

FINAL REGISTRATION REPORT

Part B

Section 3

Efficacy Data and Information

Concise summary

Product code: CHR/H/FDF 574 SC

Product name(s): Cezaro 574 SC/ Huron 574 SC

Chemical active substance(s):

Flufenacet; 312 g/kg

Diflufenican; 250 g/kg

Florasulam; 12 g/kg

Central Zone

Zonal Rapporteur Member State: Poland

CORE ASSESSMENT

(authorization)

Applicant: Innvigo Sp. z o.o.

Submission date: February 2022, May 2022

MS Finalisation date: 21/11/2022

Version history

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

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

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

Comments of zRMS:	Conclusions from the assessment were prepared using grey commenting boxes placed at the end of each chapter.
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3.1 Summary and conclusions of zRMS on Section 3: Efficacy (KCP 6)

Abstract

zRMS

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 of CHR/H/FDF 574 SC in PL.

CHR/H/FDF 574 SC contains 312 g/l flufenacet, 250 g/l diflufenican and 12 g/l florasulam and is formulated a suspension concentrate (SC). It is used as herbicide in winter wheat, winter triticale, winter rye, winter barley for the control of a wide range of weeds at dose rates of 0,4 l/ha (spray volume applied on the crop 200 – 300 l/ha) as post – emergence one application in autumn season.

The applicant submitted 48 reports showing the results in research into product efficacy carried out PL from 2019 to 2020 in different cultivars of winter wheat, winter triticale, winter rye, winter barley against grass and broad-leaved weeds to support the registration of CHR/H/FDF 574 SC in PL.

The following target weed species were categorized as:

susceptible (S): ANTAR, APESV, VIOAR, BRSNW, CAPBP, GALAP, PAPRH, STEME, GERPU, MATIN, VERHE

- moderately susceptible (MS): CENCY

To sum up, it might be concluded that the application of CHR/H/FDF 574 SC at dose rate 0,4 l/ha (spray volume 200 - 300 l/ha), post-emergence provides benefit against weeds in winter wheat and winter triticale comparable or better with standard products: Bizon 118,75 SC and Komplet 560 SC.

The applicant presented strategy of resistance management recommended by HRAC.

CHR/H/FDF 574 SC was safe to the crops on which it was applied as it cause little, transient phytotoxicity symptoms observed in 4 selectivity trials. The product did not cause a negative impact on the yield of both protected crops.

The product CHR/H/FDF 574 SC is to be expected no negative effect on the quality of plants or plant products and transformation processes.

Only cereal crops (winter wheat, winter triticale, winter rye, winter barley) should be sown in the autumn following harvest of a winter cereals on which CHR/H/FDF 574 SC was applied in the autumn.

Following harvest of a winter wheat, winter triticale, winter rye, winter barley in which CHR/H/FDF was applied in the autumn, in the spring flax can be sown after plowing 10 cm, maize and carrot can be sown after plowing 20 cm; after two growing seasons from the moment of applying the CHR/H/FDF 574 SC and after plowing 30 cm legumes (peas, etc.) can be sown; after three growing seasons from the moment of applying the CHR/H/FDF 574 SC and after plowing 30 cm sunflower and bulbs (onions, etc.) can be sown.

In the event of crop failure for any reason of a winter cereals on which CHR/H/FDF 574 SC has been ap-

plied, only flax should be sown after 30 cm of plowing, as a replacement crop.

The impact on other plants including adjacent crops resulting from the post-emergence application of CHR/H/FDF 574 SC at the rate of 0,4 L product/ha was acceptably low when a 10 m buffer zone was observed or with a buffer zone of 5 m when 50% drift reduction nozzles was used or with a buffer zone of 1 m when 90% drift reduction nozzles was used.

According to the above, the plant protection product CHR/H/FDF 574 SC is recommended to be approved to use according to the table of intended uses for CHR/H/FDF 574 SC (Table 3.1- 1). 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)

PPP (product name/code):	CHR/H/FDF 574 SC/ Huron 574 SC/ Cezaro 574 SC	Formulation type:	GAP rev. , date: 2022-01-13 SC ^(a, b)
Active substance 1:	flufenacet	Conc. of as 1:	312 g/L ^(c)
Active substance 2:	diflufenican	Conc. of as 2:	250 g/L ^(c)
Active substance 3:	florasulam	Conc. of as 3:	12 g/L ^(c)
Safener:	-	Conc. of safener:	- ^(c)
Synergist:	-	Conc. of synergist:	- ^(c)
Applicant:	Innvigo Sp. z o.o.	Professional use:	<input checked="" type="checkbox"/>
Zone(s):	Central ^(d)	Non professional use:	<input type="checkbox"/>
Verified by MS:	no yes		

Field of use: herbicide

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

Zonal uses (field or outdoor uses, certain types of protected crops)														
1	PL	Winter wheat (TRZAW), Winter triticale (TTLWI), Winter rye (SECCW), Winter barley (HORVW)	F	<i>Apera spica-venti</i> Mene and dicotyledonous weeds	Spray, medium sprayer	autumn BBCH 11-25	a)1 b)1	n/a	a) 0.4 L/ha b) 0.4 L/ha	a) 0.2296 kg a.s./ha (0.1248 FLU + 0.1 D + 0.0048 FLO) b) 0.2296 kg a.s./ha (0.1248 FLU + 0.1 D + 0.0048 FLO)	200-400 300	n/a	-	A
2														
Interzonal uses (use as seed treatment, in greenhouses (or other closed places of plant production), as post-harvest treatment or for treatment of empty storage rooms)														
3														
4														
Minor uses according to Article 51 (zonal uses)														
5														
6														
Minor uses according to Article 51 (interzonal uses)														
7														
8														

Remarks table heading:

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

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

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

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

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

Column 15: zRMS conclusion.

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

3.2 Efficacy data (KCP 6)

Introduction

This document summarizes the information related to the efficacy of the product CHR/H/FDF 574 SC containing active substances: flufenacet, diflufenican and florasulam.

CHR/H/FDF 574 SC applies in the Central Registration Zone for the registration of in winter wheat, winter triticale, winter rye and winter barley at BBCH 11-25 applied once per season at the maximum rate of 124.8 g a.s./ha flufenacet, 100 g a.s./ha diflufenican and 4.8 g a.s./ha florasulam per application for the control of mono- and dicotyledonous weeds.

General information:

Description of the plant protection product

Marketing name:

product submitted to registration under two different marketing names: Cezaro 574 SC/ Huron 574 SC

Formulants content:

The information concerning ingredients of product CHR/H/FDF 574 SC are included in the confidential part of the registration dossier: Registration Report – Part C.

Formulation of use:

SC – Suspension concentrate

General information on the plant protection product:

CHR/H/FDF 574 SC is to be applied in autumn:

BBCH 11-25 in winter wheat, winter triticale, winter rye and winter barley.

The suggested dose of the product:

Used solo:

0.4 L/ha once a season in winter wheat, winter triticale, winter rye and winter barley which are corresponding to 124.8 g a.s./ha flufenacet, 100 g a.s./ha diflufenican and 4.8 g a.s./ha florasulam.

CHR/H/FDF 574 SC containing flufenacet, diflufenican and florasulam as the active substance is prepared for the use in agricultural practice as a herbicide in the form SC – Suspension concentrate.

Information on the composition of product CHR/H/FDF 574 SC 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 substances:

Flufenacet 312 g/L

CAS no 142459-58-3

CIPAC No.: 588

IUPAC name: N-(4-fluorophenyl)-N-propan-2-yl-2-[[5-(trifluoromethyl)-1,3,4-thiadiazol-2-

yl]oxy]acetamide

Flufenacet is herbicide unclassified inhibition of cell division and cell growth, meristemic activity. (DAR B.3.1.2). HRAC group 15 (K3). Flufenacet is an oxyacetamide herbicide. The molecular mode of action of the oxyacetamides is not known. Mode of action studies with the only oxyacetamide herbicide so far introduced (mefenacet, rice Japan) have shown a similarity with the action of chloroacetanilides (e.g. alachlor, metolachlor) at the cellular and at the tissue level. The molecular mode of action of the chloroacetanilides is also not known. Oxyacetamides and chloroacetanilides both inhibit cell division after a lag phase of several hours. This inhibition results in a complete arrest of cell division in the root and shoot meristematic regions. New growth is stopped and elongating tissue may become distorted. Detailed studies with mefenacet and metolachlor have shown that cells no longer enter the division cycle, but that progress through the individual phases of cell division (pro-, meta-, ana- and telophase) is unchanged. The mitotic index is accordingly decreased.

Diffufenican 250 g/L

CAS no 83164-33-4

CIPAC No.: 462

IUPAC name: N-(2,4-difluorophenyl)-2-[3-(trifluoromethyl)phenoxy]pyridine-3-carboxamide

Diffufenican is a synthetic herbicide. It is absorbed by leaves and the coleoptiles of the grasses. According to the Herbicide Resistance Action Committee (HRAC) diffufenican is included in HRAC Group 12 (F1) – Inhibition of acetyl CoA carboxylase. Diffufenican in plant meristems inhibits the fatty acid biosynthesis by the acetyl-CoA carboxylase, which is the first enzyme of the fatty acid biosynthesis. The lack of fatty acids, affected by the herbicide, causes disruption of meristem around the shoot apex, followed by whole plant death. Final destruction of annual and perennial grasses is achieved in a few weeks, depending on climatic conditions. Diffufenican is systemic compound presenting upward and down ward systemic properties. The upward translocation allows the product to inhibit the development. According to DAR (DRAFT ASSESSMENT REPORT) the first symptoms on weeds are extensive discoloration or whitening of new growth. The quickest effect is obtained after pre-emergence or early post-emergence treatment on young seedlings. The red-purple colour of the foliage often observed after application is a result of stress resulting from the absence of carotenoids. Later on, the seedlings suffer from necrosis and die.

Translocation in plants

In pre-emergence applications on weeds, diffufenican forms a continuous layer on the surface of the soil, which is resistant to leaching. As the shoots of germinating weeds pass through this layer, they come into contact with and absorb the product. The more even the distribution of the herbicide on the soil the better the contact. Rain after application improves contact between the herbicide and the shoot.

Diffufenican also enters the roots developing in the treated layer. Therefore weeds germinating at or very near the soil surface can receive a dose via both shoots and roots and are generally very susceptible. Due to the short distance, diffufenican can then easily reach the meristematic tissues.

Metabolism of diffufenican has been studied in wheat after pre and post emergence treatment in the greenhouse. A maximum of 2% of diffufenican applied pre emergence is taken up, translocated and metabolised within wheat and no major metabolites have been identified.

In post emergence applications, diffufenican penetrates foliar tissues. It does not diffuse directly through the phloem to the meristematic parts but, taking into account its metabolic persistence in the plants, a very small amount accumulated at the sites of action is sufficient. Furthermore, buds and young leaves, which are well exposed to the spray, particularly in broadleaf weeds, are exposed to a contact action which reinforces efficacy. Lastly, diffufenican shows some mobility in the xylem which, after root uptake in the soil surface, also contributes to efficacy. When it is applied post emergence, there is no significant translocation.

Diffufenican is used to control weeds in small grain cereals it combines those qualities required in a selective autumn herbicide:

- good efficacy on early germinating weeds or those whose emergence can be staggered and, in particular, on difficult species such as *Viola arvensis*, *Veronica hederifolia*, *Stellaria media*, *Galium aparine*

rine.

- A very broad spectrum on broad-leaved weeds
- Sufficient soil persistence to control late germination of spring weeds, such as *Polygonum* spp. and *Fallopia convolvulus*
- Flexibility of use, with a treatment period stretching from sowing to early spring
- Considerable consistency of action, virtually independent of climatic factors
- Particular compatibility with herbicides widely used in the control of grass weeds.

Florasulam 12 g/L

CAS No.: 145701-23-1

CIPAC No.: 616

IUPAC name: N-(2,6-difluorophenyl)-8-fluoro-5-methoxy-[1,2,4]triazolo[1,5-c]pyrimidine-2-sulfonamide

According to Florasulam_RAR_01_Volume_1_2013-11-25_san.pdf

Florasulam is a post emergent herbicide and is taken up by the leaves. The active ingredient is rapidly degraded in soil and poorly taken up by the roots, thus providing very little soil activity. After foliar absorption, florasulam is translocated to the meristematic tissue, where it inhibits the plant enzyme acetolactate synthase (ALS) which is essential for amino acid synthesis. Inhibition of amino acid production inhibits cell division and results in plant death.

Florasulam is a herbicide which is active against broadleaf weeds in winter and spring cereals by inhibiting the plant enzyme, acetolactate synthase (ALS). This result in complete desiccation of susceptible plants in 7-10 days under ideal growing conditions, however, this may take up to 6-8 weeks under less ideal conditions. Florasulam provides activity on a range of weeds of the *Caryophyllaceae*, *Convulvaceae*, *Amaranthaceae*, *Malvaceae*, *Compositae*, *Polygonaceae* and is highly active on *Galium aparine*, *Stellaria media*, *Matricaria* spp. and various cruciferae at very low rates. The herbicide is taken up by the roots or foliage of plants; the rate of Florasulam metabolism in *G. aparine* is slow and affords ample time for parent herbicide to translocate through – out the plant, compared with the rapid metabolism in wheat. It is considered extremely unlikely that resistance to Florasulam will develop; *G. aparine* may be controlled by products with alternative modes of action in both the cereal crop and rotational crops. Procedures for handling, storage, transport and fire for destruction and decontamination, and for emergency measures in case of accident have been recommended. Florasulam, as EF-1343, is applied up to maximum rate of 6.25 g a.s./ha, between growth stage BBCH 12-49 of the cereal, usually once per season, in 100-400 L water/ha.

Table 3.2-1: Details of the active substances

Active substance	Flufenacet	Diflufenican	Florasulam
Concentration (Unit: g/kg or g/L...)	312 g/L	250 g/L	12 g/L
Chemical group	oxyacetamide	carbamoyle nitrogen	triazolopyrimidine
Mode of action	unclassified inhibition of cell division and cell growth, meristemic activity	Inhibition of acetyl CoA carboxylase	inhibits the plant enzyme acetolactate synthase (ALS)
Biological action	The molecular mode of action of the oxyacetamides is not known. Mode of action studies with the only oxyacetamide herbicide so far introduced (mefenacet, rice Japan) have shown a similarity with the action of	It is absorbed by leaves and the coleoptiles of the grasses. Diflufenican in plant meristems inhibits the fatty acid biosynthesis by the acetyl-CoA carboxylase, which is the first enzyme of the fatty acid biosynthesis.	Florasulam is a herbicide which is active against broadleaf weeds in winter and spring cereals by inhibiting the plant enzyme, acetolactate synthase (ALS). This result in complete desiccation of susceptible plants in 7-10 days

Active substance	Flufenacet	Diflufenican	Florasulam
	<p>chloroacetanilides (e.g. alachlor, metolachlor) at the cellular and at the tissue level. The molecular mode of action of the chloroacetanilides is also not known. Oxyacetamides and chloroacetanilides both inhibit cell division after a lag phase of several hours. This inhibition results in a complete arrest of cell division in the root and shoot meristematic regions. New growth is stopped and elongating tissue may become distorted.</p>	<p>The lack of fatty acids, affected by the herbicide, causes disruption of meristem around the shoot apex, followed by whole plant death. Final destruction of annual and perennial grasses is achieved in a few weeks, depending on climatic conditions. Diflufenican is systemic compound presenting upward and downward systemic properties. The upward translocation allows the product to inhibit the development.</p>	<p>under ideal growing conditions, however, this may take up to 6-8 weeks under less ideal conditions. Florasulam provides activity on a range of weeds of the <i>Caryophyllaceae</i>, <i>Convolvulaceae</i>, <i>Amaranthaceae</i>, <i>Malvaceae</i>, <i>Compositae</i>, <i>Polygonaceae</i> and is highly active on <i>Galium aparine</i>, <i>Stellaria media</i>, <i>Matricaria</i> spp and various cruciferae at very low rates. The herbicide is taken up by the roots or foliage of plants; the rate of Florasulam metabolism in <i>G. aparine</i> is slow and affords ample time for parent herbicide to translocate through – out the plant, compared with the rapid metabolism in wheat. It is considered extremely unlikely that resistance to Florasulam will develop; <i>G. aparine</i> may be controlled by products with alternative modes of action in both the cereal crop and rotational crops. Procedures for handling, storage, transport and fire for destruction and decontamination, and for emergency measures in case of accident have been recommended.</p>

Comments of zRMS:	<p>This report summarizes the information concerning the efficacy of the plant protection product CHR/H/FDF 574 SC. The product contains 312 g/l of flufenacet, 250 g/l of diflufenican and 12 g/l of florasulam and is formulated as a suspension concentrate (SC). It is used as herbicide in winter wheat, winter triticale, winter rye, winter barley. The reports and data were submitted to support of the evaluation of the CHR/H/FDF 574 SC product authorization in PL.</p> <p>The active substance flufenacet 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 31/10/2022 .</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>
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	<p>Only uses as herbicide 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 flufenacet, and in particular Appendices I and II thereof, as finalised in the Standing Committee on the Food Chain and Animal Health on 4 July 2003 shall be taken into account.</p> <p>In this overall assessment Member States:</p> <ul style="list-style-type: none">— should pay particular attention to the protection of groundwater, when the active substance is applied in regions with vulnerable soil and/or climate conditions,— should pay particular attention to the protection of algae and aquatic plants,— should pay particular attention to the protection of operators. <p>Risk mitigation measures should be applied where appropriate.</p> <p>The active substance diflufenican 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 31/12/2022.</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>PART A</p> <p>Only uses as herbicide may be authorised.</p> <p>PART B</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 diflufenican, and in particular Appendices I and II thereof, as finalised in the Standing Committee on the Food Chain and Animal Health on 14 March 2008 shall be taken into account.</p> <p>In this overall assessment Member States must pay particular attention to:</p> <ul style="list-style-type: none">— the protection of aquatic organisms. Risk mitigation measures such as buffer zones shall be applied, where appropriate,— the protection of non-target plants. Risk mitigation measures such as an in-field no spray buffer zones shall be applied, where appropriate. <p>The active substance florasulam 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 31/12/2030.</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>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 florasulam, and in particular Appendices I and II thereof, shall be taken into account. In this overall assessment Member States shall pay particular attention to the risk to aquatic organisms and non-target terrestrial plants. Conditions of use shall include risk mitigation measures, where appropriate.</p>
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Description of the plant protection product

Formulation of use:

SC – Suspension concentrate

CHR/H/FDF 574 SC containing 312 g/L flufenacet, 250 g/L diflufenican and 12 g/L florasulam as the active substance is prepared for the use in agricultural practice as a herbicide in the form SC – Suspension concentrate.

CHR/H/FDF 574 SC is to be applied postemergence in autumn:

BBCH 11-25 in winter wheat, winter triticale, winter rye and winter barley.

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, winter triticale, winter rye, winter barley	Mono- and dicotyledones weeds	PL	-	-	0.4 L/ha	0.4 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, winter triticale, winter rye, winter barley

EPPO code	Scientific name	Common name*
ANTAR	<i>Anthemis arvensis</i>	Mayweed
APESV	<i>Apera spica-venti</i>	Loose silky bent
VIOAR	<i>Viola arvensis</i>	Field violet
BRSNN	<i>Brassica napus</i> (self-sown plant)	Rapeseed
CAPBP	<i>Capsella bursa-pastoris</i>	Shepherd's purse
CENCY	<i>Centaurea cyanus</i>	Cornflower
GALAP	<i>Galium aparine</i>	Catchweed bedstraw
PAPRH	<i>Papaver rhoeas</i>	Common poppy
STEME	<i>Stellaria media</i>	Common chickweed
GERPU	<i>Geranium pusillum</i>	Small-flower geranium
MATIN	<i>Tripleurospermum mar. inodorum</i>	False chamomille
VERHE	<i>Veronica hederifolia</i>	Ivy-leaved speedwell

* optional

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

Winter wheat

Crop and/or situation	Crop status		Pests or group of pests controlled	Pest status	
	Major	minor		Major	minor
winter wheat	PL	-	Anthemis arvensis	PL	-
			Apera spica-venti	PL	-
			Viola arvensis	PL	-
			Brassica napus (self-sown plant)	PL	-
			Capsella bursa-pastoris	PL	-
			Centaurea cyanus	PL	-
			Galium aparine	PL	-
			Papver rhoeas	PL	-
			Stellaria media	PL	-
			Geranium pusillum	PL	-
			Tripleurospermum mar. inodorum	PL	-
			Veronica hederifolia	PL	-

Winter triticale

Crop and/or situation	Crop status		Pests or group of pests controlled	Pest status	
	Major	minor		Major	minor
winter rye	PL	-	Anthemis arvensis	PL	-
			Apera spica-venti	PL	-
			Viola arvensis	PL	-
			Brassica napus (self-sown plant)	PL	-
			Capsella bursa-pastoris	PL	-
			Centaurea cyanus	PL	-
			Galium aparine	PL	-
			Papver rhoeas	PL	-
			Stellaria media	PL	-
			Geranium pusillum	PL	-
			Tripleurospermum mar. inodorum	PL	-
			Veronica hederifolia	PL	-

Winter rye

Crop and/or situation	Crop status		Pests or group of pests controlled	Pest status	
	Major	minor		Major	minor
winter rye	PL	-	Anthemis arvensis	PL	-
			Apera spica-venti	PL	-

			<i>Viola arvensis</i>	PL	-
			<i>Brassica napus</i> (self-sown plant)	PL	-
			<i>Capsella bursa-pastoris</i>	PL	-
			<i>Centaurea cyanus</i>	PL	-
			<i>Galium aparine</i>	PL	-
			<i>Papver rhoeas</i>	PL	-
			<i>Stellaria media</i>	PL	-
			<i>Geranium pusillum</i>	PL	-
			<i>Tripleurospermum mar. inodorum</i>	PL	-
			<i>Veronica hederifolia</i>	PL	-

Winter barley

Crop and/or situation	Crop status		Pests or group of pests controlled	Pest status	
	Major	minor		Major	minor
winter barley	PL	-	<i>Anthemis arvensis</i>	PL	-
			<i>Apera spica-venti</i>	PL	-
			<i>Viola arvensis</i>	PL	-
			<i>Brassica napus</i> (self-sown plant)	PL	-
			<i>Capsella bursa-pastoris</i>	PL	-
			<i>Centaurea cyanus</i>	PL	-
			<i>Galium aparine</i>	PL	-
			<i>Papver rhoeas</i>	PL	-
			<i>Stellaria media</i>	PL	-
			<i>Geranium pusillum</i>	PL	-
			<i>Tripleurospermum mar. inodorum</i>	PL	-
			<i>Veronica hederifolia</i>	PL	-

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.

Information on trials submitted (3.1 Efficacy data)

The 48 trials (winter wheat 12 trials, winter triticale 12 trials, winter rye 12 trials, winter barley 12 trials) have been carried out in 2019 and 2020 in the North-East EPPO zone within the Central registration zone to evaluate the efficacy of applied at the proposed label rate of 124.8 g a.s./ha flufenacet, 100 g a.s./ha diflufenican and 4.8 g a.s./ha florasulam for the weed control in winter wheat, winter triticale, winter rye and winter barley (Table 3.2 6). Trials were conducted in the main winter wheat, winter triticale, winter rye and winter barley growing areas in the North-East EPPO zone in Poland.

Table 3.2-5: Presentation of trials efficacy trials

Winter wheat

Crop(s) *	Target(s)*	Country	Years	Type of trial**	Number of trials (number of valid trials)		GEP, non-GEP, official***	Comments (any other relevant information)
					North-East zone	-		
winter wheat post-emergence BBCH 11-25	<i>Anthemis arvensis</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	4(4)	-	GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Apera spica-venti</i>	Poland	2019	E	3(3)	-	GEP	-
		Poland	2020	E	5(5)	-	GEP	-
	TOTAL	-	2019-2020	-	8(8)	-	-	-
	<i>Viola arvensis</i>	Poland	2019	E	3(3)	-	GEP	-
		Poland	2020	E	5(5)	-	GEP	-
	TOTAL	-	2019-2020	-	8(8)	-	-	-
	<i>Brassica napus</i> (self-sown plant)	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	6(6)	-	GEP	-
	TOTAL	-	2019-2020	-	8(8)	-	-	-
	<i>Capsella bursa-pastoris</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	5(5)	-	GEP	-
	TOTAL	-	2019-2020	-	7(7)	-	-	-
	<i>Centaurea cyaneus</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	5(5)	-	GEP	-
	TOTAL	-	2019-2020	-	7(7)	-	-	-
	<i>Galium aparine</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	6(6)	-	GEP	-
	TOTAL	-	2019-2020	-	8(8)	-	-	-
	<i>Papaver rhoeas</i>	Poland	2019	E	3(3)	-	GEP	-
		Poland	2020	E	5(5)	-	GEP	-
	TOTAL	-	2019-2020	-	8(8)	-	-	-
	<i>Stellaria media</i>	Poland	2019	E	3(3)	-	GEP	-
		Poland	2020	E	4(4)	-	GEP	-
	TOTAL	-	2019-2020	-	7(7)	-	-	-
	<i>Geranium pusillum</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	4(4)	-	GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Tripleurospermum mar. inodorum</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	4(4)	-	GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-

	<i>Veronica hederifolia</i>	Poland	2019	E	-	-	GEP	-
		Poland	2020	E	3(3)	-	GEP	-
	TOTAL	-	2019-2020	-	3(3)	-	-	-
TOTAL	12	-	2019-2020	-	12 (82)	-	-	-

* According to the GAP table. Timing of the application(s) can be added if relevant (e.g. Pre-emergence 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 (number of valid trials)		GEP, non-GEP, official***	Comments (any other relevant information)
					North-East zone	-		
winter triticales post-emergence BBCH 11-25	<i>Anthemis arvensis</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	4(4)	-	GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Apera spica-venti</i>	Poland	2019	E	3(3)	-	GEP	-
		Poland	2020	E	6(6)	-	GEP	-
	TOTAL	-	2019-2020	-	9(9)	-	-	-
	<i>Viola arvensis</i>	Poland	2019	E	3(3)	-	GEP	-
		Poland	2020	E	5(5)	-	GEP	-
	TOTAL	-	2019-2020	-	8(8)	-	-	-
	<i>Brassica napus</i> (self-sown plant)	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	4(4)	-	GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Capsella bursa-pastoris</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	4(4)	-	GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Centaurea cyanus</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	4(4)	-	GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Galium aparine</i>	Poland	2019	E	1(1)	-	GEP	-
		Poland	2020	E	5(5)	-	GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Papaver rhoeas</i>	Poland	2019	E	1(1)	-	GEP	-
		Poland	2020	E	5(5)	-	GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Stellaria media</i>	Poland	2019	E	3(3)	-	GEP	-
		Poland	2020	E	4(4)	-	GEP	-
	TOTAL	-	2019-2020	-	7(7)	-	-	-

			2020					
	<i>Geranium pusillum</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	4(4)		GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Tripleurospermum mar. inodorum</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	5(5)		GEP	-
	TOTAL	-	2019-2020	-	7(7)	-	-	-
	<i>Veronica hederifolia</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	1(1)		GEP	-
	TOTAL	-	2019-2020	-	3(3)	-	-	-
TOTAL	12	-	2019-2020	-	12 (76)	-	-	-

* According to the GAP table. Timing of the application(s) can be added if relevant (e.g. Pre-mergence vs post-mergence, 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 (number of valid trials)		GEP, non-GEP, official***	Comments (any other relevant information)
					North-East zone	-		
winter rye post-emergence BBCH 11-25	<i>Anthemis arvensis</i>	Poland	2019	E	3(3)	-	GEP	-
		Poland	2020	E	4(4)		GEP	-
	TOTAL	-	2019-2020	-	7(7)	-	-	-
	<i>Apera spica-venti</i>	Poland	2019	E	4(4)	-	GEP	-
		Poland	2020	E	5(5)		GEP	-
	TOTAL	-	2019-2020	-	9(9)	-	-	-
	<i>Viola arvensis</i>	Poland	2019	E	3(3)	-	GEP	-
		Poland	2020	E	4(4)		GEP	-
	TOTAL	-	2019-2020	-	7(7)	-	-	-
	<i>Brassica napus</i> (self-sown plant)	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	4(4)		GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Capsella bursa-pastoris</i>	Poland	2019	E	1(1)	-	GEP	-
		Poland	2020	E	5(5)		GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Centaurea cyanus</i>	Poland	2019	E	3(3)	-	GEP	-
		Poland	2020	E	4(4)		GEP	-
	TOTAL	-	2019-2020	-	7(7)	-	-	-
	<i>Galium aparine</i>	Poland	2019	E	1(1)	-	GEP	-

		Poland	2020	E	5(5)		GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Papver rhoeas</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	4(4)		GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Stellaria media</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	4(4)		GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Geranium pusillum</i>	Poland	2019	E	1(1)	-	GEP	-
		Poland	2020	E	5(5)		GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Tripleurospermum mar. inodorum</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	4(4)		GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Veronica hederifolia</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	1(1)		GEP	-
	TOTAL	-	2019-2020	-	3(3)	-	-	-
TOTAL	12	-	2019-2020	-	12 (75)	-	-	-

* 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 barley

Crop(s) *	Target(s)*	Country	Years	Type of trial**	Number of trials (number of valid trials)		GEP, non-GEP, official***	Comments (any other relevant information)
					North-East zone	-		
winter barley post-emergence BBCH 11-25	<i>Anthemis arvensis</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	4(4)		GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Apera spica-venti</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	6(6)		GEP	-
	TOTAL	-	2019-2020	-	8(8)	-	-	-
	<i>Viola arvensis</i>	Poland	2019	E	1(1)	-	GEP	-
		Poland	2020	E	6(6)		GEP	-
	TOTAL	-	2019-2020	-	7(7)	-	-	-
	<i>Brassica napus</i> (self-sown plant)	Poland	2019	E	3(3)	-	GEP	-
		Poland	2020	E	5(5)		GEP	-
	TOTAL	-	2019-2020	-	8(8)	-	-	-

	<i>Capsella bursa-pastoris</i>	Poland	2019	E	3(3)	-	GEP	-
		Poland	2020	E	3(3)		GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Centaurea cyanus</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	4(4)		GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Galium aparine</i>	Poland	2019	E	3(3)	-	GEP	-
		Poland	2020	E	4(4)		GEP	-
	TOTAL	-	2019-2020	-	7(7)	-	-	-
	<i>Papver rhoeas</i>	Poland	2019	E	3(3)	-	GEP	-
		Poland	2020	E	3(3)		GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Stellaria media</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	5(5)		GEP	-
	TOTAL	-	2019-2020	-	7(7)	-	-	-
	<i>Geranium pusillum</i>	Poland	2019	E	2(2)	-	GEP	-
		Poland	2020	E	4(4)		GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Tripleurospermum mar. inodorum</i>	Poland	2019	E	3(3)	-	GEP	-
		Poland	2020	E	3(3)		GEP	-
	TOTAL	-	2019-2020	-	6(6)	-	-	-
	<i>Veronica hederifolia</i>	Poland	2019	E	1(1)	-	GEP	-
		Poland	2020	E	2(2)		GEP	-
	TOTAL	-	2019-2020	-	3(3)	-	-	-
TOTAL	12	-	2019-2020	-	12 (76)	-	-	-

* According to the GAP table. Timing of the application(s) can be added if relevant (e.g. Pre-emergence 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 ⁽¹⁾	Authorization number	Active substance(s)	Formulation		Registered application rate ⁽³⁾	Application rate in trials (per treatment)	Remark ⁽⁴⁾
					Type ⁽²⁾	Concentration of a.s.			
Winter wheat,	Bizon 118,75 SC	Poland	R-109/2014	diflufenican	SC – Suspen-	100 g/L	1.0 L/ha	1.0 L/ha	-
				florasulam		3.75 g/L			

winter triticale, winter barley				penoxsulam	sion con- centrate	15 g/L			
	Komplet 560 SC	Poland	R- 104/2014	diflufenican	SC – Suspension concentrate	280 g/L	0.4-0.5 L/ha	0.5 L/ha	-
				flufenacet		280 g/L			
Winter rye	Komplet 560 SC	Poland	R- 104/2014	diflufenican	SC – Suspension concentrate	280 g/L	0.4-0.5 L/ha	0.5 L/ha	-
				flufenacet		280 g/L			

- (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/H/FDF 574 SC were not carried out because this herbicide contains flufenacet 312 g/L + diflufenican 250 g/L + florasulam 12 g/L, which are a well-known active substance that has been used for many years in agricultural practice.

According to EPPO 1/306 (1) General principles for the development of co-formulated mixtures of plant protection products, a co-formulated mixture is defined as a plant protection product which contains more than one active substance. Mixtures may be developed for a variety of reasons, including improved effectiveness against one pest or a range of pests, better plant growth regulation, resistance management, a broader spectrum of pest control and other desirable properties such as flexibility of application or improved crop quality.

Effectiveness

CHR/H/FDF 574 SC is a plant protection product contains three well known active substances: flufenacet 312 g/L + diflufenican 250 g/L + florasulam 12 g/L. After analysing product contain flufenacet, diflufenican and florasulam registered in Poland and comparing time of use and pests there are strong issues supporting the authorization of a mixture.

Each of CHR/H/FDF 574 SC active substances has different mode of action on specific important weeds:

flufenacet – monocotyledonous weeds,

diflufenican – dicotyledonous weeds,

florasulam – monocotyledonous weeds.

Product CHR/H/FDF 574 SC control the most important weeds in cereals including *Apera spica-venti*.

Combination of these three substances control important dicotyledonous and monocotyledonous weeds, combines different modes of action to prevent resistance.

Potential advantages:

Advantages in combining active substances with different properties

CHR/H/FDF 574 SC contain 3 different active substances that acts in different ways and in different time, with systemic and foliar activity (Table 1).

Flufenacet is herbicide unclassified inhibition of cell division and cell growth, meristemic activity. Flufenacet is an oxyacetamide herbicide, included in HRAC Group HRAC group 15 (legacy K3). Oxyacetamides and chloroacetanilides both inhibit cell division after a lag phase of several hours. This inhibition results in a complete arrest of cell division in the root and shoot meristematic regions. New growth is stopped and elongating tissue may become distorted.

Diflufenican is a synthetic herbicide. It is absorbed by leaves and the coleoptiles of the grasses. It is included in HRAC Group 12 (legacy F1) – Inhibition of acetyl CoA carboxylase. Diflufenican in plant meristems inhibits the fatty acid biosynthesis by the acetyl-CoA carboxylase, which is the first enzyme of the fatty acid biosynthesis. Final destruction of annual and perennial grasses is achieved in a few weeks, depending on climatic conditions.

Florasulam is included in HRAC group 2 (legacy B) the inhibitions of ALS. The inhibition of ALS results in a number of distinctive whole plant symptoms. Growth of sensitive species is retarded within a matter

of hours of application although visible effects may not be observed for several days. Symptoms appear first in the upper meristematic region of the plants as chlorosis and necrosis. Complete desiccation of the plant may occur in 7-10 days in ideal growing conditions, but may take up to 6-8 weeks under less ideal conditions.

Table 1.

Active substance	Flufenacet	Diflufenican	Florasulam
Chemical group	oxyacetamide	carbamoyl nitrogen	triazolopyrimidine sulfonamides
HRAC group	15 (legacy K3)	12 (legacy F1)	2 (legacy B)
Time of action	Few weeks	Few weeks	7-10 days till 6-8 weeks
Mode of action	unclassified inhibition of cell division and cell growth, meristematic activity	Inhibition of acetyl CoA carboxylase	inhibit the plant enzyme acetolactate synthase enzyme (ALS)
Biological action	The molecular mode of action of the oxyacetamides is not known. Mode of action studies with the only oxyacetamide herbicide so far introduced (mefenacet, rice Japan) have shown a similarity with the action of chloroacetanilides (e.g. alachlor, metolachlor) at the cellular and at the tissue level. The molecular mode of action of the chloroacetanilides is also not known. Oxyacetamides and chloroacetanilides both inhibit cell division after a lag phase of several hours. This inhibition results in a complete arrest of cell division in the root and shoot meristematic regions. New growth is stopped and elongating tissue may become distorted.	It is absorbed by leaves and the coleoptiles of the grasses. Diflufenican in plant meristems inhibits the fatty acid biosynthesis by the acetyl-CoA carboxylase, which is the first enzyme of the fatty acid biosynthesis. The lack of fatty acids, affected by the herbicide, causes disruption of meristem around the shoot apex, followed by whole plant death. Final destruction of annual and perennial grasses is achieved in a few weeks, depending on climatic conditions. Diflufenican is systemic compound presenting upward and downward systemic properties. The upward translocation allows the product to inhibit the development.	Florasulam is a herbicide which is active against broadleaf weeds in winter and spring cereals by inhibiting the plant enzyme, acetolactate synthase (ALS). This results in complete desiccation of susceptible plants in 7-10 days under ideal growing conditions, however, this may take up to 6-8 weeks under less ideal conditions. Florasulam provides activity on a range of weeds of the <i>Caryophyllaceae</i> , <i>Convolvulaceae</i> , <i>Amaranthaceae</i> , <i>Malvaceae</i> , <i>Compositae</i> , <i>Polygonaceae</i> and is highly active on <i>Galium aparine</i> , <i>Stellaria media</i> , <i>Matricaria</i> spp and various cruciferae at very low rates. The herbicide is taken up by the roots or foliage of plants; the rate of Florasulam metabolism in <i>G. aparine</i> is slow and affords ample time for parent herbicide to translocate throughout the plant, compared with the rapid metabolism in wheat. It is considered extremely unlikely that resistance to Florasulam will develop; <i>G. aparine</i> may be controlled by products with alternative modes of action in both the cereal crop and rotational crops. Procedures for handling, storage, transport and fire for destruction and decontamination, and for emergency measures in case of accident have been recommended.

Using three active substances in a mixture provide more effective control than if they are applied singly in sequence.

CHR/H/FDF 574 SC contain three active substances with a different time and mode of action. In Poland there are twenty plant protection products containing diflufenican solo, eleven plant protection products containing flufenacet solo and fifteen plant protection products containing florasulam solo. Table below (Table 2) shows that CHR/H/FDF 574 SC has much more wider weeds control than solo products registered by applicant, also dose of active substances is lower.

Table 2.

Product dose		*CHR/H/FDF 574 SC 0.4 L/ha		**Adiunkt 500 SC dose 0.3 L/ha		***Cetnik 500 SC dose 0.35 L/ha		****Rassel 100 SC dose 0.05 L/ha	
No.	weeds	Winter cereals - mean efficacy %	Efficacy	Winter cereals - mean efficacy %	Efficacy	Winter wheat - mean efficacy %	Efficacy	Winter wheat, winter tritiale – mean efficacy %	Efficacy
1	<i>Galium aparine</i>	88.10	S	83.14	MS	59.06	T	93.95	S
2	<i>Viola arvensis</i>	92.27	S	96.02	S	58.83	MT	53.52	T
3	<i>Brassica napus</i> (self-sown plant)	95.12	S	-	-	62.31	MT	99.50	S
4	<i>Tripleurospermum mar. inodorum</i>	91.48	S	82.19	MS	57.53	T	97.61	S
5	<i>Stellaria media</i>	96.83	S	91.70	S	75.66	MS	98.23	S
6	<i>Apera spica-venti</i>	94.03	S	77.20	MS	97.71	S	-	-
7	<i>Veronica hederifolia</i>	98.57	S	94.61	S	64.15	MT	92.20	S
8	<i>Capsella bursa-pastoris</i>	96.45	S	-	-	-	-	98.25	S
9	<i>Papver rhoeas</i>	85.40	S	69.69	MT	-	-	97.08	S
10	<i>Anthemis arvensis</i>	95.68	S	-	-	85.85	S	-	-
11	<i>Geranium pusillum</i>	90.62	S	-	-	-	-	-	-
12	<i>Centaurea cyanus</i>	82.63	MS	66.80	MT	38.26	T	86.25	S
13	<i>Lamium purpureum</i>	-	-	96.25	S	49.40	T	-	-
14	<i>Myosotis arvensis</i>	-	-	98.44	S	-	-	99.00	S
15	<i>Veronica persica</i>	-	-	94.38	S	-	-	66.28	MT
16	<i>Vicia cracca</i>	-	-	90.69	S	-	-	-	-
17	<i>Bromus inermis</i>	-	-	-	-	100	S	-	-
18	<i>Lolium perenne</i>	-	-	-	-	98.58	S	-	-
19	<i>Lamium purpureum</i>	-	-	-	-	61.52	MT	-	-
20	<i>Consolida regalia</i>	-	-	-	-	43.30	T	-	-
21	<i>Alopecurus myosuroides</i>	-	-	-	-	48.78	T	-	-
22	<i>Thlaspi arvense</i>	-	-	-	-	-	-	94.90	S
23	<i>Veronica arvensis</i>	-	-	-	-	-	-	56.90	T
24	<i>Lamium amplexicaule</i>	-	-	-	-	-	-	76.30	MS
25	<i>Matricaria recutita</i>	-	-	-	-	-	-	99.00	S
26	<i>Veronica hederifolia triloba</i>	-	-	-	-	-	-	42.50	T

*CHR/H/FDF 574 SC (flufenacet 312 g/L + diflufenican 250 g/L + florasulam 12 g/L), dose 0.4 L/ha (124.8 g a.s./ha flufenacet + 100 g a.s./ha diflufenican + 4.8 g a.s./ha florasulam), application BBCH 11-25

**Adiunkt 500 SC/ Herubin 500 SC/ Saper 500 SC (diflufenican 500 g/L), dose: 0.3 L/ha (150 g a.s./ha), application time BBCH 14-23

***Cetnik 500 SC/ Cevino 500 SC (flufenacet 500 g/L), postemergence dose: 0.35 L/ha (175 g a.s./ha), application time BBCH 11-20

****Rassel 100 SC/ Plonarius 100 SC (florasulam 100 g/L), postemergence dose 0.05 L/ha(5 g a.s./ha), application time BBCH 13-31

After analysing data for product with solo diflufenican, flufenacet and florasulam (tables 3, 4, 5) registered in Poland it may be considered that:

- products contain only flufenacet control only 2-4 weed species,
- products contain only diflufenican control only 2-4 weed species,
- products contain only florasulam control only 2-9 weed species,
- CHR/H/FDF 574 SC control twelve the most important weed species in winter cereals. Spectrum of weeds controlled by CHR/H/FDF 574 SC is much bigger wide than solo products,
- growth stage of solo products contain flufenacet is BBCH 10-23, diflufenican is BBCH 12-13 and florasulam 13-39 and CHR/H/FDF 574 SC has BBCH 11-25,
- the maximum authorized dose of a diflufenican and flufenacet has been reduced. Products dose contain flufenacet is 192-240 g a.s./ha while in CHR/H/FDF 574 SC flufenacet dose is 124.8 g a.s./ha. Products dose, contain diflufenican, is 120-150 g a.s./ha while in CHR/H/FDF 574 SC, diflufenican dose is 100 g a.s./ha. Products dose, contain florasulam, is 5.0-7.5 g a.s./ha while in CHR/H/FDF 574 SC, florasulam dose is 4.8 g a.s./ha.
- Other general advantages for the mixture when compared with the solo product could include less packaging and reducing the number of operations for operators.

Table 3. Registered products containing flufenacet

PPP name	CHR/H/FDF 574 SC 0.4 L/ha	Diplomat 480 SC / Osprey 480 SC / Pali- sade 480 SC	Fence 480 SC	Fluent 500 SC	Glosset 600 SC	Ramtic 500 SC / Shelter 500 SC / Starfire 500 SC / Sunfire 500 SC	Vulcanus
a.s. g/ha	124.8 g a.s/ha flufenacet + 100 g a.s./ha diflufenican + 4.8 g a.s./ha florasulam	flufenacet 240 g a.s/ha	flufenacet 240 g a.s/ha	flufenacet 192 g a.s/ha	flufenacet 240 g a.s/ha	flufenacet 240 g a.s/ha	flufenacet 240 g a.s/ha
growth stage when use	BBCH 11-25	BBCH 11-12	BBCH 11-12	BBCH 10-16	BBCH 10-13	BBCH 10-23	BBCH 10-13
sensitive weeds							
weeds species	<i>Galium aparine</i>	<i>Galium aparine</i>	<i>Galium aparine</i>		<i>Galium aparine</i>		<i>Galium aparine</i>
	<i>Viola arvensis</i>	<i>Viola arvensis</i>	<i>Viola arvensis</i>	<i>Viola arvensis</i>			
	<i>Brassica napus</i> (self-sown plant)						
	<i>Tripleurospermum mar. inodorum</i>						
	<i>Stellaria media</i>		<i>Stellaria media</i>				
	<i>Apera spica-venti</i>	<i>Apera spica-venti</i>	<i>Apera spica-venti</i>	<i>Apera spica-venti</i>	<i>Apera spica-venti</i>	<i>Apera spica-venti</i>	<i>Apera spica-venti</i>
	<i>Veronica hederifolia</i>						
	<i>Capsella bursa-pastoris</i>						
	<i>Papver rhoeas</i>						
	<i>Anthemis arvensis</i>						
	<i>Geranium pusillum</i>						
	<i>Centauera cyanus</i>						
					<i>Poa annua</i>	<i>Poa annua</i>	<i>Poa annua</i>
					<i>Alopecurus myosuroides</i>		

Table 4. Registered products containing diflufenican

PPP name	CHR/H/FDF 574 SC 0.4 L/ha	Clayton Dome 500 SC / Clayton El Nino	Daman / Kwash / Rys	Dina 500 SC / Difenikan 500 SC	Diflanil 500 SC / Ukulele 500 SC	Diflato 500 SC / Somnus 500 SC / Violan 500 SC	Diflotex 500 SC	Fluto 500 SC	Legato 500 SC / Stakato 500 SC	Premazor Sad 500 SC
a.s. g/ha	124.8 g a.s/ha flufenacet + 100 g a.s./ha diflufenican + 4.8 g a.s./ha florasulam	diflufenican 150 g a.s/ha	diflufenican 150 g a.s/ha	diflufenican 150 g a.s/ha	diflufenican 150 g a.s/ha	diflufenican 150 g a.s/ha	diflufenican 125 g a.s/ha	diflufenican 150 g a.s/ha	diflufenican 150 g a.s/ha	diflufenican 150 g a.s/ha
growth stage when use	BBCH 11-25	BBCH 12-13	BBCH 12-13	BBCH 12-13	BBCH 12-13	BBCH 12-13	BBCH 12-13	BBCH 12-13	BBCH 12-13	BBCH 12-13
sensitive weeds										
weeds species	<i>Galium aparine</i>				<i>Galium aparine</i>		<i>Galium aparine</i>			
	<i>Viola arvensis</i>	<i>Viola arvensis</i>	<i>Viola arvensis</i>	<i>Viola arvensis</i>	<i>Viola arvensis</i>	<i>Viola arvensis</i>	<i>Viola arvensis</i>	<i>Viola arvensis</i>	<i>Viola arvensis</i>	<i>Viola arvensis</i>
	<i>Brassica napus</i> (self-sown plant)									
	<i>Tripleurospermum mar. inodorum</i>									
	<i>Stellaria media</i>	<i>Stellaria media</i>	<i>Stellaria media</i>	<i>Stellaria media</i>	<i>Stellaria media</i>	<i>Stellaria media</i>	<i>Stellaria media</i>	<i>Stellaria media</i>	<i>Stellaria media</i>	<i>Stellaria media</i>
	<i>Apera spica-venti</i>								<i>Apera spica-venti</i>	
	<i>Veronica hederifolia</i>	<i>Veronica hederifolia</i>			<i>Veronica hederifolia</i>	<i>Veronica hederifolia</i>	<i>Veronica hederifolia</i>	<i>Veronica hederifolia</i>	<i>Veronica hederifolia</i>	
	<i>Capsella bursa-pastoris</i>	<i>Capsella bursa-pastoris</i>		<i>Capsella bursa-pastoris</i>	<i>Capsella bursa-pastoris</i>	<i>Capsella bursa-pastoris</i>		<i>Capsella bursa-pastoris</i>	<i>Capsella bursa-pastoris</i>	<i>Capsella bursa-pastoris</i>
	<i>Papaver rhoeas</i>						<i>Papaver rhoeas</i>			
	<i>Anthemis arvensis</i>						<i>Anthemis arvensis</i>			
	<i>Geranium pusillum</i>									
	<i>Centauera cyanus</i>									
							<i>Myosotis arvensis</i>			
							<i>Lamium purpureum</i>			
							<i>Veronica persica</i>			

Table 5. Registered products containing florasulam

PPP name	CHR/H/FDF 574 SC 0.4 L/ha	Duster/ Globus SC	FlorasuGuard/ Scriven 050 SC/ Sunlight 50 SC/ Ultegra 050 SC/ Upton 050 SC	Flyer	Kantor 050 SC	Laserto 050 SC/ Linnea/ Saracen 050 SC	Plonarius 100 SC/ Rassel 100 SC
as g/ha	124.8 g a.s/ha flufenacet + 100 g a.s./ha diflufenican + 4.8 g a.s./ha florasulam	florasulam 5 g a.s/ha	florasulam 5 g a.s/ha	florasulam 7.5 g a.s/ha	florasulam 5 g a.s/ha	florasulam 5 g a.s/ha	florasulam 5 g a.s/ha
growth stage when use	BBCH 11-25	BBCH 29 - 41	BBCH 13-39	BBCH 13-39	BBCH 13-32	BBCH 13-32	BBCH 13-31
weeds species	<i>Galium aparine</i>		<i>Galium aparine</i>	<i>Galium aparine</i>	<i>Galium aparine</i>	<i>Galium aparine</i>	<i>Galium aparine</i>
	<i>Viola arvensis</i>						
	<i>Brassica napus</i> (self-sown plant)				<i>Brassica napus</i> (self-sown plant)	<i>Brassica napus</i> (self-sown plant)	<i>Brassica napus</i> (self-sown plant)
	<i>Tripleurospermum mar. inodorum</i>		<i>Tripleurospermum mar. inodorum</i>	<i>Tripleurospermum mar. inodorum</i>	<i>Tripleurospermum mar. inodorum</i>	<i>Tripleurospermum mar. inodorum</i>	<i>Tripleurospermum mar. inodorum</i>
	<i>Stellaria media</i>	<i>Stellaria media</i>	<i>Stellaria media</i>	<i>Stellaria media</i>	<i>Stellaria media</i>	<i>Stellaria media</i>	<i>Stellaria media</i>
	<i>Apera spica-venti</i>						
	<i>Veronica hederifolia</i>				<i>Veronica hederifolia</i>	<i>Veronica hederifolia</i>	
	<i>Capsella bursa-pastoris</i>				<i>Capsella bursa-pastoris</i>	<i>Capsella bursa-pastoris</i>	<i>Capsella bursa-pastoris</i>
	<i>Papver rhoeas</i>	<i>Papver rhoeas</i>	<i>Papver rhoeas</i>	<i>Papver rhoeas</i>	<i>Papver rhoeas</i>	<i>Papver rhoeas</i>	<i>Papver rhoeas</i>
	<i>Anthemis arvensis</i>						
	<i>Geranium pusillum</i>						
	<i>Centauera cyanus</i>						
				<i>Matricaria chamomilla</i>			
				<i>Fallopia convolvulus</i>			
					<i>Thlaspi arvense</i>	<i>Thlaspi arvense</i>	<i>Thlaspi arvense</i>
					<i>Descurainia sophia</i>		
						<i>Myosotis arvensis</i>	

Justification for the ratio of active substances

- There is no overlap in activity against the target pests a case based on the rates of the solo products
- Applied dose of each individual active substance in a mixture is not greater than the corresponding dose of the same active substance in a solo product.
- the primary tests were not conduct because there is no product with flufenacet, diflufenikan and florasulam, but each active substance is well know in all over the Europe. There is a lot of product registered in Poland with solo flufenacet, diflufenikan and florasulam. There are 15 products registered in Poland with mixture diflufenikan and flufenacet and two mixture with diflufenikan and florasulam (+ three with diflufenikan, florasulam and penoxulam), what means that mixing this active substances is well known and is not new use for market.

Table 6.

Product	Registration no	Active substances	Dose L/ha	Active substances dose g/ha	Crop
Arnold	R-189/2018	diflufenikan - 200 g, flufenacet - 400 g	0.60	flufenacet 240 g; diflufenikan 120 g	winter wheat, winter barley, winter triticales, winter rye
Bat 600 SC	R-83/2018	diflufenikan - 200 g, flufenacet - 400 g	0.35	flufenacet 140 g; diflufenikan 70 g	winter wheat, winter barley, winter triticales, winter rye
Battle Delta 600 SC	R-144/2016	diflufenikan - 200 g, flufenacet - 400 g	0.35	flufenacet 140 g; diflufenikan 70 g	winter wheat, winter barley, winter triticales, winter rye
Carthago SC	R-7/2020 wu	diflufenikan - 200 g, flufenacet - 400 g	0.60	flufenacet 240 g; diflufenikan 120 g	winter wheat, winter barley, winter triticales, winter rye
Expert 600 SC	R-91/2014	diflufenikan - 200 g, flufenacet - 400 g	0.35	flufenacet 140 g; diflufenikan 70 g	winter wheat, winter barley, winter triticales, winter rye
Komandos 560 SC	R-36/2015 h.r.	diflufenikan - 280 g, flufenacet - 280 g	0.50	flufenacet 140 g; diflufenikan 140 g	winter wheat, winter barley, winter triticales, winter rye
Kompleks 560 SC	R-69/2016 h.r.	diflufenikan - 280 g, flufenacet - 280 g	0.50	flufenacet 140 g; diflufenikan 140 g	winter wheat, winter barley, winter triticales, winter rye
Komplet 560 S.C.	R-104/2014	diflufenikan - 280 g, flufenacet - 280 g	0.50	flufenacet 140 g; diflufenikan 140 g	winter wheat, winter barley, winter triticales, winter rye
Łucznik	R-76/2020	diflufenikan - 200 g, flufenacet - 400 g	0.60	flufenacet 240 g; diflufenikan 120 g	winter wheat, winter barley,
Mertil 600 SC	R-86/2018	diflufenikan - 200 g, flufenacet - 400 g	0.60	flufenacet 240 g; diflufenikan 120 g	winter wheat, winter barley, winter triticales, winter rye
Naceto SC	R-25/2019wu	diflufenikan - 200 g, flufenacet - 400 g	0.60	flufenacet 240 g; diflufenikan 120 g	winter wheat, winter barley,
Nucleus 600 SC	R-45/2021	flufenacet - 400 g, diflufenikan - 200 g	0.35	flufenacet 140 g; diflufenikan 70 g	winter wheat, winter barley, winter triticales, winter rye
Premium 560 SC	R-31/2020 h.r	diflufenikan - 280 g, flufenacet - 280 g	0.50	flufenacet 140 g; diflufenikan 140 g	winter wheat, winter barley, winter triticales, winter rye
Reksio 600 SC	R-45/2021 h.r	diflufenikan - 200 g, flufenacet - 400 g	0.35	flufenacet 140 g; diflufenikan 70 g	winter wheat, winter barley, winter triticales, winter rye
Reliance 600 SC	R-85/2018	diflufenikan - 200 g, flufenacet - 400 g	0.60	flufenacet 240 g; diflufenikan 120 g	winter wheat, winter barley, winter triticales, winter rye
Laserto D 550 SC	R-69/2020 h.r.	diflufenikan - 500 g, florasulam - 50 g	0.075	diflufenikan 37.5 g; florasulam 3.75 g	winter wheat, winter barley, winter triticales, winter rye
Saracen Delta 550 SC	R-2/2016	diflufenikan - 500 g, florasulam - 50 g	0.10	diflufenikan 50 g; florasulam 5 g	winter wheat, winter barley, winter triticales, winter rye
Bizon	R - 182/2021d	diflufenikan - 100 g, penoxsulam 15 g, florasulam 3.75g	1.0	diflufenikan - 100 g; penoxsulam 15 g; florasulam 3.75 g	winter wheat, winter barley, winter triticales, winter rye
Legion	R-622/2017d	diflufenikan - 100 g, penoxsulam 15 g, florasulam 3.75 g	1.0	diflufenikan - 100 g; penoxsulam 15 g; florasulam 3.75g	winter wheat, winter barley, winter triticales, winter rye
Viper	R - 624/2017d	diflufenikan - 100 g, penoxsulam 15 g, florasulam 3.75 g	1.0	diflufenikan - 100 g; penoxsulam 15 g; florasulam 3.75 g	winter wheat, winter barley, winter triticales, winter rye

Acceptability of the resistance risk

CHR/H/FDF 574 SC is a herbicide containing active substances: flufenacet 312 g/L + diflufenican 250 g/L + florasulam 12 g/L. Flufenacet is grouped into the inhibition of the biosynthesis of very long chain fatty acids group (VLCFAs) resulting in inhibition of cell division and cell growth (HRAC group: 15, legacy K3). This group of herbicides is quite well known and has been applied commercially for decades. The weed resistance to flufenacet occurred only in two weed species: *Lolium perenne* ssp. *multiflorum* and *Alopecurus myosuroides*. All cases of weed resistance to diflufenican have been reported in the Australia and Israel with no evidence of resistance in Europe. The risk of resistance developing to diflufenican is low, particularly in Europe. There are many cases of weed resistance to florasulam and HRAC group 2 (ALS inhibitors), but none of them simultaneously showed resistance to flufenacet and diflufenican and other herbicides from HRAC groups: 15 (legacy K3) and 12 (legacy B).

According to submitted efficacy data none of the tested weeds showed high tolerance to the product CHR/H/FDF 574 SC.

CHR/H/FDF 574 SC is a herbicide containing active substances: flufenacet 312 g/L + diflufenican 250 g/L + florasulam 12 g/L, which belong to different HRAC groups (different mode of action). The mode of action involving a 'multi-site' action may indicate a lower risk to developing weeds resistance. According to EPPO PP 1/213 (4) Resistance risk analysis weeds usually only produce one generation per year and development of resistance is usually a relatively slow process.

In conclusion, in the applicant's opinion, this level of weeds resistance risk should be considered to be acceptable.

comments of zRMS: dRR point 3.2.1	<p>Preliminary studies on product CHR/H/FDF 574 SC were not carried out. The product contains well-known active substances that has been used for many years in agricultural practice: florasulam 12 g/l, diflufenican 250 g/l, flufenacet 312 g/l. The Applicant presented justification for potential advantages of the new mixture. Three substances have different mode of action (no overlapping activity) and act in different time, with systemic and foliar activity CHR/H/FDF 574 SC might be a good alternative to weed resistance management in cereals, compared to the herbicides containing one or two actives already registered.</p> <p>Efficacy of tested formulation was compared to efficacy of products based on solo active substances with the same pattern of application: Adiunkt 500 S.C.(dose rate 0,3 l/ha) containing diflufenican as active substance, Cetnik 500 S.C. (dose rate 0,35 l/ha) containing active substance flufenacet and Rassel 100 SC (dose rate 0,05 l/ha) containing active substance florasulam showing better efficacy in controlling of targeted weeds species. What is more dose rates of both actives that are candidate for substitution: diflufenican and flufenacet and the third active substance have been reduced in the product in comparison to solo products.</p> <p>What is more mixtures of diflufenican and flufenacet and diflufenican and florasulam (two actives used in CHR/H/FDF 574 SC) are placed on the market and very well known.</p> <p>Placing on the market the mixture with 3 active substances means also less packaging and reducing number of operations for operators.</p> <p>The Applicant showed advantages of the new mixture what might be enough justification to place CHR/H/FDF 574 SC on the market.</p>
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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 (e.g. 10 to 14 days after application).- not applicable

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 herbicide CHR/H/FDF 574 SC in winter wheat, winter triticale, winter rye and winter barley the minimum effective dose of product CHR/H/FDF 574 SC used is:

Used solo:

0.4 L/ha once a season in in winter wheat, winter triticale, winter rye and winter barley, which are corresponding to 124.8 g a.s./ha flufenacet, 100 g a.s./ha diflufenican and 4.8 g a.s./ha florasulam.

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”.

No specific studies were conducted to fill this data point.

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

Not applicable

Summary and conclusions on the minimum effective dose

Not applicable

comments of zRMS: dRR point 3.2.2	Minimum effective dose tests The Applicant did not presented separate data to confirm minimum effective dose. The CHR/H/FDF 574 SC was tested at dose rates: 0,3; 0,4; 0,5 l/ha in winter wheat, winter triticale, winter rye, winter barley for the control of mono and dicot weed in efficacy trials, to establish the minimum effective dose. On the basis of efficacy trials the minimum effective dose of product CHR/H/FDF 574 SC was establish on the level 0,4 l/ha.
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3.2.3 Efficacy tests (KCP 6.2)

Materials and methods

The applicant submitted 48 reports (in total) showing the results in research into product efficacy carried out in 2019 and 2020 in winter wheat (12 trials), winter triticale (12 trials), winter rye (12 trials) and winter barley (12 trials). List of these reports is contained in Appendix 1.

Site

Trials were conducted in different regions in Poland where winter wheat, winter triticale, winter rye and winter 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 herbicide CHR/H/FDF 574 SC were performed in 2019 and 2020 by:

- SynTech Research Poland Sp. z o.o., ul. Jagiellońska 69/1, 85-027 Bydgoszcz, Poland
- 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

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 1/93 (3) Weeds in cereals

Assessment methods

Statistical Analysis

The test results were statistically evaluated using the ARM 2020.1 statistical program. All assessment data was analyzed by analysis of variance (two-way analysis of variance). Significance of differences between the combinations was assessed using the Student-Newman-Keuls test at a significance level of $p = 0.05$ using "ARM 9" (version 9.1.5). All data were tested for homogeneity using the Bartlett test for homogeneity. For any data columns that did not pass this test, automatic data transformations were performed in the ARM (see ARM action codes below each scoreboard). Care should be taken when interpreting these data columns. Efficacy was analyzed by Abbott's test (% of control).

Software for analysis of the results was ARM Revision 2017.4 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 (S-N-K) 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 S-N-K 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 2020.1 software.

Assessment of efficacy

The effectiveness of the control of monocotyledonous and dicotyledonous weeds was assessed visually by comparing the condition of individual weeds on the herbicide-treated plots and on the untreated objects. In addition, 262 DAAs were counted for panicle for monocotyledonous weeds. Results were presented as percent damage using a 0-100 scale, where 0 - no efficacy, 100 - total weed control. Both before the application of the preparation and on each evaluation day, the number of individual weeds was determined on the control plots on the area of 1 m².

An efficacy was evaluated through assessments of damage weeds on plots treated compared to untreated (check) plots. The results was presented in percentage of efficacy (%). On untreated plots estimated number of weeds on 1 square meter.

Efficacy as % of weed control. The occurrence and intensity of symptoms of weed damages were determined using % scale. (0% = no symptoms occur, 100% = full control of weeds).

Assessment of phytotoxicity

Phytotoxicity (chlorosis and necrosis), stunting and thinning were assessed by visual estimation of the intensity on an overall plot basis on a percentage scale 0-100 % (0=no damage). The assessment date was determined by the speed of action and period of efficacy of the test substances.

The phytotoxicity assessment of the tested preparations was carried out by visually assessing the intensity of chlorosis, necrosis, leaf twisting, reduction of plant turgor, etc. on the surface of the entire plots and comparing each plot with the control plot. The assessment was made directly on the plantation. The results are presented on a 0-100 scale, where 0 - no phytotoxicity, 100 - complete destruction of plants.

Applications methods and rates

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

Tested herbicide was applied at the growth stage in winter wheat, winter triticale, winter rye and winter barley:

BBCH 11-25 in winter wheat, winter triticale, winter rye and winter barley.

The product CHR/H/FDF 574 SC has been used:

in winter wheat, winter triticale, winter rye and winter barley at the following rates of 0.3, 0.4, 0.5 L/ha.

Bizon 118,75 SC and Komplet 560 SC were used as a reference products in winter wheat, winter triticale and winter barley.

Komplet 560 SC was used as a reference product in winter rye.

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/H/FDF 574 SC	0.3 L/ha	172 g a.s./ha	A	BBCH 11-25
3	CHR/H/FDF 574 SC	0.4 L/ha	230 g a.s./ha	A	BBCH 11-25
4	CHR/H/FDF 574 SC	0.5 L/ha	287 g a.s./ha	A	BBCH 11-25
5	Bizon 118,75 SC	1.0 L/ha	119 g a.s./ha	A	BBCH 11-25

6	Komplet 560 SC	0.5 L/ha	280 g a.s./ha	A	BBCH 11-25
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Winter triticale

No.	Name	Rate (L/ha)	other rate (g a.s./ha)	Appl code	Growth Stage BBCH
1	Untreated Check				
2	CHR/H/FDF 574 SC	0.3 L/ha	172 g a.s./ha	A	BBCH 11-25
3	CHR/H/FDF 574 SC	0.4 L/ha	230 g a.s./ha	A	BBCH 11-25
4	CHR/H/FDF 574 SC	0.5 L/ha	287 g a.s./ha	A	BBCH 11-25
5	Bizon 118,75 SC	1.0 L/ha	119 g a.s./ha	A	BBCH 11-25
6	Komplet 560 SC	0.5 L/ha	280 g a.s./ha	A	BBCH 11-25

Winter rye

No.	Name	Rate (L/ha)	other rate (g a.s./ha)	Appl code	Growth Stage BBCH
1	Untreated Check				
2	CHR/H/FDF 574 SC	0.3 L/ha	172 g a.s./ha	A	BBCH 11-25
3	CHR/H/FDF 574 SC	0.4 L/ha	230 g a.s./ha	A	BBCH 11-25
4	CHR/H/FDF 574 SC	0.5 L/ha	287 g a.s./ha	A	BBCH 11-25
5	Komplet 560 SC	0.5 L/ha	280 g a.s./ha	A	BBCH 11-25

Winter barley

No.	Name	Rate (L/ha)	other rate (g a.s./ha)	Appl code	Growth Stage BBCH
1	Untreated Check				
2	CHR/H/FDF 574 SC	0.3 L/ha	172 g a.s./ha	A	BBCH 11-25
3	CHR/H/FDF 574 SC	0.4 L/ha	230 g a.s./ha	A	BBCH 11-25
4	CHR/H/FDF 574 SC	0.5 L/ha	287 g a.s./ha	A	BBCH 11-25
5	Bizon 118,75 SC	1.0 L/ha	119 g a.s./ha	A	BBCH 11-25
6	Komplet 560 SC	0.5 L/ha	280 g a.s./ha	A	BBCH 11-25

Details of experiments

Winter wheat

Report code	A.T/2019/06 7/PO	A.T/2019/07 1/PO	AH/19/PO/2 6/Ce/FDF2/1	AH/19/PO/2 6/Pr/FDF1/1	A.T/2020/12 9/PO	A.T/2020/13 0/PO	A.T/2020/15 4/PO	SRPL20- 429-336HE	SRPL20- 430-336HE	SRPL20- 431-336HE	SRPL20- 432-336HE	SRPL20- 433-336HE
Location	Modrze/ Poland	Wilcze/ Poland	Mrowino/ Poland	Przybroda/ Poland	Kocanowo/ Poland	Angowice/ Poland	Tonin/ Po- land	Retkowo/ Poland	Pokrzywno/ Poland	Durąg/ Po- land	Murczyn/ Poland	Wawolnica/ Poland
Plant /cultivar	winter wheat/ Euforia	winter wheat/ Arkadia	winter wheat/ Hondia	winter wheat/ Arkadia	winter wheat/ Apostel	winter wheat/ RGT Bilanz	winter wheat/ RGT Bilanz	winter wheat/ Patras	winter wheat/ Fenomen	winter wheat/ Tytanika	winter wheat/ Solehio	winter wheat/ Ponticus
Seeding date	27.09.2019	16.09.2019	27.09.2019	24.09.2019	23.09.2020	15.09.2020	23.09.2020	19.10.2020	25.09.2020	30.09.2020	12.10.2020	28.09.2020
Seeding rate	140 kg/ha	200 kg/ha	220 kg/ha	220 kg/ha	165 kg/ha	185 kg/ha	165 kg/ha	200 kg/ha	200 kg/ha	210 kg/ha	200 kg/ha	185 kg/ha
Forecrop	winter barley	winter wheat	winter tritica- le	winter rape	winter rape	winter wheat	winter tritica- le	winter rape	winter wheat	spring wheat	winter barley	winter rape
Type of sprayer	backpack applicator, compressed air-operated	backpack applicator, compressed air-operated	plot sprayer BICSPR	plot sprayer BICSPR	backpack applicator, compressed air-operated	backpack applicator, compressed air-operated	backpack applicator, compressed air-operated	backpack applicator, compressed air-operated	backpack applicator, compressed air-operated	backpack applicator, compressed air-operated	backpack applicator, compressed air-operated	backpack applicator, compressed air-operated
Date of treatment A	14.10.2019	14.10.2019	15.11.2019	18.10.2019	22.10.2020	17.10.2020	27.10.2020	15.11.2020	03.11.2020	28.10.2020	09.11.2020	05.11.2020
Plant deve- lopment phase A	BBCH 11-12	BBCH 12-13	BBCH 21	BBCH 14	BBCH 13-14	BBCH 11-13	BBCH 21-22	BBCH 12-15	BBCH 13-21	BBCH 10-12	BBCH 11	BBCH 17-19
Soil type	sandy loam	sandy loam	loamy sand	sandy loam	loamy sand	sandy loam	loamy sand	sandy loam	clay loam	loamy sand	sandy clay loam	silt loam
pH	7.9	6.3	6.5	5.8	6.8	5.2	7.3	6.8	6.0	5.8	6.3	6.5
Water (L/ha)	200 L/ha	300 L/ha	200 L/ha	200 L/ha	200 L/ha	200 L/ha	300 L/ha	200 L/ha	200 L/ha	200 L/ha	300 L/ha	200 L/ha

[illegible]

[illegible]

Report code	A.T/2019/06 9/JO	A.T/2019/07 3/JO	AH/19/JO/2 6/Pr/FDF1/2	AH/19/JO/2 6/ZI/FDF/2	A.T/2020/13 3/JO	A.T/2020/13 4/JO	A.T/2020/15 3/JO	SRPL20- 434-336HE	SRPL20- 435-336HE	SRPL20- 436-336HE	SRPL20- 437-336HE	SRPL20- 438-336HE
Location	Kakulin /Poland	Jęczniki Wielkie /Poland	Przybroda /Poland	Złotniki /Poland	Kopaszyn /Poland	Gaj Wielki /Poland	Żabi- czyn/Poland	Tomaszkowo /Poland	Osowka /Poland	Tomaszkowo /Poland	Boruszyn /Poland	Krzyżowice /Poland
Plant /cultivar	winter bar- ley/ Arenia	winter bar- ley/ Kosmos	winter bar- ley/ Zenek	winter bar- ley/ Gloria	winter bar- ley/ Sandra	winter bar- ley/ Galileo	winter bar- ley/ Zenek	winter bar- ley/ Sandra	winter bar- ley/ Kosmos	winter bar- ley/ Sandra	winter bar- ley/ Kosmos	winter bar- ley/ Kosmos
Seeding date	11.09.2019	16.09.2019	16.09.2019	26.09.2019	16.09.2020	15.09.2020	10.09.2020	02.10.2020	16.10.2020	16.09.2020	01.10.2020	10.09.2020
Seeding rate	140 kg/ha	160 kg/ha	160 kg/ha	170 kg/ha	140 kg/ha	80 kg/ha	200 kg/ha	180 kg/ha	180 kg/ha	180 kg/ha	170 kg/ha	170 kg/ha
Forecrop	winter oilse- ed rape	winter wheat	common oat	winter oilse- ed rape	winter wheat	winter wheat	winter rape	winter barley	winter rape	winter barley	winter barley	winter wheat
Type of sprayer	backpack applicator, compressed air-operated	backpack applicator, compressed air-operated	plot sprayer BICSPR	plot sprayer BICSPR	backpack applicator, compressed air-operated	backpack applicator, compressed air-operated	backpack applicator, compressed air-operated	backpack applicator, compressed air-operated	backpack applicator, compressed air-operated	backpack applicator, compressed air-operated	backpack applicator, compressed air-operated	backpack applicator, compressed air-operated
Date of treatment A	04.10.2019	18.10.2019	17.10.2019	05.11.2019	12.10.2020	09.10.2020	16.10.2020	28.10.2020	05.11.2020	05.11.2020	23.10.2020	27.10.2020
Plant deve- lopment phase A	BBCH 12-21	BBCH 21-23	BBCH 14	BBCH 21-23	BBCH 12-14	BBCH 13-22	BBCH 12-13	BBCH 11-13	BBCH 11-13	BBCH 19-22	BBCH 11-13	BBCH 23-25
Soil type	sandy loam	sandy loam	loamy sand	loamy sand	sandy loam	slit loam	sandy loam	sandy loam	sandy loam	sandy loam	sandy loam	sandy loam
pH	6.9	4.9	6.1	6.6	7.2	6.4	6.5	6.9	5.9	5.5	6.0	6.9
Water (L/ha)	200 L/ha	200 L/ha	200 L/ha	200 L/ha	200 L/ha	300 L/ha	200 L/ha	200 L/ha	200 L/ha	200 L/ha	200 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 48 trials (winter wheat 12 trials, winter triticale 12 trials, winter rye 12 trials, winter barley 12 trials) have been carried out in 2019 and in 2020 in Poland. The herbicide CHR/H/FDF 574 SC was applied once per season in the autumn:

in winter wheat, winter triticale, winter rye and winter barley at the following rates of 0.3, 0.4, 0.5 L/ha.

The product CHR/H/FDF 574 SC has been used:

in winter wheat, winter triticale, winter rye and winter barley at the following rates of 0.3, 0.4, 0.5 L/ha.

Tested herbicide was applied at the growth stage:

BBCH 11-25 in winter wheat, winter triticale, winter rye and winter 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 1/93 (3) Weeds in cereals
Experimental design	Plot design	Randomized Complete Block (RCB) – (48)
	Plot size	Winter wheat: 11.25-21.0 m ² Winter triticale: 10.0-20.0 m ² Winter rye: 12.5-20.0 m ² Winter barley: 12.5-21.0 m ²
	Number of replications	4 (48)
Crop	Trials per crop	Winter wheat (12) Winter triticale (12) Winter rye (12) Winter barley (12)
	Varieties per crop	Winter wheat: Euforia, Arkadia, Hondia, Apostel, RGT Bilanz, Patras, Fenomen, Tytanika, Solehio, Ponticus Winter triticale: Trapero, Borwo, Meloman, Rotondo, Borowik, Orinoko, Twingo, Grenado, Aliko Winter rye: Florano, Dolaro, Granat, Dnakowskie Granat, Dańkowskie Diamant, Serafino, Poznańskie, Bono F1 Winter barley: Arenia, Kosmos, Zenek, Gloria, Sandra, Galileo
	Sowing period	Winter wheat: 16.09.2019-27.09.2019, 15.09.2020-19.10.2020 Winter triticale: 14.09.2019-24.10.2019, 22.09.2020-26.09.2020 Winter rye: 12.09.2019-14.10.2019, 11.09.2020-30.09.2020 Winter barley: 11.09.2019-26.09.2019, 10.09.2020-16.10.2020
Application	Crop stage (BBCH)* at application	Winter wheat: BBCH 10-22 Winter triticale: BBCH 11-22 Winter rye: BBCH 13-25 Winter barley: BBCH 11-25
	Timing Pest stage at application (1)	The data available in Appendix 4
	Number of applications Intervals between	1 (48 trials), interval – n/a

	applications	
	Spray volumes	Winter wheat: 200-300 L/ha Winter tritcale: 200-300 L/ha Winter rye: 200-300 L/ha Winter 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: 5.2-7.9 Winter tritcale pH: 4.8-7.9 Winter rye pH: 5.0-6.6 Winter barley pH: 4.9-7.2
	e.g. Natural / artificial inoculation...	n/a
	e.g. Field / Greenhouse...	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 48 trials were carried out to evaluate the efficacy of product CHR/H/FDF 574 SC for the control of mono- and dicotyledonous weeds in winter wheat, winter tritcale, winter rye and winter barley.

Efficacy data for mono- and dicotyledonous weeds are presented from 48 efficacy trials assessed. 48 trials have been conducted in season 2019 and 2020 in Poland.

3.2.3-1 Efficacy tests of CHR/H/FDF 574 SC

Extrapolation of studies performed in 2019 and 2020 from winter wheat to winter tritcale, winter rye and winter barley

In reference to EPPO norm PP 1/226(4) "Efficacy evaluation of plant protection products Number of efficacy trials", according to point: Number of trials for direct efficacy (effectiveness) - "The number of trials is primarily determined by the importance of the crop and the pest (major or minor), and the possibility of extrapolation between crops and pests".

Under point: Reduced number of trials – the following information is available:

"In some situations, there may be the opportunity to reduce the number of trials done, and a case may be made for this as follows:

- Where there is a large amount of supporting evidence from use of the product, or of similar products with the same active substance, on closely related pests or against the same pests on different crops, the number of trials necessary will be determined by the amount of supporting evidence and the similarity of the pests and crops sought". In making extrapolations between crops or pests, it is important to explain and justify the reasoning for the extrapolation.

According to 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 [14, 17], point 6. Efficacy data:

"If to the opinion of the applicant the trials from the first season adequately confirm the validity of claims made on the basis of extrapolation of results from other crops, commodities or situations or from tests with closely similar preparations, a justification, which is acceptable to the competent authority for not carrying out a second season's work must be provided."

CRD - PROPOSALS FOR EXTENDING AND HARMONIZING EFFICACY AND CROP SAFETY EXTRAPOLATIONS TO REDUCE THE NEED FOR EFFICACY TRIALS ON MINOR CROPS

The following document was prepared by the Chemicals Regulation Directorate (CRD, formerly PSD), the UK pesticide regulatory authority, under the European Commission (DG SANCO) contract [15]. It

presents lists of specific extrapolations for efficacy and crop safety trials. The proposals in the lists are intended as a framework for evaluators, to be used alongside expert judgment and regulatory experience. One of main strategies proposed in order to address efficacy data requirements is to extrapolate from extant registered uses, and this was elaborated in a EPPO standard (PP1/257) [16] published in the Bulletin OEPP/EPPO Bulletin Vol. 37(3), December 2007. The EPPO standard is based on the extrapolation document developed by Chemicals Regulation Directorate (CRD, formerly PSD). Although, this document refers to minor uses, it shall be noted that pt. 1.1. paragraph 3. contains the following information:

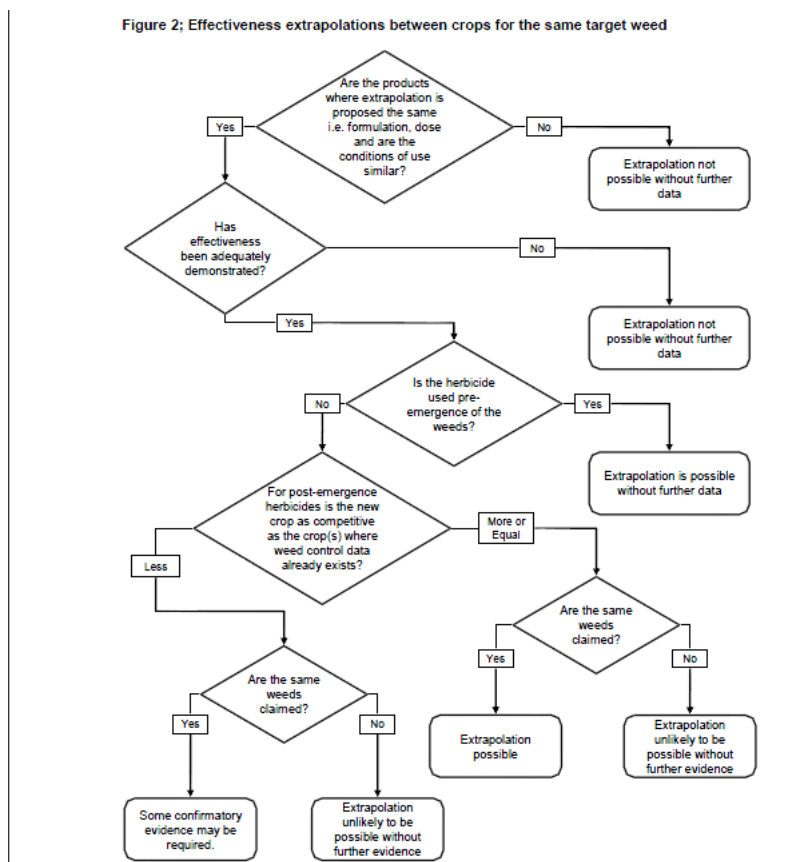
„3. Extrapolations will normally only be used to support the authorization of products for use on minor crops. Authorizations for the use of PPPs on major crops must always be supported by data. However, the amount of data required to support a use on a major crop may be reduced from that normally required, by extrapolating data from similar crops or targets.”

According to paragraph 5.:

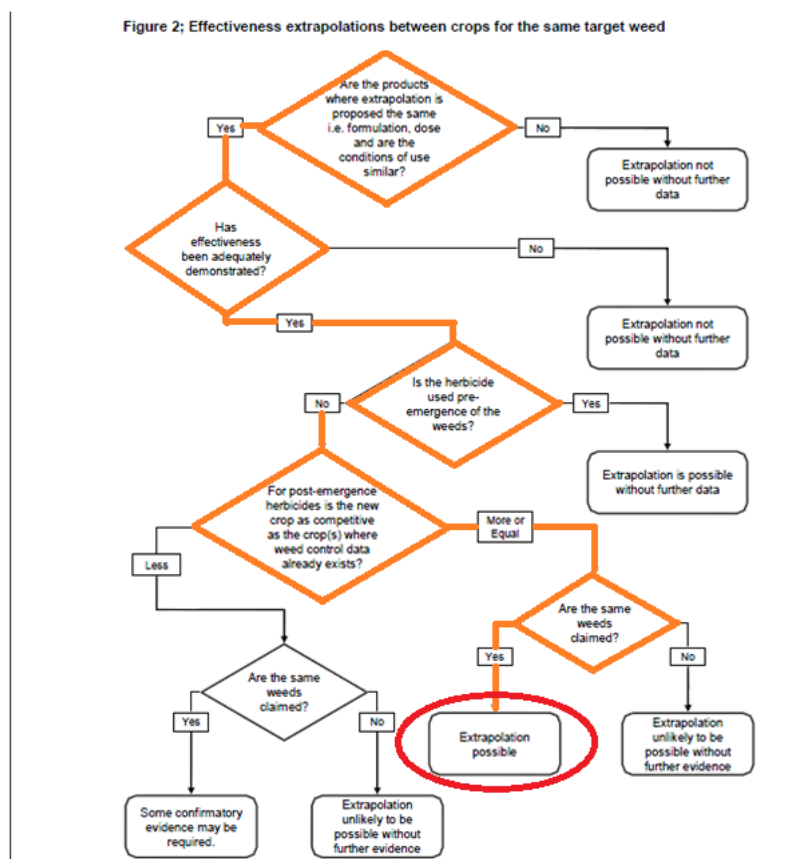
“5. Extrapolations may only be accepted for the extension of use of a given PPP used at the same rate and dose applied at similar timings and with similar equipment.”

Under pt. 2.2. of this document the following graph is found: a decision-making scheme designed to act as a prompt when considering extrapolations of weed control claims between crops. The list of factors is not exhaustive and the mode of action, conditions of use, and extent of existing product knowledge will affect whether extrapolation is appropriate in each case.

Figure 2; Effectiveness extrapolations between crops for the same target weed



Following the flowchart and considering the product CHR/H/FDF 574 SC, with a view to possible extrapolation from winter wheat to winter triticale, winter rye and winter barley the following pathway applies:



The following table is derived from the document prepared by CRD. It presents a list of specific extrapolations for efficacy and crop safety. The proposals in the lists are intended as a framework for evaluators, to be used alongside expert judgment and regulatory experience (pt. 2.3.2.1.)

HERBICIDES

Table 9 Extrapolations between crops for the same target weed Test crop:	Can extrapolate to:
Pre-emergence, pre-sowing or pre-planting application of one crop	Pre-emergence, pre-sowing or pre-planting application of another crop (only if growing conditions are the same).
Any drilled flower, tree nursery or perennial crop.	Planted crop of the same species
Any planted flower, tree nursery or perennial crop.	Drilled crop of the same species
Any non-competitive crop e.g. Orchards, HONS, amenity vegetation, land not intended to bear vegetation.	Any other non-competitive crop, poorly competitive crop e.g. Sugar beet, peas, onions, linseed, horticultural brassicas, or competitive crop e.g. Cereals, grassland, oilseed rape (contact herbicides only)
Any poorly competitive crop e.g. Sugar beet, peas, onions, linseed, horticultural brassicas	Any other poorly competitive crop or competitive crop e.g. Cereals, grassland, oilseed rape (contact herbicides only)
Any competitive crop e.g. cereals, grassland, oilseed rape	Any other competitive crop (contact herbicides only)
Outside open field culture of tulip, narcissus or hyacinth (spring flowering crops)	Outside and protected cultures in open field of other spring flowering flower bulb- and bulb flower crops
Outside open field culture of lily or gladiolus (summer flowering crops)	Outside and protected cultures in open field of other summer flowering flower bulb- and bulb flower crops
Protected culture of bulb flowers in trays or containers (contact herbicide only)	Protected open field culture of bulb flowers (contact herbicide only)
Protected open field culture of bulb flowers (contact herbicide only)	Protected culture of bulb flowers in trays or containers (contact herbicide only)

Outside open field culture of flower bulb culture	Outside open field culture of bulb flower culture
Outside open field culture of bulb flower culture	Outside open field culture of flower bulb culture
Newly sown grass	Established grass (except where target weed is a perennial weed that is beyond the seedling stage)

(http://www.pesticides.gov.uk/uploadedfiles/Web_Assets/PSD/SANCO_D3_S12-395857.pdf)

SUMMARY:

In reference to the above listed documents and information, applicant have extrapolated 12 efficacy trials performed on winter wheat in 2019 and 2020 to winter triticale, winter rye and winter barley. Furthermore, this extrapolation is supported by 12 additional efficacy trials carried out on winter triticale, 12 additional efficacy trials carried out on winter rye and 12 additional efficacy trials carried out on winter barley, which proved product's efficacy against weeds to be comparable in winter wheat, winter triticale, winter rye and winter barley.

