06.07.2021	45.3	L3		0.00	82.20	93.70	98.30	97.90	10.600
	AF/21/ŽO/12/Zi	15 DA-A	06.05.2021	6.4	L3		0.00	39.20	66.70	85.30	89.20	21.000
		14 DA-B	03.06.2021	27.5	L3		0.00	69.30	87.50	95.00	93.90	12.800
		47 DA-A	06.07.2021	45.3	L3		0.00	66.20	83.20	92.70	90.60	15.550
	A.T/2020/099/ŽO	0 DA-B	22.05.2020	5.0	L3		0.00	66.80	70.90	76.40	44.20	0.320
		19 DA-B	10.06.2020	5.6	L3		0.00	76.30	76.80	80.40	39.70	0.830
		19 DA-B	10.06.2020	5.9	L4		0.00	70.80	77.50	79.70	36.40	0.710
		31 DA-B	22.06.2020	5.4	L2		0.00	66.70	68.50	72.70	31.50	1.210
		31 DA-B	22.06.2020	8.3	L3		0.00	60.50	63.60	69.90	29.20	1.700
	A.T/2021/048/ŽO	20 DA-A	07.05.2021	5.3	L4		0.00	63.60	70.30	77.30	13.20	4.360
		0 DA-B	24.05.2021	5.0	L3		0.00	64.60	75.00	89.60	14.60	29.300
		0 DA-B	24.05.2021	5.8	L4		0.00	59.40	70.70	72.50	14.70	6.480
	SRPL20-238-336FE	14 DA-A	29.05.2020	5.2	L4		0.00	73.60	85.90	86.40	86.20	3.820
		14 DA-A	29.05.2020	6.6	L3		0.00	82.52	92.61	96.54	95.82	1.670
	SRPL21-427-336FE	21 DA-A	03.06.2021	5.8	L4		0.00	83.40	89.17	96.06	90.46	1.810
		21 DA-A	03.06.2021	6.8	L3		0.00	72.55	85.36	94.47	89.44	2.611
	Average			12.8			0.00	68.70	79.16	85.89	61.95	
	Min.			5.0			0.00	39.20	63.60	69.90	13.20	
	Max.			45.3			0.00	83.40	93.70	98.30	97.90	

Table 21. The efficacy of CHR/F/PYRA in control of ERYSGR *Blumeria graminis* – plant

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	
						Name	Untreated	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	Makler 250 SE	LSD
						Rate (l/ha)		0.6	0.8	1.0	1.0	
ERYSGR/Blumeria graminis		0 DA-B	22.05.2020	5.3	plant P		0.00	68.60	72.40	77.60	45.70	0.370
	A.T/2020/099/ZO	19 DA-B	10.06.2020	13.4	plant P		0.00	72.30	76.00	78.80	38.60	0.930
		31 DA-B	22.06.2020	14.9	plant P		0.00	63.00	65.70	70.90	30.00	1.990
	Average			11.2			0.00	67.97	71.37	75.77	38.10	
	Min.			5.3			0.00	63.00	65.70	70.90	30.00	
	Max.			14.9			0.00	72.30	76.00	78.80	45.70	

## Spring barley

Table 22. The efficacy of CHR/F/PYRA in control of PYRNTE *Pyrenophora teres* – leaf

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	Makler 250 SE	
						Rate (l/ha)		0.6	0.8	1.0	1.0	
PYRNTE/ <i>Pyrenophora teres</i>	A.T/2020/106/JJ	0 DA-B	18.06.2020	5.3	L3		0.00	70.50	75.70	91.90	78.60	2.870
		20 DA-B	08.07.2020	26.1	L1		0.00	50.80	68.80	90.50	82.90	2.910
		20 DA-B	08.07.2020	29.3	L2		0.00	59.60	72.90	81.60	79.60	2.170
		20 DA-B	08.07.2020	48.5	L3		0.00	48.10	73.20	81.80	75.70	3.350
		28 DA-B	16.07.2020	37.0	L1		0.00	56.40	57.20	69.70	63.90	4.320
		28 DA-B	16.07.2020	36.6	L2		0.00	48.50	49.20	59.00	57.90	1.850
	A.T/2020/105/JJ	14 DA-B	19.06.2020	6.9	L4		0.00	78.60	85.10	90.40	86.80	0.440
		34 DA-B	09.07.2020	9.5	L3		0.00	77.40	83.90	85.00	78.90	0.590
	A.T/2020/104/JJ	28 DA-B	03.07.2020	7.5	L2		0.00	79.60	90.90	92.70	80.50	1.450
		28 DA-B	03.07.2020	7.4	L3		0.00	79.00	92.19	93.50	79.20	1.100
	A.T/2020/103/JJ	21 DA-B	23.06.2020	7.9	L2		0.00	88.30	92.40	97.10	86.30	2.920
		21 DA-B	23.06.2020	12.1	L3		0.00	65.70	71.10	81.60	57.60	1.900
		28 DA-B	30.06.2020	8.3	L2		0.00	42.00	62.50	71.50	77.20	1.160
		28 DA-B	30.06.2020	11.3	L3		0.00	55.40	64.50	73.10	68.70	1.010
	A.T/2020/101/JJ	32 DA-B	30.06.2020	6.2	L1		0.00	61.50	78.00	80.80	76.70	1.060
		32 DA-B	30.06.2020	9.4	L2		0.00	72.20	79.90	80.60	80.90	1.280
		32 DA-B	30.06.2020	8.5	L3		0.00	69.70	71.90	75.80	63.70	1.700
	A.T/2021/050/JJ	17 DA-B	28.06.2021	5.7	L3		0.00	34.40	69.30	84.00	78.30	9.080
	A.T/2021/051/JJ	21 DA-B	05.07.2021	5.8	L4		0.00	60.50	74.70	82.20	84.00	13.510
		38 DA-B	22.07.2021	10.4	L1		0.00	8.30	78.40	86.20	81.00	10.360
		38 DA-B	22.07.2021	15.5	L2		0.00	17.20	31.10	71.80	69.60	7.270
	AF/20/JJ/23/ZI/06	13 DA-A	09.06.2020	24.7	L3		0.00	63.30	82.30	89.40	92.90	20.410
		21 DA-B	30.06.2020	24.4	L2		0.00	61.50	78.50	92.40	95.10	17.320
		29 DA-B	08.07.2020	37.5	L1		0.00	69.70	82.50	91.70	94.30	15.170