The extrapolation was performed in view of using the results of studies against harmful organism (weeds) on one crop (winter wheat) for the purpose of analyzing efficacy against the same harmful organism on another crops (winter triticale, winter rye, winter barley), provided that:

the rates of product applied in the studies are the same - YES			
Winter wheat	Winter triticale	Winter rye	Winter barley
0.3 L/ha, 0.4 L/ha, 0.5 L/ha	0.3 L/ha, 0.4 L/ha, 0.5 L/ha	0.3 L/ha, 0.4 L/ha, 0.5 L/ha	0.3 L/ha, 0.4 L/ha, 0.5 L/ha
the amount of spray solution used is the same - YES			
Winter wheat	Winter triticale	Winter rye	Winter barley
200-300 L/ha	200-300 L/ha	200-300 L/ha	200-300 L/ha
the timing of application is the same - YES			
Winter wheat	Winter triticale	Winter rye	Winter barley
16.09.2019-27.09.2019 15.09.2020-19.10.2020	14.09.2019-24.10.2019 22.09.2020-26.09.2020	12.09.2019-14.10.2019 11.09.2020-30.09.2020	11.09.2019-26.09.2019 10.09.2020-16.10.2020
crop development phases during application are comparable - YES			
Winter wheat	Winter triticale	Winter rye	Winter barley
BBCH 10-22	BBCH 11-22	BBCH 13-25	BBCH 11-25

In view of the above, authors of his report find it fully justified to extrapolate the results of efficacy trials performed on product CHR/H/FDF 574 SC from winter wheat to winter triticale, winter rye and winter barley.

Winter wheat

The 12 trials were carried out in winter wheat in 2019 and 2020 (4 trials in 2019 and 8 trials in 2020). The herbicide CHR/H/FDF 574 SC was applied once per season at the following rates of 0.3, 0.4, 0.5 L/ha.

Winter triticale

The 12 trials were carried out in winter wheat in 2019 and 2020 (4 trials in 2019 and 8 trials in 2020). The herbicide CHR/H/FDF 574 SC was applied once per season at the following rates of 0.3, 0.4, 0.5 L/ha.

Winter rye

The 12 trials were carried out in winter wheat in 2019 and 2020 (4 trials in 2019 and 8 trials in 2020). The herbicide CHR/H/FDF 574 SC was applied once per season at the following rates of 0.3, 0.4, 0.5 L/ha.

Winter barley

The 12 trials were carried out in winter wheat in 2019 and 2020 (4 trials in 2019 and 8 trials in 2020). The herbicide CHR/H/FDF 574 SC was applied once per season at the following rates of 0.3, 0.4, 0.5 L/ha.

According to Flufenacet_RAR_05_Volume_3CA_B-3_2017-06-07.pdf

Flufenacet is a soil herbicide, primarily taken up by roots and transported in the apoplast of germinating weeds to meristematic root and shoot regions and to the leaves. Flufenacet is distributed in the soil top layer. Flufenacet-methyl-sodium is the, taken up mainly by emerging leaves and acts systemically. The inhibition of plant growth is followed by necrosis, at first apical, then basal. The activity is manifested by yellowish discoloration of the leaves and the disappearance of susceptible weed plants occur within 3 to 4 weeks.

According to Diflufenican_RAR_01_Volume_1_2018-07-19.pdf

Diflufenican is a pyridinecarboxamide herbicide. It acts by blocking carotenoid biosynthesis by inhibition of phytoene desaturase. Diflufenican is a selective contact and residual herbicide, absorbed principally by the shoots of germinating seedlings, with limited translocation.

Diflufenican provides both contact and residual activity. Residual activity can be expected for up to eight weeks after application under favourable growing conditions. Diflufenican is taken up by the shoots of germinating seedlings. Susceptible weeds germinate but show immediate chlorosis followed by a mauve-pink discoloration. The chlorosis spreads with the aerial growth and the plants become necrotic and die back.

According to Florasulam_RAR_03_Volume_3CA-CP_B-1_B-4_2013-11-25_san.pdf

The inhibition of ALS enzymes results in a number of distinctive whole plant symptoms. Symptoms appear first as the cessation of growth and chlorosis and necrosis in the upper meristematic region of the plant. The upper new leaves often take on a wilted appearance. The effects then spread to the remaining parts of the plant. Reddening of the midrib and veins is observed in some species. Complete desiccation of the plant may occur in six to eight weeks.

Taking into account the specificity of the active ingredient flufenacet, diflufenican and florasulam which are contained in the product CHR/H/FDF 574 SC, the efficacy results are presented for the third/last assessment.

The efficacy results as assessed up to 2 weeks after application are presented in the tables below:

Winter wheat

Weeds	No. of reports	Efficacy [%] 13-14 DA-A (one trial 29 DA-A)								
		0.4 L/ha	min.	max.	Bizon 118,75 SC	min.	max.	Komplet 560 SC	min.	max.
ANTAR	6	78.88	50.00	98.00	80.97	50.00	98.80	73.47	50.00	93.80
APESV	8	68.76	23.80	95.00	72.51	46.30	96.30	73.51	46.30	96.30
VIOAR	8	65.16	23.80	100.00	68.49	18.80	100.00	66.18	13.80	100.00
BRSNW	8	69.30	23.80	100.00	76.23	47.50	100.00	66.53	35.00	96.30
CAPBP	7	63.20	32.50	95.80	64.81	25.00	93.80	62.34	12.50	93.80
CENCY	7	51.29	17.50	82.50	57.70	26.30	81.30	48.91	16.30	67.50
GALAP	8	59.69	21.30	86.30	66.76	41.30	92.50	65.86	43.80	92.50
PAPRH	8	73.03	23.80	94.50	78.68	57.50	90.80	68.99	54.30	83.80
STEME	7	86.61	68.00	99.50	86.34	66.30	100.00	83.17	62.50	98.80
GERPU	6	70.88	50.00	85.80	70.68	50.00	84.50	57.00	38.80	68.80
MATIN	6	61.57	15.00	96.30	66.73	16.30	97.50	64.53	16.30	93.80
VERHE	3	70.67	50.00	87.00	69.83	50.00	84.50	67.93	50.00	81.30

Winter triticale

Weeds	No. of reports	Efficacy [%] 10-14 DA-A (three trials 20-21 DA-A)								
		0.4 L/ha	min.	max.	Bizon 118,75 SC	min.	max.	Komplet 560 SC	min.	max.
ANTAR	6	74.40	51.30	95.00	76.22	57.50	97.30	71.47	50.00	85.00
APESV	9	66.21	30.00	92.00	61.19	30.00	90.30	68.26	30.00	90.80
VIOAR	8	70.73	30.00	99.30	70.74	32.50	98.30	71.49	30.00	98.00
BRSNW	6	79.12	62.50	99.50	75.93	48.80	99.00	71.52	63.80	88.00
CAPBP	6	75.35	52.50	99.50	76.70	57.50	100.00	74.20	50.00	98.80
CENCY	6	57.30	15.00	77.50	59.40	20.00	85.00	51.68	21.30	85.00
GALAP	6	72.93	37.50	87.80	72.68	37.50	89.00	67.88	32.50	86.00
PAPRH	6	61.40	13.80	88.30	59.80	17.50	87.50	53.28	22.50	71.30
STEME	7	69.86	18.80	100.00	69.41	23.80	100.00	64.61	21.30	93.00
GERPU	6	78.30	55.00	98.50	80.75	60.00	100.00	62.45	30.00	88.30
MATIN	7	67.30	16.30	87.50	68.76	22.50	95.00	62.84	22.50	77.50
VERHE	4	57.58	12.50	97.80	62.15	17.50	97.30	61.85	18.80	97.30

Winter rye

Weeds	No. of reports	Efficacy [%] 12-14 DA-A (three trials 20-21 DA-A)					
		0.4 L/ha	min.	max.	Komplet 560 SC	min.	max.
ANTAR	7	74.67	57.50	86.30	71.63	50.00	80.00
APESV	9	49.73	13.80	80.00	54.89	30.00	81.30
VIOAR	7	58.06	20.00	81.30	63.77	51.30	82.50
BRSNW	6	72.95	52.50	93.80	62.10	37.50	75.00
CAPBP	6	75.43	58.80	90.00	69.93	52.50	87.50
CENCY	7	63.41	16.30	77.50	60.71	42.50	72.50
GALAP	6	60.65	45.00	76.30	55.23	38.80	75.00
PAPRH	6	61.27	21.30	82.50	50.63	30.00	75.00
STEME	6	83.52	78.80	95.00	80.52	73.80	90.00
GERPU	6	67.53	33.80	85.00	57.12	35.00	67.50
MATIN	6	62.12	23.80	83.80	67.95	53.80	81.30
VERHE	3	60.00	50.00	72.50	61.27	50.00	68.80

Winter barley

Weeds	No. of reports	Efficacy [%] 10-14 DA-A								
		0.4 L/ha	min.	max.	Bizon 118,75 SC	min.	max.	Komplet 560 SC	min.	max.
ANTAR	6	70.27	16.30	100.00	72.86	17.50	98.80	65.93	17.50	93.80
APESV	7	53.15	10.00	92.50	51.99	12.50	93.80	52.84	10.00	93.80
VIOAR	7	71.30	20.00	99.50	71.06	22.50	96.00	73.09	20.00	98.80
BRSNW	8	71.80	32.50	100.00	75.19	38.80	99.50	60.63	25.00	86.30
CAPBP	6	90.43	61.30	100.00	91.67	62.50	100.00	89.52	62.50	97.30
CENCY	6	66.42	35.00	87.50	72.14	38.75	91.30	50.03	33.75	66.30
GALAP	7	61.36	12.50	94.00	68.47	30.00	94.00	67.06	33.80	92.50

PAPRH	6	74.38	30.00	100.00	79.55	45.00	100.00	64.63	47.50	82.50
STEME	7	75.73	31.30	100.00	79.11	40.00	100.00	75.19	30.00	100.00
GERPU	6	63.52	35.00	87.50	64.64	38.75	85.00	56.51	36.25	71.50
MATIN	6	70.60	21.30	100.00	73.55	22.50	100.00	68.28	23.80	91.30
VERHE	3	83.10	61.30	95.00	81.83	62.50	93.00	83.17	62.50	95.00

3.2.3-1.1 The efficacy of CHR/H/FDF 574 SC in control of ANTAR *Anthemis arvensis*

The efficiency of CHR/H/FDF 574 SC in control of ANTAR *Anthemis arvensis* were investigated in 25 trials – 6 trials in winter wheat, 6 trials in winter triticale, 7 trials in winter rye and 6 trials in winter barley.

Winter wheat

123-167 DA-A

The efficiency of CHR/H/FDF 574 SC in control of ANTAR *Anthemis arvensis* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 123-167 DA-A. The effectiveness fluctuated from 93.80– 99.63%.

The effectiveness fluctuated at rate 0.3 L/ha from 73.80% (123 DA-A) to 100% (167 DA-A), at rate 0.4 L/ha from 93.80% (123 DA-A) to 100% (167 DA-A), at rate 0.5 L/ha from 98.80% (123 DA-A) to 100% (167 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 99.63% for Bizon 118,75 SC and 96.50% for Komplet 560 SC during the assessment (Appendix 5 tab. 1).

150 – 254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of ANTAR *Anthemis arvensis* were investigated in 4 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 150-254 DA-A. The effectiveness fluctuated from 93.75– 100%.

The effectiveness fluctuated at rate 0.3 L/ha from 75.00% (150 DA-A) to 100% (254 DA-A), at rate 0.4 L/ha from 95.00% (150 DA-A) to 100% (254 DA-A), at rate 0.5 L/ha from 100% (150 DA-A) to 100% (254 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 100% for Bizon 118,75 SC and 94.70% for Komplet 560 SC during the assessment (Appendix 5 tab. 1).

Winter triticale

136-164 DA-A

The efficiency of CHR/H/FDF 574 SC in control of ANTAR *Anthemis arvensis* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 136-164 DA-A. The effectiveness fluctuated from 88.35– 98.15%.

The effectiveness fluctuated at rate 0.3 L/ha from 73.80% (149 DA-A) to 100% (154 DA-A), at rate 0.4 L/ha from 85.00% (136 DA-A) to 100% (154 DA-A), at rate 0.5 L/ha from 93.80 % (149 DA-A) to 100% (154 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 91.88% for Bizon 118,75 SC and 88.98% for Komplet 560 SC during the assessment (Appendix 5 tab. 2).

191-253 DA-A

The efficiency of CHR/H/FDF 574 SC in control of ANTAR *Anthemis arvensis* were investigated in 5 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 191-253 DA-A. The effectiveness fluctuated from 90.00– 99.00%.

The effectiveness fluctuated at rate 0.3 L/ha from 75.00% (191 DA-A) to 100% (253 DA-A), at rate 0.4 L/ha from 90.00% (191 DA-A) to 100% (253 DA-A), at rate 0.5 L/ha from 95.00% (191 DA-A) to 100% (253 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 96.00% for Bizon 118,75 SC and 89.00% for Komplet 560 SC during the assessment (Appendix 5 tab. 2).

Winter rye

122-164 DA-A

The efficiency of CHR/H/FDF 574 SC in control of ANTAR *Anthemis arvensis* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 122-164 DA-A. The effectiveness fluctuated from 87.81–98.44%.

The effectiveness fluctuated at rate 0.3 L/ha from 73.80% (136 DA-A) to 100% (164 DA-A), at rate 0.4 L/ha from 82.50% (160 DA-A) to 100% (164 DA-A), at rate 0.5 L/ha from 93.80% (136 DA-A) to 100% (164 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 93.96% for Komplet 560 SC during the assessment (Appendix 5 tab. 3).

191-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of ANTAR *Anthemis arvensis* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 191-254 DA-A. The effectiveness fluctuated from 87.00–99.00%.

The effectiveness fluctuated at rate 0.3 L/ha from 75.00% (178 DA-A) to 100% (254 DA-A), at rate 0.4 L/ha from 85.00% (202 DA-A) to 100% (254 DA-A), at rate 0.5 L/ha from 95.00% (136 DA-A) to 100% (254 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 93.55% for Komplet 560 SC during the assessment (Appendix 5 tab. 3).

Winter barley

132-159 DA-A

The efficiency of CHR/H/FDF 574 SC in control of ANTAR *Anthemis arvensis* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 132-159 DA-A. The effectiveness fluctuated from 92.71–98.76%.

The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (132 DA-A) to 100% (159 DA-A), at rate 0.4 L/ha from 87.50% (132 DA-A) to 100% (159 DA-A), at rate 0.5 L/ha from 93.75% (144 DA-A) to 100% (159 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 99.10% for Bizon 118,75 SC and 95.05% for Komplet 560 SC during the assessment (Appendix 5 tab. 4).

164-248 DA-A

The efficiency of CHR/H/FDF 574 SC in control of ANTAR *Anthemis arvensis* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 164-248 DA-A. The effectiveness fluctuated from 92.92–98.96%. The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (164 DA-A) to 100% (248 DA-A), at rate 0.4 L/ha from 90.00% (222 DA-A) to 100% (248 DA-A), at rate 0.5 L/ha from 93.75% (222 DA-A) to 100% (248 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 99.83% for Bizon 118,75 SC and 95.92% for Komplet 560 SC during the assessment (Appendix 5 tab. 4).

3.2.3-1.2 The efficacy of CHR/H/FDF 574 SC in control of APESV *Apera spica-venti*

The efficiency of CHR/H/FDF 574 SC in control of APESV *Apera spica-venti* were investigated in 34 trials – 8 trials in winter wheat, 9 trials in winter triticale, 9 trials in winter rye and 8 trials in winter barley.

Winter wheat

133-160 DA-A

The efficiency of CHR/H/FDF 574 SC in control of APESV *Apera spica-venti* were investigated in 8 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 133-160 DA-A. The effectiveness fluctuated from 82.89– 93.18%. The effectiveness fluctuated at rate 0.3 L/ha from 32.50% (134 DA-A) to 100% (133 DA-A), at rate 0.4 L/ha from 43.80% (134 DA-A) to 100% 160 DA-A), at rate 0.5 L/ha from 56.30 % (134 DA-A) to 100% (160 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 87.68% for Bizon 118,75 SC and 93.08% for Komplet 560 SC during the assessment (Appendix 5 tab. 5).

190-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of APESV *Apera spica-venti* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 190-254 DA-A. The effectiveness fluctuated from 87.86– 97.40%. The effectiveness fluctuated at rate 0.3 L/ha from 74.80% (245 DA-A) to 100% (254 DA-A), at rate 0.4 L/ha from 80.30% (245 DA-A) to 100% (241 DA-A), at rate 0.5 L/ha from 85.80% (134 DA-A) to 100% (241 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 85.83% for Bizon 118,75 SC and 98.23% for Komplet 560 SC during the assessment (Appendix 5 tab. 5).

Winter triticale

133-165 DA-A

The efficiency of CHR/H/FDF 574 SC in control of APESV *Apera spica-venti* were investigated in 9 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 133-165 DA-A. The effectiveness fluctuated from 84.24–97.21%. The effectiveness fluctuated at rate 0.3 L/ha from 72.50% (152 DA-A) to 100% (133 DA-A), at rate 0.4 L/ha from 87.50% (136 DA-A) to 100% (133 DA-A), at rate 0.5 L/ha from 90.00% (136 DA-A) to 100% (133 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 82.17% for Bizon 118,75 SC and 94.78% for Komplet 560 SC during the assessment (Appendix 5 tab. 6).

194-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of APESV *Apera spica-venti* were investigated in 8 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 194-254 DA-A. The effectiveness fluctuated from 85.04–98.29%.

The effectiveness fluctuated at rate 0.3 L/ha from 75.00% (194 DA-A) to 100% (254 DA-A), at rate 0.4 L/ha from 91.00% (253 DA-A) to 100% (254 DA-A), at rate 0.5 L/ha from 94.30% (253 DA-A) to 100% (254 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 75.08% for Bizon 118,75 SC and 94.83% for Komplet 560 SC during the assessment (Appendix 5 tab. 6).

Winter rye

122-168 DA-A

The efficiency of CHR/H/FDF 574 SC in control of APESV *Apera spica-venti* were investigated in 9 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 122-168 DA-A. The effectiveness fluctuated from 86.63–97.28%.

The effectiveness fluctuated at rate 0.3 L/ha from 73.80% (162 DA-A) to 100% (135 DA-A), at rate 0.4 L/ha from 88.80% (147 DA-A) to 100% (135 DA-A), at rate 0.5 L/ha from 91.30% (168 DA-A) to 100% (135 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 93.63% for Komplet 560 SC during the assessment (Appendix 5 tab. 7).

204-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of APESV *Apera spica-venti* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 204-254 DA-A. The effectiveness fluctuated from 89.47–99.11%.

The effectiveness fluctuated at rate 0.3 L/ha from 75.00% (204 DA-A) to 100% (254 DA-A), at rate 0.4 L/ha from 90.00% (204 DA-A) to 100% (254 DA-A), at rate 0.5 L/ha from 93.80% (244 DA-A) to 100% (254 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 96.80% for Komplet 560 SC during the assessment (Appendix 5 tab. 7).

Winter barley

141-158 DA-A

The efficiency of CHR/H/FDF 574 SC in control of APESV *Apera spica-venti* were investigated in 8 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 141-158 DA-A. The effectiveness fluctuated from 90.91–98.05%.

The effectiveness fluctuated at rate 0.3 L/ha from 77.50% (151 DA-A) to 100% (145 DA-A), at rate 0.4 L/ha from 96.30% (151 DA-A) to 100% (145 DA-A), at rate 0.5 L/ha from 97.30% (149 DA-A) to 100% (145 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 88.80% for Bizon 118,75 SC and 96.43% for Komplet 560 SC during the assessment (Appendix 5 tab. 8).

186-248 DA-A

The efficiency of CHR/H/FDF 574 SC in control of APESV *Apera spica-venti* were investigated in 8 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 186-248 DA-A. The effectiveness fluctuated from 90.23–98.16%.

The effectiveness fluctuated at rate 0.3 L/ha from 67.50% (233 DA-A) to 100% (242 DA-A), at rate 0.4 L/ha from 66.30% (233 DA-A) to 100% (242 DA-A), at rate 0.5 L/ha from 87.34% (233 DA-A) to 100% (242 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 86.48% for Bizon 118,75 SC and 94.55% for Komplet 560 SC during the assessment (Appendix 5 tab. 8).

3.2.3-1.3 The efficacy of CHR/H/FDF 574 SC in control of VIOAR *Viola arvensis*

The efficiency of CHR/H/FDF 574 SC in control of VIOAR *Viola arvensis* were investigated in 30 trials – 8 trials in winter wheat, 8 trials in winter triticale, 7 trails in winter rye and 7 trials in winter barley.

Winter wheat

132-154 DA-A

The efficiency of CHR/H/FDF 574 SC in control of VIOAR *Viola arvensis* were investigated in 8 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 132-154 DA-A. The effectiveness fluctuated from 85.55– 94.20%.

The effectiveness fluctuated at rate 0.3 L/ha from 37.50 % (134 DA-A) to 100% (154 DA-A), at rate 0.4 L/ha from 46.30% (134 DA-A) to 100% (154 DA-A), at rate 0.5 L/ha from 56.30% (134 DA-A) to 100% (154 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 93.81% for Bizon 118,75 SC and 93.74% for Komplet 560 SC during the assessment (Appendix 5 tab. 9).

190-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of VIOAR *Viola arvensis* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 190-254 DA-A. The effectiveness fluctuated from 94.50–99.07%.

The effectiveness fluctuated at rate 0.3 L/ha from 80.00% (190 DA-A) to 100% (254 DA-A), at rate 0.4 L/ha from 90.00% (190 DA-A) to 100% (254 DA-A), at rate 0.5 L/ha from 95.00% (190 DA-A) to 100% (254 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 99.21% for Bizon 118,75 SC and 99.19% for Komplet 560 SC during the assessment (Appendix 5 tab. 9).

Winter triticale

133-165 DA-A

The efficiency of CHR/H/FDF 574 SC in control of VIOAR *Viola arvensis* were investigated in 8 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 133-165 DA-A. The effectiveness fluctuated from 94.39–98.13%. The effectiveness fluctuated at rate 0.3 L/ha from 82.50% (152 DA-A) to 100% (154 DA-A), at rate 0.4 L/ha from 93.80% (152 DA-A) to 100% (165 DA-A), at rate 0.5 L/ha from 95.00% (136 DA-A) to 100% (165 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 96.11% for Bizon 118,75 SC and 96.88% for Komplet 560 SC during the assessment (Appendix 5 tab. 10).

194-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of VIOAR *Viola arvensis* were investigated in 8 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 194-254 DA-A. The effectiveness fluctuated from 97.00–100%. The effectiveness fluctuated at rate 0.3 L/ha from 90.00% (194 DA-A) to 100% (254 DA-A), at rate 0.4 L/ha from 95.00% (194 DA-A) to 100% (254 DA-A), at rate 0.5 L/ha from 100% (194 DA-A) to 100% (254 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 98.00% for Bizon 118,75 SC and 99.00% for Komplet 560 SC during the assessment (Appendix 5 tab. 10).

Winter rye

112-164 DA-A

The efficiency of CHR/H/FDF 574 SC in control of VIOAR *Viola arvensis* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 112-164 DA-A. The effectiveness fluctuated from 82.51–91.63%. The effectiveness fluctuated at rate 0.3 L/ha from 22.50% (112 DA-A) to 100% (164 DA-A), at rate 0.4 L/ha from 33.80% (112 DA-A) to 100% (164 DA-A), at rate 0.5 L/ha from 56.30% (112 DA-A) to 100% (164 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 90.30% for Komplet 560 SC during the assessment (Appendix 5 tab. 11).

168-244 DA-A

The efficiency of CHR/H/FDF 574 SC in control of VIOAR *Viola arvensis* were investigated in 5 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 168-244 DA-A. The effectiveness fluctuated from 92.26–95.76%. The effectiveness fluctuated at rate 0.3 L/ha from 77.50% (168 DA-A) to 100% (230 DA-A), at rate 0.4 L/ha from 82.50% (168 DA-A) to 100% (230 DA-A), at rate 0.5 L/ha from 83.80% (168 DA-A) to 100% (230 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 95.00% for Komplet 560 SC during the assessment (Appendix 5 tab. 11).

Winter barley

141-159 DA-A

The efficiency of CHR/H/FDF 574 SC in control of VIOAR *Viola arvensis* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 141-159 DA-A. The effectiveness fluctuated from 87.49–96.37%. The effectiveness fluctuated at rate 0.3 L/ha from 67.50% (149 DA-A) to 100% (159 DA-A), at rate 0.4 L/ha from 73.80% (149 DA-A) to 100% (159 DA-A), at rate 0.5 L/ha from 81.30% (149 DA-A) to 100% (159 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 90.20% for Bizon 118,75 SC and 91.04% for Komplet 560 SC during the assessment (Appendix 5 tab. 12).

186-243 DA-A

The efficiency of CHR/H/FDF 574 SC in control of VIOAR *Viola arvensis* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 186-243 DA-A. The effectiveness fluctuated from 88.93–96.61%. The effectiveness fluctuated at rate 0.3 L/ha from 62.50% (233 DA-A) to 100% (243 DA-A), at rate 0.4 L/ha from 68.80% (233 DA-A) to 100% (243 DA-A), at rate 0.5 L/ha from 76.30% (233 DA-A) to 100% (243 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 90.54% for Bizon 118,75 SC and 91.43% for Komplet 560 SC during the assessment (Appendix 5 tab. 12).

3.2.3-1.4 The efficacy CHR/H/FDF 574 SC in control of BRSNW *Brassica napus* (self-sown plant)

The efficiency of CHR/H/FDF 574 SC in control of BRSNW *Brassica napus* (self-sown plant) were investigated in 28 trials – 8 trials in winter wheat, 6 trials in winter triticale, 6 trials in winter rye and 8 trials in winter barley.

Winter wheat

132-167 DA-A

The efficiency of CHR/H/FDF 574 SC in control of BRSNW *Brassica napus* (self-sown plant) were investigated in 8 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 132-167 DA-A. The effectiveness fluctuated from 88.76–96.29%. The effectiveness fluctuated at rate 0.3 L/ha from 53.80% (134 DA-A) to 100% (167 DA-A), at rate 0.4 L/ha from 57.50% (134 DA-A) to 100% (167 DA-A), at rate 0.5 L/ha from 73.80% (134 DA-A) to 100% (167 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 96.91% for Bizon 118,75 SC and 90.45% for Komplet 560 SC during the assessment (Appendix 5 tab. 13).

185-245 DA-A

The efficiency of CHR/H/FDF 574 SC in control of BRSNW *Brassica napus* (self-sown plant) were investigated in 4 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 190-245 DA-A. The effectiveness fluctuated from 86.25–99.50%. The effectiveness fluctuated at rate 0.3 L/ha from 75.00% (185 DA-A) to 100% (245 DA-A), at rate 0.4 L/ha from 93.80% (190 DA-A) to 100% (245 DA-A), at rate 0.5 L/ha from 97.00% (245 DA-A) to 100% (185 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 98.75% for Bizon 118,75 SC and 94.45% for Komplet 560 SC during the assessment (Appendix 5 tab. 13).

Winter triticale

136-164 DA-A

The efficiency of CHR/H/FDF 574 SC in control of BRSNW *Brassica napus* (self-sown plant) were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 136-164 DA-A. The effectiveness fluctuated from 84.40–94.60%.

The effectiveness fluctuated at rate 0.3 L/ha from 73.80% (162 DA-A) to 100% (154 DA-A), at rate 0.4 L/ha from 83.80% (162 DA-A) to 100% (154 DA-A), at rate 0.5 L/ha from 88.80% (152 DA-A) to 100% (154 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 86.88% for Bizon 118,75 SC and 79.32% for Komplet 560 SC during the assessment (Appendix 5 tab. 14).

194-253 DA-A

The efficiency of CHR/H/FDF 574 SC in control of BRSNW *Brassica napus* (self-sown plant) were investigated in 4 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 194-253 DA-A. The effectiveness fluctuated from 82.50–95.00%.

The effectiveness fluctuated at rate 0.3 L/ha from 75.00% (204 DA-A) to 100% (253 DA-A), at rate 0.4 L/ha from 85.00% (206 DA-A) to 100% (253 DA-A), at rate 0.5 L/ha from 90.00% (206 DA-A) to 100% (253 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 87.50% for Bizon 118,75 SC and 73.75% for Komplet 560 SC during the assessment (Appendix 5 tab. 14).

Winter rye

122-162 DA-A

The efficiency of CHR/H/FDF 574 SC in control of BRSNW *Brassica napus* (self-sown plant) were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 122-162 DA-A. The effectiveness fluctuated from 85.43–96.25%.

The effectiveness fluctuated at rate 0.3 L/ha from 68.80% (162 DA-A) to 100% (148 DA-A), at rate 0.4 L/ha from 85.00% (162 DA-A) to 100% (148 DA-A), at rate 0.5 L/ha from 90.00% (204 DA-A) to 100% (148 DA-A).

The efficacy of the tested herbicide was higher than the standard products. In the trials efficacy amounted above 75.92% for Komplet 560 SC during the assessment (Appendix 5 tab. 15).

204-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of BRSNW *Brassica napus* (self-sown plant) were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 204-254 DA-A. The effectiveness fluctuated from 90.42–97.50%.

The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (204 DA-A) to 100% (254 DA-A), at rate 0.4 L/ha from 85.00% (204 DA-A) to 100% (254 DA-A), at rate 0.5 L/ha from 90.00% (204 DA-A) to 100% (254 DA-A).

The efficacy of the tested herbicide was higher than the standard products. In the trials efficacy amounted above 80.63% for Komplet 560 SC during the assessment (Appendix 5 tab. 15).

Winter barley

130-159 DA-A

The efficiency of CHR/H/FDF 574 SC in control of BRSNW *Brassica napus* (self-sown plant) were investigated in 8 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 130-159 DA-A. The effectiveness fluctuated from 96.19-99.85%. The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (151 DA-A) to 100% (159 DA-A), at rate 0.4 L/ha from 97.50% (151 DA-A) to 100% (159 DA-A), at rate 0.5 L/ha from 98.80% (151 DA-A) to 100% (159 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 99.70% for Bizon 118,75 SC and 90.51% for Komplet 560 SC during the assessment (Appendix 5 tab. 16).

186-250 DA-A

The efficiency of CHR/H/FDF 574 SC in control of BRSNW *Brassica napus* (self-sown plant) were investigated in 8 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 186-250 DA-A. The effectiveness fluctuated from 96.10-100%. The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (186 DA-A) to 100% (250 DA-A), at rate 0.4 L/ha from 100% (186 DA-A) to 100% (250 DA-A), at rate 0.5 L/ha from 100% (186 DA-A) to 100% (250 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 99.85% for Bizon 118,75 SC and 87.14% for Komplet 560 SC during the assessment (Appendix 5 tab. 16).

3.2.3-1.5 The efficacy of CHR/H/FDF 574 SC in control of CAPBP *Capsella bursa-pastoris*

The efficiency of CHR/H/FDF 574 SC in control of CAPBP *Capsella bursa-pastoris* were investigated in 25 trials – 7 trials in winter wheat, 6 trials in winter triticale, 6 trials in winter rye and 7 trials in winter barley.

Winter wheat

123-160 DA-A

The efficiency of CHR/H/FDF 574 SC in control of CAPBP *Capsella bursa-pastoris* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 123-160 DA-A. The effectiveness fluctuated from 88.04–94.66%. The effectiveness fluctuated at rate 0.3 L/ha from 47.50% (134 DA-A) to 100% (160 DA-A), at rate 0.4 L/ha from 55.00% (134 DA-A) to 100% (160 DA-A), at rate 0.5 L/ha from 63.80% (134 DA-A) to 100% (160 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 95.01% for Bizon 118,75 SC and 95.19% for Komplet 560 SC during the assessment (Appendix 5 tab. 17).

150-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of CAPBP *Capsella bursa-pastoris* were investigated in 4 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 150-254 DA-A. The effectiveness fluctuated from 93.13– 99.00%. The effectiveness fluctuated at rate 0.3 L/ha from 85.00% (150 DA-A) to 100% (254 DA-A), at rate 0.4 L/ha from 92.50% (190 DA-A) to 100% (254 DA-A), at rate 0.5 L/ha from 96.00% (190 DA-A) to 100% (254 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 99.75% for Bizon 118,75 SC and 99.75% for Komplet 560 SC during the assessment (Appendix 5 tab. 17).

Winter triticale

133-164 DA-A

The efficiency of CHR/H/FDF 574 SC in control of CAPBP *Capsella bursa-pastoris* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 133-164 DA-A. The effectiveness fluctuated from 89.38–99.60%. The effectiveness fluctuated at rate 0.3 L/ha from 68.80% (149 DA-A) to 100% (154 DA-A), at rate 0.4 L/ha from 92.50% (149 DA-A) to 100% (154 DA-A), at rate 0.5 L/ha from 98.80% (149 DA-A) to 100% (154 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 95.63% for Bizon 118,75 SC and 93.77% for Komplet 560 SC during the assessment (Appendix 5 tab. 18).

191-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of CAPBP *Capsella bursa-pastoris* were investigated in 4 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 191-253 DA-A. The effectiveness fluctuated from 85.00–100%. The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (191 DA-A) to 100% (253 DA-A), at rate 0.4 L/ha from 95.00% (191 DA-A) to 100% (253 DA-A), at rate 0.5 L/ha from 100% (191 DA-A) to 100% (253 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 93.75% for Bizon 118,75 SC and 91.25% for Komplet 560 SC during the assessment (Appendix 5 tab. 18).

Winter rye

122-164 DA-A

The efficiency of CHR/H/FDF 574 SC in control of CAPBP *Capsella bursa-pastoris* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 122-164 DA-A. The effectiveness fluctuated from 82.32–98.57%. The effectiveness fluctuated at rate 0.3 L/ha from 68.80% (149 DA-A) to 100% (164 DA-A), at rate 0.4 L/ha from 90.00% (122 DA-A) to 100% (164 DA-A), at rate 0.5 L/ha from 95.00% (122 DA-A) to 100% (164 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 86.90% for Komplet 560 SC during the assessment (Appendix 5 tab. 19).

178-244 DA-A

The efficiency of CHR/H/FDF 574 SC in control of CAPBP *Capsella bursa-pastoris* were investigated in 5 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 178-244 DA-A. The effectiveness fluctuated from 81.00–99.00%. The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (191 DA-A) to 100% (230 DA-A), at rate 0.4 L/ha from 90.00% (244 DA-A) to 100% (230 DA-A), at rate 0.5 L/ha from 95.00% (244 DA-A) to 100% (230 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 85.00% for Komplet 560 SC during the assessment (Appendix 5 tab. 19).

Winter barley

130-159 DA-A

The efficiency of CHR/H/FDF 574 SC in control of CAPBP *Capsella bursa-pastoris* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 130-159 DA-A. The effectiveness fluctuated from 96.05–99.80%. The effectiveness fluctuated at rate 0.3 L/ha from 78.80% (132 DA-A) to 100% (159 DA-A), at rate 0.4 L/ha from 97.50% (132 DA-A) to 100% (159 DA-A), at rate 0.5 L/ha from 98.80% (132 DA-A) to 100% (159 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 99.80% for Bizon 118,75 SC and 99.58% for Komplet 560 SC during the assessment (Appendix 5 tab. 20).

164-250 DA-A

The efficiency of CHR/H/FDF 574 SC in control of CAPBP *Capsella bursa-pastoris* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 164-250 DA-A. The effectiveness fluctuated from 96.67–100%. The effectiveness fluctuated at rate 0.3 L/ha from 80.00% (164 DA-A) to 100% (250 DA-A), at rate 0.4 L/ha from 100% (164 DA-A) to 100% (250 DA-A), at rate 0.5 L/ha from 100% (164 DA-A) to 100% (250 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 100% for Bizon 118,75 SC and 100% for Komplet 560 SC during the assessment (Appendix 5 tab. 20).

3.2.3-1.6 The efficacy of CHR/H/FDF 574 SC in control of CENCY *Centareua cyanus*

The efficiency of CHR/H/FDF 574 SC in control of CENCY *Centareua cyanus* were investigated in 26 trials – 7 trials in winter wheat, 6 trials in winter triticale, 7 trials in winter rye and 6 trials in winter barley.

Winter wheat

123-167 DA-A

The efficiency of CHR/H/FDF 574 SC in control of CENCY *Centareua cyanus* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 123-167 DA-A. The effectiveness fluctuated from 82.44–95.33%. The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (134 DA-A) to 96.50% (155 DA-A), at rate 0.4 L/ha from 78.80% (134 DA-A) to 100% (146 DA-A), at rate 0.5 L/ha from 85.00% (134 DA-A) to 100% (146 DA-A).

The efficacy of the tested herbicide was comparable to the standard product Bizon 118,75 SC and higher than standard product Komplet 560 SC. In the trials efficacy amounted above 93.59% for Bizon 118,75 SC and 51.70% for Komplet 560 SC during the assessment (Appendix 5 tab. 21).

150-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of CENCY *Centareua cyanus* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 150-254 DA-A. The effectiveness fluctuated from 84.52– 95.25%.

The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (150 DA-A) to 100% (229 DA-A), at rate 0.4 L/ha from 80.00% (150 DA-A) to 100% (229 DA-A), at rate 0.5 L/ha from 85.00% (150 DA-A) to 100% (229 DA-A).

The efficacy of the tested herbicide was comparable to and higher than the standard products. In the trials efficacy amounted above 89.40% for Bizon 118,75 SC and 47.52% for Komplet 560 SC during the assessment (Appendix 5 tab. 21).

Winter triticale

112-165 DA-A

The efficiency of CHR/H/FDF 574 SC in control of CENCY *Centareua cyanus* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium level of efficacy 112-165 DA-A. The effectiveness fluctuated from 69.40–83.05%.

The effectiveness fluctuated at rate 0.3 L/ha from 21.33% (112 DA-A) to 97.50% (133 DA-A), at rate 0.4 L/ha from 22.50% (112 DA-A) to 99.80% (133 DA-A), at rate 0.5 L/ha from 27.50% (112 DA-A) to 100% (133 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 78.47% for Bizon 118,75 SC and 57.12% for Komplet 560 SC during the assessment (Appendix 5 tab. 22).

168-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of CENCY *Centareua cyanus* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 168-254 DA-A. The effectiveness fluctuated from 75.73–93.80%.

The effectiveness fluctuated at rate 0.3 L/ha from 48.80% (168 DA-A) to 94.80% (254 DA-A), at rate 0.4 L/ha from 66.30% (168 DA-A) to 98.80% (254 DA-A), at rate 0.5 L/ha from 82.50% (168 DA-A) to 99.50% (237 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 88.33% for Bizon 118,75 SC and 62.10% for Komplet 560 SC during the assessment (Appendix 5 tab. 22).

Winter rye

112-164 DA-A

The efficiency of CHR/H/FDF 574 SC in control of CENCY *Centareua cyanus* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 112-164 DA-A. The effectiveness fluctuated from 69.10–84.87%.

The effectiveness fluctuated at rate 0.3 L/ha from 33.80% (112 DA-A) to 96.00% (164 DA-A), at rate 0.4 L/ha from 42.50% (112 DA-A) to 100% (164 DA-A), at rate 0.5 L/ha from 53.80% (112 DA-A) to 100% (164 DA-A).

The efficacy of the tested herbicide was comparable to and higher than the standard products. In the trials efficacy amounted above 60.39% for Komplet 560 SC during the assessment (Appendix 5 tab. 23).

168-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of CENCY *Centareua cyanus* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 112-254 DA-A. The effectiveness fluctuated from 74.27–90.25%.

The effectiveness fluctuated at rate 0.3 L/ha from 61.30% (254 DA-A) to 93.00% (252 DA-A), at rate 0.4 L/ha from 75.30% (254 DA-A) to 95.50% (252 DA-A), at rate 0.5 L/ha from 85.00% (202 DA-A) to 95.50% (252 DA-A).

The efficacy of the tested herbicide was comparable to and higher than the standard products. In the trials efficacy amounted above 60.63% for Komplet 560 SC during the assessment (Appendix 5 tab. 23).

Winter barley

132-159 DA-A

The efficiency of CHR/H/FDF 574 SC in control of CENCY *Centareua cyanus* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 132-159 DA-A. The effectiveness fluctuated from 74.23–91.98%.

The effectiveness fluctuated at rate 0.3 L/ha from 45.00% (153 DA-A) to 96.50% (159 DA-A), at rate 0.4 L/ha from 62.50% (153 DA-A) to 98.00% (159 DA-A), at rate 0.5 L/ha from 78.75% (144 DA-A) to 98.00% (159 DA-A).

The efficacy of the tested herbicide was comparable to and higher than the standard products. In the trials efficacy amounted above 93.27% for Bizon 118,75 SC and 60.88% for Komplet 560 SC during the assessment (Appendix 5 tab. 24).

164-248 DA-A

The efficiency of CHR/H/FDF 574 SC in control of CENCY *Centareua cyanus* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 132-248 DA-A. The effectiveness fluctuated from 80.65–94.60%.

The effectiveness fluctuated at rate 0.3 L/ha from 65.00% (216 DA-A) to 93.80% (242 DA-A), at rate 0.4 L/ha from 76.25% (222 DA-A) to 98.80% (242 DA-A), at rate 0.5 L/ha from 82.50% (222 DA-A) to 100% (216 DA-A).

The efficacy of the tested herbicide was comparable to and higher than the standard products. In the trials efficacy amounted above 93.80% for Bizon 118,75 SC and 62.10% for Komplet 560 SC during the assessment (Appendix 5 tab. 24).

3.2.3-1.7 The efficacy of CHR/H/FDF 574 SC in control of GALAP *Galium aparine*

The efficiency of CHR/H/FDF 574 SC in control of GALAP *Galium aparine* were investigated in 27 trials – 8 trials in winter wheat, 6 trials in winter triticale, 6 trails in winter rye and 7 trials in winter barley.

Winter wheat

132-167 DA-A

The efficiency of CHR/H/FDF 574 SC in control of GALAP *Galium aparine* were investigated in 8 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 134-167 DA-A. The effectiveness fluctuated from 76.71–90.23%.

The effectiveness fluctuated at rate 0.3 L/ha from 33.80% (134 DA-A) to 99.50% (155 DA-A), at rate 0.4 L/ha from 42.50% (134 DA-A) to 100% (155 DA-A), at rate 0.5 L/ha from 53.80% (134 DA-A) to 100% (154 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 89.43% for Bizon 118,75 SC and 86.99% for Komplet 560 SC during the assessment (Appendix 5 tab. 25).

185-245 DA-A

The efficiency of CHR/H/FDF 574 SC in control of GALAP *Galium aparine* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 185-245 DA-A. The effectiveness fluctuated from 82.03–96.97%.

The effectiveness fluctuated at rate 0.3 L/ha from 72.50% (211 DA-A) to 98.30% (219 DA-A), at rate 0.4 L/ha from 86.50% (245 DA-A) to 100% (219 DA-A), at rate 0.5 L/ha from 90.30% (245 DA-A) to 100% (219 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 94.73% for Bizon 118,75 SC and 91.51% for Komplet 560 SC during the assessment (Appendix 5 tab. 25).

Winter triticale

140-164 DA-A

The efficiency of CHR/H/FDF 574 SC in control of GALAP *Galium aparine* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 140-164 DA-A. The effectiveness fluctuated from 76.95–93.45%.

The effectiveness fluctuated at rate 0.3 L/ha from 68.80% (152 DA-A) to 85.00% (150 DA-A), at rate 0.4 L/ha from 83.80% (140 DA-A) to 95.00% (150 DA-A), at rate 0.5 L/ha from 87.50% (140 DA-A) to 99.00% (150 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 86.08% for Bizon 118,75 SC and 86.07% for Komplet 560 SC during the assessment (Appendix 5 tab. 26).

194-253 DA-A

The efficiency of CHR/H/FDF 574 SC in control of GALAP *Galium aparine* were investigated in 5 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 194-253 DA-A. The effectiveness fluctuated from 74.12–93.32%.

The effectiveness fluctuated at rate 0.3 L/ha from 69.80% (253 DA-A) to 80.80% (237 DA-A), at rate 0.4 L/ha from 75.00% (253 DA-A) to 93.80% (237 DA-A), at rate 0.5 L/ha from 82.80% (253 DA-A) to 98.80% (237 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 83.62% for Bizon 118,75 SC and 83.66% for Komplet 560 SC during the assessment (Appendix 5 tab. 26).

Winter rye

122-164 DA-A

The efficiency of CHR/H/FDF 574 SC in control of GALAP *Galium aparine* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 122-164 DA-A. The effectiveness fluctuated from 79.82–93.35%.

The effectiveness fluctuated at rate 0.3 L/ha from 73.80% (162 DA-A) to 83.80% (147 DA-A), at rate 0.4 L/ha from 81.30% (122 DA-A) to 89.00% (148 DA-A), at rate 0.5 L/ha from 90.00% (122 DA-A) to 95.00% (164 DA-A).

The efficacy of the tested herbicide was comparable to and slightly higher than the standard products. In the trials efficacy amounted above 82.10% for Komplet 560 SC during the assessment t (Appendix 5 tab. 27).

204-252 DA-A

The efficiency of CHR/H/FDF 574 SC in control of GALAP *Galium aparine* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 204-252 DA-A. The effectiveness fluctuated from 80.63–94.58%.

The effectiveness fluctuated at rate 0.3 L/ha from 75.00% (204 DA-A) to 90.00% (236 DA-A), at rate 0.4 L/ha from 86.30% (244 DA-A) to 99.50% (236 DA-A), at rate 0.5 L/ha from 90.00% (244 DA-A) to 100% (236 DA-A).

The efficacy of the tested herbicide was comparable to and slightly higher than the standard products. In the trials efficacy amounted above 84.17% for Komplet 560 SC during the assessment t (Appendix 5 tab. 27).

Winter barley

130-159 DA-A

The efficiency of CHR/H/FDF 574 SC in control of GALAP *Galium aparine* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 130-159 DA-A. The effectiveness fluctuated from 84.33–95.00%.

The effectiveness fluctuated at rate 0.3 L/ha from 72.50 % (151 DA-A) to 99.00% (141 DA-A), at rate 0.4 L/ha from 79.50% (159 DA-A) to 100% (149 DA-A), at rate 0.5 L/ha from 85.00% (159 DA-A) to 100% (149 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 92.49% for Bizon 118,75 SC and 92.61% for Komplet 560 SC during the assessment (Appendix 5 tab. 28).

186-250 DA-A

The efficiency of CHR/H/FDF 574 SC in control of GALAP *Galium aparine* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 186-250 DA-A. The effectiveness fluctuated from 83.46–95.54%.

The effectiveness fluctuated at rate 0.3 L/ha from 72.50 % (243 DA-A) to 98.30% (225 DA-A), at rate 0.4 L/ha from 78.80% (243 DA-A) to 100% (233 DA-A), at rate 0.5 L/ha from 85.00% (243 DA-A) to 100% (233 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 91.23% for Bizon 118,75 SC and 92.54% for Komplet 560 SC during the assessment (Appendix 5 tab. 28).

3.2.3-1.8 The efficacy of CHR/H/FDF 574 SC in control of PAPRH *Papver rhoeas*

The efficiency of CHR/H/FDF 574 SC in control of PAPRH *Papver rhoeas* were investigated in 26 trials – 8 trials in winter wheat, 6 trials in winter triticale, 6 trials in winter rye and 6 trials in winter barley.

Winter wheat

133-160 DA-A

The efficiency of CHR/H/FDF 574 SC in control of PAPRH *Papver rhoeas* were investigated in 8 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 132-160 DA-A. The effectiveness fluctuated from 77.95–91.83%.

The effectiveness fluctuated at rate 0.3 L/ha from 50.00% (134 DA-A) to 97.50% (133 DA-A), at rate 0.4 L/ha from 57.50% (134 DA-A) to 100% (154 DA-A), at rate 0.5 L/ha from 65.00% (134 DA-A) to 100% (154 DA-A).

The efficacy of the tested herbicide was comparable to the standard product and slightly higher than standard product. In the trials efficacy amounted above 88.83% for Bizon 118,75 SC and 69.26% for Komplet 560 SC during the assessment (Appendix 5 tab. 29).

185-245 DA-A

The efficiency of CHR/H/FDF 574 SC in control of PAPRH *Papver rhoeas* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 185-254 DA-A. The effectiveness fluctuated from 79.06–94.11%.

The effectiveness fluctuated at rate 0.3 L/ha from 59.50% (245 DA-A) to 93.80% (254 DA-A), at rate 0.4 L/ha from 70.80% (245 DA-A) to 100% (254 DA-A), at rate 0.5 L/ha from 79.50% (245 DA-A) to 100% (254 DA-A).

The efficacy of the tested herbicide was comparable to the standard products and slightly higher than standard products. In the trials efficacy amounted above 86.56% for Bizon 118,75 SC and 66.80% for Komplet 560 SC during the assessment (Appendix 5 tab. 29).

Winter triticale

112-164 DA-A

The efficiency of CHR/H/FDF 574 SC in control of PAPRH *Papver rhoeas* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 112-164 DA-A. The effectiveness fluctuated from 70.45–86.20%.

The effectiveness fluctuated at rate 0.3 L/ha from 23.80% (112 DA-A) to 92.50% (150 DA-A), at rate 0.4 L/ha from 27.50% (112 DA-A) to 96.00% (150 DA-A), at rate 0.5 L/ha from 28.80% (112 DA-A) to 100% (150 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 76.62% for Bizon 118,75 SC and 66.07% for Komplet 560 SC during the assessment (Appendix 5 tab. 30).

168-238 DA-A

The efficiency of CHR/H/FDF 574 SC in control of PAPRH *Papver rhoeas* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 168-238 DA-A. The effectiveness fluctuated from 75.00–96.30%.

The effectiveness fluctuated at rate 0.3 L/ha from 57.50% (168 DA-A) to 87.00% (237 DA-A), at rate 0.4 L/ha from 71.30% (168 DA-A) to 92.50% (237 DA-A), at rate 0.5 L/ha from 87.50% (168 DA-A) to 100% (237 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 86.35% for Bizon 118,75 SC and 69.05% for Komplet 560 SC during the assessment (Appendix 5 tab. 30).

Winter rye

112-164 DA-A

The efficiency of CHR/H/FDF 574 SC in control of PAPRH *Papver rhoeas* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 112-164 DA-A. The effectiveness fluctuated from 70.88–88.77%. The effectiveness fluctuated at rate 0.3 L/ha from 41.30% (112 DA-A) to 82.50% (164 DA-A), at rate 0.4 L/ha from 41.30% (112 DA-A) to 93.80% (162 DA-A), at rate 0.5 L/ha from 60.00% (112 DA-A) to 98.80% (162 DA-A). The efficacy of the tested herbicide was higher than the standard products. In the trials efficacy amounted above 64.82% for Komplet 560 SC during the assessment (Appendix 5 tab. 31).

168-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of PAPRH *Papver rhoeas* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 168-254 DA-A. The effectiveness fluctuated from 77.73–93.73%. The effectiveness fluctuated at rate 0.3 L/ha from 75.00% (204 DA-A) to 82.50% (164 DA-A), at rate 0.4 L/ha from 41.30% (112 DA-A) to 95.00% (204 DA-A), at rate 0.5 L/ha from 88.80% (168 DA-A) to 100% (204 DA-A). The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 67.30% for Komplet 560 SC during the assessment (Appendix 5 tab. 31).

Winter barley

130-159 DA-A

The efficiency of CHR/H/FDF 574 SC in control of PAPRH *Papver rhoeas* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 130-159 DA-A. The effectiveness fluctuated from 85.45–96.93%. The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (151 DA-A) to 98.80% (149 DA-A), at rate 0.4 L/ha from 82.50% (151 DA-A) to 100% (149 DA-A), at rate 0.5 L/ha from 88.80% (151 DA-A) to 100% (149 DA-A). The efficacy of the tested herbicide was comparable to and slightly higher than the standard products. In the trials efficacy amounted above 91.23% for Bizon 118,75 SC and 64.60% for Komplet 560 SC during the assessment (Appendix 5 tab. 32).

186-250 DA-A

The efficiency of CHR/H/FDF 574 SC in control of PAPRH *Papver rhoeas* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 186-250 DA-A. The effectiveness fluctuated from 82.63–96.52%. The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (186 DA-A) to 95.00% (233 DA-A), at rate 0.4 L/ha from 85.00% (186 DA-A) to 97.50% (250 DA-A), at rate 0.5 L/ha from 90.00% (186 DA-A) to 100% (250 DA-A). The efficacy of the tested herbicide was comparable to and slightly higher than the standard products. In the trials efficacy amounted above 89.60% for Bizon 118,75 SC and 57.85% for Komplet 560 SC during the assessment (Appendix 5 tab. 32).

3.2.3-1.9 The efficacy of CHR/H/FDF 574 SC in control of STEME *Stellaria media*

The efficiency of CHR/H/FDF 574 SC in control of STEME *Stellaria media* were investigated in 27 trials – 7 trials in winter wheat, 7 trials in winter triticale, 6 trials in winter rye and 7 trials in winter barley.

Winter wheat

123-160 DA-A

The efficiency of CHR/H/FDF 574 SC in control of STEME *Stellaria media* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 123-160 DA-A. The effectiveness fluctuated from 95.43–99.83%.

The effectiveness fluctuated at rate 0.3 L/ha from 77.50% (123 DA-A) to 100% (160 DA-A), at rate 0.4 L/ha from 97.50% (123 DA-A) to 100% (160 DA-A), at rate 0.5 L/ha from 98.80% (123 DA-A) to 100% (160 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 99.83% for Bizon 118,75 SC and 99.83% for Komplet 560 SC during the assessment (Appendix 5 tab. 33).

150-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of STEME *Stellaria media* were investigated in 4 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 150-254 DA-A. The effectiveness fluctuated from 94.58–100%.

The effectiveness fluctuated at rate 0.3 L/ha from 80.00% (150 DA-A) to 100% (254 DA-A), at rate 0.4 L/ha from 100% (150 DA-A) to 100% (254 DA-A), at rate 0.5 L/ha from 100% (150 DA-A) to 100% (254 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 100% for Bizon 118,75 SC and 100% for Komplet 560 SC during the assessment (Appendix 5 tab. 33).

Winter triticale

112-164 DA-A

The efficiency of CHR/H/FDF 574 SC in control of STEME *Stellaria media* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 112-164 DA-A. The effectiveness fluctuated from 85.20–89.83%.

The effectiveness fluctuated at rate 0.3 L/ha from 23.80% (112 DA-A) to 100% (150 DA-A), at rate 0.4 L/ha from 27.50% (112 DA-A) to 100% (150 DA-A), at rate 0.5 L/ha from 30.00% (112 DA-A) to 100% (150 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 86.80% for Bizon 118,75 SC and 88.76% for Komplet 560 SC during the assessment (Appendix 5 tab. 34).

168-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of STEME *Stellaria media* were investigated in 4 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 168-254 DA-A. The effectiveness fluctuated from 80.00–96.25%.

The effectiveness fluctuated at rate 0.3 L/ha from 45.00% (168 DA-A) to 100% (254 DA-A), at rate 0.4 L/ha from 61.30% (168 DA-A) to 100% (254 DA-A), at rate 0.5 L/ha from 85.00% (168 DA-A) to 100% (254 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 91.58% for Bizon 118,75 SC and 96.45% for Komplet 560 SC during the assessment (Appendix 5 tab. 34).

Winter rye

122-160 DA-A

The efficiency of CHR/H/FDF 574 SC in control of STEME *Stellaria media* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 122-160 DA-A. The effectiveness fluctuated from 92.02–99.23%.

The effectiveness fluctuated at rate 0.3 L/ha from 82.50% (136 DA-A) to 100% (148 DA-A), at rate 0.4 L/ha from 98.00% (122 DA-A) to 100% (148 DA-A), at rate 0.5 L/ha from 98.80% (136 DA-A) to 100% (148 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 93.57% for Komplet 560 SC during the assessment (Appendix 5 tab. 35).

178-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of STEME *Stellaria media* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 178-254 DA-A. The effectiveness fluctuated from 92.83–99.83%.

The effectiveness fluctuated at rate 0.3 L/ha from 85.00% (202 DA-A) to 100% (254 DA-A), at rate 0.4 L/ha from 98.00% (244 DA-A) to 100% (254 DA-A), at rate 0.5 L/ha from 99.00% (244 DA-A) to 100% (254 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 94.38% for Komplet 560 SC during the assessment (Appendix 5 tab. 35).

Winter barley

132-159 DA-A

The efficiency of CHR/H/FDF 574 SC in control of STEME *Stellaria media* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 132-159 DA-A. The effectiveness fluctuated from 96.97–99.83%.

The effectiveness fluctuated at rate 0.3 L/ha from 83.80% (132 DA-A) to 100% (159 DA-A), at rate 0.4 L/ha from 97.50% (132 DA-A) to 100% (159 DA-A), at rate 0.5 L/ha from 98.80% (132 DA-A) to 100% (159 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 99.64% for Bizon 118,75 SC and 99.64% for Komplet 560 SC during the assessment (Appendix 5 tab. 36).

164-248 DA-A

The efficiency of CHR/H/FDF 574 SC in control of STEME *Stellaria media* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 164-248 DA-A. The effectiveness fluctuated from 97.14–100%.

The effectiveness fluctuated at rate 0.3 L/ha from 85.00% (164 DA-A) to 100% (248 DA-A), at rate 0.4 L/ha from 100% (164 DA-A) to 100% (248 DA-A), at rate 0.5 L/ha from 100% (164 DA-A) to 100% (248 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 100% for Bizon 118,75 SC and 100% for Komplet 560 SC during the assessment (Appendix 5 tab. 36).

3.2.3-1.10 The efficacy of CHR/H/FDF 574 SC in control of GERPU *Geranium pusillum*

The efficiency of CHR/H/FDF 574 SC in control of GERPU *Geranium pusillum* were investigated in 24 trials – 6 trials in winter wheat, 6 trials in winter triticale, 6 trials in winter rye and 6 trials in winter barley.

Winter wheat

123-167 DA-A

The efficiency of CHR/H/FDF 574 SC in control of GERPU *Geranium pusillum* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 123-167 DA-A. The effectiveness fluctuated from 87.63–94.10%.

The effectiveness fluctuated at rate 0.3 L/ha from 60.00% (123 DA-A) to 100% (167 DA-A), at rate 0.4 L/ha from 73.80% (123 DA-A) to 100% (167 DA-A), at rate 0.5 L/ha from 78.80% (123 DA-A) to 100% (167 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 93.68% for Bizon 118,75 SC and 71.07% for Komplet 560 SC during the assessment (Appendix 5 tab. 37).

150-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of GERPU *Geranium pusillum* were investigated in 2 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 150-254 DA-A. The effectiveness fluctuated from 74.15–88.75%.

The effectiveness fluctuated at rate 0.3 L/ha from 60.00% (150 DA-A) to 100% (254 DA-A), at rate 0.4 L/ha from 75.00% (150 DA-A) to 100% (254 DA-A), at rate 0.5 L/ha from 80.00% (150 DA-A) to 100% (254 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 86.25% for Bizon 118,75 SC and 71.50% for Komplet 560 SC during the assessment (Appendix 5 tab. 37).

Winter triticale

133-165 DA-A

The efficiency of CHR/H/FDF 574 SC in control of GERPU *Geranium pusillum* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 133-165 DA-A. The effectiveness fluctuated from 84.82–96.55%.

The effectiveness fluctuated at rate 0.3 L/ha from 68.80% (149 DA-A) to 100% (154 DA-A), at rate 0.4 L/ha from 85.00% (164 DA-A) to 100% (154 DA-A), at rate 0.5 L/ha from 88.80% (164 DA-A) to 100% (154 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 94.47% for Bizon 118,75 SC and 74.07% for Komplet 560 SC during the assessment (Appendix 5 tab. 38).

191-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of GERPU *Geranium pusillum* were investigated in 5 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 191-254 DA-A. The effectiveness fluctuated from 83.50–97.00%.

The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (191 DA-A) to 100% (253 DA-A), at rate 0.4 L/ha from 85.00% (191 DA-A) to 100% (253 DA-A), at rate 0.5 L/ha from 90.00% (206 DA-A) to 100% (253 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 93.80% for Bizon 118,75 SC and 72.76% for Komplet 560 SC during the assessment (Appendix 5 tab. 38).

Winter rye

136-164 DA-A

The efficiency of CHR/H/FDF 574 SC in control of GERPU *Geranium pusillum* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 136-164 DA-A. The effectiveness fluctuated from 77.32–91.27%.

The effectiveness fluctuated at rate 0.3 L/ha from 67.50% (149 DA-A) to 100% (164 DA-A), at rate 0.4 L/ha from 78.80% (160 DA-A) to 100% (164 DA-A), at rate 0.5 L/ha from 93.13% (160 DA-A) to 100% (164 DA-A).

The efficacy of the tested herbicide was comparable to and slightly higher than the standard products. In the trials efficacy amounted above 67.95% for Komplet 560 SC during the assessment (Appendix 5 tab. 39).

178-252 DA-A

The efficiency of CHR/H/FDF 574 SC in control of GERPU *Geranium pusillum* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 178-252 DA-A. The effectiveness fluctuated from 83.27–95.00%.

The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (191 DA-A) to 100% (252 DA-A), at rate 0.4 L/ha from 80.00% (202 DA-A) to 100% (252 DA-A), at rate 0.5 L/ha from 85.00% (202 DA-A) to 100% (252 DA-A).

The efficacy of the tested herbicide was comparable to and slightly higher than the standard products. In the trials efficacy amounted above 76.07% for Komplet 560 SC during the assessment (Appendix 5 tab. 39).

Winter barley

130-159 DA-A

The efficiency of CHR/H/FDF 574 SC in control of GERPU *Geranium pusillum* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 130-159 DA-A. The effectiveness fluctuated from 83.78–92.93%.

The effectiveness fluctuated at rate 0.3 L/ha from 58.80% (132 DA-A) to 97.50% (159 DA-A), at rate 0.4 L/ha from 70.00% (132 DA-A) to 100% (159 DA-A), at rate 0.5 L/ha from 78.80% (132 DA-A) to 100% (159 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 92.88% for Bizon 118,75 SC and 79.83% for Komplet 560 SC during the assessment (Appendix 5 tab. 40).

164-250 DA-A

The efficiency of CHR/H/FDF 574 SC in control of GERPU *Geranium pusillum* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 164-250 DA-A. The effectiveness fluctuated from 86.05–94.17%.

The effectiveness fluctuated at rate 0.3 L/ha from 60.00% (164 DA-A) to 100% (242 DA-A), at rate 0.4 L/ha from 70.00% (164 DA-A) to 100% (243 DA-A), at rate 0.5 L/ha from 80.00% (164 DA-A) to 100% (243 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 93.83% for Bizon 118,75 SC and 81.05% for Komplet 560 SC during the assessment (Appendix 5 tab. 40).

3.2.3-1.11 The efficacy of CHR/H/FDF 574 SC in control of MATIN *Tripleurospermum mar. inodorum*

The efficiency of CHR/H/FDF 574 SC in control of MATIN *Tripleurospermum mar. inodorum* were investigated in 25 trials – 6 trials in winter wheat, 7 trials in winter triticale, 6 trials in winter rye and 6 trials in winter barley.

Winter wheat

123-156 DA-A

The efficiency of CHR/H/FDF 574 SC in control of MATIN *Tripleurospermum mar. inodorum* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 123-156 DA-A. The effectiveness fluctuated from 93.00–98.97%.

The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (123 DA-A) to 100% (156 DA-A), at rate 0.4 L/ha from 88.80% (123 DA-A) to 100% (156 DA-A), at rate 0.5 L/ha from 93.80% (123 DA-A) to 100% (156 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 99.80% for Bizon 118,75 SC and 95.05% for Komplet 560 SC during the assessment (Appendix 5 tab. 41).

150-245 DA-A

The efficiency of CHR/H/FDF 574 SC in control of MATIN *Tripleurospermum mar. inodorum* were investigated in 5 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 150-245 DA-A. The effectiveness fluctuated from 94.00–99.00%.

The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (150 DA-A) to 100% (245 DA-A), at rate 0.4 L/ha from 90.00% (150 DA-A) to 100% (245 DA-A), at rate 0.5 L/ha from 95.00% (150 DA-A) to 100% (245 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 100% for Bizon 118,75 SC and 94.50% for Komplet 560 SC during the assessment (Appendix 5 tab. 41).

Winter triticale

112-165 DA-A

The efficiency of CHR/H/FDF 574 SC in control of MATIN *Tripleurospermum mar. inodorum* were investigated in 7 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 112-165 DA-A. The effectiveness fluctuated from 78.06–88.06%.

The effectiveness fluctuated at rate 0.3 L/ha from 23.80% (112 DA-A) to 100% (150 DA-A), at rate 0.4 L/ha from 25.00% (112 DA-A) to 100% (150 DA-A), at rate 0.5 L/ha from 28.80% (112 DA-A) to 100% (150 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 86.79% for Bizon 118,75 SC and 77.19% for Komplet 560 SC during the assessment (Appendix 5 tab. 42).

168-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of MATIN *Tripleurospermum mar. inodorum* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 168-254 DA-A. The effectiveness fluctuated from 82.27–96.25%.

The effectiveness fluctuated at rate 0.3 L/ha from 56.30% (168 DA-A) to 100% (254 DA-A), at rate 0.4 L/ha from 66.30% (168 DA-A) to 100% (254 DA-A), at rate 0.5 L/ha from 87.50% (168 DA-A) to 100% (254 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 95.42% for Bizon 118,75 SC and 87.75% for Komplet 560 SC during the assessment (Appendix 5 tab. 42).

Winter rye

112-160 DA-A

The efficiency of CHR/H/FDF 574 SC in control of MATIN *Tripleurospermum mar. inodorum* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 112-160 DA-A. The effectiveness fluctuated from 74.40–93.37%.

The effectiveness fluctuated at rate 0.3 L/ha from 46.30% (112 DA-A) to 100% (122 DA-A), at rate 0.4 L/ha from 56.30% (112 DA-A) to 100% (122 DA-A), at rate 0.5 L/ha from 73.80% (112 DA-A) to 100% (122 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 85.48% for Komplet 560 SC during the assessment (Appendix 5 tab. 43).

168-244 DA-A

The efficiency of CHR/H/FDF 574 SC in control of MATIN *Tripleurospermum mar. inodorum* were investigated in 5 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the medium to high level of efficacy 168-244 DA-A. The effectiveness fluctuated from 78.26–95.50%.

The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (178 DA-A) to 100% (244 DA-A), at rate 0.4 L/ha from 85.00% (168 DA-A) to 100% (244 DA-A), at rate 0.5 L/ha from 87.50% (168 DA-A) to 100% (244 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 88.60% for Komplet 560 SC during the assessment (Appendix 5 tab. 43).

Winter barley

130-159 DA-A

The efficiency of CHR/H/FDF 574 SC in control of MATIN *Tripleurospermum mar. inodorum* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 130-159 DA-A. The effectiveness fluctuated from 94.55–98.88%.

The effectiveness fluctuated at rate 0.3 L/ha from 70.00% (132 DA-A) to 100% (159 DA-A), at rate 0.4 L/ha from 90.00% (132 DA-A) to 100% (159 DA-A), at rate 0.5 L/ha from 93.80% (132 DA-A) to 100% (159 DA-A).

The efficacy of the tested herbicide was comparable to and slightly higher than the standard products. In the trials efficacy amounted above 99.30% for Bizon 118,75 SC and 82.77% for Komplet 560 SC during the assessment (Appendix 5 tab. 44).

164-250 DA-A

The efficiency of CHR/H/FDF 574 SC in control of MATIN *Tripleurospermum mar. inodorum* were investigated in 6 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 164-250 DA-A. The effectiveness fluctuated from 81.88–98.08%.

The effectiveness fluctuated at rate 0.3 L/ha from 21.30% (225 DA-A) to 100% (250 DA-A), at rate 0.4 L/ha from 90.00% (164 DA-A) to 100% (250 DA-A), at rate 0.5 L/ha from 95.00% (164 DA-A) to 100% (250 DA-A).

The efficacy of the tested herbicide was comparable to and slightly higher than the standard products. In the trials efficacy amounted above 99.63% for Bizon 118,75 SC and 80.42% for Komplet 560 SC during the assessment (Appendix 5 tab. 44).

3.2.3-1.12 The efficacy of CHR/H/FDF 574 SC in control of VERHE *Veronica hederifolia*

The efficiency of CHR/H/FDF 574 SC in control of VERHE *Veronica hederifolia* were investigated in 12 trials – 3 trials in winter wheat, 3 trials in winter triticale, 3 trials in winter rye and 3 trials in winter barley.

Winter wheat

156-167 DA-A

The efficiency of CHR/H/FDF 574 SC in control of VERHE *Veronica hederifolia* were investigated in 3 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 156-167 DA-A. The effectiveness fluctuated from 99.33–100%.

The effectiveness fluctuated at rate 0.3 L/ha from 98.00% (156 DA-A) to 100% (167 DA-A), at rate 0.4 L/ha from 100% (156 DA-A) to 100% (167 DA-A), at rate 0.5 L/ha from 100% (156 DA-A) to 100% (167 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 100% for Bizon 118,75 SC and 100% for Komplet 560 SC during the assessment (Appendix 5 tab. 45).

Winter triticale

133-154 DA-A

The efficiency of CHR/H/FDF 574 SC in control of VERHE *Veronica hederifolia* were investigated in 3 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 133-154 DA-A. The effectiveness fluctuated from 97.33–99.10%.

The effectiveness fluctuated at rate 0.3 L/ha from 92.00% (154 DA-A) to 100% (150 DA-A), at rate 0.4 L/ha from 97.50% (154 DA-A) to 100% (150 DA-A), at rate 0.5 L/ha from 97.30% (154 DA-A) to 100% (150 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 98.43% for Bizon 118,75 SC and 98.60% for Komplet 560 SC during the assessment (Appendix 5 tab. 46).

168-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of VERHE *Veronica hederifolia* were investigated in 3 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 168-254 DA-A. The effectiveness fluctuated from 77.33–94.53%.

The effectiveness fluctuated at rate 0.3 L/ha from 40.00% (168 DA-A) to 100% (254 DA-A), at rate 0.4 L/ha from 55.00% (168 DA-A) to 100% (254 DA-A), at rate 0.5 L/ha from 86.30% (168 DA-A) to 100% (254 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 94.27% for Bizon 118,75 SC and 96.43% for Komplet 560 SC during the assessment (Appendix 5 tab. 46).

Winter rye

122-148 DA-A

The efficiency of CHR/H/FDF 574 SC in control of VERHE *Veronica hederifolia* were investigated in 3 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 122-148 DA-A. The effectiveness fluctuated from 89.60–97.83%.

The effectiveness fluctuated at rate 0.3 L/ha from 78.80% (148 DA-A) to 100% (135 DA-A), at rate 0.4 L/ha from 90.00% (122 DA-A) to 100% (135 DA-A), at rate 0.5 L/ha from 95.00% (122 DA-A) to 100% (135 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 93.33% for Komplet 560 SC during the assessment (Appendix 5 tab. 47).

230-254 DA-A

The efficiency of CHR/H/FDF 574 SC in control of VERHE *Veronica hederifolia* were investigated in 3 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 230-254 DA-A. The effectiveness fluctuated from 95.77–98.33%.

The effectiveness fluctuated at rate 0.3 L/ha from 90.00% (244 DA-A) to 100% (254 DA-A), at rate 0.4 L/ha from 90.00% (244 DA-A) to 100% (254 DA-A), at rate 0.5 L/ha from 95.00% (244 DA-A) to 100% (254 DA-A).

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 96.67% for Komplet 560 SC during the assessment (Appendix 5 tab. 47).

Winter barley

130-159 DA-A

The efficiency of CHR/H/FDF 574 SC in control of VERHE *Veronica hederifolia* were investigated in 3 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 130-159 DA-A. The effectiveness amounted 100%.

The effectiveness amounted 100% (130-159 DA-A) at rate 0.3 L/ha, 100% (130-159 DA-A) at rate 0.4 L/ha, 100% (130-159 DA-A) at rate 0.5 L/ha.

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 100% for Bizon 118,75 SC and 100% for Komplet 560 SC during the assessment (Appendix 5 tab. 48).

242-250 DA-A

The efficiency of CHR/H/FDF 574 SC in control of VERHE *Veronica hederifolia* were investigated in 2 trials. The tested product at rates: 0.3 L/ha, 0.4 L/ha, 0.5 L/ha controlled this species of weed at the high level of efficacy 242-250 DA-A. The effectiveness amounted 100%.

The effectiveness amounted 100% (242-250 DA-A) at rate 0.3 L/ha, 100% (242-250 DA-A) at rate 0.4 L/ha, 100% (242-250 DA-A) at rate 0.5 L/ha.

The efficacy of the tested herbicide was comparable to the standard products. In the trials efficacy amounted above 100% for Bizon 118,75 SC and 100% for Komplet 560 SC during the assessment (Appendix 5 tab. 48).

Conclusions on the biological efficacy

The obtained data in performed trials show that CHR/H/FDF 574 SC provides benefits against the most important weeds in winter wheat, winter triticale, winter rye and winter barley as shown in the tables below.