	AF/20/JJ/23/Br/04	14 DA-A	23.06.2020	17.2	L3		0.00	60.40	74.90	89.10	95.60	13.300
		14 DA-A	23.06.2020	17.5	L2		0.00	60.00	77.90	90.40	93.60	17.450
		22 DA-B	15.07.2020	17.2	L1		0.00	58.20	76.70	86.20	89.10	10.880
	AF/20/JJ/23/Zł/03	21 DA-B	17.06.2020	25.0	L2		0.00	76.50	81.50	89.50	93.30	16.660
		19 DA-A	27.06.2020	26.6	L3		0.00	61.20	86.60	91.80	96.20	22.550
		42 DA-A	08.07.2020	40.6	L1		0.00	70.00	81.50	89.20	82.80	9.890
	AF/20/JJ/23/Br/01	13 DA-A	09.06.2020	11.9	L3		0.00	63.20	75.30	91.60	88.90	10.210
		14 DA-B	23.06.2020	13.1	L2		0.00	53.80	69.00	85.70	87.60	11.690
		36 DA-B	15.07.2020	11.9	L1		0.00	49.50	64.70	79.50	84.70	21.470
	SRCZ20-076-301FE	13 DA-A	04.06.2020	6.4	L3		0.00	56.75	77.19	89.14	87.38	3.106
		13 DA-A	04.06.2020	20.6	L4		0.00	67.12	76.19	86.61	83.06	4.959
		34 DA-B	08.07.2020	27.5	L1		0.00	66.94	77.70	85.73	85.11	3.770
		34 DA-B	08.07.2020	32.5	L2		0.00	72.76	82.22	88.00	86.97	4.648
		34 DA-B	08.07.2020	39.4	L3		0.00	72.13	82.34	90.63	92.23	2.492
	SRCZ20-077-301FE	13 DA-A	04.06.2020	5.0	L4		0.00	74.55	89.82	87.50	89.98	7.528
		13 DA-A	04.06.2020	5.5	L5		0.00	72.79	85.67	91.49	90.86	2.758
		35 DA-B	09.07.2020	29.7	L1		0.00	68.10	79.98	86.39	86.30	4.715
		35 DA-B	09.07.2020	23.4	L2		0.00	71.41	81.76	90.45	89.46	2.376
		35 DA-B	09.07.2020	34.1	L5		0.00	59.66	67.81	86.82	85.78	3.504
	SRCZ20-079-301FE	13 DA-A	09.06.2020	13.8	L5		0.00	46.52	53.70	66.43	72.66	20.724
		24 DA-A	03.07.2020	25.0	L1		0.00	65.94	77.46	86.25	84.10	2.555
		24 DA-A	03.07.2020	29.4	L2		0.00	69.31	81.81	89.36	86.94	3.403
		24 DA-A	03.07.2020	30.3	L3		0.00	52.55	75.71	84.20	80.72	2.957
	SRCZ20-080-301FE	24 DA-B	09.07.2020	12.5	L1		0.00	71.96	79.90	87.94	86.98	1.153
		24 DA-B	09.07.2020	25.6	L2		0.00	83.95	89.43	90.88	91.33	1.963
		24 DA-B	09.07.2020	24.4	L3		0.00	89.95	94.59	95.87	95.06	1.045
	Average			19.4			0.00	62.67	76.15	85.42	83.14	
	Min.			5.0			0.00	8.30	31.10	59.00	57.60	
	Max.			48.5			0.00	89.95	94.59	97.10	96.20	

Table 23. The efficacy of CHR/F/PYRA in control of PYRNTE *Pyrenophora teres* – plant

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	
						Name	Untreated	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	Makler 250 SE	LSD
						Rate (l/ha)		0.6	0.8	1.0	1.0	
PYRNTE/ <i>Pyrenophora teres</i>	A.T/2020/106/JJ	0 DA-B	18.06.2020	6.8	plant P		0.00	71.70	77.20	93.40	79.40	2.870
		20 DA-B	08.07.2020	96.5	plant P		0.00	48.30	69.90	82.70	76.90	4.530
		28 DA-B	16.07.2020	73.6	plant P		0.00	52.50	53.20	64.40	60.90	4.980
	A.T/2020/105/JJ	14 DA-B	19.06.2020	10.8	plant P		0.00	80.60	86.70	91.00	86.90	0.990
		34 DA-B	09.07.2020	14.4	plant P		0.00	78.80	84.40	87.10	79.90	1.290
	A.T/2020/104/JJ	28 DA-B	03.07.2020	17.6	plant P		0.00	78.40	91.10	93.30	80.80	2.360
	A.T/2020/103/JJ	21 DA-B	23.06.2020	20.7	plant P		0.00	75.20	80.00	88.20	69.70	2.630
		28 DA-B	30.06.2020	22.1	plant P		0.00	48.60	63.50	73.90	74.70	1.760
	A.T/2020/101/JJ	18 DA-B	16.06.2020	6.3	plant P		0.00	72.10	81.60	85.90	55.60	1.430
		32 DA-B	30.06.2020	24.0	plant P		0.00	68.60	76.60	78.90	73.70	2.660
	Average			29.3			0.00	67.48	76.42	83.88	73.85	
	Min.			6.3			0.00	48.30	53.20	64.40	55.60	
	Max.			96.5			0.00	80.60	91.10	93.40	86.90	

Table 24. The efficacy of CHR/F/PYRA in control of ERYSGR *Blumeria graminis*

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	
						Name	Untreated	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	Makler 250 SE	LSD
						Rate (l/ha)		0.6	0.8	1.0	1.0	
ERYSGR/ <i>Blumeria graminis</i>	A.T/2021/050/JJ	17 DA-B	28.06.2021	8.8	L2		0.00	45.10	63.70	84.00	93.20	11.470
		17 DA-B	28.06.2021	22.4	L3		0.00	63.10	80.20	86.40	90.80	10.190
	AF/20/JJ/23/ZI/06	13 DA-A	09.06.2020	22.2	L3		0.00	63.40	76.10	89.30	93.50	13.750
	SRCZ20-075-301FE	21 DA-A	24.06.2020	5.2	L2		0.00	70.04	77.83	91.03	88.41	2.510
		21 DA-A	24.06.2020	7.1	L3		0.00	61.76	74.80	84.79	80.00	2.083
		21 DA-A	24.06.2020	9.9	L4		0.00	65.94	73.86	81.00	78.28	3.970
		21 DA-B	15.07.2020	5.3	L1		0.00	79.31	90.41	100.00	97.81	7.714
		21 DA-B	15.07.2020	7.4	L2		0.00	70.76	81.57	92.21	87.95	2.494
		21 DA-B	15.07.2020	9.2	L3		0.00	71.65	83.56	90.21	87.94	2.535
		34 DA-B	28.07.2020	10.8	L1		0.00	76.10	78.52	81.33	75.12	8.538
		34 DA-B	28.07.2020	12.0	L2		0.00	78.59	84.91	93.29	87.77	2.976
		34 DA-B	28.07.2020	15.1	L3		0.00	78.98	86.29	90.89	86.63	4.277
	SRCZ20-077-301FE	13 DA-A	04.06.2020	5.6	L4		0.00	76.38	89.87	96.69	94.42	6.142
		13 DA-A	04.06.2020	6.8	L5		0.00	61.47	77.12	94.37	94.51	4.579
	SRCZ20-078-301FE	17 DA-A	15.06.2020	6.0	L3		0.00	90.77	92.84	100.00	90.85	2.065
		17 DA-A	15.06.2020	8.3	L4		0.00	84.00	91.23	97.08	92.37	2.862
		21 DA-B	06.07.2020	6.4	L1		0.00	78.39	85.46	96.64	95.22	3.261
		21 DA-B	06.07.2020	8.5	L2		0.00	72.36	85.82	91.73	89.41	1.876
		30 DA-B	15.07.2020	8.4	L1		0.00	61.19	70.41	84.43	80.81	4.274
		30 DA-B	15.07.2020	13.0	L2		0.00	68.45	76.80	80.62	79.49	3.768
	SRCZ20-080-301FE	19 DA-A	15.06.2020	5.8	L3		0.00	73.09	86.04	96.20	94.49	2.173
		19 DA-A	15.06.2020	7.2	L4		0.00	75.60	86.06	94.79	93.86	2.354
Average				9.6			0.00	71.18	81.42	90.80	88.80	
Min.				5.2			0.00	45.10	63.70	80.62	75.12	
Max.				22.4			0.00	90.77	92.84	100.00	97.81	

Table 25. The efficacy of CHR/F/PYRA in control of RHYNSE *Rhynchosporium secalis* – leaf

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	LSD
						Name	Untreated	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	Makler 250 SE	
						Rate (l/ha)		0.6	0.8	1.0	1.0	
RHYN- SE/Rhynchosporiu m secalis	A.T/2020/101/JJ	18 DA-B	16.06.2020	5.1	L4		0	65.3	70.6	83.2	56.4	0.75
	A.T/2020/102/JJ	35 DA-B	08.07.2020	5.3	L2		0	76.30	78.70	82.00	65.90	1.22
		35 DA-B	08.07.2020	6.8	L3		0	64.50	69.20	78.00	71.80	1.03
	AF/20/JJ/23/Pr/05	11 DA-A	15.06.2020	20.9	L3		0	71.90	83.00	89.30	92.50	15.25
		14 DA-B	29.06.2020	21.3	L2		0	72.90	85.90	92.60	97.40	5.33
		30 DA-B	15.07.2020	20	L1		0	72.50	85.00	93.40	95.60	12.32
	AF/20/JJ/23/Br/04	14 DA-A	23.06.2020	13.1	L3		0	50.00	75.70	90.00	96.20	18.15
		14 DA-A	23.06.2020	19.7	L2		0	65.40	74.30	90.20	93.00	16.78
		22 DA-B	15.07.2020	18.8	L1		0	56.00	74.00	92.30	94.00	7.94
	A.T/2020/104/JJ	15 DA-A	05.06.2020	6.1	L4		0	46.30	65.00	72.50	47.90	0.46
		14 DA-B	19.06.2020	6	L3		0	70.60	78.30	83.90	43.90	1.15
		14 DA-B	19.06.2020	7	L4		0	56.90	57.40	64.10	35.40	1.61
		28 DA-B	03.07.2020	5.7	L2		0	48.10	69.10	72.00	50.70	1.1
		28 DA-B	03.07.2020	11.2	L3		0	36.00	45.10	62.90	39.70	3.47
	AF/20/JJ/23/Z1/03	19 DA-A	27.05.2020	20.3	L3		0	64.00	81.80	92.60	93.80	18.85
		21 DA-B	17.06.2020	18.4	L2		0	71.50	86.10	90.80	95.90	10.64
		42 DA-B	08.07.2020	17.8	L1		0	67.70	80.40	89.10	92.60	6.38
	AF/20/JJ/23/Pr/02	14 DA-A	09.06.2020	20.3	L3		0	69.50	80.00	92.60	95.40	8.9
		14 DA-B	23.06.2020	20.6	L2		0	70.60	78.50	93.30	95.80	15.56
		36 DA-B	15.07.2020	21.6	L1		0	71.60	83.80	93.30	95.70	8.45
	AF/20/JJ/23/Br/01	13 DA-A	09.06.2020	13.4	L3		0	43.30	62.80	83.30	87.00	19.08
		14 DA-B	23.06.2020	18.1	L2		0	55.20	70.30	80.70	81.70	13.52
		36 DA-B	15.07.2020	15.9	L1		0	51.00	67.50	71.80	78.40	13.02
	SRCZ20-076-301FE	13 DA-A	04.06.2020	5.5	L4		0	94.33	95.94	100.00	97.14	2.124
	SRCZ20-077-301FE	13 DA-A	06.06.2020	5.4	L3		0	88.35	95.84	98.96	95.95	2.873
		13 DA-A	06.06.2020	6.1	L4		0	91.82	93.95	95.35	96.43	3.239
	SRCZ20-080-301FE	19 DA-A	15.06.2020	5.5	L3		0	80.68	92.05	97.73	96.59	3.880
		19 DA-A	15.06.2020	10.4	L4		0	92.68	96.89	98.24	97.56	1.829
	Average			13.08			0.00	66.61	77.76	86.58	81.44	
	Min.			5.10			0.00	36.00	45.10	62.90	35.40	
	Max.			21.60			0.00	94.33	96.89	100.00	97.56	



Table 26. The efficacy of CHR/F/PYRA in control of RHYNSE *Rhynchosporium secalis* – plant

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	
						Name	Untreated	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	Makler 250 SE	LSD
						Rate (l/ha)		0.6	0.8	1.0	1.0	
RHYNSE/Rhynchosporium secalis	A.T/2020/101/JJ	18 DA-B	16.06.2020	8.8	plant P		0.00	69.90	78.00	85.60	64.00	1.510
		32 DA-B	30.06.2020	9.7	plant P		0.00	47.60	57.90	70.90	59.30	1.910
	A.T/2020/102/JJ	35 DA-B	08.07.2020	12.8	plant P		0.00	70.10	74.00	80.30	69.50	2.170
	A.T/2020/104/JJ	15 DA-A	05.06.2020	6.1	plant P		0.00	46.30	65.00	72.50	47.90	0.460
		14 DA-B	19.06.2020	15.2	plant P		0.00	63.50	71.30	76.50	42.50	2.850
		28 DA-B	03.07.2020	18.0	plant P		0.00	40.70	53.60	66.20	45.60	3.650
	Average			11.8			0.00	56.35	66.63	75.33	54.80	
	Min.			6.1			0.00	40.70	53.60	66.20	42.50	
	Max.			18.0			0.00	70.10	78.00	85.60	69.50	

Table 27. The efficacy of CHR/F/PYRA in control of PUCCHD *Puccinia hordei* – leaf

Pest code/name	Report code	DA-A/B	date	% PES-SEV	Part assessed	No.	1	2	3	4	5	
						Name	Untreated	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	CHR/F/PYRA 250 EC	Makler 250 SE	LSD
						Rate (l/ha)		0.6	0.8	1.0	1.0	
PUCCHD/ Puccinia hordei	A.T/2021/050/JJ	17 DA-B	28.06.2021	5.6	L2		0.00	60.50	81.40	91.20	95.70	8.760
		31 DA-B	12.07.2021	6.3	L1		0.00	91.70	100.00	100.00	100.00	11.480
	A.T/2020/106/JJ	28 DA-B	16.07.2020	5.3	L1		0.00	80.50	91.00	93.30	89.50	0.380
		28 DA-B	16.07.2020	7.0	L2		0.00	89.70	94.30	97.50	92.20	0.330
	A.T/2020/104/JJ	28 DA-B	03.07.2020	5.4	L1		0.00	97.20	98.20	100.00	98.80	0.940
		28 DA-B	03.07.2020	11.1	L2		0.00	99.50	99.80	100.00	98.90	1.610
		28 DA-B	03.07.2020	7.7	L3		0.00	100.00	100.00	100.00	99.60	0.670
	A.T/2020/101/JJ	32 DA-B	30.06.2020	8.1	L2		0.00	93.40	97.50	98.10	99.60	0.960
	A.T/2021/051/JJ	38 DA-B	22.07.2021	6.6	L1		0.00	54.60	71.50	86.30	84.70	4.450
		38 DA-B	22.07.2021	11.2	L2		0.00	55.30	71.20	80.50	81.70	2.980
	SRCZ20-076-301FE	13 DA-A	04.06.2020	5.0	L3		0.00	84.95	94.98	95.64	89.96	1.285
		13 DA-A	04.06.2020	5.4	L4		0.00	76.73	83.66	92.48	88.37	4.151
	SRCZ20-077-301FE	35 DA-B	09.07.2020	6.3	L1		0.00	100.00	100.00	100.00	100.00	0
		35 DA-B	09.07.2020	13.9	L2		0.00	89.53	96.93	98.61	94.72	1.296
		35 DA-B	09.07.2020	7.2	L3		0.00	92.02	96.07	96.99	98.60	2.164
	SRCZ20-079-301FE	13 DA-A	09.06.2020	6.9	L4		0.00	56.16	50.14	78.37	86.30	39.443
		13 DA-A	09.06.2020	12.0	L5		0.00	78.74	91.33	93.15	92.70	6.433
	SRCZ20-080-301FE	24 DA-B	09.07.2020	9.7	L1		0.00	100.00	100.00	100.00	100.00	0
		24 DA-B	09.07.2020	19.7	L2		0.00	97.22	100.00	100.00	100.00	4.443
		24 DA-B	09.07.2020	7.8	L3		0.00	100.00	100.00	100.00	100.00	0
	Average			8.4			0.00	84.89	90.90	95.11	94.57	
	Min.			5.0			0.00	54.60	50.14	78.37	81.70	
	Max.			19.7			0.00	100.00	100.00	100.00	100.00	

Table 28. The efficacy of CHR/F/PYRA in control of PUCCHD *Puccinia hordei* – plant