The following table describes the effectiveness of weeds:

S (Susceptible)	> 85% (within each trial the average must be higher than 85%)
MS (Moderately Susceptible)	70 – 85%
MT (Moderately Tolerant)	60 – 70%
T (Tolerant)	< 60%

The following table shows the average sensitivity of weeds in winter wheat:

Product code (L, kg/ha)	EPPO code	Scientific name	DA-A	Pest stage	Average	Efficacy
CHR/H/FDF 574 SC 0.3 L/ha	ANTAR	<i>Anthemis arvensis</i>	123-167 DA-A	BBCH 10-21	93.80	S
	APESV	<i>Apera spica-venti</i>	133-167 DA-A	BBCH 10-22	82.89	MS
	VIOAR	<i>Viola arvensis</i>	133-155 DA-A	BBCH 10-23	85.55	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	132-167 DA-A	BBCH 10-16	88.76	S
	CAPBP	<i>Capsella bursa-pastoris</i>	123-160 DA-A	BBCH 10-21	88.04	S
	CENCY	<i>Centaurea cyanus</i>	123-167 DA-A	BBCH 10-20	82.44	MS
	GALAP	<i>Galium aparine</i>	132-167 DA-A	BBCH 10-23	76.71	MS
	PAPRH	<i>Papaver rhoeas</i>	132-156 DA-A	BBCH 10-25	77.95	MS
	STEME	<i>Stellaria media</i>	133-160 DA-A	BBCH 10-20	95.43	S
	GERPU	<i>Geranium pusillum</i>	123-167 DA-A	BBCH 10-20	87.63	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	123-156 DA-A	BBCH 10-20	93.00	S
CHR/H/FDF 574 SC 0.4 L/ha	ANTAR	<i>Anthemis arvensis</i>	123-167 DA-A	BBCH 10-21	98.80	S
	APESV	<i>Apera spica-venti</i>	133-167 DA-A	BBCH 10-22	90.41	S
	VIOAR	<i>Viola arvensis</i>	133-155 DA-A	BBCH 10-23	91.61	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	132-167 DA-A	BBCH 10-16	94.00	S
	CAPBP	<i>Capsella bursa-pastoris</i>	123-160 DA-A	BBCH 10-21	93.21	S
	CENCY	<i>Centaurea cyanus</i>	123-167 DA-A	BBCH 10-20	90.99	S
	GALAP	<i>Galium aparine</i>	132-167 DA-A	BBCH 10-23	85.73	S
	PAPRH	<i>Papaver rhoeas</i>	132-156 DA-A	BBCH 10-25	86.81	S
	STEME	<i>Stellaria media</i>	133-160 DA-A	BBCH 10-20	99.64	S
	GERPU	<i>Geranium pusillum</i>	123-167 DA-A	BBCH 10-20	91.85	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	123-156 DA-A	BBCH 10-20	98.07	S
CHR/H/FDF 574 SC 0.5 L/ha	VERHE	<i>Veronica hederifolia</i>	156-167 DA-A	BBCH 10-14	100.00	S
	ANTAR	<i>Anthemis arvensis</i>	123-167 DA-A	BBCH 10-21	99.63	S
	APESV	<i>Apera spica-venti</i>	133-167 DA-A	BBCH 10-22	93.18	S

L/ha	VIOAR	<i>Viola arvensis</i>	133-155 DA-A	BBCH 10-23	94.20	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	132-167 DA-A	BBCH 10-16	96.29	S
	CAPBP	<i>Capsella bursa-pastoris</i>	123-160 DA-A	BBCH 10-21	94.66	S
	CENCY	<i>Centaurea cyanus</i>	123-167 DA-A	BBCH 10-20	95.33	S
	GALAP	<i>Galium aparine</i>	132-167 DA-A	BBCH 10-23	90.23	S
	PAPRH	<i>Papver rhoeas</i>	132-156 DA-A	BBCH 10-25	91.83	S
	STEME	<i>Stellaria media</i>	133-160 DA-A	BBCH 10-20	99.83	S
	GERPU	<i>Geranium pusillum</i>	123-167 DA-A	BBCH 10-20	94.10	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	123-156 DA-A	BBCH 10-20	98.97	S
	VERHE	<i>Veronica hederifolia</i>	156-167 DA-A	BBCH 10-14	100.00	S
	ANTAR	<i>Anthemis arvensis</i>	123-167 DA-A	BBCH 10-21	99.63	S
Bizon 118,75 SC 1.0 L/ha	APESV	<i>Apera spica-venti</i>	133-167 DA-A	BBCH 10-22	87.68	S
	VIOAR	<i>Viola arvensis</i>	133-155 DA-A	BBCH 10-23	93.81	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	132-167 DA-A	BBCH 10-16	96.91	S
	CAPBP	<i>Capsella bursa-pastoris</i>	123-160 DA-A	BBCH 10-21	95.01	S
	CENCY	<i>Centaurea cyanus</i>	123-167 DA-A	BBCH 10-20	93.59	S
	GALAP	<i>Galium aparine</i>	132-167 DA-A	BBCH 10-23	89.43	S
	PAPRH	<i>Papver rhoeas</i>	132-156 DA-A	BBCH 10-25	88.83	S
	STEME	<i>Stellaria media</i>	133-160 DA-A	BBCH 10-20	99.83	S
	GERPU	<i>Geranium pusillum</i>	123-167 DA-A	BBCH 10-20	93.68	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	123-156 DA-A	BBCH 10-20	99.80	S
	VERHE	<i>Veronica hederifolia</i>	156-167 DA-A	BBCH 10-14	100.00	S
Komplet 560 SC 0.5 L/ha	ANTAR	<i>Anthemis arvensis</i>	123-167 DA-A	BBCH 10-21	96.50	S
	APESV	<i>Apera spica-venti</i>	133-167 DA-A	BBCH 10-22	93.08	S
	VIOAR	<i>Viola arvensis</i>	133-155 DA-A	BBCH 10-23	93.74	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	132-167 DA-A	BBCH 10-16	90.45	S
	CAPBP	<i>Capsella bursa-pastoris</i>	123-160 DA-A	BBCH 10-21	95.19	S
	CENCY	<i>Centaurea cyanus</i>	123-167 DA-A	BBCH 10-20	51.70	T
	GALAP	<i>Galium aparine</i>	132-167 DA-A	BBCH 10-23	86.99	S
	PAPRH	<i>Papver rhoeas</i>	132-156 DA-A	BBCH 10-25	69.26	MT
	STEME	<i>Stellaria media</i>	133-160 DA-A	BBCH 10-20	99.83	S
	GERPU	<i>Geranium pusillum</i>	123-167 DA-A	BBCH 10-20	71.07	MS
	MATIN	<i>Tripleurospermum mar. inodorum</i>	123-156 DA-A	BBCH 10-20	95.05	S
	VERHE	<i>Veronica hederifolia</i>	156-167 DA-A	BBCH 10-14	100.00	S

On the basis of submitted research, it is possible to state that CHR/H/FDF 574 SC used at dose controlled:

Dose CHR/H/FDF 574 SC 0.3 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Capsella bursa-pastoris* (CAPBP), *Veronica hederifolia* (VERHE), *Viola arvensis* (VIOAR), *Geranium pusillum* (GERPU),
Moderately Susceptible: *Apera spica-venti* (APESV), *Centaurea cyanus* (CENCY), *Galium aparine* (GALAP), *Papver rhoeas* (PAPRH),

Dose CHR/H/FDF 574 SC 0.4 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-*

pastoris (CAPBP), *Papver rhoeas* (PAPRH), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Centaurea cyanus* (CENCY), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

Dose CHR/H/FDF 574 SC 0.5 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Papver rhoeas* (PAPRH), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Centaurea cyanus* (CENCY), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

The following table shows the average sensitivity of weeds in winter triticale:

Product code (L, kg/ha)	EPPO code	Scientific name	DA-A	Pest stage	Average	Efficacy
CHR/H/FDF 547 SC 0.3 L/ha	ANTAR	<i>Anthemis arvensis</i>	136-164 DA-A	BBCH 11-19	88.35	S
	APESV	<i>Apera spica-venti</i>	133-165 DA-A	BBCH 10-21	84.24	MS
	VIOAR	<i>Viola arvensis</i>	133-165 DA-A	BBCH 10-21	94.39	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	140-164 DA-A	BBCH 11-21	84.40	MS
	CAPBP	<i>Capsella bursa-pastoris</i>	133-165 DA-A	BBCH 10-21	89.38	S
	CENCY	<i>Centaurea cyanus</i>	112-165 DA-A	BBCH 10-21	69.40	MT
	GALAP	<i>Galium aparine</i>	140-164 DA-A	BBCH 10-21	76.95	MS
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 11-21	70.45	MS
	STEME	<i>Stellaria media</i>	112-164 DA-A	BBCH 11-21	85.20	S
	GERPU	<i>Geranium pusillum</i>	133-165 DA-A	BBCH 11-21	84.82	MS
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-165 DA-A	BBCH 10-21	78.06	MS
	VERHE	<i>Veronica hederifolia</i>	133-154 DA-A	BBCH 11-16	97.33	S
CHR/H/FDF 547 SC 0.4 L/ha	ANTAR	<i>Anthemis arvensis</i>	136-164 DA-A	BBCH 11-19	94.17	S
	APESV	<i>Apera spica-venti</i>	133-165 DA-A	BBCH 10-21	93.79	S
	VIOAR	<i>Viola arvensis</i>	133-165 DA-A	BBCH 10-21	97.51	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	140-164 DA-A	BBCH 11-21	91.68	S
	CAPBP	<i>Capsella bursa-pastoris</i>	133-165 DA-A	BBCH 10-21	97.92	S
	CENCY	<i>Centaurea cyanus</i>	112-165 DA-A	BBCH 10-21	77.90	MS
	GALAP	<i>Galium aparine</i>	140-164 DA-A	BBCH 10-21	89.02	S
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 11-21	80.50	MS
	STEME	<i>Stellaria media</i>	112-164 DA-A	BBCH 11-21	89.30	S
	GERPU	<i>Geranium pusillum</i>	133-165 DA-A	BBCH 11-21	93.50	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-165 DA-A	BBCH 10-21	84.47	MS
	VERHE	<i>Veronica hederifolia</i>	133-154 DA-A	BBCH 11-16	99.17	S
CHR/H/FDF 547 SC 0.5 L/ha	ANTAR	<i>Anthemis arvensis</i>	136-164 DA-A	BBCH 11-19	98.15	S
	APESV	<i>Apera spica-venti</i>	133-165 DA-A	BBCH 10-21	97.21	S
	VIOAR	<i>Viola arvensis</i>	133-165 DA-A	BBCH 10-21	98.13	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	140-164 DA-A	BBCH 11-21	94.60	S
	CAPBP	<i>Capsella bursa-pastoris</i>	133-165 DA-A	BBCH 10-21	99.60	S
	CENCY	<i>Centaurea cyanus</i>	112-165 DA-A	BBCH 10-21	83.05	MS
	GALAP	<i>Galium aparine</i>	140-164 DA-A	BBCH 10-21	93.45	S
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 11-21	86.20	S
	STEME	<i>Stellaria media</i>	112-164 DA-A	BBCH 11-21	89.83	S
	GERPU	<i>Geranium pusillum</i>	133-165 DA-A	BBCH 11-21	96.55	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-165 DA-A	BBCH 10-21	88.06	S
	VERHE	<i>Veronica hederifolia</i>	133-154 DA-A	BBCH 11-16	99.10	S

Bizon 118,75 SC 1.0 L/ha	ANTAR	<i>Anthemis arvensis</i>	136-164 DA-A	BBCH 11-19	91.88	S
	APESV	<i>Apera spica-venti</i>	133-165 DA-A	BBCH 10-21	82.17	MS
	VIOAR	<i>Viola arvensis</i>	133-165 DA-A	BBCH 10-21	96.11	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	140-164 DA-A	BBCH 11-21	86.88	S
	CAPBP	<i>Capsella bursa-pastoris</i>	133-165 DA-A	BBCH 10-21	95.63	S
	CENCY	<i>Centaurea cyanus</i>	112-165 DA-A	BBCH 10-21	78.47	MS
	GALAP	<i>Galium aparine</i>	140-164 DA-A	BBCH 10-21	86.08	S
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 11-21	76.62	MS
	STEME	<i>Stellaria media</i>	112-164 DA-A	BBCH 11-21	86.80	S
	GERPU	<i>Geranium pusillum</i>	133-165 DA-A	BBCH 11-21	94.47	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-165 DA-A	BBCH 10-21	86.79	S
	VERHE	<i>Veronica hederifolia</i>	133-154 DA-A	BBCH 11-16	98.43	S
Komplet 560 SC 0.5 L/ha	ANTAR	<i>Anthemis arvensis</i>	136-164 DA-A	BBCH 11-19	88.98	S
	APESV	<i>Apera spica-venti</i>	133-165 DA-A	BBCH 10-21	94.78	S
	VIOAR	<i>Viola arvensis</i>	133-165 DA-A	BBCH 10-21	96.88	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	140-164 DA-A	BBCH 11-21	79.32	MS
	CAPBP	<i>Capsella bursa-pastoris</i>	133-165 DA-A	BBCH 10-21	93.77	S
	CENCY	<i>Centaurea cyanus</i>	112-165 DA-A	BBCH 10-21	57.12	T
	GALAP	<i>Galium aparine</i>	140-164 DA-A	BBCH 10-21	86.07	S
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 11-21	66.07	MT
	STEME	<i>Stellaria media</i>	112-164 DA-A	BBCH 11-21	88.76	S
	GERPU	<i>Geranium pusillum</i>	133-165 DA-A	BBCH 11-21	74.07	MS
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-165 DA-A	BBCH 10-21	77.19	MS
	VERHE	<i>Veronica hederifolia</i>	133-154 DA-A	BBCH 11-16	98.60	S

On the basis of submitted research, it is possible to state that CHR/H/FDF 574 SC used at dose controlled:

Dose CHR/H/FDF 574 SC 0.3 L/ha

Susceptible: *Anthemis arvensis* (ANTAR), *Capsella bursa-pastoris* (CAPBP), *Veronica hederifolia* (VERHE), *Viola arvensis* (VIOAR), *Stellaria media* (STEME),

Moderately Susceptible: *Apera spica-venti* (APESV), *Galium aparine* (GALAP), *Papver rhoeas* (PAPRH), *Geranium pusillum* (GERPU), *Tripleurospermum mar. inodorum* (MATIN), *Brassica napus* (self-sown plant) (BRSNW),

Moderately Tolerant: *Centaurea cyanus* (CENCY)

Dose CHR/H/FDF 574 SC 0.4 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

Moderately Susceptible: *Papver rhoeas* (PAPRH), *Centaurea cyanus* (CENCY), *Tripleurospermum mar. inodorum* (MATIN),

Dose CHR/H/FDF 574 SC 0.5 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Papver rhoeas* (PAPRH), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

Moderately Susceptible: *Centaurea cyanus* (CENCY),

The following table shows the average sensitivity of weeds in winter rye:

Product code (L, kg/ha)	EPPO code	Scientific name	DA-A	Pest stage	Average	Efficacy
CHR/H/FDF 547 SC 0.3 L/ha	ANTAR	<i>Anthemis arvensis</i>	122-164 DA-A	BBCH 11-19	87.81	S
	APESV	<i>Apera spica-venti</i>	122-168 DA-A	BBCH 10-21	86.63	S
	VIOAR	<i>Viola arvensis</i>	112-164 DA-A	BBCH 10-16	82.51	MS
	BRSNW	<i>Brassica napus</i> (self-sown plant)	122-162 DA-A	BBCH 10-14	85.43	S
	CAPBP	<i>Capsella bursa-pastoris</i>	122-164 DA-A	BBCH 10-21	82.32	MS
	CENCY	<i>Centaurea cyanus</i>	112-164 DA-A	BBCH 11-20	69.10	MT
	GALAP	<i>Galium aparine</i>	122-164 DA-A	BBCH 10-16	79.82	MS
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 10-15	70.88	MS
	STEME	<i>Stellaria media</i>	122-160 DA-A	BBCH 10-21	92.02	S
	GERPU	<i>Geranium pusillum</i>	148-164 DA-A	BBCH 10-21	77.32	MS
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-160 DA-A	BBCH 11-19	74.40	MS
	VERHE	<i>Veronica hederifolia</i>	122-148 DA-A	BBCH 00-21	89.60	S
CHR/H/FDF 547 SC 0.4 L/ha	ANTAR	<i>Anthemis arvensis</i>	122-164 DA-A	BBCH 11-19	94.00	S
	APESV	<i>Apera spica-venti</i>	122-168 DA-A	BBCH 10-21	94.27	S
	VIOAR	<i>Viola arvensis</i>	112-164 DA-A	BBCH 10-16	86.50	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	122-162 DA-A	BBCH 10-14	93.97	S
	CAPBP	<i>Capsella bursa-pastoris</i>	122-164 DA-A	BBCH 10-21	95.63	S
	CENCY	<i>Centaurea cyanus</i>	112-164 DA-A	BBCH 11-20	78.70	MS
	GALAP	<i>Galium aparine</i>	122-164 DA-A	BBCH 10-16	87.15	S
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 10-15	80.77	MS
	STEME	<i>Stellaria media</i>	122-160 DA-A	BBCH 10-21	99.07	S
	GERPU	<i>Geranium pusillum</i>	148-164 DA-A	BBCH 10-21	87.75	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-160 DA-A	BBCH 11-19	86.25	S
	VERHE	<i>Veronica hederifolia</i>	122-148 DA-A	BBCH 00-21	95.10	S
CHR/H/FDF 547 SC 0.5 L/ha	ANTAR	<i>Anthemis arvensis</i>	122-164 DA-A	BBCH 11-19	98.44	S
	APESV	<i>Apera spica-venti</i>	122-168 DA-A	BBCH 10-21	97.28	S
	VIOAR	<i>Viola arvensis</i>	112-164 DA-A	BBCH 10-16	91.63	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	122-162 DA-A	BBCH 10-14	96.25	S
	CAPBP	<i>Capsella bursa-pastoris</i>	122-164 DA-A	BBCH 10-21	98.57	S
	CENCY	<i>Centaurea cyanus</i>	112-164 DA-A	BBCH 11-20	84.87	MS
	GALAP	<i>Galium aparine</i>	122-164 DA-A	BBCH 10-16	93.35	S
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 10-15	88.77	S
	STEME	<i>Stellaria media</i>	122-160 DA-A	BBCH 10-21	99.23	S
	GERPU	<i>Geranium pusillum</i>	148-164 DA-A	BBCH 10-21	91.27	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-160 DA-A	BBCH 11-19	93.37	S
	VERHE	<i>Veronica hederifolia</i>	122-148 DA-A	BBCH 00-21	97.83	S
Komplet 560 SC 0.5 L/ha	ANTAR	<i>Anthemis arvensis</i>	122-164 DA-A	BBCH 11-19	93.96	S
	APESV	<i>Apera spica-venti</i>	122-168 DA-A	BBCH 10-21	93.63	S
	VIOAR	<i>Viola arvensis</i>	112-164 DA-A	BBCH 10-16	90.30	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	122-162 DA-A	BBCH 10-14	75.92	MS
	CAPBP	<i>Capsella bursa-pastoris</i>	122-164 DA-A	BBCH 10-21	86.90	S
	CENCY	<i>Centaurea cyanus</i>	112-164 DA-A	BBCH 11-20	60.39	MT

	GALAP	<i>Galium aparine</i>	122-164 DA-A	BBCH 10-16	82.10	MS
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 10-15	64.82	MT
	STEME	<i>Stellaria media</i>	122-160 DA-A	BBCH 10-21	93.57	S
	GERPU	<i>Geranium pusillum</i>	148-164 DA-A	BBCH 10-21	67.95	MT
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-160 DA-A	BBCH 11-19	85.48	S
	VERHE	<i>Veronica hederifolia</i>	122-148 DA-A	BBCH 00-21	93.33	S

On the basis of submitted research, it is possible to state that CHR/H/FDF 574 SC used at dose controlled:

Dose CHR/H/FDF 574 SC 0.3 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Veronica hederifolia* (VERHE), *Apera spica-venti* (APESV)

Moderately Susceptible: *Viola arvensis* (VIOAR), *Capsella bursa-pastoris* (CAPBP), *Galium aparine* (GALAP), *Papver rhoeas* (PAPRH), *Geranium pusillum* (GERPU), *Tripleurospermum mar. inodorum* (MATIN)

Moderately Tolerant: *Centaurea cyanus* (CENCY)

Dose CHR/H/FDF 574 SC 0.4 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

Moderately Susceptible: *Centaurea cyanus* (CENCY), *Papver rhoeas* (PAPRH),

Dose CHR/H/FDF 574 SC 0.5 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Papver rhoeas* (PAPRH), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV)

Moderately Susceptible: *Centaurea cyanus* (CENCY),

The following table shows the average sensitivity of weeds in winter barley:

Product code (L, kg/ha)	EPPO code	Scientific name	DA-A	Pest stage	Average	Efficacy
CHR/H/FDF 547 SC 0.3 L/ha	ANTAR	<i>Anthemis arvensis</i>	132-159 DA-A	BBCH 10-21	92.71	S
	APESV	<i>Apera spica-venti</i>	141-159 DA-A	BBCH 10-19	93.40	S
	VIOAR	<i>Viola arvensis</i>	141-159 DA-A	BBCH 10-18	87.49	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	130-159 DA-A	BBCH 10-18	96.19	S
	CAPBP	<i>Capsella bursa-pastoris</i>	130-159 DA-A	BBCH 10-21	96.05	S
	CENCY	<i>Centaurea cyanus</i>	132-159 DA-A	BBCH 11-20	74.23	MS
	GALAP	<i>Galium aparine</i>	130-159 DA-A	BBCH 10-16	84.33	MS
	PAPRH	<i>Papver rhoeas</i>	130-159 DA-A	BBCH 10-21	85.45	S
	STEME	<i>Stellaria media</i>	132-159 DA-A	BBCH 10-21	96.97	S
	GERPU	<i>Geranium pusillum</i>	132-159 DA-A	BBCH 10-22	83.78	MS
	MATIN	<i>Tripleurospermum mar. inodorum</i>	130-159 DA-A	BBCH 10-22	94.55	S
	VERHE	<i>Veronica hederifolia</i>	130-159 DA-A	BBCH 10-21	100.00	S
CHR/H/FDF	ANTAR	<i>Anthemis arvensis</i>	132-159 DA-A	BBCH 10-21	96.04	S

547 SC 0.4 L/ha	APESV	<i>Apera spica-venti</i>	141-159 DA-A	BBCH 10-19	97.64	S
	VIOAR	<i>Viola arvensis</i>	141-159 DA-A	BBCH 10-18	92.80	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	130-159 DA-A	BBCH 10-18	99.69	S
	CAPBP	<i>Capsella bursa-pastoris</i>	130-159 DA-A	BBCH 10-21	99.58	S
	CENCY	<i>Centaurea cyanus</i>	132-159 DA-A	BBCH 11-20	82.18	MS
	GALAP	<i>Galium aparine</i>	130-159 DA-A	BBCH 10-16	90.83	S
	PAPRH	<i>Papver rhoeas</i>	130-159 DA-A	BBCH 10-21	93.07	S
	STEME	<i>Stellaria media</i>	132-159 DA-A	BBCH 10-21	99.64	S
	GERPU	<i>Geranium pusillum</i>	132-159 DA-A	BBCH 10-22	89.39	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	130-159 DA-A	BBCH 10-22	98.25	S
	VERHE	<i>Veronica hederifolia</i>	130-159 DA-A	BBCH 10-21	100.00	S
CHR/H/FDF 547 SC 0.5 L/ha	ANTAR	<i>Anthemis arvensis</i>	132-159 DA-A	BBCH 10-21	98.76	S
	APESV	<i>Apera spica-venti</i>	141-159 DA-A	BBCH 10-19	98.48	S
	VIOAR	<i>Viola arvensis</i>	141-159 DA-A	BBCH 10-18	96.37	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	130-159 DA-A	BBCH 10-18	99.85	S
	CAPBP	<i>Capsella bursa-pastoris</i>	130-159 DA-A	BBCH 10-21	99.80	S
	CENCY	<i>Centaurea cyanus</i>	132-159 DA-A	BBCH 11-20	91.98	S
	GALAP	<i>Galium aparine</i>	130-159 DA-A	BBCH 10-16	95.00	S
	PAPRH	<i>Papver rhoeas</i>	130-159 DA-A	BBCH 10-21	96.93	S
	STEME	<i>Stellaria media</i>	132-159 DA-A	BBCH 10-21	99.83	S
	GERPU	<i>Geranium pusillum</i>	132-159 DA-A	BBCH 10-22	92.93	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	130-159 DA-A	BBCH 10-22	98.88	S
Bizon 118,75 SC 1.0 L/ha	VERHE	<i>Veronica hederifolia</i>	130-159 DA-A	BBCH 10-21	100.00	S
	ANTAR	<i>Anthemis arvensis</i>	132-159 DA-A	BBCH 10-21	99.10	S
	APESV	<i>Apera spica-venti</i>	141-159 DA-A	BBCH 10-19	88.80	S
	VIOAR	<i>Viola arvensis</i>	141-159 DA-A	BBCH 10-18	90.20	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	130-159 DA-A	BBCH 10-18	99.70	S
	CAPBP	<i>Capsella bursa-pastoris</i>	130-159 DA-A	BBCH 10-21	99.80	S
	CENCY	<i>Centaurea cyanus</i>	132-159 DA-A	BBCH 11-20	93.27	S
	GALAP	<i>Galium aparine</i>	130-159 DA-A	BBCH 10-16	92.49	S
	PAPRH	<i>Papver rhoeas</i>	130-159 DA-A	BBCH 10-21	91.23	S
	STEME	<i>Stellaria media</i>	132-159 DA-A	BBCH 10-21	99.64	S
	GERPU	<i>Geranium pusillum</i>	132-159 DA-A	BBCH 10-22	92.88	S
Komplet 560 SC 0.5 L/ha	MATIN	<i>Tripleurospermum mar. inodorum</i>	130-159 DA-A	BBCH 10-22	99.30	S
	VERHE	<i>Veronica hederifolia</i>	130-159 DA-A	BBCH 10-21	100.00	S
	ANTAR	<i>Anthemis arvensis</i>	132-159 DA-A	BBCH 10-21	95.05	S
	APESV	<i>Apera spica-venti</i>	141-159 DA-A	BBCH 10-19	96.43	S
	VIOAR	<i>Viola arvensis</i>	141-159 DA-A	BBCH 10-18	91.04	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	130-159 DA-A	BBCH 10-18	90.51	S
	CAPBP	<i>Capsella bursa-pastoris</i>	130-159 DA-A	BBCH 10-21	99.58	S
	CENCY	<i>Centaurea cyanus</i>	132-159 DA-A	BBCH 11-20	60.88	MT
	GALAP	<i>Galium aparine</i>	130-159 DA-A	BBCH 10-16	92.61	S
	PAPRH	<i>Papver rhoeas</i>	130-159 DA-A	BBCH 10-21	64.60	MT
	STEME	<i>Stellaria media</i>	132-159 DA-A	BBCH 10-21	99.64	S
	GERPU	<i>Geranium pusillum</i>	132-159 DA-A	BBCH 10-22	79.83	MS
	MATIN	<i>Tripleurospermum mar. inodorum</i>	130-159 DA-A	BBCH 10-22	82.77	MS
	VERHE	<i>Veronica hederifolia</i>	130-159 DA-A	BBCH 10-21	100.00	S

On the basis of submitted research, it is possible to state that CHR/H/FDF 574 SC used at dose controlled:

Dose CHR/H/FDF 574 SC 0.3 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Capsella bursa-pastoris* (CAPBP), *Veronica hederifolia* (VERHE), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV), *Papver rhoeas* (PAPRH), Moderately Susceptible: *Centaurea cyanus* (CENCY), *Galium aparine* (GALAP), *Geranium pusillum* (GERPU),

Dose CHR/H/FDF 574 SC 0.4 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Papver rhoeas* (PAPRH), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV), Moderately Susceptible: *Centaurea cyanus* (CENCY),

Dose CHR/H/FDF 574 SC 0.5 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Papver rhoeas* (PAPRH), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Centaurea cyanus* (CENCY), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

The following table shows the average sensitivity of weeds in all crops:

Product code (L, kg/ha)	EPPO code	Scientific name	winter wheat		winter triticale		winter rye		winter barley		all crops	
			Average	Efficacy	Average	Efficacy	Average	Efficacy	Average	Efficacy	Average	Efficacy
CHR/H/FD F 547 SC 0.3 L/ha	ANTAR	<i>Anthemis arvensis</i>	93.80	S	88.35	S	87.81	S	92.71	S	90.55	S
	APESV	<i>Apera spica-venti</i>	82.89	MS	84.24	MS	86.63	S	93.40	S	86.71	S
	VIOAR	<i>Viola arvensis</i>	85.55	S	94.39	S	82.51	MS	87.49	S	87.65	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	88.76	S	84.40	MS	85.43	S	96.19	S	89.24	S
	CAPBP	<i>Capsella bursa-pastoris</i>	88.04	S	89.38	S	82.32	MS	96.05	S	88.91	S
	CENCY	<i>Centaurea cyanus</i>	82.44	MS	69.40	MT	69.10	MT	74.23	MS	73.94	MS
	GALAP	<i>Galium aparine</i>	76.71	MS	76.95	MS	79.82	MS	84.33	MS	79.43	MS
	PAPRH	<i>Papver rhoeas</i>	77.95	MS	70.45	MS	70.88	MS	85.45	S	76.32	MS
	STEME	<i>Stellaria media</i>	95.43	S	85.20	S	92.02	S	96.97	S	92.42	S
	GERPU	<i>Geranium pusillum</i>	87.63	S	84.82	MS	77.32	MS	83.78	MS	83.39	MS
	MATIN	<i>Tripleurospermum mar. inodorum</i>	93.00	S	78.06	MS	74.40	MS	94.55	S	84.72	MS
CHR/H/FD F 547 SC 0.4 L/ha	VERHE	<i>Veronica hederifolia</i>	99.33	S	97.33	S	89.60	S	100.00	S	96.57	S
	ANTAR	<i>Anthemis arvensis</i>	98.80	S	94.17	S	94.00	S	96.04	S	95.68	S
	APESV	<i>Apera spica-venti</i>	90.41	S	93.79	S	94.27	S	97.64	S	94.03	S
	VIOAR	<i>Viola arvensis</i>	91.61	S	97.51	S	86.50	S	92.80	S	92.27	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	94.00	S	91.68	S	93.97	S	99.69	S	95.12	S
	CAPBP	<i>Capsella bursa-pastoris</i>	93.21	S	97.92	S	95.63	S	99.58	S	96.45	S
	CENCY	<i>Centaurea cyanus</i>	90.99	S	77.90	MS	78.70	MS	82.18	MS	82.63	MS
	GALAP	<i>Galium aparine</i>	85.73	S	89.02	S	87.15	S	90.83	S	88.10	S
	PAPRH	<i>Papver rhoeas</i>	86.81	S	80.50	MS	80.77	MS	93.07	S	85.40	S
	STEME	<i>Stellaria media</i>	99.64	S	89.30	S	99.07	S	99.64	S	96.83	S
	GERPU	<i>Geranium pusillum</i>	91.85	S	93.50	S	87.75	S	89.39	S	90.62	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	98.07	S	84.47	MS	86.25	S	98.25	S	91.48	S
	VERHE	<i>Veronica hederifolia</i>	100.00	S	99.17	S	95.10	S	100.00	S	98.57	S
CHR/H/FD F 547 SC 0.5 L/ha	ANTAR	<i>Anthemis arvensis</i>	99.63	S	98.15	S	98.44	S	98.76	S	98.73	S
	APESV	<i>Apera spica-venti</i>	93.18	S	97.21	S	97.28	S	98.48	S	96.58	S
	VIOAR	<i>Viola arvensis</i>	94.20	S	98.13	S	91.63	S	96.37	S	95.15	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	96.29	S	94.60	S	96.25	S	99.85	S	96.94	S
	CAPBP	<i>Capsella bursa-pastoris</i>	94.66	S	99.60	S	98.57	S	99.80	S	98.02	S
	CENCY	<i>Centaurea cyanus</i>	95.33	S	83.05	MS	84.87	MS	91.98	S	88.91	S
	GALAP	<i>Galium aparine</i>	90.23	S	93.45	S	93.35	S	95.00	S	92.87	S

	PAPRH	Papver rhoeas	91.83	S	86.20	S	88.77	S	96.93	S	91.00	S
	STEME	Stellaria media	99.83	S	89.83	S	99.23	S	99.83	S	97.10	S
	GERPU	Geranium pusillum	94.10	S	96.55	S	91.27	S	92.93	S	93.71	S
	MATIN	Tripleurospermum mar. inodorum	98.97	S	88.06	S	93.37	S	98.88	S	94.55	S
	VERHE	Veronica hederifolia	100.00	S	99.10	S	97.83	S	100.00	S	99.23	S
Bizon 118,75 SC 1.0 L/ha	ANTAR	Anthemis arvensis	99.63	S	91.88	S	-	-	99.10	S	96.87	S
	APESV	Apera spica-venti	87.68	S	82.17	MS	-	-	88.80	S	86.05	S
	VIOAR	Viola arvensis	93.81	S	96.11	S	-	-	90.20	S	93.51	S
	BRSNW	Brassica napus (self-sown plant)	96.91	S	86.88	S	-	-	99.70	S	95.19	S
	CAPBP	Capsella bursa-pastoris	95.01	S	95.63	S	-	-	99.80	S	96.72	S
	CENCY	Centaurea cyanus	93.59	S	78.47	MS	-	-	93.27	S	88.71	S
	GALAP	Galium aparine	89.43	S	86.08	S	-	-	92.49	S	89.49	S
	PAPRH	Papver rhoeas	88.83	S	76.62	MS	-	-	91.23	S	85.89	S
	STEME	Stellaria media	99.83	S	86.80	S	-	-	99.64	S	95.42	S
	GERPU	Geranium pusillum	93.68	S	94.47	S	-	-	92.88	S	93.68	S
	MATIN	Tripleurospermum mar. inodorum	99.80	S	86.79	S	-	-	99.30	S	94.85	S
	VERHE	Veronica hederifolia	100.00	S	98.43	S	-	-	100.00	S	99.48	S
Komplet 560 SC 0.5 L/ha	ANTAR	Anthemis arvensis	96.50	S	88.98	S	93.96	S	95.05	S	93.64	S
	APESV	Apera spica-venti	93.08	S	94.78	S	93.63	S	96.43	S	94.46	S
	VIOAR	Viola arvensis	93.74	S	96.88	S	90.30	S	91.04	S	93.14	S
	BRSNW	Brassica napus (self-sown plant)	90.45	S	79.32	MS	75.92	MS	90.51	S	84.97	MS
	CAPBP	Capsella bursa-pastoris	95.19	S	93.77	S	86.90	S	99.58	S	93.91	S
	CENCY	Centaurea cyanus	51.70	T	57.12	T	60.39	MT	60.88	MT	57.41	T
	GALAP	Galium aparine	86.99	S	86.07	S	82.10	MS	92.61	S	87.16	S
	PAPRH	Papver rhoeas	69.26	MT	66.07	MT	64.82	MT	64.60	MT	66.42	MT
	STEME	Stellaria media	99.83	S	88.76	S	93.57	S	99.64	S	95.52	S
	GERPU	Geranium pusillum	71.07	MS	74.07	MS	67.95	MT	79.83	MS	73.23	MS
	MATIN	Tripleurospermum mar. inodorum	95.05	S	77.19	MS	85.48	S	82.77	MS	84.80	S
	VERHE	Veronica hederifolia	100.00	S	98.60	S	93.33	S	100.00	S	97.98	S

On the basis of submitted research, it is possible to state that CHR/H/FDF 574 SC used at dose controlled:

Dose CHR/H/FDF 574 SC 0.3 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Capsella bursa-pastoris* (CAPBP), *Veronica hederifolia* (VERHE), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

Moderately Susceptible: *Centaurea cyanus* (CENCY), *Galium aparine* (GALAP), *Papver rhoeas* (PAPRH), *Geranium pusillum* (GERPU), *Tripleurospermum mar. inodorum* (MATIN),

Dose CHR/H/FDF 574 SC 0.4 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Papver rhoeas* (PAPRH), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

Moderately Susceptible: *Centaurea cyanus* (CENCY),

Dose CHR/H/FDF 574 SC 0.5 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Papver rhoeas* (PAPRH), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Centaurea cyanus* (CENCY), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

Table 3.2-1: Efficacy of product CHR/H/FDF 574 SC at the timing of assessment

Winter wheat

Target	CHR/H/FDF 574 SC at rate	Number of trials	Infestation in the untreated control (unit)		% control						No of trials where product is >, <, = compared to stand(s)**
					CHR/H/FDF 574 SC at rate		Bizon 118,75 SC at rate 1.0 L/ha		Komplet 560 SC at rate 0.5 L/ha		
			Mean	Min & Max	Me-an	Min & Max	Me-an	Min & Max	Mean	Min & Max	
Anthemis arvensis	0.3 L/ha	6	5.7	5.0 & 8.0	93.80	73.80 & 100	99.63	98.80 & 100	96.50	82.00 & 100	-
	0.4 L/ha				98.80	93.80 & 100					-
	0.5 L/ha				99.63	98.80 & 100					-
Apera spica-venti	0.3 L/ha	8	33.3	6.0 & 71.0	82.89	32.50 & 100	87.68	62.50 & 100	93.08	62.50 & 100	-
	0.4 L/ha				90.41	43.80 & 100					-
	0.5 L/ha				93.18	56.30 & 100					-
Viola arvensis	0.3 L/ha	8	13.7	5.0 & 36.8	85.55	37.50 & 100	93.81	62.50 & 100	93.74	62.50 & 100	-
	0.4 L/ha				91.61	46.30 & 100					-
	0.5 L/ha				94.20	56.30 & 100					-
Brassica napus (self-sown plant)	0.3 L/ha	8	6.9	5.0 & 9.0	88.76	53.80 & 100	96.91	77.50 & 100	90.45	77.50 & 100	-
	0.4 L/ha				94.00	57.50 & 100					-

	0.5 L/ha				96.29	73.80 & 100					-
<i>Capsella bursa-pastoris</i>	0.3 L/ha	7	8.3	5.0 & 15.0	88.04	47.50 & 100	95.01	66.30 & 100	95.19	67.50 & 100	-
	0.4 L/ha				93.21	55.00 & 100					-
	0.5 L/ha				94.66	63.80 & 100					-
<i>Centaurea cyanus</i>	0.3 L/ha	7	10.6	5.0 & 30.3	82.44	70.00 & 100	93.59	83.80 & 100	51.70	21.30 & 93.00	-
	0.4 L/ha				90.99	78.80 & 100					-
	0.5 L/ha				95.33	85.00 & 100					-
<i>Galium aparine</i>	0.3 L/ha	8	6.7	5.0 & 10.0	76.71	33.80 & 99.50	89.43	63.80 & 100	86.99	62.50 & 100	-
	0.4 L/ha				85.73	42.50 & 100					-
	0.5 L/ha				90.23	53.80 & 100					-
<i>Papaver rhoeas</i>	0.3 L/ha	8	19.7	5.0 & 91.0	77.95	50.00 & 97.50	88.83	61.30 & 100	69.26	5.00 & 100	-
	0.4 L/ha				86.81	57.50 & 100					-
	0.5 L/ha				91.83	65.00 & 100					-
<i>Stellaria media</i>	0.3 L/ha	7	7.1	5.0 & 11.0	95.43	77.50 & 100	99.83	98.80 & 100	99.83	98.80 & 100	-
	0.4 L/ha				99.64	97.50 & 100					-
	0.5 L/ha				99.83	98.80 & 100					-
<i>Geranium pusillum</i>	0.3 L/ha	6	7.0	5.0 & 13.0	87.63	60.00 & 100	93.68	78.80 & 100	71.07	56.30 & 91.00	-
	0.4 L/ha				91.85	73.80 & 100					-
	0.5 L/ha				94.10	78.80 & 100					-
<i>Tripleurospermum mar. inodorum</i>	0.3 L/ha	6	7.3	5.0 & 11.3	93.00	70.00 & 100	99.80	98.80 & 100	95.05	81.50 & 100	-
	0.4 L/ha				98.13	88.80 & 100					-
	0.5 L/ha				98.97	93.80 & 100					-
<i>Veronica hederifolia</i>	0.3 L/ha	3	7.3	5.0 & 12.0	99.33	98.00 & 100	100	100 & 100	100	100 & 100	-
	0.4 L/ha				100	100 & 100					-
	0.5 L/ha				100	100 & 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

Winter triticale

Target	CHR/H/FDF 574 SC at rate	Number of trials	Infestation in the untreated control (unit)	% control			No of trials where product is >, <, = compared
				CHR/H/FDF 574 SC at rate	Bizon 118,75 SC at rate 1.0 L/ha	Komplet 560 SC at rate 0.5 L/ha	

			Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	to stand-ard(s)**
<i>Anthemis arvensis</i>	0.3 L/ha	6	6.5	5.0 & 9.3	88.35	73.80 & 100	91.88	72.50 & 100	88.98	81.30 & 100	-
	0.4 L/ha				94.17	85.00 & 100					-
	0.5 L/ha				98.15	93.80 & 100					-
<i>Apera spica-venti</i>	0.3 L/ha	9	25.1	8.0 & 70.0	84.24	72.50 & 100	82.17	58.80 & 100	94.78	90.00 & 100	-
	0.4 L/ha				94.79	87.50 & 100					-
	0.5 L/ha				97.21	90.00 & 100					-
<i>Viola arvensis</i>	0.3 L/ha	8	8.6	5.0 & 15.5	94.39	82.50 & 100	96.11	90.00 & 100	96.88	92.50 & 100	-
	0.4 L/ha				97.51	93.80 & 100					-
	0.5 L/ha				98.13	95.00 & 100					-
<i>Brassica napus</i> (self-sown plant)	0.3 L/ha	6	5.9	5.0 & 8.0	84.40	73.80 & 100	86.88	77.50 & 100	79.32	68.80 & 100	-
	0.4 L/ha				91.68	83.80 & 100					-
	0.5 L/ha				94.60	88.80 & 100					-
<i>Capsella bursa-pastoris</i>	0.3 L/ha	6	6.5	5.0 & 9.0	89.38	68.80 & 100	95.63	85.00 & 100	93.77	78.80 & 100	-
	0.4 L/ha				97.92	92.50 & 100					-
	0.5 L/ha				99.60	98.80 & 100					-
<i>Centaurea cyanus</i>	0.3 L/ha	6	5.9	4.5 & 8.0	69.40	21.30 & 97.50	78.47	27.50 & 99.50	57.12	30.00 & 88.80	-
	0.4 L/ha				77.90	22.50 & 99.80					-
	0.5 L/ha				83.05	27.50 & 100					-
<i>Galium aparine</i>	0.3 L/ha	6	7.0	5.0 & 16.0	76.95	68.80 & 85.00	86.08	83.80 & 95.00	86.07	83.80 & 93.30	-
	0.4 L/ha				89.02	83.80 & 95.00					-
	0.5 L/ha				93.45	87.50 & 99.00					-
<i>Papver rhoeas</i>	0.3 L/ha	6	15.9	5.0 & 67.0	70.45	23.80 & 92.50	76.62	31.30 & 90.00	66.07	33.80 & 85.00	-
	0.4 L/ha				80.50	27.50 & 96.00					-
	0.5 L/ha				86.20	28.80 & 100					-
<i>Stellaria media</i>	0.3 L/ha	7	6.2	4.3 & 9.0	85.20	23.80 & 100	86.80	30.00 & 100	88.76	32.50 & 100	-
	0.4 L/ha				89.30	27.50 & 100					-
	0.5 L/ha				89.83	30.00 & 100					-

<i>Geranium pusillum</i>	0.3 L/ha	6	5.7	5.0 & 7.0	84.82	68.80 & 100	94.47	85.00 & 100	74.07	68.80 & 88.00	-
	0.4 L/ha				93.50	85.00 & 100					-
	0.5 L/ha				96.55	88.80 & 100					-
<i>Tripleurospermum mar. inodorum</i>	0.3 L/ha	7	5.7	5.0 & 7.0	78.06	23.80 & 100	86.79	30.00 & 100	77.19	31.30 & 99.00	-
	0.4 L/ha				84.47	25.00 & 100					-
	0.5 L/ha				88.06	28.80 & 100					-
<i>Veronica hederifolia</i>	0.3 L/ha	3	6.3	6.0 & 7.0	97.33	92.00 & 100	98.43	95.30 & 100	98.60	95.80 & 100	-
	0.4 L/ha				99.17	97.50 & 100					-
	0.5 L/ha				99.10	97.30 & 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

Winter rye

Target	CHR/H/FDF 574 SC at rate	Number of trials	Infestation in the untreated control (unit)		% control				No of trials where product is >, <, = compared to standard(s)**
					CHR/H/FDF 574 SC at rate		Komplet 560 SC at rate 0.5 L/ha		
			Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	
Anthemis arvensis	0.3 L/ha	7	5.7	4.0 & 8.0	87.81	73.80 & 100	93.96	88.80 & 100	-
	0.4 L/ha				94.00	82.50 & 100			-
	0.5 L/ha				98.44	93.80 & 100			-
Apera spica-venti	0.3 L/ha	9	10.2	5.0 & 16.3	86.63	73.80 & 100	93.63	88.80 & 100	-
	0.4 L/ha				94.27	88.80 & 100			-
	0.5 L/ha				97.28	91.30 & 100			-
Viola arvensis	0.3 L/ha	7	10.1	4.5 & 29.0	82.51	22.50 & 100	90.30	62.50 & 100	-
	0.4 L/ha				86.50	33.80 & 100			-
	0.5 L/ha				91.63	56.30 & 100			-
Brassica napus (self-sown plant)	0.3 L/ha	6	6.0	5.0 & 8.0	85.43	68.80 & 100	75.92	63.80 & 86.30	-
	0.4 L/ha				93.97	85.00 & 100			-
	0.5 L/ha				96.25	90.00 & 100			-
Capsella bursa-pastoris	0.3 L/ha	6	6.3	5.0 & 9.0	82.32	68.80 & 100	86.90	73.80 & 100	-
	0.4 L/ha				95.63	90.00 & 100			-
	0.5 L/ha				98.57	95.00 & 100			-
Centaurea cyanus	0.3 L/ha	7	13.2	5.0 & 54.5	69.10	33.80 & 100	60.39	42.50 & 100	-

						96.00		68.80	
	0.4 L/ha				78.70	42.50 & 100			-
	0.5 L/ha				84.87	53.80 & 100			-
<i>Galium aparine</i>	0.3 L/ha	6	7.5	5.0 & 18.0	79.82	73.80 & 90.00	82.10	76.30 & 87.50	-
	0.4 L/ha				87.15	81.30 & 99.50			-
	0.5 L/ha				93.35	90.00 & 100			-
<i>Papver rhoeas</i>	0.3 L/ha	6	6.1	5.0 & 7.0	70.88	37.50 & 82.50	64.82	31.30 & 83.80	-
	0.4 L/ha				80.77	41.30 & 95.00			-
	0.5 L/ha				88.77	60.00 & 100			-
<i>Stellaria media</i>	0.3 L/ha	6	8.7	5.0 & 14.00	92.02	82.50 & 100	93.57	87.50 & 100	-
	0.4 L/ha				99.07	98.00 & 100			-
	0.5 L/ha				99.23	98.80 & 100			-
<i>Geranium pusillum</i>	0.3 L/ha	6	7.7	5.0 & 20.0	77.32	67.50 & 100	67.95	50.00 & 78.80	-
	0.4 L/ha				87.75	78.80 & 100			-
	0.5 L/ha				91.27	85.00 & 100			-
<i>Tripleurospermum mar. inodorum</i>	0.3 L/ha	6	5.6	5.0 & 6.5	74.40	46.30 & 100	85.48	77.50 & 88.80	-
	0.4 L/ha				86.25	56.30 & 100			-
	0.5 L/ha				93.37	73.80 & 100			-
<i>Veronica hederifolia</i>	0.3 L/ha	3	5.3	5.0 & 6.0	89.60	78.80 & 100	93.33	90.00 & 100	-
	0.4 L/ha				95.10	90.00 & 100			-
	0.5 L/ha				97.83	95.00 & 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

Winter barley

Target	CHR/H/F DF 574 SC at rate	Num- ber of trials	Infestation in the untreated control (unit)		% control						No of trials where product is >, <, = compared to stand- ard(s)**
					CHR/H/FDF 574 SC at rate		Bizon 118,75 SC at rate 1.0 L/ha		Komplet 560 SC at rate 0.5 L/ha		
			Mean	Min & Max	Me- an	Min & Max	Me- an	Min & Max	Mean	Min & Max	
Anthemis arvensis	0.3 L/ha	6	5.5	5.0 & 7.0	92.71	70.00 & 100	99.10	97.00 & 100	95.05	85.00 & 100	-
	96.04				87.50 & 100	-					
	98.76				93.75 & 100	-					
Apera spica-venti	0.3 L/ha	8	28.0	6.0 & 75.0	93.40	77.50 & 100	88.80	65.00 & 100	96.43	82.50 & 100	-
	97.64				96.30	-					

						& 100					
	0.5 L/ha				98.48	97.30 & 100					-
<i>Viola arvensis</i>	0.3 L/ha	7	18.0	5.0 & 33.0	87.49	67.50 & 100	90.20	63.80 & 100	91.04	72.50 & 100	-
	0.4 L/ha				92.80	73.80 & 100					-
	0.5 L/ha				96.37	81.30 & 100					-
<i>Brassica napus</i> (self-sown plant)	0.3 L/ha	8	6.7	5.0 & 10.8	96.19	70.00 & 100	99.70	98.80 & 100	90.51	57.50 & 100	-
	0.4 L/ha				99.69	97.50 & 100					-
	0.5 L/ha				99.85	98.80 & 100					-
<i>Capsella bursa-pastoris</i>	0.3 L/ha	6	7.2	5.0 & 10.0	96.05	78.80 & 100	99.80	98.80 & 100	99.58	97.50 & 100	-
	0.4 L/ha				99.58	97.50 & 100					-
	0.5 L/ha				99.80	98.80 & 100					-
<i>Centaurea cyanus</i>	0.3 L/ha	6	11.2	5.0 & 23.0	74.23	45.00 & 96.50	93.27	82.50 & 100	60.88	33.80 & 78.80	-
	0.4 L/ha				82.18	62.50 & 98.00					-
	0.5 L/ha				91.98	78.75 & 98.00					-
<i>Galium aparine</i>	0.3 L/ha	7	8.3	5.0 & 14.0	84.33	72.50 & 99.00	92.49	78.80 & 99.50	92.61	80.00 & 99.50	-
	0.4 L/ha				90.83	79.50 & 100					-
	0.5 L/ha				95.00	85.00 & 100					-
<i>Papver rhoeas</i>	0.3 L/ha	6	8.1	5.0 & 21.0	85.45	70.00 & 98.80	91.23	84.80 & 100	64.60	27.50 & 83.80	-
	0.4 L/ha				93.07	82.50 & 100					-
	0.5 L/ha				96.93	88.80 & 100					-
<i>Stellaria media</i>	0.3 L/ha	7	12.5	5.0 & 46.8	96.97	83.80 & 100	99.64	97.50 & 100	66.64	97.50 & 100	-
	0.4 L/ha				99.64	97.50 & 100					-
	0.5 L/ha				99.83	98.80 & 100					-
<i>Geranium pusillum</i>	0.3 L/ha	6	5.6	5.0 & 7.0	83.78	58.80 & 97.50	92.88	75.00 & 100	79.83	68.80 & 91.30	-
	0.4 L/ha				89.39	70.00 & 100					-
	0.5 L/ha				92.93	78.80 & 100					-
<i>Tripleurospermum mar. inodorum</i>	0.3 L/ha	6	14.5	5.0 & 39.0	94.55	70.00 & 100	99.30	97.00 & 100	82.77	35.00 & 100	-
	0.4 L/ha				98.25	90.00 & 100					-
	0.5 L/ha				98.88	93.80 & 100					-
<i>Veronica hederi-</i>	0.3 L/ha	3	5.0	5.0 &	100	100 &	100	100 &	100	100 &	-

<i>folia</i>				5.0		100		100		100	
	0.4 L/ha				100	100 & 100					-
	0.5 L/ha				100	100 & 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) 2

Not applicable

Minor use

Not applicable

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

Summary and conclusion

Not applicable

Study Comments: 3.2.3 dRR point 3.2.3	
EN: Evaluator conclusion: <u>Control of weeds in the North-east EPPO climatic zone (Poland)</u> The applicant submitted 48 trials carried out in 2019, 2020 on winter wheat (12 trials, BBCH 11-21, varieties: Euforia, Arkadia, Hondia, Apostel, RGT Bilanz, Patras, Fenomen, Tytanika, Solehio, Ponticus), winter triticale (12 trials, BBCH 11-22, varieties: Trapero, Borwo, Meloman, Rotondo, Borowik, Orinoko, Twingo, Grenado, Aliko), winter rye (12 trials BBCH 13-25, varieties: Florano, Dolaro, Granat, Diamant, Serafino, Poznańskie, Bono F1) and winter barley (12 trials BBCH 11-25, varieties: Arenia, Kosmos, Zenek, Gloria, Sandra, Galileo,) in different regions of Poland. Efficacy trials were carried out by organizations that are officially recognized as competent to carry out efficacy testing in accordance with Regulation (EC) 284/2013. All trials have been conducted according to GEP. The efficacy trials were designed, conducted and reported according to the following EPPO guidelines: 1. PP 1/181 (3) Conduct and reporting of efficacy evaluation trials including good experimental practice. 2. PP 1/135 (3/4) Phytotoxicity assessment 3. PP 1/93 (3) Weeds in cereals 4. PP 1/152(3) Design and analysis of efficacy evaluation trials Results of experiments (data on effectiveness) are contained in Appendix 5. Trials were conducted in Poland (NE EPPO climatic zone). Trials were of randomized block design with a minimum of four replicates. Details on trial sites, applications are contained in Appendix 3 and 4 and in the table Details of experiments.	

The susceptibility of weeds were evaluated according to the criteria presented below, established for PL.

Weed species are classified as:

susceptible (S) –	85%
moderately susceptible (MS) -	70-85%
moderately tolerant (MT)	60 -70%
tolerant (T)	< 60%

The tested herbicide was applied at the rates: 0,3 l/ha, 0,4 l/ha and 0,5 l/ha of CHR/H/FDF 574 SC (spray volume 200 – 300 l/ha) in winter wheat, winter triticale, winter rye and winter barley as a single post-emergence application against weeds. The effective dose rate was 0,4 l/ha, as it ensured appropriate, at the good level control of all targeted weeds in presented trials and gave similar results to reference products, at two times of assessment (14 DAA and at the BBCH 21-29). The applicant presented also the third date of efficacy assessment showing the product activity before harvesting of crops.

In accordance with GAP table results are presented below for the dose rate 0,4 l/ha. The first assessment was conducted 14 DAA and the second one was conducted during tillering of crops (after beginning of the regrowth in spring).

Tab. 1

Species of weeds (no of trials)	Efficacy in TRZAW [%]					
	DAA 13-15 (one trial DAA 29)			TRZAW BBCH: 21 -29		
	0,4 l/ha	Ref. 1	Ref. 2	0,4 l/ha	Ref. 1	Ref. 2
ANTAR (6)	78,9 (50,0 – 98,0)	81,0 (50,0 – 99,0)	73,5 (50,0 – 93,8)	98,8 (93,8 – 100,0)	99,6 (98,8 – 100)	95,0 (82,0 – 100,0)
APESV (8)	68,8 (23,8 – 95,0)	72,5 (46,3 – 96,3)	73,5 (46,3 – 96,3)	90,4 (43,8 – 100)	87,7 (62,5 – 100)	93,1 (62,5 – 100)
VIOAR (8)	65,2 (23,8 – 100)	68,5 (18,8 – 100)	66,2 (13,8 – 100)	91,6 (46,3 – 100)	93,8 (62,5 – 100)	93,7 (62,5 – 100)
BRSNW (8)	69,30 (23,8 – 100)	76,2 (47,5 – 100)	66,5 (35,0 – 100)	94,0 (57,5 – 100)	96,9 (77,5 – 100)	90,45 (77,5 – 100)
CAPBP (7)	63,2 (32,5 – 95,8)	64,8 (25,0 – 93,8)	62,3 (12,5 – 93,8)	93,2 (55,0 – 100)	95,0 (66,3 – 100)	95,2 (67,5 – 100)
CENCY (7)	51,3 (17,5 – 82,5)	57,7 (26,3 – 81,3)	48,9 (16,3 – 67,5)	91,0 (78,8 – 100)	93,6 (83,8 – 100)	51,7 (21,3 – 93)
GALAP (8)	59,7 (21,3 – 86,3)	66,8 (41,3 – 92,5)	65,8 (43,8 – 92,5)	85,7 (42,5 -100)	89,4 (63,8 – 100)	87,0 (62,5 – 100)
PAPRH (8)	73,0 (23,8 – 94,5)	78,7 (57,5 – 90,8)	69,0 (54,3 – 83,8)	86,8 (57,5 – 100)	88,8 (77,5 – 100)	69,3 (25,0 – 100)
STEME (7)	86,6 (68,0 – 99,5)	86,3 (66,3 – 100)	83,2 (62,5 – 98,8)	99,6 (97,5 – 100)	99,8 (98,8 – 100)	99,8 (98,8 – 100)
GERPU (6)	70,9 (50,0 –	70,7 (50,0 –	57,0 (38,8 –	91,9 (73,8 –	93,7 (78,8 –	71,1 (56,3 –

	85,8)	84,5)	68,8)	100)	100)	91,0)
MATIN (6)	61,6 (15,0 – 96,3)	66,7 (16,3 – 97,5)	64,5 (16,3 – 93,8)	98,1 (88,8 – 100)	99,8 (98,8 – 100)	95,1 (81,5 – 100)
VERHE (3)	70,7 (50,0 – 87,0)	69,8 (50,0 – 84,5)	67,9 (50,0 – 81,3)	100 (100 – 100)	100 (100 – 100)	100 (100 – 100)

Tab. 2

Species of weeds (no of tri- las)	Efficacy in TTLWI [%]					
	DAA 10-21			TTLW BBCH: 21 -29		
	0,4 l/ha	Ref. 1	Ref. 2	0,4 l/ha	Ref. 1	Ref. 2
ANTAR (6)	74,4 (50,0 – 90,0)	76,2 (57,5 – 97,3)	71,5 (50,0 – 85,0)	94,2 (85,0 – 100)	91,9 (72,5 – 100)	89,0 (81,3 – 100)
APESV (9)	66,2 (30,0 – 92,0)	61,2 (30,0 – 90,3)	68,3 (30,0 – 90,8)	93,8 (87,5 – 100)	82,2 (58,8 – 100)	94,8 (90,0 – 100)
VIOAR (8)	70,7 (30,0 – 99,3)	70,7 (32,5 – 98,3)	71,5 (30,0 – 98,0)	97,5 (93,8 – 100)	96,1 (90,0 – 100)	96,9 (92,5 – 100)
BRSNW (6)	79,1 (62,5 – 99,5)	75,9 (48,8 – 99,0)	71,5 (63,8 – 88,0)	91,7 (83,8 – 100)	86,9 (77,5 – 100)	79,3 (68,8 – 100)
CAPBP (6)	75,4 (52,5 – 99,5)	76,7 (57,5 – 100)	74,2 (50,0 – 98,8)	97,9 (92,5 – 100)	95,6 (85,0 – 100)	93,8 (78,8 – 100)
CENCY (6)	57,3 (15,0 – 77,5)	59,4 (20,0 – 85,0)	51,7 (21,3 – 85,0)	77,9 (22,5 – 99,8)	78,5 (27,5 – 99,5)	57,1 (31,3 – 68,8)
GALAP (6)	72,9 (37,5 – 87,8)	72,7 (37,5 – 89,0)	67,9 (32,5 – 86,0)	89,0 (83,8 – 95,0)	86,1 (83,8 – 95,0)	86,1 (83,8 – 93,3)
PAPRH (6)	61,4 (13,8 – 88,3)	59,8 (17,5 – 87,5)	53,3 (22,5 – 71,3)	80,5 (27,5 – 96,0)	76,6 (31,3 – 90,0)	66,1 (33,8 – 85,0)
STEME (7)	69,9 (18,8 – 100)	69,4 (23,8 – 100)	64,6 (21,3 – 93,0)	89,3 (27,5 – 100)	86,8 (30,0 – 100)	88,7 (32,5 – 100)
GERPU (6)	78,3 (55,0 – 98,5)	80,8 (60 – 100)	62,5 (30,0 – 88,3)	93,5 (85,0 – 100)	94,5 (85,0 – 100)	74,1 (68,8 – 88,0)
MATIN (7)	67,3 (16,3 – 87,5)	68,8 (22,5 – 95,0)	62,8 (22,5 – 77,5)	84,5 (25,0 – 100)	86,8 (30,0 – 100)	77,2 (31,3 – 88,8)
VERHE (4) (3 trials for the second ass.)	57,6 (12,5 – 97,8)	62,1 (17,5 – 97,3)	61,9 (18,8 – 97,3)	99,2 (97,5 – 100)	98,4 (95,3 – 100)	98,6 (95,8 – 100)

Tab. 3

Species of weeds (no of tri- las)	Efficacy in SECCW [%]					
	DAA 12-21			SECCW BBCH: 21 -29		
	0,4 l/ha	Ref. 1	Ref. 2	0,4 l/ha	Ref. 1	Ref. 2
ANTAR (7)	74,7 (57,5 – 86,3)	-	71,6 (50,0 – 80,0)	94,0 (82,5 – 100)	-	94,0 (88,8 –100)
APESV (9)	49,7 (13,8 – 80,0)	-	54,9 (30,0 – 81,3)	94,3 (88,8 – 100)	-	93,6 (88,8 – 100)
VIOAR (7)	58,1 (20,0 – 81,3)	-	63,7 (51,3 – 82,5)	86,5 (33,0 – 100)	-	90,3 (62,5 – 100)
BRSNW (6)	73,0 (52,5 - 93,8)	-	62,1 (37,5 – 75,0)	94,0 (85,0 – 100)	-	75,9 (63,8 – 86,3)
CAPBP (6)	75,4 (58,8 – 90,0)	-	69,9 (52,5 – 87,5)	95,6 (90,0 – 100)	-	86,9 (73,8 – 100)
CENCY (7)	63,4 (16,3 – 77,5)	-	60,7 (42,5 – 72,5)	78,7 (42,5 – 100)	-	60,4 (42,5 – 68,8)
GALAP (6)	60,7 (45,0 – 76,3)	-	55,2 (38,8 – 75,0)	87,5 (81,3 – 89,0)	-	82,1 (76,3 – 87,5)
PAPRH (6)	61,3 (21,3 – 82,5)	-	50,6 (30,0 – 75,0)	80,8 (41,3 – 93,8)	-	64,8 (31,3 – 83,8)
STEME (5)	83,5 (78,8 – 95,0)	-	80,5 (73,8 – 90,0)	99,1 (98,0 - 100)	-	93,6 (87,5 – 100)
GERPU (6)	67,5 (33,8 – 85,0)	-	57,1 (35,0 – 67,5)	87,8 (78,8 – 100)	-	68,0 (50,0 – 78,8)
MATIN (6)	62,1 (23,8 – 83,8)	-	67,9 (53,8 – 81,3)	86,3 (56,3 – 100)	-	85,5 (77,5 – 88,8)
VERHE (3)	60,0 (50,0 - 72,5)	-	61,3 (50,0 – 68,8)	95,1 (90,0 – 100)	-	93,3 (90,0 – 100)

Tab. 4

Species of weeds (no of tri- las)	Efficacy in HORVW [%]					
	DAA 10-14			HORVW BBCH: 21 -29		
	0,4 l/ha	Ref. 1	Ref. 2	0,4 l/ha	Ref. 1	Ref. 2
ANTAR (6)	70,3 (16,3 – 100)	72,9 (17,5 – 98,8)	65,9 (17,5 – 93,8)	96,0 (87,5 – 100)	99,1 (97,0 – 100)	95,1 (85,0 – 100)
APESV (8)	53,3 (10,0 – 92,5)	52,0 (12,5 – 93,8)	52,8 (10,0 – 93,8)	97,6 (96,3 – 100)	88,8 (65,0 – 100)	96,46 (82,5 – 100)
VIOAR (7)	71,3	71,1	73,1	92,8	90,2	91,0

	(20,0 – 99,5)	(22,5 – 96,0)	(20,0 – 98,8)	(73,8 – 100)	(63,8 – 100)	(72,5 – 100)
BRSNW (8)	71,8 (32,5 – 100)	75,2 (38,8 – 99,5)	60,6 (25,0 – 86,3)	99,7 (97,5 – 100)	99,7 (98,8 – 100)	90,5 (57,5 – 100)
CAPBP (6)	90,4 (61,3 – 100)	91,7 (62,5 – 100)	89,5 (62,5 – 97,3)	99,6 (97,5 – 100)	99,8 (98,8 – 100)	99,6 (97,5 – 100)
CENCY (6)	66,4 (35,0 – 87,5)	72,1 (38,8 – 91,3)	50,0 (33,8 – 66,3)	82,2 (62,5 – 98,0)	93,3 (82,5 – 100)	60,9 (33,8 – 78,8)
GALAP (7)	61,4 (12,5 – 94,0)	68,5 (30,0 – 94,0)	67,1 (33,8 – 92,5)	90,8 (79,5 – 100)	92,5 (78,8 – 99,5)	92,6 (80,0 – 99,5)
PAPRH (6)	74,4 (30,0 – 100)	79,6 (45,0 – 100)	64,6 (47,5 – 82,5)	93,1 (82,5 – 100)	91,2 (84,8 – 100)	64,6 (27,5 – 83,8)
STEME (7)	75,3 (31,3 – 100)	79,1 (40,0 – 100)	75,2 (30 – 100)	99,6 (97,5 – 100)	99,6 (97,5 – 100)	99,6 (97,5 – 100)
GERPU (6)	63,5 (35,0 – 87,5)	64,6 (38,8 – 85,0)	56,5 (36,3 – 71,5)	89,4 (70,0 – 100)	92,9 (75,0 – 100)	79,8 (68,8 – 91,3)
MATIN (6)	70,6 (21,3 – 100)	73,6 (22,5 – 100)	68,3 (23,8 – 91,3)	98,3 (90,0 -100)	99,3 (97,0 – 100)	82,8 (35,0 – 100)
VERHE (3)	83,1 (61,3 – 95,0)	81,8 (62,5 – 93,0)	83,2 (62,5 – 95,0)	100 (100 – 100)	100 (100 – 100)	100 (100 – 100)

Tab. 5

Species of weeds (no of tri-las)	Efficacy in all crops [%]					
	DAA 10-21			BBCH: 21 -29		
	0,4 l/ha	Ref. 1	Ref. 2	0,4 l/ha	Ref. 1	Ref. 2
ANTAR	74,5	76,5		96,3	96,6	
	74,5		70,6	95,8		93,7
APESV	62,8	61,9		93,9	86,2	
	59,5		62,4	94,0		94,5
VIOAR	69,1	70,1		93,7	93,4	
	66,3		68,6	92,1		93,0
BRSNW	73,4	75,8		95,1	94,5	
	73,3		65,2	94,9		84,1
CAPBP	76,3	77,7		96,9	96,8	
	76,1		74,0	96,6		93,9
CENCY	58,3	63,1		83,7	88,5	
	59,6		52,8	82,5		57,5
GALAP	64,7	69,3		88,5	89,3	
	63,7		64,0	88,2		86,9
PAPRH	69,6	72,7		86,8	85,5	
	67,5		59,4	85,3		66,2
STEME	77,3	72,8		96,2	95,4	
	78,8		75,9	96,9		95,5

GERPU	70,9	72,0		91,6	93,7	
	70,0		58,3	90,6		73,2
MATIN	66,5	69,7		93,6	95,3	
	65,4		65,9	91,8		85,2
VERHE	70,5	71,2		99,7	99,5	
	67,9		68,6	98,6		98,0

The applicant presented appropriate number of trials against all weeds in protected crops. Up to 21 days in autumn, the product protected crops similarly to reference products, at the level from 60 to 79%. For CENCY and GALAP, the product performed a little worse than Bizon 118,75 SC but it performed comparable or better than the second reference product Komplet 560 SC.

After beginning of the crops regrowth in spring CHR/H/FDF 574 SC controlled targeted weeds comparably or better to the reference products. Only CENCY was a little less controlled by the product in comparison to Bizon 118,75 SC but it was much more better controlled in comparison to Komplet 560 SC.

At the dose rate 0.4 l/ha, the target weed species were categorized as:

- susceptible (S): ANTAR, APESV, VIOAR, BRSNW, CAPBP, GALAP, PAPRH, STEME, GERPU, MATIN, VERHE
- moderately susceptible (MS): CENCY

Additionally, efficacy of the product activity before harvesting of crops confirmed excellent weeds control in all crops. The product controlled weeds on the same level or better as at BBCH 21-29 growth stage of crops.

To sum up, it might be concluded that the application of CHR/H/FDF 574 SC at dose rate 0,4 l/ha (spray volume 200 - 300 l/ha), post-emergence provided benefit against weeds in winter wheat, winter triticale, winter rye, winter barley comparable or better with standard products: Bizon 118,75 SC and Komplet 560 SC.

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

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

3.3.1 Mode of action

CHR/H/FDF 574 SC is a herbicide containing active substances: flufenacet 312 g/L + diflufenican 250 g/L + florasulam 12 g/L, which belong to different HRAC groups (different mode of action).

Flufenacet is herbicide unclassified inhibition of cell division and cell growth, meristemic activity. (DAR B.3.1.2). HRAC group 15 (K3). Flufenacet is an oxyacetamide herbicide. The molecular mode of action of the oxyacetamides is not known. Mode of action studies with the only oxyacetamide herbicide so far introduced (mefenacet, rice Japan) have shown a similarity with the action of chloroacetanilides (e.g. alachlor, metolachlor) at the cellular and at the tissue level. The molecular mode of action of the chloroacetanilides is also not known. Oxyacetamides and chloroacetanilides both inhibit cell division after a lag phase of several hours. This inhibition results in a complete arrest of cell division in the root and shoot meristematic regions. New growth is stopped and elongating tissue may become distorted. Detailed stud-

ies with mefenacet and metolachlor have shown that cells no longer enter the division cycle, but that progress through the individual phases of cell division (pro-, meta-, ana- and telophase) is unchanged. The mitotic index is accordingly decreased.

Diflufenican is a synthetic herbicide. It is absorbed by leaves and the coleoptiles of the grasses. According to the Herbicide Resistance Action Committee (HRAC) diflufenican is included in HRAC Group 12 (F1) – Inhibition of acetyl CoA carboxylase. Diflufenican in plant meristems inhibits the fatty acid biosynthesis by the acetyl-CoA carboxylase, which is the first enzyme of the fatty acid biosynthesis. The lack of fatty acids, affected by the herbicide, causes disruption of meristem around the shoot apex, followed by whole plant death. Final destruction of annual and perennial grasses is achieved in a few weeks, depending on climatic conditions. Diflufenican is systemic compound presenting upward and down ward systemic properties. The upward translocation allows the product to inhibit the development.

According to DAR (DRAFT ASSESMENT REPORT) the first symptoms on weeds are extensive discoloration or whitening of new growth. The quickest effect is obtained after pre-emergence or early post-emergence treatment on young seedlings. The red-purple colour of the foliage often observed after application is a result of stress resulting from the absence of carotenoids. Later on, the seedlings suffer from necrosis and die. In pre-emergence applications on weeds, diflufenican forms a continuous layer on the surface of the soil, which is resistant to leaching. As the shoots of germinating weeds pass through this layer, they come into contact with and absorb the product. The more even the distribution of the herbicide on the soil the better the contact. Rain after application improves contact between the herbicide and the shoot. Diflufenican also enters the roots developing in the treated layer. Therefore weeds germinating at or very near the soil surface can receive a dose via both shoots and roots and are generally very susceptible. Due to the short distance, diflufenican can then easily reach the meristematic tissues.

Metabolism of diflufenican has been studied in wheat after pre and post emergence treatment in the greenhouse. A maximum of 2% of diflufenican applied pre emergence is taken up, translocated and metabolised within wheat and no major metabolites have been identified. In post emergence applications, diflufenican penetrates foliar tissues. It does not diffuse directly through the phloem to the meristematic parts but, taking into account its metabolic persistence in the plants, a very small amount accumulated at the sites of action is sufficient. Furthermore, buds and young leaves, which are well exposed to the spray, particularly in broadleaf weeds, are exposed to a contact action which reinforces efficacy. Lastly, diflufenican shows some mobility in the xylem which, after root uptake in the soil surface, also contributes to efficacy. When it is applied post emergence, there is no significant translocation.

Diflufenican is used to control weeds in small grain cereals it combines those qualities required in a selective autumn herbicide:

- good efficacy on early germinating weeds or those whose emergence can be staggered and, in particular, on difficult species such as *Viola arvensis*, *Veronica hederifolia*, *Stellaria media*, *Galium aparine*.
- A very broad spectrum on broad-leaved weeds
- Sufficient soil persistence to control late germination of spring weeds, such as *Polygonum* spp. and *Fallopia convolvulus*
- Flexibility of use, with a treatment period stretching from sowing to early spring
- Considerable consistency of action, virtually independent of climatic factors
- Particular compatibility with herbicides widely used in the control of grass weeds.

Florasulam is a member of the triazopyrimidine sulfonamides, a class of herbicides known to inhibit the plant enzyme acetolactate synthase enzyme (ALS). HRAC group 2 (B). The inhibition of ALS results in a number of distinctive whole plant symptoms. Growth of sensitive species is retarded within a matter of hours of application although visible effects may not be observed for several days. Symptoms appear first in the upper meristematic region of the plants as chlorosis and necrosis. The effects then spread to the remaining parts of the plant. In some species there is a reddening of the midrib and veins. Complete des-

iccation of the plant may occur in 7-10 days in ideal growing conditions, but may take up to 6-8 weeks under less ideal conditions. Florasulam is a post emergent herbicide and is taken up by the leaves. The active ingredient is rapidly degraded in soil and poorly taken up by the roots, thus providing very little soil activity. After foliar absorption, florasulam is translocated to the meristematic tissue, where it inhibits the plant enzyme acetolactate synthase (ALS) which is essential for amino acid synthesis. Inhibition of amino acid production inhibits cell division and results in plant death.

Florasulam is a herbicide which is active against broadleaf weeds in winter and spring cereals by inhibiting the plant enzyme, acetolactate synthase (ALS). This result in complete desiccation of susceptible plants in 7-10 days under ideal growing conditions, however, this may take up to 6-8 weeks under less ideal conditions. Florasulam provides activity on a range of weeds of the *Caryophyllaceae*, *Convolvulaceae*, *Amaranthaceae*, *Malvaceae*, *Compositae*, *Polygonaceae* and is highly active on *Galium aparine*, *Stellaria media*, *Matricaria* spp. and various cruciferae at very low rates. The herbicide is taken up by the roots or foliage of plants; the rate of Florasulam metabolism in *G. aparine* is slow and affords ample time for parent herbicide to translocate through – out the plant, compared with the rapid metabolism in wheat. It is considered extremely unlikely that resistance to Florasulam will develop; *G. aparine* may be controlled by products with alternative modes of action in both the cereal crop and rotational crops.

3.3.2 Mechanism of resistance

CHR/H/FDF 574 SC is a herbicide containing active substances: flufenacet 312 g/L + diflufenican 250 g/L + florasulam 12 g/L, which belong to different HRAC groups (different mode of action). The mode of action involving a ‘multi-site’ action may indicate a lower risk to developing weeds resistance.

According to EPPO PP 1/213 (4) Resistance risk analysis weeds usually only produce one generation per year and development of resistance is usually a relatively slow process. It is difficult to class any weed species as inherently more or less likely to develop resistance to a particular herbicide.

3.3.3 Evidence of resistance

Flufenacet

Flufenacet is grouped into the oxyacetamide chemical group. The mode of action is based on the inhibition of the biosynthesis of very long chain fatty acids (VLCFAs) resulting in inhibition of cell division and cell growth (HRAC group: 15, legacy K3). This group of herbicides is quite well known and has been applied commercially for decades.

According to Ian Heap’s website (<http://www.weedscience.org>) there are only two species which have been reported as resistant to HRAC group: 15, legacy K3: *Lolium perenne* ssp. *multiflorum* and *Alopecurus myosuroides* (Table 1).

According to <https://weedscience.org/> :

Table 1. Herbicide resistance cases

Year	Species	Country	Actives	Crops
2005	<i>Lolium perenne</i> ssp. <i>multiflorum</i>	United States	clodinafop-propargyl, diclofop-methyl, quizalofop-ethyl, clethodim, triasulfuron, flufenacet	Lentils, Wheat, Canola, Peas, Chickpea
2007	<i>Alopecurus myosuroides</i>	Germany	fenoxaprop-ethyl, isoproturon, chlorotoluron, flufenacet, mesosulfuron-methyl, pinoxaden	Wheat
2018	<i>Lolium perenne</i> ssp. <i>multiflorum</i>	France	flufenacet	Wheat

2018	<i>Lolium perenne</i> ssp. <i>multiflorum</i>	United Kingdom	flufenacet	Wheat
2018	<i>Lolium perenne</i> ssp. <i>multiflorum</i>	United States	flufenacet	Wheat

Diflufenican

Diflufenican is a pyridinecarboxamide belonging to HRAC group 12, legacy F1. According to Ian Heap's website (<http://www.weedscience.org>) there are only four species which have been reported as resistant to HRAC Group 12, legacy F1. These are *Arctotheca calendula*, *Raphanus raphanistrum*, *Senecio vernalis* and *Sisymbrium orientale*. All cases reported have been in the Australia and Israel with no evidence of resistance in Europe (Table 2). Overall the risk of resistance developing to HRAC Group 12, legacy F1 is low. Resistance to diflufenican specifically has only been reported in the latter three species above, corresponding to 5 individual cases of resistance, and only in Australia and Israel. The risk of resistance developing to diflufenican is low, particularly in Europe.

According to <https://weedscience.org/> :

Table 2. Herbicide resistance cases

Year	Species	Country	Actives	Crops
1998	<i>Raphanus raphanistrum</i>	Australia	chlorsulfuron, metosulam, diflufenican	Cropland
2006	<i>Raphanus raphanistrum</i>	Australia	triasulfuron, diflufenican, MCPA, 2,4-D	Cereals
2010	<i>Raphanus raphanistrum</i>	Australia	imazethapyr, chlorsulfuron, sulfometuron-methyl, metosulam, diflufenican, glyphosate, MCPA, 2,4-D	Fallow
2011	<i>Sisymbrium orientale</i>	Australia	diflufenican	Peas
2014	<i>Senecio vernalis</i>	Israel	metribuzin, diuron, carfentrazone-ethyl, diflufenican, imazamox	Carrots, Wheat
2015	<i>Raphanus raphanistrum</i>	Australia	chlorsulfuron, atrazine, diflufenican, fluridone, isoxaflutole, 2,4-D, mesotrione, tembotrione	Wheat
2020	<i>Arctotheca calendula</i>	Australia	metosulam, diflufenican, glyphosate	Wheat

Florasulam

Florasulam as an acetolactate synthase (ALS) inhibitor herbicide (HRAC group: 2 Inhibition of ALS, Legacy: B), which the mode of action is the inhibition of the plant enzyme acetolactate synthase, it has been classified as a high resistance risk.

According to <https://weedscience.org/> :

Table 3. Herbicide resistance cases

Year	Species	Country	Actives	Crops
1991	<i>Stellaria media</i>	Denmark	chlorsulfuron, tribenuron-methyl, florasulam, iodosulfuron-methyl-Na	Spring Barley, Wheat
1995	<i>Stellaria media</i>	Sweden	chlorsulfuron, tribenuron-methyl, florasulam	Spring Barley, Spring wheat, Winter wheat
1998	<i>Papaver rhoeas</i>	Greece	pyrithiobac-sodium, thifensulfuron-methyl, chlorsulfuron, tribenuron-methyl, triasulfuron, imazamox, florasulam	Winter wheat
1998	<i>Papaver rhoeas</i>	Italy	tribenuron-methyl, florasulam, iodosulfuron-methyl-Na	Durum wheat
2000	<i>Stellaria media</i>	United Kingdom	metosulfuron-methyl, florasulam	Cereals
2001	<i>Alopecurus myosuroides</i>	Denmark	clodinafop-propargyl, fenoxaprop-ethyl, cycloxydim, flupyr-sulfuron-methyl-Na, pendimethalin, florasulam, iodosulfuron-methyl-Na, mesosulfuron-methyl, pyroxsulam	Winter wheat
2002	<i>Amaranthus retroflexus</i>	Canada	florasulam	Wheat

2003	<i>Papaver rhoeas</i>	Denmark	tribenuron-methyl, florasulam, iodosulfuron-methyl-Na	Wheat
2005	<i>Apera spica-venti</i>	Germany	sulfosulfuron, chlorsulfuron, flupyr-sulfuron-methyl-Na, sulfometuron-methyl, florasulam, iodosulfuron-methyl-Na, mesosulfuron-methyl, pyroxsulam	Wheat
2006	<i>Sinapis arvensis</i>	Italy	tribenuron-methyl, florasulam, iodosulfuron-methyl-Na	Durum wheat
2006	<i>Spergula arvensis</i>	Norway	tribenuron-methyl, florasulam	Winter wheat, Winter barley
2007	<i>Polygonum convolvulus</i> (= <i>Fallopia convolvulus</i>)	Canada	thifensulfuron-methyl, tribenuron-methyl, florasulam	Wheat, Peas
2007	<i>Lolium rigidum</i>	Israel	clodinafop-propargyl, imazapyr, chlorsulfuron, tribenuron-methyl, sulfometuron-methyl, flumetsulam, metosulam, glyphosate, florasulam, iodosulfuron-methyl-Na, mesosulfuron-methyl, pinoxaden, propoxycarbazone-Na	Wheat
2009	<i>Senecio vulgaris</i>	France	tribenuron-methyl, prosulfuron, metsulfuron-methyl, flazasulfuron, imazamox, florasulam, iodosulfuron-methyl-Na, mesosulfuron-methyl, thien-carbazone-methyl	Grapes, Wheat
2010	<i>Tripleurospermum perforatum</i> (= <i>T. inodorum</i>)	Denmark	tribenuron-methyl, florasulam, iodosulfuron-methyl-Na	Spring Barley, Winter wheat
2010	<i>Lolium perenne</i> ssp. <i>multiflorum</i>	Denmark	clodinafop-propargyl, florasulam, iodosulfuron-methyl-Na, mesosulfuron-methyl, pyroxsulam	Winter wheat
2010	<i>Rapistrum rugosum</i>	Iran	bispyribac-sodium, tribenuron-methyl, florasulam, flucarbazone-Na	Winter wheat
2010	<i>Alopecurus myosuroides</i>	Netherlands	florasulam, iodosulfuron-methyl-Na, mesosulfuron-methyl, pyroxsulam	Winter wheat
2011	<i>Stellaria media</i>	Germany	thifensulfuron-methyl, amidosulfuron, trifluralin-methyl, tribenuron-methyl, nicosulfuron, imazamox, florasulam, iodosulfuron-methyl-Na, tritosulfuron, mesosulfuron-methyl, pyroxsulam	Spring Barley, Wheat, Rapeseed
2012	<i>Capsella bursa-pastoris</i>	Denmark	tribenuron-methyl, florasulam	Spring Barley
2012	<i>Stellaria media</i>	France	thifensulfuron-methyl, metsulfuron-methyl, florasulam, iodosulfuron-methyl-Na, mesosulfuron-methyl	Wheat
2012	<i>Papaver rhoeas</i>	Germany	imazamox, florasulam	Cereals, Rapeseed
2012	<i>Diploaxis erucoides</i>	Israel	imazethapyr, tribenuron-methyl, flumetsulam, imazamox, florasulam	Wheat
2012	<i>Erucaria hispanica</i>	Israel	tribenuron-methyl, flumetsulam, florasulam	Wheat
2014	<i>Papaver rhoeas</i>	Belgium	metsulfuron-methyl, florasulam	Wheat
2014	<i>Rumex dentatus</i>	India	florasulam, iodosulfuron-methyl-Na, mesosulfuron-methyl, pyroxsulam	Wheat
2014	<i>Matricaria recutita</i> (= <i>M. chamomilla</i>)	Sweden	tribenuron-methyl, florasulam	Wheat
2015	<i>Tripleurospermum perforatum</i> (= <i>T. inodorum</i>)	Sweden	tribenuron-methyl, florasulam	Wheat
2016	<i>Apera spica-venti</i>	Denmark	fenoxaprop-ethyl, florasulam, iodosulfuron-methyl-Na, mesosulfuron-methyl, pinoxaden	Wheat
2017	<i>Rumex obtusifolius</i>	France	thifensulfuron-methyl, metsulfuron-methyl, florasulam	Wheat
2019	<i>Lithospermum arvense</i>	China	imazethapyr, pyri-thiobac-sodium, tribenuron-methyl, florasulam, pyroxsulam	Wheat
2020	<i>Amaranthus retroflexus</i>	Ukraine	imazethapyr, thifensulfuron-methyl, tribenuron-methyl, flumetsulam, imazamox, florasulam, iodosulfuron-methyl-Na, foramsulfuron, thien-carbazone-methyl	Corn (maize), Sunflower
2021	<i>Tripleurospermum perforatum</i> (= <i>T. inodorum</i>)	Czech Republic	tribenuron-methyl, florasulam	Wheat

3.3.4 Cross-resistance

According to <https://hracglobal.com/files/Herbicide-Cross-Resistance-and-Multiple-Resistance-in-Plants.pdf>

Cross resistance is defined as the expression of a genetically-endowed mechanism conferring the ability to withstand herbicides from different chemical classes. There are two broad cross resistance categories; target site cross resistance and non-target site cross resistance. Cross resistance occurs mainly in the group of ALS inhibitors, including florasulam.

Target site cross resistance occurs when a change at the biochemical site of action of one herbicide also confers resistance to herbicides from a different chemical class that inhibit the same site of action in the plant. Target site cross resistance does not necessarily result in resistance to all herbicide classes with a similar mode of action or indeed all herbicides within a given herbicide class.

Target site cross resistance to acetolactate synthase (ALS)-inhibiting herbicides Over the past decade, the most important area of herbicide chemistry has been the discovery of herbicides inhibiting acetolactate synthase (ALS). There are 15 classes of chemistry which have been described as inhibitors of ALS (Saari et al., 1994). Of these, the chemically dissimilar sulfonylurea, imidazolinone and triazolopyrimidine herbicides have been commercialized and are in widespread use. The large scale adoption and often persistent use of these herbicides has led to the appearance of weed biotypes resistant to the ALS-inhibiting herbicides. As reviewed by Saari et al. (1994), there are now many biotypes within at least 15 weed species (especially *Kochia scoparia* and *Lolium rigidum*) which have developed resistance to ALS-inhibiting herbicides, mainly through selection with sulfonylurea herbicides (presumably because they have been in commercial use for the longest period). In the vast majority of cases of resistance following selection with sulfonylurea herbicides, the resistance mechanism is a change in the target site enzyme ALS (reviewed by Saari et al., 1994). In most cases, the sulfonylurea resistant biotypes with a resistant ALS enzyme exhibit varying levels of target site cross resistance to the chemically dissimilar, but ALS-inhibiting, imidazolinone and/or triazolopyrimidine herbicides (Table 3; Hall and Devine, 1990; Christopher et al., 1992; Saari et al., 1990; 1992; 1994). The considerable variation in the level of resistance across and within various ALS-inhibiting herbicide chemistries (Table 3) is likely to be due to subtly different binding by particular herbicides on the ALS enzyme and different mutations of ALS. Evidence from competitive binding studies show that the three classes of ALS-inhibiting herbicides bind to the same, or closely overlapping sites on ALS (Durner et al., 1991; Landstein et al., 1993). The wide variation in target site cross resistance amongst biotypes with resistant ALS enzyme (Table 3) implies that there are a number of different functional mutations of the ALS gene. Knowledge of specific mutations of ALS providing resistance is now emerging. ALS gene sequences from a number of resistant biotypes of higher plants which have been examined show a substitution at a proline residue (173) in a highly conserved region of the enzyme, known as domain A. However, the proline substitutions vary in that substitutions of threonine, alanine, serine, histidine and glutamine for this proline have all been observed. Guttieri et al. (1992) examined ALS from three resistant weed species and observed Thr substitution in *Kochia scoparia* and a His substitution in *Lactuca serriola* at Pro 173. No alteration was observed in 3 domain A of ALS for a resistant biotype of *Salsola iberica*. Five other resistant biotypes of *K. scoparia* were examined and only three contained a substitution at Pro 173. In addition to changes at the Pro 173 of domain A, at least two other mutations have been observed to give sulfonylurea and/or imidazolinone resistance in higher plants; Ser 653 Asn in *Arabidopsis thaliana* (Sathasivan et al., 1991), and Trp 573 Leu in *Nicotiana tabacum* (Lee et al., 1988), and a number of other mutations providing resistance are known from yeast (Mazur and Falco, 1989). Significantly, in the only case so far published of resistance selected by an imidazolinone herbicide, a biotype of *Xanthium strumarium* resistant to imidazolinone herbicides at the whole plant and ALS enzyme level is not cross resistant to sulfonylurea or triazolopyrimidine herbicides and possesses an ALS

enzyme susceptible to these herbicides (Schmitzer et al., 1993). Therefore, it is clear that there are several possible mutations of the ALS gene which will confer resistance to sulfonylurea and imidazolinone herbicides and yet retain enzyme function. It is likely, although not yet established, that these different mutations in the ALS gene provide different levels of target site cross resistance within and between ALS-inhibiting herbicide chemistries. The variations in target site cross resistance among herbicide-resistant mutants indicates that the binding domains for the various classes of ALS-inhibiting herbicides do not fully overlap. It is also clear from these studies that a number of different mutations can endow resistance to various ALS-inhibiting herbicides without any significant impairment of enzyme function in vivo. As discussed below, this is also likely to be the case for herbicide-resistant ACCase, but is not the case for herbicide-resistant PS2 in which very few mutations confer resistance and yet retain full enzyme functionality. Competitive fitness studies with ALS enzyme-based resistant biotypes of *Kochia scoparia* and *Lactuca serriola* indicate there is no fitness penalty to plants carrying a resistant ALS enzyme (Mallory-Smith et al., 1992).

Non target site cross resistance is defined as cross resistance to dissimilar herbicide classes conferred by a mechanism(s) other than resistant enzyme target sites. Until recently documented for *L. rigidum* and *A. myosuroides*, non-target site cross resistance was largely unknown in herbicide-resistant weeds but is well known in the insecticide resistance literature (Brattsten et al., 1986; Georgiou, 1986).

Non target site cross resistance to ALS inhibiting herbicides The study of Heap and Knight (1986) and widespread farmer experience in Australia has been that many (but not all) *L. rigidum* populations that developed resistance following selection with the ACCase inhibiting herbicide diclofop-methyl display resistance to cereal-selective ALS herbicides without any exposure to ALS herbicides (non-target site cross resistance). Similarly, a laboratory experiment Matthews and Powles (unpublished data) showed that an initially susceptible *L. rigidum* population when selected for three generations with diclofop-methyl developed resistance to diclofop-methyl and simultaneously exhibited resistance to the ALS inhibiting herbicide chlorsulfuron without any exposure to chlorsulfuron. This study and the field observations conclusively established that selection with an ACCase-inhibiting herbicide can lead to resistant populations that display non target site cross resistance to ALS-inhibiting herbicides without exposure to these herbicides. The mechanistic basis of non-target site cross resistance to ALS herbicides has been thoroughly investigated in *L. rigidum*. As expected, cross resistance to ALS herbicides from selection with ACCase herbicides is not due to resistance at the ALS target enzyme (Matthews et al., 1990). Instead these biotypes of *L. rigidum* are resistant as a result of an enhanced rate of herbicide metabolism, which endows resistance to certain ALS-inhibiting herbicides (Figures 1 and 2). It is likely that the increased metabolism in these *L. rigidum* biotypes is catalyzed by the same Cyt P450 enzyme-based mechanism operating in wheat (Christopher et al., 1991; 1992). Wheat is resistant to many ALS-inhibiting herbicides as a result of rapid metabolism of these herbicides by aryl-hydroxylation (Sweetser et al., 1992), catalyzed by a Cyt P450 mono-oxygenase. Some chlorsulfuron-resistant *L. rigidum* biotypes with sensitive ALS and a resistance profile to ALS-inhibiting herbicides similar to wheat can oxidatively metabolize chlorsulfuron more rapidly than the susceptible biotype (Figures 1 and 2; Christopher et al., 1991; Cotterman and Saari, 1992; Burnet et al., 1994a). The products of metabolism of chlorsulfuron in *L. rigidum* and wheat are also similar (Christopher et al., 1991; Cotterman and Saari, 1992), with the major metabolite identified as glucose-conjugated hydroxy-chlorsulfuron (Cotterman and Saari, 1992). Malathion which has been shown to inhibit the Cyt P450-dependent detoxification of primisulfuron, a sulfonylurea herbicide, in microsome preparations from maize (Kreuz and Fonné-Pfister, 1992) can inhibit chlorsulfuron metabolism and reduce chlorsulfuron resistance in the cross-resistant biotype SLR31 if applied in conjunction with chlorsulfuron (Christopher et al., 1994). This reversal of resistance in SLR31 by malathion confirms that detoxification plays a major role in chlorsulfuron resistance in this biotype. Taken together, these studies clearly establish that enhanced metabolism is the basis of non-target site cross resistance of *L. rigidum* to ALS

herbicides. Cyt P450s are clearly implicated in enhanced metabolism of chlorsulfuron in resistant *L. rigidum*, however, the in vitro demonstration of Cyt P450-dependent chlorsulfuron metabolism in isolated microsomes has to date proved elusive (Preston and Powles, unpublished).

3.3.5 Sensitivity data

Applicant didn't conduct separately trials for sensitivity data, this data was evaluated in efficacy trials. The 48 field trials postemergence use were established in order to determine the sensitivity of weeds in the winter wheat and winter triticale. The CHR/H/FDF 574 SC was tested at doses: 0.3 to 0.5 L/ha (172.2 – 287.0 g of active substances) in winter wheat, winter triticale, winter rye and winter barley for the control of mono and dicot weeds. None of the tested weeds showed high tolerance to the product CHR/H/FDF 574 SC. Detailed studies on the weeds sensitivity are submitted and summarised in 3.2 Efficacy data (KCP 6).

3.3.6 Use pattern

Herbicide CHR/H/FDF 574 SC has demonstrated good crop tolerance to winter wheat, winter triticale, winter rye and winter barley. Therefore concluded that CHR/H/FDF 574 SC is safe usage at proposed rate and this support the label claim for the use in winter wheat, winter triticale, winter rye and winter 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, winter barley:

Recommended dose at:

CHR/H/FDF 574 SC 0.4 L/ha

The product CHR/H/FDF 574 SC should be use once per season at autumn post – emergence. To avoid resistance, products contain active substance with the same group shouldn't be used year after year on the same field.

CHR/H/FDF 574 SC is to be applied in autumn:

BBCH 11-25 in winter wheat, winter triticale, winter rye and winter barley.

Recommended volume of water 200-400 L/ha (winter wheat, winter triticale, winter rye, winter barley)

Recommended medium droplet spraying

Use of CHR/H/FDF 574 SC according to the proposed GAP does not represent a hazard to rotational crops and does not justify a specific labelling. CHR/H/FDF 574 SC is not persistent in soil nor is it taken up by succeeding crops.

3.3.7 Resistance risk assessment of unrestricted use pattern

Not applicable

3.3.8 Test methods

Not applicable

3.3.9 Acceptability of the resistance risk

CHR/H/FDF 574 SC is a herbicide containing active substances: flufenacet 312 g/L + diflufenican 250 g/L + florasulam 12 g/L. Flufenacet is grouped into the inhibition of the biosynthesis of very long chain fatty acids group (VLCFAs) resulting in inhibition of cell division and cell growth (HRAC group: 15, legacy K3). This group of herbicides is quite well known and has been applied commercially for decades. The weed resistance to flufenacet occurred only in two weed species: *Lolium perenne* ssp. *multiflorum* and *Alopecurus myosuroides*. All cases of weed resistance to diflufenican have been reported in the Australia and Israel with no evidence of resistance in Europe. The risk of resistance developing to diflufenican is low, particularly in Europe. There are many cases of weed resistance to florasulam and HRAC group 2 (ALS inhibitors), but none of them simultaneously showed resistance to flufenacet and diflufenican and other herbicides from HRAC groups: 15 (legacy K3) and 12 (legacy B).