Pest code/name	Report code	DA-A/B	date	% PESSEV	Part assessed	No.	1	2	3	4	5	
						Name	Untreated	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	CHR/F/PYR A 250 EC	Makler 250 SE	LSD
						Rate (l/ha)		0.6	0.8	1.0	1.0	
PUCCHD/ Pucci- nia hordei	A.T/2020/106/JJ	28 DA-B	16.07.2020	12.3	plant P		0.00	85.70	92.90	95.70	91.00	0.640
	A.T/2020/104/JJ	28 DA-B	03.07.2020	24.1	plant P		0.00	99.20	99.50	100.00	99.10	2.850
	A.T/2020/101/JJ	32 DA-B	30.06.2020	15.6	plant P		0.00	91.00	96.80	97.60	98.50	1.400
	Average			17.3			0.00	91.97	96.40	97.77	96.20	
	Min.			12.3			0.00	85.70	92.90	95.70	91.00	
	Max.			24.1			0.00	99.20	99.50	100.00	99.10	

## Appendix 6: Summary of phytotoxicity trials data in summary form

Table 1 – data from phytotoxicity trials – winter wheat

Report code	Treatment	Dose [L/ha]	Phytotoxicity in %					
A.T/2020/094/PO	Timing of assessment	DA-A	7 DA-A	13 DA-A	0 DA-B	7 DA-B	17 DA-B	28 DA-B
	date		16.05.2020	22.05.2020	26.05.2020	02.06.2020	12.06.2020	23.06.2020
	Untreated Check		0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)							
A.T/2020/095/PO	Timing of assessment	DA-A	7 DA-A	21 DA-A	7 DA-B	14 DA-B	30 DA-B	-
	date		22.05.2020	05.06.2020	16.06.2020	23.06.2020	09.07.2020	-
	Untreated Check		0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)							-
A.T/2020/096/PO	Timing of assessment	DA-A	7 DA-A	0 DA-B	7 DA-B	17 DA-B	28 DA-B	-
	date		29.05.2020	09.06.2020	16.06.2020	26.06.2020	07.07.2020	-
	Untreated Check		0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)							-

A.T/2021/039/PO	Timing of assessment	DA-A	7 DA-A	21 DA-A	7 DA-B	21 DA-B	28 DA-B	-
	date		18.05.2021	01.06.2021	16.06.2021	30.06.2021	07.07.2021	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-
A.T/2021/040/PO	Timing of assessment	DA-A	7 DA-A	16 DA-A	0 DA-B	7 DA-B	20 DA-B	30 DA-B
	date		27.04.2021	06.05.2021	08.06.2021	15.06.2021	28.06.2021	08.07.2021
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)		-	-	-	-	-	-
A.T/2021/041/PO	Timing of assessment	DA-A	7 DA-A	21 DA-A	7 DA-B	14 DA-B	21 DA-B	-
	date		07.06.2021	21.06.2021	30.06.2021	07.07.2021	14.07.2021	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-
A.T/2021/042/PO	Timing of assessment	DA-A	7 DA-A	21 DA-A	0 DA-B	7 DA-B	19 DA-B	28 DA-B
	date		26.04.2021	10.05.2021	11.06.2021	18.06.2021	30.06.2021	09.07.2021
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00

	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)		-	-	-	-	-	-
AF/20/PO/23/Mr/01	Timing of assessment	DA-A	7 DA-A	14 DA-A	21 DA-A	33 DA-A	40 DA-A	47 DA-A
	date		29.05.2020	05.06.2020	12.06.2020	24.06.2020	01.07.2020	08.07.2020
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)		-	-	-	-	-	-
	Timing of assessment	DA-A	7 DA-A	14 DA-A	21 DA-A	33 DA-A	40 DA-A	47 DA-A
AF/20/PO/23/Mr/02	date		29.05.2020	05.06.2020	12.06.2020	24.06.2020	01.07.2020	08.07.2020
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)		-	-	-	-	-	-
	Timing of assessment	DA-A	7 DA-A	14 DA-A	26 DA-A	33 DA-A	40 DA-A	-
	date		28.05.2020	04.06.2020	16.06.2020	23.06.2020	30.06.2020	-
AF/20/PO/23/ZI/03	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-
	Timing of assessment	DA-A	7 DA-A	14 DA-A	28 DA-A	55 DA-A	62 DA-A	76 DA-A
	date		28.04.2021	05.05.2021	19.05.2021	15.06.2021	22.06.2021	06.07.2021
AF/21/PO/12/Pr								

	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)		-	-	-	-	-	-
SRPL20-239-336FE	Timing of assessment	DA-A	7 DA-A	14 DA-A	9 DA-B	16 DA-B	30 DA-B	-
	date	-	27.05.2020	03.06.2020	10.06.2020	17.06.2020	01.07.2020	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-
SRPL20-240-336HE	Timing of assessment	DA-A	7 DA-A	14 DA-A	14 DA-B	28 DA-B	-	-
	date	-	27.05.2020	03.06.2020	17.06.2020	01.07.2020	-	-
	Untreated Check	-	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	-	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	-	-
	LSD (P=0.05)		-	-	-	-	-	-
SRPL21-421-336FE	Timing of assessment	DA-A	7 DA-A	0 DA-B	7 DA-B	16 DA-B	28 DA-B	-
	date	-	31.05.2021	14.06.2021	21.06.2021	30.06.2021	12.07.2021	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-

	LSD (P=0.05)		-	-	-	-	-	-
SRPL21-422-336FE	Timing of assessment	DA-A	7 DA-A	14 DA-A	0 DA-B	7 DA-B	21 DA-B	35 DA-B
	date	-	05.05.2021	12.05.2021	01.06.2021	08.06.2021	22.06.2021	06.07.2021
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)		-	-	-	-	-	-
SRPL21-423-336FE	Timing of assessment	DA-A	7 DA-A	21 DA-A	0 DA-B	7 DA-B	21 DA-B	35 DA-B
	date	-	29.04.2021	13.05.2021	27.05.2021	03.06.2021	17.06.2021	01.07.2021
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)		-	-	-	-	-	-
SRPL21-424-336FE	Timing of assessment	DA-A	7 DA-A	21 DA-A	7 DA-B	21 DA-B	35 DA-B	-
	date	-	19.05.2021	02.06.2021	09.06.2021	23.06.2021	07.07.2021	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-
SRCZ20-068-301FE	Timing of assessment	DA-A	7 DA-A	15 DA-A	7 DA-B	21 DA-B	28 DA-B	43 DA-B
	date	-	26.05.2020	03.06.2020	10.06.2020	24.06.2020	01.07.2020	16.07.2020
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00



	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)		-	-	-	-	-	-
SRCZ20-070-301FE	Timing of assessment	DA-A	7 DA-A	15 DA-A	10 DA-B	35 DA-B	49 DA-B	-
	date	-	27.05.2020	04.06.2020	14.06.2020	24.06.2020	08.07.2020	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-
SRCZ20-069-301FE	Timing of assessment	DA-A	7 DA-A	0 DA-B	17 DA-B	29 DA-B	-	-
	date	-	03.06.2020	08.06.2020	25.06.2020	07.07.2020	-	-
	Untreated Check	-	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	-	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	-	-
	LSD (P=0.05)		-	-	-	-	-	-

Table 2 – data from phytotoxicity trials – winter triticale

Report code	Treatment	Dose [L/ha]	Phytotoxicity in %					
A.T/2020/097/PŽO	Timing of assessment date	DA-A	7 DA-A	0 DA-B	7 DA-B	18 DA-B	35 DA-B	-
			15.05.2020	22.05.2020	29.05.2020	09.06.2020	26.06.2020	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-
A.T/2020/098/PŽO	Timing of assessment date	DA-A	7 DA-A	0 DA-B	7 DA-B	21 DA-B	28 DA-B	-
			22.05.2020	02.06.2020	09.06.2020	23.06.2020	30.06.2020	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-
A.T/2021/043/PŽO	Timing of assessment date	DA-A	7 DA-A	18 DA-A	0 DA-B	7 DA-B	14 DA-B	28 DA-B
			26.04.2021	07.05.2021	04.06.2021	11.06.2021	18.06.2021	02.07.2021
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)		-	-	-	-	-	-
A.T/2021/044/PŽO	Timing of assessment date	DA-A	6 DA-A	20 DA-A	0 DA-B	7 DA-B	19 DA-B	34 DA-B
			23.04.2021	07.05.2021	04.06.2021	11.06.2021	23.06.2021	08.07.2021
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)		-	-	-	-	-	-
A.T/2021/045/PŽO	Timing of assessment	DA-A	7 DA-A	21 DA-A	7 DA-B	14 DA-B	21 DA-B	-

	date		07.06.2021	21.06.2021	23.06.2021	30.06.2021	07.07.2021	
	Untreated Check		0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	
	LSD (P=0.05)							
A.T/2021/046/PZO	Timing of assessment	DA-A	7 DA-A	21 DA-A	0 DA-B	7 DA-B	21 DA-B	31 DA-B
	date		26.04.2021	10.05.2021	07.06.2021	14.06.2021	28.06.2021	08.07.2021
	Untreated Check		0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)							
SRPL21-425-336FE	Timing of assessment	DA-A	7 DA-A	14 DA-A	21 DA-B	35 DA-B		
	date		15.05.2021	22.05.2021	26.06.2021	07.07.2021		
	Untreated Check		0,00	0,00	0,00	0,00		
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00		
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00		
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00		
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00		
	LSD (P=0.05)							
SRPL21-426-336FE	Timing of assessment	DA-A	10 DA-A	21 DA-A	0 DA-B	7 DA-B	21 DA-B	35 DA-B
	date		14.05.2021	25.05.2021	01.06.2021	08.06.2021	22.06.2021	06.07.2021
	Untreated Check		0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)							
SRCZ20-071-301FE	Timing of assessment	DA-A	9 DA-A	16 DA-A	7 DA-B	21 DA-B	35 DA-B	47 DA-B
	date		27.05.2020	03.06.2020	10.06.2020	24.06.2020	08.07.2020	20.07.2020
	Untreated Check		0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)							

Product code: CHR/F/PYRA 250 EC  
Product name: Etiuda 250 EC / Fermata 250 EC  
Part B – Section 3 - Core Assessment  
Applicant version

	LSD (P=0.05)		-	-	-	-	-	-
SRCZ20-072-301FE	Timing of assessment	DA-A	7 DA-A	20 DA-A	8 DA-B	15 DA-B	34 DA-B	43 DA-B
	date		29.05.2020	11.06.2020	19.06.2020	26.06.2020	15.07.2020	24.07.2020
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)		-	-	-	-	-	-

Table 3 – data from phytotoxicity trials – winter rye

Report code	Treatment	Dose [L/ha]	Phytotoxicity in %						
A.T/2020/099/ŽO	Timing of assessment	DA-A	7 DA-A	0 DA-B	7 DA-B	19 DA-B	31 DA-B	-	-
	date	-	14.05.2020	22.05.2020	29.05.2020	10.06.2020	22.06.2020	-	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-	-
	LSD (P=0.05)	-	-	-	-	-	-	-	-
A.T/2021/047/ŽO	Timing of assessment	DA-A	7 DA-A	16 DA-A	21 DA-A	0 DA-B	7 DA-B	14 DA-B	25 DA-B
	date	-	26.04.2021	05.05.2021	10.05.2021	24.05.2021	31.05.2021	07.06.2021	18.06.2021
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)	-	-	-	-	-	-	-	-
A.T/2021/048/ŽO	Timing of assessment	DA-A	6 DA-A	20 DA-A	0 DA-B	7 DA-B	21 DA-B	35 DA-B	-
	date	-	23.04.2021	07.05.2021	24.05.2021	31.05.2021	14.06.2021	28.06.2021	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)	-	-	-	-	-	-	-	-
A.T/2021/049/ŽO	Timing of assessment	DA-A	7 DA-A	21 DA-A	0 DA-B	7 DA-B	33 DA-B	-	-
	date	-	26.04.2021	10.05.2021	20.05.2021	27.05.2021	22.06.2021	-	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-	-
	LSD (P=0.05)	-	-	-	-	-	-	-	-
AF/21/ŽO/12/ZI	Timing of assessment	DA-A	7 DA-A	15 DA-A	29 DA-A	14 DA-B	33 DA-B	47 DA-B	-
	date	-	28.04.2021	06.05.2021	20.05.2021	03.06.2021	22.06.2021	06.07.2021	-

	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-	-
AF/21/ŽO/12/Br	Timing of assessment	DA-A	7 DA-A	15 DA-A	35 DA-A	14 DA-B	27 DA-B	41 DA-B	-
	date		28.04.2021	06.05.2021	26.05.2021	09.06.2021	22.06.2021	06.07.2021	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-	-
SRPL20-237-336FE	Timing of assessment	DA-A	7 DA-A	14 DA-A	8 DA-B	22 DA-B	36 DA-B	-	-
	date		22.05.2020	29.05.2020	05.06.2020	19.06.2020	03.07.2020	-	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-	-
	LSD (P=0.05)		-	-	-	-	-	-	-
SRPL20-238-336FE	Timing of assessment	DA-A	7 DA-A	14 DA-A	7 DA-B	21 DA-B	31 DA-B	-	-
	date		22.05.2020	29.05.2020	05.06.2020	19.06.2020	29.06.2020	-	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-	-
	LSD (P=0.05)		-	-	-	-	-	-	-
SRPL21-427-336FE	Timing of assessment	DA-A	7 DA-A	0 DA-B	7 DA-B	14 DA-B	35 DA-B	-	-
	date		20.05.2021	03.06.2021	10.06.2021	17.06.2021	08.07.2021	-	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-	-
	LSD (P=0.05)		-	-	-	-	-	-	-

SRCZ20-073-301FE	Timing of assessment	DA-A	8 DA-A	0 DA-B	9 DA-B	14 DA-B	27 DA-B	43 DA-B	-
	date	-	26.05.2020	03.06.2020	12.06.2020	17.06.2020	30.06.2020	16.07.2020	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)	-	-	-	-	-	-	-	-
SRCZ20-074-301FE	Timing of assessment	DA-A	8 DA-A	0 DA-B	8 DA-B	21 DA-B	34 DA-B	-	-
	date	-	28.05.2020	04.06.2020	12.06.2020	25.06.2020	08.07.2020	-	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-	-
	LSD (P=0.05)	-	-	-	-	-	-	-	-

Table 4 – data from phytotoxicity trials – spring barley

Report code	Treatment	Dose [L/ha]	Phytotoxicity in %					
A.T/2020/101/JJ	Timing of assessment	DA-A	7 DA-A	14 DA-A	0 DA-B	7 DA-B	18 DA-B	32 DA-B
	date	-	15.05.2020	22.05.2020	29.05.2020	05.06.2020	16.06.2020	30.06.2020
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	0,00
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	0,00
	LSD (P=0.05)	-	-	-	-	-	-	-
A.T/2020/102/JJ	Timing of assessment	DA-A	7 DA-A	0 DA-B	7 DA-B	15 DA-B	3 DA-B	-
	date	-	22.05.2020	03.06.2020	10.06.2020	18.06.2020	08.07.2020	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)	-	-	-	-	-	-	-
A.T/2020/103/JJ	Timing of assessment	DA-A	7 DA-A	0 DA-B	7 DA-B	21 DA-B	28 DA-B	-
	date	-	22.05.2020	02.06.2020	09.06.2020	23.06.2020	30.06.2020	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)	-	-	-	-	-	-	-
A.T/2020/104/JJ	Timing of assessment	DA-A	7 DA-A	0 DA-B	7 DA-B	14 DA-B	28 DA-B	-
	date	-	28.05.2020	05.06.2020	12.06.2020	19.06.2020	03.07.2020	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)	-	-	-	-	-	-	-
A.T/2020/105/JJ	Timing of assessment	DA-A	7 DA-A	14 DA-A	7 DA-B	14 DA-B	34 DA-B	-