According to submitted efficacy data none of the tested weeds showed high tolerance to the product CHR/H/FDF 574 SC.

CHR/H/FDF 574 SC is a herbicide containing active substances: flufenacet 312 g/L + diflufenican 250 g/L + florasulam 12 g/L, which belong to different HRAC groups (different mode of action). The mode of action involving a 'multi-site' action may indicate a lower risk to developing weeds resistance. According to EPPO PP 1/213 (4) Resistance risk analysis weeds usually only produce one generation per year and development of resistance is usually a relatively slow process.

In conclusion, in the applicant's opinion, this level of weeds resistance risk should be considered to be acceptable.

3.3.10 Management strategy

According to *Herbicide Resistance Action Committee (HRAC)* (<https://hracglobal.com/prevention-management/best-management-practices>)

Integrated Weed Management (IWM) refers to using chemical, cultural, mechanical and biological methods, in an integrated fashion, to control weeds. It does not rely excessively on any one method. When used in an integrated approach, the following tools help reduce selection pressure and survival of resistant weeds.

- Chemical - Applying herbicides to a crop.
- Mechanical - Includes measures such as hand-weeding using cultivation or ploughing to control emerged plants and bury non-germinated seed. It also includes harvest weed seed destruction such as stubble burning and cutting for hay or silage to prevent the weeds from setting seed.
- Cultural - Includes altering the crop planting date, row spacing and harvest timing to disrupt the weed cycle. It also includes planting crops that can out-compete weeds, buying certified seed that's free of weeds and using a diverse crop rotation. Growers should also sanitize farm equipment when moving between fields.
- Biological - Includes introducing insects and pathogens that control target weed species and introducing post-harvest grazing of growing weeds.

Using a diversified crop rotation allows farmers to use these different weed techniques. Avoid successive crops that use herbicides with the same mechanism of action to control the same weed species in the same field.

Guidelines for the sustainable use of herbicide site of action groups:

- Use mixtures or sequential treatments of herbicides having different sites of action. Each herbicide in the mixture should target the same weed species.
- Consider all chemical control options before planting, in-crop and after harvest.
- Avoid continued use of the same herbicides, or herbicides with the same site of action in the same field, unless integrated with other weed control practices.
- Limit the number of applications of a single herbicide or herbicides with the same site of action in a single growing season.
- Herbicide mixtures and herbicide rotations alone are not enough to prevent resistance. They must be used in a diversified plan than also incorporates mechanical, cultural and biological practices.

Growers should also do the following:

- Follow label use instructions, such as application rates, timing and equipment recommendations.
- Know the weeds in their fields and nearby non-crop areas and tailor their weed control program to weed densities and economic thresholds.
- Monitor herbicide results and be aware of any trends or changes in weed populations.
- Maintain detailed field records to confirm cropping and herbicide history.

3.3.11 Implementation of the management strategy

The herbicide label provides all the necessary information for preventing weed resistance to herbicides.

3.3.12 Monitoring, reporting and reaction to changes in performance

According to <https://hracglobal.com/files/Monitoring-and-Mitigation-of-Herbicide-Resistance.pdf>

Managing the risk of herbicide resistance (HR) is an area of strategic importance for leading herbicide technology providers and is the focus of the Global Herbicide Resistance Action Committee (HRAC), an organization comprised of 8 major companies working as a part of Crop Life International. Early detection of HR, understanding the scope of HR in a defined area, and potential mitigation of resistance through efforts to limit its spread are important aspects of managing the risk of HR. Monitoring for HR populations has been employed by public and private weed scientists for both early detection and defining the scope of resistance. The primary methods used to monitor for resistance include:

- 1) field surveys where seed from putative resistant plants are collected and tested in a controlled environment using bioassay procedures,
- 2) market research surveys of farmers and weed management experts, and
- 3) tracking farmer performance inquiries with appropriate follow up field evaluation and testing.

The most common monitoring method is the use of field surveys designed to either qualitatively (i.e., determine whether the level of resistance is high, medium, or low) or quantitatively (i.e., determine the area infested with HR populations) define existing HR. The primary method to detect resistance in new species and in new geographies is to track farmer performance inquiries. Once resistance is detected, steps may be taken to mitigate its impact. A critical aspect to mitigation is the implementation of best management practices (BMPs) which is facilitated by effective education and training programs. Education efforts can be enhanced with information obtained from monitoring studies and early detection of resistant populations using appropriate monitoring methods can improve the outcome of mitigation efforts.

Study Comments: 3.3 dRR point 3.3	EN: Strategy is acceptable.
CHR/H/FDF contains three active ingredients: flufenacet 312 g/l, diflufenican 250 g/l, florasulam 12 g/l, which belong to different HRAC groups. Flufenacet is classified by HRAC to the group 15 (inhibitor of the biosynthesis of very long chain fatty acids); Diflufenican is classified by HRAC to the group 12 (phytoene desaturase inhibitors) and florasulam classified by HRAC to the group 2 (inhibition of the acetolactate synthase enzyme (ALS)). The risk of resistance to active substances contained in CHR/H/FDF 574 SC might be considered acceptable, if CHR/H/FDF 574 SC is used according to the label instructions.	

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.

Crop*	Country	Type of trial**	Number of trials	Years	GEP, non-GEP, official***	Comments (any other relevant information)
			North-East Zone			
winter wheat	Poland	S + Y + Q	4	2019	GEP	-
		S + Y + Q	4	2020	GEP	-
winter triticale	Poland	S + Y + Q	4	2019	GEP	-
		S + Y + Q	4	2020	GEP	-
Winter rye	Poland	S + Y + Q	4	2019	GEP	-
		S + Y + Q	4	2020	GEP	-
Winter barley	Poland	S + Y + Q	4	2019	GEP	-
		S + Y + Q	4	2020	GEP	-
TOTAL			32	2019-2020		

* 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 selectivity trials.

Crop(s)	Reference standard	Country(ies) where the product is registered ⁽¹⁾	Authorization number	Active substance(s)	Formulation		Registered application rate ⁽³⁾	Application rate in trials (per treatment)	Remark ⁽⁴⁾
					Type ⁽²⁾	Concentration of a.s.			
Winter wheat, winter triticale, winter	Bizon 118,75 SC	Poland	R-109/2014	diflufenican	SC – Suspension concentrate	100 g/L	1.0 L/ha	1.0 L/ha and 2.0 L/ha	-
				florasulam		3.75 g/L			

barley				penoxsulam		15 g/L			
	Komplet 560 SC	Poland	R-104/2014	diflufenican	SC – Suspension concentrate	280 g/L	0.4-0.5 L/ha	0.5 L/ha and 1.0 L/ha	-
				flufenacet		280 g/L			
Winter rye	Komplet 560 SC	Poland	R-104/2014	diflufenican	SC – Suspension concentrate	280 g/L	0.4-0.5 L/ha	0.5 L/ha and 1.0 L/ha	-
				flufenacet		280 g/L			

- (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 submitted 32 reports (in total) showing the results in research into product efficacy carried out in 2019 and 2020 in winter wheat (8 trials), winter triticale (8 trials), in winter rye (12 trials) and in winter barley (8 trials). List of these reports is contained in Appendix 1.

Site

Trials were conducted in different regions in Poland where winter wheat, winter triticale, winter rye and winter 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 herbicide CHR/H/FDF 574 SC were performed in 2019 and 2020 by:

- SynTech Research Poland Sp. z o.o., ul. Jagiellońska 69/1, 85-027 Bydgoszcz, Poland
- 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

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 1/93 (3) Weeds in cereals

Assessment methods

Statistical Analysis

Statistical analysis of the results were calculated out with the use of statistic pack of ARM 9.0. the trial results were statistically analyzed using Student & Newman & Kelus Test (p=0.05).

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 2020.1 software.

The test results were statistically evaluated using the ARM 2020.1 statistical program. All assessment data was analyzed by analysis of variance (two-way analysis of variance). The significance of differences between the combinations was assessed with the Student-Newman-Keuls test, at the sig-

nificance level $p = 0.05$ using the "ARM 10" (version 2020.1).

Software for analysis of the results was ARM Revision 2017.4 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 (S-N-K) 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 S-N-K conducted at a 95% confidence level. Where data have been transformed, letters are included in the transformed data.

Statistical analysis of the results were calculated out with the use of statistic pack of ARM 9.0. the trial results were statistically analyzed using Student & Newman & Kelus Test ($p=0,05$).

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 (plant height, tillering, dates of succeeding growth stages), 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 (chlorosis and necrosis), stunting and thinning were assessed by visual estimation of the intensity on an overall plot basis on a percentage scale 0-100 % (0=no damage). The assessment date was determined by the speed of action and period of efficacy of the test substances.

The phytotoxicity assessment of the tested product was carried out by visually assessing the intensity of chlorosis, necrosis, leaf twisting, reduction of plant turgor, etc. on the surface of the entire plots and comparing each plot with the control plot. The assessment was made directly on the plantation. The results are presented on a 0-100 scale, where 0 - no phytotoxicity, 100 - complete destruction of plants. Viability rating was done visually on a 0-100% scale where 0% = no crop and 100% = most viable plot in each replicate (at least one plot in each replication must be scored 100).

Harvest

The crop was harvested with a combine harvester from the central part of each plot.
Sample for each plots was analyzed on the grain analyzer: Aquamatic 5200 Perten; Inframatic 8800.

A plot combine for intermixing-free grain-harvest in field trials was used for harvesting the centre of the plot. The total yield is given in unit/ha adjusted to a fixed moisture content.

Applications methods and rates

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

Tested herbicide was applied at the growth stage:
BBCH 11-25 in winter wheat, winter triticale, winter rye and winter barley.

The product CHR/H/FDF 574 has been used:
in winter wheat, winter triticale, winter rye, winter barley at the following rates of 0.4, 0.8 L/ha
Bizon 118,75 SC and Komplet 560 SC were used as a reference product in winter wheat, winter triticale

and winter barley.

Komplet 560 SC was used as a reference product in winter rye.

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/H/FDF 574 SC	0.4 L/ha	230 g a.s./ha	A	BBCH 11-25
3	CHR/H/FDF 574 SC	0.8 L/ha	460 g a.s./ha	A	BBCH 11-25
4	Bizon 118,75 SC	1.0 L/ha	119 g a.s./ha	A	BBCH 11-25
5	Bizon 118,75 SC	2.0 L/ha	238 g a.s./ha	A	BBCH 11-25
6	Komplet 560 SC	0.5 L/ha	280 g a.s./ha	A	BBCH 11-25
7	Komplet 560 SC	1.0 L/ha	560 g a.s./ha	A	BBCH 11-25

Winter triticale

No.	Name	Rate (L/ha)	other rate (g a.s./ha)	Appl code	Growth Stage BBCH
1	Untreated Check				
2	CHR/H/FDF 574 SC	0.4 L/ha	230 g a.s./ha	A	BBCH 11-25
3	CHR/H/FDF 574 SC	0.8 L/ha	460 g a.s./ha	A	BBCH 11-25
4	Bizon 118,75 SC	1.0 L/ha	119 g a.s./ha	A	BBCH 11-25
5	Bizon 118,75 SC	2.0 L/ha	238 g a.s./ha	A	BBCH 11-25
6	Komplet 560 SC	0.5 L/ha	280 g a.s./ha	A	BBCH 11-25
7	Komplet 560 SC	1.0 L/ha	560 g a.s./ha	A	BBCH 11-25

Winter rye

No.	Name	Rate (L/ha)	other rate (g a.s./ha)	Appl code	Growth Stage BBCH
1	Untreated Check				
2	CHR/H/FDF 574 SC	0.4 L/ha	230 g a.s./ha	A	BBCH 11-25
3	CHR/H/FDF 574 SC	0.8 L/ha	460 g a.s./ha	A	BBCH 11-25
4	Komplet 560 SC	0.5 L/ha	280 g a.s./ha	A	BBCH 11-25
5	Komplet 560 SC	1.0 L/ha	560 g a.s./ha	A	BBCH 11-25

Winter barley

No.	Name	Rate (L/ha)	other rate (g a.s./ha)	Appl code	Growth Stage BBCH
1	Untreated Check				
2	CHR/H/FDF 574 SC	0.4 L/ha	230 g a.s./ha	A	BBCH 11-25
3	CHR/H/FDF 574 SC	0.8 L/ha	460 g a.s./ha	A	BBCH 11-25
4	Bizon 118,75 SC	1.0 L/ha	119 g a.s./ha	A	BBCH 11-25
5	Bizon 118,75 SC	2.0 L/ha	238 g a.s./ha	A	BBCH 11-25
6	Komplet 560 SC	0.5 L/ha	280 g a.s./ha	A	BBCH 11-25
7	Komplet 560 SC	1.0 L/ha	560 g a.s./ha	A	BBCH 11-25

Details of experiments

Winter wheat

Report code	A.T/2019/075/PO	A.T/2019/076/PO	A.T/2019/077/PO	AH/19/PO/26/Gr/se 11	AH/19/PO/26/ZI/se 2	A.T/2020/137/PO	SRPL20-439- 336HE	SRPL20-440-336HS
Location	Góra/ Poland	Suchary/ Poland	Nowy Dwór/ Poland	Gorzyń/ Poland	Gorzyń/ Poland	Sitowiec/ Poland	Krasienin/ Poland	Tomaryny/ Poland
Plant /cultivar	winter wheat/ Hon- dia	winter wheat/ Linus	winter wheat/ Bilanz	winter wheat/ Jan- tarka	winter wheat/ Bo- gatka	winter wheat/ Arka- dia	winter wheat/ Owa- cja	winter wheat/ Findus
Seeding date	23.09.2019	23.09.2019	24.09.2019	04.10.2019	26.09.2019	21.09.2020	19.10.2020	29.09.2020
Seeding rate	125 kg/ha	135 kg/ha	180 kg/ha	213 kg/ha	133 kg/ha	180 kg/ha	180 kg/ha	200 kg/ha
Forecrop	winter tritcale	winter rye	winter rape	leguminous plants	winter rape	winter wheat	winter rape	winter rape
Type of sprayer	backpack applicator, compressed air- operated	backpack applicator, compressed air- operated	backpack applicator, compressed air- operated	plot sprayer BICSPR	plot sprayer BICSPR	backpack applicator, compressed air- operated	backpack applicator, compressed air- operated	backpack applicator, compressed air- operated
Date of treatment A	14.10.2019	21.10.2019	07.11.2019	25.10.2019	05.11.2019	13.10.2020	09.11.2020	29.10.2020
Plant development phase A	BBCH 11-12	BBCH 13-21	BBCH 21-23	BBCH 12	BBCH 21-22	BBCH 11-13	BBCH 11-13	BBCH 12-13
Soil type	loamy sand	sandy loam	loamy sand	sandy loam	sandy loam	sandy loam	slit loam	loamy sand
pH	5.9	7.7	5.8	6.1	7.2	5.2	6.9	5.1
Water (L/ha)	200 L/ha	200 L/ha	200 L/ha	200 L/ha	200 L/ha	200 L/ha	200 L/ha	200 L/ha

Winter tritcale

Report code	A.T/2019/078/PŻO	A.T/2019/079/PŻO	A.T/2019/080/PŻO	SRPL19-355-336HS	AH/20/PszO/35/Gr/ 1	AH/20/PszO/35/Gr/ 2	AH/20/PszO/35/Gr/ 3	A.T/2020/138/PŻO
Location	Kakulin/ Poland	Sławęcin /Poland	Wilcze/Poland	Teresin/ Poland	Gorzyń/Poland	Gorzyń/Poland	Złotniki /Poland	Białe Błoto/Poland
Plant /cultivar	winter tritcale/ Gringo	winter tritcale/ Orinoko	winter tritcale/ Fredro	winter tritcale/ Rotondo	winter tritcale/ Tadeus	winter tritcale/ Tadeus	winter tritcale/ ALIK	winter tritcale/ Panteon
Seeding date	12.09.2019	25.09.2019	14.09.2019	28.09.2019	25.09.2020	25.09.2020	24.09.2020	24.09.2020
Seeding rate	180 kg/ha	180 kg/ha	200 kg/ha	150 kg/ha	214 kg/ha	214 kg/ha	190 kg/ha	200 kg/ha
Forecrop	winter rye	spring barley	lupine	winter oilseed rape	leguminous plants	leguminous plants	winter oilseed rape	spring barley
Type of sprayer	backpack applicator, compressed air- operated	backpack applicator, compressed air- operated	backpack applicator, compressed air- operated	backpack applicator, compressed air- operated	SPRBIC	SPRBIC	BICCAI	backpack applicator, compressed air- operated
Date of treatment A	04.10.2019	15.10.2019	26.10.2019	18.10.2019	22.10.2020	03.11.2020	23.10.2020	22.10.2020
Plant development phase A	BBCH 11-12	BBCH 12-14	BBCH 22-24	BBCH 12-14	BBCH 13	BBCH 22	BBCH 19	BBCH 11-13
Soil type	loamy sand	sandy loam	loamy sand	sandy clay loam	sandy loam	sandy loam	sandy loam	loamy sand
pH	4.0	5.4	6.0	6.89	6.1	6.1	5.8	4.7
Water (L/ha)	200 L/ha	200 L/ha	200 L/ha	250 L/ha	200 L/ha	200 L/ha	200 L/ha	200 L/ha

Winter rye

Report code	A.T/2019/081/ŽO	A.T/2019/082/ŽO	SRPL19-356-336HS	SRPL19-357-336HS	A.T/2020/139/ŽO	A.T/2020/140/ŽO	AH/20/ŽO/35/ZI/1	AH/20/ŽO/35/Gr/2
Location	Kościerzyn Wielki/ Poland	Nowe Gronowo /Poland	Kłoda /Poland	Niemce /Poland	Świerkówki /Poland	Stare Gralewó /Poland	Złotniki /Poland	Gorzyń /Poland
Plant /cultivar	winter rye/ Binnto	winter rye/ Dolaro	winter rye/ Serafino	winter rye/ Dnakow- skie Granat	winter rye/ KWS Serafino	winter rye/ Dańkow- skie Diament	winter rye/ Dankow- skie Diament	winter rye/ BONO F1
Seeding date	24.09.2019	19.09.2019	13.09.2019	24.09.2019	01.10.2020	21.09.2020	24.09.2020	27.09.2020
Seeding rate	45 kg/ha	70 kg/ha	46 kg/ha	190 kg/ha	66 kg/ha	100 kg/ha	190 kg/ha	69 kg/ha
Forecrop	common oat	winter wheat	pea	winter tritcale	winter wheat	maize	winter rape	leguminous plants
Type of sprayer	backpack applicator, compressed air- operated	backpack applica- tor, compressed air-operated	backpack applicator, compressed air- operated	backpack applicator, compressed air- operated	backpack applicator, compressed air- operated	backpack applicator, compressed air- operated	BICCAI	SPRBIC
Date of treatment A	07.11.2019	15.10.2019	21.10.2019	05.11.2019	26.10.2020	26.10.2020	23.10.2020	03.11.2020
Plant deve- lopment phase A	BBCH 23-25	BBCH 12-13	BBCH 12-14	BBCH 15-23	BBCH 12-14	BBCH 14-23	BBCH 13	BBCH 23
Soil type	sandy loam	sandy loam	sandy loam	silt loam	loamy sand	sand	sandy loam	sandy loam
pH	6.0	5.6	6.4	5.5	7.1	5.1	5.6	6.1
Water (L/ha)	200 L/ha	300 L/ha	300 L/ha	250 L/ha	300 L/ha	200 L/ha	200 L/ha	200 L/ha

Winter barley

Report code	A.T/2019/083/JO	A.T/2019/084/JO	AH/19/JO/26/Br/sel 4	AH/19/JO/26/Gr/sel 3	A.T/2020/141/JO	A.T/2020/142/JO	SRPL20-441- 336HE	SRPL20-442- 336HE
Location	Modrze /Poland	Trzciany /Poland	Brody /Poland	Gorzyń /Poland	Kakulin /Poland	Jęczniki Wielkie /Poland	Jankowice Wielkie /Poland	Murczyn /Poland
Plant /cultivar	winter barley/ Jaku- bus	winter barley/ Saturn	winter barley/ Kobuz	winter barley/ Ko- smos	winter barley/ Arenia	winter barley/ Ko- smos	winter barley/ Ko- smos	winter barley/ Woo- tan
Seeding date	21.09.2019	15.09.2019	16.09.2019	04.10.2019	11.09.2020	21.09.2020	09.10.2020	18.09.2020
Seeding rate	130 kg/ha	170 kg/ha	185 kg/ha	180 kg/ha	135 kg/ha	150 kg/ha	200 kg/ha	80 kg/ha
Forecrop	winter rape	winter wheat	maize	leguminous plants	winter rape	lupine	winter triticale	winter rape
Type of sprayer	backpack applicator, compressed air- operated	backpack applicator, compressed air- operated	BICCAI	BICCAI	backpack applicator, compressed air- operated	backpack applicator, compressed air- operated	backpack applicator, compressed air- operated	backpack applicator, compressed air- operated
Date of treatment A	07.10.2019	15.10.2019	15.10.2019	25.10.2019	02.10.2020	23.10.2020	03.11.2020	22.10.2020
Plant deve- lopment phase A	BBCH 11-12	BBCH 13-14	BBCH 21	BBCH 12-13	BBCH 12-13	BBCH 21-22	BBCH 12-13	BBCH 21-22
Soil type	loamy sand	loamy sand	sandy loam	sandy loam	loamy sand	loamy sand	sandy loam	sandy clay loam
pH	6.6	6.5	6.7	5.9	6.4	5.4	6.7	6.5
Water (L/ha)	200 L/ha	300 L/ha	230 L/ha	200 L/ha	200 L/ha	300 L/ha	300 L/ha	300 L/ha

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

Winter wheat, winter triticale, winter rye and winter barley, post emergence application 32 selectivity trials and 48 efficacy trials (with phytotoxicity assessment) were carried out on winter wheat in Poland in 2019 and 2020 on a wide range of commercially grown varieties.

The eight selectivity trials and twelve efficacy trials (with phytotoxicity assessment) were carried out on winter wheat in Poland in two seasons 2019 and 2020 on a wide range of commercially grown varieties. In one trial (report no. A.T/2020/137/PO) there were observed some phytotoxicity symptoms on tested product and standard. Phytotoxicity have no impact on yield quality and quantity.

[illegible]

The eight selectivity trials and twelve efficacy trials (with phytotoxicity assessment) were carried out on winter triticale in Poland in two seasons 2019 and 2020 on a wide range of commercially grown varieties. There were not observed any phytotoxicity symptoms on tested product and standard.

[illegible]

toxicity recorded during the trials	>5% to 10%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	>10% to 15%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	>15 %	n/a	n/a	n/a	n/a	n/a	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	n/a	n/a	n/a	n/a	n/a
	>5% to 10%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	>10% to 15%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	>15 %	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Winter rye

The eight selectivity trials and twelve efficacy trials (with phytotoxicity assessment) were carried out on winter rye in Poland in two seasons 2019 and 2020 on a wide range of commercially grown varieties. In two trials (report no. A.T/2020/136/ŽO and A.T/2020/139/ŽO) there were observed some phytotoxicity symptoms on tested product and standard. Phytotoxicity have no impact on yield quality and quantity.

Number of trials with		Efficacy trials (12)					
		CHR/H/FDF 574 SC		Standard II Komplet 560 SC		CHR/H/FDF 574 SC	Standard II Komplet 560 SC
		N	2N (or other)	N	2N (or other)	N	N
Maximum of phytotoxicity recorded during the trials	0% to 5%	1	1	n/a	1	n/a	1
	>5% to 10%	n/a	n/a	n/a	n/a	n/a	n/a
	>10% to 15%	n/a	n/a	n/a	n/a	n/a	n/a
	>15 %	n/a	n/a	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	n/a	n/a
	>5% to 10%	n/a	n/a	n/a	n/a	n/a	n/a
	>10% to 15%	n/a	n/a	n/a	n/a	n/a	n/a
	>15 %	n/a	n/a	n/a	n/a	n/a	n/a

Winter barley

The eight selectivity trials and twelve efficacy trials (with phytotoxicity assessment) were carried out on barley in Poland in two seasons 2019 and 2020 on a wide range of commercially grown varieties. In two trials (report no. A.T/2019/083/JO and A.T/2020/141/JO) there were observed some phytotoxicity symptoms on tested product and standard. Phytotoxicity have no impact on yield quality and quantity.

Number of trials with		Selectivity trials (8)				Efficacy trials (12)		
		CHR/H/FDF 574 SC		Standard I Bizon 118,75 SC		Standard II Komplet 560 SC		
		N	2N (or other)	N	2N (or other)	N	2N (or other)	

Maximum of phytotoxicity recorded during the trials	0% to 5%	1	n/a	1	1	2	1	n/a	n/a	n/a
	>5% to 10%	n/a	1	n/a	n/a	n/a	1	n/a	n/a	n/a
	>10% to 15%	1	n/a	1	n/a	n/a	n/a	n/a	n/a	n/a
	>15 %	n/a	1	n/a	1	n/a	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	n/a	n/a	n/a	n/a	n/a
	>5% to 10%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	>10% to 15%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	>15 %	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Study Comments: dRR point 3.4.1	Studies are acceptable.
<p>Phytotoxicity symptoms were checked in 8 selectivity trials on winter wheat (varieties: Hondia, Linus, Bilanz, Jantarka, Bogatka, Arkadia, Owacja, Findus), in 8 selectivity trials on winter triticale (varieties: Rotondo, Gringo, Fredro, Orinoko, Tadeus, Alik, Panteon), 8 selectivity trials on winter rye (varieties: Binnito, Dolaro, Serafino, Dankowskie Granat, KWS Serafino, Dankowskie Diament, Bono F1) and in 8 selectivity trials on winter barley (varieties: Jakubus, Saturn, Kobuz, Kosmos, Arenia, Wootan) carried out in 2019 and 2020 on PL. CHR/H/FDF 574 SC was applied at the do rate of 0,4 l product/ha (1N) and 0,8 l/ha (2N) and compared to the 2 reference products. The phytotoxicity symptoms were also checked in efficacy trials and no symptoms of negative product performance on crops were found.</p> <p>In 1 trial in winter wheat (variety Arkadia) CHR/H/FDF 574 SC applied at the 2N dose rate caused only relatively low levels (<5%, from 27 - 154 DAA, BBCH 22-24) of phytotoxicity and effects on crop growth and development: chlorosis (to 1,5%, 27 - 44 DAA, BBCH 21), stunting (3,0%, 154 DAA, BBCH 24). In all cases these symptoms were transient and at the next date of assessment (230 DAA, BBCH 39) there were no symptoms of phytotoxicity. What is more on 44 DAA phytotoxicity and chlorosis appeared on crops treated with 1N dose rate of product (0,3%, growth stage of winter wheat BBCH 23). At the next date of assessment 154 DAA, BBCH 24, there were no symptoms of phytotoxicity. One or both reference products gave similar or more severe effects (Bizon118,75 SC).</p> <p>In 1 trial in winter rye (variety KWS Serafino) CHR/H/FDF 574 SC applied at the 1N and 2N dose rate caused only relatively low levels ($\leq 5\%$) of crops phytotoxicity: stunting was observed 10-127 DAA, BBCH 21 - 25 and at the next date of assessment (196 DAA, BBCH 37) there were no symptoms of phytotoxicity. The reference product gave similar effect at the dose rate 2N on 127 DAA, BBCH 25 and at the next date of assessment (196 DAA, BBCH 37) there were no symptoms of phytotoxicity.</p> <p>In 2 trials in winter barley (variety Jakubus, Arenia) CHR/H/FDF 574 SC applied at the 1N and 2N dose rate caused crops phytotoxicity:</p> <ul style="list-style-type: none"> - of variety Gringo: discoloration (4,5 – 6,5% for dose rate 1N and 9,3 – 10,3% for 2N dose rate, 10 - 15 DAA, BBCH 21 – 22) and stunting (5,5 – 7,8% for 1N dose rate on 10-49 DAA, BBCH 21- 23 and 1,8 -21,0% for 2N dose rate, 10 - 154 DAA, BBCH 21-28). In all cases these symptoms were transient and at the next date of assessment (219 DAA, BBCH 39) there were no symptoms of phytotoxicity. In trials with the reference product Bizon similar symptoms were observed. Komplet 560 SC caused only discoloration on lower level than the product; - variety Arenia: discoloration (2,6% and 9,3% for 1N and 2N dose rate respectively, 10 DAA, BBCH 22). Symptoms were transient and at the next date of assessment (24 DAA, 	

BBCH 24) there were no symptoms of phytotoxicity. The reference product Bizon gave less severe effects. On the other hands in trials with dose rate 1N of Komplet 560 SC more severe effects were observed.

In those trials relationship between phytotoxicity and yield was checked (the table 3.4-4). Phytotoxicity symptoms didn't cause any negative effect on the yield of winter wheat, winter rye, winter barley. The following parameters were also assessed: moisture content, TKW, HLW, protein content and for winter wheat additionally gluten content. Phytotoxicity symptoms didn't cause any negative effect on the yield and quality of plants or plant products of winter wheat and winter trye, winter barley.

It might concluded that crop safety of CHR/H/FDF 574 SC application in winter wheat, winter triticale, winter rye, winter barley can be claimed. The label should inform that the product might cause transient phytotoxicity symptoms (discoloration, stunting, chlorosis) on winter wheat, winter rye, winter barley without affecting yield.

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

Influence of CHR/H/FDF 574 SC on the yield of grains was evaluated in selectivity 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 32 field experiments in winter wheat 8 trials, winter triticale 8 trials, in winter rye 8 trials and in winter barley 8 trials in Poland in 2019 and 2020. There weren't difference between the treatment objects and standard.

In 5 trials (1 trial in winter wheat, ~~2 trials~~ 1 trial in winter rye and 2 trials in winter barley) there were phytotoxicity effects report no. A.T/2020/137/PO, A.T/2020/136/ŽO, A.T/2020/139/ŽO, A.T/2019/083/JO and A.T/2020/141/JO. This effects didn't have any negative effect on the yield of winter wheat, winter rye and winter barley.

Winter wheat

table 3.4.2.1-1 The influence of the CHR/H/FDF 574 SC on yield quantity [t/ha]

Crop code			winter wheat yield t/ha										
Report code			A.T/2019/075/P O	A.T/2019/076/P O	A.T/2019/077/P O	AH/19/PO/26/G r/sel1	AH/19/PO/26/ZI /sel2	A.T/2020/137/P O	SRPL20-439- 336HE	SRPL20-440- 336HS			
Application date			14.10.2019	21.10.2019	07.11.2019	25.10.2019	05.11.2019	13.10.2020	09.11.2020	29.10.2020			
Crop stage in application			BBCH 11-12	BBCH 13-21	BBCH 21-23	BBCH 12	BBCH 21-22	BBCH 11-13	BBCH 11-13	BBCH 12-13			
Assessment date			24.07.2020	06.08.2020	09.08.2020	24.07.2020	24.07.2020	03.08.2021	09.08.2021	03.08.2021			
Days after application DA-A			284 DA-A	290 DA-A	276 DA-A	273 DA-A	262 DA-A	294 DA-A	273 DA-A	278 DA-A			
Crop stage majority			BBCH 89	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 89	BBCH 89	Avera- ge	Min.	Max.
No	Name	Rate (L. kg/ha)											
1	Untreated Check	-	8.55a	9.87b	8.89a	8.11a	9.15a	7.35a	5.91a	6.60a	8.05	5.91	9.87
2	CHR/H/FDF 574 SC	0.40	8.22a	10.54a	9.71a	8.20a	9.02a	7.98a	5.81a	6.40a	8.24	5.81	10.54
3	CHR/H/FDF 574 SC	0.80	8.08a	10.57a	9.33a	8.17a	9.25a	7.28a	5.82a	6.90a	8.17	5.82	10.57
4	Bizon 118,75 SC	1.00	8.40a	10.77a	9.59a	9.01a	9.02a	7.06a	5.85a	6.80a	8.31	5.85	10.77
5	Bizon 118,75 SC	2.00	8.27a	10.80a	9.29a	8.25a	9.38a	7.16a	5.78a	7.10a	8.25	5.78	10.80
6	Komplet 560 SC	0.50	8.67a	10.74a	9.61a	8.30a	9.49a	7.61a	5.93a	6.60a	8.37	5.93	10.74
7	Komplet 560 SC	1.00	8.34a	10.41ab	8.85a	8.13a	9.08a	7.19a	5.92a	7.10a	8.13	5.92	10.41
LSD(P=.05)			0.880	0.577	1.203	1.257	0.735	1.365	0.234	1.150			

Winter triticale

table 3.4.2.1-2 The influence of the CHR/H/FDF 574 SC on yield quantity [t/ha]

			winter triticale yield t/ha										
Crop code													
Report code			A.T/2019/078/P ŽO	A.T/2019/079/P ŽO	A.T/2019/080/P ŽO	SRPL19-355- 336HS	AH/20/PszO/35 /Gr/1	AH/20/PszO/35 /Gr/2	AH/20/PszO/35 /Gr/3	A.T/2020/138/P ŽO			
Application date			04.10.2019	15.10.2019	26.10.2019	18.10.2019	22.10.2020	03.11.2020	23.10.2020	22.10.2020			
Crop stage in application			BBCH 11-12	BBCH 12-14	BBCH 22-24	BBCH 12-14	BBCH 13	BBCH 22	BBCH 19	BBCH 11-13			
Assessment date			25.07.2020	08.08.2020	14.08.2020	07.08.2020	22.07.2021	22.07.2021	27.07.2021	12.08.2021			
Days after application DA-A			295 DA-A	298 DA-A	293 DA-A	294 DA-A	273 DA-A	261 DA-A	277 DA-A	294 DA-A			
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 89	BBCH 99	BBCH 99	BBCH 99	BBCH 89	Avera- ge	Min.	Max.
N o.	Name	Rate (L, kg/ha)											
1	Untreated Check	-	5.72a	8.05a	6.74b	5.80a	8.60a	7.70a	2.10a	6.14ab	6.36	2.10	8.60
2	CHR/H/FDF 574 SC	0.40	5.79a	7.91a	6.81ab	5.80a	8.60a	8.10a	1.60a	6.30a	6.36	1.60	8.60
3	CHR/H/FDF 574 SC	0.80	5.54a	7.86a	7.39a	5.60a	8.20b	8.60a	1.70a	6.20ab	6.39	1.70	8.60
4	Bizon 118,75 SC	1.00	5.78a	7.97a	7.27ab	5.70a	8.60a	8.00a	1.60a	5.72ab	6.33	1.60	8.60
5	Bizon 118,75 SC	2.00	5.75a	7.85a	7.16ab	5.60a	8.50ab	8.30a	1.90a	5.54b	6.33	1.90	8.50
6	Komplet 560 SC	0.50	5.70a	7.90a	7.29ab	5.70a	8.40ab	8.40a	1.70a	5.80ab	6.36	1.70	8.40
7	Komplet 560 SC	1.00	5.98a	7.79a	7.11ab	5.50a	8.50ab	8.30a	1.70a	5.79ab	6.33	1.70	8.50
LSD(P=.05)			0.890	0.399	0.638	0.640	0.310	0.750	0.620	0.751			

Winter rye

table 3.4.2.1-3 The influence of the CHR/H/FDF 574 SC on yield quantity [t/ha]

Crop code			winter rye yield t/ha										
Report code			A.T/2019/081 /ZO	A.T/2019/082 /ZO	SRPL19-356- 336HS	SRPL19-357- 336HS	A.T/2020/139 /ZO	A.T/2020/140 /ZO	AH/20/ŽO/3 5/ZI/1	AH/20/ŽO/3 5/Gr/2			
Application date			07.11.2019	15.10.2019	21.10.2019	05.11.2019	26.10.2020	26.10.2020	23.10.2020	03.11.2020			
Crop stage in application			BBCH 23-25	BBCH 12-13	BBCH 12-14	BBCH 15-23	BBCH 12-14	BBCH 14-23	BBCH 13	BBCH 23			
Assessment date			14.08.2020	14.08.2020	10.08.2020	07.08.2020	30.07.2021	28.07.2021	27.07.2021	10.08.2021			
Days after application DA-A			281 DA-A	304 DA-A	294 DA-A	276 DA-A	277 DA-A	275 DA-A	277 DA-A	280 DA-A			
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 89	BBCH 89	BBCH 89	BBCH 99	BBCH 99	Avera- ge	Min.	Max.
N o.	Name	Rate (L, kg/ha)											
1	Untreated Check	-	8.19 ^a	7.44 ^a	6.39 ^a	5.30 ^a	6.28 ^a	6.11 ^a	4.70 ^a	6.60 ^a	6.38	4.70	8.19
2	CHR/H/FDF 574 SC	0.40	8.72 ^a	7.16 ^a	6.37 ^a	5.30 ^a	6.47 ^a	6.30 ^a	3.80 ^a	7.10 ^a	6.40	3.80	8.72
3	CHR/H/FDF 574 SC	0.80	8.09 ^a	7.34 ^a	6.27 ^a	5.10 ^a	6.20 ^a	6.66 ^a	3.80 ^a	6.20 ^a	6.21	3.80	8.09
4	Komplet 560 SC	0.50	8.87 ^a	7.41 ^a	6.36 ^a	5.30 ^a	6.18 ^a	6.26 ^a	3.00 ^a	6.30 ^a	6.21	3.00	8.87
5	Komplet 560 SC	1.00	8.34 ^a	7.30 ^a	6.37 ^a	5.00 ^a	6.22 ^a	6.42 ^a	3.70 ^a	6.30 ^a	6.21	3.70	8.34
LSD(P=.05)			-	0.727	0.274	0.320	0.479	0.662	2.610	1.040			

Winter barley

table 3.4.2.1-4 The influence of the CHR/H/FDF 574 SC on yield quantity [t/ha]

Crop code			winter barley yield t/ha										
Report code			A.T/2019/083/J O	A.T/2019/084/J O	AH/19/JO/26/B r/sel4	AH/19/JO/26/ Gr/sel3	A.T/2020/141/J O	A.T/2020/142/J O	SRPL20-441- 336HE	SRPL20-442- 336HE			
Application date			07.10.2019	15.10.2019	15.10.2019	25.10.2019	02.10.2020	23.10.2020	03.11.2020	22.10.2020			
Crop stage in application			BBCH 11-12	BBCH 13-14	BBCH 21	BBCH 12-13	BBCH 12-13	BBCH 21-22	BBCH 12-13	BBCH 21-22			
Assessment date			04.07.2020	14.07.2020	04.07.2020	13.07.2020	07.07.2021	16.07.2021	22.07.2021	26.07.2021			
Days after application DA-A			271 DA-A	273 DA-A	263 DA-A	262 DA-A	278 DA-A	266 DA-A	261 DA-A	277 DA-A			
Crop stage majority			BBCH 89	BBCH 99	BBCH 99	BBCH 99	BBCH 89	BBCH 89	BBCH 99	BBCH 99	Average	Min.	Max.
No	Name	Rate (L _n kg/ha)											
1	Untreated Check	-	11.01a	8.28a	10.33a	5.57a	6.91a	8.43a	7.20a	8.30a	8.25	5.57	11.01
2	CHR/H/FDF 574 SC	0.40	10.98a	8.69a	9.91a	5.79a	6.87a	8.44a	7.10a	8.19a	8.25	5.79	10.98
3	CHR/H/FDF 574 SC	0.80	11.44a	8.77a	10.44a	5.94a	7.15a	8.54a	7.10a	8.39a	8.47	5.94	11.44
4	Bizon 118,75 SC	1.00	11.33a	8.40a	10.06a	5.52a	7.00a	8.35a	7.00a	8.55a	8.28	5.52	11.33
5	Bizon 118,75 SC	2.00	11.34a	8.42a	10.10a	5.73a	7.17a	8.37a	7.30a	8.33a	8.35	5.73	11.34
6	Komplet 560 SC	0.50	11.26a	8.52a	10.19a	5.56a	7.26a	8.45a	7.50a	8.45a	8.40	5.56	11.26
7	Komplet 560 SC	1.00	11.37a	8.53a	9.94a	5.37a	7.11a	8.35a	7.20a	8.26a	8.27	5.37	11.37
LSD(P=.05)			0.780	0.377	0.663	0.956	0.810	0.323	1.000	0.427			

Table 3.4-4: Relationship between phytotoxicity and yield.

In winter triticale 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 triticale.

In 5 trials (1 trial in winter wheat, 2 trials 1 trial in winter rye and 2 trials in winter barley) there were phytotoxicity effects report no. A.T/2020/137/PO, A.T/2020/136/ŽO (efficacy report, no yield assessment), A.T/2020/139/ŽO, A.T/2019/083/JO and A.T/2020/141/JO. This effects didn't have any negative effect on the yield of winter wheat, winter rye and winter barley.
No significant differences in the grain yield were noted.

Winter wheat

Test report	Variety	Maximum phyto. at 1N rate (%) (DAA)			Maximum phyto. at 2N (or other) rate (%) (DAA)			Yield in the untreated control Absolute figures (%)	Yield at 1N as % of untreated			Yield at 2N (or other) rate as % of untreated		
		Test product	Standard I	Standard II	Test product	Standard I	Standard II		Test product	Standard I	Standard II	Test product	Standard I	Standard II
A.T/2020/137/PO	Arkadia	0.3% (44 DA-A)	2.0% (154 DA-A)	0.5% (44 DA-A)	3.0% (154 DA-A)	3.5% (154 DA-A)	1.0% (44 DA-A)	7.35 (100%)	7.98 (108.6%)	7.06 (96.1%)	7.61 (103.5%)	7.28 (99.0%)	7.16 (97.4%)	7.19 (97.8%)

Winter rye

Test report	Variety	Maximum phyto. at 1N rate (%) (DAA)		Maximum phyto. at 2N (or other) rate (%) (DAA)		Yield in the untreated control Absolute figures (%)	Yield at 1N as % of untreated		Yield at 2N (or other) rate as % of untreated	
		Test product	Standard I	Test product	Standard I		Test product	Standard I	Test product	Standard I
A.T/2020/139/ŽO	KWS Serafino	3.0% (18 DA-A)	0% (10-196 DA-A)	4.3% (18 DA-A)	2.0% (127 DA-A)	6.28 (100%)	6.47 (103.0%)	6.18 (97.1%)	6.20 (98.7%)	6.22 (99.0%)

Winter barley

Test report	Variety	Maximum phyto. at 1N rate (%) (DAA)			Maximum phyto. at 2N (or other) rate (%) (DAA)			Yield in the untreated control Absolute figures (%)	Yield at 1N as % of untreated			Yield at 2N (or other) rate as % of untreated		
		Test product	Standard I	Standard II	Test product	Standard I	Standard II		Test product	Standard I	Standard II	Test product	Standard I	Standard II
A.T/2019/083/JO	Jakubus	13.3% (10-15 DA-A)	15.0% (15 DA-A)	4.5% (10 DA-A)	23.3% (15 DA-A)	25.5% (15 DA-A)	9.3% (10 DA-A)	11.01 (100%)	10.98 (99.7%)	11.33 (102.9%)	11.26 (102.3%)	11.44 (103.9%)	11.34 (103.0%)	11.37 (103.3%)
A.T/2020/141/JO	Arenia	2.6% (10 DA-A)	1.4% (10 DA-A)	4.6% (10 DA-A)	9.3% (10 DA-A)	4.4% (10 DA-A)	9.1% (10 DA-A)	6.91 (100%)	6.87 (99.4%)	7.00 (101.34%)	7.26 (105.1%)	7.15 (103.5%)	7.17 (103.98%)	7.11 (102.99%)

Study Comments: 3.4.2 dRR point: 3.4.2	Studies are acceptable
The Applicant presented data obtained from 32 selectivity trials (8 trials for winter wheat, 8 trials for winter triticale, 8 trials for winter rye, 8 trials for winter barley). In one trial on winter triticale, with 2N dose rate of the product there was very slight decreasing in yield (with statistical difference, in comparison to untreated trial) Result was comparable to results of the reference products. Generally the conclusion is that CHR/H/FDF 574 SC at the rates 1N and 2N had no negative effect on the yield of winter wheat and winter triticale.	

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

The influence of CHR/H/FDF 574 SC on quality of grain was evaluated in 32 field experiments in winter wheat 8 trials, winter triticale 8 trials, in winter rye 8 trials and in winter barley 8 trials in Poland in 2019 and 2020. There weren't difference between the treatment objects and standard. In 5 trials (1 trial in winter wheat, 2 trials in winter rye and 2 trials in winter barley) there were phytotoxicity effects report no. A.T/2020/137/PO, A.T/2020/136/ŽO (efficacy report, no yield quality assessment), A.T/2020/139/ŽO, A.T/2019/083/JO and A.T/2020/141/JO. This effects didn't have any negative impact on the yield quality of winter wheat, winter rye and winter barley. Details of the data shows tables below.

table 3.4.3.1-1 The influence of the CHR/H/FDF 574 SC on quality of yield
Winter wheat (HLW = weight 100 Ltr (hL))

Crop code			winter wheat HLW kg/hL										
Report code			A.T/2019/075 /PO	A.T/2019/076 /PO	A.T/2019/077 /PO	AH/19/PO/26 /Gr/sel1	AH/19/PO/26 /Zl/sel2	A.T/2020/137 /PO	SRPL20-439- 336HE	SRPL20-440- 336HS			
Application date			14.10.2019	21.10.2019	07.11.2019	25.10.2019	05.11.2019	13.10.2020	09.11.2020	29.10.2020			
Crop stage in application			BBCH 11-12	BBCH 13-21	BBCH 21-23	BBCH 12	BBCH 21-22	BBCH 11-13	BBCH 11-13	BBCH 12-13			
Assessment date			07.08.2020	11.08.2020	20.08.2020	03.08.2020	31.07.2020	06.09.2021	08.09.2021	03.08.2021			
Days after application DA-A			298 DA-A	295 DA-A	287 DA-A	283 DA-A	269 DA-A	328 DA-A	303 DA-A	278 DA-A			
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 89	Avera- ge	Min.	Max.
N o.	Name	Rate (L, kg/ha)											
1	Untreated Check	-	77.53a	72.63ab	59.28a	74.40a	72.78a	70.93a	74.58a	76.68a	72.35	59.28	77.53
2	CHR/H/FDF 574 SC	0.40	77.48a	72.65ab	59.13a	74.33a	72.43a	73.30a	73.73ab	75.55a	72.33	59.13	77.48
3	CHR/H/FDF 574 SC	0.80	77.38a	71.03ab	59.28a	75.33a	72.95a	71.83a	74.13ab	74.98a	72.11	59.28	77.38
4	Bizon 118,75 SC	1.00	77.80a	73.28a	59.45a	75.75a	72.90a	71.25a	74.63a	76.08a	72.64	59.45	77.80
5	Bizon 118,75 SC	2.00	77.60a	72.63ab	58.95a	74.10a	73.63a	70.65a	74.25ab	76.50a	72.29	58.95	77.60
6	Komplet 560 SC	0.50	77.80a	70.80ab	59.23a	74.88a	73.63a	72.33a	73.98ab	75.68a	72.29	59.23	77.80
7	Komplet 560 SC	1.00	77.60a	70.58b	59.03a	74.93a	73.53a	71.58a	72.85b	75.00a	71.89	59.03	77.60
LSD(P=.05)			0.919	2.540	0.683	1.268	1.637	3.869	1.700	5.027			

table 3.4.3.1-2 The influence of the CHR/H/FDF 574 SC on quality of yield
Winter triticale (HLW = weight 100 Ltr (hl))

			winter triticale HLW kg/hL										
Crop code													
Report code			A.T/2019/078 /PŽO	A.T/2019/079 /PŽO	A.T/2019/080 /PŽO	SRPL19-355- 336HS	AH/20/PszO/ 35/Gr/1	AH/20/PszO/ 35/Gr/2	AH/20/PszO/ 35/Gr/3	A.T/2020/138 /PŽO			
Application date			04.10.2019	15.10.2019	26.10.2019	18.10.2019	22.10.2020	03.11.2020	23.10.2020	22.10.2020			
Crop stage in application			BBCH 11-12	BBCH 12-14	BBCH 22-24	BBCH 12-14	BBCH 13	BBCH 22	BBCH 19	BBCH 11-13			
Assessment date			11.08.2020	24.08.2020	26.08.2020	07.08.2020	29.07.2021	29.07.2021	03.08.2021	08.09.2021			
Days after application DA-A			312 DA-A	314 DA-A	305 DA-A	294 DA-A	280 DA-A	268 DA-A	284 DA-A	321 DA-A			
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 89	BBCH 99	BBCH 99	BBCH 99	BBCH 99	Avera- ge	Min.	Max.
N o.	Name	Rate (L, kg/ha)											
1	Untreated Check	-	72.25a	72.55a	69.85a	71.53a	63.98a	63.60ab	70.10a	67.00a	68.86	63.60	72.55
2	CHR/H/FDF 574 SC	0.40	72.18a	72.40a	70.05a	70.83a	63.75a	62.90b	67.20a	67.93a	68.41	62.90	72.40
3	CHR/H/FDF 574 SC	0.80	71.90a	72.23a	69.78a	70.95a	63.58a	63.90a	68.30a	67.80a	68.56	63.58	72.23
4	Bizon 118,75 SC	1.00	72.08a	57.85a	70.78a	70.43a	63.83a	63.68ab	67.85a	67.68a	66.77	57.85	72.08
5	Bizon 118,75 SC	2.00	72.13a	72.20a	70.78a	69.75a	63.43a	64.23a	68.93a	67.53a	68.62	63.43	72.20
6	Komplet 560 SC	0.50	72.15a	72.05a	71.13a	69.45a	63.98a	63.75ab	68.98a	67.70a	68.65	63.75	72.15
7	Komplet 560 SC	1.00	72.08a	72.08a	69.98a	69.55a	63.03a	63.95a	67.58a	67.38a	68.20	63.03	72.08
LSD(P=.05)			0.841	16.924	1.748	4.049	1.197	0.920	4.115	1.430			

table 3.4.3.1-3 The influence of the CHR/H/FDF 574 SC on quality of yield
Winter rye (HLW = weight 100 Ltr (hl))

Crop code			winter rye HLW kg/hL										
Report code			A.T/2019/081 /ŽO	A.T/2019/082 /ŽO	SRPL19-356- 336HS	SRPL19-357- 336HS	A.T/2020/139 /ŽO	A.T/2020/140 /ŽO	AH/20/ŽO/35 /Z1/1	AH/20/ŽO/35 /Gr/2			
Application date			07.11.2019	15.10.2019	21.10.2019	05.11.2019	26.10.2020	26.10.2020	23.10.2020	03.11.2020			
Crop stage in application			BBCH 23-25	BBCH 12-13	BBCH 12-14	BBCH 15-23	BBCH 12-14	BBCH 14-23	BBCH 13	BBCH 23			
Assessment date			24.08.2020	24.08.2020	10.08.2020	07.08.2020	01.09.2021	01.09.2021	03.08.2021	17.08.2021			
Days after application DA-A			291 DA-A	314 DA-A	294 DA-A	276 DA-A	310 DA-A	310 DA-A	284 DA-A	287 DA-A			
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 89	BBCH 99	BBCH 99	BBCH 99	BBCH 99	Average	Min.	Max.
N o.	Name	Rate (L, kg/ha)											
1	Untreated Check	-	69.38a	71.60a	68.68a	67.28a	71.48a	69.20a	74.03a	70.95a	70.33	67.28	74.03
2	CHR/H/FDF 574 SC	0.40	69.65a	71.45a	68.35a	65.78ab	70.73ab	70.23a	72.78ab	71.50a	70.06	65.78	72.78
3	CHR/H/FDF 574 SC	0.80	69.55a	71.63a	68.93a	64.35bc	70.20b	69.15a	71.60b	70.80a	69.53	64.35	71.63
4	Komplet 560 SC	0.50	69.33a	71.13a	68.33a	64.88bc	70.68ab	69.90a	73.75a	70.65a	69.83	64.88	73.75
5	Komplet 560 SC	1.00	69.88a	70.83a	68.63a	63.70c	70.25b	69.60a	72.85ab	71.38a	69.64	63.70	72.85
LSD(P=.05)			1.266	0.977	1.393	1.545	0.946	1.807	2.049	1.431			

table 3.4.3.1-4 The influence of the CHR/H/FDF 574 SC on quality of yield
Winter barley (HLW = weight 100 Ltr (hl))

Crop code			winter barley HLW kg/hL										
Report code			A.T/2019/083/ JO	A.T/2019/084/ JO	AH/19/JO/26/ Br/sel4	AH/19/JO/26/ Gr/sel3	A.T/2020/141/ JO	A.T/2020/142/ JO	SRPL20- 441-336HE				SRPL20- 442-336HE
Application date			07.10.2019	15.10.2019	15.10.2019	25.10.2019	02.10.2020	23.10.2020	03.11.2020				22.10.2020
Crop stage in application			BBCH 11-12	BBCH 13-14	BBCH 21	BBCH 12-13	BBCH 12-13	BBCH 21-22	BBCH 12-13				BBCH 21-22
Assessment date			19.07.2020	24.08.2020	18.10.2020	20.07.2020	14.07.2021	02.09.2021	22.07.2021				26.07.2021
Days after application DA-A			286 DA-A	314 DA-A	263 DA-A	269 DA-A	285 DA-A	314 DA-A	261 DA-A				277 DA-A
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	Avera- ge	Min.	Max.
No	Name	Rate (L, kg/ha)											
1	Untreated Check	-	61.75ab	57.80a	59.53a	61.13a	59.83a	63.35a	50.40a	58.83a	59.08	50.40	63.35
2	CHR/H/FDF 574 SC	0.40	61.45ab	57.65a	59.73a	61.03a	58.55a	63.83a	48.50a	59.40a	58.77	48.50	63.83
3	CHR/H/FDF 574 SC	0.80	60.00b	57.75a	60.28a	60.40a	59.23a	64.78a	49.60a	59.53a	58.95	49.60	64.78
4	Bizon 118,75 SC	1.00	61.58ab	57.43a	59.60a	61.13a	61.90a	63.95a	49.50a	58.38a	59.18	49.50	63.95
5	Bizon 118,75 SC	2.00	61.15ab	57.45a	59.15a	60.50a	60.25a	64.20a	50.00a	59.60a	59.04	50.00	64.20
6	Komplet 560 SC	0.50	62.70a	57.53a	59.63a	60.23a	60.50a	63.85a	53.90a	59.23a	59.70	53.90	63.85
7	Komplet 560 SC	1.00	60.30b	56.73a	59.68a	60.90a	60.18a	63.33a	48.80a	59.80a	58.72	48.80	63.33
LSD(P=.05)			2.113	1.394	1.181	1.897	4.363	1.629	11.630	1.493			

table 3.4.3.1-5 The influence of the CHR/H/FDF 574 SC on quality of yield
Winter wheat thousand weight grain

Crop code			winter wheat TGW g										
Report code			A.T/2019/075/ PO	A.T/2019/076/ PO	A.T/2019/077/ PO	AH/19/PO/26/ Gr/sel1	AH/19/PO/26/ Zl/sel2	A.T/2020/137/ PO	SRPL20-439- 336HE	SRPL20-440- 336HS			
Application date			14.10.2019	21.10.2019	07.11.2019	25.10.2019	05.11.2019	13.10.2020	09.11.2020	29.10.2020			
Crop stage in application			BBCH 11-12	BBCH 13-21	BBCH 21-23	BBCH 12	BBCH 21-22	BBCH 11-13	BBCH 11-13	BBCH 12-13			
Assessment date			07.08.2020	11.08.2020	20.08.2020	03.08.2020	31.07.2020	06.09.2021	31.08.2021	03.08.2021			
Days after application DA-A			298 DA-A	295 DA-A	287 DA-A	283 DA-A	269 DA-A	328 DA-A	295 DA-A	278 DA-A			
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 89	Average	Min.	Max.
No	Name	Rate (L, kg/ha)											
1	Untreated Check	-	50.31a	45.04a	46.89a	50.58a	42.16a	37.12a	44.53a	35.38a	44.00	35.38	50.58
2	CHR/H/FDF 574 SC	0.40	50.05a	42.90ab	46.66a	49.85a	41.13a	39.07a	44.58a	37.65a	43.99	37.65	50.05
3	CHR/H/FDF 574 SC	0.80	50.11a	42.07b	46.85a	50.18a	41.86a	37.68a	44.49a	36.30a	43.69	36.30	50.18
4	Bizon 118,75 SC	1.00	49.60a	42.35ab	47.73a	49.83a	42.10a	36.51a	44.53a	34.40a	43.38	34.40	49.83
5	Bizon 118,75 SC	2.00	49.62a	41.59b	46.49a	49.48a	42.41a	36.73a	44.55a	37.90a	43.60	36.73	49.62
6	Komplet 560 SC	0.50	48.77a	41.15b	45.74a	50.40a	42.60a	38.54a	44.56a	35.75a	43.44	35.75	50.40
7	Komplet 560 SC	1.00	49.96a	40.64b	46.63a	50.85a	42.97a	37.09a	44.55a	35.48a	43.52	35.48	50.85
LSD(P=.05)			1.839	2.867	2.075	1.577	2.076	3.480	0.085	5.052			

table 3.4.3.1-6 The influence of the CHR/H/FDF 574 SC on quality of yield
Winter triticale thousand weight grain

Crop code			winter triticale TGW g										
Report code			A.T/2019/078/PŽ O	A.T/2019/079/PŽ O	A.T/2019/080/PŽ O	SRPL19-355- 336HS	AH/20/PszO/35/ Gr/1	AH/20/PszO/35/ Gr/2	AH/20/PszO/35/ Gr/3	A.T/2020/138/PŽ O			
Application date			04.10.2019	15.10.2019	26.10.2019	18.10.2019	22.10.2020	03.11.2020	23.10.2020	22.10.2020			
Crop stage in application			BBCH 11-12	BBCH 12-14	BBCH 22-24	BBCH 12-14	BBCH 13	BBCH 22	BBCH 19	BBCH 11-13			
Assessment date			11.08.2020	24.08.2020	26.08.2020	07.08.2020	29.07.2021	29.07.2021	03.08.2021	08.09.2021			
Days after application DA-A			312 DA-A	314 DA-A	305 DA-A	294 DA-A	280 DA-A	268 DA-A	284 DA-A	321 DA-A			
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 89	BBCH 99	BBCH 99	BBCH 99	BBCH 99			
No	Name	Rate (L, kg/ha)									Avera- ge	Min.	Max.
1	Untreated Check	-	46.17a	54.78a	42.61a	31.90a	38.38a	40.03a	35.53a	36.46a	40.73	31.90	54.78
2	CHR/H/FDF 574 SC	0.40	47.15a	52.36a	44.06a	32.32a	38.60a	40.25a	33.65a	37.74a	40.77	32.32	52.36
3	CHR/H/FDF 574 SC	0.80	45.40a	52.75a	40.41a	30.75a	39.10a	40.05a	32.92a	36.68a	39.76	30.75	52.75
4	Bizon 118,75 SC	1.00	45.89a	55.26a	43.11a	31.97a	38.73a	40.60a	35.15a	37.45a	41.02	31.97	55.26
5	Bizon 118,75 SC	2.00	45.56a	50.51a	42.03a	30.97a	38.80a	40.45a	33.45a	36.55a	39.79	30.97	50.51
6	Komplet 560 SC	0.50	46.03a	52.62a	43.77a	30.56a	38.35a	40.63a	32.23a	36.95a	40.14	30.56	52.62
7	Komplet 560 SC	1.00	46.58a	51.65a	40.36a	30.83a	38.38a	40.83a	32.12a	36.47a	39.65	30.83	51.65
LSD(P=.05)			2.346	3.568	3.831	2.663	1.212	1.202	3.722	2.054			

table 3.4.3.1-7 The influence of the CHR/H/FDF 574 SC on quality of yield
Winter rye thousand weight grain

Crop code			winter rye TGW g										
Report code			A.T/2019/081/ ŽO	A.T/2019/082/ ŽO	SRPL19-356- 336HS	SRPL19-357- 336HS	A.T/2020/139/ ŽO	A.T/2020/140/ ŽO	AH/20/ŽO/35/ Zi/1	AH/20/ŽO/35/ Gr/2			
Application date			07.11.2019	15.10.2019	21.10.2019	05.11.2019	26.10.2020	26.10.2020	23.10.2020	03.11.2020			
Crop stage in application			BBCH 23-25	BBCH 12-13	BBCH 12-14	BBCH 15-23	BBCH 12-14	BBCH 14-23	BBCH 13	BBCH 23			
Assessment date			24.08.2020	24.08.2020	10.08.2020	07.08.2020	01.09.2021	01.09.2021	03.08.2021	17.08.2021			
Days after application DA-A			291 DA-A	314 DA-A	294 DA-A	276 DA-A	310 DA-A	310 DA-A	284 DA-A	287 DA-A			
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 89	BBCH 99	BBCH 99	BBCH 99	BBCH 99	Average	Min.	Max.
N o.	Name	Rate (L, kg/ha)											
1	Untreated Check	-	29.95a	31.44a	31.88a	31.10a	22.68a	30.18a	22.08a	25.25a	28.07	22.08	31.88
2	CHR/H/FDF 574 SC	0.40	30.84a	29.12a	31.78a	30.52a	25.45a	29.37a	21.79a	25.58a	28.06	21.79	31.78
3	CHR/H/FDF 574 SC	0.80	31.76a	30.37a	32.01a	29.95a	24.20a	29.80a	22.44a	25.15a	28.21	22.44	32.01
4	Komplet 560 SC	0.50	31.03a	29.44a	32.17a	30.11a	23.05a	29.49a	22.18a	24.70a	27.77	22.18	32.17
5	Komplet 560 SC	1.00	30.79a	29.02a	31.92a	29.63a	24.42a	30.00a	22.44a	24.70a	27.86	22.44	31.92
LSD(P=.05)			2.382	3.342	1.655	1.104	2.785	5.388	1.231	2.002			

table 3.4.3.1-8 The influence of the CHR/H/FDF 574 SC on quality of yield
Winter barley thousand weight grain

Crop code			winter barley TGW g										
Report code			A.T/2019/083/J O	A.T/2019/084/J O	AH/19/JO/26/B r/se14	AH/19/JO/26/ Gr/se13	A.T/2020/141/J O	A.T/2020/142/J O	SRPL20-441- 336HE	SRPL20-442- 336HE			
Application date			07.10.2019	15.10.2019	15.10.2019	25.10.2019	02.10.2020	23.10.2020	03.11.2020	22.10.2020			
Crop stage in application			BBCH 11-12	BBCH 13-14	BBCH 21	BBCH 12-13	BBCH 12-13	BBCH 21-22	BBCH 12-13	BBCH 21-22			
Assessment date			19.07.2020	24.08.2020	18.10.2020	20.07.2020	14.07.2021	02.09.2021	22.07.2021	26.07.2021			
Days after application DA-A			286 DA-A	314 DA-A	263 DA-A	269 DA-A	285 DA-A	314 DA-A	261 DA-A	277 DA-A			
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	Average	Min.	Max.
No	Name	Rate (L _a kg/ha)											
1	Untreated Check	-	44.75a	39.44a	47.68a	46.73a	33.78a	42.79a	41.40a	37.23a	41.73	33.78	47.68
2	CHR/H/FDF 574 SC	0.40	44.88a	38.41a	49.05a	46.63a	33.70a	41.42a	41.20a	37.15a	41.56	33.70	49.05
3	CHR/H/FDF 574 SC	0.80	44.88a	38.30a	47.34a	46.93a	35.71a	44.73a	40.50a	36.90a	41.91	35.71	47.34
4	Bizon 118,75 SC	1.00	41.75a	37.94a	48.60a	45.15a	36.42a	40.52a	40.10a	38.03a	41.06	36.42	48.60
5	Bizon 118,75 SC	2.00	43.75a	38.61a	49.44a	45.30a	34.69a	40.68a	39.80a	36.93a	41.15	34.69	49.44
6	Komplet 560 SC	0.50	44.13a	38.95a	48.08a	46.78a	36.85a	40.69a	41.60a	37.84a	41.87	36.85	48.08
7	Komplet 560 SC	1.00	44.13a	38.01a	47.80a	46.33a	33.43a	40.79a	41.80a	38.01a	41.29	33.43	44.13
LSD(P=.05)			4.320	2.500	3.059	1.586	3.352	3.245	4.060	2.236			

table 3.4.3.1-9 The influence of the CHR/H/FDF 574 SC on quality of yield

Winter wheat moisture content

Crop code			winter wheat moisture content %										
Report code			A.T/2019/075/P O	A.T/2019/076/P O	A.T/2019/077/P O	AH/19/PO/26/G r/sel1	AH/19/PO/26/Z l/sel2	A.T/2020/137/P O	SRPL20-439- 336HE	SRPL20-440- 336HS			
Application date			14.10.2019	21.10.2019	07.11.2019	25.10.2019	05.11.2019	13.10.2020	09.11.2020	29.10.2020			
Crop stage in application			BBCH 11-12	BBCH 13-21	BBCH 21-23	BBCH 12	BBCH 21-22	BBCH 11-13	BBCH 11-13	BBCH 12-13			
Assessment date			24.07.2020	06.08.2020	09.08.2020	24.07.2020	24.07.2020	03.08.2021	09.08.2021	03.08.2021			
Days after application DA-A			284 DA-A	290 DA-A	276 DA-A	273 DA-A	262 DA-A	294 DA-A	273 DA-A	278 DA-A			
Crop stage majority			BBCH 89	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 89	BBCH 89	Average	Min.	Max.
No	Name	Rate (L, kg/ha)											
1	Untreated Check	-	13.00a	13.78a	12.13a	12.78a	13.95a	14.33a	12.60a	14.30a	13.36	12.13	14.33
2	CHR/H/FDF 574 SC	0.40	13.00a	13.73a	12.05a	12.98a	13.90a	14.25a	12.50a	14.53a	13.37	12.05	14.53
3	CHR/H/FDF 574 SC	0.80	13.00a	13.70a	11.98a	12.83a	13.83a	14.33a	12.50a	14.65a	13.35	11.98	14.65
4	Bizon 118,75 SC	1.00	13.10a	13.73a	12.08a	13.15a	13.85a	14.38a	12.60a	14.45a	13.42	12.08	14.45
5	Bizon 118,75 SC	2.00	13.00a	13.80a	12.05a	12.93a	13.90a	14.30a	12.60a	14.60a	13.40	12.05	14.60
6	Komplet 560 SC	0.50	13.10a	13.80a	12.10a	13.00a	14.03a	14.35a	12.40a	14.35a	13.39	12.10	14.35
7	Komplet 560 SC	1.00	13.10a	13.78a	12.08a	13.05a	13.95a	14.40a	12.60a	14.35a	13.41	12.08	14.40
LSD(P=.05)			0.130	0.184	0.215	0.377	0.277	0.292	0.680	0.499			

table 3.4.3.1-10 The influence of the CHR/H/FDF 574 SC on quality of yield

Winter triticale moisture content

Crop code			winter triticale moisture content %										
Report code			A.T/2019/078/P ŽO	A.T/2019/079/P ŽO	A.T/2019/080/P ŽO	SRPL19-355- 336HS	AH/20/PszO/35 /Gr/1	AH/20/PszO/35 /Gr/2	AH/20/PszO/35 /Gr/3	A.T/2020/138/P ŽO			
Application date			04.10.2019	15.10.2019	26.10.2019	18.10.2019	22.10.2020	03.11.2020	23.10.2020	22.10.2020			
Crop stage in application			BBCH 11-12	BBCH 12-14	BBCH 22-24	BBCH 12-14	BBCH 13	BBCH 22	BBCH 19	BBCH 11-13			
Assessment date			25.07.2020	08.08.2020	14.08.2020	07.08.2020	22.07.2021	22.07.2021	27.07.2021	12.08.2021			
Days after application DA-A			295 DA-A	298 DA-A	293 DA-A	294 DA-A	273 DA-A	261 DA-A	277 DA-A	294 DA-A			
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 89	BBCH 99	BBCH 99	BBCH 99	BBCH 89	Avera- ge	Min.	Max.
N o.	Name	Rate (L, kg/ha)											
1	Untreated Check	-	14.30a	12.55a	11.55a	11.13a	9.43a	9.93a	10.33a	13.88a	11.64	9.43	14.30
2	CHR/H/FDF 574 SC	0.40	14.30a	12.48a	11.53a	11.23a	9.50a	10.05a	9.83a	13.73a	11.58	9.50	14.30
3	CHR/H/FDF 574 SC	0.80	14.20a	12.50a	11.48a	11.28a	9.20a	10.23a	10.00a	13.78a	11.58	9.20	14.20
4	Bizon 118,75 SC	1.00	14.20a	12.55a	11.45a	11.28a	9.13a	10.33a	10.00a	13.80a	11.59	9.13	14.20
5	Bizon 118,75 SC	2.00	14.00a	12.50a	11.40a	11.30a	9.30a	10.15a	10.18a	13.70a	11.57	9.30	14.00
6	Komplet 560 SC	0.50	14.30a	12.43a	11.60a	11.33a	9.20a	10.18a	10.18a	13.80a	11.63	9.20	14.30
7	Komplet 560 SC	1.00	14.30a	12.48a	11.35a	11.08a	9.50a	10.33a	9.83a	13.80a	11.58	9.50	14.30
LSD(P=.05)			0.450	0.147	0.343	0.311	0.509	0.701	0.637	0.154			

table 3.4.3.1-11 The influence of the CHR/H/FDF 574 SC on quality of yield

Winter rye moisture content

Crop code			winter rye moisture content %										
Report code			A.T/2019/081/ ZO	A.T/2019/082/ ZO	SRPL19-356- 336HS	SRPL19-357- 336HS	A.T/2020/139/ ZO	A.T/2020/140/ ZO	AH/20/ZO/35/ Zl/1	AH/20/ZO/35/ Gr/2			
Application date			07.11.2019	15.10.2019	21.10.2019	05.11.2019	26.10.2020	26.10.2020	23.10.2020	03.11.2020			
Crop stage in application			BBCH 23-25	BBCH 12-13	BBCH 12-14	BBCH 15-23	BBCH 12-14	BBCH 14-23	BBCH 13	BBCH 23			
Assessment date			14.08.2020	14.08.2020	10.08.2020	07.08.2020	30.07.2021	28.07.2021	27.07.2021	10.08.2021			
Days after application DA-A			281 DA-A	304 DA-A	294 DA-A	276 DA-A	277 DA-A	275 DA-A	277 DA-A	280 DA-A			
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 89	BBCH 89	BBCH 89	BBCH 99	BBCH 99	Average	Min.	Max.
No	Name	Rate (L _a kg/ha)											
1	Untreated Check	-	11.18 ^a	11.98 ^a	12.30 ^a	11.28 ^a	12.53 ^a	12.13 ^a	12.40 ^a	12.60 ^a	12.05	11.18	12.60
2	CHR/H/FDF 574 SC	0.40	11.30 ^a	11.90 ^a	12.35 ^a	11.33 ^a	12.65 ^a	12.23 ^a	12.55 ^a	12.55 ^a	12.11	11.30	12.65
3	CHR/H/FDF 574 SC	0.80	11.25 ^a	11.88 ^a	12.33 ^a	11.40 ^a	12.88 ^a	12.05 ^a	12.63 ^a	12.40 ^a	12.10	11.25	12.88
4	Komplet 560 SC	0.50	11.10 ^a	11.80 ^a	12.33 ^a	11.40 ^a	12.48 ^a	12.30 ^a	12.40 ^a	12.38 ^a	12.02	11.10	12.48
5	Komplet 560 SC	1.00	11.35 ^a	11.90 ^a	12.38 ^a	11.40 ^a	12.43 ^a	12.00 ^a	12.53 ^a	12.48 ^a	12.06	11.35	12.53
LSD(P=.05)			0.501	0.383	0.269	0.396	0.367	0.477	0.400	0.536			

table 3.4.3.1-12 The influence of the CHR/H/FDF 574 SC on quality of yield

Winter barley moisture content

Crop code			winter barley moisture content %										
Report code			A.T/2019/083/J O	A.T/2019/084/J O	AH/19/JO/26/B r/sel4	AH/19/JO/26/G r/sel3	A.T/2020/141/J O	A.T/2020/142/J O	SRPL20-441- 336HE	SRPL20-442- 336HE			
Application date			07.10.2019	15.10.2019	15.10.2019	25.10.2019	02.10.2020	23.10.2020	03.11.2020	22.10.2020			
Crop stage in application			BBCH 11-12	BBCH 13-14	BBCH 21	BBCH 12-13	BBCH 12-13	BBCH 21-22	BBCH 12-13	BBCH 21-22			
Assessment date			04.07.2020	14.07.2020	04.07.2020	13.07.2020	07.07.2021	16.07.2021	22.07.2021	26.07.2021			
Days after application DA-A			271 DA-A	273 DA-A	263 DA-A	262 DA-A	278 DA-A	266 DA-A	261 DA-A	277 DA-A			
Crop stage majority			BBCH 89	BBCH 99	BBCH 99	BBCH 99	BBCH 89	BBCH 89	BBCH 99	BBCH 99	Average	Min.	Max.
No.	Name	Rate (L _a kg/ha)											
1	Untreated Check	-	12.40 _a	13.15 _a	11.60 _a	8.05 _a	12.13 _a	13.50 _a	10.20 _a	12.48 _a	11.69	8.05	13.50
2	CHR/H/FDF 574 SC	0.40	12.40 _a	13.18 _a	11.50 _a	7.93 _a	12.33 _a	13.58 _a	9.70 _a	12.50 _a	11.64	7.93	13.58
3	CHR/H/FDF 574 SC	0.80	12.30 _a	13.10 _a	11.90 _a	7.90 _a	11.98 _a	13.50 _a	9.90 _a	12.25 _a	11.60	7.90	13.50
4	Bizon 118,75 SC	1.00	12.53 _a	13.00 _a	11.58 _a	7.98 _a	12.23 _a	13.45 _a	10.30 _a	12.10 _a	11.65	7.98	13.45
5	Bizon 118,75 SC	2.00	12.40 _a	13.20 _a	11.65 _a	7.98 _a	12.03 _a	13.53 _a	10.10 _a	12.60 _a	11.69	7.98	13.53
6	Komplet 560 SC	0.50	12.25 _a	13.10 _a	11.58 _a	7.95 _a	12.30 _a	13.43 _a	9.90 _a	12.53 _a	11.63	7.95	13.43
7	Komplet 560 SC	1.00	12.43 _a	13.20 _a	11.50 _a	8.00 _a	12.25 _a	13.53 _a	10.60 _a	12.28 _a	11.72	8.00	13.53
LSD(P=.05)			0.342	0.255	0.499	0.180	0.445	0.228	2.020	0.712			

table 3.4.3.1-13 The influence of the CHR/H/FDF 574 SC on quality of yield

Winter wheat protein content

Crop code			winter wheat protein content %										
Report code			A.T/2019/075/P O	A.T/2019/076/P O	A.T/2019/077/P O	AH/19/PO/26/G r/sel1	AH/19/PO/26/ZI /sel2	A.T/2020/137/P O	SRPL20-439- 336HE	SRPL20-440- 336HS			
Application date			14.10.2019	21.10.2019	07.11.2019	25.10.2019	05.11.2019	13.10.2020	09.11.2020	29.10.2020			
Crop stage in application			BBCH 11-12	BBCH 13-21	BBCH 21-23	BBCH 12	BBCH 21-22	BBCH 11-13	BBCH 11-13	BBCH 12-13			
Assessment date			07.08.2020	11.08.2020	20.08.2020	28.08.2020	28.08.2020	06.09.2021	08.09.2021	03.08.2021			
Days after application DA-A			298 DA-A	295 DA-A	287 DA-A	308 DA-A	297 DA-A	328 DA-A	303 DA-A	278 DA-A			
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 89	Avera- ge	Min.	Max.
No ↓	Name	Rate (L, kg/ha)											
1	Untreated Check	-	14.33a	12.78a	16.13a	11.90a	11.70a	13.40a	13.85a	15.13a	13.65	11.70	16.13
2	CHR/H/FDF 574 SC	0.40	14.35a	13.05a	15.53a	11.70a	11.80a	13.45a	13.60a	15.00a	13.56	11.70	15.53
3	CHR/H/FDF 574 SC	0.80	14.50a	13.08a	15.85a	12.20a	12.10a	13.18a	13.75a	14.83a	13.69	12.10	15.85
4	Bizon 118,75 SC	1.00	13.83a	13.43a	16.20a	11.70a	11.90a	13.43a	13.53a	14.93a	13.62	11.70	16.20
5	Bizon 118,75 SC	2.00	14.20a	13.28a	16.25a	12.30a	11.80a	13.73a	13.68a	14.83a	13.76	11.80	16.25
6	Komplet 560 SC	0.50	13.75a	13.63a	15.35a	12.40a	12.10a	13.38a	13.75a	14.88a	13.66	12.10	15.35
7	Komplet 560 SC	1.00	14.65a	13.03a	16.15a	12.20a	11.80a	13.18a	13.65a	15.03a	13.71	11.80	16.15
LSD(P=.05)			1.463	0.635	1.483	-	-	1.321	0.406	0.898			

table 3.4.3.1-14 The influence of the CHR/H/FDF 574 SC on quality of yield

Winter triticale protein content

Crop code			winter triticale protein content %										
Report code			A.T/2019/078/ PŽO	A.T/2019/079/ PŽO	A.T/2019/080/ PŽO	SRPL19-355- 336HS	AH/20/PszO/3 5/Gr/1	AH/20/PszO/3 5/Gr/2	AH/20/PszO/3 5/Gr/3	A.T/2020/138/ PŽO			
Application date			04.10.2019	15.10.2019	26.10.2019	18.10.2019	22.10.2020	03.11.2020	23.10.2020	22.10.2020			
Crop stage in application			BBCH 11-12	BBCH 12-14	BBCH 22-24	BBCH 12-14	BBCH 13	BBCH 22	BBCH 19	BBCH 11-13			
Assessment date			11.08.2020	24.08.2020	26.08.2020	07.08.2020	23.08.2021	23.08.2021	23.08.2021	08.09.2021			
Days after application DA-A			312 DA-A	314 DA-A	305 DA-A	294 DA-A	305 DA-A	293 DA-A	304 DA-A	321 DA-A			
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 89	BBCH 99	BBCH 99	BBCH 99	BBCH 99	Ave- rage	Min.	Max.
N o.	Name	Rate (L, kg/ha)											
1	Untreated Check	-	13.35a	11.88a	13.90a	12.78a	11.80a	11.90a	13.60a	11.43b	12.58	11.43	13.90
2	CHR/H/FDF 574 SC	0.40	13.10a	12.05a	14.28a	12.75a	12.10a	12.00a	14.30a	11.38b	12.75	11.38	14.30
3	CHR/H/FDF 574 SC	0.80	13.33a	12.03a	13.60a	12.83a	12.00a	12.10a	13.90a	12.00a	12.72	12.00	13.90
4	Bizon 118,75 SC	1.00	13.45a	12.18a	13.53a	12.78a	11.50a	12.20a	14.40a	12.03a	12.76	11.50	14.40
5	Bizon 118,75 SC	2.00	13.93a	11.90a	13.83a	12.70a	11.80a	12.10a	15.10a	12.13a	12.94	11.80	15.10
6	Komplet 560 SC	0.50	13.58a	11.88a	13.15a	12.68a	12.10a	11.90a	15.10a	12.00a	12.80	11.88	15.10
7	Komplet 560 SC	1.00	13.28a	12.03a	13.70a	12.68a	11.70a	12.00a	15.10a	12.20a	12.84	11.70	15.10
LSD(P=.05)			1.193	0.434	0.893	0.230	-	-	-	0.552			

table 3.4.3.1-15 The influence of the CHR/H/FDF 574 SC on quality of yield

Winter rye protein content

Crop code			winter rye protein content %								
Report code			A.T/2019/081/ŽO	A.T/2019/082/ŽO	A.T/2020/139/ŽO	A.T/2020/140/ŽO	AH/20/ŽO/35/ZI/1	AH/20/ŽO/35/Gr/2			
Application date			07.11.2019	15.10.2019	26.10.2020	26.10.2020	23.10.2020	03.11.2020			
Crop stage in application			BBCH 23-25	BBCH 12-13	BBCH 12-14	BBCH 14-23	BBCH 13	BBCH 23			
Assessment date			24.08.2020	24.08.2020	01.09.2021	01.09.2021	23.08.2021	23.08.2021			
Days after application DA-A			291 DA-A	314 DA-A	310 DA-A	310 DA-A	304 DA-A	293 DA-A			
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	Average	Min.	Max.
No.	Name	Rate (L, kg/ha)									
1	Untreated Check	-	9.63ab	8.43a	10.75ab	9.13a	12.23a	10.70a	10.15	8.43	12.23
2	CHR/H/FDF 574 SC	0.40	9.40b	8.40a	10.48b	9.70a	12.13a	11.80a	10.32	8.40	12.13
3	CHR/H/FDF 574 SC	0.80	9.80a	8.40a	11.03a	9.30a	11.83a	11.90a	10.38	8.40	11.90
4	Komplet 560 SC	0.50	9.60ab	8.60a	11.05a	9.38a	11.55a	11.30a	10.25	8.60	11.55
5	Komplet 560 SC	1.00	9.70ab	8.80a	11.05a	9.15a	11.70a	12.10a	10.42	8.80	12.10
LSD(P=.05)			0.387	1.158	0.424	0.874	4.447	-			

table 3.4.3.1-16 The influence of the CHR/H/FDF 574 SC on quality of yield

Winter barley protein content

Crop code			winter barley protein content %										
Report code			A.T/2019/083/JO	A.T/2019/084/JO	AH/19/JO/26/Br/sel4	AH/19/JO/26/Gr/sel3	A.T/2020/141/JO	A.T/2020/142/JO	SRPL20-441-336HE	SRPL20-442-336HE			
Application date			07.10.2019	15.10.2019	15.10.2019	25.10.2019	02.10.2020	23.10.2020	03.11.2020	22.10.2020			
Crop stage in application			BBCH 11-12	BBCH 13-14	BBCH 21	BBCH 12-13	BBCH 12-13	BBCH 21-22	BBCH 12-13	BBCH 21-22			
Assessment date			19.07.2020	24.08.2020	18.10.2020	28.08.2020	14.07.2021	02.09.2021	22.07.2021	26.07.2021			
Days after application DA-A			286 DA-A	314 DA-A	318 DA-A	308 DA-A	285 DA-A	314 DA-A	261 DA-A	277 DA-A			
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	Ave- rage	Min.	Max.
No	Name	Rate (L, kg/ha)											
1	Untreated Check	-	12.65 ^a	11.05 ^a	12.20 ^a	12.00 ^a	11.80 ^a	11.28 ^a	12.10 ^a	12.15 ^a	11.90	11.05	12.65
2	CHR/H/FDF 574 SC	0.40	11.93 ^a	10.95 ^a	12.40 ^a	12.60 ^a	11.55 ^a	10.78 ^a	12.20 ^a	12.00 ^a	11.80	10.78	12.60
3	CHR/H/FDF 574 SC	0.80	12.25 ^a	11.05 ^a	13.60 ^a	13.60 ^a	11.23 ^a	10.40 ^a	12.20 ^a	12.03 ^a	12.05	10.40	13.60
4	Bizon 118,75 SC	1.00	11.73 ^a	11.22 ^a	13.20 ^a	13.20 ^a	10.33 ^a	11.40 ^a	12.20 ^a	12.08 ^a	11.92	10.33	13.20
5	Bizon 118,75 SC	2.00	12.43 ^a	11.25 ^a	13.20 ^a	13.20 ^a	11.23 ^a	10.28 ^a	12.20 ^a	12.00 ^a	11.97	10.28	13.20
6	Komplet 560 SC	0.50	11.85 ^a	11.05 ^a	13.40 ^a	13.60 ^a	10.70 ^a	11.35 ^a	12.30 ^a	12.03 ^a	12.04	10.70	13.60
7	Komplet 560 SC	1.00	11.85 ^a	11.05 ^a	13.70 ^a	13.90 ^a	12.30 ^a	10.88 ^a	12.20 ^a	12.15 ^a	12.25	10.88	13.90
LSD(P=.05)			1.048	0.499	-	-	2.597	1.380	0.23	0.209			

table 3.4.3.1-17 The influence of the CHR/H/FDF 574 SC on quality of yield

Winter wheat gluten content

Crop code			winter wheat gluten content %										
Report code			A.T/2019/075 /PO	A.T/2019/076 /PO	A.T/2019/077 /PO	AH/19/PO/26 /Gr/sel1	AH/19/PO/26 /Zl/sel2	A.T/2020/137 /PO	SRPL20-439- 336HE	SRPL20-440- 336HS			
Application date			14.10.2019	21.10.2019	07.11.2019	25.10.2019	05.11.2019	13.10.2020	09.11.2020	29.10.2020			
Crop stage in application			BBCH 11-12	BBCH 13-21	BBCH 21-23	BBCH 12	BBCH 21-22	BBCH 11-13	BBCH 11-13	BBCH 12-13			
Assessment date			07.08.2020	11.08.2020	20.08.2020	28.08.2020	28.08.2020	06.09.2021	08.09.2021	03.08.2021			
Days after application DA-A			298 DA-A	295 DA-A	287 DA-A	308 DA-A	297 DA-A	328 DA-A	303 DA-A	278 DA-A			
Crop stage majority			BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 99	BBCH 89	Ave- rage	Min.	Max.
N o.	Name	Rate (L, kg/ha)											
1	Untreated Check	-	30.35 ^a	27.13 ^a	26.75 ^a	23.50 ^a	23.60 ^a	27.23 ^a	28.33 ^a	29.43 ^a	27.04	23.50	30.35
2	CHR/H/FDF 574 SC	0.40	30.75 ^a	27.80 ^a	26.23 ^a	23.90 ^a	23.80 ^a	27.20 ^a	28.48 ^a	29.60 ^a	27.22	23.80	30.75
3	CHR/H/FDF 574 SC	0.80	31.28 ^a	28.13 ^a	26.38 ^a	24.50 ^a	24.10 ^a	26.80 ^a	28.48 ^a	29.38 ^a	27.38	24.10	31.28
4	Bizon 118,75 SC	1.00	29.78 ^a	28.78 ^a	26.80 ^a	24.50 ^a	23.70 ^a	27.40 ^a	28.28 ^a	29.53 ^a	27.35	23.70	29.78
5	Bizon 118,75 SC	2.00	30.20 ^a	28.33 ^a	27.50 ^a	24.40 ^a	23.60 ^a	27.68 ^a	28.33 ^a	29.70 ^a	27.47	23.60	30.20
6	Komplet 560 SC	0.50	29.20 ^a	29.40 ^a	26.18 ^a	24.30 ^a	24.10 ^a	26.98 ^a	28.33 ^a	29.33 ^a	27.23	24.10	29.40
7	Komplet 560 SC	1.00	30.10 ^a	28.05 ^a	27.30 ^a	24.10 ^a	23.70 ^a	26.88 ^a	28.10 ^a	29.20 ^a	27.18	23.70	30.10
LSD(P=.05)			2.683	1.630	2.596	-	-	3.373	1.108	0.821			

table 3.4.3.1-18 The influence of the CHR/H/FDF 574 SC on quality of yield

Winter triticale gluten content

Crop code			winter triticale gluten content %						
Report code			SRPL19-355-336HS	AH/20/PszO/35/Gr/1	AH/20/PszO/35/Gr/2	AH/20/PszO/35/Gr/3			
Application date			18.10.2019	22.10.2020	03.11.2020	23.10.2020			
Crop stage in application			BBCH 12-14	BBCH 13	BBCH 22	BBCH 19			
Assessment date			07.08.2020	23.08.2021	23.08.2021	23.08.2021			
Days after application DA-A			294 DA-A	305 DA-A	293 DA-A	304 DA-A			
Crop stage majority			BBCH 89	BBCH 99	BBCH 99	BBCH 99	Average	Min.	Max.
No.	Name	Rate (L, kg/ha)							
1	Untreated Check	-	15.90a	24.40a	25.80a	26.10a	23.05	15.90	26.10
2	CHR/H/FDF 574 SC	0.40	15.93a	24.20a	25.10a	25.40a	22.66	15.93	25.40
3	CHR/H/FDF 574 SC	0.80	15.80ab	24.50a	24.90a	26.10a	22.83	15.80	26.10
4	Bizon 118,75 SC	1.00	15.78ab	23.70a	25.20a	25.40a	22.52	15.78	25.40
5	Bizon 118,75 SC	2.00	15.80ab	24.30a	25.10a	25.80a	22.75	15.80	25.80
6	Komplet 560 SC	0.50	15.68b	23.10a	24.60a	25.50a	22.22	15.68	25.50
7	Komplet 560 SC	1.00	15.70b	24.90a	25.40a	25.30a	22.83	15.70	25.40
LSD(P=.05)			0.136	-	-	-			

Study Comments: 3.4.3 dRR point: 3.4.3	Studies are acceptable
<p>The Applicant presented data obtained from 32 selectivity trials (8 trials for winter wheat, 8 trials for winter triticale, 8 trials for winter rye, 8 trials for winter barley). The following yield quality parameters were checked: HLW, TKW, protein content, moisture content and for winter wheat and winter triticale additionally gluten content.</p> <p>In 3 trials on winter rye, with 2N dose rate of the product there was very slight decreasing in HLW (with statistical difference, in comparison to untreated trial). Result was comparable to results of the reference product. On the other hand in TKW, (reflecting also the yield of the flour obtained) no decreasing was observed.</p> <p>Generally the conclusion is that a single application of CHR/H/FDF 574 SC at the proposed range of 0,4 l product/ha has no adverse impact on the quality of plants or plant products in winter wheat, winter triticale, winter rye, winter barley.</p>	

3.4.4 Effects on transformation processes (KCP 6.4.4)

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

Flufenacet

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 yeasts or lactic bacteria are predicted.