	date		29.05.2020	05.06.2020	12.06.2020	19.06.2020	09.07.2020	
	Untreated Check		0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	
	LSD (P=0.05)							
A.T/2020/106/JJ	Timing of assessment	DA-A	7 DA-A	0 DA-B	7 DA-B	20 DA-B	28 DA-B	
	date		11.06.2020	18.06.2020	25.06.2020	08.07.2020	16.07.2020	
	Untreated Check		0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	
A.T/2021/050/JJ	LSD (P=0.05)							
	Timing of assessment	DA-A	6 DA-A	19 DA-A	7 DA-B	17 DA-B	31 DA-B	
	date		26.05.2021	08.06.2021	18.06.2021	28.06.2021	12.07.2021	
	Untreated Check		0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	
A.T/2021/051/JJ	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	
	LSD (P=0.05)							
	Timing of assessment	DA-A	7 DA-A	0 DA-B	7 DA-B	21 DA-B	38 DA-B	
	date		31.05.2021	14.06.2021	21.06.2021	05.07.2021	22.07.2021	
	Untreated Check		0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	
AF/20/JJ/23/Br/01	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	
	LSD (P=0.05)							
	Timing of assessment	DA-A	7 DA-A	13 DA-A	8 DA-B	14 DA-B	21 DA-B	
	date		03.06.2020	09.06.2020	17.06.2020	23.06.2020	30.06.2020	
	Untreated Check		0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	

	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	
	LSD (P=0.05)		-	-	-	-	-	-
AF/20/JJ/23/Pr/02	Timing of assessment	DA-A	7 DA-A	14 DA-A	8 DA-B	14 DA-B	-	-
	date	-	02.06.2020	09.06.2020	17.06.2020	23.06.2020	-	-
	Untreated Check	-	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	-	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	-	-
	LSD (P=0.05)		-	-	-	-	-	-
AF/20/JJ/23/ZI/03	Timing of assessment	DA-A	10 DA-A	19 DA-A	7 DA-B	14 DA-B	21 DA-B	-
	date	-	18.05.2020	27.05.2020	03.06.2020	10.06.2020	17.06.2020	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-
AF/20/JJ/23/Br/04	Timing of assessment	DA-A	8 DA-A	14 DA-A	7 DA-B	14 DA-B	22 DA-B	-
	date	-	17.06..2020	23.06.2020	30.06.2020	07.07.2020	15.07.2020	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-
AF/20/JJ/23/Pr/05	Timing of assessment	DA-A	7 DA-A	11 DA-A	7 DA-B	14 DA-B	21 DA-B	-
	date	-	11.06.2020	15.06.2020	22.06.2020	29.06.2020	06.07.2020	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-
AF/20/JJ/23/ZI/06	Timing of assessment	DA-A	6 DA-A	13 DA-A	7 DA-B	14 DA-B	21 DA-B	-
	date	-	02.06.2020	09.06.2020	16.06.2020	23.06.2020	30.06.2020	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-

	CHR/F/PYRA 250 EC	0.60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0.80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-
SRCZ20-075-301FE	Timing of assessment	DA-A	8 DA-A	0 DA-B	7 DA-B	21 DA-B	34 DA-B	-
	date	-	11.06.2020	24.06.2020	01.07.2020	15.07.2020	28.07.2020	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0.60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0.80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-
SRCZ20-076-301FE	Timing of assessment	DA-A	7 DA-A	13 DA-A	9 DA-B	34 DA-B	-	-
	date	-	29.05.2020	04.06.2020	13.06.2020	08.07.2020	-	-
	Untreated Check	-	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0.60	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0.80	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	-	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	-	-
	LSD (P=0.05)		-	-	-	-	-	-
SRCZ20-077-301FE	Timing of assessment	DA-A	10 DA-A	13 DA-A	15 DA-A	35 DA-A	-	-
	date	-	01.06.2020	04.06.2020	19.06.2020	09.07.2020	-	-
	Untreated Check	-	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0.60	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0.80	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	-	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	-	-
	LSD (P=0.05)		-	-	-	-	-	-
SRCZ20-078-301FE	Timing of assessment	DA-A	7 DA-A	0 DA-B	7 DA-B	21 DA-B	30 DA-B	-
	date	-	05.06.2020	15.06.2020	22.06.2020	06.07.2020	15.07.2020	-
	Untreated Check	-	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0.60	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	0.80	0,00	0,00	0,00	0,00	0,00	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	0,00	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	0,00	-
	LSD (P=0.05)		-	-	-	-	-	-

SRCZ20-079-301FE	Timing of assessment	DA-A	7 DA-A	13 DA-A	8 DA-B	24 DA-B	-	-
	date	-	03.06.2020	09.06.2020	17.06.2020	03.07.2020	-	-
	Untreated Check	-	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	-	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	-	-
	LSD (P=0.05)		-	-	-	-	-	-
SRCZ20-080-301FE	Timing of assessment	DA-A	8 DA-A	19 DA-A	10 DA-B	24 DA-B	-	-
	date	-	04.06.2020	15.06.2020	25.06.2020	09.07.2020	-	-
	Untreated Check	-	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,60	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	0,80	0,00	0,00	0,00	0,00	-	-
	CHR/F/PYRA 250 EC	1,00	0,00	0,00	0,00	0,00	-	-
	Makler 250 SE	1,00	0,00	0,00	0,00	0,00	-	-
	LSD (P=0.05)		-	-	-	-	-	-

Table 5 – data from phytotoxicity trials – winter wheat

Test report (1)	Testing Unit GEP (2)	Country Re- gion (3)	Dates of trials and GS (4)	Cultivar F/G (5) N/A (6)	Experimental design Test method (7) Replicates	Remarks
A.T/2020/094/PO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Modrze/ Poland	A: 09.05.2020 B: 26.05.2020  A: BBCH 37-39 B: BBCH 53-55	winter wheat/ Euforia  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.1
A.T/2020/095/PO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Sitowiec/ Poland	A: 15.05.2020 B: 09.06.2020  A: BBCH 43-47 B: BBCH 61-65	winter wheat/ Arkadia  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.0
A.T/2020/096/PO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Stare Gralewo/ Poland	A: 22.05.2020 B: 09.06.2020  A: BBCH 37-41 B: BBCH 53-59	winter wheat/ Kilimanjaro  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 7.7
A.T/2021/039/PO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Brzeźno k. Gołańczy/ Poland	A: 11.05.2021 B: 09.06.2021  A: BBCH 34-36 B: BBCH 59-61	winter wheat/ Arkadia  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.1
A.T/2021/040/PO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Mirowsław/ Poland	A: 20.04.2021 B: 08.06.2021  A: BBCH 27-30 B: BBCH 51-55	winter wheat/ Wilejka  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.2
A.T/2021/041/PO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Angowice/ Poland	A: 31.05.2021 B: 23.06.2021  A: BBCH 39-41 B: BBCH 65-69	winter wheat/ Admont  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.1
A.T/2021/042/PO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Studzieniec/ Poland	A: 19.04.2021 B: 11.06.2021  A: BBCH 25-29 B: BBCH 51-55	winter wheat/ Ostroga  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.2
AF/20/PO/23/Mr/0 1	Poznań University of Life Sciences, Research and Edu- cation Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Mrowino/ Poland	A: 22.05.2020 B: 17.06.2020  A: BBCH 47-51 B: BBCH 55-69	winter wheat/ Hondia  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.5
AF/20/PO/23/Mr/0 2	Poznań University of Life Sciences, Research and Edu- cation Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Mrowino/ Poland	A: 22.05.2020 B: 17.06.2020  A: BBCH 47-51 B: BBCH 65-71	winter wheat/ Emil  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.7
AF/20/PO/23/ZI/03	Poznań University of Life Sciences, Research and Edu- cation Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Złotniki/ Poland	A: 21.05.2020 B: 09.06.2020  A: BBCH 39-43 B: BBCH 61-69	winter wheat/ Bogatka  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.1
AF/21/PO/12/Pr	Poznań University of Life Sciences, Research and Edu- cation Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Przybroda/ Poland	A: 24.04.2021 B: 15.06.2021  A: BBCH 28-30 B: BBCH 59-65	winter wheat/ Princeps  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.0
SRPL20-239- 336FE	SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska	Teresin/ Poland	A: 20.05.2020 B: 01.06.2020	winter wheat/ Kilimanjaro	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy clay loam