Diiflufenican

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 yeasts or lactic bacteria are predicted.

Florasulam

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 yeasts or lactic bacteria are predicted.

Study Comments: 3.4.4 dRR point: 3.4.4	Explanations are acceptable
<p>The Applicant presented no data on effects on transformation processes taking note that, products containing all actives as the sole active substance or together in co-formulations have been approved and extensively used as herbicides in cereals across EU countries for many years and the residues impact for effects on yeasts or lactic bacteria are not predicted. The explanations are acceptable.</p>	

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

There is no information available pointing to presence of any limitations to using of CHR/H/FDF 574 SC in seed crops of winter wheat, winter triticale, winter rye and winter barley.
 In the course of studies carried out in Poland in the season of 2019 and 2020 on product CHR/H/FDF 574 SC the herbicide has not been observed to have any significant influence on yield.
 The product may be used in seed crops of winter wheat, winter triticale, winter rye and winter barley.

Study Comments: 3.4.5 dRR point: 3.4.5	Explanations are acceptable
The Applicant presented no data on impact on treated plants or plant parts to be used for propagation. Products containing florasulam, diflufenican and flufenacet have been using for many years and are well proven to have no adverse effects on the viability of progeny seed.	

Summary and conclusion

The submitted efficacy data (reports from 48 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 1/93(3) Weeds in cereals

The studies fulfill also requirements of the Commission Regulation (EU) No 540/2011 of 25 May 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 formulation of CHR/H/FDF 574 SC is suspension concentrate (SC) and it comprises active substances: 312 g/L flufenacet, 250 g/L diflufenican and 12 g/L florasulam. The applicant submitted 48 reports in total (12 in winter wheat, 12 in winter triticale, 12 in winter rye, 12 in winter barley) showing the results in research into product efficacy carried out in 2019 and 2020 in winter wheat, winter triticale, winter rye and winter barley.

The obtained data in performed trials show that CHR/H/FDF 574 SC provides benefits against the most important weeds in winter wheat, winter triticale, winter rye and winter barley as shown in the table below.

The following table describes the effectiveness of weeds:

S (Susceptible)	> 85% (within each trial the average must be higher than 85%)
MS (Moderately Susceptible)	70 – 85%
MT (Moderately Tolerant)	60 – 70%
T (Tolerant)	< 60%

The following table shows the average sensitivity of weeds in winter wheat:

Product code (L, kg/ha)	EPPO code	Scientific name	DA-A	Pest stage	Average	Efficacy
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CHR/H/FD F 547 SC 0.3 L/ha	ANTAR	<i>Anthemis arvensis</i>	123-167 DA-A	BBCH 10-21	93.80	S
	APESV	<i>Apera spica-venti</i>	133-167 DA-A	BBCH 10-22	82.89	MS
	VIOAR	<i>Viola arvensis</i>	133-155 DA-A	BBCH 10-23	85.55	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	132-167 DA-A	BBCH 10-16	88.76	S
	CAPBP	<i>Capsella bursa-pastoris</i>	123-160 DA-A	BBCH 10-21	88.04	S
	CENCY	<i>Centaurea cyanus</i>	123-167 DA-A	BBCH 10-20	82.44	MS
	GALAP	<i>Galium aparine</i>	132-167 DA-A	BBCH 10-23	76.71	MS
	PAPRH	<i>Papver rhoeas</i>	132-156 DA-A	BBCH 10-25	77.95	MS
	STEME	<i>Stellaria media</i>	133-160 DA-A	BBCH 10-20	95.43	S
	GERPU	<i>Geranium pusillum</i>	123-167 DA-A	BBCH 10-20	87.63	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	123-156 DA-A	BBCH 10-20	93.00	S
	VERHE	<i>Veronica hederifolia</i>	156-167 DA-A	BBCH 10-14	99.33	S
CHR/H/FD F 547 SC 0.4 L/ha	ANTAR	<i>Anthemis arvensis</i>	123-167 DA-A	BBCH 10-21	98.80	S
	APESV	<i>Apera spica-venti</i>	133-167 DA-A	BBCH 10-22	90.41	S
	VIOAR	<i>Viola arvensis</i>	133-155 DA-A	BBCH 10-23	91.61	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	132-167 DA-A	BBCH 10-16	94.00	S
	CAPBP	<i>Capsella bursa-pastoris</i>	123-160 DA-A	BBCH 10-21	93.21	S
	CENCY	<i>Centaurea cyanus</i>	123-167 DA-A	BBCH 10-20	90.99	S
	GALAP	<i>Galium aparine</i>	132-167 DA-A	BBCH 10-23	85.73	S
	PAPRH	<i>Papver rhoeas</i>	132-156 DA-A	BBCH 10-25	86.81	S
	STEME	<i>Stellaria media</i>	133-160 DA-A	BBCH 10-20	99.64	S
	GERPU	<i>Geranium pusillum</i>	123-167 DA-A	BBCH 10-20	91.85	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	123-156 DA-A	BBCH 10-20	98.07	S
	VERHE	<i>Veronica hederifolia</i>	156-167 DA-A	BBCH 10-14	100.00	S
CHR/H/FD F 547 SC 0.5 L/ha	ANTAR	<i>Anthemis arvensis</i>	123-167 DA-A	BBCH 10-21	99.63	S
	APESV	<i>Apera spica-venti</i>	133-167 DA-A	BBCH 10-22	93.18	S
	VIOAR	<i>Viola arvensis</i>	133-155 DA-A	BBCH 10-23	94.20	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	132-167 DA-A	BBCH 10-16	96.29	S
	CAPBP	<i>Capsella bursa-pastoris</i>	123-160 DA-A	BBCH 10-21	94.66	S
	CENCY	<i>Centaurea cyanus</i>	123-167 DA-A	BBCH 10-20	95.33	S
	GALAP	<i>Galium aparine</i>	132-167 DA-A	BBCH 10-23	90.23	S
	PAPRH	<i>Papver rhoeas</i>	132-156 DA-A	BBCH 10-25	91.83	S
	STEME	<i>Stellaria media</i>	133-160 DA-A	BBCH 10-20	99.83	S
	GERPU	<i>Geranium pusillum</i>	123-167 DA-A	BBCH 10-20	94.10	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	123-156 DA-A	BBCH 10-20	98.97	S
	VERHE	<i>Veronica hederifolia</i>	156-167 DA-A	BBCH 10-14	100.00	S
Bizon 118,75 SC 1.0 L/ha	ANTAR	<i>Anthemis arvensis</i>	123-167 DA-A	BBCH 10-21	99.63	S
	APESV	<i>Apera spica-venti</i>	133-167 DA-A	BBCH 10-22	87.68	S
	VIOAR	<i>Viola arvensis</i>	133-155 DA-A	BBCH 10-23	93.81	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	132-167 DA-A	BBCH 10-16	96.91	S
	CAPBP	<i>Capsella bursa-pastoris</i>	123-160 DA-A	BBCH 10-21	95.01	S
	CENCY	<i>Centaurea cyanus</i>	123-167 DA-A	BBCH 10-20	93.59	S
	GALAP	<i>Galium aparine</i>	132-167 DA-A	BBCH 10-23	89.43	S
	PAPRH	<i>Papver rhoeas</i>	132-156 DA-A	BBCH 10-25	88.83	S
	STEME	<i>Stellaria media</i>	133-160 DA-A	BBCH 10-20	99.83	S
	GERPU	<i>Geranium pusillum</i>	123-167 DA-A	BBCH 10-20	93.68	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	123-156 DA-A	BBCH 10-20	99.80	S
	VERHE	<i>Veronica hederifolia</i>	156-167 DA-A	BBCH 10-14	100.00	S
Komplet 560	ANTAR	<i>Anthemis arvensis</i>	123-167 DA-A	BBCH 10-21	96.50	S

SC 0.5 L/ha	APESV	<i>Apera spica-venti</i>	133-167 DA-A	BBCH 10-22	93.08	S
	VIOAR	<i>Viola arvensis</i>	133-155 DA-A	BBCH 10-23	93.74	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	132-167 DA-A	BBCH 10-16	90.45	S
	CAPBP	<i>Capsella bursa-pastoris</i>	123-160 DA-A	BBCH 10-21	95.19	S
	CENCY	<i>Centaurea cyanus</i>	123-167 DA-A	BBCH 10-20	51.70	T
	GALAP	<i>Galium aparine</i>	132-167 DA-A	BBCH 10-23	86.99	S
	PAPRH	<i>Papver rhoeas</i>	132-156 DA-A	BBCH 10-25	69.26	MT
	STEME	<i>Stellaria media</i>	133-160 DA-A	BBCH 10-20	99.83	S
	GERPU	<i>Geranium pusillum</i>	123-167 DA-A	BBCH 10-20	71.07	MS
	MATIN	<i>Tripleurospermum mar. inodorum</i>	123-156 DA-A	BBCH 10-20	95.05	S
	VERHE	<i>Veronica hederifolia</i>	156-167 DA-A	BBCH 10-14	100.00	S

On the basis of submitted research, it is possible to state that CHR/H/FDF 574 SC used at dose controlled:

Dose CHR/H/FDF 574 SC 0.3 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Capsella bursa-pastoris* (CAPBP), *Veronica hederifolia* (VERHE), *Viola arvensis* (VIOAR), *Geranium pusillum* (GERPU),

Moderately Susceptible: *Apera spica-venti* (APESV), *Centaurea cyanus* (CENCY), *Galium aparine* (GALAP), *Papver rhoeas* (PAPRH),

Dose CHR/H/FDF 574 SC 0.4 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Papver rhoeas* (PAPRH), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Centaurea cyanus* (CENCY), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

Dose CHR/H/FDF 574 SC 0.5 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Papver rhoeas* (PAPRH), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Centaurea cyanus* (CENCY), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

The following table shows the average sensitivity of weeds in winter triticales:

Product code (L, kg/ha)	EPPO code	Scientific name	DA-A	Pest stage	Average	Efficacy
CHR/H/FDF 574 SC 0.3 L/ha	ANTAR	<i>Anthemis arvensis</i>	136-164 DA-A	BBCH 11-19	88.35	S
	APESV	<i>Apera spica-venti</i>	133-165 DA-A	BBCH 10-21	84.24	MS
	VIOAR	<i>Viola arvensis</i>	133-165 DA-A	BBCH 10-21	94.39	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	140-164 DA-A	BBCH 11-21	84.40	MS
	CAPBP	<i>Capsella bursa-pastoris</i>	133-165 DA-A	BBCH 10-21	89.38	S
	CENCY	<i>Centaurea cyanus</i>	112-165 DA-A	BBCH 10-21	69.40	MT
	GALAP	<i>Galium aparine</i>	140-164 DA-A	BBCH 10-21	76.95	MS
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 11-21	70.45	MS
	STEME	<i>Stellaria media</i>	112-164 DA-A	BBCH 11-21	85.20	S
	GERPU	<i>Geranium pusillum</i>	133-165 DA-A	BBCH 11-21	84.82	MS
	MATIN	<i>Tripleurospermum mar.</i>	112-165 DA-A	BBCH 10-21	78.06	MS

		<i>inodorum</i>				
	VERHE	<i>Veronica hederifolia</i>	133-154 DA-A	BBCH 11-16	97.33	S
CHR/H/FD F 547 SC 0.4 L/ha	ANTAR	<i>Anthemis arvensis</i>	136-164 DA-A	BBCH 11-19	94.17	S
	APESV	<i>Apera spica-venti</i>	133-165 DA-A	BBCH 10-21	93.79	S
	VIOAR	<i>Viola arvensis</i>	133-165 DA-A	BBCH 10-21	97.51	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	140-164 DA-A	BBCH 11-21	91.68	S
	CAPBP	<i>Capsella bursa-pastoris</i>	133-165 DA-A	BBCH 10-21	97.92	S
	CENCY	<i>Centaurea cyanus</i>	112-165 DA-A	BBCH 10-21	77.90	MS
	GALAP	<i>Galium aparine</i>	140-164 DA-A	BBCH 10-21	89.02	S
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 11-21	80.50	MS
	STEME	<i>Stellaria media</i>	112-164 DA-A	BBCH 11-21	89.30	S
	GERPU	<i>Geranium pusillum</i>	133-165 DA-A	BBCH 11-21	93.50	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-165 DA-A	BBCH 10-21	84.47	MS
	VERHE	<i>Veronica hederifolia</i>	133-154 DA-A	BBCH 11-16	99.17	S
CHR/H/FD F 547 SC 0.5 L/ha	ANTAR	<i>Anthemis arvensis</i>	136-164 DA-A	BBCH 11-19	98.15	S
	APESV	<i>Apera spica-venti</i>	133-165 DA-A	BBCH 10-21	97.21	S
	VIOAR	<i>Viola arvensis</i>	133-165 DA-A	BBCH 10-21	98.13	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	140-164 DA-A	BBCH 11-21	94.60	S
	CAPBP	<i>Capsella bursa-pastoris</i>	133-165 DA-A	BBCH 10-21	99.60	S
	CENCY	<i>Centaurea cyanus</i>	112-165 DA-A	BBCH 10-21	83.05	MS
	GALAP	<i>Galium aparine</i>	140-164 DA-A	BBCH 10-21	93.45	S
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 11-21	86.20	S
	STEME	<i>Stellaria media</i>	112-164 DA-A	BBCH 11-21	89.83	S
	GERPU	<i>Geranium pusillum</i>	133-165 DA-A	BBCH 11-21	96.55	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-165 DA-A	BBCH 10-21	88.06	S
	VERHE	<i>Veronica hederifolia</i>	133-154 DA-A	BBCH 11-16	99.10	S
Bizon 118,75 SC 1.0 L/ha	ANTAR	<i>Anthemis arvensis</i>	136-164 DA-A	BBCH 11-19	91.88	S
	APESV	<i>Apera spica-venti</i>	133-165 DA-A	BBCH 10-21	82.17	MS
	VIOAR	<i>Viola arvensis</i>	133-165 DA-A	BBCH 10-21	96.11	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	140-164 DA-A	BBCH 11-21	86.88	S
	CAPBP	<i>Capsella bursa-pastoris</i>	133-165 DA-A	BBCH 10-21	95.63	S
	CENCY	<i>Centaurea cyanus</i>	112-165 DA-A	BBCH 10-21	78.47	MS
	GALAP	<i>Galium aparine</i>	140-164 DA-A	BBCH 10-21	86.08	S
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 11-21	76.62	MS
	STEME	<i>Stellaria media</i>	112-164 DA-A	BBCH 11-21	86.80	S
	GERPU	<i>Geranium pusillum</i>	133-165 DA-A	BBCH 11-21	94.47	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-165 DA-A	BBCH 10-21	86.79	S
	VERHE	<i>Veronica hederifolia</i>	133-154 DA-A	BBCH 11-16	98.43	S
Komplet 560 SC 0.5 L/ha	ANTAR	<i>Anthemis arvensis</i>	136-164 DA-A	BBCH 11-19	88.98	S
	APESV	<i>Apera spica-venti</i>	133-165 DA-A	BBCH 10-21	94.78	S
	VIOAR	<i>Viola arvensis</i>	133-165 DA-A	BBCH 10-21	96.88	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	140-164 DA-A	BBCH 11-21	79.32	MS
	CAPBP	<i>Capsella bursa-pastoris</i>	133-165 DA-A	BBCH 10-21	93.77	S
	CENCY	<i>Centaurea cyanus</i>	112-165 DA-A	BBCH 10-21	57.12	T
	GALAP	<i>Galium aparine</i>	140-164 DA-A	BBCH 10-21	86.07	S
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 11-21	66.07	MT
	STEME	<i>Stellaria media</i>	112-164 DA-A	BBCH 11-21	88.76	S
	GERPU	<i>Geranium pusillum</i>	133-165 DA-A	BBCH 11-21	74.07	MS
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-165 DA-A	BBCH 10-21	77.19	MS
	VERHE	<i>Veronica hederifolia</i>	133-154 DA-A	BBCH 11-16	98.43	S

	VERHE	Veronica hederifolia	133-154 DA-A	BBCH 11-16	98.60	S
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On the basis of submitted research, it is possible to state that CHR/H/FDF 574 SC used at dose controlled:

Dose CHR/H/FDF 574 SC 0.3 L/ha

Susceptible: *Anthemis arvensis* (ANTAR), *Capsella bursa-pastoris* (CAPBP), *Veronica hederifolia* (VERHE), *Viola arvensis* (VIOAR), *Stellaria media* (STEME),

Moderately Susceptible: *Apera spica-venti* (APESV), *Galium aparine* (GALAP), *Papver rhoeas* (PAPRH), *Geranium pusillum* (GERPU), *Tripleurospermum mar. inodorum* (MATIN), *Brassica napus* (self-sown plant) (BRSNW),

Moderately Tolerant: *Centaurea cyanus* (CENCY)

Dose CHR/H/FDF 574 SC 0.4 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

Moderately Susceptible: *Papver rhoeas* (PAPRH), *Centaurea cyanus* (CENCY), *Tripleurospermum mar. inodorum* (MATIN),

Dose CHR/H/FDF 574 SC 0.5 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Papver rhoeas* (PAPRH), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

Moderately Susceptible: *Centaurea cyanus* (CENCY),

The following table shows the average sensitivity of weeds in winter rye:

Product code (L, kg/ha)	EPPO code	Scientific name	DA-A	Pest stage	Average	Efficacy
CHR/H/FDF 547 SC 0.3 L/ha	ANTAR	<i>Anthemis arvensis</i>	122-164 DA-A	BBCH 11-19	87.81	S
	APESV	<i>Apera spica-venti</i>	122-168 DA-A	BBCH 10-21	86.63	S
	VIOAR	<i>Viola arvensis</i>	112-164 DA-A	BBCH 10-16	82.51	MS
	BRSNW	<i>Brassica napus</i> (self-sown plant)	122-162 DA-A	BBCH 10-14	85.43	S
	CAPBP	<i>Capsella bursa-pastoris</i>	122-164 DA-A	BBCH 10-21	82.32	MS
	CENCY	<i>Centaurea cyanus</i>	112-164 DA-A	BBCH 11-20	69.10	MT
	GALAP	<i>Galium aparine</i>	122-164 DA-A	BBCH 10-16	79.82	MS
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 10-15	70.88	MS
	STEME	<i>Stellaria media</i>	122-160 DA-A	BBCH 10-21	92.02	S
	GERPU	<i>Geranium pusillum</i>	148-164 DA-A	BBCH 10-21	77.32	MS
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-160 DA-A	BBCH 11-19	74.40	MS
CHR/H/FDF 547 SC 0.4 L/ha	VERHE	<i>Veronica hederifolia</i>	122-148 DA-A	BBCH 00-21	89.60	S
	ANTAR	<i>Anthemis arvensis</i>	122-164 DA-A	BBCH 11-19	94.00	S
	APESV	<i>Apera spica-venti</i>	122-168 DA-A	BBCH 10-21	94.27	S
	VIOAR	<i>Viola arvensis</i>	112-164 DA-A	BBCH 10-16	86.50	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	122-162 DA-A	BBCH 10-14	93.97	S
	CAPBP	<i>Capsella bursa-pastoris</i>	122-164 DA-A	BBCH 10-21	95.63	S

	CENCY	<i>Centaurea cyanus</i>	112-164 DA-A	BBCH 11-20	78.70	MS
	GALAP	<i>Galium aparine</i>	122-164 DA-A	BBCH 10-16	87.15	S
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 10-15	80.77	MS
	STEME	<i>Stellaria media</i>	122-160 DA-A	BBCH 10-21	99.07	S
	GERPU	<i>Geranium pusillum</i>	148-164 DA-A	BBCH 10-21	87.75	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-160 DA-A	BBCH 11-19	86.25	S
	VERHE	<i>Veronica hederifolia</i>	122-148 DA-A	BBCH 00-21	95.10	S
CHR/H/FDF 574 SC 0.5 L/ha	ANTAR	<i>Anthemis arvensis</i>	122-164 DA-A	BBCH 11-19	98.44	S
	APESV	<i>Apera spica-venti</i>	122-168 DA-A	BBCH 10-21	97.28	S
	VIOAR	<i>Viola arvensis</i>	112-164 DA-A	BBCH 10-16	91.63	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	122-162 DA-A	BBCH 10-14	96.25	S
	CAPBP	<i>Capsella bursa-pastoris</i>	122-164 DA-A	BBCH 10-21	98.57	S
	CENCY	<i>Centaurea cyanus</i>	112-164 DA-A	BBCH 11-20	84.87	MS
	GALAP	<i>Galium aparine</i>	122-164 DA-A	BBCH 10-16	93.35	S
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 10-15	88.77	S
	STEME	<i>Stellaria media</i>	122-160 DA-A	BBCH 10-21	99.23	S
	GERPU	<i>Geranium pusillum</i>	148-164 DA-A	BBCH 10-21	91.27	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-160 DA-A	BBCH 11-19	93.37	S
	VERHE	<i>Veronica hederifolia</i>	122-148 DA-A	BBCH 00-21	97.83	S
	ANTAR	<i>Anthemis arvensis</i>	122-164 DA-A	BBCH 11-19	93.96	S
Komplet 560 SC 0.5 L/ha	APESV	<i>Apera spica-venti</i>	122-168 DA-A	BBCH 10-21	93.63	S
	VIOAR	<i>Viola arvensis</i>	112-164 DA-A	BBCH 10-16	90.30	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	122-162 DA-A	BBCH 10-14	75.92	MS
	CAPBP	<i>Capsella bursa-pastoris</i>	122-164 DA-A	BBCH 10-21	86.90	S
	CENCY	<i>Centaurea cyanus</i>	112-164 DA-A	BBCH 11-20	60.39	MT
	GALAP	<i>Galium aparine</i>	122-164 DA-A	BBCH 10-16	82.10	MS
	PAPRH	<i>Papver rhoeas</i>	112-164 DA-A	BBCH 10-15	64.82	MT
	STEME	<i>Stellaria media</i>	122-160 DA-A	BBCH 10-21	93.57	S
	GERPU	<i>Geranium pusillum</i>	148-164 DA-A	BBCH 10-21	67.95	MT
	MATIN	<i>Tripleurospermum mar. inodorum</i>	112-160 DA-A	BBCH 11-19	85.48	S
	VERHE	<i>Veronica hederifolia</i>	122-148 DA-A	BBCH 00-21	93.33	S

On the basis of submitted research, it is possible to state that CHR/H/FDF 574 SC used at dose controlled:

Dose CHR/H/FDF 574 SC 0.3 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Veronica hederifolia* (VERHE), *Apera spica-venti* (APESV)

Moderately Susceptible: *Viola arvensis* (VIOAR), *Capsella bursa-pastoris* (CAPBP), *Galium aparine* (GALAP), *Papver rhoeas* (PAPRH), *Geranium pusillum* (GERPU), *Tripleurospermum mar. inodorum* (MATIN)

Moderately Tolerant: *Centaurea cyanus* (CENCY)

Dose CHR/H/FDF 574 SC 0.4 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-*

pastoris (CAPBP), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

Moderately Susceptible: *Centaurea cyanus* (CENCY), *Papver rhoeas* (PAPRH),

Dose CHR/H/FDF 574 SC 0.5 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Papver rhoeas* (PAPRH), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV)

Moderately Susceptible: *Centaurea cyanus* (CENCY),

The following table shows the average sensitivity of weeds in winter barley:

Product code (L, kg/ha)	EPPO code	Scientific name	DA-A	Pest stage	Average	Efficacy
CHR/H/FDF 547 SC 0.3 L/ha	ANTAR	<i>Anthemis arvensis</i>	132-159 DA-A	BBCH 10-21	92.71	S
	APESV	<i>Apera spica-venti</i>	141-159 DA-A	BBCH 10-19	93.40	S
	VIOAR	<i>Viola arvensis</i>	141-159 DA-A	BBCH 10-18	87.49	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	130-159 DA-A	BBCH 10-18	96.19	S
	CAPBP	<i>Capsella bursa-pastoris</i>	130-159 DA-A	BBCH 10-21	96.05	S
	CENCY	<i>Centaurea cyanus</i>	132-159 DA-A	BBCH 11-20	74.23	MS
	GALAP	<i>Galium aparine</i>	130-159 DA-A	BBCH 10-16	84.33	MS
	PAPRH	<i>Papver rhoeas</i>	130-159 DA-A	BBCH 10-21	85.45	S
	STEME	<i>Stellaria media</i>	132-159 DA-A	BBCH 10-21	96.97	S
	GERPU	<i>Geranium pusillum</i>	132-159 DA-A	BBCH 10-22	83.78	MS
	MATIN	<i>Tripleurospermum mar. inodorum</i>	130-159 DA-A	BBCH 10-22	94.55	S
	VERHE	<i>Veronica hederifolia</i>	130-159 DA-A	BBCH 10-21	100.00	S
CHR/H/FDF 547 SC 0.4 L/ha	ANTAR	<i>Anthemis arvensis</i>	132-159 DA-A	BBCH 10-21	96.04	S
	APESV	<i>Apera spica-venti</i>	141-159 DA-A	BBCH 10-19	97.64	S
	VIOAR	<i>Viola arvensis</i>	141-159 DA-A	BBCH 10-18	92.80	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	130-159 DA-A	BBCH 10-18	99.69	S
	CAPBP	<i>Capsella bursa-pastoris</i>	130-159 DA-A	BBCH 10-21	99.58	S
	CENCY	<i>Centaurea cyanus</i>	132-159 DA-A	BBCH 11-20	82.18	MS
	GALAP	<i>Galium aparine</i>	130-159 DA-A	BBCH 10-16	90.83	S
	PAPRH	<i>Papver rhoeas</i>	130-159 DA-A	BBCH 10-21	93.07	S
	STEME	<i>Stellaria media</i>	132-159 DA-A	BBCH 10-21	99.64	S
	GERPU	<i>Geranium pusillum</i>	132-159 DA-A	BBCH 10-22	89.39	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	130-159 DA-A	BBCH 10-22	98.25	S
	VERHE	<i>Veronica hederifolia</i>	130-159 DA-A	BBCH 10-21	100.00	S
CHR/H/FDF 547 SC 0.5 L/ha	ANTAR	<i>Anthemis arvensis</i>	132-159 DA-A	BBCH 10-21	98.76	S
	APESV	<i>Apera spica-venti</i>	141-159 DA-A	BBCH 10-19	98.48	S
	VIOAR	<i>Viola arvensis</i>	141-159 DA-A	BBCH 10-18	96.37	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	130-159 DA-A	BBCH 10-18	99.85	S
	CAPBP	<i>Capsella bursa-pastoris</i>	130-159 DA-A	BBCH 10-21	99.80	S
	CENCY	<i>Centaurea cyanus</i>	132-159 DA-A	BBCH 11-20	91.98	S
	GALAP	<i>Galium aparine</i>	130-159 DA-A	BBCH 10-16	95.00	S
	PAPRH	<i>Papver rhoeas</i>	130-159 DA-A	BBCH 10-21	96.93	S
	STEME	<i>Stellaria media</i>	132-159 DA-A	BBCH 10-21	99.83	S
	GERPU	<i>Geranium pusillum</i>	132-159 DA-A	BBCH 10-22	92.93	S

Bizon 118,75 SC 1.0 L/ha	MATIN	<i>Tripleurospermum mar. inodorum</i>	130-159 DA-A	BBCH 10-22	98.88	S
	VERHE	<i>Veronica hederifolia</i>	130-159 DA-A	BBCH 10-21	100.00	S
	ANTAR	<i>Anthemis arvensis</i>	132-159 DA-A	BBCH 10-21	99.10	S
	APESV	<i>Apera spica-venti</i>	141-159 DA-A	BBCH 10-19	88.80	S
	VIOAR	<i>Viola arvensis</i>	141-159 DA-A	BBCH 10-18	90.20	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	130-159 DA-A	BBCH 10-18	99.70	S
	CAPBP	<i>Capsella bursa-pastoris</i>	130-159 DA-A	BBCH 10-21	99.80	S
	CENCY	<i>Centaurea cyanus</i>	132-159 DA-A	BBCH 11-20	93.27	S
	GALAP	<i>Galium aparine</i>	130-159 DA-A	BBCH 10-16	92.49	S
	PAPRH	<i>Papver rhoeas</i>	130-159 DA-A	BBCH 10-21	91.23	S
	STEME	<i>Stellaria media</i>	132-159 DA-A	BBCH 10-21	99.64	S
	GERPU	<i>Geranium pusillum</i>	132-159 DA-A	BBCH 10-22	92.88	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	130-159 DA-A	BBCH 10-22	99.30	S
	VERHE	<i>Veronica hederifolia</i>	130-159 DA-A	BBCH 10-21	100.00	S
Komplet 560 SC 0.5 L/ha	ANTAR	<i>Anthemis arvensis</i>	132-159 DA-A	BBCH 10-21	95.05	S
	APESV	<i>Apera spica-venti</i>	141-159 DA-A	BBCH 10-19	96.43	S
	VIOAR	<i>Viola arvensis</i>	141-159 DA-A	BBCH 10-18	91.04	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	130-159 DA-A	BBCH 10-18	90.51	S
	CAPBP	<i>Capsella bursa-pastoris</i>	130-159 DA-A	BBCH 10-21	99.58	S
	CENCY	<i>Centaurea cyanus</i>	132-159 DA-A	BBCH 11-20	60.88	MT
	GALAP	<i>Galium aparine</i>	130-159 DA-A	BBCH 10-16	92.61	S
	PAPRH	<i>Papver rhoeas</i>	130-159 DA-A	BBCH 10-21	64.60	MT
	STEME	<i>Stellaria media</i>	132-159 DA-A	BBCH 10-21	99.64	S
	GERPU	<i>Geranium pusillum</i>	132-159 DA-A	BBCH 10-22	79.83	MS
	MATIN	<i>Tripleurospermum mar. inodorum</i>	130-159 DA-A	BBCH 10-22	82.77	MS
	VERHE	<i>Veronica hederifolia</i>	130-159 DA-A	BBCH 10-21	100.00	S

On the basis of submitted research, it is possible to state that CHR/H/FDF 574 SC used at dose controlled:

Dose CHR/H/FDF 574 SC 0.3 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Capsella bursa-pastoris* (CAPBP), *Veronica hederifolia* (VERHE), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV), *Papver rhoeas* (PAPRH), Moderately Susceptible: *Centaurea cyanus* (CENCY), *Galium aparine* (GALAP), *Geranium pusillum* (GERPU),

Dose CHR/H/FDF 574 SC 0.4 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Papver rhoeas* (PAPRH), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV), Moderately Susceptible: *Centaurea cyanus* (CENCY),

Dose CHR/H/FDF 574 SC 0.5 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Papver rhoeas* (PAPRH), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Centaurea cyanus* (CENCY), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

The following table shows the average sensitivity of weeds in all crops:

Product code (L, kg/ha)	EPPO code	Scientific name	winter wheat		winter triticale		winter rye		winter barley		all crops	
			Average	Efficacy	Average	Efficacy	Average	Efficacy	Average	Efficacy	Average	Efficacy
CHR/H/FD F 547 SC 0.3 L/ha	ANTAR	<i>Anthemis arvensis</i>	93.80	S	88.35	S	87.81	S	92.71	S	90.55	S
	APESV	<i>Apera spica-venti</i>	82.89	MS	84.24	MS	86.63	S	93.40	S	86.71	S
	VIOAR	<i>Viola arvensis</i>	85.55	S	94.39	S	82.51	MS	87.49	S	87.65	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	88.76	S	84.40	MS	85.43	S	96.19	S	89.24	S
	CAPBP	<i>Capsella bursa-pastoris</i>	88.04	S	89.38	S	82.32	MS	96.05	S	88.91	S
	CENCY	<i>Centaurea cyanus</i>	82.44	MS	69.40	MT	69.10	MT	74.23	MS	73.94	MS
	GALAP	<i>Galium aparine</i>	76.71	MS	76.95	MS	79.82	MS	84.33	MS	79.43	MS
	PAPRH	<i>Papver rhoeas</i>	77.95	MS	70.45	MS	70.88	MS	85.45	S	76.32	MS
	STEME	<i>Stellaria media</i>	95.43	S	85.20	S	92.02	S	96.97	S	92.42	S
	GERPU	<i>Geranium pusillum</i>	87.63	S	84.82	MS	77.32	MS	83.78	MS	83.39	MS
	MATIN	<i>Tripleurospermum mar. inodorum</i>	93.00	S	78.06	MS	74.40	MS	94.55	S	84.72	MS
CHR/H/FD F 547 SC 0.4 L/ha	VERHE	<i>Veronica hederifolia</i>	99.33	S	97.33	S	89.60	S	100.00	S	96.57	S
	ANTAR	<i>Anthemis arvensis</i>	98.80	S	94.17	S	94.00	S	96.04	S	95.68	S
	APESV	<i>Apera spica-venti</i>	90.41	S	93.79	S	94.27	S	97.64	S	94.03	S
	VIOAR	<i>Viola arvensis</i>	91.61	S	97.51	S	86.50	S	92.80	S	92.27	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	94.00	S	91.68	S	93.97	S	99.69	S	95.12	S
	CAPBP	<i>Capsella bursa-pastoris</i>	93.21	S	97.92	S	95.63	S	99.58	S	96.45	S
	CENCY	<i>Centaurea cyanus</i>	90.99	S	77.90	MS	78.70	MS	82.18	MS	82.63	MS
	GALAP	<i>Galium aparine</i>	85.73	S	89.02	S	87.15	S	90.83	S	88.10	S
	PAPRH	<i>Papver rhoeas</i>	86.81	S	80.50	MS	80.77	MS	93.07	S	85.40	S
	STEME	<i>Stellaria media</i>	99.64	S	89.30	S	99.07	S	99.64	S	96.83	S
	GERPU	<i>Geranium pusillum</i>	91.85	S	93.50	S	87.75	S	89.39	S	90.62	S
	MATIN	<i>Tripleurospermum mar. inodorum</i>	98.07	S	84.47	MS	86.25	S	98.25	S	91.48	S
	VERHE	<i>Veronica hederifolia</i>	100.00	S	99.17	S	95.10	S	100.00	S	98.57	S
CHR/H/FD F 547 SC 0.5 L/ha	ANTAR	<i>Anthemis arvensis</i>	99.63	S	98.15	S	98.44	S	98.76	S	98.73	S
	APESV	<i>Apera spica-venti</i>	93.18	S	97.21	S	97.28	S	98.48	S	96.58	S
	VIOAR	<i>Viola arvensis</i>	94.20	S	98.13	S	91.63	S	96.37	S	95.15	S
	BRSNW	<i>Brassica napus</i> (self-sown plant)	96.29	S	94.60	S	96.25	S	99.85	S	96.94	S
	CAPBP	<i>Capsella bursa-pastoris</i>	94.66	S	99.60	S	98.57	S	99.80	S	98.02	S
	CENCY	<i>Centaurea cyanus</i>	95.33	S	83.05	MS	84.87	MS	91.98	S	88.91	S
	GALAP	<i>Galium aparine</i>	90.23	S	93.45	S	93.35	S	95.00	S	92.87	S

	PAPRH	Papver rhoeas	91.83	S	86.20	S	88.77	S	96.93	S	91.00	S
	STEME	Stellaria media	99.83	S	89.83	S	99.23	S	99.83	S	97.10	S
	GERPU	Geranium pusillum	94.10	S	96.55	S	91.27	S	92.93	S	93.71	S
	MATIN	Tripleurospermum mar. inodorum	98.97	S	88.06	S	93.37	S	98.88	S	94.55	S
	VERHE	Veronica hederifolia	100.00	S	99.10	S	97.83	S	100.00	S	99.23	S
Bizon 118,75 SC 1.0 L/ha	ANTAR	Anthemis arvensis	99.63	S	91.88	S	-	-	99.10	S	96.87	S
	APESV	Apera spica-venti	87.68	S	82.17	MS	-	-	88.80	S	86.05	S
	VIOAR	Viola arvensis	93.81	S	96.11	S	-	-	90.20	S	93.51	S
	BRSNW	Brassica napus (self-sown plant)	96.91	S	86.88	S	-	-	99.70	S	95.19	S
	CAPBP	Capsella bursa-pastoris	95.01	S	95.63	S	-	-	99.80	S	96.72	S
	CENCY	Centaurea cyanus	93.59	S	78.47	MS	-	-	93.27	S	88.71	S
	GALAP	Galium aparine	89.43	S	86.08	S	-	-	92.49	S	89.49	S
	PAPRH	Papver rhoeas	88.83	S	76.62	MS	-	-	91.23	S	85.89	S
	STEME	Stellaria media	99.83	S	86.80	S	-	-	99.64	S	95.42	S
	GERPU	Geranium pusillum	93.68	S	94.47	S	-	-	92.88	S	93.68	S
	MATIN	Tripleurospermum mar. inodorum	99.80	S	86.79	S	-	-	99.30	S	94.85	S
	VERHE	Veronica hederifolia	100.00	S	98.43	S	-	-	100.00	S	99.48	S
Komplet 560 SC 0.5 L/ha	ANTAR	Anthemis arvensis	96.50	S	88.98	S	93.96	S	95.05	S	93.64	S
	APESV	Apera spica-venti	93.08	S	94.78	S	93.63	S	96.43	S	94.46	S
	VIOAR	Viola arvensis	93.74	S	96.88	S	90.30	S	91.04	S	93.14	S
	BRSNW	Brassica napus (self-sown plant)	90.45	S	79.32	MS	75.92	MS	90.51	S	84.97	MS
	CAPBP	Capsella bursa-pastoris	95.19	S	93.77	S	86.90	S	99.58	S	93.91	S
	CENCY	Centaurea cyanus	51.70	T	57.12	T	60.39	MT	60.88	MT	57.41	T
	GALAP	Galium aparine	86.99	S	86.07	S	82.10	MS	92.61	S	87.16	S
	PAPRH	Papver rhoeas	69.26	MT	66.07	MT	64.82	MT	64.60	MT	66.42	MT
	STEME	Stellaria media	99.83	S	88.76	S	93.57	S	99.64	S	95.52	S
	GERPU	Geranium pusillum	71.07	MS	74.07	MS	67.95	MT	79.83	MS	73.23	MS
	MATIN	Tripleurospermum mar. inodorum	95.05	S	77.19	MS	85.48	S	82.77	MS	84.80	S
	VERHE	Veronica hederifolia	100.00	S	98.60	S	93.33	S	100.00	S	97.98	S

On the basis of submitted research, it is possible to state that CHR/H/FDF 574 SC used at dose controlled:

Dose CHR/H/FDF 574 SC 0.3 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Capsella bursa-pastoris* (CAPBP), *Veronica hederifolia* (VERHE), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

Moderately Susceptible: *Centaurea cyanus* (CENCY), *Galium aparine* (GALAP), *Papaver rhoeas* (PAPRH), *Geranium pusillum* (GERPU), *Tripleurospermum mar. inodorum* (MATIN),

Dose CHR/H/FDF 574 SC 0.4 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Papaver rhoeas* (PAPRH), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV),

Moderately Susceptible: *Centaurea cyanus* (CENCY),

Dose CHR/H/FDF 574 SC 0.5 L/ha

Susceptible: *Brassica napus* (self-sown plant) (BRSNW), *Tripleurospermum mar. inodorum* (MATIN), *Stellaria media* (STEME), *Anthemis arvensis* (ANTAR), *Galium aparine* (GALAP), *Capsella bursa-pastoris* (CAPBP), *Papaver rhoeas* (PAPRH), *Veronica hederifolia* (VERHE), *Geranium pusillum* (GERPU), *Centaurea cyanus* (CENCY), *Viola arvensis* (VIOAR), *Apera spica-venti* (APESV)

Herbicide CHR/H/FDF 574 SC has demonstrated good crop tolerance to winter wheat, winter triticale, winter rye and winter barley. Therefore concluded that CHR/H/FDF 574 SC is safe usage at proposed rate and this support the label claim for the use in winter wheat, winter triticale, winter rye and winter barley.

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

According to the above, the plant protection product CHR/H/FDF 574 SC can be approved to the market and use in Poland according to proposed range of use – GAP

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

Poland

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

Recommended dose at:

CHR/H/FDF 574 SC 0.4 L/ha

The product CHR/H/FDF 574 SC should be use once per season at autumn post – emergence. To avoid resistance, products contain active substance with the same group shouldn't be used year after year on the same field.

CHR/H/FDF 574 SC is to be applied in autumn:

BBCH 11-25 in winter wheat, winter triticale, winter rye and winter barley.

Recommended volume of water 200-400 L/ha (winter wheat, winter triticale, winter rye, winter barley)

Recommended medium droplet spraying

Use of CHR/H/FDF 574 SC according to the proposed GAP does not represent a hazard to rotational crops and does not justify a specific labelling. CHR/H/FDF 574 SC 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)

In the field study, permanent symptoms of phytotoxicity to cultivated plants were not observed. Therefore, according to EPPO PP 1/207 no separate studies have been carried out concerning the influence of product CHR/H/FDF 574 SC on succeeding plants. The owner of the product CHR/H/FDF 574 SC and of its registration documentation is referring to available sources in literature treating on herbicide flufenacet, diflufenican and florasulam.

Flufenacet

The results of the confined rotational crop studies demonstrate that the metabolic pattern after application of FOE 5043 (flufenacet) is similar in target crops and crops grown in rotation. No active ingredient was found and all metabolites are derived by the same metabolic pathway via glutathione and homogluthathione, which is common to all plant species. Although several additional compounds were only observed in rotational crops, they are considered as products of further metabolism of known metabolites. Most of them should be detectable with the total residue method developed for plant residue analysis and/or are considered of being of no relevance because they are not expected to appear in significant amounts.

After normal agricultural use of FOE 5043 no significant residues are to be expected in leafy or root crops grown in rotation with the target crops, even at rates which are considerably higher than the highest recommended field application in Europe. According to the above mentioned studies the only exception would be wheat (which at the same time is also a target crop). However, a comparison with the results from field trials in cereals and maize at recommended application rates of 240 ai/ha and 600 g a.i./ha reveals that no residues were detected. Therefore, it is concluded, that the high residue levels in the confined rotational crop study are a consequence of the experimental design and do not reflect normal practice relevant conditions. Consequently, a field rotational crop study is considered as not being necessary

Diflufenican

On characterisation of the extractable radioactivity three components were identified in the crops at harvest as parent diflufenican and its metabolites 2-(3-trifluoromethylphenoxy)-nicotinamide and 2-(3-trifluoromethylphenoxy)-nicotinic acid. For cabbage the three components accounted for up to 47% of the total radioactivity in the crop at harvest. One other unknown metabolite was present at a level of less than 0.01 mg/kg. The remaining unextractable radioactivity in the crop accounted for less than 0.01 mg/kg. For sugar beet tops the three components accounted for up to 69% of the total radioactivity in the crop at harvest. One other unknown metabolite was present at a level of less than 0.01 mg/kg. The remaining unextractable radioactivity in the crop accounted for less than 0.01 mg/kg. For sugar beet root the three components accounted for up to 88% of the total radioactivity in the crop at harvest. Two other unknown metabolites were present at levels of less than 0.01 mg/kg. The remaining unextractable radioactivity in the crop accounted for less than 0.01 mg/kg. For wheat grain the three components accounted for up to 5% of the total radioactivity in the crop at harvest, with the majority of the radioactivity (up to 87% [0.03 mg/kg] being associated with polar material resulting from the fragmentation of the compound in the plant or in the soil prior to uptake). The remaining unextractable radioactivity in the crop accounted for 0.01 mg/kg. For wheat straw the three components accounted for up to 13% of the total radioactivity in the crop at harvest, with the majority of the radioactivity (up to 60% [0.08 mg/kg] being associated with polar material resulting from the fragmentation of the compound in the plant or soil prior to uptake). One other unknown metabolite was present at a level of less than 0.01 mg/kg. The remaining unextractable radioactivity in the crop accounted for less than 0.07 mg/kg and was probably associated with the fragmentation of the compound and the natural incorporation of these fragments into the plant tissue.

Florasulam

According to the *EFSA Journal* 2015; 13(1):3984 residues of parent florasulam in succeeding crops are not sufficient to reach measurable levels in monitoring (<0.01 mg/kg) and no specific plant-back restrictions related to florasulam are required.

For more information please refer to section B7 in Core dossier.

Waiting period before planting succeeding crops		Overall waiting period proposed by zRMS for CHR/H/FDF 574 SC
Crop group	Led by flufenacet, diflufenican, florasulam	
Leafy vegetables	NR	Non specific plant back restriction related to CHR/H/FDF 574 SC are required.
Root vegetables	NR	
Oilseed	NR	
Cereals	NR	

According to EPPO guidance PP 1/207 worst case NOER from Seedling Emergence study (A. Gierbuszewska, Study code: G-82-20):

Table 3.5-1: Recalculated NOER-value for test product

Crop	Worst case NOER from seedling emergence study [ml/ha]	Recalculated NOER to g/ha using product's density = 1.2077 g/ml	Recalculated NOER from g/ha to mg/kg soil using factor 750 (5 cm depth and 1.5 g/cm soil's density)
<i>Helianthus annuus</i>	2	2.42	0.0032
<i>Linum usitatissimum</i>	64	77.29	0.1031
<i>Pisum sativum</i>	10	12.08	0.0161
<i>Daucus carota</i>	26	31.40	0.0419
<i>Allium cepa</i>	4	4.83	0.0064
<i>Zea mays</i>	26	31.40	0.0419

Predicted Environmental Concentrations (PEC) for the individual actives are performed with equations (1) and (2) (cfr. EPPO guidance PP 1/207(2)):

$$(1) \text{PEC}_{\text{ini}} = \frac{A \cdot (1 - f_{\text{int}})}{100 \cdot d \cdot b}$$

$$(2) \text{PEC}_{\text{act}}(t) = \text{PEC}_{\text{ini}} \cdot e^{-k \cdot t} = \text{PEC}_{\text{ini}} \cdot e^{-t \cdot \ln 2 / \text{DT50}}$$

Whereby A = application rate (g active/ha), f_{int} = fraction intercepted by crop cover (25% for winter cereals at BBCH 11-19), d = depth of soil layer (cm) and bd = bulk density of soil.
 DT50 = 248.4 days – used diflufenican's DT50 as worst case scenario for product's DT50

Table 3.5-1: PEC-values and TER-calculation of test product (active substance) based on NOER-values.

Succeeding crop(1)	Days after application(2)	NOER mg/kg soil (3)	PEC(4)				TER(5)			
			mg/kg soil e.g. 5 cm	mg/kg soil e.g. 10 cm	mg/kg soil e.g. 20 cm	mg/kg soil e.g. 30 cm	NOER/P EC e.g. 5 cm	NOER/P EC e.g. 10 cm	NOER/P EC e.g. 20 cm	NOER/P EC e.g. 30 cm
<i>Helianthus annuus</i>	1	0.0032	0.4831	0.2415	0.1208	0.0805	0.0067	0.0133	0.0267	0.0400
	1150		0.0195	0.0098	0.0049	0.0033	0.1648	0.3296	0.6593	0.9889
	1160		0.0190	0.0095	0.0048	0.0032	0.1695	0.3390	0.6779	1.0169
	1290		0.0132	0.0066	0.0033	0.0022	0.2436	0.4871	0.9742	-
	1300		0.0129	0.0064	0.0032	0.0021	0.2505	0.5009	1.0018	-
	1540		0.0066	0.0033	0.0016	0.0011	0.4892	0.9783	-	-
	1550		0.0064	0.0032	0.0016	0.0011	0.5030	1.0060	-	-
	1790		0.0033	0.0016	0.0008	0.0005	0.9824	-	-	-
	1800		0.0032	0.0016	0.0008	0.0005	1.0102	-	-	-
<i>Linum usitatissimum</i>	1	0.1031	0.4831	0.2415	0.1208	0.0805	0.2133	0.4267	0.8533	1.2800
	50		0.4202	0.2101	0.1050	0.0700	0.2453	0.4905	0.9810	-
	60		0.4086	0.2043	0.1022	0.0681	0.2522	0.5044	1.0088	-
	300		0.2092	0.1046	0.0523	0.0349	0.3242	0.9852	-	-
	310		0.2035	0.1017	0.0509	0.0339	0.3333	1.0130	-	-
	550		0.1042	0.0521	0.0260	0.0174	0.9893	-	-	-
	560		0.1013	0.0507	0.0253	0.0169	1.0173	-	-	-
<i>Pisum sativum</i>	1	0.0161	0.4831	0.2415	0.1208	0.0805	0.0333	0.0667	0.1333	0.2000
	570		0.0985	0.0493	0.0246	0.0164	0.1634	0.3269	0.6538	0.9807
	580		0.0985	0.0479	0.0240	0.0160	0.1681	0.3361	0.6723	1.0084
	720		0.0648	0.0324	0.0162	0.0108	0.2484	0.4967	0.9934	-
	730		0.0631	0.0315	0.0158	0.0105	0.2554	0.5108	1.0215	-
	970		0.0323	0.0161	0.0081	0.0054	0.4988	0.9976	-	-
	980		0.0314	0.0157	0.0078	0.0052	0.5129	1.0258	-	-
	1210		0.0165	0.0083	0.0041	0.0028	0.9742	-	-	-
	1220		0.0161	0.0080	0.0040	0.0027	1.0018	-	-	-
<i>Daucus carota</i>	1	0.0419	0.4831	0.2415	0.1208	0.0805	0.0867	0.1733	0.3467	0.5200
	230		0.2543	0.1272	0.0636	0.0424	0.1646	0.3292	0.6585	0.9877
	240		0.2473	0.1237	0.0618	0.0412	0.1693	0.3385	0.6771	1.0156
	370		0.1721	0.0861	0.0430	0.0287	0.2433	0.4865	0.9730	-
	380		0.1674	0.0837	0.0418	0.0279	0.2501	0.5003	1.0006	-
	620		0.0857	0.0428	0.0214	0.0143	0.4886	0.9771	-	-
	630		0.0833	0.0417	0.0208	0.0139	0.5024	1.0048	-	-
	870		0.0427	0.0213	0.0107	0.0071	0.9812	-	-	-

Succeeding crop(1)	Days after application(2)	NOER mg/kg soil (3)	PEC(4)				TER(5)			
			mg/kg soil e.g. 5 cm	mg/kg soil e.g. 10 cm	mg/kg soil e.g. 20 cm	mg/kg soil e.g. 30 cm	NOER/P EC e.g. 5 cm	NOER/P EC e.g. 10 cm	NOER/P EC e.g. 20 cm	NOER/P EC e.g. 30 cm
	880		0.0415	0.0207	0.0104	0.0069	1.0090	-	-	-
<i>Allium cepa</i>	1	0.0064	0.4831	0.2415	0.1208	0.0805	0.0133	0.0267	0.0533	0.0800
	900		0.0392	0.0196	0.0098	0.0065	0.1641	0.3283	0.6565	0.9848
	910		0.0382	0.0191	0.0095	0.0064	0.1688	0.3376	0.6751	1.0126
	1050		0.0258	0.0129	0.0065	0.0043	0.2494	0.4988	0.9976	-
	1060		0.0251	0.0126	0.0063	0.0042	0.2565	0.5129	1.0258	-
	1290		0.0132	0.0066	0.0033	0.0022	0.4871	0.9742	-	-
	1300		0.0129	0.0064	0.0032	0.0021	0.5009	1.0018	-	-
	1540		0.0066	0.0033	0.0016	0.0011	0.9783	-	-	-
	1550		0.0064	0.0032	0.0016	0.0011	1.0060	-	-	-
<i>Zea mays</i>	1	0.0419	0.4831	0.2415	0.1208	0.0805	0.0867	0.1733	0.3467	0.5200
	230		0.2543	0.1272	0.0636	0.0424	0.1646	0.3292	0.6585	0.9877
	240		0.2473	0.1237	0.0618	0.0412	0.1693	0.3385	0.6771	1.0156
	370		0.1721	0.0861	0.0430	0.0287	0.2433	0.4865	0.9730	-
	380		0.1674	0.0837	0.0418	0.0279	0.2501	0.5003	1.0006	-
	620		0.0857	0.0428	0.0214	0.0143	0.4886	0.9771	-	-
	630		0.0833	0.0417	0.0208	0.0139	0.5024	1.0048	-	-
	870		0.0427	0.0213	0.0107	0.0071	0.9812	-	-	-
	880		0.0415	0.0207	0.0104	0.0069	1.0090	-	-	-

- (1) possible following crops in a regular crop rotation
- (2) adequate value for following crop in a regular crop rotation
- (3) NOER-values of succeeding crops
- (4) PEC (soil depth e.g. 5/20 cm)
- (5) TER (soil depth e.g. 5/20 cm)

The TER values of CHR/H/FDF 574 SC do exceed a trigger value 1 , then no further trials are required when:

	Date of sowing	Crop rotation
		DT50= 248.5
Crop		
<i>Helianthus annuus</i>	April	Normal crop rotation every third season after plowing on 30 cm depth before sowing
<i>Linum usitatissimum</i>	April	Normal crop rotation after plowing on 10 cm depth before sowing
<i>Pisum sativum</i>	April	Normal crop rotation every second season after plowing on 30 cm depth before sowing
<i>Daucus carota</i>	April	Normal crop rotation after plowing on 20 cm depth before sowing
<i>Allium cepa</i>	April	Normal crop rotation every third season after plowing on 30 cm depth before sowing
<i>Zea mays</i>	April	Normal crop rotation after plowing on 20 cm depth before sowing

Labeling in Succeeding crop sections:

- 10 cm before sowing, you can sow oilseeds (flax, etc.)
- without plowing : winter wheat and winter triticale

After two growing seasons from the moment of applying the CHR/H/FDF 574 SC agent, after plowing 30 cm, before sowing, you can sow legumes (peas, etc.)

After three growing seasons from the moment of applying the CHR/H/FDF 574 SC agent, after plowing 30 cm, before sowing, you can sow sunflower, bulbs (onions, etc.)

In case of crop failure as a succeeding crop you can sow flax (with plowing 20 cm before sowing)

Study Comments: 3.5.1 dRR point: 3.5.1	Studies are acceptable
<p>Only cereal crops (winter wheat, winter triticale, winter rye, winter barley) should be sown in the autumn following harvest of a winter cereals on which CHR/H/FDF 574 SC was applied in the autumn.</p> <p>Following harvest of a winter wheat, winter triticale, winter rye, winter barley in which CHR/H/FDF was applied in the autumn, in the spring flax can be sown after plowing 10 cm, maize and carrot can be sown after plowing 20 cm; after two growing seasons from the moment of applying the CHR/H/FDF 574 SC and after plowing 30 cm legumes (peas, etc.) can be sown; after three growing seasons from the moment of applying the CHR/H/FDF 574 SC and after plowing 30 cm sunflower and bulbs (onions, etc.) can be sown.</p> <p>In the event of crop failure for any reason of a winter cereals on which CHR/H/FDF 574 SC has been applied, only flax should be sown after 30 cm of plowing, as a replacement crop.</p>	

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

No specific studies were conducted to fill this data point.

No phytotoxic effects were observed in the commissioned trials. Tested herbicides did not influence on yield, degree of plant lodging and tillering, weight of 1000 grains regardless of herbicide dose) it is expected the product is safe for plants of adjacent crops.

CHR/H/FDF 574 SC effectively controlled dicotyledons plants therefore users must exercise caution to avoid drift or vapors which may cause discoloration and damage to non-target foliage.

According to A. Arendarczyk, Study code: G-81-20 and A. Gierbuszewska, Study code: G-82-20 please find results for seedling emergence and vegetative vigour below. For details for those two studies please refer to Appendix 1.

Assessment of the risk for non-target plants due to the use of CHR/H/FDF 574 SC in winter cereals

Intended use		Winter cereals			
Active substance/product		CHR/H/FDF 574 SC			
Application rate (g/ha)		1 x 483.08			
MAF		1			
Test species	ER₅₀ (g/ha)	Drift rate	PER_{off-field} (g/ha)	TER criterion: TER ≥ 5	
<i>Pisum sativum</i>	54.3 g prod/ha	0.0277	13.38	4.06	21 d Seedling emergence

<i>Helianthus annuus</i>	272.9 g prod/ha	0.0277	13.38	20.4	21 d Seedling emergence
<i>Daucus carota</i>	154.6 g prod/ha	0.0277	13.38	11.55	21 d Seedling emergence
<i>Linum usitatissimum</i>	177.5 g prod/ha	0.0277	13.38	13.27	21 d Seedling emergence
<i>Allium cepa</i>	48.3 g prod/ha	0.0277	13.38	3.61	21 d Seedling emergence
<i>Zea mays</i>	477 g prod/ha	0.0277	13.38	35.65	21 d Seedling emergence
<i>Pisum sativum</i>	219.7 g prod/ha	0.0277	13.38	16.42	21 d Vegetative vigour
<i>Helianthus annuus</i>	22.9 g prod/ha	0.0277	13.38	1.71	21 d Vegetative vigour
<i>Daucus carota</i>	8.3 g prod/ha	0.0277	13.38	0.62	21 d Vegetative vigour
<i>Linum usitatissimum</i>	47.3 g prod/ha	0.0277	13.38	3.54	21 d Vegetative vigour
<i>Allium cepa</i>	218.7 g prod/ha	0.0277	13.38	16.35	21 d Vegetative vigour
<i>Zea mays</i>	483.08 g prod/ha	0.0277	13.38	36.11	21 d Vegetative vigour

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

In order to reduce the off-field exposure, risk mitigation measures can be implemented. These correspond to unsprayed in-field buffer strips of a given width and/or the usage of drift reducing nozzles. The results of the risk assessment using typical mitigation measures (no-spray buffer zones of 5 or 10 m; drift-reducing nozzles with reduction by 50 %, 75 %, or 90 %) are summarised in the following table.

Risk assessment for non-target terrestrial plants due to the use of CHR/H/FDF 574 SC in winter cereals considering risk mitigation (in-field no-spray buffer zones, and drift-reducing nozzles)

Intended use		Cereals winter			
Active substance/product		CHR/H/FDF 574 SC			
Application rate (g/ha)		1 × 483.08			
MAF		1			
Buffer strip (m)	Drift rate (%)	PER_{off-field} (g/ha)	PER_{off-field} 50 % drift red. (g/ha)	PER_{off-field} 75 % drift red. (g/ha)	PER_{off-field} 90 % drift red. (g/ha)
1	2.77	13.38	6.69	3.35	1.34
5	0.57	2.76	1.38	0.69	0.28
10	0.27	1.30	!	!	!
Toxicity value		TER			
ER ₅₀ = 8.3 g/ha		criterion: TER ≥ 5			
1		0.62	1.24	2.48	6.19
5		3.01	6.01	12.03	29.64

10	6.38	-	-	-
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MAF: Multiple application factor; PER: Predicted environmental rates; TER: toxicity to exposure ratio. Criteria values shown in bold breach the relevant trigger.

Based on the predicted rates of CHR/H/FDF 574 SC in off-field areas, the TER values describing the risk for non-target plants following exposure to CHR/H/FDF 574 SC according to the GAP of the formulation CHR/H/FDF 574 SC achieve the acceptability criteria $TER \geq 1$ based on SSD risk refinement, with applying:

- 10 m buffer zone
- 5 m and use of 50 % drift reducing nozzles
- 1 m and use of 90 % drift reducing nozzles

Study Comments: 3.5.2 dRR point: 3.5.1	Studies are acceptable
<p>The Applicant presented data obtained from 2 greenhouse trials carried out in line with OECD Guideline 227 (Vegetative vigour test and Seedling emergence test) and EPPO guideline PP 1/256(1) Effects on adjacent crops, on a representative range of monocotyledonous and dicotyledonous crop types.</p> <p>Assessment of adverse impact of CHR/H/FDF 574 SC on other plants including adjacent crops were obtained by calculation of TER (Toxicity Exposure Ratio) values. The risk of adverse impact resulting from the post-emergence application of CHR/H/FDF 574 SC at the rate of 0,4 l product/ha was acceptably low when a 10 m buffer zone was observed or with a buffer zone of 5 m when 50% drift reduction nozzles was used or with a buffer zone of 1 m when 90% drift reduction nozzles was used.</p>	

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/H/FDF 574 SC is non-corrosive to equipment, non-flammable and non-volatile.

According to Report I. Knapik, Study code: ICB/110/2020 the effectiveness of cleaning was done regards to Efficacy Guideline 305:

Single rinse procedure.

- a) The bottle was inverted twice, then the bottle was shaken once and the suspension was poured out,
- b) 10 mL of tap water was added, the bottle was inverted twice, and the rinsing was poured out,
- c) 10 mL of acetonitrile was added and the bottle was shaken to coat all surfaces. The acetonitrile was analysed for the active substances content.

Double rinse procedure.

- a) The bottle was inverted twice, then the bottle was shaken once and the suspension was poured out,
- b) 10 mL of tap water was added, the bottle was inverted twice, and the rinsing was poured out,
- c) point b) was repeated,

d) 10 mL of acetonitrile was added and the bottle was shaken to coat all surfaces. The acetonitrile was analysed for the active substances content.

Triple rinse procedure.

a) The bottle was inverted twice, then the bottle was shaken once and the suspension poured out

b) 10 mL of tap water was added, the bottle was inverted twice, and the rinsing was poured out

c) point b) was repeated twice,

d) 10 mL of acetonitrile was added and the bottle was shaken to coat all surfaces. The acetonitrile was analysed for the active substances content.

Effectiveness of cleaning	Efficacy Guideline 305	<p>Single rinse procedure:</p> <p>>99.50[%] florasulam removed from the bottle</p> <p>99.67 [%] flufenacet removed from the bottle</p> <p>99.76 [%] diflufenican removed from the bottle</p> <p>Double rinse procedure:</p> <p>>99.50[%] florasulam removed from the bottle</p> <p>99.83 [%] flufenacet removed from the bottle</p> <p>99.90 [%] diflufenican removed from the bottle</p> <p>Triple rinse procedure:</p> <p>>99.50[%] florasulam removed from the bottle</p> <p>99.85 [%] flufenacet removed from the bottle</p> <p>99.91 [%] diflufenican removed from the bottle</p>
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Study Comments: Tank cleaning procedure	Studies are acceptable
<p>The Applicant presented data obtained from the study conducted according to Efficacy Guideline 305 and the Standard Operational Procedure SPB/39. The rinse procedure of tank cleaning proposed by the Applicant was sufficient to ensure that residues of plant protection products do not remain in the pesticide application equipment (PAE) after cleaning and that there is no unacceptable risk to subsequently treated crops.</p>	

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

Not performed

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)
SynTech Research Poland Sp. z o.o.	ul. Jagiellońska 69/1, 85-027 Bydgoszcz, Poland	Yes
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

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 Verte- brate study Y/N	Owner
KCP 6.2	Joanna Guzińska	2020	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2019/067/PO GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.2	Joanna Guzińska	2020	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2019/071/PO GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.2	Łukasz Sobiech	2020	Efficacy of CHR/H/FDF in the control of weeds in the cultivation of winter cereals Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/19/PO/26/Ce/FDF2/1 GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.2	Łukasz Sobiech	2020	Efficacy of CHR/H/FDF in the control of weeds in the cultivation of winter cereals Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/19/PO/26/Pr/FDF1/1 GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.2	Joanna Guzińska	2021	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3	N	Chemiroł 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 Verte- brate study Y/N	Owner
			88-300 Mogilno Report no.: A.T/2020/129/PO GEP - yes Unpublished		
KCP 6.2	Joanna Guzińska	2021	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2020/130/PO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Joanna Guzińska	2021	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2020/154/PO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Zdzisław Jaskólski	2021	Study of the effectiveness and selectivity of CHR / H / FDF 574 SC in winter wheat SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL20-429-336HE GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Zdzisław Jaskólski	2021	STUDY OF THE EFFICACY AND SELECTIVITY OF CHR/H/FDF 574 SC (DIFLUFENIKAN 250 G/L + FLUFENACET 312 G/L + FLORASULAM 12 G/L) IN CEREALS. SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL20-430-336HE GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Zdzisław Jaskólski	2021	EFF and SEL of CHR/H/FDF 574 SC (diflufenican 250 g/L + flufenacet 312 g/L + florasulam 12 g/L) in cereals. SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL20-431-336HE GEP - yes	N	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 Verte- brate study Y/N	Owner
			Unpublished		
KCP 6.2	Zdzisław Jaskólski	2021	Efficacy and selectivity of CHR/H/FDF 574 SC in cereals. SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL20-432-336HE GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Zdzisław Jaskólski	2021	EFF and SEL of CHR/H/FDF 574 SC (diflufenican 250 g/L + flufenacet 312 g/L + florasulam 12 g/L) in cereals. SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL20-433-336HE GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Joanna Guzińska	2020	Field study to evaluate the crop safety of herbicide CHR/H/FDF 574 SC when applied post-emergence in winter wheat, Poland 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2019/075/PO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Joanna Guzińska	2020	Field study to evaluate the crop safety of herbicide CHR/H/FDF 574 SC when applied post-emergence in winter wheat, Poland 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2019/076/PO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Joanna Guzińska	2020	Field study to evaluate the crop safety of herbicide CHR/H/FDF 574 SC when applied post-emergence in winter wheat, Poland 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2019/077/PO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Beata Szymańska	2020	Study of herbicide phytotoxicity CHR/H/FDF 574 SC in weed control in cereal winter	N	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
			Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/19/PO/26/Gr/sel1 GEP - yes Unpublished		
KCP 6.4	Beata Szymańska	2020	Study of herbicide phytotoxicity CHR/H/FDF 574 SC in weed control in cereal winter Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/19/PO/26/Zl/sel2 GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Joanna Guzińska	2021	Selectivity evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2020/137/PO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Zdzisław Jaskólski	2021	Selectivity of CHR/H/FDF 574 SC (diflufenican 250 g/L + flufenacet 312 g/L + florasulam 12 g/L) in cereals SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL20-439-336HE GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Zdzisław Jaskólski	2021	Selectivity of CHR/H/FDF 574 SC (diflufenican 250 g/L + flufenacet 312 g/L + florasulam 12 g/L) in cereals SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL20-440-336HS GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Joanna Guzińska	2020	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	N	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 Verte- brate study Y/N	Owner
			Report no.: A.T/2019/068/PŽO GEP - yes Unpublished		
KCP 6.2	Joanna Guzińska	2020	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2019/072/PŽO GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.2	Zdzisław Jaskólski	2020	Study of the effectiveness and selectivity of CHR / H / FDF 574 SC in winter triticales SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL19-351-336HE GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.2	Zdzisław Jaskólski	2020	Study of the effectiveness and selectivity of CHR / H / FDF 574 SC in winter triticales SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL19-352-336HE GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.2	Joanna Guzińska	2021	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2020/131/PŽO GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.2	Joanna Guzińska	2021	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2020/132/PŽO GEP - yes Unpublished	N	Chemiroł 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 6.2	Joanna Guzińska	2021	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2020/155/PŻO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Łukasz Sobiech	2021	Efficacy and phytotoxicity of the CHR / H / FDF 574 SC preparation in the control of weeds in the cultivation of winter cereals Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/20/PszO/35/Br/2 GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Łukasz Sobiech	2021	Efficacy and phytotoxicity of the CHR / H / FDF 574 SC preparation in the control of weeds in the cultivation of winter cereals Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/20/PszO/35/Br/5 GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Łukasz Sobiech	2021	Efficacy and phytotoxicity of the CHR / H / FDF 574 SC preparation in the control of weeds in the cultivation of winter cereals Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/20/PszO/35/Pr/1 GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Łukasz Sobiech	2021	Efficacy and phytotoxicity of the CHR / H / FDF 574 SC preparation in the control of weeds in the cultivation of winter cereals Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/20/PszO/35/Pr/3 GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Łukasz Sobiech	2021	Efficacy and phytotoxicity of the CHR / H / FDF 574	N	Chemirol

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Verte- brate study Y/N	Owner
			SC preparation in the control of weeds in the cultivation of winter cereals Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/20/PszO/35/ZI/4 GEP - yes Unpublished		Sp. z o.o.
KCP 6.4	Joanna Guzińska	2020	Field study to evaluate the crop safety of herbicide CHR/H/FDF 574 SC when applied post-emergence in winter triticale, Poland 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2019/078/PŻO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Joanna Guzińska	2020	Field study to evaluate the crop safety of herbicide CHR/H/FDF 574 SC when applied post-emergence in winter triticale, Poland 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2019/079/PŻO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Joanna Guzińska	2020	Field study to evaluate the crop safety of herbicide CHR/H/FDF 574 SC when applied post-emergence in winter triticale, Poland 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2019/080/PŻO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Zdzisław Jaskólski	2020	Selectivity of CHR/H/FDF 574 SC in Winter Triticale. SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL19-355-336HS GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Beata Szymańska	2021	Study of herbicide phytotoxicity CHR/H/FDF 574 SC in cereal winter Poznań University of Life Sciences, Research and	N	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 Verte- brate study Y/N	Owner
			Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/20/PszO/35/Gr/1 GEP - yes Unpublished		
KCP 6.4	Beata Szymańska	2021	Study of herbicide phytotoxicity CHR/H/FDF 574 SC in cereal winter Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/20/PszO/35/Gr/2 GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.4	Beata Szymańska	2021	Study of herbicide phytotoxicity CHR/H/FDF 574 SC in cereal winter Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/20/PszO/35/Gr/3 GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.4	Joanna Guzińska	2021	Selectivity evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2020/138/PŻO GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.2	Joanna Guzińska	2020	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2019/070/ŻO GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.2	Joanna Guzińska	2020	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	N	Chemiroł 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 Verte- brate study Y/N	Owner
			Report no.: A.T/2019/074/ŽO GEP - yes Unpublished		
KCP 6.2	Zdzisław Jaskólski	2020	EFF and SEL of CHR/H/FDF 574 SC (diflufenican 250 g/L + flufenacet 312 g/L + florasulam 12 g/L) in Rye. SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL19-353-336HE GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Zdzisław Jaskólski	2020	EFF and SEL of CHR/H/FDF 574 SC (diflufenican 250 g/L + flufenacet 312 g/L + florasulam 12 g/L) in Rye. SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL19-354-336HE GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Joanna Guzińska	2021	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2020/135/ŽO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Joanna Guzińska	2021	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2020/136/ŽO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Joanna Guzińska	2021	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2020/156/ŽO GEP - yes Unpublished	N	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 6.2	Łukasz Sobiech	2021	Efficacy and phytotoxicity of the CHR / H / FDF 574 SC preparation in the control of weeds in the cultivation of winter cereals Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/20/ŻO/35/Br/1 GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.2	Łukasz Sobiech	2021	Efficacy and phytotoxicity of the CHR / H / FDF 574 SC preparation in the control of weeds in the cultivation of winter cereals Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/20/ŻO/35/Br/4 GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.2	Łukasz Sobiech	2021	Efficacy and phytotoxicity of the CHR / H / FDF 574 SC preparation in the control of weeds in the cultivation of winter cereals Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/20/ŻO/35/Gr/2 GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.2	Łukasz Sobiech	2021	Efficacy and phytotoxicity of the CHR / H / FDF 574 SC preparation in the control of weeds in the cultivation of winter cereals Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/20/ŻO/35/Zł/3 GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.2	Łukasz Sobiech	2021	Efficacy and phytotoxicity of the CHR / H / FDF 574 SC preparation in the control of weeds in the cultivation of winter cereals Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/20/ŻO/35/Zł/5 GEP - yes Unpublished	N	Chemiroł Sp. z o.o.
KCP 6.4	Joanna Guzińska	2020	Field study to evaluate the crop safety of herbicide	N	Chemiroł

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Data Verte- brate study Y/N	Owner
			CHR/H/FDF 574 SC when applied post-emergence in winter rye, Poland 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2019/081/ŻO GEP - yes Unpublished		Sp. z o.o.
KCP 6.4	Joanna Guzińska	2020	Field study to evaluate the crop safety of herbicide CHR/H/FDF 574 SC when applied post-emergence in winter rye, Poland 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2019/082/ŻO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Zdzisław Jaskólski	2020	Selectivity of CHR/H/FDF 574 SC in Rye. SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL19-356-336HS GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Zdzisław Jaskólski	2020	Selectivity of CHR/H/FDF 574 SC in Rye. SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL19-357-336HS GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Joanna Guzińska	2021	Selectivity evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2020/139/ŻO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Joanna Guzińska	2021	Selectivity evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	N	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 Verte- brate study Y/N	Owner
			Report no.: A.T/2020/140/ŽO GEP - yes Unpublished		
KCP 6.4	Beata Szymańska	2021	Study of herbicide phytotoxicity CHR/H/FDF 574 SC in cereal winter Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/20/ŽO/35/ZŁ/1 GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Beata Szymańska	2021	Study of herbicide phytotoxicity CHR/H/FDF 574 SC in cereal winter Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/20/ŽO/35/Gr/2 GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Joanna Guzińska	2020	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2019/069/JO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Joanna Guzińska	2020	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2019/073/JO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Łukasz Sobiech	2020	Efficacy of CHR/H/FDF in the control of weeds in the cultivation of winter cereals Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/19/JO/26/Pr/FDF1/2 GEP - yes Unpublished	N	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 Verte- brate study Y/N	Owner
KCP 6.2	Łukasz Sobiech	2020	Efficacy of CHR/H/FDF in the control of weeds in the cultivation of winter cereals Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/19/JO/26/Zł/FDF/2 GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Joanna Guzińska	2021	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2020/133/JO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Joanna Guzińska	2021	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2020/134/JO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Joanna Guzińska	2021	Efficacy evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2020/153/JO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Zdzisław Jaskólski	2021	EFF and SEL of CHR/H/FDF 574 SC (diflufenican 250 g/L + flufenacet 312 g/L + florasulam 12 g/L) in cereals. SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL20-434-336HE GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Zdzisław Jaskólski	2021	EFF and SEL of CHR/H/FDF 574 SC (diflufenican 250 g/L + flufenacet 312 g/L + florasulam 12 g/L) in cereals.	N	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 Verte- brate study Y/N	Owner
			SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL20-435-336HE GEP - yes Unpublished		
KCP 6.2	Zdzisław Jaskólski	2021	EFF and SEL of CHR/H/FDF 574 SC (diflufenican 250 g/L + flufenacet 312 g/L + florasulam 12 g/L) in cereals. SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL20-436-336HE GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Zdzisław Jaskólski	2021	Study of the effectiveness and selectivity of CHR/H/FDF 574 SC (diflufenican 250 g/L + flufenacet 312 g/L + florasulam 12 g/L) in cereals. SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL20-437-336HE GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.2	Zdzisław Jaskólski	2021	EFF AND SEL OF CHR/H/FDF 574 SC (DIFLUFENICAN 250 G/L + FLUFENACET 312 G/L + FLORASULAM 12 G/L) IN CEREALS. SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL20-438-336HE GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Joanna Guzińska	2020	Field study to evaluate the crop safety of herbicide CHR/H/FDF 574 SC when applied post-emergence in winter barley, Poland 2019. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2019/083/JO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Joanna Guzińska	2020	Field study to evaluate the crop safety of herbicide CHR/H/FDF 574 SC when applied post-emergence in winter barley, Poland 2019. A.T Sp. z o.o. ul. Przemysłowa 3 202088-300 Mogilno	N	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 Verte- brate study Y/N	Owner
			Report no.: A.T/2019/084/JO GEP - yes Unpublished		
KCP 6.4	Beata Szymańska	2020	Study of herbicide phytotoxicity CHR/H/FDF 574 SC in weed control in cereal winter Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/19/JO/26/Br/sel4 GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Beata Szymańska	2020	Study of herbicide phytotoxicity CHR/H/FDF 574 SC in weed control in cereal winter Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań Report no.: AH/19/JO/26/Gr/sel3 GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Joanna Guzińska	2021	Selectivity evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2020/141/JO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Joanna Guzińska	2021	Selectivity evaluation of herbicide CHR/H/FDF 574 SC when applied into winter cereals to control of weeds, Poland, 2020. A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno Report no.: A.T/2020/142/JO GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 6.4	Zdzisław Jaskólski	2021	Selectivity of CHR/H/FDF 574 SC (diflufenican 250 g/L + flufenacet 312 g/L + florasulam 12 g/L) in cereals. SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL20-441-336HE GEP - yes Unpublished	N	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	Zdzisław Jaskólski	2021	Selectivity of CHR/H/FDF 574 SC (diflufenican 250 g/L + flufenacet 312 g/L + florasulam 12 g/L) in cereals. SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz Report no.: SRPL20-442-336HE GEP - yes Unpublished	N	Chemirol Sp. z o.o.
KCP 10.6/01	A. Gierbuszewska	2021	CHR/H/FDF 574 Terrestrial Plant Test: Seedling Emergence and Seedling Growth Test G-82-20 Łukasiewicz Research Network – Institute of Industrial Organic Chemistry, Branch Pszczyna Department of Ecotoxicological Studies, Doświadczalna 27, 43-200 Pszczyna, Poland GLP Unpublished	N	Chemirol
KCP 10.6/02	A. Arendarczyk	2021	CHR/H/FDF 574 Terrestrial Plant Test: Vegetative Vigour Test G-81-20 Łukasiewicz Research Network – Institute of Industrial Organic Chemistry, Branch Pszczyna Department of Ecotoxicological Studies, Doświadczalna 27, 43-200 Pszczyna, Poland GLP Unpublished	N	Chemirol

List of data submitted or referred to by the applicant and relied on, but already evaluated at EU peer review

Not applicable

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

List of data submitted by the applicant and not relied on

Not applicable

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

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

Not applicable

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

Appendix 2 Additional information provided by the applicant

Not applicable

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

Test report/ re-search 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/2019/067/PO	Modrze/ Poland winter wheat/ Euforia F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 4.5 m = 11.25 m ²	BBCH 11-12	n/a	1	200 L/ha
A.T/2019/071/PO	Wilcze/ Poland winter wheat/ Arkadia F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 7.0 m = 17.5 m ²	BBCH 12-13	n/a	1	200 L/ha
AH/19/PO/26/Ce/F DF2/1	Mrowino/ Poland winter wheat/ Hondia F N	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 1.5 m x 12.0 m = 18.0 m ²	BBCH 21	n/a	1	200 L/ha
AH/19/PO/26/Pr/F DF1/1	Przybroda/ Poland winter wheat/ Arkadia F N	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 1.5 m x 12.0 m = 18.0 m ²	BBCH 14	n/a	1	200 L/ha
A.T/2020/129/PO	Kocanowo/ Poland winter wheat/ Apostel F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 5.0 m = 12.5 m ²	BBCH 13-14	n/a	1	200 L/ha
A.T/2020/130/PO	Angowice/ Poland winter wheat/ RGT Bilanz F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 7.25 m = 18.125 m ²	BBCH 11-13	n/a	1	200 L/ha
A.T/2020/154/PO	Tonin/ Poland winter wheat/ RGT Bilanz F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 7.75 m = 19.325 m ²	BBCH 21-22	n/a	1	200 L/ha
SRPL20-429-336HE	Retkowo/ Poland winter wheat/ Patras F N	SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz	EPPO PP 1/93(3) 3.0 m x 5.0 m = 15.0 m ²	BBCH 12-15	n/a	1	200 L/ha
SRPL20-430-336HE	Pokrzywno/ Poland winter wheat/ Fenomen F N	SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz	EPPO PP 1/93(3) 3.0 m x 4.0 m = 12.0 m ²	BBCH 13-21	n/a	1	200 L/ha
SRPL20-431-336HE	Durąg/ Poland winter wheat/ Tytanika	SynTech Research Poland Sp. z o.o. Jagiellońska 69/1	EPPO PP 1/93(3)	BBCH 10-12	n/a	1	200 L/ha

	F N	Bydgoszcz	3.0 m x 7.0 m = 21.0 m ²				
SRPL20-432- 336HE	Murczyn/ Po- land winter wheat/ Solehio F N	SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz	EPPO PP 1/93(3) 3.0 m x 5.0 m = 15.0 m ²	BBCH 11	n/a	1	200 L/ha
SRPL20-433- 336HE	Wawolnica/ Poland winter wheat/ Ponticus F N	SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz	EPPO PP 1/93(3) 3.0 m x 4.0 m = 12.0 m ²	BBCH 17- 19	n/a	1	200 L/ha
A.T/2019/075/PO	Góra/ Poland winter wheat/ Hondia F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 7.0 m = 17.5 m ²	BBCH 11- 12	n/a	1	200 L/ha
A.T/2019/076/PO	Suchary/ Poland winter wheat/ Linus F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 11.0 m = 27.5 m ²	BBCH 13- 21	n/a	1	200 L/ha
A.T/2019/077/PO	Nowy Dwór/ Poland winter wheat/ Bilanz F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 7.0 m = 17.5 m ²	BBCH 21- 23	n/a	1	200 L/ha
AH/19/PO/26/Gr/s el1	Gorzyń/ Poland winter wheat/ Jantarka F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 1.5 m x 12.0 m = 18.0 m ²	BBCH 12	n/a	1	200 L/ha
AH/19/PO/26/ZI/se 12	Gorzyń/ Poland winter wheat/ Bogatka F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 2.5 m x 8.0 m = 20.0 m ²	BBCH 21- 22	n/a	1	200 L/ha
A.T/2020/137/PO	Sitowiec/ Po- land winter wheat/ Arkadia F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 8.0 m = 20.0 m ²	BBCH 11- 13	n/a	1	200 L/ha
SRPL20-439- 336HE	Krasienin/ Poland winter wheat/ Owacja F N	SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz	EPPO PP 1/93(3) 3.0 m x 7.0 m = 21.0 m ²	BBCH 11- 13	n/a	1	200 L/ha
SRPL20-440- 336HS	Tomaryny/ Poland winter wheat/ Findus F N	SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz	EPPO PP 1/93(3) 3.0 m x 8.0 m = 24.0 m ²	BBCH 12- 13	n/a	1	200 L/ha
A.T/2019/068/PŻO	Kopaszyn/ Poland winter triticale/ Trapero F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 5.5 m = 13.75 m ²	BBCH 12- 13	n/a	1	300 L/ha

A.T/2019/072/PŻO	Wierzchucin Królwesi/ Poland winter triticale/ Borwo F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 5.5 m = 13.75 m ²	BBCH 11- 12	n/a	1	200 L/ha
SRPL19-351- 336HE	Niemce /Poland winter triticale/ Meloman F N	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85- 027 Bydgoszcz	EPPO PP 1/93(3) 2.5 m x 5.5 m = 13.75 m ²	BBCH 13- 15	n/a	1	250 L/ha
SRPL19-352- 336HE	Żędowo /Poland winter triticale/ Rotondo F N	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85- 027 Bydgoszcz	EPPO PP 1/93(3) 2.5 m x 5.5 m = 13.75 m ²	BBCH 13- 21	n/a	1	200 L/ha
A.T/2020/131/PŻO	Białe Bło- to/Poland winter triticale/ Borowik F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 5.5 m = 13.75 m ²	BBCH 11- 13	n/a	1	200 L/ha
A.T/2020/132/PŻO	Lich- nowy/Poland winter triticale/ Orinoko F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 5.5 m = 13.75 m ²	BBCH 13- 21	n/a	1	200 L/ha
A.T/2020/155/PŻO	Modrze /Poland winter triticale/ Orinoko F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 5.5 m = 13.75 m ²	BBCH 19- 22	n/a	1	200 L/ha
AH/20/PszO/35/Br /2	Brody /Poland winter triticale/ Twingo F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 2.5 m x 5.5 m = 13.75 m ²	BBCH 13	n/a	1	200 L/ha
AH/20/PszO/35/Br /5	Brody /Poland winter triticale/ Twingo F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 2.5 m x 5.5 m = 13.75 m ²	BBCH 21- 22	n/a	1	200 L/ha
AH/20/PszO/35/Pr /1	Przybroda /Poland winter triticale/ Grenado F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 2.5 m x 5.5 m = 13.75 m ²	BBCH 12- 13	n/a	1	200 L/ha
AH/20/PszO/35/Pr /3	Przybroda /Poland winter triticale/ Grenado F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 2.5 m x 5.5 m = 13.75 m ²	BBCH 22	n/a	1	200 L/ha
AH/20/PszO/35/ZI/ 4	Złotniki /Poland winter triticale/ Aliko F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28,	EPPO PP 1/93(3) 2.5 m x 5.5 m = 13.75	BBCH 12	n/a	1	200 L/ha

		60-637 Poznań	m ²				
A.T/2019/078/PŻO	Kakulin/ Poland winter triticale/ Gringo F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 8.0 m = 20.0 m ²	BBCH 11- 12	n/a	1	200 L/ha
A.T/2019/079/PŻO	Sławęcin /Poland winter triticale/ Orinoko F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 10.0 m = 25.0 m ²	BBCH 12- 14	n/a	1	200 L/ha
A.T/2019/080/PŻO	Wilcze/Poland winter triticale/ Fredro F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 8.0 m = 20.0 m ²	BBCH 22- 24	n/a	1	200 L/ha
SRPL19-355- 336HS	Teresin/ Poland winter triticale/ Rotondo F N	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85- 027 Bydgoszcz	EPPO PP 1/93(3) 2.5 m x 10.0 m = 25.0 m ²	BBCH 12- 14	n/a	1	250 L/ha
AH/20/PszO/35/Gr /1	Gorzyń/Poland winter triticale/ Tadeus F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 1.5 m x 13.0 m = 19.5 m ²	BBCH 13	n/a	1	200 L/ha
AH/20/PszO/35/Gr /2	Gorzyń/Poland winter triticale/ Tadeus F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 1.5 m x 13.0 m = 19.5 m ²	BBCH 22	n/a	1	200 L/ha
AH/20/PszO/35/Gr /3	Złotniki /Poland winter triticale/ ALIK F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 2.5 m x 8.0 m = 20.0 m ²	BBCH 19	n/a	1	200 L/ha
A.T/2020/138/PŻO	Białe Bło- to/Poland winter triticale/ Panteon F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 8.0 m = 20.0 m ²	BBCH 11- 13	n/a	1	200 L/ha
A.T/2019/070/ŻO	Trzemiętowo/ Poland winter rye/ Florano F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 8.0 m = 20.0 m ²	BBCH 22- 24	n/a	1	200 L/ha
A.T/2019/074/ŻO	Melanowo /Poland winter rye/ Dolaro F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 6.0 m = 15.0 m ²	BBCH 13- 14	n/a	1	200 L/ha
SRPL19-353- 336HE	Żędowo /Poland winter rye/ Granat F N	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85- 027 Bydgoszcz	EPPO PP 1/93(3) 3.0 m x 5.0 m = 15.0 m ²	BBCH 14- 15	n/a	1	200 L/ha
SRPL19-354- 336HE	Niemce /Poland winter rye/ F N	SynTech Research Poland Sp. z o.o ul.	EPPO PP 1/93(3)	BBCH 15- 23	n/a	1	250 L/ha

	Dnakowskie Granat F N	Jagiellonska 69/1 85- 027 Bydgoszcz	3.0 m x 6.0 m = 18.0 m ²				
A.T/2020/135/ŽO	Stare Gralewo /Poland winter rye/ Dańkowskie Diamant F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 5.0 m = 12.5 m ²	BBCH 21- 25	n/a	1	300 L/ha
A.T/2020/136/ŽO	Waldowo /Poland winter rye/ Serafino F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 8.0 m = 20.0 m ²	BBCH 19- 22	n/a	1	200 L/ha
A.T/2020/156/ŽO	Gołotczyzna /Poland winter rye/ Florano F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 6.0 m = 15.0 m ²	BBCH 14- 23	n/a	1	200 L/ha
AH/20/ŽO/35/Br/1	Brody /Poland winter rye/ Poznańskie F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 2.0 m x 9.0 m = 18.0 m ²	BBCH 13	n/a	1	200 L/ha
AH/20/ŽO/35/Br/4	Brody /Poland winter rye/ Poznańskie F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 2.0 m x 9.0 m = 18.0 m ²	BBCH 22- 23	n/a	1	200 L/ha
AH/20/ŽO/35/Gr/2	Gorzyń /Poland winter rye/ Bono F1 F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 1.5 m x 13.0 m = 19.5 m ²	BBCH 13	n/a	1	200 L/ha
AH/20/ŽO/35/ZI/3	Złotniki /Poland winter rye/ Dolaro F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 2.5 m x 8.0 m = 20.0 m ²	BBCH 13	n/a	1	200 L/ha
AH/20/ŽO/35/ZI/5	Złotniki /Poland winter rye/ Dolaro F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 2.5 m x 8.0 m = 20.0 m ²	BBCH 20	n/a	1	200 L/ha
A.T/2019/081/ŽO	Kościerzyn Wielki/ Poland winter rye/ Binntto F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 9.0 m = 22.5 m ²	BBCH 23- 25	n/a	1	200 L/ha
A.T/2019/082/ŽO	Nowe Gronowo /Poland winter rye/ Dolaro F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 8.0 m = 20.0 m ²	BBCH 12- 13	n/a	1	300 L/ha

SRPL19-356-336HS	Kłoda /Poland winter rye/ Serafino F N	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85- 027 Bydgoszcz	EPPO PP 1/93(3) 3.0 m x 7.0 m = 21.0 m ²	BBCH 12- 14	n/a	1	300 L/ha
SRPL19-357-336HS	Niemce /Poland winter rye/ Dnakowskie Granat F N	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85- 027 Bydgoszcz	EPPO PP 1/93(3) 3.0 m x 7.0 m = 21.0 m ²	BBCH 15- 23	n/a	1	250 L/ha
A.T/2020/139/ŻO	Świerkówki /Poland winter rye/ KWS Serafino F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 7.0 m = 17.5 m ²	BBCH 12- 14	n/a	1	300 L/ha
A.T/2020/140/ŻO	Stare Gralewó /Poland winter rye/ Dańkowskie Diamant F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 8.0 m = 20.0 m ²	BBCH 14- 23	n/a	1	200 L/ha
AH/20/ŻO/35/ZI/1	Złotniki /Poland winter rye/ Dankowskie Diamant F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 2.5 m x 8.0 m = 20.0 m ²	BBCH 13	n/a	1	200 L/ha
AH/20/ŻO/35/Gr/2	Gorzyń /Poland winter rye/ BONO F1 F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 1.5 m x 13.0 m = 19.5 m ²	BBCH 23	n/a	1	200 L/ha
A.T/2019/069/JO	Kakulin /Poland winter barley/ Arenia F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 5.5 m = 13.75 m ²	BBCH 12- 21	n/a	1	200 L/ha
A.T/2019/073/JO	Jęczniki Wiel- kie /Poland winter barley/ Kosmos F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 5.0 m = 12.5 m ²	BBCH 21- 23	n/a	1	200 L/ha
AH/19/JO/26/Pr/F DF1/2	Przybroda /Poland winter barley/ Zenek F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 1.5 m x 12.0 m = 18.0 m ²	BBCH 14	n/a	1	200 L/ha
AH/19/JO/26/ZI/F DF/2	Złotniki /Poland winter barley/ Gloria F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 1.5 m x 12.0 m = 18.0 m ²	BBCH 21- 23	n/a	1	200 L/ha
A.T/2020/133/JO	Kopaszyn /Poland winter barley/ Sandra F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 5.5 m = 13.75 m ²	BBCH 12- 14	n/a	1	200 L/ha

A.T/2020/134/JO	Gaj Wielki /Poland winter barley/ Galileo F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 6.0 m = 15.0 m ²	BBCH 13- 22	n/a	1	300 L/ha
A.T/2020/153/JO	Żabi- czyn/Poland winter barley/ Zenek F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 5.5 m = 13.75 m ²	BBCH 12- 13	n/a	1	200 L/ha
SRPL20-434- 336HE	Tomaszkowo /Poland winter barley/ Sandra F N	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85- 027 Bydgoszcz	EPPO PP 1/93(3) 3.0 m x 7.0 m = 21.0 m ²	BBCH 11- 13	n/a	1	200 L/ha
SRPL20-435- 336HE	Osovka /Poland winter barley/ Kosmos F N	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85- 027 Bydgoszcz	EPPO PP 1/93(3) 3.0 m x 6.0 m = 12.0 m ²	BBCH 11- 13	n/a	1	200 L/ha
SRPL20-436- 336HE	Tomaszkowo /Poland winter barley/ Sandra F N	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85- 027 Bydgoszcz	EPPO PP 1/93(3) 3.0 m x 7.0 m = 21.0 m ²	BBCH 19- 22	n/a	1	200 L/ha
SRPL20-437- 336HE	Boruszyn /Poland winter barley/ Kosmos F N	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85- 027 Bydgoszcz	EPPO PP 1/93(3) 3.0 m x 5.0 m = 15.0 m ²	BBCH 11- 13	n/a	1	200 L/ha
SRPL20-438- 336HE	Krzyżowice /Poland winter barley/ Kosmos F N	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85- 027 Bydgoszcz	EPPO PP 1/93(3) 3.0 m x 5.0 m = 15.0 m ²	BBCH 23- 25	n/a	1	300 L/ha
A.T/2019/083/JO	Modrze /Poland winter barley/ Jakubus F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 7.0 m = 17.5 m ²	BBCH 11- 12	n/a	1	200 L/ha
A.T/2019/084/JO	Trzciany /Poland winter barley/ Saturn F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 mx 8.25 m = 20.625 m ²	BBCH 13- 14	n/a	1	300 L/ha
AH/19/JO/26/Br/s el4	Brody /Poland winter barley/ Kobuz F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 2.0 m x 9.0 m = 18.0 m ²	BBCH 21	n/a	1	230 L/ha
AH/19/JO/26/Gr/s el3	Gorzyń /Poland winter barley/ Kosmos F N	Poznań University of Life Sciences, Re- search and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	EPPO PP 1/93(3) 1.5 m x 12.0 m = 18.0 m ²	BBCH 12- 13	n/a	1	200 L/ha
A.T/2020/141/JO	Kakulin /Poland winter barley/	A.T Sp. z o.o. ul. Przemysłowa 3	EPPO PP 1/93(3)	BBCH 12- 13	n/a	1	200 L/ha

	Arenia F N	88-300 Mogilno	2.5 m x 8.0 m = 20.0 m ²				
A.T/2020/142/JO	Jęczniki Wiel- kie /Poland winter barley/ Kosmos F N	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	EPPO PP 1/93(3) 2.5 m x 20.25 m = 25.625 m ²	BBCH 21- 22	n/a	1	300 L/ha
SRPL20-441- 336HE	Jankowice Wielkie /Poland winter barley/ Kosmos F N	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85- 027 Bydgoszcz	EPPO PP 1/93(3) 3.0 m x 8.0 m = 24.0 m ²	BBCH 12- 13	n/a	1	300 L/ha
SRPL20-442- 336HE	Murczyn /Poland winter barley/ Wootan F N	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85- 027 Bydgoszcz	EPPO PP 1/93(3) 3.0 m x 7.0 m = 21.0 m ²	BBCH 21- 22	n/a	1	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

Test report (1)	Crop/ cultivar Harmful organism/ weed species or intend- ed use	Assessed part and variable (2) no / m²	Untreated BBCH (during appli- cation)	Efficacy treatments (3)				Remarks (4)
				Product		Standard (s)		
				name	Dose [l,kg/ha]	name	dose [l /ha]	
A.T/2019/067/PO	winter wheat/ Euforia APESV VIOAR BRSNW GALAP PAPRH STEME MATIN	APESV 50 plants per m² VIOAR 5 plants per m² BRSNW 7 plants per m² GALAP 6 plants per m² PAPRH 60 plants per m² STEME 7 plants per m² MATIN 5 plants per m²	APESV BBCH 11-12 VIOAR BBCH 11-12 BRSNW BBCH 11-12 GALAP BBCH 10-11 PAPRH BBCH 11-12 STEME BBCH 10-12 MATIN BBCH 11-12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 14.10.2019 Assessment date: 14.10.2019 28.10.2019 13.03.2020 08.05.2020 15.06.2020
A.T/2019/071/PO	winter wheat/ Arkadia VIOAR CAPBP PAPRH APESV ANTAR CENCY STEME GERPU	VIOAR 10 plants per m² CAPBP 15 plants per m² PAPRH 7 plants per m² APESV 20 plants per m² ANTAR 5 plants per m² CENCY 6 plants per m² STEME 5 plants per m² GERPU 5 plants per m²	VIOAR BBCH 12-14 CAPBP BBCH 12-14 PAPRH BBCH 12-14 APESV BBCH 11-13 ANTAR BBCH 12-14 CENCY BBCH 11-14 STEME BBCH 11-12 GERPU BBCH 11-12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 14.10.2019 Assessment date: 14.10.2019 28.10.2019 24.02.2020 21.05.2020 24.06.2020
AH/19/PO/26/Ce/FDF2/ 1	winter wheat/ Hondia CENCY STEME ANTAR MATIN CAPBP GERPU	CENCY 8 plants per m² STEME 7 plants per m² ANTAR 6 plants per m² MATIN 7 plants per m² CAPBP 6 plants per m² GERPU 7 plants per m²	CENCY BBCH 20 STEME BBCH 20 ANTAR BBCH 21 MATIN BBCH 20 CAPBP BBCH 21 GERPU BBCH 20	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 15.11.2019 Assessment date: 29.11.2019 16.12.2019 17.03.2020 13.04.2020
AH/19/PO/26/Pr/FDF1/ 1	winter wheat/ Arkadia APESV VIOAR BRSNW GALAP PAPRH	APESV 9 plants per m² VIOAR 6 plants per m² BRSNW 8 plants per m² GALAP 6 plants per m² PAPRH 7 plants per m²	APESV BBCH 13 VIOAR BBCH 12 BRSNW BBCH 14 GALAP BBCH 13 PAPRH BBCH 13	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 18.10.2019 Assessment date: 31.10.2019 21.11.2019 16.03.2019 20.04.2020 15.06.2020
A.T/2020/129/PO	winter wheat/ Apostel GERPU	GERPU 12 plants per m² PAPRH 13 plants per m² VERHE 10 plants per m²	GERPU BBCH 10-12 PAPRH BBCH 11-12 VERHE BBCH 10-11	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 22.10.2020 Assessment date:

	PAPRH VERHE LAMPU ANTAR BRSNW STEME APESV CAPBP	LAMPU 5 plants per m ² ANTAR 5 plants per m ² BRSNW 5 plants per m ² STEME 7 plants per m ² APESV 28 plants per m ² CAPBP 5 plants per m ²	LAMPU BBCH 10-11 ANTAR BBCH 10-11 BRSNW BBCH 10-11 STEME BBCH 11-12 APESV BBCH 11-13 CAPBP BBCH 11-12					22.10.2020 05.11.2020 31.03.2021 20.05.2021 23.06.2021
A.T/2020/130/PO	winter wheat/ RGT Bilanz CENCY BRSNW APESV GALAP GERPU VERHE ANTAR	CENCY 13 plants per m ² BRSNW 9 plants per m ² APESV 15 plants per m ² GALAP 5 plants per m ² GERPU 5 plants per m ² VERHE 5 plants per m ² ANTAR 5 plants per m ²	CENCY BBCH 11-12 BRSNW BBCH 10-12 APESV BBCH 11-12 GALAP BBCH 10-11 GERPU BBCH 10-11 VERHE BBCH 11-12 ANTAR BBCH 11-12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 17.10.2020 Assessment date: 17.10.2020 30.10.2020 30.11.2020 02.04.2021 31.05.2021 25.06.2021
A.T/2020/154/PO	winter wheat/ RGT Bilanz CENCY GALAP BRSNW STEME ANTAR PAPRH GERPU VERHE MATIN	CENCY 6 plants per m ² GALAP 5 plants per m ² BRSNW 6 plants per m ² STEME 7 plants per m ² ANTAR 5 plants per m ² PAPRH 5 plants per m ² GERPU 5 plants per m ² VERHE 5 plants per m ² MATIN 7 plants per m ²	CENCY BBCH 14-16 GALAP BBCH 12-16 BRSNW BBCH 14-16 STEME BBCH 14-18 ANTAR BBCH 12-14 PAPRH BBCH 12-16 GERPU BBCH 10-14 VERHE BBCH 12-14 MATIN BBCH 11-12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 27.10.2020 Assessment date: 27.10.2020 10.11.2020 01.04.2021 31.05.2021 29.06.2021
SRPL20-429-336HE	winter wheat/ Patras APESV VIOAR BRSNW GALAP PAPRH CAPBP	APESV 5 plants per m ² VIOAR 6 plants per m ² BRSNW 8 plants per m ² GALAP 5 plants per m ² PAPRH 10 plants per m ² CAPBP 6 plants per m ²	APESV BBCH 10-12 VIOAR BBCH 12-16 BRSNW BBCH 10-14 GALAP BBCH 12-15 PAPRH BBCH 12-14 CAPBP BBCH 10-14	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 15.11.2020 Assessment date: 15.11.2020 23.11.2020 30.11.2020 14.12.2020 29.03.2021 24.05.2021
SRPL20-430-336HE	winter wheat/ Feno- men APESV BRSNW GALAP PAPRH VIOAR	APESV 43 plants per m ² BRSNW 5 plants per m ² GALAP 10 plants per m ² PAPRH 5 plants per m ² VIOAR 12 plants per m ² LAMPU 8 plants per m ²	APESV BBCH 11-22 BRSNW BBCH 11-14 GALAP BBCH 13-23 PAPRH BBCH 13-25 VIOAR BBCH 13-23 LAMPU BBCH 12-25	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 03.11.2020 Assessment date: 03.11.2020 17.11.2020 01.12.2020 15.03.2021 02.06.2021

	LAMPU							
SRPL20-431-336HE	winter wheat/ Tytani- ka VIOAR GALAP CENCY STEME 2 MATIN CAPBP	VIOAR 34.5 plants per m ² GALAP 12.5 plants per m ² CENCY 32.5 plants per m ² STEME 11 plants per m ² MATIN 7 plants per m ² CAPBP 9.5 plants per m ²	VIOAR BBCH 10-12 GALAP BBCH 10-12 CENCY BBCH 10-12 STEME BBCH 10-12 MATIN BBCH 10-12 CAPBP BBCH 10-12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 28.10.2020 Assessment date: 28.10.2020 04.11.2020 25.11.2020 01.04.2021 04.06.2021
SRPL20-432-336HE	winter wheat/ Solehio CENCY GERPU STEME ANTAR MATIN CAPBP GALAP VIOAR PAPRH APESV	CENCY plants per m ² GERPU 5 plants per m ² STEME 7 plants per m ² ANTAR 8 plants per m ² MATIN 6 plants per m ² CAPBP 5 plants per m ² GALAP 10 plants per m ² VIOAR 12 plants per m ² PAPRH 15 plants per m ² APESV 71 plants per m ²	CENCY BBCH 10-11 GERPU BBCH 11 STEME BBCH 11-12 ANTAR BBCH 10-11 MATIN BBCH 10-11 CAPBP BBCH 11-12 GALAP BBCH 11 VIOAR BBCH 11-12 PAPRH BBCH 10-11 APESV BBCH 10-11	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 09.11.2020 Assessment date: 09.11.2020 23.11.2020 07.12.2020 12.04.2021 17.06.2021
SRPL20-433-336HE	winter wheat/ Ponti- cus VIOAR BRSNW CENCY MATIN CAPBP	VIOAR 12 plants per m ² BRSNW 12 plants per m ² CENCY 1.25 plants per m ² MATIN 8 plants per m ² CAPBP 13 plants per m ²	VIOAR BBCH 11-13 BRSNW BBCH 11-14 CENCY BBCH 11-14 MATIN BBCH 11-14 CAPBP BBCH 11-14	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 05.11.2020 Assessment date: 05.11.2020 12.11.2020 19.11.2020 03.12.2020 31.03.2021 22.06.2021
A.T/2019/068/PŽO	winter triticale/ Trap- ero APESV GALAP VIOAR CAPBP VERHE GERPU BRSNW ANTAR	APESV 55 plants per m ² GALAP 16 plants per m ² VIOAR 6 plants per m ² CAPBP 10 plants per m ² VERHE 5 plants per m ² GERPU 5 plants per m ² BRSNW 5 plants per m ² ANTAR 6 plants per m ²	APESV BBCH 11-14 GALAP BBCH 11-12 VIOAR BBCH 11-12 CAPBP BBCH 12-14 VERHE BBCH 11-12 GERPU BBCH 11-12 BRSNW BBCH 11-12 ANTAR BBCH 11-12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 15.10.2019 Assessment date: 15.10.2019 24.10.2019 29.10.2019 17.03.20120 07.05.20120 24.06.2020
A.T/2019/072/PŽO	winter triticale/ Bor- wo CENCY VERHE	CENCY 8 plants per m ² VERHE 6 plants per m ² STEME 7 plants per m ² GERPU 5 plants per m ² APESV 10 plants per m ² VIOAR 5 plants per m ²	CENCY BBCH 11-12 VERHE BBCH 11-12 STEME BBCH 11-12 GERPU BBCH 11-12 APESV BBCH 11-12 VIOAR BBCH 11-12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 14.10.2019 Assessment date: 14.10.2019 24.10.2019 24.02.2020

	STEME GERPU APESV VIOAR CAPBP MATIN	CAPBP 5 plants per m ² MATIN 6 plants per m ²	CAPBP BBCH 11-12 MATIN BBCH 11-13					20.05.2020 24.06.2020
SRPL19-351-336HE	winter triticales/ Meloman STEME VIOAR BRNSW APESV ANTAR LAMPU	STEME 12 plants per m ² VIOAR 10 plants per m ² BRNSW 6 plants per m ² APESV 11 plants per m ² ANTAR 5 plants per m ² LAMPU 4 plants per m ²	STEME BBCH 12-14 VIOAR BBCH 12 BRNSW BBCH 12-14 APESV BBCH 11-13 ANTAR BBCH 12 LAMPU BBCH 12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 05.11.2019 Assessment date: 05.11.2019 12.11.2019 19.11.2019 20.03.2020
SRPL19-352-336HE	winter triticales/ Rondondo PAPRH CENCY STEME MATIN VERHE	PAPRH 4 plants per m ² CENCY 4 plants per m ² STEME 4 plants per m ² MATIN 5 plants per m ² VERHE 3 plants per m ²	PAPRH BBCH 19-21 CENCY BBCH 19-21 STEME BBCH 17-21 MATIN BBCH 19-21 VERHE BBCH 17-21	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 16.12.2019 Assessment date: 16.12.2019 23.12.2019 30.12.2019 06.04.2020 01.06.2020
A.T/2020/131/PZO	winter triticales/ Borowik APESV VIOAR CENCY MATIN CAPBP GERPU	APESV 25 plants per m ² VIOAR 10 plants per m ² CENCY 5 plants per m ² MATIN 8 plants per m ² CAPBP 6 plants per m ² GERPU 5 plants per m ²	APESV BBCH 10-11 VIOAR BBCH 10-12 CENCY BBCH 10-14 MATIN BBCH 10-12 CAPBP BBCH 10-12 GERPU BBCH 11-12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 24.10.2020 Assessment date: 24.10.2020 07.11.2020 07.04.2021 28.05.2021 22.07.2021
A.T/2020/132/PZO	winter triticales/ Orionoko VIOAR FUMOF VERHE ANTAR APESV STEME CAPBP GALAP PAPRH CENCY MATIN	VIOAR 11 plants per m ² FUMOF 5 plants per m ² VERHE 6 plants per m ² ANTAR 5 plants per m ² APESV 10 plants per m ² STEME 5 plants per m ² CAPBP 5 plants per m ² GALAP plants per m ² PAPRH 5 plants per m ² CENCY 5 plants per m ² MATIN 6 plants per m ²	VIOAR BBCH 10-12 FUMOF BBCH 12-14 VERHE BBCH 12-16 ANTAR BBCH 12-14 APESV BBCH 11-12 STEME BBCH 12-16 CAPBP BBCH 12-16 GALAP BBCH 12-14 PAPRH BBCH 12-16 CENCY BBCH 11-13 MATIN BBCH 11-12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 03.11.2020 Assessment date: 03.11.2020 17.11.2020 02.04.2021 31.05.2021 28.06.2021
A.T/2020/155/PZO	winter triticales/ Orionoko	PAPRH 66 plants per m ² BRNSW 5 plants per m ² MATIN 6 plants per m ²	PAPRH BBCH 12-14 BRNSW BBCH 11-12 MATIN BBCH 11-12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 26.10.2020 Assessment date:

	PAPRH BRSNW MATIN GALAP STEME APESV ANTAR GERPU	GALAP 5 plants per m ² STEME 5 plants per m ² APESV 55 plants per m ² ANTAR 8 plants per m ² GERPU 7 plants per m ²	GALAP BBCH 10-11 STEME BBCH 11-12 APESV BBCH 11-18 ANTAR BBCH 10-12 GERPU BBCH 11-12					26.10.2020 09.11.2020 15.03.2021 17.05.2021 21.06.2021
AH/20/PszO/35/Br/2	winter triticales/ Twingo APESV VIOAR BRSNW GALAP PAPRH	APESV 8 plants per m ² VIOAR 9 plants per m ² BRSNW 5 plants per m ² GALAP 5 plants per m ² PAPRH 7 plants per m ²	APESV BBCH 12 VIOAR BBCH 11 BRSNW BBCH 12 GALAP BBCH 12 PAPRH BBCH 11	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 22.10.2020 Assessment date: 12.11.2020 03.12.2020 02.04.2021 14.05.2021 29.06.2021
AH/20/PszO/35/Br/5	winter triticales/ Twingo CENCY STEME ANTAR MATMA CAPBP GERPU	CENCY 5 plants per m ² STEME 5 plants per m ² ANTAR 7 plants per m ² MATMA 5 plants per m ² CAPBP 7 plants per m ² GERPU 5 plants per m ²	CENCY BBCH 21 STEME BBCH 21 ANTAR BBCH 19 MATMA BBCH 19 CAPBP BBCH 21 GERPU BBCH 21	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 04.11.2020 Assessment date: 24.11.2020 15.12.2020 02.04.2021 14.05.2021
AH/20/PszO/35/Pr/1	winter triticales/ Gre- nado APESV VIOAR BRSNW GALAP PAPRH	APESV 12 plants per m ² VIOAR 6 plants per m ² BRSNW 8 plants per m ² GALAP 5 plants per m ² PAPRH 6 plants per m ²	APESV BBCH 12 VIOAR BBCH 11 BRSNW BBCH 13 GALAP BBCH 12 PAPRH BBCH 12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 23.10.2020 Assessment date: 13.11.2020 04.12.2020 05.04.2021 17.05.2021 30.06.2021
AH/20/PszO/35/Pr/3	winter triticales/ Gre- nado APESV VIOAR BRSNW GALAP PAPRH	APESV 10 plants per m ² VIOAR 5 plants per m ² BRSNW 6 plants per m ² BGALAP 6 plants per m ² PAPRH 5 plants per m ²	APESV BBCH 21 VIOAR BBCH 21 BRSNW BBCH 21 GALAP BBCH 18 PAPRH BBCH 21	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 04.11.2020 Assessment date: 25.11.2020 16.12.2020 05.04.2021 17.05.2021 30.06.2021
AH/20/PszO/35/ZI/4	winter triticales/ Aliko	CENCY 7 plants per m ² STEME 8 plants per m ²	CENCY BBCH 11 STEME BBCH 11	CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 23.10.2020

	CENCY STEME ANTAR MATMA CAPBP GERPU	ANTAR 5 plants per m ² MATMA 5 plants per m ² CAPBP 7 plants per m ² GERPU 6 plants per m ²	ANTAR BBCH 12 MATMA BBCH 10 CAPBP BBCH 10 GERPU BBCH 11	CHR/H/FDF 574 SC	0.5 L/ha			Assessment date: 13.11.2020 04.12.2020 05.04.2021 17.05.2021
A.T/2019/070/ŽO	winter rye/ Florano APESV VIOAR CAPBP GALAP ANTAR BRSNW MATIN VERHE VERPE STEME THALR	APESV 8 plants per m ² VIOAR 5 plants per m ² CAPBP 7 plants per m ² GALAP 6 plants per m ² ANTAR 5 plants per m ² BRSNW 5 plants per m ² MATIN 5 plants per m ² VERHE 5 plants per m ² VERPE 5 plants per m ² STEME 5 plants per m ² THALR 5 plants per m ²	APESV BBCH 11-12 VIOAR BBCH 14-16 CAPBP BBCH 14-16 GALAP BBCH 14-16 ANTAR BBCH 12-16 BRSNW BBCH 12-14 MATIN BBCH 11-12 VERHE BBCH 00-09 VERPE BBCH 00-09 STEME BBCH 00-09 THALR BBCH 00-09	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Komplet 560 SC	0.5 L/ha	Application date: 25.10.2019 Assessment date: 25.10.2019 06.11.2019 21.11.2019 24.02.2020 04.05.2020 25.06.2020
A.T/2019/074/ŽO	winter rye/ Dolaro CENCY STEME ANTAR APESV VERHE PAPRH BRSNW	CENCY 7 plants per m ² STEME 6 plants per m ² ANTAR 5 plants per m ² APESV 12 plants per m ² VERHE 5 plants per m ² PPARH 5 plants per m ² BRSNW 5 plants per m ²	CENCY BBCH 12-14 STEME BBCH 13-14 ANTAR BBCH 12-14 APESV BBCH 13-14 VERHE BBCH 12-14 PAPRH BBCH 12-13 BRSNW BBCH 12-14	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Komplet 560 SC	0.5 L/ha	Application date: 15.10.2019 Assessment date: 15.10.2019 29.10.2019 27.02.2020 06.05.2020 25.06.2020
SRPL19-353-336HE	winter rye/ Granat APESV VIOAR PPARH CENCY MATIN	APESV 3 plants per m ² VIOAR 3.8 plants per m ² PAPRH 6 plants per m ² CENCY 4.5 plants per m ² MATIN 5.3 plants per m ²	APESV BBCH 11-13 VIOAR BBCH 14-16 PPARH BBCH 13-15 CENCY BBCH 13-15 MATIN BBCH 13-15	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Komplet 560 SC	0.5 L/ha	Application date: 16.12.2019 Assessment date: 16.12.2019 23.12.2019 30.12.2019 06.04.2020 01.06.2020
SRPL19-354-336HE	winter rye/ Dnakow- skie Granat VIOAR APESV CENCY ANTAR	VIOAR 25.5 plants per m ² APESV 15.25 plants per m ² CENCY 21.75 plants per m ² ANTAR 3.25 plants per m ² POAAN 4.25 plants per m ²	VIOAR BBCH 11-13 APESV BBCH 11-12 CENCY BBCH 11-12 ANTAR BBCH 11-12 POAAN BBCH 11-13	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Komplet 560 SC	0.5 L/ha	Application date: 05.11.2019 Assessment date: 05.11.2019 12.11.2019 19.11.2019 20.03.2020

	POAAN							
A.T/2020/135/ŽO	winter rye/ Dańkow- skie Diamant VIOAR MATIN APESV VERHE CAPBP GERPU BRSNW GALAP STEME	VIOAR 12 plants per m ² MATIN 5 plants per m ² APESV 16 plants per m ² VERHE 6 plants per m ² CAPBP 5 plants per m ² GERPU 5 plants per m ² BRSNW 5 plants per m ² GALAP 5 plants per m ² STEME 5 plants per m ²	VIOAR BBCH 10-14 MATIN BBCH 10-14 APESV BBCH 10-21 VERHE BBCH 10-21 CAPBP BBCH 10-16 GERPU BBCH 10-14 BRSNW BBCH 10-12 GALAP BBCH 10-12 STEME BBCH 10-14	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Komplet 560 SC	0.5 L/ha	Application date: 04.11.2020 Assessment date: 04.11.2020 18.11.2020 01.04.2021 28.04.2021 22.06.2021
A.T/2020/136/ŽO	winter rye/ Serafino CENCY CAPBP ANTAR VIOAR APESV GERPU GALAP PAPRH	CENCY 8 plants per m ² CAPBP 5 plants per m ² ANTAR 6 plants per m ² VIOAR 5 plants per m ² APESV 8 plants per m ² GERPU 5 plants per m ² GALAP 6 plants per m ² PAPRH 5 plants per m ²	CENCY BBCH 12-14 CAPBP BBCH 14-16 ANTAR BBCH 12-14 VIOAR BBCH 12-14 APESV BBCH 11-12 GERPU BBCH 12-14 GALAP BBCH 10-12 PAPRH BBCH 11-12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Komplet 560 SC	0.5 L/ha	Application date: 19.10.2020 Assessment date: 19.10.2020 02.11.2020 26.11.2020 01.04.2021 18.05.2021
A.T/2020/156/ŽO	winter rye/ Florano GALAP BRSNW GERPU APESV PAPRH	GALAP 14 plants per m ² BRSNW 5 plants per m ² GERPU 20 plants per m ² APESV 5 plants per m ² PAPRH 7 plants per m ²	GALAP BBCH 10-14 BRSNW BBCH 10-14 GERPU BBCH 10-14 APESV BBCH 10-12 PAPRH BBCH 10-12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Komplet 560 SC	0.5 L/ha	Application date: 29.10.2020 Assessment date: 29.10.2020 12.11.2020 25.03.2021 28.04.2021 22.06.2021
AH/20/ŽO/35/Br/1	winter rye/ Poznań- skie APESV VIOAR BRSNW GALAP PAPRH	APESV 12 plants per m ² VIOAR 7 plants per m ² BRSNW 8 plants per m ² GALAP 5 plants per m ² PAPRH 6 plants per m ²	APESV BBCH 12 VIOAR BBCH 12 BRSNW BBCH 13 GALAP BBCH 13 PAPRH BBCH 12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Komplet 560 SC	0.5 L/ha	Application date: 22.10.2020 Assessment date: 12.11.2020 03.12.2020 02.04.2021 14.05.2021 29.06.2021
AH/20/ŽO/35/Br/4	winter rye/ Poznań- skie CENCY	CENCY 7 plants per m ² STEME 10 plants per m ² ANTAR 5 plants per m ² MATMA 6 plants per m ²	CENCY BBCH 19 STEME BBCH 21 ANTAR BBCH 19 MATMA BBCH 19	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Komplet 560 SC	0.5 L/ha	Application date: 04.11.2020 Assessment date: 24.11.2020

	STEME ANTAR MATMA CAPBP GERPU	CAPBP 7 plants per m ² GERPU 6 plants per m ²	CAPBP BBCH 21 GERPU BBCH 21					15.12.2020 02.04.2021 14.05.2021
AH/20/ŽO/35/Gr/2	winter rye/ Bono FI APESV VIOAR BRSNW GALAP PAPRH	APESV 10 plants per m ² VIOAR 8 plants per m ² BRSNW 5 plants per m ² GALAP 5 plants per m ² PAPRH 7 plants per m ²	APESV BBCH 11 VIOAR BBCH 12 BRSNW BBCH 12 GALAP BBCH 11 PAPRH BBCH 12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Komplet 560 SC	0.5 L/ha	Application date: 22.10.2020 Assessment date: 12.11.2020 03.12.2020 02.04.2021 14.05.2021 29.06.2021
AH/20/ŽO/35/ZI/3	winter rye/ Dolaro CENCY STEME ANTAR MATMA CAPBP GERPU	CENCY 6 plants per m ² STEME 12 plants per m ² ANTAR 7 plants per m ² MATMA 6 plants per m ² CAPBP 9 plants per m ² GERPU 5 plants per m ²	CENCY BBCH 11 STEME BBCH 12 ANTAR BBCH 12 MATMA BBCH 13 CAPBP BBCH 12 GERPU BBCH 11	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Komplet 560 SC	0.5 L/ha	Application date: 23.10.2020 Assessment date: 13.11.2020 04.12.2020 01.04.2021 06.05.2021 13.05.2021
AH/20/ŽO/35/ZI/5	winter rye/ Dolaro CENCY STEME ANTAR MATMA CAPBP GERPU	CENCY 5 plants per m ² STEME 14 plants per m ² ANTAR 8 plants per m ² MATMA plants per m ² CAPBP 5 plants per m ² GERPU 5 plants per m ²	CENCY BBCH 20 STEME BBCH 21 ANTAR BBCH 19 MATMA BBCH 19 CAPBP BBCH 20 GERPU BBCH 18	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Komplet 560 SC	0.5 L/ha	Application date: 16.11.2020 Assessment date: 07.12.2020 28.12.2020 01.04.2021 06.05.2021 13.05.2021
A.T/2019/069/JO	winter barley/ Arenia MATIN GALAP PAPRH BRSNW CENCY CAPBP ANTAR STEME APESV MYOAR	MATIN 20 plants per m ² GALAP 5 plants per m ² PAPRH 15 plants per m ² BRSNW 6 plants per m ² CENCY 5 plants per m ² CAPBP 5 plants per m ² ANTAR 5 plants per m ² STEME 5 plants per m ² APESV 6 plants per m ² MYOAR 4 plants per m ²	MATIN BBCH 11-12 GALAP BBCH 10-11 PAPRH BBCH 10-12 BRSNW BBCH 10-12 CENCY BBCH 10-12 CAPBP BBCH 10-12 ANTAR BBCH 11-12 STEME BBCH 10-11 APESV BBCH 00 MYOAR BBCH 00	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 04.10.2019 Assessment date: 04.10.2019 14.10.2019 18.10.2019 10.03.2020 29.04.2020 08.06.2020
A.T/2019/073/JO	winter barley/ Kos- mos BRSNW CAPBP	BRSNW 7 plants per m ² CAPBP 10 plants per m ² GALAP 10 plants per m ² PAPRH 5 plants per m ² VERHE 5 plants per m ²	BRSNW BBCH 12-14 CAPBP BBCH 14-16 GALAP BBCH 14-16 PAPRH BBCH 13-21 VERHE BBCH 13-21	CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 18.10.2019 Assessment date: 18.10.2019 28.10.2019

	GALAP PAPRH VERHE MATIN GERPU MYOAR	MATIN 5 plants per m ² GERPU 5 plants per m ² MYOAR 5 plants per m ²	MATIN BBCH 12-21 GERPU BBCH 13-21 MYOAR BBCH 00					25.02.2020 05.05.2020 24.06.2020
AH/19/JO/26/Pr/FDF1/ 2	winter barley/ Zenek APESV VIOAR BRSNW GALAP PAPRH	APESV 10 plants per m ² VIOAR 8 plants per m ² BRSNW 8 plants per m ² GALAP 7 plants per m ² PAPRH 6 plants per m ²	APESV BBCH 12 VIOAR BBCH 12 BRSNW BBCH 13 GALAP BBCH 12 PAPRH BBCH 12	CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 17.10.2019 Assessment date: 31.10.2019 21.11.2019 16.03.2020 08.06.2020
AH/19/JO/26/ZI/FDF/2	winter barley/ Gloria CENCY STEME ANTAR MATIN CAPBP GERPU	CENCY 7 plants per m ² STEME 8 plants per m ² ANTAR 7 plants per m ² MATIN 6 plants per m ² CAPBP 8 plants per m ² GERPU 7 plants per m ²	CENCY BBCH 20 STEME BBCH 21 ANTAR BBCH 21 MATIN BBCH 22 CAPBP BBCH 21 GERPU BBCH 22	CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 05.11.2019 Assessment date: 19.11.2019 10.12.2019 16.03.2020 17.04.2020 09.06.2020
A.T/2020/133/JO	winter barley/ Sandra CENCY VERHE VIOAR GALAP CAPBP ANTAR STEME PAPRH APESV	CENCY 25 plants per m ² VERHE 5 plants per m ² VIOAR 7 plants per m ² GALAP 5 plants per m ² CAPBP 5 plants per m ² ANTAR 6 plants per m ² STEME 5 plants per m ² PAPRH 5 plants per m ² APESV 21 plants per m ²	CENCY BBCH 11-12 VERHE BBCH 11-13 VIOAR BBCH 10-11 GALAP BBCH 10-11 CAPBP BBCH 10-11 ANTAR BBCH 11-12 STEME BBCH 11-12 PAPRH BBCH 11-12 APESV BBCH 10-11	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 12.10.2020 Assessment date: 12.10.2020 26.10.2020 10.03.2021 18.05.2021 11.06.2021
A.T/2020/134/JO	winter barley/ Galileo VIOAR GALAP MATIN BRSNW CAPBP STEME GERPU	VIOAR 5 plants per m ² GALAP 13 plants per m ² MATIN 6 plants per m ² BRSNW 5 plants per m ² CAPBP 9 plants per m ² STEME 5 plants per m ² GERPU 5 plants per m ²	VIOAR BBCH 10-11 GALAP BBCH 10-11 MATIN BBCH 10-11 BRSNW BBCH 11-12 CAPBP BBCH 11-12 STEME BBCH 10-12 GERPU BBCH 10-11	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 09.10.2020 Assessment date: 09.10.2020 23.10.2020 17.03.2021 18.05.2021 09.06.2021

A.T/2020/153/JO	winter barley/ Zenek APESV CENCY VIOAR BRSNW ANTAR PAPRH BCAPBP GERPU VERHE	APESV 20 plants per m ² CENCY 8 plants per m ² VIOAR 23 plants per m ² BRSNW 5 plants per m ² ANTAR 5 plants per m ² PAPRH 5 plants per m ² CAPBP 5 plants per m ² GERPU 5 plants per m ² VERHE 5 plants per m ²	APESV BBCH 10-12 CENCY BBCH 11-12 VIOAR BBCH 10-11 BRSNW BBCH 10-11 ANTAR BBCH 10-11 PAPRH BBCH 10-12 BCAPBP BBCH 10-11 GERPU BBCH 11-12 VERHE BBCH 10-11	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 16.10.2020 Assessment date: 16.10.2020 30.10.2020 24.03.2021 18.05.2021 15.06.2021
SRPL20-434-336HE	winter barley/ Sandra APESV VIOAR BRSNW GALAP PAPRH	APESV 77.5 plants per m ² VIOAR 54 plants per m ² BRSNW 7 plants per m ² GALAP 6.5 plants per m ² PAPRH 5.5 plants per m ²	APESV BBCH 10-12 VIOAR BBCH 10-14 BRSNW BBCH 10-13 GALAP BBCH 10-12 PAPRH BBCH 10-14	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 28.10.2020 Assessment date: 28.10.2020 04.11.2020 11.11.2020 25.11.2020 26.03.2021 18.06.2021
SRPL20-435-336HE	winter barley/ Kosmos APESV VIOAR BRSNW STEME ANTAR	APESV 4 plants per m ² VIOAR 11.5 plants per m ² BRSNW 4.5 plants per m ² STEME 3.75 plants per m ² ANTAR 3.25 plants per m ²	APESV BBCH 10-12 VIOAR BBCH 11 BRSNW BBCH 11-12 STEME BBCH 11-12 ANTAR BBCH 11	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 05.11.2020 Assessment date: 05.11.2020 12.11.2020 19.11.2020 03.12.2020 30.03.2021 22.06.2021
SRPL20-436-336HE	winter barley/ Sandra APESV VIOAR GALAP STEME MATIN	APESV 48 plants per m ² VIOAR 28 plants per m ² GALAP 11 plants per m ² STEME 46 plants per m ² MATIN 38.5 plants per m ²	APESV BBCH 11-19 VIOAR BBCH 12-18 GALAP BBCH 12-16 STEME BBCH 12-16 MATIN BBCH 11-17	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 05.11.2020 Assessment date: 05.11.2020 12.11.2020 19.11.2020 03.12.2020 26.03.2021 18.06.2021
SRPL20-437-336HE	winter barley/ Kosmos APESV CENCY ANTAR GERPU	APESV 35 plants per m ² CENCY 10 plants per m ² ANTAR 6 plants per m ² GERPU 5 plants per m ²	APESV BBCH 10-12 CENCY BBCH 11-12 ANTAR BBCH 11-12 GERPU BBCH 11-13	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 23.10.2020 Assessment date: 23.10.2020 06.11.2020 20.11.2020 04.12.2020 16.03.2021

Product code: CHR/H/FDF 574 SC
 Product name: Cezaro 574 SC/ Huron 574 SC
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								02.06.2021
SRPL20-438-336HE	winter barley/ Kosmos CENCY STEME MATIN BRSNW GERPU	CENCY 6.5 plants per m ² STEME 5.5 plants per m ² MATIN 7.5 plants per m ² BRSNW 5.8 plants per m ² GERPU 6 plants per m ²	CENCY BBCH 12-16 STEME BBCH 12-18 MATIN BBCH 12-14 BRSNW BBCH 14-18 GERPU BBCH 12-16	CHR/H/FDF 574 SC CHR/H/FDF 574 SC CHR/H/FDF 574 SC	0.3 L/ha 0.4 L/ha 0.5 L/ha	Bizon 118,75 SC Komplet 560 SC	1.0 L/ha 0.5 L/ha	Application date: 27.10.2020 Assessment date: 27.10.2020 10.11.2020 24.11.2020 29.03.2021 31.05.2021

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 herbicide effectiveness trials

Table 1. The efficacy of CHR/H/FDF 574 SC in control of ANTAR Anthemis arvensis in winter wheat

Pest code			ANTAR Anthemis arvensis															
Report code			A.T/2019/071/PO		AH/19/PO/26/Ce/FDF2/1		A.T/2020/129/PO	A.T/2020/130/PO		A.T/2020/154/PO		SRPL20-432-336HE						
Application date			14.10.2019	14.10.2019	15.11.2019	15.11.2019	22.10.2020	17.10.2020	17.10.2020	27.10.2020	27.10.2020	09.11.2020						
Crop stage in application			BBCH 12-13	BBCH 12-13	BBCH 21	BBCH 21	BBCH 13-14	BBCH 11-13	BBCH 11-13	BBCH 21-22	BBCH 21-22	BBCH 11						
Pest stage			BBCH 12-14	BBCH 12-14	BBCH 21	BBCH 21	BBCH 10-11	BBCH 11-12	BBCH 11-12	BBCH 12-14	BBCH 12-14	BBCH 10-11						
Assessment date			24.02.2020	24.06.2020	17.03.2020	13.04.2020	31.03.2021	02.04.2021	25.06.2021	01.04.2021	29.06.2021	12.04.2021	123-167 DA-A			150 – 254 DA-A		
Days after application DA-A			133 DA-A	254 DA-A	123 DA-A	150 DA-A	160 DA-A	167 DA-A	251 DA-A	156 DA-A	245 DA-A	154 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			5.0	5.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	8.0	5.7	5.0	8.0	5.3	5.0	6.0
No	Name	Rate (L _a kg/ha)																
1	Untreated Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.	CHR/H/FDF 547 SC	0.3 L/ha	100.00a	100.00a	73.80c	75.00c	100.00a	100.00a	100.00a	99.00a	100.00a	90.00a	93.80	73.80	100.00	93.75	75.00	100.00
3.	CHR/H/FDF 547 SC	0.4 L/ha	100.00a	100.00a	93.80b	95.00b	100.00a	100.00a	100.00a	99.00a	100.00a	100.00a	98.80	93.80	100.00	98.75	95.00	100.00
4.	CHR/H/FDF 547 SC	0.5 L/ha	100.00a	100.00a	98.80a	100.00a	100.00a	100.00a	100.00a	99.00a	100.00a	100.00a	99.63	98.80	100.00	100.00	100.00	100.00
5.	Bizon 118,75 SC	1.0 L/ha	100.00a	100.00a	98.80a	100.00a	100.00a	100.00a	100.00a	99.00a	100.00a	100.00a	99.63	98.80	100.00	100.00	100.00	100.00
6.	Komplet 560 SC	0.5 L/ha	82.00b	78.80b	98.00a	100.00a	100.00a	100.00a	100.00a	90.00b	100.00a	100.00a	96.50	82.00	100.00	94.70	78.80	100.00
LSD(P=.05)			1.690	3.300	2.720	3.730				2.810		5.400						

Table 2. The efficacy of CHR/H/FDF 574 SC in control of ANTAR Anthemis arvensis in winter triticales

Pest code			ANTAR Anthemis arvensis																	
Report code			A.T.2019.068.PŽO		SRPL19-351-336HE		A.T/2020/132/PŽO		A.T/2020/155/PŽO		AH/20/PszO/35/Br/5		AH/20/PszO/35/ZI/4							
Application date			15.10.2019	15.10.2019	05.11.2019	05.11.2019	03.11.2020	03.11.2020	26.10.2020	26.10.2020	04.11.2020	04.11.2020	23.10.2020	23.10.2020						
Crop stage in application			BBCH 12-13	BBCH 12-13	BBCH 13-15	BBCH 13-15	BBCH 13-21	BBCH 13-21	BBCH 19-22	BBCH 19-22	BBCH 21-22	BBCH 21-22	BBCH 12	BBCH 12						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 12	BBCH 12	BBCH 12-14	BBCH 12-14	BBCH 10-12	BBCH 10-12	BBCH 19	BBCH 19	BBCH 12	BBCH 12						
Assessment date			17.03.2019	24.06.2019	20.03.2020	24.07.2020	02.04.2021	28.06.2021	15.03.2021	21.06.2021	02.04.2021	14.05.2021	05.04.2021	17.05.2021	136-164 DA-A			191-253 DA-A		
Days after application DA-A			154 DA-A	253 DA-A	136 DA-A	262 DA-A	150 DA-A	237 DA-A	140 DA-A	238 DA-A	149 DA-A	191 DA-A	164 DA-A	206 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			6.0	6.0	9.3	9.3	5.0	5.0	7.0	8.0	7.0	7.0	5.0	5.0	6.5	5.0	9.3	6.2	5.0	8.0
No	Name	Rate (L/ha)																		
1	Untreated Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.	CHR/H/FDF 547 SC	0.3 L/ha	100.00a	100.00a	82.50b	82.50b	100.00a	100.00a	100.00a	100.00a	73.80c	75.00b	73.80c	75.00c	88.35	73.80	100.00	90.00	75.00	100.00
3.	CHR/H/FDF 547 SC	0.4 L/ha	100.00a	100.00a	85.00b	85.00b	100.00a	100.00a	100.00a	100.00a	90.00ab	90.00a	90.00b	90.00b	94.17	85.00	100.00	96.00	90.00	100.00
4.	CHR/H/FDF 547 SC	0.5 L/ha	100.00a	100.00a	96.30a	96.30a	100.00a	100.00a	100.00a	100.00a	93.80a	95.00a	98.80a	100.00a	98.15	93.80	100.00	99.00	95.00	100.00
5.	Bizon 118,75 SC	1.0 L/ha	100.00a	100.00a	72.50c	72.50c	100.00a	100.00a	100.00a	100.00a	88.80b	90.00a	90.00b	90.00b	91.88	72.50	100.00	96.00	90.00	100.00
6.	Komplet 560 SC	0.5 L/ha	81.30b	80.00b	85.00b	85.00b	100.00a	100.00a	90.00a	85.00b	88.80b	90.00a	88.80b	90.00b	88.98	81.30	100.00	89.00	80.00	100.00
LSD(P=0.05)			1.720	2.810	4.750	4.750	-	-	-	2.810	4.050	5.020	4.550	4.050						

Table 3. The efficacy of CHR/H/FDF 574 SC in control of ANTAR Anthemis arvensis in winter rye

Pest code			ANTAR <i>Anthemis arvensis</i>																		
Report code			A.T/2019/070/ŽO		A.T/2019/074/ŽO		SRPL19 -353- 336HE	A.T/2020/136/ŽO		AH/20/ŽO/35/Br/4		AH/20/ŽO/35/ZI/3		AH/20/ŽO/35/ZI/5							
Application date			25.10.20 19	25.10.20 19	15.10.20 19	15.10.20 19	05.11.20 19	19.10.20 20	19.10.20 20	04.11.20 20	04.11.20 20	23.10.20 20	23.10.20 20	16.11.20 20	16.11.20 20						
Crop stage in applica- tion			BBCH 22-24	BBCH 22-24	BBCH 13-14	BBCH 13-14	BBCH 15-23	BBCH 19-22	BBCH 19-22	BBCH 22-23	BBCH 22-23	BBCH 13	BBCH 13	BBCH 20	BBCH 20						
Pest stage			BBCH 12-16	BBCH 12-16	BBCH 12-14	BBCH 12-14	BBBCH 11-12	BBCH 12-14	BBCH 12-14	BBCH 19	BBCH 19	BBCH 12	BBCH 12	BBCH 19	BBCH 19						
Assessment date			24.02.20 20	25.06.20 20	27.02.20 20	25.06.20 20	20.03.20 20	01.04.20 21	28.06.20 21	02.04.20 21	14.05.20 21	01.04.20 21	13.05.20 21	01.04.20 21	13.05.20 21	122-164 DA-A			178-254 DA-A		
Days after application DA-A			122 DA- A	244 DA- A	135 DA- A	254 DA- A	136 DA- A	164 DA- A	252 DA- A	149 DA- A	191 DA- A	160 DA- A	202 DA- A	136 DA- A	178 DA- A	Ave- rage	Min	Max.	Ave- rage	Min	Max.
weeds density pcs/m²			5.0	5.0	5.0	5.0	4.0	6.0	6.0	5.0	5.0	7.0	7.0	8.0	8.0	5.7	4.0	8.0	6.0	5.0	8.0
No	Name	Rate (L, kg/h a)																			
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/F DF 547 SC	0.3 L/ha	97.00a	97.00a	100.00a	100.00a	96.30b	100.00a	100.00a	73.80c	75.00c	73.80d	75.00c	73.80c	75.00b	87.81	73.8 0	100.0 0	87.00	75.0 0	100.0 0
3	CHR/H/F DF 547 SC	0.4 L/ha	98.00a	98.00a	100.00a	100.00a	97.50ab	100.00a	100.00a	90.00b	90.00b	82.50c	85.00b	90.00ab	90.00a	94.00	82.5 0	100.0 0	93.83	85.0 0	100.0 0
4	CHR/H/F DF 547 SC	0.5 L/ha	99.00a	99.00a	100.00a	100.00a	100.00a	100.00a	100.00a	98.80a	100.00a	97.50a	100.00a	93.80a	95.00a	98.44	93.8 0	100.0 0	99.00	95.0 0	100.0 0
5	Komplet 560 SC	0.5 L/ha	91.30b	91.30b	100.00a	100.00a	100.00a	100.00a	100.00a	88.80b	90.00b	88.80b	90.00b	88.80b	90.00a	93.96	88.8 0	100.0 0	93.55	90.0 0	100.0 0
LSD(P=.05)			3.440	3.440			3.56			2.540	4.220	3.520	5.260	4.040	5.070						

Table 4. The efficacy of CHR/H/FDF 574 SC in control of ANTAR Anthemis arvensis in winter barley

Pest code			ANTAR Anthemis arvensis																	
Report code			A.T/2019/069/JO		AH/19/JO/26/ZI/FD F/2		A.T/2020/133/JO		A.T/2020/153/JO		SRPL20-435-336HE		SRPL20-437-336HE							
Application date			04.10.2019	04.10.2019	05.11.2019	05.11.2019	12.10.2020	12.10.2020	16.10.2020	16.10.2020	05.11.2020	05.11.2020	23.10.2020	23.10.2020						
Crop stage in application			BBCH 12-21	BBCH 12-21	BBCH 21-23	BBCH 21-23	BBCH 12-14	BBCH 12-14	BBCH 12-13	BBCH 12-13	BBCH 11-13	BBCH 11-13	BBCH 11-13	BBCH 11-13						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 21	BBCH 21	BBCH 11-12	BBCH 11-12	BBCH 10-11	BBCH 10-11	BBCH 11	BBCH 11	BBCH 11-12	BBCH 11-12						
Assessment date			10.03.2020	08.06.2020	16.03.2020	17.04.2020	10.03.2021	11.06.2021	24.03.2021	15.06.2021	30.03.2021	22.06.2021	16.03.2021	02.06.2021	132-159 DA-A			164-248 DA-A		
Days after application DA-A			158 DA-A	248 DA-A	132 DA-A	164 DA-A	149 DA-A	242 DA-A	159 DA-A	242 DA-A	145 DA-A	229 DA-A	144 DA-A	222 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			5.0	5.0	7.0	7.0	5.0	6.0	5.0	5.0	5.3	6.3	6.0	6.0	5.5	5.0	7.0	5.9	5.0	7.0
No	Name	Rate (L/ha)																		
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FDF 547 SC	0.3 L/ha	100.00a	100.00a	70.00c	70.00c	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	86.25e	87.50c	92.71	70.00	100.00	92.92	70.00	100.00
3	CHR/H/FDF 547 SC	0.4 L/ha	100.00a	100.00a	87.50b	90.00b	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	88.75d	90.00c	96.04	87.50	100.00	96.67	90.00	100.00
4	CHR/H/FDF 547 SC	0.5 L/ha	100.00a	100.00a	98.80a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	93.75c	93.75b	98.76	93.75	100.00	98.96	93.75	100.00
5	Bizon 118,75 SC	1.0 L/ha	100.00a	100.00a	98.80a	100.00a	98.80a	100.00a	100.00a	100.00a	100.00a	100.00a	97.00a	99.00a	99.10	97.00	100.00	99.83	99.00	100.00
6	Komplet 560 SC	0.5 L/ha	85.00a	85.00a	98.80a	100.00a	100.00a	100.00a	91.50b	91.50b	100.00a	100.00a	95.00ab	99.00a	95.05	85.00	100.00	95.92	85.00	100.00
LSD(P=.05)					3.950	3.180	1.720		1.190	1.720			4.115	3.371						

Table 5. The efficacy of CHR/H/FDF 574 SC in control of APESV *Apera spica-venti* in winter wheat

Pest code			APESV <i>Apera spica-venti</i>																				
Report code			A.T/2019/067/PO		A.T/2019/071/PO		AH/19/PO/26/Pr/F DF1/I		A.T/2020/129/PO		A.T/2020/130/PO		SRPL20-429- 336HE		SRPL20-430- 336HE		SRPL2 0-432- 336HE						
Application date			14.10.2 019	14.10.2 019	14.10.2 019	14.10.2 019	18.10.20 19	18.10.20 19	22.10.2 020	22.10.2 020	17.10.2 020	17.10.2 020	15.11.2 020	15.11.2 020	03.11.2 020	03.11.2 020	09.11.2 020						
Crop stage in appli- cation			BBCH 11-12	BBCH 11-12	BBCH 12-13	BBCH 12-13	BBCH 14	BBCH 14	BBCH 13-14	BBCH 13-14	BBCH 11-13	BBCH 11-13	BBCH 12-15	BBCH 12-15	BBCH 13-21	BBCH 13-21	BBCH 11						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 11-13	BBCH 11-13	BBCH 13	BBCH 13	BBCH 11-13	BBCH 11-13	BBCH 11-12	BBCH 11-12	BBCH 10-12	BBCH 10-12	BBCH 11-22	BBCH 11-22	BBCH 10-11						
Assessment date			13.03.2 020	15.06.2 020	24.02.2 020	24.06.2 020	16.03.20 20	15.06.20 20	31.03.2 021	23.06.2 021	02.04.2 021	25.06.2 021	29.03.2 021	24.05.2 021	15.03.2 021	02.06.2 021	12.04.2 021	123-167 DA-A			190-254 DA-A		
Days after applica- tion DA-A			151 DA-A	245 DA-A	133 DA-A	254 DA-A	150 DA- A	241 DA- A	160 DA-A	244 DA-A	167 DA-A	251 DA-A	134 DA-A	190 DA-A	132 DA-A	211 DA-A	154 DA-A	Ave- rage	Mi n.	Max .	Ave- rage	Mi n.	Max .
weeds density pcs/m ²			68.0	138.0	20.0	38.0	9.0	9.0	29.0	70.0	20.0	180.0	6.0	8.3	43.0	43.0	71.0	33.3	6.0	71.0	69.5	8.3	180.0
N o.	Name	Rate (L, kg/h a)																					
1	Untrea- ted Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/ FDF 547 SC	0.3 L/ha	84.00c	74.80d	100.0a	100.0a	80.00b	81.30b	95.80b	96.30b	95.00a	93.80a	32.50d	86.30c	83.80b	82.50b	92.00b	82.89	32.50	100.00	87.86	74.80	100.00
3	CHR/H/ FDF 547 SC	0.4 L/ha	89.00b	80.30c	100.00a	100.00a	97.50a	100.00a	100.00a	100.00a	97.00a	99.00a	43.80c	92.50b	96.00a	96.00a	100.00a	90.41	43.80	100.00	95.40	80.30	100.00
4	CHR/H/ FDF 547 SC	0.5 L/ha	93.50a	85.80b	100.00a	100.00a	98.80a	100.00a	100.00a	100.00a	100.00a	100.00a	56.30b	97.00a	96.80a	99.00a	100.00a	93.18	56.30	100.00	97.40	85.80	100.00
5	Bizon 118,75 SC	1.0 L/ha	77.50d	67.00c	93.80b	88.80b	98.80a	100.00a	86.30c	82.50c	87.50b	67.50b	62.50a	99.00a	95.00a	96.00a	100.00a	87.68	62.50	100.00	85.83	67.00	100.00
6	Komplet 560 SC	0.5 L/ha	87.30b	93.30a	100.00a	100.00a	98.80a	100.00a	100.00a	100.00a	97.00a	96.30a	62.50a	99.00a	99.00a	99.00a	100.00a	93.08	62.50	100.00	98.23	93.30	100.00
LSD(P=.05)			2.880	3.250	5.170	1.720	3.250	1.540	2.000	2.440	5.110	6.850	4.530	4.150	4.610	3.850	4.200						

Table 6. The efficacy of CHR/H/FDF 574 SC in control of APESV *Apera spica-venti* in winter triticale

Pest code			APESV <i>Apera spica-venti</i>																							
Report code			A.T.2019.068.P ŽO		A.T.2019.072.P ŽO		SRPL19-351- 336HE		A.T/2020/131/ PŽO		A.T/2020/132/ PŽO		A.T/2020/155/ PŽO		AH/20/PszO/35 /Br/2		AH/20/PszO/35 /Pr/1		AH/20/PszO/35 /Pr/3							
Application date			15.10. 2019	15.10. 2019	14.10. 2019	14.10. 2019	05.11. 2019	05.11. 2019	24.10. 2020	24.10. 2020	03.11. 2020	03.11. 2020	26.10. 2020	26.10. 2020	22.10. 2020	22.10. 2020	23.10. 2020	23.10. 2020	04.11. 2020	04.11. 2020						
Crop stage in application			BBCH 12-13	BBCH 12-13	BBCH 11-12	BBCH 11-12	BBCH 13-15	BBCH 13-15	BBCH 11-13	BBCH 11-13	BBCH 13-21	BBCH 13-21	BBCH 19-22	BBCH 19-22	BBCH 13	BBCH 13	BBCH 12-13	BBCH 12-13	BBCH 22	BBCH 22						
Pest stage			BBCH 11-14	BBCH 11-14	BBCH 11-12	BBCH 11-12	BBCH 11-13	BBCH 11-13	BBCH 10-11	BBCH 10-11	BBCH 11-12	BBCH 11-12	BBCH 11-18	BBCH 11-18	BBCH 12	BBCH 12	BBCH 12	BBCH 12	BBCH 21	BBCH 21						
Assessment date			17.03. 2019	24.06. 2019	24.02. 2019	24.06. 2019	20.03. 2020	24.07. 2020	07.04. 2021	22.06. 2021	02.04. 2021	28.06. 2021	15.03. 2021	21.06. 2021	02.04. 2021	14.05. 2021	05.04. 2021	17.05. 2021	05.04. 2021	17.05. 2021	133-165 DA-A			194-254 DA-A		
Days after appli- cation DA-A			154 DA-A	253 DA-A	133 DA-A	254 DA-A	136 DA-A	262 DA-A	165 DA-A	241 DA-A	150 DA-A	237 DA-A	140 DA-A	238 DA-A	162 DA-A	204 DA-A	164 DA-A	206 DA-A	152 DA-A	194 DA-A	Ave- rage	Mi n.	Ma x.	Ave- rage	Mi n.	Ma x.
weeds density pcs/m²			70.0	127.0	10.0	20.0	28.5	28.5	20.0	60.0	11.0	33.0	56.0	250.0	8.0	8.0	12.0	12.0	10.0	10.0	25.1	8.0	70.0	65.0	8.0	250.0
N o.	Name	Rate (L, kg/ ha)																								
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2.	CHR/H /FDF 547 SC	0.3 L/h a	88.80c	81.00b	100.00a	100.00a	80.00c	91.30b	82.50c	90.00c	90.50c	88.80a	86.30b	85.50b	78.80b	80.00c	78.80c	80.00b	72.50d	75.00d	84.24	72.50	100.00	85.04	75.00	100.00
3.	CHR/H /FDF 547 SC	0.4 L/h a	94.00b	91.00a	100.00a	100.00a	87.50b	93.80b	88.80b	97.80ab	95.00b	92.50a	95.00a	92.50ab	93.80a	95.00b	95.00ab	95.00a	95.00b	95.00a	93.79	87.50	100.00	94.85	91.00	100.00
4.	CHR/H /FDF 547 SC	0.5 L/h a	97.30a	94.30a	100.00a	100.00a	90.00b	100.00a	93.50a	99.00a	99.00a	97.50a	100.00a	95.50a	97.50a	100.00a	98.80a	100.00a	98.80a	100.00a	97.21	90.00	100.00	98.29	94.30	100.00
5.	Bizon 118,75 SC	1.0 L/h a	85.50d	67.50c	100.00a	100.00a	76.30d	85.00c	58.80d	36.30d	75.00d	71.30b	67.50c	45.50c	93.80a	95.00b	93.80b	95.00a	88.80c	90.00c	82.17	58.80	100.00	75.08	36.30	100.00
6.	Kom- plet 560 SC	0.5 L/h a	95.30ab	89.80a	100.00a	100.00a	93.80a	100.00a	92.50ab	95.00b	90.00c	92.00a	98.80a	96.80a	93.80a	95.00b	95.00ab	95.00a	93.80b	95.00b	94.78	90.00	100.00	94.83	89.80	100.00
LSD(P=.05)			2.800	8.610			2.970	3.460	4.540	3.610	2.900	17.720	7.920	7.950	4.700	4.350	4.680	5.390	4.110	4.630						

Table 7. The efficacy of CHR/H/FDF 574 SC in control of APESV *Apera spica-venti* in winter rye

Pest code			APESV <i>Apera spica-venti</i>																					
Report code			A.T/2019/070/Ž O		A.T/2019/074/Ž O		SRPL1 9-354- 336HE	SRPL1 9-353- 336HE	A.T/2020/135/Ž O		A.T/2020/136/Ž O		A.T/2020/156/Ž O		AH/20/ŽO/35/Br /1		AH/20/ŽO/35/G r/2							
Application date			25.10.2 019	25.10.2 019	15.10.2 019	15.10.2 019	16.12.2 019	05.11.2 019	04.11.2 020	04.11.2 020	19.10.2 020	19.10.2 020	29.10.2 020	29.10.2 020	22.10.2 020	22.10.2 020	22.10.2 020	22.10.2 020						
Crop stage in appli- cation			BBCH 22-24	BBCH 22-24	BBCH 13-14	BBCH 13-14	BBCH 14-15	BBCH 15-23	BBCH 21-25	BBCH 21-25	BBCH 19-22	BBCH 19-22	BBCH 14-23	BBCH 14-23	BBCH 13	BBCH 13	BBCH 13	BBCH 13						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 13-14	BBCH 13-14	BBCH 11-13	BBCH 11-12	BBCH 10-21	BBCH 10-21	BBCH 11-12	BBCH 11-12	BBCH 10-12	BBCH 10-12	BBCH 12	BBCH 12	BBCH 11	BBCH 11						
Assessment date			24.02.2 020	25.06.2 020	27.02.2 020	25.06.2 020	01.06.2 020	20.03.2 020	01.04.2 021	22.06.2 021	01.04.2 021	28.06.2 021	25.03.2 021	22.06.2 021	02.04.2 021	14.05.2 021	02.04.2 021	14.05.2 021	122-168 DA-A			204-254 DA-A		
Days after applica- tion DA-A			122 DA-A	244 DA-A	135 DA-A	254 DA-A	168 DA-A	136 DA-A	148 DA-A	230 DA-A	164 DA-A	252 DA-A	147 DA-A	236 DA-A	162 DA-A	204 DA-A	162 DA-A	204 DA-A	Ave- rage	Mi- n.	Ma- x.	Ave- rage	Mi- n.	Ma- x.
weeds density pcs/m ²			8.0	20.0	12.0	20.0	6.8	16.3	15.0	60.0	7.0	15.0	5.0	20.0	12.0	12.0	10.0	10.0	10.2	5.0	16.3	22.4	10.0	60.0
N o.	Name	Rate (L/h a)																						
1	Untrea- ted Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/ FDF 547 SC	0.3 L/h a	85.00c	85.00c	100.00a	100.00a	92.50ab	92.50ab	82.50b	92.50c	95.80b	100.00a	78.80c	93.80b	78.80b	80.00c	73.80c	75.00d	86.63	73.80	100.00	89.47	75.00	100.00
3	CHR/H/ FDF 547 SC	0.4 L/h a	90.00b	90.00b	100.00a	100.00a	97.00a	93.80ab	96.50a	98.50ab	97.30ab	100.00a	88.80b	99.00a	95.00a	95.00b	90.00b	90.00c	94.27	88.80	100.00	96.07	90.00	100.00
4	CHR/H/ FDF 547 SC	0.5 L/h a	93.80a	93.80a	100.00a	100.00a	91.30b	98.50a	99.00a	100.00a	100.00a	100.00a	95.30a	100.00a	98.80a	100.00a	98.80a	100.00a	97.28	91.30	100.00	99.11	93.80	100.00
5	Komplet 560 SC	0.5 L/h a	93.80a	93.80a	100.00a	100.00a	88.80c	91.30b	88.80b	95.30bc	100.00a	100.00a	90.00b	98.50a	95.00a	95.00b	95.00ab	95.00b	93.63	88.80	100.00	96.80	93.80	100.00
LSD(P=.05)			2.980	2.980	-	-	5.300	6.370	3.850	3.440	2.610	-	3.750	2.750	4.720	4.450	5.120	4.870						

Table 8. The efficacy of CHR/H/FDF 574 SC in control of APESV *Apera spica-venti* in winter barley

Pest code			APESV <i>Apera spica-venti</i>																					
Report code			A.T/2019/069/J O		AH/19/JO/26/Pr/ FDF1/2		A.T/2020/133/J O		A.T/2020/153/J O		SRPL20-434- 336HE		SRPL20-435- 336HE		SRPL20-436- 336HE		SRPL20-437- 336HE							
Application date			04.10.2 019	04.10.2 019	17.10.2 019	17.10.2 019	12.10.2 020	12.10.2 020	16.10.2 020	16.10.2 020	28.10.2 020	28.10.2 020	05.11.2 020	05.11.2 020	05.11.2 020	05.11.2 020	23.10.2 020	23.10.2 020						
Crop stage in application			BBCH 12-21	BBCH 12-21	BBCH 14	BBCH 14	BBCH 12-14	BBCH 12-14	BBCH 12-13	BBCH 12-13	BBCH 11-13	BBCH 11-13	BBCH 11-13	BBCH 11-13	BBCH 19-22	BBCH 19-22	BBCH 11-13	BBCH 11-13						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 13	BBCH 13	BBCH 10-11	BBCH 10-11	BBCH 10-12	BBCH 10-12	BBCH 10-12	BBCH 10-12	BBCH 10-12	BBCH 10-12	BBCH 11-19	BBCH 11-19	BBCH 10-12	BBCH 10-12						
Assessment date			10.03.2 020	08.06.2 020	16.03.2 020	20.04.2 020	10.03.2 021	11.06.2 021	24.03.2 021	15.06.2 021	26.03.2 021	18.06.2 021	30.03.2 021	22.06.2 021	26.03.2 021	18.06.2 021	16.03.2 021	02.06.2 021	141-159 DA-A			186-248 DA-A		
Days after applica- tion DA-A			158 DA-A	248 DA-A	151 DA-A	186 DA-A	149 DA-A	242 DA-A	159 DA-A	242 DA-A	149 DA-A	233 DA-A	145 DA-A	229 DA-A	141 DA-A	225 DA-A	144 DA-A	222 DA-A	Ave- rage	Mi- n.	Ma- x.	Ave- rage	Mi- n.	Ma- x.
weeds density pcs/m²			6.0	12.0	10.0	10.0	20.0	98.0	19.0	34	75.0	85.0	8.5	9.0	50.3	51.3	35.0	35.0	28.0	6.0	75.0	42.9	9.0	98.0
N o.	Name	Ra- te (L, kg/h a)	I																					
1	Untrea- ted Check	-	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0 0	0.00	0.00	0.0 0	0.00
2.	CHR/H/ FDF 547 SC	0.3 L/h a	91.80b	91.80d	77.50b	80.00b	96.30a	96.50a	97.30a	100.00 a	92.50a	67.50b	100.00 a	100.00 a	95.80a	90.00a	96.00a	96.00a	93.40	77. 50	100. 00	90.23	67. 50	100. 00
3.	CHR/H/ FDF 547 SC	0.4 L/h a	98.00a	97.00b	96.30a	100.00a	98.80a	98.50a	98.00a	100.00 a	96.50a	66.30b	100.00 a	100.00 a	96.50a	95.80a	97.00a	97.00a	97.64	96. 30	100. 00	94.33	66. 30	100. 00
4.	CHR/H/ FDF 547 SC	0.5 L/h a	99.00a	100.00 a	97.50a	100.00a	100.00 a	100.00 a	98.00a	100.00 a	97.30a	88.80a	100.00 a	100.00 a	98.00a	98.50a	98.00a	98.00a	98.48	97. 30	100. 00	98.16	88. 80	100. 00
5.	Bizon 118,75 SC	1.0 L/h a	95.30a	90.00c	97.50a	100.00a	82.50b	82.80b	97.30a	100.00 a	73.80c	65.00b	100.00 a	100.00 a	65.00b	55.00b	99.00a	99.00a	88.80	65. 00	100. 00	86.48	55. 00	100. 00
6.	Komplet 560 SC	0.5 L/h a	97.30a	97.30b	98.80a	100.00a	100.00 a	100.00 a	98.00a	100.00 a	82.50b	66.30b	100.00 a	100.00 a	95.80a	93.80a	99.00a	99.00a	96.43	82. 50	100. 00	94.55	66. 30	100. 00
LSD(P=.05)			4.030	1.730	3.180	2.510	4.820	3.830	1.520	-	5.160	13.310	-	-	6.020	9.910	3.625	3.625						

Table 9. The efficacy of CHR/H/FDF 574 SC in control of VIOAR *Viola arvensis* in winter wheat

Pest code			VIOAR <i>Viola arvensis</i>																				
Report code			A.T/2019/067/PO		A.T/2019/071/PO		AH/19/PO/26/Pr/F DF1/I		SRPL20-429- 336HE		SRPL20-430- 336HE		SRPL20-431- 336HE		SRPL2 0-432- 336HE	SRPL20-433- 336HE							
Application date			14.10.2 019	14.10.2 019	14.10.2 019	14.10.2 019	18.10.20 19	18.10.20 19	15.11.2 020	15.11.2 020	03.11.2 020	03.11.2 020	28.10.2 020	28.10.2 020	09.11.2 020	05.11.2 020	05.11.2 020						
Crop stage in appli- cation			BBCH 11-12	BBCH 11-12	BBCH 12-13	BBCH 12-13	BBCH 14	BBCH 14	BBCH 12-15	BBCH 12-15	BBCH 13-21	BBCH 13-21	BBCH 10-12	BBCH 10-12	BBCH 11	BBCH 17-19	BBCH 17-19						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 12-14	BBCH 12-14	BBCH 12	BBCH 12	BBCH 12-16	BBCH 12-16	BBCH 13-23	BBCH 13-23	BBCH 10-12	BBCH 10-12	BBCH 11-12	BBCH 11-13	BBCH 11-13						
Assessment date			13.03.2 020	15.06.2 020	24.02.2 020	24.06.2 020	16.03.20 20	20.04.20 20	29.03.2 021	24.05.2 021	15.03.2 021	02.06.2 021	01.04.2 021	04.06.2 021	12.04.2 021	31.03.2 021	22.06.2 021	123-167 DA-A			150 – 254 DA-A		
Days after applica- tion DA-A			151 DA-A	245 DA-A	133 DA-A	254 DA-A	150 DA-A	185 DA-A	134 DA-A	190 DA-A	132 DA-A	211 DA-A	155 DA-A	219 DA-A	154 DA-A	146 DA-A	229 DA-A	Ave- rage	Mi n.	Max	Ave- rage	Mi n.	Max
weeds density pcs/m2			7.0	7.0	10.0	10.0	6.0	6.0	5.0	6.0	12.0	12.0	36.8	36.5	12.0	21.0	19.5	13.7	5.0	36.8	13.9	6.0	36.5
N o.	Name	Rate (L, kg/h a)	┃	┃	┃	┃	┃	┃	┃	┃	┃	┃	┃	┃	┃	┃							
1	Untrea- ted Check	-	0.0	0.0	0.0	0.0	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0 0	0.00	0.00	0.0 0	0.00
2.	CHR/H/ FDF 547 SC	0.3 L/ha	100.0a	100.0a	100.0a	100.0a	96.30a	100.00a	37.50d	85.00d	81.30c	80.00c	91.30b	96.50a	83.00b	95.00b	100.00a	85.55	37. 50	100. 00	94.50	80. 00	100. 00
3.	CHR/H/ FDF 547 SC	0.4 L/ha	100.0a	100.0a	100.0a	100.0a	97.50a	100.00a	46.30c	91.30c	91.30b	90.00b	97.80a	97.00a	100.00a	100.00a	100.00a	91.61	46. 30	100. 00	96.90	90. 00	100. 00
4.	CHR/H/ FDF 547 SC	0.5 L/ha	100.0a	100.0a	100.0a	100.0a	98.80a	100.00a	56.30b	95.00b	99.00a	99.00a	99.50a	99.50a	100.00a	100.00a	100.00a	94.20	56. 30	100. 00	99.07	95. 00	100. 00
5.	Bizon 118,75 SC	1.0 L/ha	100.0a	100.0a	100.0a	100.0a	97.50a	100.00a	62.50a	99.00a	99.00a	99.00a	96.50a	96.50a	100.00a	95.00b	100.00a	93.81	62. 50	100. 00	99.21	96. 50	100. 00
6.	Komplet 560 SC	0.5 L/ha	100.0a	100.0a	100.0a	100.0a	98.80a	100.00a	62.50a	99.00a	99.00a	99.00a	98.30a	96.30a	100.00a	91.30c	100.00a	93.74	62. 50	100. 00	99.19	96. 30	100. 00
LSD(P=.05)			┃	┃	┃	┃	3.950	┃	0.550	2.350	2.970	3.830	5.830	5.820	2.700	2.350	┃						

Table 10. The efficacy of CHR/H/FDF 574 SC in control of VIOAR Viola arvensis in winter triticale

Pest code			VIOAR <i>Viola arvensis</i>																					
Report code			A.T.2019.068.PŽ O		A.T.2019.072.PŽ O		SRPL19-351- 336HE		A.T/2020/131 /PŽO		A.T/2020/132 /PŽO		AH/20/PszO/35/B r/2		AH/20/PszO/35/P r/1		AH/20/PszO/35/P r/3							
Application date			15.10.2 019	15.10.2 019	14.10.2 019	14.10.2 019	05.11.2 019	05.11.2 019	24.10.2020	03.11.2020	22.10.2 020	22.10.2 020	23.10.2 020	23.10.2 020	04.11.2 020	04.11.2 020								
Crop stage in appli- cation			BBCH 12-13	BBCH 12-13	BBCH 11-12	BBCH 11-12	BBCH 13-15	BBCH 13-15	BBCH 11-13	BBCH 13-21	BBCH 13	BBCH 13	BBCH 12-13	BBCH 12-13	BBCH 22	BBCH 22								
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 11-12	BBCH 11-12	BBCH 12	BBCH 12	BBCH 10-12	BBCH 10-12	BBCH 11	BBCH 11	BBCH 11	BBCH 11	BBCH 21	BBCH 21								
Assessment date			17.03.2 019	24.06.2 019	24.02.2 019	24.06.2 019	20.03.2 020	24.07.2 020	07.04.2021	02.04.2021	02.04.2 021	14.05.2 021	05.04.2 021	17.05.2 021	05.04.2 021	17.05.2 021	133-165 DA-A			194-254 DA-A				
Days after applica- tion DA-A			154 DA-A	253 DA-A	133 DA-A	254 DA-A	136 DA-A	262 DA-A	165 DA-A	150 DA-A	162 DA-A	204 DA-A	164 DA-A	206 DA-A	152 DA-A	194 DA-A	Ave- rage	Mi- n.	Max	Ave- rage	Min	Max		
weeds density pcs/m²			6.0	6.0	5.0	5.0	15.5	15.5	12.0	10.0	9.0	9.0	6.0	6.0	5.0	5.0	8.2	5.0	15.5	6.2	5.0	9.0		
N o.	Name	Rate (L, kg/h a)																						
1	Untrea- ted Check		0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0 0	0.00	0.00	0.00	0.00		
2.	CHR/H/ FDF 547 SC	0.3 L/ha	100.00a	100.00a	100.00a	100.00a	92.50ab	92.50ab	97.50a	90.00bc	93.80a	95.00b	98.80a	100.00a	82.50c	90.00c	94.39	82.50	100.00	97.00	90.00	100.00		
3.	CHR/H/ FDF 547 SC	0.4 L/ha	100.00a	100.00a	100.00a	100.00a	93.80a	93.80a	100.00a	95.00a	97.50a	100.00a	100.00a	100.00a	93.80ab	95.00b	97.51	93.80	100.00	99.00	95.00	100.00		
4.	CHR/H/ FDF 547 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00a	95.00a	95.00a	100.00a	95.00a	97.50a	100.00a	100.00a	100.00a	97.50a	100.00a	98.13	95.00	100.00	100.00	100.00	100.00		
5.	Bizon 118.75 SC	1.0 L/ha	100.00a	100.00a	100.00a	100.00a	90.00b	90.00b	100.00a	93.80ab	93.80a	95.00b	98.80a	100.00a	92.50b	95.00b	96.11	90.00	100.00	98.00	95.00	100.00		
6.	Komplet 560 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00a	95.00a	95.00a	100.00a	92.50b	97.50a	100.00a	97.50a	100.00a	92.50b	95.00b	96.88	92.50	100.00	99.00	95.00	100.00		
LSD(P=.05)							3.350	3.350	3.450	2.440	3.970	3.370	2.860		4.750	4.630								

Table 11. The efficacy of CHR/H/FDF 574 SC in control of VIOAR Viola arvensis in winter rye