	85-027 Bydgoszcz Poland		A: BBCH 45-49 B: BBCH 55-59	F N		pH 6.5
<b>SRPL20-240-336HE</b>	SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland	Murczyn/ Poland	A: 20.05.2020 B: 03.06.2020  A: BBCH 47-49 B: BBCH 61-63	winter wheat/ Hondia  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: calvey sand pH 6.8
<b>SRPL21-421-336FE</b>	SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland	Kapłityny/ Poland	A: 24.05.2021 B: 14.06.2021  A: BBCH 31-33 B: BBCH 51-53	winter wheat/ Euforia  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: silt loam pH 5.6
<b>SRPL21-422-336FE</b>	SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland	Osówka/ Poland	A: 28.04.2021 B: 01.06.2021  A: BBCH 31-32 B: BBCH 51-53	winter wheat/ Arkadia  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.9
<b>SRPL21-423-336FE</b>	SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland	Jankowice Wielkie/ Poland	A: 22.04.2021 B: 27.05.2021  A: BBCH 30-32 B: BBCH 51-55	winter wheat/ Argument  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.6
<b>SRPL21-424-336FE</b>	SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland	Żnin/ Poland winter wheat/	A: 15.05.2021 B: 02.06.2021  A: BBCH 32-35 B: BBCH 43-45	winter wheat/ Arkadia  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy clay loam pH 6.3
<b>SRCZ20-068-301FE</b>	SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	Sekerkovy Loučky/ Czech Republic	A: 19.05.2020 B: 03.06.2020  A: BBCH 49 B: BBCH 60-61	winter wheat/ Balitus  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.3
<b>SRCZ20-070-301FE</b>	SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	Hořkovice/ Czech Republic	A: 20.05.2020 B: 04.06.2020  A: BBCH 49 B: BBCH 59-60	winter wheat/ Rivero  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loam pH 6.4
<b>SRCZ20-069-301FE</b>	SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	Tavřkovic/ Czech Republic	A: 27.05.2020 B: 08.06.2020  A: BBCH 45-51 B: BBCH 59-63	winter wheat/ Tobak  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy clay pH 6.2

Notes:

- (1): test report number
- (2): Trial responsible entity/ officially recognized organization
- (3): precise place of the trial followed by the country
- (4): Crop growth stage at application timing
- (5): F= field trial, G=protected crop, specify
- (6): N=Natural infestation, A= Artificial inoculation
- (7): Test guideline used

Table 6 – data from phytotoxicity trials – winter triticale

Test report (1)	Testing Unit GEP (2)	Country Region (3)	Dates of trials and GS (4)	Cultivar F/G (5) N/A (6)	Experimental design Test method (7) Replicates	Remarks
A.T/2020/097/PŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Modrze/ Po- land	A: 08.05.2020 B: 22.05.2020  A: BBCH 37-39 B: BBCH 57-61	winter tritica- le/ Orinoko  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 7.1
A.T/2020/098/PŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Białe Błoto/ Poland	A: 15.05.2020 B: 02.06.2020  A: BBCH 37-41 B: BBCH 49-55	winter tritica- le/ Borowik  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.0
A.T/2021/043/PŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Nowa Wieś Ujska/ Poland	A: 19.04.2021 B: 04.06.2021  A: BBCH 29-31 B: BBCH 59-61	winter tritica- le/ Lombardo  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 4.6
A.T/2021/044/PŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Zamarte/ Poland	A: 17.04.2021 B: 04.06.2021  A: BBCH 29-30 B: BBCH 53-55	winter tritica- le/ Orinoko  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.2
A.T/2021/045/PŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Lichnowy/ Poland	A: 31.05.2021 B: 23.06.2021  A: BBCH 39-41 B: BBCH 65-69	winter tritica- le/ Belcanto  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.3
A.T/2021/046/PŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Studzieniec/ Poland	A: 19.04.2021 B: 07.06.2021  A: BBCH 25-30 B: BBCH 55-61	winter tritica- le/ Meloman  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sand pH 6.1
SRPL21-425-336FE	SynTech Research Poland Sp. z o.o.	Tonowo/ Poland	A: 08.05.2021 B:	winter tritica- le/ Balcanto	Randomized blocks EPPO PP 1/135	Soil type: sandy loam pH 6.1

	69/1 Jagiellonska 85-027 Bydgoszcz Poland		02.06.2021  A: BBCH 33-35 B: BBCH 51-53	F N	(4) 4	
SRPL21-426-336FE	SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland	Osówka/ Po- land	A: 04.05.2021 B: 01.06.2021  A: BBCH 29-31 B: BBCH 51-53	winter tritica- le/ RO- TONDO  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy clay loam pH 6.87
SRCZ20-071-301FE	SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	Sekerkovy Loučky/ Czech Republic	A: 18.05.2020 B: 03.06.2020  A: BBCH 47-51 B: BBCH 61-65	winter tritica- le/ Agostino  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: fine clay loam pH 6.9
SRCZ20-072-301FE	SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	Tetín/ Czech Republic	A: 22.05.2020 B: 11.06.2020  A: BBCH 49-51 B: BBCH 65-69	winter tritica- le/ Agostino  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: clay loam pH 6.7

Notes:

- (1): test report number
- (2): Trial responsible entity/ officially recognized organization
- (3): precise place of the trial followed by the country
- (4): Crop growth stage at application timing
- (5): F= field trial, G=protected crop, specify
- (6): N=Natural infestation, A= Artificial inoculation
- (7): Test guideline used



Table 5 – data from phytotoxicity trials – winter rye

Test report (1)	Testing Unit GEP (2)	Country Region (3)	Dates of trials and GS (4)	Cultivar F/G (5) N/A (6)	Experimental design Test method (7) Replicates	Remarks
A.T/2020/099/ŽO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Wilkowo/ Poland	A: 07.05.2020 B: 22.05.2020  A: BBCH 39-41 B: BBCH 59-61	winter rye/ Serafino  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.6
A.T/2021/047/ŽO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Świerkówki/ Poland	A: 19.04.2021 B: 24.05.2021  A: BBCH 30-33 B: BBCH 61-65	winter rye/ KWS Serafino  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 7.1
A.T/2021/048/ŽO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Jęczniki Wielkie/ Poland	A: 17.04.2021 B: 24.05.2021  A: BBCH 29-30 B: BBCH 53-55	winter rye/ KWS Berado  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: pH 5.4 loamy sand
A.T/2021/049/ŽO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Stare Gralewo/ Poland	A: 19.04.2021 B: 20.05.2021  A: BBCH 28-32 B: BBCH 53-57	winter rye/ Dańkowskie Diament  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sand pH 5.1
AF/21/ŽO/12/ZI	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Agronomy Depart- ment; ul. Wojska Polskiego 28, 60-637 Poznań	Złotniki/ Poland	A: 21.04.2021 B: 20.05.2021  A: BBCH 34-36 B: BBCH 54-56	winter rye/ Dolaro  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 7.0
AF/21/ŽO/12/Br	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Agronomy Depart- ment; ul. Wojska Polskiego 28, 60-637 Poznań	Brody/ Poland	A: 21.04.2021 B: 26.05.2021  A: BBCH 33-37 B: BBCH 54-56	winter rye/ Poznańskie  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.8
SRPL20-237-336FE	SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland	Charlęż/ Poland	A: 15.05.2020 B: 28.05.2020  A: BBCH 39 B: BBCH 51-55	winter rye/ KWS Dolaro  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: slit loam pH 4.2
SRPL20-238-336FE	SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz	Samorowo/ Poland	A: 15.05.2020 B: 29.05.2020	winter rye/ Dańkowskie Skand	Randomized blocks EPPO PP 1/135 (4)	Soil type: sandy loam pH 5.3