Pest code			VIOAR Viola arvensis																	
Report code			A.T/2019/070/ŽO		SRPL19-354-336HE		SRPL19-353-336HE	A.T/2020/135/ŽO		A.T/2020/136/ŽO	AH/20/ŽO/35/Br/1		AH/20/ŽO/35/Gr/2							
Application date			25.10.2019	25.10.2019	16.12.2019	16.12.2019	05.11.2019	04.11.2020	04.11.2020	19.10.2020	22.10.2020	22.10.2020	22.10.2020	22.10.2020						
Crop stage in application			BBCH 22-24	BBCH 22-24	BBCH 14-15	BBCH 14-15	BBCH 15-23	BBCH 21-25	BBCH 21-25	BBCH 19-22	BBCH 13	BBCH 13	BBCH 13	BBCH 13						
Pest stage			BBCH 14-16	BBCH 14-16	BBCH 14-16	BBCH 14-16	BBCH 11-13	BBCH 10-14	BBCH 10-14	BBCH 12-14	BBCH 12	BBCH 12	BBCH 12	BBCH 12						
Assessment date			24.02.2020	25.06.2020	06.04.2020	01.06.2020	20.03.2020	01.04.2021	22.06.2021	01.04.2021	02.04.2021	14.05.2021	02.04.2021	14.05.2021	112-164 DA-A			168-244 DA-A		
Days after application DA-A			122 DA-A	244 DA-A	112 DA-A	168 DA-A	136 DA-A	148 DA-A	230 DA-A	164 DA-A	162 DA-A	204 DA-A	162 DA-A	204 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			5.0	5.0	4.5	4.5	29.0	12.0	12.0	5.0	7.0	7.0	8.0	8.0	10.1	4.5	29.0	7.3	4.5	12.0
No	Name	Rate (L/ha)																		
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/F DF 547 SC	0.3 L/ha	90.00a	90.00a	22.50d	77.50b	85.00a	90.00c	98.80a	100.00a	96.30a	100.00a	93.80b	95.00b	82.51	22.50	100.00	92.26	77.50	100.00
3	CHR/H/F DF 547 SC	0.4 L/ha	90.00a	90.00a	33.80c	82.50a	86.30a	97.80b	100.00a	100.00a	98.80a	100.00a	98.80a	100.00a	86.50	33.80	100.00	94.50	82.50	100.00
4	CHR/H/F DF 547 SC	0.5 L/ha	95.00a	95.00a	56.30b	83.80a	91.30a	100.00a	100.00a	100.00a	100.00a	100.00a	98.80a	100.00a	91.63	56.30	100.00	95.76	83.80	100.00
5	Komplet 560 SC	0.5 L/ha	90.00a	90.00a	62.50a	85.00a	91.30a	92.00c	100.00a	100.00a	98.80a	100.00a	97.50a	100.00a	90.30	62.50	100.00	95.00	85.00	100.00
LSD(P=0.05)					6.090	6.980	9.060	3.560	2.000		4.280		3.070	2.810						

Table 12. The efficacy of CHR/H/FDF 574 SC in control of VIOAR Viola arvensis in winter barley

Pest code			VIOAR Viola arvensis																			
Report code			AH/19/JO/26/Pr/F DF1/2		A.T/2020/133/JO		A.T/2020/134/JO		A.T/2020/153/JO		SRPL20-434-336HE		SRPL20-435-336HE		SRPL20-436-336HE							
Application date			17.10.2019	17.10.2019	12.10.2020	12.10.2020	09.10.2020	09.10.2020	16.10.2020	16.10.2020	28.10.2020	28.10.2020	05.11.2020	05.11.2020	05.11.2020	05.11.2020						
Crop stage in application			BBCH 14	BBCH 14	BBCH 12-14	BBCH 12-14	BBCH 13-22	BBCH 13-22	BBCH 12-13	BBCH 12-13	BBCH 11-13	BBCH 11-13	BBCH 11-13	BBCH 11-13	BBCH 19-22	BBCH 19-22						
Pest stage			BBCH 12	BBCH 12	BBCH 10-11	BBCH 10-11	BBCH 10-11	BBCH 10-11	BBCH 10-11	BBCH 10-11	BBCH 10-14	BBCH 10-14	BBCH 11	BBCH 11	BBCH 12-18	BBCH 12-18						
Assessment date			16.03.2020	20.04.2020	10.03.2021	11.06.2021	17.03.2021	09.06.2021	24.03.2021	15.06.2021	26.03.2021	18.06.2021	30.03.2021	22.06.2021	26.03.2021	18.06.2021	141-159 DA-A			186-243 DA-A		
Days after application DA-A			151 DA-A	186 DA-A	149 DA-A	242 DA-A	159 DA-A	243 DA-A	159 DA-A	242 DA-A	149 DA-A	233 DA-A	145 DA-A	229 DA-A	141 DA-A	225 DA-A	Average	Min	Max	Average	Min	Max
weeds density pcs/m ²			8.0	8.0	7.0	7.0	5.0	5.0	23.0	22.0	33.0	27.0	21.0	20.5	29.3	28.0	18.0	5.0	33.0	16.8	5.0	28.0
No.	Name	Rate (L/kg/ha)																				
1.	Untreated Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.	CHR/H/F DF 547 SC	0.3 L/ha	91.30b	95.00b	100.00a	100.00a	100.00a	100.00a	92.30c	100.00a	67.50c	62.50c	92.50b	100.00a	68.80d	65.00d	87.49	67.50	100.00	88.93	62.50	100.00
3.	CHR/H/F DF 547 SC	0.4 L/ha	96.30a	100.00a	100.00a	100.00a	100.00a	100.00a	94.50b	100.00a	73.80b	68.80b	97.50ab	100.00a	87.50b	85.00b	92.80	73.80	100.00	93.40	68.80	100.00
4.	CHR/H/F DF 547 SC	0.5 L/ha	97.50a	100.00a	100.00a	100.00a	100.00a	100.00a	95.80ab	100.00a	81.30a	76.30a	100.00a	100.00a	100.00a	100.00a	96.37	81.30	100.00	96.61	76.30	100.00
5.	Bizon 118.75 SC	1.0 L/ha	98.80a	100.00a	100.00a	100.00a	100.00a	100.00a	95.00b	100.00a	81.30a	76.30a	92.50b	100.00a	63.80d	57.50e	90.20	63.80	100.00	90.54	57.50	100.00
6.	Komplet 560 SC	0.5 L/ha	97.50a	100.00a	100.00a	100.00a	100.00a	100.00a	97.30a	100.00a	72.50bc	67.50bc	92.50b	100.00a	77.50c	72.50c	91.04	72.50	100.00	91.43	67.50	100.00
LSD(P=0.05)			3.050	2.510					1.960		5.780	5.780	5.680		5.420	6.170						

Table 13. The efficacy of CHR/H/FDF 574 SC in control of BRSNW Brassica napus (self-sown plant) in winter wheat

Pest code			BRSNW Brassica napus																	
Report code			A.T/2019/067/PO		AH/19/PO/26/Pr/FD F1/I		A.T/2020/129/PO	A.T/2020/130/PO	A.T/2020/154/PO	SRPL20-429-336HE		SRPL20-430-336HE		SRPL20-433-336HE						
Application date			14.10.2019	14.10.2019	18.10.2019	18.10.2019	22.10.2020	17.10.2020	27.10.2020	15.11.2020	15.11.2020	03.11.2020	03.11.2020	05.11.2020						
Crop stage in application			BBCH 11-12	BBCH 11-12	BBCH 14	BBCH 14	BBCH 13-14	BBCH 11-13	BBCH 21-22	BBCH 12-15	BBCH 12-15	BBCH 13-21	BBCH 13-21	BBCH 17-19						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 14	BBCH 14	BBCH 10-11	BBCH 10-12	BBCH 14-16	BBCH 10-14	BBCH 10-14	BBCH 11-14	BBCH 11-14	BBCH 11-14						
Assessment date			13.03.2020	15.06.2020	16.03.2020	20.04.2020	31.03.2021	02.04.2021	01.04.2021	29.03.2021	24.05.2021	15.03.2021	02.06.2021	31.03.2021	123-167 DA-A			185 – 245 DA-A		
Days after application DA-A			151 DA-A	245 DA-A	150 DA-A	185 DA-A	160 DA-A	167 DA-A	156 DA-A	134 DA-A	190 DA-A	132 DA-A	211 DA-A	146 DA-A	Average	Min	Max.	Average	Min	Max.
weeds density pcs/m ²			6.0	6.0	8.0	8.0	5.0	9.0	6.0	9.0	8.0	5.0	5.0	7.5	6.9	5.0	9.0	6.8	5.0	8.0
N o.	Name	Rate (L/ha)																		
1	Untreated Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/F DF 547 SC	0.3 L/ha	100.00a	100.00a	72.50b	75.00b	100.00a	100.00a	100.00a	53.80b	87.50c	83.80b	82.50b	100.00a	88.76	53.80	100.00	86.25	75.00	100.00
3	CHR/H/F DF 547 SC	0.4 L/ha	100.00a	100.00a	97.50a	100.00a	100.00a	100.00a	100.00a	57.50b	93.80b	97.00a	98.00a	100.00a	94.00	57.50	100.00	97.95	93.80	100.00
4	CHR/H/F DF 547 SC	0.5 L/ha	100.00a	100.00a	97.50a	100.00a	100.00a	100.00a	100.00a	73.80a	99.00a	99.00a	99.00a	100.00a	96.29	73.80	100.00	99.50	99.00	100.00
5	Bizon 118.75 SC	1.0 L/ha	100.00a	97.00a	98.80a	100.00a	100.00a	100.00a	100.00a	77.50a	99.00a	99.00a	99.00a	100.00a	96.91	77.50	100.00	98.75	97.00	100.00
6	Komplet 560 SC	0.5 L/ha	85.80b	79.80b	98.80a	100.00a	87.50b	87.50b	87.50b	77.50a	99.00a	99.00a	99.00a	100.00a	90.45	77.50	100.00	94.45	79.80	100.00
LSD(P=.05)			3.910	5.190	3.640	2.510	1.990	1.950	1.990	6.290	3.370	3.000	3.470	-						

Table 14. The efficacy of CHR/H/FDF 574 SC in control of BRSNW Brassica napus (self-sown plant) in winter triticales

Pest code			BRSNW <i>Brassica napus</i>																	
Report code			A.T.2019.068.P ŽO		SRPL19-351- 336HE		A.T/2020/15 5/PŽO		AH/20/PszO/35/Br/2		AH/20/PszO/35/Pr/1		AH/20/PszO/35/Pr /3							
Application date			15.10. 2019	15.10. 2019	05.11.20 19	05.11.20 19	26.10.2020	22.10.20 20	22.10.202 0	23.10.20 20	23.10.202 0	04.11.20 20	04.11.2 020							
Crop stage in application			BBCH 12-13	BBCH 12-13	BBCH 13-15	BBCH 13-15	BBCH 19-22	BBCH 13	BBCH 13	BBCH 12-13	BBCH 12- 13	BBCH 22	BBCH 22							
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 12-14	BBCH 12-14	BBCH 11-12	BBCH 12	BBCH 12	BBCH 13	BBCH 13	BBCH 21	BBCH 21							
Assessment date			17.03. 2019	24.06. 2019	20.03.20 20	24.07.20 20	15.03.2021	02.04.20 21	14.05.202 1	05.04.20 21	17.05.202 1	05.04.20 21	17.05.2 021	140-164 DA-A			194-253 DA-A			
Days after application DA-A			154 DA-A	253 DA-A	136 DA- A	262 DA- A	140 DA-A	162 DA- A	204 DA-A	164 DA- A	206 DA-A	152 DA- A	194 DA-A	Avera- ge	Min.	Max.	Avera- ge	Min.	Max.	
weeds density pcs/m²			5.0	5.0	6.5	6.5	5.0	5.0	5.0	8.0	8.0	6.0	6.0	5.9	5.0	8.0	6.0	5.0	8.0	
N o.	Name	Rate (L, kg/ha)																		
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2.	CHR/H/FDF 547 SC	0.3 L/ha	100.00 a	100.00 a	80.00c	80.00c	100.00a	73.80c	75.00c	73.80c	75.00cd	78.80b	80.00c	84.40	73.80	100.00	82.50	75.00	100.00	
3.	CHR/H/FDF 547 SC	0.4 L/ha	100.00 a	100.00 a	95.00b	95.00b	100.00a	83.80b	90.00ab	83.80ab	85.00ab	87.50a	90.00ab	91.68	83.80	100.00	91.25	85.00	100.00	
4.	CHR/H/FDF 547 SC	0.5 L/ha	100.00 a	100.00 a	100.00a	100.00a	100.00a	90.00a	95.00a	88.80a	90.00a	88.80a	95.00a	94.60	88.80	100.00	95.00	90.00	100.00	
5.	Bizon 118,75 SC	1.0 L/ha	100.00 a	100.00 a	77.50d	77.50d	100.00a	82.50b	85.00b	78.80bc	80.00bc	82.50ab	85.00bc	86.88	77.50	100.00	87.50	80.00	100.00	
6.	Komplet 560 SC	0.5 L/ha	85.80b	85.00b	100.00a	100.00a	82.50b	68.80d	70.00c	70.00c	70.00d	68.80c	70.00d	79.32	68.80	100.00	73.75	70.00	85.00	
LSD(P=.05)			1.030	2.810	1.780	1.780	1.990	4.260	5.150	6.350	5.500	5.550	5.150							

Table 15. The efficacy of CHR/H/FDF 574 SC in control of BRSNW Brassica napus (self-sown plant) in winter rye

Pest code			BRSNW Brassica napus																	
Report code			A.T/2019/070/ŽO		A.T/2019/074/ŽO		A.T/2020/135/ŽO		A.T/2020/156/ŽO		AH/20/ŽO/35/Br/1		AH/20/ŽO/35/Gr/2							
Application date			25.10.2019	25.10.2019	15.10.2019	15.10.2019	04.11.2020	04.11.2020	29.10.2020	29.10.2020	22.10.2020	22.10.2020	22.10.2020	22.10.2020						
Crop stage in application			BBCH 22-24	BBCH 22-24	BBCH 13-14	BBCH 13-14	BBCH 21-25	BBCH 21-25	BBCH 14-23	BBCH 14-23	BBCH 13	BBCH 13	BBCH 13	BBCH 13						
Pest stage			BBCH 12-14	BBCH 12-14	BBCH 12-14	BBCH 12-14	BBCH 10-12	BBCH 10-12	BBCH 10-14	BBCH 10-14	BBCH 13	BBCH 13	BBCH 12	BBCH 12						
Assessment date			24.02.2020	25.06.2020	27.02.2020	25.06.2020	01.04.2021	22.06.2021	25.03.2021	22.06.2021	02.04.2021	14.05.2021	02.04.2021	14.05.2021	122-162 DA-A			204-254 DA-A		
Days after application DA-A			122 DA-A	244 DA-A	135 DA-A	254 DA-A	148 DA-A	230 DA-A	147 DA-A	236 DA-A	162 DA-A	204 DA-A	162 DA-A	204 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			5.0	5.0	5.0	5.0	6.0	5.0	7.0	8.0	8.0	8.0	5.0	5.0	6.0	5.0	8.0	6.2	5.0	8.0
No	Name	Rate (L/kg/ha)																		
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FDF 547 SC	0.3 L/ha	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	70.00b	97.50a	73.80c	75.00c	68.80c	70.00b	85.43	68.80	100.00	90.42	70.00	100.00
3	CHR/H/FDF 547 SC	0.4 L/ha	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	88.80a	99.80a	85.00b	85.00b	90.00b	90.00a	93.97	85.00	100.00	95.80	85.00	100.00
4	CHR/H/FDF 547 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	92.50a	100.00a	90.00a	90.00a	95.00a	95.00a	96.25	90.00	100.00	97.50	90.00	100.00
5	Komplet 560 SC	0.5 L/ha	85.30b	85.00b	86.30b	87.50b	80.00b	85.00b	71.30b	91.30b	68.80d	70.00d	63.80d	65.00b	75.92	63.80	86.30	80.63	65.00	91.30
LSD(P=,05)			3.020	3.270	2.000	2.310	3.270	3.270	4.000	2.680	3.790	4.870	4.720	6.130						

Table 16. The efficacy of CHR/H/FDF 574 SC in control of BRSNW Brassica napus (self-sown plant) in winter barley

Pest code			BRSNW Brassica napus																					
Report code			A.T/2019/069/J		A.T/2019/073/J		AH/19/JO/26/Pr/FDF1/2		A.T/2020/134/J		A.T/2020/153/J		SRPL20-434-336HE		SRPL20-435-336HE		SRPL20-438-336HE							
Application date			O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O						
Crop stage in application			BBCH 12-21	BBCH 12-21	BBCH 21-23	BBCH 21-23	BBCH 14	BBCH 14	BBCH 13-22	BBCH 13-22	BBCH 12-13	BBCH 12-13	BBCH 11-13	BBCH 11-13	BBCH 11-13	BBCH 11-13	BBCH 23-25	BBCH 23-25						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 12-14	BBCH 12-14	BBCH 13	BBCH 13	BBCH 11-12	BBCH 11-12	BBCH 10-11	BBCH 10-11	BBCH 10-13	BBCH 10-13	BBCH 11-12	BBCH 11-12	BBCH 14-18	BBCH 14-18						
Assessment date			10.03.2020	08.06.2020	25.02.2020	24.06.2020	16.03.2020	20.04.2020	17.03.2020	09.06.2020	24.03.2020	15.06.2020	26.03.2020	18.06.2020	30.03.2020	22.06.2020	29.03.2020	31.05.2020	130-159 DA-A			186-250 DA-A		
Days after application DA-A			158	248	130	250	151	186	159	243	159	242	149	233	145	229	153	216	Average	Min	Max	Average	Min	Max
weeds density pcs/m2			5.0	5.0	7.0	7.0	8.0	8.0	6.0	6.0	5.0	5.0	6.5	6.5	5.0	5.0	10.8	12.3	6.7	5.0	10.8	6.9	5.0	12.3
No.	Name	Rate (L/kg/ha)																						
1	Untreated Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FDF 547 SC	0.3 L/ha	100.00a	100.00a	100.00a	100.00a	70.00b	70.00b	100.00a	100.00a	100.00a	100.00a	99.50a	98.80a	100.00a	100.00a	100.00a	100.00a	96.19	70.00	100.00	96.10	70.00	100.00
3	CHR/H/FDF 547 SC	0.4 L/ha	100.00a	100.00a	100.00a	100.00a	97.50a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	99.69	97.50	100.00	100.00	100.00	100.00
4	CHR/H/FDF 547 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00a	98.80a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	99.85	98.80	100.00	100.00	100.00	100.00
5	Bizon 118,75 SC	1.0 L/ha	100.00a	100.00a	100.00a	100.00a	98.80a	100.00a	100.00a	100.00a	100.00a	100.00a	98.80a	98.80a	100.00a	100.00a	100.00a	100.00a	99.70	98.80	100.00	99.85	98.80	100.00
6	Komplet 560 SC	0.5 L/ha	100.00a	83.30b	100.00a	100.00a	57.50c	60.00c	81.30b	75.00b	85.30b	78.80b	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	90.51	57.50	100.00	87.14	60.00	100.00
LSD(P=,05)			-	1.630	-	-	5.020	3.890	1.720	5.630	1.420	1.720	2.580	3.430	-	-	-	-						

Table 17. The efficacy of CHR/H/FDF 574 SC in control of CAPBP Capsella bursa-pastoris in winter wheat

Pest code			CAPBP <i>Capsella bursa-pastoris</i>																
Report code			A.T/2019/071/PO		AH/19/PO/26/Ce/FDF2 /1		A.T/2020/129/PO	SRPL20-429-336HE		SRPL20-431-336HE		SRPL20-432-336HE	SRPL20-433-336HE						
Application date			14.10.2019	14.10.2019	15.11.2019	15.11.2019	22.10.2020	15.11.2020	15.11.2020	28.10.2020	28.10.2020	09.11.2020	05.11.2020						
Crop stage in application			BBCH 12-13	BBCH 12-13	BBCH 21	BBCH 21	BBCH 13-14	BBCH 12-15	BBCH 12-15	BBCH 10-12	BBCH 10-12	BBCH 11	BBCH 17-19						
Pest stage			BBCH 12-14	BBCH 12-14	BBCH 21	BBCH 21	BBCH 11-12	BBCH 10-14	BBCH 10-14	BBCH 10-12	BBCH 10-12	BBCH 11-12	BBCH 11-14						
Assessment date			24.02.2020	24.06.2020	17.03.2020	13.04.2020	31.03.2021	29.03.2021	24.05.2021	01.04.2021	04.06.2021	12.04.2021	31.03.2021	123-160 DA-A			150 – 254 DA-A		
Days after application DA-A			133 DA-A	254 DA-A	123 DA-A	150 DA-A	160 DA-A	134 DA-A	190 DA-A	155 DA-A	219 DA-A	154 DA-A	146 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m²			15.0	15.0	6.0	6.0	5.0	6.3	7.0	7.3	7.0	5.0	13.8	8.3	5.0	15.0	8.8	6.0	15.0
No	Name	Rate (L/ha)																	
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FD F 547 SC	0.3 L/ha	100.00a	100.00a	83.80b	85.00b	100.00a	47.50c	87.50b	100.00a	100.00a	85.00b	100.00a	88.04	47.50	100.00	93.13	85.00	100.00
3	CHR/H/FD F 547 SC	0.4 L/ha	100.00a	100.00a	97.50a	100.00a	100.00a	55.00b	92.50ab	100.00a	100.00a	100.00a	100.00a	93.21	55.00	100.00	98.13	92.50	100.00
4	CHR/H/FD F 547 SC	0.5 L/ha	100.00a	100.00a	98.80a	100.00a	100.00a	63.80a	96.00a	100.00a	100.00a	100.00a	100.00a	94.66	63.80	100.00	99.00	96.00	100.00
5	Bizon 118,75 SC	1.0 L/ha	100.00a	100.00a	98.80a	100.00a	100.00a	66.30a	99.00a	100.00a	100.00a	100.00a	100.00a	95.01	66.30	100.00	99.75	99.00	100.00
6	Komplet 560 SC	0.5 L/ha	100.00a	100.00a	98.80a	100.00a	100.00a	67.50a	99.00a	100.00a	100.00a	100.00a	100.00a	95.19	67.50	100.00	99.75	99.00	100.00
LSD(P=.05)					3.080	2.510		4.990	4.260			3.800							

Table 18. The efficacy of CHR/H/FDF 574 SC in control of CAPBP *Capsella bursa-pastoris* in winter triticale

Pest code			CAPBP <i>Capsella bursa-pastoris</i>															
Report code			A.T.2019.068.PŽO		A.T.2019.072.PŽO		A.T/2020/131/PŽO	A.T/2020/132/PŽO	AH/20/PszO/35/Br/5		AH/20/PszO/35/ZI/4							
Application date			15.10.2019	15.10.2019	14.10.2019	14.10.2019	24.10.2020	03.11.2020	04.11.2020	04.11.2020	23.10.2020	23.10.2020						
Crop stage in application			BBCH 12-13	BBCH 12-13	BBCH 11-12	BBCH 11-12	BBCH 11-13	BBCH 13-21	BBCH 21-22	BBCH 21-22	BBCH 12	BBCH 12						
Pest stage			BBCH 12-14	BBCH 12-14	BBCH 11-12	BBCH 11-12	BBCH 10-12	BBCH 12-16	BBCH 21	BBCH 21	BBCH 10	BBCH 10						
Assessment date			17.03.2019	24.06.2019	24.02.2019	24.06.2019	07.04.2021	02.04.2021	02.04.2021	14.05.2021	05.04.2021	17.05.2021	133-165 DA-A			191-254 DA-A		
Days after application DA-A			154 DA-A	253 DA-A	133 DA-A	254 DA-A	165 DA-A	150 DA-A	149 DA-A	191 DA-A	164 DA-A	206 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			9.0	9.0	5.0	5.0	6.0	5.0	7.0	7.0	7.0	7.0	6.5	5.0	9.0	7.0	5.0	9.0
No	Name	Rate (L/ha)																
1	Untreated Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FDF 547 SC	0.3 L/ha	100.00a	100.00a	100.00a	100.00a	97.50a	100.00a	68.80d	70.00d	70.00d	70.00d	89.38	68.80	100.00	85.00	70.00	100.00
3	CHR/H/FDF 547 SC	0.4 L/ha	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	92.50b	95.00ab	95.00a	95.00b	97.92	92.50	100.00	97.50	95.00	100.00
4	CHR/H/FDF 547 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	98.80a	100.00a	98.80a	100.00a	99.60	98.80	100.00	100.00	100.00	100.00
5	Bizon 118,75 SC	1.0 L/ha	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	88.80bc	90.00bc	85.00b	85.00c	95.63	85.00	100.00	93.75	85.00	100.00
6	Komplet 560 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00a	97.50a	100.00a	86.30c	85.00c	78.80c	80.00c	93.77	78.80	100.00	91.25	80.00	100.00
LSD(P=.05)			-	-	-	-	2.810	-	3.73	5.27	5.020	5.270						

Table 19. The efficacy of CHR/H/FDF 574 SC in control of CAPBP *Capsella bursa-pastoris* in winter rye

Pest code			CAPBP <i>Capsella bursa-pastoris</i>																
Report code			A.T/2019/070/ŽO		A.T/2020/135/ŽO		A.T/2020/136/ŽO	AH/20/ŽO/35/Br/4		AH/20/ŽO/35/ZI/3		AH/20/ŽO/35/ZI/5							
Application date			25.10.2019	25.10.2019	04.11.2020	04.11.2020	19.10.2020	04.11.2020	04.11.2020	23.10.2020	23.10.2020	16.11.2020	16.11.2020						
Crop stage in application			BBCH 22-24	BBCH 22-24	BBCH 21-25	BBCH 21-25	BBCH 19-22	BBCH 22-23	BBCH 22-23	BBCH 13	BBCH 13	BBCH 20	BBCH 20						
Pest stage			BBCH 14-16	BBCH 14-16	BBCH 10-16	BBCH 10-16	BBCH 14-16	BBCH 21	BBCH 21	BBCH 12	BBCH 12	BBCH 20	BBCH 20						
Assessment date			24.02.2020	25.06.2020	01.04.2021	22.06.2021	01.04.2021	02.04.2021	14.05.2021	01.04.2021	13.05.2021	01.04.2021	13.05.2021	122-164 DA-A			178-244 DA-A		
Days after application DA-A			122 DA-A	244 DA-A	148 DA-A	230 DA-A	164 DA-A	149 DA-A	191 DA-A	160 DA-A	202 DA-A	136 DA-A	178 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m²			7.0	7.0	5.0	6.0	5.0	7.0	7.0	9.0	9.0	5.0	5.0	6.3	5.0	9.0	6.8	5.0	9.0
N o.	Name	Rate (L _a kg/ha)	┃	┃	┃	┃	┃	┃	┃	┃	┃	┃	┃	┃	┃	┃			
1	Untreated Check	┃	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FDF 547 SC	0.3 L/ha	90.00a	90.00a	93.80b	100.00a	100.00a	68.80c	70.00b	72.50d	75.00d	68.80c	70.00c	82.32	68.80	100.00	81.00	70.00	100.00
3	CHR/H/FDF 547 SC	0.4 L/ha	90.00a	90.00a	100.00a	100.00a	100.00a	95.00a	95.00a	93.80b	95.00b	95.00a	95.00a	95.63	90.00	100.00	95.00	90.00	100.00
4	CHR/H/FDF 547 SC	0.5 L/ha	95.00a	95.00a	100.00a	100.00a	100.00a	98.80a	100.00a	98.80a	100.00a	98.80a	100.00a	98.57	95.00	100.00	99.00	95.00	100.00
5	Komplet 560 SC	0.5 L/ha	90.00a	90.00a	100.00a	100.00a	100.00a	73.80b	75.00b	78.80c	80.00c	78.80b	80.00b	86.90	73.80	100.00	85.00	75.00	100.00
LSD(P=.05)			┃	┃	2.000	┃	┃	4.280	5.26	3.370	4.870	4.500	5.260						

Table 20. The efficacy of CHR/H/FDF 574 SC in control of CAPBP *Capsella bursa-pastoris* in winter barley

Pest code			CAPBP <i>Capsella bursa-pastoris</i>																	
Report code			A.T/2019/069/JO		A.T/2019/073/JO		AH/19/JO/26/ZI/FD F/2		A.T/2020/133/JO		A.T/2020/134/JO		A.T/2020/153/JO							
Application date			04.10.2019	04.10.2019	18.10.2019	18.10.2019	05.11.2019	05.11.2019	12.10.2020	12.10.2020	09.10.2020	09.10.2020	16.10.2020	16.10.2020						
Crop stage in application			BBCH 12-21	BBCH 12-21	BBCH 21-23	BBCH 21-23	BBCH 21-23	BBCH 21-23	BBCH 12-14	BBCH 12-14	BBCH 13-22	BBCH 13-22	BBCH 12-13	BBCH 12-13						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 14-16	BBCH 14-16	BBCH 21	BBCH 21	BBCH 10-11	BBCH 10-11	BBCH 11-12	BBCH 11-12	BBCH 10-11	BBCH 10-11						
Assessment date			10.03.2020	08.06.2020	25.02.2020	24.06.2020	16.03.2020	17.04.2020	10.03.2020	11.06.2020	17.03.2020	09.06.2020	24.03.2020	15.06.2020	130-159 DA-A			164-250 DA-A		
Days after application DA-A			158 DA-A	248 DA-A	130 DA-A	250 DA-A	132 DA-A	164 DA-A	149 DA-A	242 DA-A	159 DA-A	243 DA-A	159 DA-A	242 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			5.0	5.0	10.0	10.0	8.0	8.0	5.0	5.0	9.0	8.0	6.0	5.0	7.2	5.0	10.0	6.8	5.0	10.0
No	Name	Rate (L/ha)																		
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FD F 547 SC	0.3 L/ha	100.00a	100.00a	97.50b	100.00a	78.80b	80.00b	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	96.05	78.80	100.00	96.67	80.00	100.00
3	CHR/H/FD F 547 SC	0.4 L/ha	100.00a	100.00a	100.00a	100.00a	97.50a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	99.58	97.50	100.00	100.00	100.00	100.00
4	CHR/H/FD F 547 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00a	98.80a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	99.80	98.80	100.00	100.00	100.00	100.00
5	Bizon 118,75 SC	1.0 L/ha	100.00a	100.00a	100.00a	100.00a	98.80a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	99.80	98.80	100.00	100.00	100.00	100.00
6	Komplet 560 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00a	97.50a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	99.58	97.50	100.00	100.00	100.00	100.00
LSD(P=0.05)			-	-	1.990	-	2.350	2.510	-	-	-	-	-	-						

Table 21. The efficacy of CHR/H/FDF 574 SC in control of CENCY *Centaurea cyanus* in winter wheat

Pest code			CENCY <i>Centaurea cyanus</i>																		
Report code			A.T/2019/071/PO		AH/19/PO/26/Ce/FD F2/I		A.T/2020/130/PO		A.T/2020/154/PO		SRPL20-431-336HE		SRPL20-432-336HE	SRPL20-433-336HE							
Application date			14.10.2019	14.10.2019	15.11.2019	15.11.2019	17.10.2020	17.10.2020	27.10.2020	27.10.2020	28.10.2020	28.10.2020	09.11.2020	05.11.2020	05.11.2020						
Crop stage in application			BBCH 12-13	BBCH 12-13	BBCH 21	BBCH 21	BBCH 11-13	BBCH 11-13	BBCH 21-22	BBCH 21-22	BBCH 10-12	BBCH 10-12	BBCH 11	BBCH 17-19	BBCH 17-19						
Pest stage			BBCH 11-14	BBCH 11-14	BBCH 20	BBCH 20	BBCH 11-12	BBCH 11-12	BBCH 14-16	BBCH 14-16	BBCH 10-12	BBCH 10-12	BBCH 10-11	BBCH 11-14	BBCH 11-14						
Assessment date			24.02.2020	24.06.2020	17.03.2020	13.04.2020	02.04.2021	25.06.2021	01.04.2021	29.06.2021	01.04.2021	04.06.2021	12.04.2021	31.03.2021	22.06.2021	123-167 DA-A			150 – 254 DA-A		
Days after application DA-A			133 DA-A	254 DA-A	123 DA-A	150 DA-A	167 DA-A	251 DA-A	156 DA-A	245 DA-A	155 DA-A	219 DA-A	154 DA-A	146 DA-A	229 DA-A	Ave- rage	Min	Max	Ave- rage	Min	Max
weeds density pcs/m ²			6.0	5.0	8.0	8.0	13.0	13.0	6.0	6.0	30.3	31.0	6.0	5.0	6.0	10.6	5.0	30.3	11.5	5.0	31.0
No	Name	Rate (L/kg/ha)																			
1	Untreated Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/F DF 547 SC	0.3 L/ha	85.00b	82.50b	70.00c	70.00b	86.30b	85.80b	82.50c	80.00c	96.50a	88.80ab	83.00b	73.80b	100.00a	82.44	70.00	96.50	84.52	70.00	100.00
3	CHR/H/F DF 547 SC	0.4 L/ha	87.50b	88.80a	78.80b	80.00a	90.00b	93.30a	87.80b	87.50bc	97.80a	97.80a	95.00a	100.00a	100.00a	90.99	78.80	100.00	91.23	80.00	100.00
4	CHR/H/F DF 547 SC	0.5 L/ha	93.80a	92.50a	85.00a	85.00a	99.00a	99.50a	92.50a	96.00a	100.00a	98.50a	97.00a	100.00a	100.00a	95.33	85.00	100.00	95.25	85.00	100.00
5	Bizon 118.75 SC	1.0 L/ha	87.50b	83.80b	83.80ab	85.00a	97.50a	95.00a	90.00ab	91.30ab	98.30a	85.00b	98.00a	100.00a	96.30a	93.59	83.80	100.00	89.40	83.80	96.30
6	Komplet 560 SC	0.5 L/ha	63.80c	61.30c	68.80c	70.00b	35.00c	55.00c	30.00d	55.00d	21.30b	17.50c	93.00a	50.00c	26.30b	51.70	21.30	93.00	47.52	17.50	70.00
LSD(P=.05)			3.790	5.310	6.090	6.050	4.660	7.090	2.960	8.680	6.890	10.000	6.400	2.350	5.420						

Table 22. The efficacy of CHR/H/FDF 574 SC in control of CENCY *Centaurea cyanus* in winter triticale

Pest code			CENCY <i>Centaurea cyanus</i>																	
Report code			A.T.2019.072.PŽO		SRPL19-352-336HE		A.T/2020/131/PŽO		A.T/2020/132/PŽO		AH/20/PszO/35/Br/5		AH/20/PszO/35/ZI/4							
Application date			14.10.2019	14.10.2019	16.12.2019	16.12.2019	24.10.2020	24.10.2020	03.11.2020	03.11.2020	04.11.2020	04.11.2020	23.10.2020	23.10.2020						
Crop stage in application			BBCH 11-12	BBCH 11-12	BBCH 13-21	BBCH 13-21	BBCH 11-13	BBCH 11-13	BBCH 13-21	BBCH 13-21	BBCH 21-22	BBCH 21-22	BBCH 12	BBCH 12						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 19-21	BBCH 19-21	BBCH 10-14	BBCH 10-14	BBCH 11-13	BBCH 11-13	BBCH 21	BBCH 21	BBCH 11	BBCH 11						
Assessment date			24.02.2019	24.06.2019	06.04.2020	01.06.2020	07.04.2020	22.06.2020	02.04.2020	28.06.2020	02.04.2020	14.05.2020	05.04.2020	17.05.2020	112-165 DA-A			191-254 DA-A		
Days after application DA-A			133 DA-A	254 DA-A	112 DA-A	168 DA-A	165 DA-A	241 DA-A	150 DA-A	237 DA-A	149 DA-A	191 DA-A	164 DA-A	206 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			8.0	8.0	4.5	4.5	6.0	8.0	5.0	5.0	5.0	5.0	7.0	7.0	5.9	4.5	8.0	6.3	4.5	8.0
No	Name	Rate (L/ha)																		
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FDF 574 SC	0.3 L/ha	97.50a	94.80a	21.30b	48.80c	80.00c	80.00b	80.00c	90.80b	68.80d	70.00d	68.80b	70.00b	69.40	21.30	97.50	75.73	48.80	94.80
3	CHR/H/FDF 574 SC	0.4 L/ha	99.80a	97.50a	22.50b	66.30b	82.50c	91.30a	93.80ab	98.80a	85.00b	85.00c	83.80a	85.00a	77.90	22.50	99.80	87.32	66.30	98.80
4	CHR/H/FDF 574 SC	0.5 L/ha	100.00a	98.80a	27.50a	82.50a	92.50a	97.00a	97.00a	99.50a	92.50a	95.00a	88.80a	90.00a	83.05	27.50	100.00	93.80	82.50	99.50
5	Bizon 118,75 SC	1.0 L/ha	99.50a	97.50a	27.50a	87.50a	87.50b	85.00b	91.30b	95.00a	80.00c	80.00b	85.00a	85.00a	78.47	27.50	99.50	88.33	80.00	97.50
6	Komplet 560 SC	0.5 L/ha	65.00b	30.00b	31.30a	88.80a	56.30d	58.80c	52.50d	55.00c	68.80d	70.00d	68.80b	70.00b	57.12	31.30	68.80	62.10	30.00	88.80
LSD(P=0.05)			4.580	4.580	6.050	11.150	4.450	6.100	3.680	3.830	3.460	4.770	5.730	5.020						

Table 23. The efficacy of CHR/H/FDF 574 SC in control of CENCY *Centaurea cyanus* in winter rye

Pest code			CENCY <i>Centaurea cyanus</i>																		
Report code			A.T/2019/074/ŽO		SRPL19-354-336HE		SRPL19-353-336HE	A.T/2020/136/ŽO		AH/20/ŽO/35/Br/4		AH/20/ŽO/35/ZI/3		AH/20/ŽO/35/ZI/5							
Application date			15.10.2019	15.10.2019	16.12.2019	16.12.2019	05.11.2019	19.10.2020	19.10.2020	04.11.2020	04.11.2020	23.10.2020	23.10.2020	16.11.2020	16.11.2020						
Crop stage in application			BBCH 13-14	BBCH 13-14	BBCH 14-15	BBCH 14-15	BBCH 15-23	BBCH 19-22	BBCH 19-22	BBCH 22-23	BBCH 22-23	BBCH 13	BBCH 13	BBCH 20	BBCH 20						
Pest stage			BBCH 12-14	BBCH 12-14	BBCH 13-15	BBCH 13-15	BBBCH 11-12	BBCH 12-14	BBCH 12-14	BBCH 19	BBCH 19	BBCH 11	BBCH 11	BBCH 20	BBCH 20						
Assessment date			27.02.2020	25.06.2020	06.04.2020	01.06.2020	20.03.2020	01.04.2021	28.06.2021	02.04.2021	14.05.2021	01.04.2021	13.05.2021	01.04.2021	13.05.2021	112-164 DA-A			191-254 DA-A		
Days after application DA-A			135 DA-A	254 DA-A	112 DA-A	168 DA-A	136 DA-A	164 DA-A	252 DA-A	149 DA-A	191 DA-A	160 DA-A	202 DA-A	136 DA-A	178 DA-A	Average	Min	Max	Average	Min	Max
weeds density pcs/m²			7.0	7.0	5.0	5.5	54.5	8.0	8.0	7.0	7.0	6.0	6.0	5.0	5.0	13.2	5.0	54.5	6.4	5.0	8.0
No	Name	Rate (L/kg/ha)																			
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/F DF 547 SC	0.3 L/ha	85.00c	61.30c	33.80d	73.80c	53.80c	96.00a	93.00a	71.30bc	72.50c	73.80b	75.00b	70.00c	70.00c	69.10	33.80	96.00	74.27	61.30	93.00
3	CHR/H/F DF 547 SC	0.4 L/ha	90.80b	75.30b	42.50c	81.30b	72.50ab	100.00a	95.50a	81.30b	85.00b	80.00a	80.00a	83.80b	85.00b	78.70	42.50	100.00	83.68	75.30	95.50
4	CHR/H/F DF 547 SC	0.5 L/ha	96.50a	88.50a	53.80b	87.50a	75.00a	100.00a	95.50a	90.00a	90.00a	83.80a	85.00a	95.00a	95.00a	84.87	53.80	100.00	90.25	85.00	95.50
5	Komplet 560 SC	0.5 L/ha	42.50d	40.00d	63.80a	86.30a	65.00b	45.00b	27.50b	68.80c	70.00c	68.80c	70.00c	68.80c	70.00c	60.39	42.50	68.80	60.63	27.50	86.30
LSD(P=.05)			4.350	7.520	5.350	4.930	9.780	4.590	6.520	5.310	4.870	4.040	4.450	4.280	3.720						

Table 24. The efficacy of CHR/H/FDF 574 SC in control of CENCY *Centaurea cyanus* in winter barley

Pest code			CENCY <i>Centaurea cyanus</i>																	
Report code			A.T/2019/069/JO		AH/19/JO/26/ZI/FD F/2		A.T/2020/133/JO		A.T/2020/153/JO		SRPL20-437-336HE		SRPL20-438-336HE							
Application date			04.10.2019	04.10.2019	05.11.2019	05.11.2019	12.10.2020	12.10.2020	16.10.2020	16.10.2020	23.10.2020	23.10.2020	27.10.2020	27.10.2020						
Crop stage in application			BBCH 12-21	BBCH 12-21	BBCH 21-23	BBCH 21-23	BBCH 12-14	BBCH 12-14	BBCH 12-13	BBCH 12-13	BBCH 11-13	BBCH 11-13	BBCH 23-25	BBCH 23-25						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 20	BBCH 20	BBCH 11-12	BBCH 11-12	BBCH 11-12	BBCH 11-12	BBCH 11-12	BBCH 11-12	BBCH 12-16	BBCH 12-16						
Assessment date			10.03.2020	08.06.2020	16.03.2020	17.04.2020	10.03.2020	11.06.2020	24.03.2020	15.06.2020	16.03.2020	02.06.2020	29.03.2020	31.05.2020	132-159 DA-A			164-248 DA-A		
Days after application DA-A			158 DA-A	248 DA-A	132 DA-A	164 DA-A	149 DA-A	242 DA-A	159 DA-A	242 DA-A	144 DA-A	222 DA-A	153 DA-A	216 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			5.0	5.0	7.0	7.0	23.0	24.0	11.0	10.0	10.0	10.0	11.3	16.0	11.2	5.0	23.0	12.0	5.0	24.0
No	Name	Rate (L/ha)																		
1	Untreated Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FDF 547 SC	0.3 L/ha	78.80c	88.80b	70.00d	70.00c	83.80c	91.30b	96.50a	93.80a	71.25c	75.00c	45.00d	65.00c	74.23	45.00	96.50	80.65	65.00	93.80
3	CHR/H/FDF 547 SC	0.4 L/ha	88.80b	95.00a	77.50c	80.00b	92.50b	97.50a	98.00a	98.80a	73.75bc	76.25c	62.50c	87.50b	82.18	62.50	98.00	89.18	76.25	98.80
4	CHR/H/FDF 547 SC	0.5 L/ha	96.30a	97.50a	88.80a	90.00a	97.50a	98.80a	98.00a	98.80a	78.75b	82.50b	92.50a	100.00a	91.98	78.75	98.00	94.60	82.50	100.00
5	Bizon 118.75 SC	1.0 L/ha	88.80b	96.30a	82.50b	85.00ab	91.30b	95.00ab	98.00a	87.50b	99.00a	99.00a	100.00a	100.00a	93.27	82.50	100.00	93.80	85.00	100.00
6	Komplet 560 SC	0.5 L/ha	53.80d	56.30c	68.80d	70.00c	53.80d	58.80c	33.80b	25.00c	76.25bc	77.50c	78.80b	85.00b	60.88	33.80	78.80	62.10	25.00	85.00
LSD(P=.05)			4.870	3.370	4.200	6.050	3.520	3.920	6.150	5.020	5.138	3.781	8.360	8.730						

Table 25. The efficacy of CHR/H/FDF 574 SC in control of GALAP *Galium aparine* in winter wheat

Pest code			GALAP <i>Galium aparine</i>																				
Report code			A.T/2019/067/PO		AH/19/PO/26/Pr/FDF1/I		A.T/2020/130/PO		A.T/2020/154/PO		SRPL20-429-336HE		SRPL20-430-336HE		SRPL20-431-336HE		SRPL20-432-336HE						
Application date			14.10.2019	14.10.2019	18.10.2019	18.10.2019	17.10.2020	17.10.2020	27.10.2020	27.10.2020	15.11.2020	15.11.2020	03.11.2020	03.11.2020	28.10.2020	28.10.2020	09.11.2020						
Crop stage in application			BBCH 11-12	BBCH 11-12	BBCH 14	BBCH 14	BBCH 11-13	BBCH 11-13	BBCH 21-22	BBCH 21-22	BBCH 12-15	BBCH 12-15	BBCH 13-21	BBCH 13-21	BBCH 10-12	BBCH 10-12	BBCH 11						
Pest stage			BBCH 10-11	BBCH 10-11	BBCH 13	BBCH 13	BBCH 10-11	BBCH 10-11	BBCH 12-16	BBCH 12-16	BBCH 12-15	BBCH 12-15	BBCH 13-23	BBCH 13-23	BBCH 10-12	BBCH 10-12	BBCH 11						
Assessment date			13.03.2020	15.06.2020	16.03.2020	20.04.2020	02.04.2021	25.06.2021	01.04.2021	29.06.2021	29.03.2021	24.05.2021	15.03.2021	02.06.2021	01.04.2021	04.06.2021	12.04.2021	123-167 DA-A			185 – 254 DA-A		
Days after application DA-A			151 DA-A	245 DA-A	150 DA-A	185 DA-A	167 DA-A	251 DA-A	156 DA-A	245 DA-A	134 DA-A	190 DA-A	132 DA-A	211 DA-A	155 DA-A	219 DA-A	154 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m²			5.0	5.0	6.0	6.0	5.0	5.0	5.0	5.0	5.5	6.0	10.0	10.0	6.8	6.5	10.0	6.7	5.0	10.0	6.2	5.0	10.0
No.	Name	Rate (L/ha)	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I						
1	Untreated Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.	CHR/H/FDF 547 SC	0.3 L/ha	82.30b	81.30b	72.50b	75.00c	78.80c	82.50c	80.00c	80.80c	33.80d	83.80c	78.80c	72.50c	99.50a	98.30a	88.0b	76.71	33.80	99.50	82.03	72.50	98.30
3.	CHR/H/FDF 547 SC	0.4 L/ha	84.50b	86.50ab	92.50a	95.00b	85.00b	88.30b	90.00a	90.30b	42.50c	90.00b	91.30b	91.30ab	100.00a	100.00a	100.00a	85.73	42.50	100.00	91.63	86.50	100.00
4.	CHR/H/FDF 547 SC	0.5 L/ha	89.00a	90.30a	97.50a	100.00a	90.00a	95.00a	92.50a	97.50a	53.80b	97.00a	99.00a	99.00a	100.00a	100.00a	100.00a	90.23	53.80	100.00	96.97	90.30	100.00
5.	Bizon 118.75 SC	1.0 L/ha	84.80b	85.30b	98.80a	100.00a	87.50ab	89.00b	82.50bc	92.50b	63.80a	99.00a	99.00a	99.00a	99.00a	98.30a	100.00a	89.43	63.80	100.00	94.73	85.30	100.00
6.	Komplet 560 SC	0.5 L/ha	82.00b	82.00b	98.80a	100.00a	78.80c	81.30c	85.00b	92.00b	62.50a	99.00a	88.80b	86.30b	100.00a	100.00a	100.00a	86.99	62.50	100.00	91.51	81.30	100.00
LSD(P=.05)			2.890	4.010	3.970	3.550	2.540	5.570	2.810	3.980	5.240	3.000	3.970	8.120	1.510	3.290	2.700						

Table 26. The efficacy of CHR/H/FDF 574 SC in control of GALAP Galium aparine in winter triticale

Pest code			GALAP <i>Galium aparine</i>																
Report code			A.T.2019.068.PŽO		A.T/2020/132/PŽO		A.T/2020/155/PŽO	AH/20/PszO/35/Br/2		AH/20/PszO/35/Pr/1		AH/20/PszO/35/Pr/3							
Application date			15.10.2019	15.10.2019	03.11.2020	03.11.2020	26.10.2020	22.10.2020	22.10.2020	23.10.2020	23.10.2020	04.11.2020	04.11.2020						
Crop stage in application			BBCH 12-13	BBCH 12-13	BBCH 13-21	BBCH 13-21	BBCH 19-22	BBCH 13	BBCH 13	BBCH 12-13	BBCH 12-13	BBCH 22	BBCH 22						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 12-14	BBCH 12-14	BBCH 10-11	BBCH 12	BBCH 12	BBCH 12	BBCH 12	BBCH 21	BBCH 21						
Assessment date			17.03.2019	24.06.2019	02.04.2021	28.06.2021	15.03.2021	02.04.2021	14.05.2021	05.04.2021	17.05.2021	05.04.2021	17.05.2021	140-164 DA-A			194-253 DA-A		
Days after application DA-A			154 DA-A	253 DA-A	150 DA-A	237 DA-A	140 DA-A	162 DA-A	204 DA-A	164 DA-A	206 DA-A	152 DA-A	194 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m²			16.0	18.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	7.0	5.0	16.0	7.8	5.0	18.0
N o.	Name	Rate (L, kg/ha)																	
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.	CHR/H/FDF 547 SC	0.3 L/ha	82.80c	69.80b	85.00a	80.80c	77.50b	68.80c	70.00c	78.80d	80.00d	68.80c	70.00c	76.95	68.80	85.00	74.12	69.80	80.80
3.	CHR/H/FDF 547 SC	0.4 L/ha	87.80bc	75.00b	95.00a	93.80b	83.80a	87.50b	90.00ab	90.00b	90.00b	90.00a	90.00ab	89.02	83.80	95.00	87.76	75.00	93.80
4.	CHR/H/FDF 547 SC	0.5 L/ha	92.80ab	82.80a	99.00a	98.80a	87.50a	93.80a	95.00a	93.80a	95.00a	93.80a	95.00a	93.45	87.50	99.00	93.32	82.80	98.80
5.	Bizon 118,75 SC	1.0 L/ha	83.80c	69.30b	95.00a	93.80b	86.30a	83.80b	85.00b	83.80c	85.00c	83.80b	85.00b	86.08	83.80	95.00	83.62	69.30	93.80
6.	Komplet 560 SC	0.5 L/ha	93.30a	83.30a	85.00a	80.00c	85.50a	83.80b	85.00b	85.00c	85.00c	83.80b	85.00b	86.07	83.80	93.30	83.66	80.00	85.00
LSD(P=.05)			4.470	5.980		4.650	4.160	3.810	5.150	3.440	4.900	5.020	5.500						

Table 27. The efficacy of CHR/H/FDF 574 SC in control of GALAP *Galium aparine* in winter rye

Pest code			GALAP <i>Galium aparine</i>																	
Report code			A.T/2019/070/ŽO		A.T/2020/135/ŽO		A.T/2020/136/ŽO		A.T/2020/156/ŽO		AH/20/ŽO/35/Br/1		AH/20/ŽO/35/Gr/2							
Application date			25.10.2019	25.10.2019	04.11.2020	04.11.2020	19.10.2020	19.10.2020	29.10.2020	29.10.2020	22.10.2020	22.10.2020	22.10.2020	22.10.2020						
Crop stage in application			BBCH 22-24	BBCH 22-24	BBCH 21-25	BBCH 21-25	BBCH 19-22	BBCH 19-22	BBCH 14-23	BBCH 14-23	BBCH 13	BBCH 13	BBCH 13	BBCH 13						
Pest stage			BBCH 14-16	BBCH 14-16	BBCH 10-12	BBCH 10-12	BBCH 10-12	BBCH 10-12	BBCH 10-14	BBCH 10-14	BBCH 13	BBCH 13	BBCH 11	BBCH 11						
Assessment date			24.02.2020	25.06.2020	01.04.2021	22.06.2021	01.04.2021	28.06.2021	25.03.2021	22.06.2021	02.04.2021	14.05.2021	02.04.2021	14.05.2021	122-164 DA-A			204-252 DA-A		
Days after application DA-A			122 DA-A	244 DA-A	148 DA-A	230 DA-A	164 DA-A	252 DA-A	147 DA-A	236 DA-A	162 DA-A	204 DA-A	162 DA-A	204 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			6.0	6.0	5.0	5.0	6.0	5.0	18.0	17.0	5.0	5.0	5.0	5.0	7.5	5.0	18.0	7.2	5.0	17.0
No	Name	Rate (L/ha)																		
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FD F 547 SC	0.3 L/ha	77.50c	76.30b	82.50c	82.50c	82.50c	80.00d	83.80b	90.00b	78.80c	80.00c	73.80d	75.00c	79.82	73.80	83.80	80.63	75.00	90.00
3	CHR/H/FD F 547 SC	0.4 L/ha	81.30b	86.30a	89.00b	87.50b	87.50b	90.00b	87.50a	99.50a	88.80b	90.00ab	88.80b	90.00ab	87.15	81.30	89.00	90.55	86.30	99.50
4	CHR/H/FD F 547 SC	0.5 L/ha	90.00a	90.00a	95.00a	92.50a	95.00a	95.00a	92.50a	100.00a	93.80a	95.00a	93.80a	95.00a	93.35	90.00	95.00	94.58	90.00	100.00
5	Komplet 560 SC	0.5 L/ha	76.30c	77.50b	77.50d	80.00c	82.50c	85.00c	87.50a	92.50b	85.00b	85.00bc	83.80c	85.00b	82.10	76.30	87.50	84.17	77.50	92.50
LSD(P=.05)			3.770	3.770	3.290	3.530	4.420	3.770	6.290	2.580	4.280	5.800	4.330	5.630						

Table 28. The efficacy of CHR/H/FDF 574 SC in control of GALAP *Galium aparine* in winter barley

Pest code			GALAP Galium aparine																			
Report code			A.T/2019/069/JO		A.T/2019/073/JO		AH/19/JO/26/Pr/F DF1/2		A.T/2020/133/JO		A.T/2020/134/JO		SRPL20-434-336HE		SRPL20-436-336HE							
Application date			04.10.2019	04.10.2019	18.10.2019	18.10.2019	17.10.2019	17.10.2019	12.10.2020	12.10.2020	09.10.2020	09.10.2020	28.10.2020	28.10.2020	05.11.2020	05.11.2020						
Crop stage in application			BBCH 12-21	BBCH 12-21	BBCH 21-23	BBCH 21-23	BBCH 14	BBCH 14	BBCH 12-14	BBCH 12-14	BBCH 13-22	BBCH 13-22	BBCH 11-13	BBCH 11-13	BBCH 19-22	BBCH 19-22						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 14-16	BBCH 14-16	BBCH 12	BBCH 12	BBCH 10-11	BBCH 10-11	BBCH 10-11	BBCH 10-11	BBCH 10-12	BBCH 10-12	BBCH 12-16	BBCH 12-16						
Assessment date			10.03.2020	08.06.2020	25.02.2020	24.06.2020	16.03.2020	20.04.2020	10.03.2021	11.06.2021	17.03.2021	09.06.2021	26.03.2021	18.06.2021	26.03.2021	18.06.2021	130-159 DA-A			186-250 DA-A		
Days after application DA-A			158 DA-A	248 DA-A	130 DA-A	250 DA-A	151 DA-A	186 DA-A	149 DA-A	242 DA-A	159 DA-A	243 DA-A	149 DA-A	233 DA-A	141 DA-A	225 DA-A	Average	Min	Max	Average	Min	Max
weeds density pcs/m ²			5.0	4.0	10.0	10.0	7.0	7.0	5.0	5.0	14.0	16.0	6.5	6.5	10.5	10.0	8.3	5.0	14.0	8.4	4.0	16.0
N o.	Name	Rate (L/kg/ha)																				
1	Untreated Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.	CHR/H/F DF 547 SC	0.3 L/ha	84.00d	82.80c	80.00a	78.80b	72.50c	75.00c	82.50c	79.00c	74.50c	72.50d	97.80a	97.80a	99.00a	98.30a	84.33	72.50	99.00	83.46	72.50	98.30
3.	CHR/H/F DF 547 SC	0.4 L/ha	90.00b	90.00c	86.30a	78.80b	92.50b	95.00b	87.50bc	90.50b	79.50bc	78.80cd	100.00a	100.00a	100.00a	100.00a	90.83	79.50	100.00	90.44	78.80	100.00
4.	CHR/H/F DF 547 SC	0.5 L/ha	95.00a	95.00a	90.00a	88.80a	97.50a	100.00a	97.50a	100.00a	85.00a	85.00ab	100.00a	100.00a	100.00a	100.00a	95.00	85.00	100.00	95.54	85.00	100.00
5.	Bizon 118,75 SC	1.0 L/ha	94.00a	92.80b	85.00a	80.00b	98.80a	100.00a	92.50ab	80.00c	78.80bc	87.50a	98.80a	98.80a	99.50a	99.50a	92.49	78.80	99.50	91.23	80.00	100.00
6.	Komplet 560 SC	0.5 L/ha	85.50c	85.00d	88.80a	83.80ab	97.50a	100.00a	97.50a	100.00a	80.00ab	80.00bc	99.50a	99.50a	99.50a	99.50a	92.61	80.00	99.50	92.54	80.00	100.00
LSD(P=.05)			1.130	1.740	10.210	6.520	4.180	3.550	5.970	4.810	5.230	6.670	3.330	3.330	1.750	2.540						

Table 29. The efficacy of CHR/H/FDF 574 SC in control of PAPRH Papver rhoear in winter wheat

Pest code			PAPRH <i>Papaver rhoeas</i>																				
Report code			A.T/2019/067/PO		A.T/2019/071/PO		AH/19/PO/26/Pr/F DF1/I		A.T/2020/129/PO		A.T/2020/154/PO		SRPL20-429- 336HE		SRPL20-430- 336HE		SRPL2 0-432- 336HE						
Application date			14.10.2 019	14.10.2 019	14.10.2 019	14.10.2 019	18.10.20 19	18.10.20 19	22.10.2 020	22.10.2 020	27.10.2 020	27.10.2 020	15.11.2 020	15.11.2 020	03.11.2 020	03.11.2 020	09.11.2 020						
Crop stage in appli- cation			BBCH 11-12	BBCH 11-12	BBCH 12-13	BBCH 12-13	BBCH 14	BBCH 14	BBCH 13-14	BBCH 13-14	BBCH 21-22	BBCH 21-22	BBCH 12-15	BBCH 12-15	BBCH 13-21	BBCH 13-21	BBCH 11						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 12-14	BBCH 12-14	BBCH 13	BBCH 13	BBCH 11-12	BBCH 11-12	BBCH 12-16	BBCH 12-16	BBCH 12-14	BBCH 12-14	BBCH 13-25	BBCH 13-25	BBCH 10-11						
Assessment date			13.03.2 020	15.06.2 020	43885	44006	16.03.20 20	20.04.20 20	31.03.2 021	23.06.2 021	01.04.2 021	29.06.2 021	29.03.2 021	24.05.2 021	15.03.2 021	02.06.2 021	12.04.2 021	123-167 DA-A			150 – 254 DA-A		
Days after applica- tion DA-A			151 DA-A	245 DA-A	133 DA-A	254 DA-A	150 DA-A	185 DA-A	160 DA-A	244 DA-A	156 DA-A	245 DA-A	134 DA-A	190 DA-A	132 DA-A	211 DA-A	154 DA-A	Ave- rage	Mi- n.	Max .	Ave- rage	Mi- n.	Max .
weeds density pcs/m²			91.0	63.0	7.0	7.0	7.0	7.0	14.0	15.0	5.0	5.0	13.8	11.3	5.0	5.0	15.0	19.7	5.0	91.0	16.2	5.0	63.0
No.	Name	Rate (L, kg/h a)	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I						
1	Untreat- ed Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0 0	0.00	0.00	0.0 0	0.00
2.	CHR/H/ FDF 547 SC	0.3 L/ha	78.50b	59.50c	97.50b	93.80b	70.00c	70.00b	82.80c	81.30c	82.50c	82.50b	50.00d	86.30c	81.30c	80.00c	81.00b	77.95	50. 00	97.5 0	79.06	59. 50	93.8 0
3.	CHR/H/ FDF 547 SC	0.4 L/ha	85.50ab	70.80b	100.00 a	100.00 a	82.50b	85.00a	89.00b	87.50b	87.50b	90.30b	57.50c	92.50b	92.50b	91.30b	100.00a	86.81	57. 50	100. 00	88.20	70. 80	100. 00
4.	CHR/H/ FDF 547 SC	0.5 L/ha	90.30a	79.50a	100.00a	100.00 a	87.50a	90.00a	93.80a	92.50a	99.00a	98.80a	65.00b	99.00a	99.00a	99.00a	100.00a	91.83	65. 00	100. 00	94.11	79. 50	100. 00
5.	Bizon 118,75 SC	1.0 L/ha	79.80b	61.30c	97.00b	88.80c	87.50a	90.00a	82.80c	79.50c	87.00b	88.30b	77.50a	99.00a	99.00a	99.00a	100.00a	88.83	77. 50	100. 00	86.56	61. 30	99.0 0
6.	Komplet 560 SC	0.5 L/ha	25.00c	5.00d	80.00c	75.80d	86.30ab	90.00a	56.30d	63.80d	30.00d	35.00c	77.50a	99.00a	99.00a	99.00a	100.00a	69.26	25. 00	100. 00	66.80	5.0 0	99.0 0
LSD(P=.05)			6.660	7.360	2.120	2.550	4.330	6.050	4.630	4.790	3.160	8.100	7.370	3.780	3.780	2.350	2.300						

Table 30. The efficacy of CHR/H/FDF 574 SC in control of PAPRH *Papaver rhoeas* in winter triticale

Pest code			PAPRH <i>Papaver rhoeas</i>																	
Report code			SRPL19-352-336HE		A.T/2020/132/PŽO		A.T/2020/155/PŽO		AH/20/PszO/35/Br/2		AH/20/PszO/35/Pr/1		AH/20/PszO/35/Pr/3							
Application date			16.12.2019	16.12.2019	03.11.2020	03.11.2020	26.10.2020	26.10.2020	22.10.2020	22.10.2020	23.10.2020	23.10.2020	04.11.2020	04.11.2020						
Crop stage in application			BBCH 13-21	BBCH 13-21	BBCH 13-21	BBCH 13-21	BBCH 19-22	BBCH 19-22	BBCH 13	BBCH 13	BBCH 12-13	BBCH 12-13	BBCH 22	BBCH 22						
Pest stage			BBCH 19-21	BBCH 19-21	BBCH 12-16	BBCH 12-16	BBCH 12-14	BBCH 12-14	BBCH 11	BBCH 11	BBCH 12	BBCH 12	BBCH 21	BBCH 21						
Assessment date			06.04.2020	01.06.2020	02.04.2020	28.06.2020	15.03.2020	21.06.2020	02.04.2020	14.05.2020	05.04.2020	17.05.2020	05.04.2020	17.05.2020	112-164 DA-A			168-238 DA-A		
Days after application DA-A			112 DA-A	168 DA-A	150 DA-A	237 DA-A	140 DA-A	238 DA-A	162 DA-A	204 DA-A	164 DA-A	206 DA-A	152 DA-A	194 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m²			5.3	5.3	5.0	5.0	67.0	45.0	7.0	7.0	6.0	6.0	5.0	5.0	15.9	5.0	67.0	12.2	5.0	45.0
No	Name	Rate (L/ha)																		
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FD F 547 SC	0.3 L/ha	23.80c	57.50d	92.50bc	87.00c	85.00a	80.50b	73.80e	75.00d	73.80d	75.00d	73.80e	75.00e	70.45	23.80	92.50	75.00	57.50	87.00
3	CHR/H/FD F 547 SC	0.4 L/ha	27.50bc	71.30c	96.00b	92.50b	89.50a	88.30ab	90.00b	90.00b	90.00b	90.00b	90.00b	90.00b	80.50	27.50	96.00	87.02	71.30	92.50
4	CHR/H/FD F 547 SC	0.5 L/ha	28.80abc	87.50b	100.00 a	100.00 a	93.30a	90.30a	97.50a	100.00 a	98.80a	100.00 a	98.80a	100.00 a	86.20	28.80	100.00	96.30	87.50	100.00
5	Bizon 118,75 SC	1.0 L/ha	31.30ab	91.30ab	90.00c	87.50c	85.80a	84.30ab	83.80c	85.00bc	83.80c	85.00c	85.00c	85.00c	76.62	31.30	90.00	86.35	84.30	91.30
6	Komplet 560 SC	0.5 L/ha	33.80a	96.80a	70.00d	67.50d	50.00b	5.00c	78.80d	80.00cd	85.00c	85.00c	78.80d	80.00d	66.07	33.80	85.00	69.05	5.00	96.80
LSD(P=.05)			5.680	9.060	3.870	4.180	12.000	7.930	4.260	5.390	4.400	4.050	4.940	4.490						

Table 31. The efficacy of CHR/H/FDF 574 SC in control of PAPRH *Papver rhoeas* in winter rye

Pest code			PAPRH <i>Papaver rhoeas</i>																	
Report code			A.T/2019/074/ŽO		SRPL19-354-336HE		A.T/2020/136/ŽO		A.T/2020/156/ŽO		AH/20/ŽO/35/Br/1		AH/20/ŽO/35/Gr/2							
Application date			15.10.2019	15.10.2019	16.12.2019	16.12.2019	19.10.2020	19.10.2020	29.10.2020	29.10.2020	22.10.2020	22.10.2020	22.10.2020	22.10.2020						
Crop stage in application			BBCH 13-14	BBCH 13-14	BBCH 14-15	BBCH 14-15	BBCH 19-22	BBCH 19-22	BBCH 14-23	BBCH 14-23	BBCH 13	BBCH 13	BBCH 13	BBCH 13						
Pest stage			BBCH 12-13	BBCH 12-13	BBCH 13-15	BBCH 13-15	BBCH 11-12	BBCH 11-12	BBCH 10-12	BBCH 10-12	BBCH 12	BBCH 12	BBCH 12	BBCH 12						
Assessment date			27.02.2020	25.06.2020	06.04.2020	01.06.2020	01.04.2020	28.06.2020	25.03.2020	22.06.2020	02.04.2020	14.05.2020	02.04.2020	14.05.2020	112-164 DA-A			168-252 DA-A		
Days after application DA-A			135 DA-A	254 DA-A	112 DA-A	168 DA-A	164 DA-A	252 DA-A	147 DA-A	236 DA-A	162 DA-A	204 DA-A	162 DA-A	204 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			5.0	5.0	6.5	6.8	5.0	5.0	7.0	8.0	6.0	6.0	7.0	7.0	6.1	5.0	7.0	6.3	5.0	8.0
No	Name	Rate (L/ha)																		
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FD F 547 SC	0.3 L/ha	76.50c	77.80c	37.50c	78.80b	82.50b	81.30c	80.00c	78.50c	75.00d	75.00c	73.80d	75.00c	70.88	37.50	82.50	77.73	75.00	81.30
3	CHR/H/FD F 547 SC	0.4 L/ha	87.00b	87.80b	41.30c	81.30b	85.00b	87.50b	87.50b	85.00b	90.00b	90.00b	93.80b	95.00a	80.77	41.30	93.80	87.77	81.30	95.00
4	CHR/H/FD F 547 SC	0.5 L/ha	91.30a	92.30a	60.00b	88.80a	92.50a	91.30a	92.50a	90.00a	97.50a	100.00a	98.80a	100.00a	88.77	60.00	98.80	93.73	88.80	100.00
5	Komplet 560 SC	0.5 L/ha	31.30d	30.00d	77.50a	91.30a	52.50c	50.00d	60.00d	62.50d	83.80c	85.00b	83.80c	85.00b	64.82	31.30	83.80	67.30	30.00	91.30
LSD(P=.05)			4.130	3.700	9.090	4.370	3.530	2.670	3.770	2.580	5.660	4.450	3.590	5.260						

Table 32. The efficacy of CHR/H/FDF 574 SC in control of PAPRH *Papaver rhoeas* in winter barley

Pest code			PAPRH <i>Papaver rhoeas</i>																	
Report code			A.T/2019/069/JO		A.T/2019/073/JO		AH/19/JO/26/Pr/FDF 1/2		A.T/2020/133/JO		A.T/2020/153/JO		SRPL20-434-336HE							
Application date			04.10.2019	04.10.2019	18.10.2019	18.10.2019	17.10.2019	17.10.2019	12.10.2020	12.10.2020	16.10.2020	16.10.2020	28.10.2020	28.10.2020						
Crop stage in application			BBCH 12-21	BBCH 12-21	BBCH 21-23	BBCH 21-23	BBCH 14	BBCH 14	BBCH 12-14	BBCH 12-14	BBCH 12-13	BBCH 12-13	BBCH 11-13	BBCH 11-13						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 13-21	BBCH 13-21	BBCH 12	BBCH 12	BBCH 11-12	BBCH 11-12	BBCH 10-12	BBCH 10-12	BBCH 10-14	BBCH 10-14						
Assessment date			10.03.2020	08.06.2020	25.02.2020	24.06.2020	16.03.2020	20.04.2020	10.03.2020	11.06.2020	24.03.2020	15.06.2020	26.03.2020	18.06.2020	130-159 DA-A			186-250 DA-A		
Days after application DA-A			158 DA-A	248 DA-A	130 DA-A	250 DA-A	151 DA-A	186 DA-A	149 DA-A	242 DA-A	159 DA-A	242 DA-A	149 DA-A	233 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			21	16	5.0	5.0	6.0	6.0	5.0	5.0	6.0	5.0	5.5	6.0	8.1	5.0	21.0	7.2	5.0	16.0
No	Name	Rate (L/ha)																		
1	Untreated Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FDF 574 SC	0.3 L/ha	79.80c	80.50c	83.80c	87.50b	70.00c	70.00b	92.50b	79.50c	87.80b	83.30c	98.80a	95.00a	85.45	70.00	98.80	82.63	70.00	95.00
3	CHR/H/FDF 574 SC	0.4 L/ha	86.80b	86.30b	93.80b	97.50a	82.50b	85.00a	97.50a	90.00b	97.80a	96.30b	100.00a	95.80a	93.07	82.50	100.00	91.82	85.00	97.50
4	CHR/H/FDF 574 SC	0.5 L/ha	93.30a	90.80a	100.00a	100.00a	88.80a	90.00a	100.00a	100.00a	99.50a	100.00a	100.00a	98.30a	96.93	88.80	100.00	96.52	90.00	100.00
5	Bizon 118.75 SC	1.0 L/ha	84.80b	84.30b	90.00b	100.00a	88.80a	90.00a	97.50a	85.80bc	86.30b	80.00c	100.00a	97.50a	91.23	84.80	100.00	89.60	80.00	100.00
6	Komplet 560 SC	0.5 L/ha	67.50d	57.00d	71.30d	68.80c	83.80b	85.00a	75.00c	67.50d	62.50c	41.30d	27.50b	27.50b	64.60	27.50	83.80	57.85	27.50	85.00
LSD(P=.05)			3.260	2.750	6.330	2.630	4.260	5.620	7.310	9.950	4.660	6.050	4.810	7.980						

Table 33. The efficacy of CHR/H/FDF 574 SC in control of STEME *Stellaria media* in winter wheat

Pest code			STEME <i>Stellaria media</i>																
Report code			A.T/2019/067/PO		A.T/2019/071/PO		AH/19/PO/26/Ce/FDF 2/1		A.T/2020/129/PO	A.T/2020/154/PO	SRPL20-431-336HE		SRPL20-432-336HE						
Application date			14.10.2019	14.10.2019	14.10.2019	14.10.2019	15.11.2019	15.11.2019	22.10.2020	27.10.2020	28.10.2020	28.10.2020	09.11.2020						
Crop stage in application			BBCH 11-12	BBCH 11-12	BBCH 12-13	BBCH 12-13	BBCH 21	BBCH 21	BBCH 13-14	BBCH 21-22	BBCH 10-12	BBCH 10-12	BBCH 11						
Pest stage			BBCH 10-12	BBCH 10-12	BBCH 11-12	BBCH 11-12	BBCH 20	BBCH 20	BBCH 11-12	BBCH 14-18	BBCH 10-12	BBCH 10-12	BBCH 11-12						
Assessment date			13.03.2020	15.06.2020	24.02.2020	24.06.2020	17.03.2020	13.04.2020	31.03.2021	01.04.2021	01.04.2021	04.06.2021	12.04.2021	123-167 DA-A			150 – 254 DA-A		
Days after application DA-A			151 DA-A	245 DA-A	133 DA-A	254 DA-A	123 DA-A	150 DA-A	160 DA-A	156 DA-A	155 DA-A	219 DA-A	154 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			6.0	7.0	5.0	5.0	7.0	7.0	7.0	7.0	11.0	10.5	7.0	7.1	5.0	11.0	7.4	5.0	10.5
No	Name	Rate (L/ha)																	
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.	CHR/H/F DF 547 SC	0.3 L/ha	100.00a	100.00a	100.00a	100.00a	77.50b	80.00b	100.00a	100.00a	99.50b	98.30b	91.00b	95.43	77.50	100.00	94.58	80.00	100.00
3.	CHR/H/F DF 547 SC	0.4 L/ha	100.00a	100.00a	100.00a	100.00a	97.50a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	99.64	97.50	100.00	100.00	100.00	100.00
4.	CHR/H/F DF 547 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00a	98.80a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	99.83	98.80	100.00	100.00	100.00	100.00
5.	Bizon 118,75 SC	1.0 L/ha	100.00a	100.00a	100.00a	100.00a	98.80a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	99.83	98.80	100.00	100.00	100.00	100.00
6.	Komplet 560 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00a	98.80a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	99.83	98.80	100.00	100.00	100.00	100.00
LSD(P=.05)							3.250	2.510			0.940	2.220	2.300						

Table 34. The efficacy of CHR/H/FDF 574 SC in control of STEME *Stellaria media* in winter triticale

Pest code			STEME <i>Stellaria media</i>																	
Report code			A.T.2019.072.PŽO		SRPL19-351-336HE		SRPL19-352-336HE		A.T/2020/132/PŽO	A.T/2020/155/PŽO	AH/20/PszO/35/Br/5		AH/20/PszO/35/ZI/4							
Application date			14.10.2019	14.10.2019	05.11.2019	05.11.2019	16.12.2019	16.12.2019	03.11.2020	26.10.2020	04.11.2020	04.11.2020	23.10.2020	23.10.2020						
Crop stage in application			BBCH 11-12	BBCH 11-12	BBCH 13-15	BBCH 13-15	BBCH 13-21	BBCH 13-21	BBCH 13-21	BBCH 19-22	BBCH 21-22	BBCH 21-22	BBCH 12	BBCH 12						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 12-14	BBCH 12-14	BBCH 17-21	BBCH 17-21	BBCH 12-16	BBCH 11-12	BBCH 21	BBCH 21	BBCH 11	BBCH 11						
Assessment date			24.02.2019	24.06.2019	20.03.2020	24.07.2020	06.04.2020	01.06.2020	02.04.2021	15.03.2021	02.04.2021	14.05.2021	05.04.2021	17.05.2021	112-164 DA-A			168-254 DA-A		
Days after application DA-A			133 DA-A	254 DA-A	136 DA-A	262 DA-A	112 DA-A	168 DA-A	150 DA-A	140 DA-A	149 DA-A	191 DA-A	164 DA-A	206 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m²			7.0	7.0	9.0	6.5	4.3	4.5	5.0	5.0	5.0	5.0	8.0	8.0	6.2	4.3	9.0	6.1	4.5	8.0
N o.	Name	Rate (L, kg/ha)																		
1	Untreated Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.	CHR/H/F DF 547 SC	0.3 L/ha	100.00a	100.00a	100.00a	100.00a	23.80b	45.00d	100.00a	100.00a	83.80d	85.00d	88.80c	90.00c	85.20	23.80	100.00	80.00	45.00	100.00
3.	CHR/H/F DF 547 SC	0.4 L/ha	100.00a	100.00a	100.00a	100.00a	27.50ab	61.30c	100.00a	100.00a	98.80ab	100.00a	98.80a	100.00a	89.30	27.50	100.00	90.30	61.30	100.00
4.	CHR/H/F DF 547 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00a	30.00ab	85.00b	100.00a	100.00a	100.00a	100.00a	98.80a	100.00a	89.83	30.00	100.00	96.25	85.00	100.00
5.	Bizon 118,75 SC	1.0 L/ha	100.00a	100.00a	100.00a	100.00a	30.00ab	86.30b	100.00a	100.00a	88.80c	90.00c	88.80c	90.00c	86.80	30.00	100.00	91.58	86.30	100.00
6.	Komplet 560 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00a	32.50a	95.80a	100.00a	100.00a	95.00b	95.00b	93.80b	95.00b	88.76	32.50	100.00	96.45	95.00	100.00
LSD(P=.05)			-	-	-	-	7.630	8.590	-	-	3.950	4.350	3.350	3.890						

Table 35. The efficacy of CHR/H/FDF 574 SC in control of STEME *Stellaria media* in winter rye

Pest code			STEME <i>Stellaria media</i>																	
Report code			A.T/2019/070/ŽO		A.T/2019/074/ŽO		A.T/2020/135/ŽO		AH/20/ŽO/35/Br/4		AH/20/ŽO/35/ZI/3		AH/20/ŽO/35/ZI/5							
Application date			25.10.2019	25.10.2019	15.10.2019	15.10.2019	04.11.2020	04.11.2020	04.11.2020	04.11.2020	23.10.2020	23.10.2020	16.11.2020	16.11.2020						
Crop stage in application			BBCH 22-24	BBCH 22-24	BBCH 13-14	BBCH 13-14	BBCH 21-25	BBCH 21-25	BBCH 22-23	BBCH 22-23	BBCH 13	BBCH 13	BBCH 20	BBCH 20						
Pest stage			BBCH 00	BBCH 00	BBCH 13-14	BBCH 13-14	BBCH 10-14	BBCH 10-14	BBCH 21	BBCH 21	BBCH 12	BBCH 12	BBCH 21	BBCH 21						
Assessment date			24.02.2020	25.06.2020	27.02.2020	25.06.2020	01.04.2020	22.06.2020	02.04.2020	14.05.2020	01.04.2020	13.05.2020	01.04.2020	13.05.2020	122-160 DA-A			178-254 DA-A		
Days after application DA-A			122 DA-A	244 DA-A	135 DA-A	254 DA-A	148 DA-A	230 DA-A	149 DA-A	191 DA-A	160 DA-A	202 DA-A	136 DA-A	178 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			5.0	5.0	6.0	6.0	5.0	5.0	10.0	10.0	12.0	12.0	14.0	14.0	8.7	5.0	14.0	8.7	5.0	14.0
No	Name	Rate (L/ha)																		
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FD F 547 SC	0.3 L/ha	97.00a	97.00a	100.00a	100.00a	100.00a	100.00a	88.80b	90.00b	83.80c	85.00c	82.50c	85.00c	92.02	82.50	100.00	92.83	85.00	100.00
3	CHR/H/FD F 547 SC	0.4 L/ha	98.00a	98.00a	100.00a	100.00a	100.00a	100.00a	98.80a	100.00a	98.80a	100.00a	98.80a	100.00a	99.07	98.00	100.00	99.67	98.00	100.00
4	CHR/H/FD F 547 SC	0.5 L/ha	99.00a	99.00a	100.00a	100.00a	100.00a	100.00a	98.80a	100.00a	98.80a	100.00a	98.80a	100.00a	99.23	98.80	100.00	99.83	99.00	100.00
5	Komplet 560 SC	0.5 L/ha	91.30b	91.30b	100.00a	100.00a	100.00a	100.00a	88.80b	90.00b	87.50b	90.00b	93.80b	95.00b	93.57	87.50	100.00	94.38	90.00	100.00
LSD(P=.05)			3.440	3.440					3.590	3.980	3.070	4.450	3.920	4.450						

Table 36 The efficacy of CHR/H/FDF 574 SC in control of STEME *Stellaria media* in winter barley

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Table 37. The efficacy of CHR/H/FDF 574 SC in control of GERPU Geranium pusillum in winter wheat

Pest code			GERPU <i>Geranium pusillum</i>													
Report code			A.T/2019/071/PO		AH/19/PO/26/Ce/FDF 2/1		A.T/2020/129 /PO	A.T/2020/130 /PO	A.T/2020/154 /PO	SRPL20-432-336HE						
Application date			14.10.2019	14.10.2019	15.11.2019	15.11.2019	22.10.2020	17.10.2020	27.10.2020	09.11.2020						
Crop stage in application			BBCH 12-13	BBCH 12-13	BBCH 21	BBCH 21	BBCH 13-14	BBCH 11-13	BBCH 21-22	BBCH 11						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 20	BBCH 20	BBCH 10-12	BBCH 10-11	BBCH 10-14	BBCH 11						
Assessment date			24.02.2020	24.06.2020	17.03.2020	13.04.2020	31.03.2021	02.04.2021	01.04.2021	12.04.2021	123-167 DA-A			150 – 254 DA-A		
Days after application DA-A			133 DA-A	254 DA-A	123 DA-A	150 DA-A	160 DA-A	167 DA-A	156 DA-A	154 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m²			5.0	5.0	7.0	7.0	13.0	5.0	7.0	5.0	7.0	5.0	13.0	6.0	5.0	7.0
No.	Name	Rate (L, kg/ha)	I	I	I	I	I	I	I	I						
1	Untreated Check	I	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.	CHR/H/FDF 547 SC	0.3 L/ha	84.50c	88.30c	60.00c	60.00b	100.00a	100.00a	97.30a	84.00b	87.63	60.00	100.00	74.15	60.00	88.30
3.	CHR/H/FDF 547 SC	0.4 L/ha	88.80b	95.00ac	73.80b	75.00a	100.00a	100.00a	98.50a	90.00ab	91.85	73.80	100.00	85.00	75.00	95.00
4.	CHR/H/FDF 547 SC	0.5 L/ha	93.80a	97.50a	78.80a	80.00a	100.00a	100.00a	99.00a	93.00a	94.10	78.80	100.00	88.75	80.00	97.50
5.	Bizon 118,75 SC	1.0 L/ha	89.50b	92.50c	78.80a	80.00a	100.00a	100.00a	97.80a	96.00a	93.68	78.80	100.00	86.25	80.00	92.50
6.	Komplet 560 SC	0.5 L/ha	56.30d	68.00d	73.80b	75.00a	70.30b	67.50b	67.50b	91.00ab	71.07	56.30	91.00	71.50	68.00	75.00
LSD(P=.05)			2.690	3.750	3.890	5.150	3.150	1.990	2.600	7.600						

Table 38. The efficacy of CHR/H/FDF 574 SC in control of GERPU Geranium pusillum in winter triticale

Pest code			GERPU <i>Geranium pusillum</i>																	
Report code			A.T.2019.068.PŽO		A.T.2019.072.PŽO		A.T/2020/131/PŽO		A.T/2020/155/PŽO		AH/20/PszO/35/Br/5		AH/20/PszO/35/ZI/4							
Application date			15.10.2019	15.10.2019	14.10.2019	14.10.2019	24.10.2020		26.10.2020	26.10.2020	04.11.2020	04.11.2020	23.10.2020	23.10.2020						
Crop stage in application			BBCH 12-13	BBCH 12-13	BBCH 11-12	BBCH 11-12	BBCH 11-13		BBCH 19-22	BBCH 19-22	BBCH 21-22	BBCH 21-22	BBCH 12	BBCH 12						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 11-12	BBCH 11-12	BBCH 11-12		BBCH 11-12	BBCH 11-12	BBCH 21	BBCH 21	BBCH 11	BBCH 11						
Assessment date			17.03.2019	24.06.2019	24.02.2019	24.06.2019	07.04.2021		15.03.2021	21.06.2021	02.04.2021	14.05.2021	05.04.2021	17.05.2021	133-165 DA-A			191-254 DA-A		
Days after application DA-A			154 DA-A	253 DA-A	133 DA-A	254 DA-A	165 DA-A		140 DA-A	238 DA-A	149 DA-A	191 DA-A	164 DA-A	206 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m²			5.0	5.0	5.0	5.0	6.0		7.0	7.0	5.0	5.0	6.0	6.0	5.7	5.0	7.0	5.6	5.0	7.0
No	Name	Rate (L/ha)	I	I	I	I	I	I	I	I	I	I	I							
1	Untreated Check	I	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2.	CHR/H/FD F 547 SC	0.3 L/ha	100.00a	100.00a	95.00c	90.00d	90.00b	86.30c	87.50c	68.80c	70.00c	68.80b	70.00c	84.82	68.80	100.00	83.50	70.00	100.00	
3.	CHR/H/FD F 547 SC	0.4 L/ha	100.00a	100.00a	100.00a	96.00b	96.00a	95.00b	95.00b	85.00b	85.00b	85.00a	85.00b	93.50	85.00	100.00	92.20	85.00	100.00	
4.	CHR/H/FD F 547 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00a	98.00a	100.00a	100.00a	92.50a	95.00a	88.80a	90.00a	96.55	88.80	100.00	97.00	90.00	100.00	
5.	Bizon 118,75 SC	1.0 L/ha	100.00a	100.00a	97.00b	94.00c	96.00a	100.00a	100.00a	88.80ab	90.00ab	85.00a	85.00b	94.47	85.00	100.00	93.80	85.00	100.00	
6.	Komplet 560 SC	0.5 L/ha	71.30b	72.50b	88.00d	80.00e	77.50c	70.00d	71.30d	68.80c	70.00c	68.80b	70.00c	74.07	68.80	88.00	72.76	70.00	80.00	
LSD(P=.05)			1.720	2.810	1.380	1.250	3.230	3.590	2.440	5.070	5.620	4.680	4.350							