	Poland		A: BBCH 48-49 B: BBCH 59-61	F N	4	
SRPL21-427-336FE	SynTech Research Poland Sp. z o.o. 69/1 Jagiellonska 85-027 Bydgoszcz Poland	Łajsy/ Poland	A: 13.05.2021 B: 03.06.2021  A: BBCH 33-39 B: BBCH 61-65	winter rye/ KWS Jethro  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: slit loam pH 4.8
SRCZ20-073-301FE	SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	Roprachtice/ Czech Republic	A: 18.05.2020 B: 03.06.2020  A: BBCH 39 B: BBCH 58-59	winter rye/ Herakles  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: Sandy loam pH 6.3
SRCZ20-074-301FE	SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	Bělá pod Bezdězem/ Czech Republic	A: 20.05.2020 B: 04.06.2020  A: BBCH 49-59 B: BBCH 65-71	winter rye/ SU Cossani  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: fine sand pH 6.2

Notes:

- (1): test report number
- (2): Trial responsible entity/ officially recognized organization
- (3): precise place of the trial followed by the country
- (4): Crop growth stage at application timing
- (5): F= field trial, G=protected crop, specify
- (6): N=Natural infestation, A= Artificial inoculation
- (7): Test guideline used

Table 5 – data from phytotoxicity trials – spring barley

Test report (1)	Testing Unit GEP (2)	Country Region (3)	Dates of trials and GS (4)	Cultivar F/G (5) N/A (6)	Experimental design Test method (7) Replicates	Remarks
A.T/2020/101/JJ	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Modrze /Poland	A: 08.05.2020 B: 29.05.2020  A: BBCH 28-30 B: BBCH 37-39	spring bar- ley/ RGT Planet  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.5
A.T/2020/102/JJ	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Nowy Dwór /Poland	A: 15.05.2020 B: 03.06.2020  A: BBCH 29-31 B: BBCH 47-49	spring bar- ley/ Quench  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.6
A.T/2020/103/JJ	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Białe Błoto /Poland	A: 15.05.2020 B: 02.06.2020  A: BBCH 25-28 B: BBCH 35-39	spring bar- ley/ Propino  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 4.7
A.T/2020/104/JJ	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Maniewo /Poland	A: 21.05.2020 B: 05.06.2020  A: BBCH 37-39 B: BBCH 49-55	spring bar- ley/ Ellinor  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.4
A.T/2020/105/JJ	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Wilkowo /Poland	A: 22.05.2020 B: 05.06.2020  A: BBCH 39-43 B: BBCH 51-55	spring bar- ley/ Laureate  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.3
A.T/2020/106/JJ	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Czachowo /Poland	A: 04.06.2020 B: 18.06.2020  A: BBCH 39-45 B: BBCH 59-61	spring bar- ley/ KWS IRINA  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.6
A.T/2021/050/JJ	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Mirowsław /Poland	A: 20.05.2021 B: 11.06.2021  A: BBCH 27-31 B: BBCH 51-55	spring bar- ley/ Avatar  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.4
A.T/2021/051/JJ	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Karsy /Poland	A: 24.05.2021 B:	spring bar- ley/ KWS Vermont	Randomized blocks	Soil type: loamy sand

			14.06.2021 A: BBCH 31-33 B: BBCH 49-57	F N	EPPO PP 1/135 (4) 4	pH 6.2
AF/20/JJ/23/Br/01	Poznań University of Life Sciences, Research and Education Center Gorzyń, Agronomy Department; ul. Wojska Polskiego 28, 60-637 Poznań	Brody /Poland	A: 27.05.2020 B: 09.06.2020 A: BBCH 36-39 B: BBCH 45-51	spring barley/ Iron  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.8
AF/20/JJ/23/Pr/02	Poznań University of Life Sciences, Research and Education Center Gorzyń, Agronomy Department; ul. Wojska Polskiego 28, 60-637 Poznań	Przybroda /Poland	A: 26.05.2020 B: 09.06.2020 A: BBCH 31-33 B: BBCH 45-50	spring barley/ Penguin  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.0
AF/20/JJ/23/ZI/03	Poznań University of Life Sciences, Research and Education Center Gorzyń, Agronomy Department; ul. Wojska Polskiego 28, 60-637 Poznań	Złotniki /Poland	A: 08.05.2020 B: 27.05.2020 A: BBCH 29-31 B: BBCH 37-41	spring barley/ Stratus  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.4
AF/20/JJ/23/Br/04	Poznań University of Life Sciences, Research and Education Center Gorzyń, Agronomy Department; ul. Wojska Polskiego 28, 60-637 Poznań	Brody /Poland	A: 09.06.2020 B: 23.06.2020 A: BBCH 47-51 B: BBCH 55-59	spring barley/ Iron  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.8
AF/20/JJ/23/Pr/05	Poznań University of Life Sciences, Research and Education Center Gorzyń, Agronomy Department; ul. Wojska Polskiego 28, 60-637 Poznań	Przybroda /Poland	A: 04.06.2020 B: 15.06.2020 A: BBCH 38-41 B: 59	spring barley/ Penguin  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.0
AF/20/JJ/23/ZI/06	Poznań University of Life Sciences, Research and Education Center Gorzyń, Agronomy Department; ul. Wojska Polskiego 28, 60-637 Poznań	Złotniki /Poland	A: 27.05.2020 B: 09.06.2020 A: BBCH 39-43 B: BBCH 53-55	spring barley/ Stratus  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.4
SRCZ20-075-301FE	SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	Roprachtice /Czech Republic	A: 03.06.2020 B: 24.06.2020 A: BBCH 32-33 B: BBCH 49-51	spring barley/ Olympic  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy clay pH 6.3
SRCZ20-076-301FE	SynTech Research Czech s.r.o. Horní Kounice 1 671 40 Horní Kounice	Dobronice /Czech Republic	A: 22.05.2020 B: 04.06.2020	spring barley/ Laudis  F	Randomized blocks EPPO PP 1/135 (4)	Soil type: loam pH 6.2

	nice, Czech Republic		A: BBCH 29-32 B: BBCH 49-59	N	4	
<b>SRCZ20-077-301FE</b>	SynTech Research Czech s.r.o. Horní Kounice 1 671 40 Horní Kounice, Czech Republic	Dobřívsko/Czech Republic	A: 22.05.2020 B: 04.06.2020 A: BBCH 32-39 B: BBCH 49-55	spring barley/ KWS Amadora  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loam pH 6.5
<b>SRCZ20-078-301FE</b>	SynTech Research Czech Republic s.r.o. Semčice 245 294 46 Semčice, Czech Republic	Vinařice /Czech Republic	A: 29.05.2020 B: 15.06.2020 A: BBCH 47 B: BBCH 56-58	spring barley/ Overture  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loam Ph 6.5
<b>SRCZ20-079-301FE</b>	SynTech Research Czech s.r.o. Horní Kounice 1 671 40 Horní Kounice, Czech Republic	Křepice /Czech Republic	A: 27.05.2020 B: 09.06.2020 A: BBCH 45-49 B: BBCH 57-59	spring barley/ Solist  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loam pH 6.2
<b>SRCZ20-080-301FE</b>	SynTech Research Czech s.r.o. Horní Kounice 1 671 40 Horní Kounice, Czech Republic	Dobřívsko /Czech Republic	A: 27.05.2020 B: 15.06.2020 A: BBCH 39-49 B: BBCH 65-69	spring barley/ KWS Iris  F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loam pH 6.5

Notes:

- (1): test report number
- (2): Trial responsible entity/ officially recognized organization
- (3): precise place of the trial followed by the country
- (4): Crop growth stage at application timing
- (5): F= field trial, G=protected crop, specify
- (6): N=Natural infestation, A= Artificial inoculation
- (7): Test guideline used

**Appendix 7 Summary of available studies: Adverse effects on beneficial organisms.**

None

**Appendix 8: Summary of data on succeeding crop**

None