Table 39. The efficacy of CHR/H/FDF 574 SC in control of GERPU *Geranium pusillum* in winter rye

Pest code			GERPU <i>Geranium pusillum</i>																	
Report code			A.T/2020/135/ŽO		A.T/2020/136/ŽO		A.T/2020/156/ŽO		AH/20/ŽO/35/Br/4		AH/20/ŽO/35/ZI/3		AH/20/ŽO/35/ZI/5							
Application date			04.11.2020	04.11.2020	19.10.2020	19.10.2020	29.10.2020	29.10.2020	04.11.2020	04.11.2020	23.10.2020	23.10.2020	16.11.2020	16.11.2020						
Crop stage in application			BBCH 21-25	BBCH 21-25	BBCH 19-22	BBCH 19-22	BBCH 14-23	BBCH 14-23	BBCH 22-23	BBCH 22-23	BBCH 13	BBCH 13	BBCH 20	BBCH 20						
Pest stage			BBCH 10-14	BBCH 10-14	BBCH 12-14	BBCH 12-14	BBCH 10-14	BBCH 10-14	BBCH 21	BBCH 21	BBCH 11	BBCH 11	BBCH 18	BBCH 18						
Assessment date			01.04.2021	22.06.2021	01.04.2021	28.06.2021	25.03.2021	22.06.2021	02.04.2021	14.05.2021	01.04.2021	13.05.2021	01.04.2021	13.05.2021	148-164 DA-A			178-252 DA-A		
Days after application DA-A			148 DA-A	230 DA-A	164 DA-A	252 DA-A	147 DA-A	236 DA-A	149 DA-A	191 DA-A	160 DA-A	202 DA-A	136 DA-A	178 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			5.0	5.0	5.0	5.0	20.0	20.0	6.0	6.0	5.0	5.0	5.0	5.0	7.7	5.0	20.0	7.7	5.0	20.0
No	Name	Rate (L/ha)																		
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FD F 547 SC	0.3 L/ha	80.00b	95.80b	100.00a	100.00a	78.80b	93.80b	67.50b	70.00b	68.80c	70.00b	68.80c	70.00c	77.32	67.50	100.00	83.27	70.00	100.00
3	CHR/H/FD F 547 SC	0.4 L/ha	91.30a	100.00a	100.00a	100.00a	88.80a	100.00a	83.80a	85.00a	78.80b	80.00a	83.80b	85.00b	87.75	78.80	100.00	91.67	80.00	100.00
4	CHR/H/FD F 547 SC	0.5 L/ha	90.00a	100.00a	100.00a	100.00a	90.00a	100.00a	88.80a	90.00a	85.00a	85.00a	93.80a	95.00a	91.27	85.00	100.00	95.00	85.00	100.00
5	Komplet 560 SC	0.5 L/ha	72.50c	76.30c	78.80b	78.80b	50.00c	91.30b	68.80b	70.00b	68.80c	70.00b	68.80c	70.00c	67.95	50.00	78.80	76.07	70.00	91.30
LSD(P=.05)			3.330	2.440	2.000	2.000	2.980	3.770	5.020	6.130	4.040	5.260	3.590	5.970						

Table 40. The efficacy of CHR/H/FDF 574 SC in control of GERPU *Geranium pusillum* in winter barley

Pest code			GERPU <i>Geranium pusillum</i>																	
Report code			A.T/2019/073/JO		AH/19/JO/26/ZI/FD F/2		A.T/2020/134/JO		A.T/2020/153/JO		SRPL20-437-336HE		SRPL20-438-336HE							
Application date			18.10.2019	18.10.2019	05.11.2019	05.11.2019	09.10.2020	09.10.2020	16.10.2020	16.10.2020	23.10.2020	23.10.2020	27.10.2020	27.10.2020						
Crop stage in application			BBCH 21-23	BBCH 21-23	BBCH 21-23	BBCH 21-23	BBCH 13-22	BBCH 13-22	BBCH 12-13	BBCH 12-13	BBCH 11-13	BBCH 11-13	BBCH 23-25	BBCH 23-25						
Pest stage			BBCH 13-21	BBCH 13-21	BBCH 22	BBCH 22	BBCH 10-11	BBCH 10-11	BBCH 11-12	BBCH 11-12	BBCH 11-13	BBCH 11-13	BBCH 12-16	BBCH 12-16						
Assessment date			25.02.2020	24.06.2020	16.03.2020	17.04.2020	17.03.2020	09.06.2020	24.03.2020	15.06.2020	16.03.2020	02.06.2020	29.03.2020	31.05.2020	130-159 DA-A			164-250 DA-A		
Days after application DA-A			130 DA-A	250 DA-A	132 DA-A	164 DA-A	159 DA-A	243 DA-A	159 DA-A	242 DA-A	144 DA-A	222 DA-A	153 DA-A	216 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			5.0	5.0	7.0	7.0	5.0	5.0	5.0	5.0	5.0	5.0	6.5	6.8	5.6	5.0	7.0	5.6	5.0	7.0
No	Name	Rate (L/ha)																		
1	Untreated Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FDF 547 SC	0.3 L/ha	83.80c	85.00c	58.80d	60.00c	93.80b	95.00b	97.50b	100.00a	86.25b	87.50c	82.50c	88.80c	83.78	58.80	97.50	86.05	60.00	100.00
3	CHR/H/FDF 547 SC	0.4 L/ha	91.30ab	92.50ab	70.00bc	70.00b	100.00a	100.00a	100.00a	100.00a	88.75b	88.75bc	86.30bc	88.80c	89.39	70.00	100.00	90.01	70.00	100.00
4	CHR/H/FDF 547 SC	0.5 L/ha	95.00a	95.00a	78.80a	80.00a	100.00a	100.00a	100.00a	100.00a	93.75ab	95.00ab	90.00ab	95.00ab	92.93	78.80	100.00	94.17	80.00	100.00
5	Bizon 118.75 SC	1.0 L/ha	89.50b	90.00b	75.00ab	75.00ab	100.00a	100.00a	98.80a	100.00a	99.00a	99.00a	95.00a	99.00a	92.88	75.00	100.00	93.83	75.00	100.00
6	Komplet 560 SC	0.5 L/ha	73.80d	75.00d	68.80c	70.00b	78.80c	80.00c	75.00c	75.00a	91.25b	92.50b	91.30ab	93.80b	79.83	68.80	91.30	81.05	70.00	93.80
LSD(P=.05)			4.260	4.220	6.090	5.840	3.520	4.220	2.440	-	5.138	4.490	5.910	4.940						

Table 41. The efficacy of CHR/H/FDF 574 SC in control of MATIN *Tripleurospermum mar. inodorum* in winter wheat

Pest code			MATIN <i>Tripleurospermum inodorum</i>																
Report code			A.T/2019/067/PO		AH/19/PO/26/Ce/FDF2 /1		A.T/2020/154/PO		SRPL20-431-336HE		SRPL20-432-336HE	SRPL20-433-336HE							
Application date			14.10.2019	14.10.2019	15.11.2019	15.11.2019	27.10.2020	27.10.2020	28.10.2020	28.10.2020	09.11.2020	05.11.2020	05.11.2020						
Crop stage in application			BBCH 11-12	BBCH 11-12	BBCH 21	BBCH 21	BBCH 21-22	BBCH 21-22	BBCH 10-12	BBCH 10-12	BBCH 11	BBCH 17-19	BBCH 17-19						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 20	BBCH 20	BBCH 11-12	BBCH 11-12	BBCH 10-12	BBCH 10-12	BBCH 10-11	BBCH 11-14	BBCH 11-14						
Assessment date			13.03.2020	15.06.2020	17.03.2020	13.04.2020	01.04.2020	29.06.2020	01.04.2020	04.06.2020	12.04.2020	31.03.2020	22.06.2020	123-167 DA-A			150 – 254 DA-A		
Days after application DA-A			151 DA-A	245 DA-A	123 DA-A	150 DA-A	156 DA-A	245 DA-A	155 DA-A	219 DA-A	154 DA-A	146 DA-A	229 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			5.0	5.0	7.0	7.0	6.0	7.0	8.5	8.5	6.0	11.3	11.8	7.3	5.0	11.3	7.9	5.0	11.8
No	Name	Rate (L/ha)																	
1	Untreated Check		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FDF 547 SC	0.3 L/ha	100.00a	100.00a	70.00d	70.00d	100.00a	100.00a	100.00a	100.00a	88.00a	100.00a	100.00a	93.00	70.00	100.00	94.00	70.00	100.00
3	CHR/H/FDF 547 SC	0.4 L/ha	100.00a	100.00a	88.80c	90.00c	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	98.13	88.80	100.00	98.00	90.00	100.00
4	CHR/H/FDF 547 SC	0.5 L/ha	100.00a	100.00a	93.80b	95.00b	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	98.97	93.80	100.00	99.00	95.00	100.00
5	Bizon 118,75 SC	1.0 L/ha	100.00a	100.00a	98.80a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	100.00a	99.80	98.80	100.00	100.00	100.00	100.00
6	Komplet 560 SC	0.5 L/ha	81.50b	82.50b	98.80a	100.00a	90.00a	90.00a	100.00a	100.00a	100.00a	100.00a	100.00a	95.05	81.50	100.00	94.50	82.50	100.00
LSD(P=0.05)			1.190	1.990	4.200	4.630					2.700								

Table 42. The efficacy of CHR/H/FDF 574 SC in control of MATIN *Tripleurospermum mar. inodorum* in winter triticale

Pest code			MATIN Tripleurospermum inodorum																		
Report code			A.T.2019.072.PŽO		SRPL19-352-336HE		A.T/2020/131/PŽO		A.T/2020/132/PŽO		A.T/2020/155/PŽO		AH/20/PszO/35/Br/5		AH/20/PszO/35/ZI/4						
Application date			14.10.2019	14.10.2019	16.12.2019	16.12.2019	24.10.2020	24.10.2020	03.11.2020	03.11.2020	26.10.2020	04.11.2020	04.11.2020	23.10.2020	23.10.2020						
Crop stage in application			BBCH 11-12	BBCH 11-12	BBCH 13-21	BBCH 13-21	BBCH 11-13	BBCH 11-13	BBCH 13-21	BBCH 13-21	BBCH 19-22	BBCH 21-22	BBCH 21-22	BBCH 12	BBCH 12						
Pest stage			BBCH 11-13	BBCH 11-13	BBCH 19-21	BBCH 19-21	BBCH 10-12	BBCH 10-12	BBCH 11-12	BBCH 11-12	BBCH 11-12	BBCH 19	BBCH 19	BBCH 10	BBCH 10						
Assessment date			24.02.2019	24.06.2019	06.04.2020	01.06.2020	07.04.2021	22.06.2021	02.04.2021	28.06.2021	15.03.2021	02.04.2021	14.05.2021	05.04.2021	17.05.2021	112-165 DA-A			168-254 DA-A		
Days after application DA-A			133 DA-A	254 DA-A	112 DA-A	168 DA-A	165 DA-A	241 DA-A	150 DA-A	237 DA-A	140 DA-A	149 DA-A	191 DA-A	164 DA-A	206 DA-A	Average	Min	Max	Average	Min	Max
weeds density pcs/m²			6.0	6.0	5.8	5.5	7.0	7.0	5.0	6.0	6.0	5.0	5.0	5.0	5.0	5.7	5.0	7.0	5.8	5.0	7.0
N o.	Name	Rate (L, kg/ha)	I	I	I	I	I	I	I	I	I	I	I	I	I						
1	Untreated Check	I	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.	CHR/H/F DF 547 SC	0.3 L/ha	100.00 a	100.00 a	23.80c	56.30c	96.30b	97.30b	100.00 a	100.00 a	90.00bc	67.50c	70.00c	68.80c	70.00b	78.06	23.80	100.00	82.27	56.30	100.00
3.	CHR/H/F DF 547 SC	0.4 L/ha	100.00 a	100.00 a	25.00bc	66.30b	97.50b	100.00 a	100.00 a	100.00 a	95.00ab	83.80b	85.00b	90.00ab	90.00a	84.47	25.00	100.00	90.22	66.30	100.00
4.	CHR/H/F DF 547 SC	0.5 L/ha	100.00 a	100.00 a	28.80abc	87.50a	100.00 a	100.00 a	100.00 a	100.00 a	100.00a	93.80a	95.00a	93.80a	95.00a	88.06	28.80	100.00	96.25	87.50	100.00
5.	Bizon 118.75 SC	1.0 L/ha	100.00 a	100.00 a	30.00ab	87.50a	100.00 a	100.00 a	100.00 a	100.00 a	92.50bc	95.00a	95.00a	90.00ab	90.00a	86.79	30.00	100.00	95.42	87.50	100.00
6.	Komplet 560 SC	0.5 L/ha	76.30b	77.50b	31.30a	99.00a	88.80c	90.00c	85.00b	85.00b	86.30c	83.80b	85.00b	88.80b	90.00a	77.19	31.30	88.80	87.75	77.50	99.00
LSD(P=.05)			1.720	1.990	5.240	8.390	5.400	1.030	I	I	5.970	4.680	5.150	4.110	5.620						

Table 43. The efficacy of CHR/H/FDF 574 SC in control of MATIN Tripleurospermum mar. inodorum in winter rye

Pest code			MATIN <i>Tripleurospermum inodorum</i>																
Report code			A.T/2019/070/ŽO		SRPL19-354-336HE		A.T/2020/135/ŽO	AH/20/ŽO/35/Br/4		AH/20/ŽO/35/ZI/3		AH/20/ŽO/35/ZI/5							
Application date			25.10.2019	25.10.2019	16.12.2019	16.12.2019	04.11.2020	04.11.2020	04.11.2020	23.10.2020	23.10.2020	16.11.2020	16.11.2020						
Crop stage in application			BBCH 22-24	BBCH 22-24	BBCH 14-15	BBCH 14-15	BBCH 21-25	BBCH 22-23	BBCH 22-23	BBCH 13	BBCH 13	BBCH 20	BBCH 20						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 13-15	BBCH 13-15	BBCH 10-14	BBCH 19	BBCH 19	BBCH 13	BBCH 13	BBCH 19	BBCH 19						
Assessment date			24.02.2020	25.06.2020	06.04.2020	01.06.2020	01.04.2021	02.04.2021	14.05.2021	01.04.2021	13.05.2021	01.04.2021	13.05.2021	112-160 DA-A			178-244 DA-A		
Days after application DA-A			122 DA-A	244 DA-A	112 DA-A	168 DA-A	148 DA-A	149 DA-A	191 DA-A	160 DA-A	202 DA-A	136 DA-A	178 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m²			5.0	5.0	6.5	6.3	5.0	6.0	6.0	6.0	6.0	5.0	5.0	5.6	5.0	6.5	5.7	5.0	6.3
No	Name	Rate (L, kg/ha)																	
1	Untreated Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FDF 547 SC	0.3 L/ha	100.00a	100.00a	46.30c	81.30c	92.50b	68.80c	70.00b	70.00c	70.00c	68.80c	70.00c	74.40	46.30	100.00	78.26	70.00	100.00
3	CHR/H/FDF 547 SC	0.4 L/ha	100.00a	100.00a	56.30b	85.00bc	99.80a	88.80b	90.00a	88.80b	90.00b	83.80b	85.00b	86.25	56.30	100.00	90.00	85.00	100.00
4	CHR/H/FDF 547 SC	0.5 L/ha	100.00a	100.00a	73.80a	87.50ab	100.00a	93.80a	95.00a	98.80a	100.00a	93.80a	95.00a	93.37	73.80	100.00	95.50	87.50	100.00
5	Komplet 560 SC	0.5 L/ha	85.30b	88.00b	77.50a	90.00a	87.50c	88.80b	90.00a	88.80b	90.00b	85.00b	85.00b	85.48	77.50	88.80	88.60	85.00	90.00
LSD(P=0.05)			1.650	1.310	5.350	4.120	3.140	2.980	5.070	4.280	4.870	4.920	5.630						

Table 44. The efficacy of CHR/H/FDF 574 SC in control of MATIN *Tripleurospermum mar. inodorum* in winter barley

Pest code			MATIN <i>Tripleurospermum inodorum</i>																	
Report code			A.T/2019/069/JO		A.T/2019/073/JO		AH/19/JO/26/ZI/FD F/2		A.T/2020/134/JO		SRPL20-436-336HE		SRPL20-438-336HE							
Application date			04.10.2019	04.10.2019	18.10.2019	18.10.2019	05.11.2019	05.11.2019	09.10.2020	09.10.2020	05.11.2020	05.11.2020	27.10.2020	27.10.2020						
Crop stage in application			BBCH 12-21	BBCH 12-21	BBCH 21-23	BBCH 21-23	BBCH 21-23	BBCH 21-23	BBCH 13-22	BBCH 13-22	BBCH 19-22	BBCH 19-22	BBCH 23-25	BBCH 23-25						
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 12-21	BBCH 12-21	BBCH 22	BBCH 22	BBCH 10-11	BBCH 10-11	BBCH 11-17	BBCH 11-17	BBCH 12-14	BBCH 12-14						
Assessment date			10.03.2020	08.06.2020	25.02.2020	24.06.2020	16.03.2020	17.04.2020	17.03.2020	09.06.2020	26.03.2020	18.06.2020	29.03.2020	31.05.2020	130-159 DA-A			164-250 DA-A		
Days after application DA-A			158 DA-A	248 DA-A	130 DA-A	250 DA-A	132 DA-A	164 DA-A	159 DA-A	243 DA-A	141 DA-A	225 DA-A	153 DA-A	216 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			18.0	15.0	5.0	5.0	6.0	6.0	6.0	6.0	39.0	40.0	12.8	16.0	14.5	5.0	39.0	14.7	5.0	40.0
No	Name	Rate (L/ha)																		
1	Untreated Check	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FDF 574 SC	0.3 L/ha	100.00a	100.00a	100.00a	100.00a	70.00c	70.00d	100.00a	100.00a	97.30a	21.30b	100.00a	100.00a	94.55	70.00	100.00	81.88	21.30	100.00
3	CHR/H/FDF 574 SC	0.4 L/ha	100.00a	100.00a	100.00a	100.00a	90.00b	90.00c	100.00a	100.00a	99.50a	99.50a	100.00a	100.00a	98.25	90.00	100.00	98.25	90.00	100.00
4	CHR/H/FDF 574 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00a	93.80b	95.00b	100.00a	100.00a	99.50a	99.50a	100.00a	100.00a	98.88	93.80	100.00	99.08	95.00	100.00
5	Bizon 118.75 SC	1.0 L/ha	100.00a	100.00a	100.00a	100.00a	98.80a	100.00a	100.00a	100.00a	97.00a	97.80a	100.00a	100.00a	99.30	97.00	100.00	99.63	97.80	100.00
6	Komplet 560 SC	0.5 L/ha	92.50b	95.00b	86.50b	87.50b	98.80a	100.00a	83.80b	87.50b	35.00b	12.50c	100.00a	100.00a	82.77	35.00	100.00	80.42	12.50	100.00
LSD(P=.05)			1.990	2.810	1.190	1.990	4.400	4.630	3.300	1.990	6.380	6.140								

Table 45. The efficacy of CHR/H/FDF 574 SC in control of VERHE Veronica hederifolia in winter wheat

Pest code			VERHE <i>Veronica hederifolia</i>					
Report code			A.T/2020/129/PO	A.T/2020/130/PO	A.T/2020/154/PO			
Application date			22.10.2020	17.10.2020	27.10.2020			
Crop stage in application			BBCH 13-14	BBCH 11-13	BBCH 21-22			
Pest stage			BBCH 10-11	BBCH 11-12	BBCH 12-14			
Assessment date			31.03.2021	02.04.2021	01.04.2021	156-167 DA-A		
Days after application DA-A			160 DA-A	167 DA-A	156 DA-A	Average	Min.	Max.
weeds density pcs/m²			12.0	5.0	5.0	7.3	5.0	12.0
No.	Name	Rate (L, kg/ha)	┆	┆	┆	┆	┆	┆
1	Untreated Check	┆	0.00	0.00	0.00	0.00	0.00	0.00
2.	CHR/H/FDF 547 SC	0.3 L/ha	100.00a	100.00a	98.00b	99.33	98.00	100.00
3.	CHR/H/FDF 547 SC	0.4 L/ha	100.00a	100.00a	100.00a	100.00	100.00	100.00
4.	CHR/H/FDF 547 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00	100.00	100.00
5.	Bizon 118,75 SC	1.0 L/ha	100.00a	100.00a	100.00a	100.00	100.00	100.00
6.	Komplet 560 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00	100.00	100.00
LSD(P=.05)			┆	┆	1.380			

Table 46. The efficacy of CHR/H/FDF 574 SC in control of VERHE *Veronica hederifolia* in winter triticale

Pest code			VERHE <i>Veronica hederifolia</i>											
Report code			A.T.2019.068.PŽO		A.T.2019.072.PŽO		A.T/2020/132/PŽO							
Application date			15.10.2019	15.10.2019	14.10.2019	14.10.2019	03.11.2020							
Crop stage in application			BBCH 12-13	BBCH 12-13	BBCH 11-12	BBCH 11-12	BBCH 13-21							
Pest stage			BBCH 11-12	BBCH 11-12	BBCH 11-12	BBCH 11-12	BBCH 12-16							
Assessment date			17.03.2019	24.06.2019	24.02.2019	24.06.2019	02.04.2021		133-154 DA-A			168-254 DA-A		
Days after application DA-A			154 DA-A	253 DA-A	133 DA-A	254 DA-A	150 DA-A		Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			6.0	6.0	6.0	6.0	7.0		6.3	6.0	7.0	5.3	3.8	6.0
No.	Name	Rate (L, kg/ha)												
1	Untreated Check	-	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
2.	CHR/H/FDF 547 SC	0.3 L/ha	92.00b	92.00b	100.00a	100.00a	100.00a		97.33	92.00	100.00	77.33	40.00	100.00
3.	CHR/H/FDF 547 SC	0.4 L/ha	97.50a	97.50a	100.00a	100.00a	100.00a		99.17	97.50	100.00	84.17	55.00	100.00
4.	CHR/H/FDF 547 SC	0.5 L/ha	97.30a	97.30a	100.00a	100.00a	100.00a		99.10	97.30	100.00	94.53	86.30	100.00
5.	Bizon 118,75 SC	1.0 L/ha	95.30a	95.30a	100.00a	100.00a	100.00a		98.43	95.30	100.00	94.27	87.50	100.00
6.	Komplet 560 SC	0.5 L/ha	95.80a	95.80a	100.00a	100.00a	100.00a		98.60	95.80	100.00	96.43	93.50	100.00
LSD(P=.05)			2.870	2.870	-	-	-							

Table 47. The efficacy of CHR/H/FDF 574 SC in control of VERHE *Veronica hederifolia* in winter rye

Pest code			VERHE <i>Veronica hederifolia</i>											
Report code			A.T/2019/070/ŽO		A.T/2019/074/ŽO		A.T/2020/135/ŽO							
Application date			25.10.2019	25.10.2019	15.10.2019	15.10.2019	04.11.2020	04.11.2020						
Crop stage in application			BBCH 22-24	BBCH 22-24	BBCH 13-14	BBCH 13-14	BBCH 21-25	BBCH 21-25						
Pest stage			BBCH 00	BBCH 00	BBCH 12-14	BBCH 12-14	BBCH 10-21	BBCH 10-21						
Assessment date			24.02.2020	25.06.2020	27.02.2020	25.06.2020	01.04.2021	22.06.2021	122-148 DA-A			230-254 DA-A		
Days after application DA-A			122 DA-A	244 DA-A	135 DA-A	254 DA-A	148 DA-A	230 DA-A	Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m ²			5.0	5.0	5.0	5.0	6.0	6.0	5.3	5.0	6.0	5.3	5.0	6.0
No.	Name	Rate (L, kg/ha)	↓	↓	↓	↓	↓	↓	↓	↓	↓			
1	Untreated Check	↓	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	CHR/H/FDF 547 SC	0.3 L/ha	90.00a	90.00a	100.00a	100.00a	78.80c	97.30b	89.60	78.80	100.00	95.77	90.00	100.00
3	CHR/H/FDF 547 SC	0.4 L/ha	90.00a	90.00a	100.00a	100.00a	95.30a	100.00a	95.10	90.00	100.00	96.67	90.00	100.00
4	CHR/H/FDF 547 SC	0.5 L/ha	95.00a	95.00a	100.00a	100.00a	98.50a	100.00a	97.83	95.00	100.00	98.33	95.00	100.00
5	Komplet 560 SC	0.5 L/ha	90.00a	90.00a	100.00a	100.00a	90.00b	100.00a	93.33	90.00	100.00	96.67	90.00	100.00
LSD(P=.05)			↓	↓	↓	↓	3.840	2.100						

Table 48. The efficacy of CHR/H/FDF 574 SC in control of VERHE *Veronica hederifolia* in winter barley

Pest code			VERHE <i>Veronica hederifolia</i>											
Report code			A.T/2019/073/JO		A.T/2020/133/JO		A.T/2020/153/JO							
Application date			18.10.2019	18.10.2019	12.10.2020	12.10.2020	16.10.2020							
Crop stage in application			BBCH 21-23	BBCH 21-23	BBCH 12-14	BBCH 12-14	BBCH 12-13							
Pest stage			BBCH 13-21	BBCH 13-21	BBCH 11-13	BBCH 11-13	BBCH 10-11							
Assessment date			25.02.2020	24.06.2020	10.03.2021	11.06.2021	24.03.2021		130-159 DA-A			242-250 DA-A		
Days after application DA-A			130 DA-A	250 DA-A	149 DA-A	242 DA-A	159 DA-A		Average	Min.	Max.	Average	Min.	Max.
weeds density pcs/m²			5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
No.	Name	Rate (L, kg/ha)	┆	┆	┆	┆	┆	┆	┆	┆				
1	Untreated Check	┆	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
2.	CHR/H/FDF 547 SC	0.3 L/ha	100.00a	100.00a	100.00a	100.00a	100.00a		100.00	100.00	100.00	100.00	100.00	100.00
3.	CHR/H/FDF 547 SC	0.4 L/ha	100.00a	100.00a	100.00a	100.00a	100.00a		100.00	100.00	100.00	100.00	100.00	100.00
4.	CHR/H/FDF 547 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00a	100.00a		100.00	100.00	100.00	100.00	100.00	100.00
5.	Bizon 118,75 SC	1.0 L/ha	100.00a	100.00a	100.00a	100.00a	100.00a		100.00	100.00	100.00	100.00	100.00	100.00
6.	Komplet 560 SC	0.5 L/ha	100.00a	100.00a	100.00a	100.00a	100.00a		100.00	100.00	100.00	100.00	100.00	100.00
LSD(P=.05)			┆	┆	┆	┆	┆							

Appendix 6 Summary of phytotoxicity trials data in summary form

Table 1 – data from phytotoxicity trials – winter wheat (selectivity trials)

Report code	Treatment	Dose [L/ha]	Phytotoxicity in %					
A.T/2019/075/PO	Timing of assessment	DA-A	10 DA-A	23 DA-A	143 DA-A	206 DA-A	-	-
	date	-	24.10.2019	06.11.2019	05.03.2020	07.05.2020	-	-
	Untreated Check	-	0.00b	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00b	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.80	0.00b	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	1.00	0.00b	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	2.00	1.30b	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00b	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	1.00	5.30a	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)		1.18	1.18	-	-	-	-
A.T/2019/076/PO	Timing of assessment	DA-A	7 DA-A	28 DA-A	141 DA-A	210 DA-A	-	-
	date	-	28.10.2019	18.11.2019	10.03.2020	18.05.2020	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)		-	-	-	-	-	-
A.T/2019/077/PO	Timing of assessment	DA-A	7 DA-A	21 DA-A	124 DA-A	193 DA-A	-	-
	date	-	14.11.2019	28.11.2019	10.03.2020	18.05.2020	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	-	-

	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)		-	-	-	-	-	-
AH/19/PO/26/Gr/sel1	Timing of assessment date	DA-A	6 DA-A	10 DA-A	14 DA-A	18 DA-A	39 DA-A	164 DA-A
			31.10.2019	04.11.2019	08.11.2019	12.11.2019	03.12.2019	06.04.2020
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	LSD (P=0.05)		-	-	-	-	-	-
AH/19/PO/26/Zl/sel2	Timing of assessment date	DA-A	3 DA-A	7 DA-A	14 DA-A	21 DA-A	35 DA-A	139 DA-A
			08.11.2019	12.11.2019	19.11.2019	26.11.2019	10.12.2019	23.03.2020
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	LSD (P=0.05)		-	-	-	-	-	-
A.T/2020/137/PO	Timing of assessment date	DA-A	14 DA-A	27 DA-A	44 DA-A	154 DA-A	230 DA-A	-
			27.10.2020	09.11.2020	26.11.2020	16.03.2021	31.05.2021	-
	Untreated Check	-	0.00 a	0.00b	0.00c	0.00c	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00b	0.30bc	0.00c	0.00 a	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.80b	1.50bc	3.00ab	0.00 a	-

	Bizon 118,75 SC	1.00	0.00 a	0.80b	1.80b	2.00b	0.00 a	-
	Bizon 118,75 SC	2.00	0.00 a	1.80a	3.00a	3.50a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00b	0.50bc	0.00c	0.00 a	-
	Komplet 560 SC	1.00	0.00 a	0.00b	1.00bc	0.30c	0.00 a	-
	LSD (P=0.05)		-	0.66	1.06	1.22	-	-
SRPL20-439-336HE	Timing of assessment	DA-A	7 DA-A	14 DA-A	21 DA-A	28 DA-A	141 DA-A	217 DA-A
	date	-	16.11.2020	23.11.2020	30.11.2020	07.12.2020	30.03.2021	14.06.2021
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	LSD (P=0.05)		-	-	-	-	-	-
SRPL20-440-336HS	Timing of assessment	DA-A	7 DA-A	14 DA-A	21 DA-A	28 DA-A	154 DA-A	229 DA-A
	date	-	05.11.2020	12.11.2020	19.11.2020	26.11.2020	01.04.2020	15.06.2021
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	LSD (P=0.05)		-	-	-	-	-	-

Table 2 – data from phytotoxicity trials – winter wheat (efficacy trials)

Report code	Treatment	Dose [L/ha]	Phytotoxicity in %				
A.T/2019/067/PO	Timing of assessment date	DA-A	14 DA-A	151 DA-A	207 DA-A	245 DA-A	-
			28.10.2019	13.03.2020	08.05.2020	15.06.2020	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-
A.T/2019/071/PO	Timing of assessment date	DA-A	14 DA-A	133 DA-A	2020 DA-A	254 DA-A	-
			28.10.2019	24.02.2020	21.05.2020	24.06.2020	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-
AH/19/PO/26/Ce/FDF2/1	Timing of assessment date	DA-A	14 DA-A	31 DA-A	123 DA-A	-	-
			29.11.2019	16.12.2019	17.03.2020	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)		-	-	-	-	-

AH/19/PO/26/Pr/FDF1/1	Timing of assessment	DA-A	13 DA-A	34 DA-A	150 DA-A	185 DA-A	241 DA-A
	date		31.10.2019	21.11.2019	16.03.2020	20.04.2020	15.06.2020
	Untreated Check		0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
A.T/2020/129/PO	LSD (P=0.05)						
	Timing of assessment	DA-A	14 DA-A	160 DA-A	210 DA-A		
	date		05.11.2020	31.03.2021	20.05.2021		
	Untreated Check		0.00 a	0.00 a	0.00 a		
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a		
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a		
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a		
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a		
A.T/2020/130/PO	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a		
	LSD (P=0.05)						
	Timing of assessment	DA-A	13 DA-A	44 DA-A	167 DA-A	226 DA-A	
	date		30.10.2020	30.11.2020	02.04.2021	31.05.2021	
	Untreated Check		0.00 a	0.00 a	0.00 a	0.00 a	
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	
A.T/2020/154/PO	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	
	LSD (P=0.05)						
	Timing of assessment	DA-A	14 DA-A	156 DA-A	216 DA-A		
	date		10.11.2020	01.04.2021	31.05.2021		
	Untreated Check		0.00 a	0.00 a	0.00 a	0.00 a	
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	

	Untreated Check	-	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)		-	-	-	-	-
SRPL20-429-336HE	Timing of assessment	DA-A	8 DA-A	15 DA-A	29 DA-A	134 DA-A	190 DA-A
	date	-	23.11.2020	30.11.2020	14.12.2020	29.03.2021	24.05.2021
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	LSD (P=0.05)		-	-	-	-	-
SRPL20-430-336HE	Timing of assessment	DA-A	14 DA-A	28 DA-A	132 DA-A	211 DA-A	-
	date	-	17.11.2020	01.12.2020	15.03.2021	02.06.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-
SRPL20-431-336HE	Timing of assessment	DA-A	7 DA-A	14 DA-A	28 DA-A	155 DA-A	-
	date	-	04.11.2020	11.11.2020	25.11.2020	01.04.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-

	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-
SRPL20-432-336HE	Timing of assessment	DA-A	14 DA-A	28 DA-A	154 DA-A	-	-
	date	-	23.11.2020	07.12.2020	12.04.2021	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)		-	-	-	-	-
SRPL20-433-336HE	Timing of assessment	DA-A	7 DA-A	14 DA-A	28 DA-A	146 DA-A	229 DA-A
	date	-	12.11.2020	19.11.2020	03.12.2020	31.03.2021	22.06.2021
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	LSD (P=0.05)		-	-	-	-	-

Table 3 – data from phytotoxicity trials – winter triticale (selectivity trials)

Report code	Treatment	Dose [L/ha]	Phytotoxicity in %					
A.T/2019/078/PŽO	Timing of assessment date	DA-A	10 DA-A	17 DA-A	27 DA-A	158 DA-A	217 DA-A	-
		-	14.10.2019	21.10.2019	31.12.2019	10.03.2020	08.05.2020	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)	-	-	-	-	-	-	-
A.T/2019/079/PŽO	Timing of assessment date	DA-A	7 DA-A	28 DA-A	147 DA-A	216 DA-A	-	-
		-	22.10.2019	12.11.2019	10.03.2020	08.05.2020	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)	-	-	-	-	-	-	-
A.T/2019/080/PŽO	Timing of assessment date	DA-A	9 DA-A	23 DA-A	136 DA-A	193 DA-A	-	-
		-	04.11.2019	18.11.2019	10.03.2020	06.05.2020	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-

	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)		-	-	-	-	-	-
SRPL19-355-336HS	Timing of assessment	DA-A	7 DA-A	13 DA-A	21 DA-A	157 DA-A	206 DA-A	231 DA-A
	date		25.10.2019	31.10.2019	08.11.2019	23.03.2020	11.05.2020	05.06.2020
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	LSD (P=0.05)		-	-	-	-	-	-
AH/20/PszO/35/Gr/1	Timing of assessment	DA-A	4 DA-A	7 DA-A	14 DA-A	133 DA-A	183 DA-A	-
	date		26.10.2020	29.10.2020	05.11.2020	04.03.2021	23.04.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-	-
AH/20/PszO/35/Gr/2	Timing of assessment	DA-A	3 DA-A	7 DA-A	14 DA-A	121 DA-A	171 DA-A	-
	date		06.11.2020	10.11.2020	17.11.2020	04.03.2021	23.04.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-

	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-	-
AH/20/PszO/35/Gr/3	Timing of assessment	DA-A	3 DA-A	6 DA-A	10 DA-A	14 DA-A	132 DA-A	-
	date	-	26.10.2020	29.10.2020	02.11.2020	06.11.2020	04.03.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-	-
A.T/2020/138/PZO	Timing of assessment	DA-A	14 DA-A	28 DA-A	156 DA-A	218 DA-A	-	-
	date	-	05.11.2020	19.11.2020	27.03.2021	28.05.2021	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)		-	-	-	-	-	-

Table 4 – data from phytotoxicity trials – winter triticale (efficacy trials)

Report code	Treatment	Dose [L/ha]	Phytotoxicity in %				
A.T/2019/068/PŽO	Timing of assessment	DA-A	9 DA-A	14 DA-A	154 DA-A	205 DA-A	253 DA-A
	date		24.10.2019	29.10.2019	17.03.2019	07.05.2019	24.06.2019
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
LSD (P=0.05)			-	-	-	-	-
A.T/2019/072/PŽO	Timing of assessment	DA-A	10 DA-A	133 DA-A	219 DA-A	254 DA-A	-
	date		24.10.2019	24.02.2020	20.05.2020	24.06.2020	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
LSD (P=0.05)			-	-	-	-	-
SRPL19-351-336HE	Timing of assessment	DA-A	7 DA-A	14 DA-A	136 DA-A	-	-
	date		12.11.2019	19.11.2019	20.03.2020	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
LSD (P=0.05)			-	-	-	-	-

SRPL19-352-336HE	Timing of assessment	DA-A	7 DA-A	14 DA-A	112 DA-A	168 DA-A	-
	date		23.12.2019	30.12.2019	06.04.2020	01.06.2020	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
A.T/2020/131/PŽO	LSD (P=0.05)		-	-	-	-	-
	Timing of assessment	DA-A	14 DA-A	165 DA-A	216 DA-A	-	-
	date		07.11.2020	07.04.2021	28.05.2021	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	-	-
A.T/2020/132/PŽO	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)		-	-	-	-	-
	Timing of assessment	DA-A	14 DA-A	150 DA-A	209 DA-A	-	-
	date		17.11.2020	02.04.2021	31.05.2021	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
A.T/2020/155/PŽO	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)		-	-	-	-	-
	Timing of assessment	DA-A	14 DA-A	140 DA-A	203 DA-A	-	-
	date		09.11.2020	15.03.2021	17.05.2021	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	-	-

	Untreated Check	-	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)		-	-	-	-	-
AH/20/PszO/35/Br/2	Timing of assessment	DA-A	21 DA-A	42 DA-A	162 DA-A	204 DA-A	-
	date		12.11.2020	03.12.2020	02.04.2021	14.05.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-
AH/20/PszO/35/Br/5	Timing of assessment	DA-A	20 DA-A	41 DA-A	149 DA-A	191 DA-A	-
	date		24.11.2020	15.12.2020	02.04.2021	14.05.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-
AH/20/PszO/35/Pr/1	Timing of assessment	DA-A	21 DA-A	42 DA-A	164 DA-A	206 DA-A	-
	date		13.11.2020	04.12.2020	05.04.2021	17.05.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-

	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-
AH/20/PszO/35/Pr/3	Timing of assessment	DA-A	21 DA-A	42 DA-A	152 DA-A	194 DA-A	-
	date	-	25.11.2020	16.12.2020	05.04.2021	17.05.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-
AH/20/PszO/35/ZI/4	Timing of assessment	DA-A	21 DA-A	42 DA-A	164 DA-A	206 DA-A	-
	date	-	13.11.2020	04.12.2020	05.04.2021	17.05.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-

Table 5 – data from phytotoxicity trials – winter rye (selectivity trials)

Report code	Treatment	Dose [L/ha]	Phytotoxicity in %						
A.T/2019/081/ŽO	Timing of assessment date	DA-A	7 DA-A	21 DA-A	124 DA-A	181 DA-A	-	-	-
			14.11.2019	28.11.2019	10.03.2020	06.05.2020	-	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-	-	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	-	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-	-	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-	-
	LSD (P=0.05)		-	-	-	-	-	-	-
A.T/2019/082/ŽO	Timing of assessment date	DA-A	7 DA-A	28 DA-A	147 DA-A	206 DA-A	-	-	-
			22.10.2019	12.11.2019	20.03.2020	08.05.2020	-	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-	-	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	-	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-	-	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-	-
	LSD (P=0.05)		-	-	-	-	-	-	-
SRPL19-356-336HS	Timing of assessment date	DA-A	7 DA-A	14 DA-A	21 DA-A	28 DA-A	134 DA-A	182 DA-A	210 DA-A
			28.10.2019	04.11.2019	11.11.2019	18.11.2019	03.03.2020	24.04.2020	18.05.2020
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	LSD (P=0.05)		-	-	-	-	-	-	-
SRPL19-357-336HS	Timing of assessment date	DA-A	7 DA-A	14 DA-A	21 DA-A	136 DA-A	181 DA-A	201 DA-A	-
			12.11.2019	19.11.2019	26.11.2019	20.03.2020	04.05.2020	24.05.2020	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-

	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-	-	-
A.T/2020/139/ŽO	Timing of assessment date	DA-A	10 DA-A	18 DA-A	28 DA-A	127 DA-A	196 DA-A	-	-
			05.11.2020	13.11.2020	23.11.2020	02.03.2021	10.05.2021	-	-
	Untreated Check	-	0.00b	0.00b	0.00a	0.00a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	2.80ab	3.00ab	1.80a	1.30a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.80	4.00a	4.30a	2.00a	2.50a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00b	0.00b	0.00a	0.00a	0.00 a	-	-
	Komplet 560 SC	1.00	0.00b	0.00b	0.00a	2.00a	0.00 a	-	-
	LSD (P=0.05)		2.31	2.43	2.48	3.28	-	-	-
A.T/2020/140/ŽO	Timing of assessment date	DA-A	14 DA-A	24 DA-A	157 DA-A	184 DA-A	-	-	-
			09.11.2020	19.11.2020	01.04.2021	28.04.2021	-	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-	-	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	-	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-	-	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-	-
	LSD (P=0.05)		-	-	-	-	-	-	-
AH/20/ŽO/35/ZI/1	Timing of assessment date	DA-A	3 DA-A	6 DA-A	10 DA-A	14 DA-A	132 DA-A	-	-
			26.10.2020	29.10.2020	02.11.2020	06.11.2020	04.03.2021	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)		-	-	-	-	-	-	-

AH/20/ŽO/35/Gr/2	Timing of assessment	DA-A	3 DA-A	7 DA-A	14 DA-A	121 DA-A	171 DA-A	-	-
	date	-	06.11.2020	10.11.2020	17.11.2020	04.03.2021	23.04.2021	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-	-
LSD (P=0.05)			-	-	-	-	-	-	-

Table 6 – data from phytotoxicity trials – winter rye (efficacy trials)

Report code	Treatment	Dose [L/ha]	Phytotoxicity in %				
A.T/2019/070/ŽO	Timing of assessment	DA-A	12 DA-A	27 DA-A	122 DA-A	195 DA-A	244 DA-A
	date	-	06.11.2019	21.11.2019	24.02.2020	04.05.2020	25.06.2020
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
LSD (P=0.05)			-	-	-	-	-
A.T/2019/074/ŽO	Timing of assessment	DA-A	14 DA-A	135 DA-A	204 DA-A	254 DA-A	-
	date	-	29.10.2019	27.02.2020	06.05.2020	25.06.2020	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
LSD (P=0.05)			-	-	-	-	-
SRPL19-354-336HE	Timing of assessment	DA-A	7 DA-A	14 DA-A	112 DA-A	189 DA-A	-

	date		23.12.2019	30.12.2019	06.04.2020	01.06.2020	
	Untreated Check		0.00 a	0.00 a	0.00 a	0.00 a	
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	
	LSD (P=0.05)						
SRPL19-353-336HE	Timing of assessment	DA-A	7 DA-A	14 DA-A	136 DA-A		
	date		12.11.2019	19.11.2019	20.03.2020		
	Untreated Check		0.00 a	0.00 a	0.00 a		
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a		
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a		
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a		
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a		
	LSD (P=0.05)						
A.T/2020/135/ŽO	Timing of assessment	DA-A	14 DA-A	148 DA-A	175 DA-A		
	date		18.11.2020	01.04.2021	28.04.2021		
	Untreated Check		0.00 a	0.00 a	0.00 a		
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a		
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a		
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a		
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a		
	LSD (P=0.05)						
A.T/2020/136/ŽO	Timing of assessment	DA-A	14 DA-A	38 DA-A	164 DA-A	211 DA-A	
	date		02.11.2020	26.11.2020	01.04.2021	18.05.2021	
	Untreated Check		0.00 a	0.00 a	0.00 a	0.00 a	
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	

	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-
A.T/2020/156/ŽO	Timing of assessment	DA-A	14 DA-A	147 DA-A	181 DA-A	-	-
	date	-	12.11.2020	25.03.2021	28.04.2021	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)		-	-	-	-	-
AH/20/ŽO/35/Br/1	Timing of assessment	DA-A	21 DA-A	42 DA-A	162 DA-A	204 DA-A	-
	date	-	12.11.2020	03.12.2020	02.04.2021	14.05.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-
AH/20/ŽO/35/Br/4	Timing of assessment	DA-A	20 DA-A	41 DA-A	149 DA-A	191 DA-A	-
	date	-	24.11.2020	15.12.2020	02.04.2021	14.05.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-
AH/20/ŽO/35/Gr/2	Timing of assessment	DA-A	21 DA-A	42 DA-A	162 DA-A	204 DA-A	-
	date	-	12.11.2020	03.12.2020	02.04.2021	14.05.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-

	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
LSD (P=0.05)			-	-	-	-	-
AH/20/ŽO/35/ZI/3	Timing of assessment	DA-A	21 DA-A	42 DA-A	160 DA-A	202 DA-A	-
	date	-	13.11.2020	04.12.2020	01.04.2021	13.05.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-
AH/20/ŽO/35/ZI/5	Timing of assessment	DA-A	21 DA-A	42 DA-A	136 DA-A	136 DA-A	-
	date	-	07.12.2020	28.12.2020	01.04.2021	13.05.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-

Table 7 – data from phytotoxicity trials – winter barley (selectivity trials)

Report code	Treatment	Dose [L/ha]	Phytotoxicity in %					
A.T/2019/083/JO	Timing of assessment	DA-A	10 DA-A	15 DA-A	23 DA-A	49 DA-A	154 DA-A	203 DA-A
	date	-	17.10.2019	22.10.2019	30.10.2019	25.11.2019	09.03.2020	27.04.2020
	Untreated Check	-	0.00e	0.00c	0.00e	0.00e	0.00b	0.00 a
	CHR/H/FDF 574 SC	0.40	13.30b	13.30b	7.80d	5.50d	0.00b	0.00 a
	CHR/H/FDF 574 SC	0.80	20.80a	23.30a	15.80b	14.30b	1.80b	0.00 a

	Bizon 118,75 SC	1.00	11.80bc	15.00b	10.80c	8.80c	0.80b	0.00 a
	Bizon 118,75 SC	2.00	20.00a	25.50a	19.30a	18.30a	4.80a	0.00 a
	Komplet 560 SC	0.50	4.50d	2.00c	0.00e	0.00e	0.00b	0.00 a
	Komplet 560 SC	1.00	9.30c	4.50c	0.00e	0.00e	0.00b	0.00 a
	LSD (P=0.05)		2.61	4.03	2.70	2.86	2.19	-
A.T/2019/084/JO	Timing of assessment	DA-A	14 DA-A	28 DA-A	147 DA-A	195 DA-A	-	-
	date		29.10.2019	12.11.2019	20.03.2020	27.04.2020	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)		-	-	-	-	-	-
AH/19/JO/26/Br/sel4	Timing of assessment	DA-A	3 DA-A	7 DA-A	14 DA-A	21 DA-A	28 DA-A	155 DA-A
	date		18.10.2019	22.10.2019	29.10.2019	05.11.2019	12.11.2019	18.03.2020
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	LSD (P=0.05)		-	-	-	-	-	-
AH/19/JO/26/Gr/sel3	Timing of assessment	DA-A	6 DA-A	14 DA-A	18 DA-A	32 DA-A	41 DA-A	161 DA-A
	date		31.10.2019	08.11.2019	12.11.2019	26.11.2019	05.12.2019	03.04.2020
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a

	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	LSD (P=0.05)		-	-	-	-	-	-
A.T/2020/141/JO	Timing of assessment	DA-A	10 DA-A	24 DA-A	42 DA-A	159 DA-A	222 DA-A	-
	date		12.10.2020	26.10.2020	13.11.2020	10.03.2021	12.05.2021	-
	Untreated Check	-	0.00e	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	2.60c	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.80	9.30a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	1.40d	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	2.00	4.40b	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	4.60b	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	1.00	9.10a	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-	-
A.T/2020/142/JO	Timing of assessment	DA-A	14 DA-A	23 DA-A	38 DA-A	144 DA-A	202 DA-A	-
	date		06.11.2020	15.11.2020	30.11.2020	16.03.2021	13.05.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-	-
SRPL20-441-336HE	Timing of assessment	DA-A	7 DA-A	14 DA-A	21 DA-A	28 DA-A	153 DA-A	209 DA-A
	date		10.11.2020	17.11.2020	24.11.2020	01.12.2020	05.04.2021	31.05.2021
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a

	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	LSD (P=0.05)		-	-	-	-	-	-
	Timing of assessment date	DA-A	7 DA-A	14 DA-A	21 DA-A	28 DA-A	154 DA-A	228 DA-A
			29.10.2020	05.11.2020	12.11.2020	19.11.2020	25.03.2021	07.06.2021
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
SRPL20-442-336HE	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.80	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	2.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	LSD (P=0.05)		-	-	-	-	-	-
	Timing of assessment date	DA-A	7 DA-A	14 DA-A	21 DA-A	28 DA-A	154 DA-A	228 DA-A
			29.10.2020	05.11.2020	12.11.2020	19.11.2020	25.03.2021	07.06.2021
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a

Table 8 – data from phytotoxicity trials – winter barley (efficacy trials)

Report code	Treatment	Dose [L/ha]	Phytotoxicity in %				
A.T/2019/069/JO	Timing of assessment date	DA-A	10 DA-A	14 DA-A	158 DA-A	208 DA-A	248 DA-A
			14.10.2019	18.10.2019	10.03.2020	29.04.2020	08.06.2020
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	LSD (P=0.05)		-	-	-	-	-
	Timing of assessment date	DA-A	10 DA-A	14 DA-A	158 DA-A	208 DA-A	248 DA-A

A.T/2019/073/JO	Timing of assessment	DA-A	10 DA-A	130 DA-A	200 DA-A	250 DA-A	-
	date	-	28.10.2019	25.02.2020	05.05.2020	24.06.2020	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
AH/19/JO/26/Pr/FDF1/2	LSD (P=0.05)	-	-	-	-	-	-
	Timing of assessment	DA-A	14 DA-A	35 DA-A	151 DA-A	186 DA-A	-
	date	-	31.10.2019	21.11.2019	16.03.2020	08.06.2020	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
AH/19/JO/26/ZI/FDF/2	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)	-	-	-	-	-	-
	Timing of assessment	DA-A	14 DA-A	35 DA-A	132 DA-A	217 DA-A	-
	date	-	19.11.2019	10.12.2019	16.03.2020	09.06.2020	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
A.T/2020/133/JO	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)	-	-	-	-	-	-
	Timing of assessment	DA-A	14 DA-A	149 DA-A	218 DA-A	-	-
	date	-	26.10.2020	10.03.2021	18.05.2021	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-

	Untreated Check	-	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)	-	-	-	-	-	-
A.T/2020/134/JO	Timing of assessment	DA-A	14 DA-A	159 DA-A	221 DA-A	-	-
	date	-	23.10.2020	17.03.2021	18.05.2021	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)	-	-	-	-	-	-
A.T/2020/153/JO	Timing of assessment	DA-A	14 DA-A	159 DA-A	214 DA-A	-	-
	date	-	30.10.2020	24.03.2021	18.05.2021	-	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	-	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	-	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	-	-
	LSD (P=0.05)	-	-	-	-	-	-
SRPL20-434-336HE	Timing of assessment	DA-A	7 DA-A	14 DA-A	28 DA-A	149 DA-A	-
	date	-	04.11.2020	11.11.2020	25.11.2020	26.03.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-

	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-
SRPL20-435-336HE	Timing of assessment date	DA-A	7 DA-A	14 DA-A	28 DA-A	145 DA-A	229 DA-A
			12.11.2020	19.11.2020	03.12.2020	30.03.2021	22.06.2021
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	LSD (P=0.05)		-	-	-	-	-
SRPL20-436-336HE	Timing of assessment date	DA-A	7 DA-A	14 DA-A	28 DA-A	141 DA-A	-
			12.11.2020	19.11.2020	03.12.2020	26.03.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-
SRPL20-437-336HE	Timing of assessment date	DA-A	14 DA-A	28 DA-A	42 DA-A	144 DA-A	222 DA-A
			06.11.2020	20.11.2020	04.12.2020	16.03.2021	02.06.2021
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a

SRPL20-438-336HE	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	0.00 a
	LSD (P=0.05)		-	-	-	-	-
	Timing of assessment	DA-A	14 DA-A	28 DA-A	153 DA-A	216 DA-A	-
	date		10.11.2020	24.11.2020	29.03.2021	31.05.2021	-
	Untreated Check	-	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.30	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.40	0.00 a	0.00 a	0.00 a	0.00 a	-
	CHR/H/FDF 574 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	Bizon 118,75 SC	1.00	0.00 a	0.00 a	0.00 a	0.00 a	-
	Komplet 560 SC	0.50	0.00 a	0.00 a	0.00 a	0.00 a	-
	LSD (P=0.05)		-	-	-	-	-

Table 7 – data from phytotoxicity trials

Test report (1)	Testing Unit	Country Region	Dates of trials	Cultivar	Experimental	Remarks
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	GEP (2)	(3)	and GS (4)	F/G (5) N/A (6)	design Test method (7) Replicates	
A.T/2019/067/PO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Modrze/ Poland	14.10.2019 BBCH 11-12	winter wheat/ Euforia F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 7.9
A.T/2019/071/PO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Wilcze/ Poland	14.10.2019 BBCH 12-13	winter wheat/ Arkadia F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.3
AH/19/PO/26/Ce/FDF2/1	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Mrowino/ Poland	15.11.2019 BBCH 21	winter wheat/ Hondia F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.5
AH/19/PO/26/Pr/FDF1/1	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Przybroda/ Poland	18.10.2019 BBCH 14	winter wheat/ Arkadia F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.8
A.T/2020/129/PO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Kocanowo/ Poland	22.10.2020 BBCH 13-14	winter wheat/ Apostel F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.8
A.T/2020/130/PO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Angowice/ Poland	17.10.2020 BBCH 11-13	winter wheat/ RGT Bilanz F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.2
A.T/2020/154/PO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Tonin/ Poland	27.10.2020 BBCH 21-22	winter wheat/ RGT Bilanz F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 7.3
SRPL20-429-336HE	SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz	Retkowo/ Poland	15.11.2020 BBCH 12-15	winter wheat/ Patras F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.8
SRPL20-430-336HE	SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz	Pokrzywno/ Poland	03.11.2020 BBCH 13-21	winter wheat/ Fenomen F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: clay loam pH 6.0
SRPL20-431-336HE	SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz	Durąg/ Poland	28.10.2020 BBCH 10-12	winter wheat/ Tytanika F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.8

SRPL20-432-336HE	SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz	Murczyn/ Poland	09.11.2020 BBCH 11	winter wheat/ Solehio F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy clay loam pH 6.3
SRPL20-433-336HE	SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz	Wawolnica/ Poland	05.11.2020 BBCH 17-19	winter wheat/ Ponticus F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: silt loam pH 6.5
A.T/2019/075/PO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Góra/ Poland	14.10.2019 BBCH 11-12	winter wheat/ Hondia F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.9
A.T/2019/076/PO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Suchary/ Poland	21.10.2019 BBCH 13-21	winter wheat/ Linus F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 7.7
A.T/2019/077/PO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Nowy Dwór/ Poland	07.11.2019 BBCH 21-23	winter wheat/ Bilanz F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.8
AH/19/PO/26/Gr/sel1	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Gorzyń/ Poland	25.10.2019 BBCH 12	winter wheat/ Jantarka F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.1
AH/19/PO/26/ZI/sel2	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Gorzyń/ Poland	05.11.2019 BBCH 21-22	winter wheat/ Bogatka F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 7.2
A.T/2020/137/PO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Sitowiec/ Poland	13.10.2020 BBCH 11-13	winter wheat/ Arkadia F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.2
SRPL20-439-336HE	SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz	Krasienin/ Poland	09.11.2020 BBCH 11-13	winter wheat/ Owacja F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: slit loam pH 6.9
SRPL20-440-336HS	SynTech Research Poland Sp. z o.o. Jagiellońska 69/1 Bydgoszcz	Tomaryny/ Poland	29.10.2020 BBCH 12-13	winter wheat/ Findus F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.1
A.T/2019/068/PŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Kopaszyn/ Poland	15.10.2019 BBCH 12-13	winter triticale/ Trapero F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 7.2

A.T/2019/072/PŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Wierzchucin Królweski/ Poland	14.10.2019 BBCH 11-12	winter triticale/ Borwo F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.6
SRPL19-351-336HE	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85-027 Bydgoszcz	Niemce /Poland	05.11.2019 BBCH 13-15	winter triticale/ Meloman F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: silt loam pH 5.5
SRPL19-352-336HE	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85-027 Bydgoszcz	Żędowo /Poland	16.12.2019 BBCH 13-21	winter triticale/ Rotondo F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.7
A.T/2020/131/PŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Białe Błoto/Poland	24.10.2020 BBCH 11-13	winter triticale/ Borowik F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sand pH 6.0
A.T/2020/132/PŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Lichnowy/Poland	03.11.2020 BBCH 13-21	winter triticale/ Orinoko F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 4.8
A.T/2020/155/PŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Modrze /Poland	26.10.2020 BBCH 19-22	winter triticale/ Orinoko F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 7.9
AH/20/PszO/35/Br/2	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Brody /Poland	22.10.2020 BBCH 13	winter triticale/ Twingo F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.8
AH/20/PszO/35/Br/5	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Brody /Poland	04.11.2020 BBCH 21-22	winter triticale/ Twingo F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.8
AH/20/PszO/35/Pr/1	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Przybroda /Poland	23.10.2020 BBCH 12-13	winter triticale/ Grenado F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.0
AH/20/PszO/35/Pr/3	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637	Przybroda /Poland	04.11.2020 BBCH 22	winter triticale/ Grenado F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.0

	Poznań					
AH/20/PszO/35/ZI/4	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Złotniki /Poland	23.10.2020 BBCH 12	winter triticale/ Aliko F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.8
A.T/2019/078/PŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Kakulin/ Poland	04.10.2019 BBCH 11-12	winter triticale/ Gringo F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 4.0
A.T/2019/079/PŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Sławęcin /Poland	15.10.2019 BBCH 12-14	winter triticale/ Orinoko F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.4
A.T/2019/080/PŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Wilcze/Poland	26.10.2019 BBCH 22-24	winter triticale/ Fredro F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.0
SRPL19-355-336HS	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85-027 Bydgoszcz	Teresin/ Poland	18.10.2019 BBCH 12-14	winter triticale/ Rotondo F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy clay loam pH 6.89
AH/20/PszO/35/Gr/1	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Gorzyń/Poland	22.10.2020 BBCH 13	winter triticale/ Tadeus F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.1
AH/20/PszO/35/Gr/2	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Gorzyń/Poland	03.11.2020 BBCH 22	winter triticale/ Tadeus F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.1
AH/20/PszO/35/Gr/3	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Złotniki /Poland	23.10.2020 BBCH 19	winter triticale/ ALIK F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.8
A.T/2020/138/PŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Białe Błoto/Poland	22.10.2020 BBCH 11-13	winter triticale/ Panteon F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 4.7
A.T/2019/070/ŻO	A.T Sp. z o.o.	Trzęsietowo/	25.10.2019	winter rye/ Florano	Randomized blocks	Soil type: slit loam

	ul. Przemysłowa 3 88-300 Mogilno	Poland	BBCH 22-24	F N	EPPO PP 1/135 (4) 4	pH 5.0
A.T/2019/074/ŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Melanowo /Poland	15.10.2019 BBCH 13-14	winter rye/ Dolaro F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.3
SRPL19-353-336HE	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85-027 Bydgoszcz	Żędowo /Polan	16.12.2019 BBCH 14-15	winter rye/ Granat F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.6
SRPL19-354-336HE	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85-027 Bydgoszcz	Niemce /Poland	05.11.2019 BBCH 15-23	winter rye/ Dnakowskie Granat F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: silt loam pH 5.2
A.T/2020/135/ŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Stare Gralewo /Poland	04.11.2020 BBCH 21-25	winter rye/ Dańkowskie Diamant F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sand pH 5.1
A.T/2020/136/ŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Wałdowo /Poland	19.10.2020 BBCH 19-22	winter rye/ Serafino F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.2
A.T/2020/156/ŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Gólotczyzna /Poland	29.10.2020 BBCH 14-23	winter rye/ Florano F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.6
AH/20/ŻO/35/Br/1	Poznań University of Life Sci- ences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Brody /Poland	22.10.2020 BBCH 13	winter rye/ Poznańskie F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.8
AH/20/ŻO/35/Br/4	Poznań University of Life Sci- ences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Brody /Poland	04.11.2020 BBCH 22-23	winter rye/ Poznańskie F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.8
AH/20/ŻO/35/Gr/2	Poznań University of Life Sci- ences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Gorzyń /Poland	22.10.2020 BBCH 13	winter rye/ Bono F1 F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.1

AH/20/ŻO/35/ZI/3	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Złotniki /Poland	23.10.2020 BBCH 13	winter rye/ Dolaro F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.6
AH/20/ŻO/35/ZI/5	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Złotniki /Poland	16.11.2020 BBCH 20	winter rye/ Dolaro F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.6
A.T/2019/081/ŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Kościerzyn Wielki/ Poland	07.11.2019 BBCH 23-25	winter rye/ Binntto F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.0
A.T/2019/082/ŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Nowe Gronowo /Poland	15.10.2019 BBCH 12-13	winter rye/ Dolaro F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.6
SRPL19-356-336HS	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85-027 Bydgoszcz	Kłoda /Poland	21.10.2019 BBCH 12-14	winter rye/ Serafino F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.4
SRPL19-357-336HS	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85-027 Bydgoszcz	Niemce /Poland	05.11.2019 BBCH 15-23	winter rye/ Dnakowskie Granat F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: silt loam pH 5.5
A.T/2020/139/ŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Świerkówki /Poland	26.10.2020 BBCH 12-14	winter rye/ KWS Serafino F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 7.1
A.T/2020/140/ŻO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Stare Gralewo /Poland	26.10.2020 BBCH 14-23	winter rye/ Dańkowskie Diamant F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sand pH 5.1
AH/20/ŻO/35/ZI/1	Poznań University of Life Sciences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Złotniki /Poland	23.10.2020 BBCH 13	winter rye/ Dankowskie Diamant F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.6
AH/20/ŻO/35/Gr/2	Poznań University of Life Sciences, Research and Education	Gorzyń /Poland	03.11.2020 BBCH 23	winter rye/ BONO F1 F	Randomized blocks EPPO PP 1/135 (4)	Soil type: sandy loam pH 6.1

	Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań			N	4	
A.T/2019/069/JO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Kakulin /Poland	04.10.2019 BBCH 12-21	winter barley/ Arenia F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.9
A.T/2019/073/JO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Jęczniki Wielkie /Poland	18.10.2019 BBCH 21-23	winter barley/ Kosmos F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 4.9
AH/19/JO/26/Pr/FDF1/2	Poznań University of Life Sci- ences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Przybroda /Poland	17.10.2019 BBCH 14	winter barley/ Zenek F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.1
AH/19/JO/26/ZI/FDF/2	Poznań University of Life Sci- ences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Złotniki /Poland	05.11.2019 BBCH 21-23	winter barley/ Gloria F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.6
A.T/2020/133/JO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Kopaszyn /Poland	12.10.2020 BBCH 12-14	winter barley/ Sandra F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 7.2
A.T/2020/134/JO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Gaj Wielki /Poland	09.10.2020 BBCH 13-22	winter barley/ Galileo F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: slit loam pH 6.4
A.T/2020/153/JO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Żabiczyn/Poland	16.10.2020 BBCH 12-13	winter barley/ Zenek F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.5
SRPL20-434-336HE	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85-027 Bydgoszcz	Tomaszkowo /Poland	28.10.2020 BBCH 11-13	Tomaszkowo /Poland winter barley/ Sandra F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.9
SRPL20-435-336HE	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85-027 Bydgoszcz	Osowka /Poland	05.11.2020 BBCH 11-13	winter barley/ Kosmos F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.9
SRPL20-436-336HE	SynTech Research Poland Sp. z	Tomaszkowo	05.11.2020	winter barley/ Sandra	Randomized blocks	Soil type: sandy loam

	o.o ul. Jagiellonska 69/1 85-027 Bydgoszcz	/Poland	BBCH 19-22	F N	EPPO PP 1/135 (4) 4	pH 5.5
SRPL20-437-336HE	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85-027 Bydgoszcz	Boruszyn /Poland	23.10.2020 BBCH 11-13	winter barley/ Kosmos F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.0
SRPL20-438-336HE	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85-027 Bydgoszcz	Krzyżowice /Poland	27.10.2020 BBCH 23-25	winter barley/ Kosmos F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.9
A.T/2019/083/JO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Modrze /Poland	07.10.2019 BBCH 11-12	winter barley/ Jakubus F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.6
A.T/2019/084/JO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Trzciany /Poland	15.10.2019 BBCH 13-14	winter barley/ Saturn F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.5
AH/19/JO/26/Br/sel4	Poznań University of Life Sci- ences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Brody /Poland	15.10.2019 BBCH 21	winter barley/ Kobuz F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.7
AH/19/JO/26/Gr/sel3	Poznań University of Life Sci- ences, Research and Education Center Gorzyń, Wojska Polskiego 28, 60-637 Poznań	Gorzyń /Poland	25.10.2019 BBCH 12-13	winter barley/ Kosmos F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 5.9
A.T/2020/141/JO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Kakulin /Poland	02.10.2020 BBCH 12-13	winter barley/ Arenia F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 6.4
A.T/2020/142/JO	A.T Sp. z o.o. ul. Przemysłowa 3 88-300 Mogilno	Jęczniki Wielkie /Poland	23.10.2020 BBCH 21-22	winter barley/ Kosmos F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: loamy sand pH 5.4
SRPL20-441-336HE	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85-027 Bydgoszcz	Jankowice Wielk- ie /Poland	03.11.2020 BBCH 12-13	winter barley/ Kosmos F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy loam pH 6.7
SRPL20-442-336HE	SynTech Research Poland Sp. z o.o ul. Jagiellonska 69/1 85-027 Bydgoszcz	Murczyn /Poland	22.10.2020 BBCH 21-22	winter barley/ Wootan F N	Randomized blocks EPPO PP 1/135 (4) 4	Soil type: sandy clay 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

Reference:

KCP 10.6.1/01

Report

CHR/H/FDF 574 SC Terrestrial Plant Test: Seedling Emergence and Seedling Growth Test, A. Gierbuszewska, 2021, Study code: G-82-20, Łukasiewicz Research Network – Institute of Industrial Organic Chemistry, Branch Pszczyna Department of Ecotoxicological Studies, Doświadczalna 27, 43-200 Pszczyna, Poland

Guideline(s):

OECD Guideline 208, 2006

Deviations:

No

GLP:

Yes

Acceptability:

Yes

Duplication
(if vertebrate study)

No

Materials and methods

Test item:

CHR/H/FDF 574 SC
batch number: 052020

active substances: florasulam 12.2 g/L
flufenacet 304.7 g/L
diflufenican 247.5 g/L

Test species:

sunflower (*Helianthus annuus*), flax (*Linum usi-*

Soil:
Study design:

tatissimum), pea (*Pisum sativum*), carrot (*Daucus carota*), onion (*Allium cepa*), corn (*Zea mays*)

Sandy loam

number of rates:

- 5 + control for corn,
- 6 + control for carrot,
- 7 + control for sunflower, pea, flax and onion,

Number of seeds:

- 4 for carrot, flax, onion,
- 7 for pea, sunflower,
- 10 for corn.

The total number of seeds per application rate:

- 20 for carrot, flax, onion and corn,
- 21 for pea and sunflower;

test termination: 14 days after the emergence of 50% of the control seedlings.

Application rates:

- corn: 0.0000 (control), 0.0100, 0.0260, 0.0640, 0.1600 and 0.4000 L/ha,
- carrot: 0.0000 (control), 0.0041, 0.0100, 0.0260, 0.0640, 0.1600 and 0.4000 L/ha,
- sunflower, pea, flax and onion: 0.0000 (control), 0.0016, 0.0041, 0.0100, 0.0260, 0.0640, 0.1600 and 0.4000 L/ha.

Volume of deionized water:

volume of deionized water used to prepare the
highest rate corresponded to 300 L water/ha.

Test conditions:

temperature: 18.2 – 24.1°C, humidity: 47.5 –
83.9%, lighting: 16 h light : 8 h dark; light inten-
sity: 90.73 – 179.10 $\mu\text{E}/\text{m}^2/\text{s}$; carbon dioxide
concentration: 348 – 391 ppm

Statistical analysis:

ER25, ER50 – probit analysis with the linear
max. likelihood regression (final number of
plants), non-linear regression - 3 parametric
normal Distribution Function (CDF) (plant shoot
length and plant shoot weight).

NOER (plant emergence):

- Multiple Sequentially-rejective Fisher Test

After Bonferroni – Holm,

- Fisher's Exact Binomial Test with Bonferroni

Correction,

- Tarone's Test Procedure,

- Williams Multiple Sequential t-test Procedure

were used.

NOER (plant shoot length and plant shoot
weight):

- Shapiro-Wilk's Test on Normal Distribution,

- Levene's Test on Variance Homogeneity (with
Residuals),

- Multiple Sequentially-rejective Welsch-t-test

After Bonferroni – Holm,

- Step-down Jonckheere-Terpstra Test Proce-
dure,

- Williams Multiple Sequential t-test Procedure.

Endpoints:

ER25, ER50, NOER

Results and discuss:

The study, aimed at evaluating the effect CHR/H/FDF 574 SC on seedling emergence and seedling growth of 6 terrestrial plants, was conducted on 4 dicotyledonous and 2 monocotyledonous species. The test item was sprayed onto the soil surface. There was also a concurrent control group. Seeds of the test plant species were sown in plastic pots. There were 3 (pea, sunflower) or 5 (carrot, flax, onion) or 2 (corn) seeds/pot. The experiment was conducted in a special room. Suitable environmental conditions for each test species were provided. During the experiment, the plants were observed for emergence (every 1 to 2 days to the emergence of 50% of the control seedlings and after then every 2 – 3 days) and visual phytotoxicity (after 7 and 14 days after the emergence of 50% of the control seedlings). The experiment finished 14 days after the emergence of 50% of the control seedlings. At the end of the experiment, the number of surviving plants was determined. Next, the plants were cut down, measured, dried to a constant weight at 60°C, and weighed. The results concerning the emergence, the shoot length, and the dry weight were statistically analyzed in order to determine the ER25, ER50, and NOER..

The ER50 and NOER values determined on the basis of plants number at the end of the experiment, shoot length and shoot dry weight measurements expressed as L of the test item/ha for all test species are given below.

	Sunflower <i>Helianthus annuus</i>	Flax <i>Linum usitatissimum</i>	Pea <i>Pisum sativum</i>	Carrot <i>Daucus carota</i>	Onion <i>Allium cepa</i>	Corn <i>Zea mays</i>
Plant number at the end of the experiment						
ER₅₀	>0.400*	0.447	0.049 (0.039 – 0.060)	>0.400*	0.369 (0.239 – 0.889)	> 0.400*
NOER	≥0.400*	0.160	0.026	≥0.400*	0.160	≥ 0.400*
Shoot length (plants without roots)						
ER₅₀	0.152 (0.075 – 0.444)	0.135	0.075 (0.058 – 0.126)	0.308 (0.173 – 1.681)	0.094 (0.060 – 0.159)	0.375
NOER	0.002	0.064	0.010	0.064	0.010	0.026
Plant dry weight (plants without roots)						
ER₅₀	0.226 (0.121 – 0.811)	0.147 (0.142 – 0.152)	0.045 (0.032 – 0.075)	0.128 (0.100 – 0.165)	0.040 (0.026 – 0.061)	0.395
NOER	0.002	0.064	0.004	0.026	0.004	0.160

The ER₅₀ and NOER values were calculated using the ToxRat Professional 2.10 computer software.

*the value could not be determined, it can be probably higher than the highest rate of the test item used in the experiment, i.e. 0.400 L/ha

The ER₅₀ and NOER values determined on the basis of plants number at the end of the experiment, shoot length and shoot dry weight measurements expressed as g of florasulam/ha for all test species are given below..

	Sunflower <i>Helianthus annuus</i>	Flax <i>Linum usitatissimum</i>	Pea <i>Pisum sativum</i>	Carrot <i>Daucus carota</i>	Onion <i>Allium cepa</i>	Corn <i>Zea mays</i>
Plant number at the end of the experiment						
ER₅₀	> 4.880*	5.453	0.598 (0.476 – 0.732)	> 4.880*	4.502 (2.916 – 10.846)	> 4.880*
NOER	≥ 4.880*	1.952	0.317	≥ 4.880*	1.952	≥ 4.880*
Shoot length (plants without roots)						
ER₅₀	1.854 (0.915 – 5.417)	1.647	0.915 (0.708 – 1.537)	3.758 (2.111 – 20.508)	1.147 (0.732 – 1.940)	4.575
NOER	0.024	0.781	0.122	0.781	0.122	0.317
Plant dry weight (plants without roots)						
ER₅₀	2.757 (1.476 – 9.894)	1.793 (1.732 – 1.854)	0.549 (0.390 – 0.915)	1.562 (1.220 – 2.013)	0.488 (0.317 – 0.744)	4.819
NOER	0.024	0.781	0.049	0.317	0.049	1.952

The ER₅₀ and NOER values were calculated using the ToxRat Professional 2.10 computer software.

*the value could not be determined, it can be probably higher than the highest rate of the test item used in the experiment, i.e. 0.400 L/ha

The ER₅₀ and NOER values determined on the basis of plants number at the end of the experiment, shoot length and shoot dry weight measurements expressed as g of flufenacet/ha for all test species are given below..

	Sunflower <i>Helianthus annuus</i>	Flax <i>Linum usitatissimum</i>	Pea <i>Pisum sativum</i>	Carrot <i>Daucus carota</i>	Onion <i>Allium cepa</i>	Corn <i>Zea mays</i>
Plant number at the end of the experiment						
ER₅₀	> 121.880*	136.201	14.930 (11.883 – 18.282)	> 121.880*	112.434 (72.823 – 270.878)	> 121.880*
NOER	≥ 121.880*	48.752	7.922	≥ 121.880*	48.752	≥ 121.880*
Shoot length (plants without roots)						
ER₅₀	46.314 (22.853 – 135.287)	41.135	22.853 (17.673 – 38.392)	93.848 (52.713 – 512.201)	28.642 (18.282 – 48.447)	114.263
NOER	0.609	19.501	3.047	19.501	3.047	7.922
Plant dry weight (plants without roots)						
ER₅₀	68.862 (36.869 – 247.112)	44.791 (43.267 – 46.314)	13.712 (9.750 – 22.853)	39.002 (30.470 – 50.276)	12.188 (7.922 – 18.587)	120.357
NOER	0.609	19.501	1.219	7.922	1.219	48.752

The ER₅₀ and NOER values were calculated using the ToxRat Professional 2.10 computer software.

*the value could not be determined, it can be probably higher than the highest rate of the test item used in the experiment, i.e. 0.400 L/ha

The ER₅₀ and NOER values determined on the basis of plants number at the end of the experiment, shoot length and shoot dry weight measurements expressed as g of diflufenican/ha for all test species are given below..

	Sunflower <i>Helianthus annuus</i>	Flax <i>Linum usitatissimum</i>	Pea <i>Pisum sativum</i>	Carrot <i>Daucus carota</i>	Onion <i>Allium cepa</i>	Corn <i>Zea mays</i>
Plant number at the end of the experiment						
ER₅₀	> 99.000*	110.633	12.128 (9.653 – 14.850)	> 99.000*	91.328 (59.153 – 220.028)	> 99.000*
NOER	≥ 99.000*	39.600	6.435	≥ 99.000*	39.600	≥ 99.000*
Shoot length (plants without roots)						
ER₅₀	37.620 (18.563 – 109.890)	33.413	18.563 (14.355 – 31.185)	76.230 (42.818 – 416.048)	23.265 (14.850 – 39.353)	92.813
NOER	0.495	15.840	2.475	15.840	2.475	6.435
Plant dry weight (plants without roots)						
ER₅₀	55.935 (29.948 – 200.723)	36.383 (35.145 – 37.620)	11.138 (7.920 – 18.563)	31.680 (24.750 – 40.838)	9.900 (6.435 – 15.098)	97.763
NOER	0.495	15.840	0.990	6.435	0.990	39.600

The ER₅₀ and NOER values were calculated using the ToxRat Professional 2.10 computer software.

*the value could not be determined, it can be probably higher than the highest rate of the test item used in the experiment, i.e. 0.400 L/ha

On the basis of the obtained results it was proved that the test item i.e. CHR/H/FDF 574 SC had varied impact on seedling emergence and seedling growth of the test plant species.

For the selected application rates, seedling emergence of flax, pea, carrot and onion was delayed when compared with the control. The death of pea at the rates between 0.0640 and 0.4000 L/ha was observed during the experiment. One incidental death of onion occurred at the rate equal to 0.1600 L/ha. The death of sunflower, flax, carrot and corn was not observed.

The lowest ER50 value determined on the basis of the plant emergence at the end of the experiment, was observed for pea and it was equal to 0.049 L of the test item/ha.

The lowest ER50 value determined on the basis of the plant shoot length at the end of the experiment, was observed for pea and it was equal to 0.075 L of the test item/ha.

The lowest ER50 value determined on the basis of the plant shoot weight at the end of the experiment, was observed for onion and it was equal to 0.040 L of the test item/ha.

Significant and moderate inhibition of plant shoot length was observed for sunflower, flax, pea, carrot, onion and corn.
Significant and moderate inhibition of plant shoot weight was observed for sunflower, flax, pea, carrot, onion and corn.

Phytotoxic symptoms of plants, at selected application rates, were observed during the experiment. It was stunted growth, spots, wilting, chlorosis, necrosis and mortality of plants.

The following order of the test plant sensitivity was noticed:

pea > onion > flax > sunflower > carrot > corn.

VALIDITY CRITERIA

On the basis of the obtained results, it was stated that the following validity criteria of the study aimed at evaluating the impact of CHR/H/FDF 574 SC on seedling emergence and seedling growth of terrestrial plants were met:

- the seedling emergence in the control (validity criterion: at least 70%) was as follows:

100% – sunflower,

100% – flax,

100% – pea,

100% – carrot,

95% – onion,

100% – corn,

- the mean survival of the emerged control seedlings was 100% for sunflower, flax, pea, carrot, onion and corn (validity criterion: 90%);

- the control seedlings did not exhibit any visible phytotoxic effects;

- environmental conditions for all plants of the same species were identical.

Reference:	KCP 10.6.1/02
Report	CHR/H/FDF 574 SC Terrestrial Plant Test: Vegetative Vigour Test, A. Gierbuszewska, 2021, Study code: G-81-20, Łukasiewicz Research Network – Institute of Industrial Organic Chemistry, Branch Pszczyna Department of Ecotoxicological Studies, Doświadczalna 27, 43-200 Pszczyna, Poland
Guideline(s):	OECD Guideline 227, 2006
Deviations:	No
GLP:	Yes
Acceptability:	Yes
Duplication (if vertebrate study)	No

Materials and methods

Test item:
CHR/H/FDF 574 SC
batch number: 052020
active substances: florasulam – 12.2 g/L
flufenacet – 304.7 g/L
diflufenican – 247.5 g/L

Test species:
pea (*Pisum sativum*), sunflower (*Helianthus annuus*), carrot (*Daucus carota*), flax (*Linum usitatissimum*), onion (*Allium cepa*), corn (*Zea mays*)

Soil: Sandy loam

Study design: number of rates: 9 + control (carrot), 8 + control (pea, flax sunflower, onion , corn); number of replicates/rate: 7 (pea, sunflower), 4 (carrot, flax, onion) or 10 (corn). The total number of plants per application rate – 21 (pea, sunflower) or 20 (carrot, flax, onion, corn)
exposure termination: 21 days after spraying

Application rates:

- control, 1.6, 3.2, 6.3, 12.5, 25.0, 50.0, 100.0, 200.0 and 400.0 mL of the test item / ha –carrot,
- control, 3.2, 6.3, 12.5, 25.0, 50.0, 100.0, 200.0 and 400.0 mL of the test item / ha – pea, flax sunflower, onion , corn,
volume of deionized water used to prepare the highest rate corresponded to 300 L spraying liquid/ha.

Test conditions:

temperature: 17.2 – 24.1°C, humidity: 47.5 – 83.9%, lighting: 16 h light : 8 h dark; light intensity: 61.66 – 225.3 µE/m²/s; carbon dioxide concentration: 325 – 392 ppm

Statistical analysis:

ER25, ER50 – probit analysis using linear max. likelihood regression, Weibull analysis using linear max. likelihood regression, logit analysis using simple linear regression

NOER:

In order to determine the NOER values for the plant number at the end of the experiment of sunflower, carrot, flax, and onion the Fisher's Exact Binomial Test with Bonferroni Correction was used. In order to determine the NOER value for the plant number at the end of the experiment of pea and corn any computations had been performed because of no change in mortality of plants. In order to determine the NOER values for the shoot length at the end of the experiment (shoots cut down above the ground) the following statistical tests were used:

Shapiro-Wilk's Test on Normal Distribution, Levene's Test on Variance Homogeneity (with Residuals), Williams Multiple Sequential t-test

Procedure or Dunnett's Multiple t-test Procedure

In order to determine the NOER values for the plant weight at the end of the experiment (shoots cut down above the ground), the following statistical tests were used:

Shapiro-Wilk's Test on Normal Distribution, Levene's Test on Variance Homogeneity (with Residuals), Williams Multiple Sequential t-test Procedure or Welch-t test for Inhomogeneous Variances with Bonferroni-Holm Adjustment

Endpoints: ER25, ER50, NOER

Results and discussion

The study, aimed at evaluating the effect of CHR/H/FDF 574 SC on vegetative vigour of 6 terrestrial plants, was conducted on 4 dicotyledonous and 2 monocotyledonous species. Seeds of the test plant species were sown in plastic pots (6 seeds/pot for pea and sunflower; 10 seeds/pot for carrot, flax, onion and 4 seeds/pot for corn). The plants were grown to the 2- to 4- true leaf stage. Then, some of them were removed. As a result, the number of plants per pot as well as the total number of plants per concentration were:

- pea: 3 plants/pot – 21 plants/application rate (7 pots/application rate);
- sunflower: 3 plants/pot – 21 plants/application rate (7 pots/application rate);

- carrot: 5 plants/pot – 20 plants/ application rate (4 pots/ application rate);
- flax: 5 plants/pot – 20 plants/ application rate (4 pots/ application rate);
- onion: 5 plants/pot – 20 plants/ application rate (4 pots/ application rate);
- corn: 2 plants/pot – 20 plants/ application rate (10 pots/ application rate).

The pot is defined as a replicate. The test item was sprayed onto the plants. The experiment was conducted in a plant growth room where suitable environmental conditions for each test species were provided. During the experiment, the plants were observed for visual phytotoxicity (7, 14 and 21 days after the test item application). The experiment finished 21 days after the spraying. At the end of the experiment, the number of surviving plants was counted. Next, the plants were cut down, and the lengths of their shoots were determined. Finally, they were dried at 60°C to a constant weight and weighed.

The results concerning the shoot length, the dry weight, and the number of plants at the end of the experiment were statistically analyzed to determine the ER25, ER50 and NOER..

The ER50 and NOER values, determined on the basis of plants number, shoot length and shoot dry weight measurements at the end of the experiment, expressed as L of the test item/ha for all test species are given below.

	Pea <i>Pisum sativum</i>	Sunflower <i>Helianthus annuus</i>	Carrot <i>Daucus carota</i>	Flax <i>Linum usitatissimum</i>	Onion <i>Allium cepa</i>	Corn <i>Zea mays</i>
Plant number at the end of the experiment						
ER₅₀	> 400.0*	97.3 (76.6 – 124.3)	> 400.0*	> 400.0*	134.0 (102.6 – 180.3)	> 400.0*
NOER	≥ 400.0*	25.0	≥ 400.0	≥ 400.0*	50.0	≥ 400.0*
Shoot length (plants without roots)						
ER₅₀	119.7 (83.6 – 174.7)	32.9 (19.9 – 55.4)	30.7 (15.5 – 62.0)	34.7 (24.3 – 50.1)	56.3 (34.5 – 93.8)	> 400.0*
NOER	6.3	3.2	1.6	3.2	3.2	100.0
Plant dry weight (plants without roots)						
ER₅₀	181.9 (128.8 – 258.3)	19.0 (13.5 – 27.1)	6.9 (3.2 – 14.9)	39.2 (26.1 – 59.6)	181.1 (60.0 – 544.1**)	> 400.0*
NOER	25.0	3.2	1.6	3.2	12.5	100.0

The ER₁₀, ER₂₅, ER₅₀ and NOER values were calculated using the ToxRat Professional 3.3.0 computer software.

*the value could not be determined but it can be probably higher than the highest rate of the test item used in the experiment, i.e. 400.0 mL test item / ha

**the value determined as higher than the highest application rate, i.e. 400.0 mL / ha

The ER50 and NOER values, determined on the basis of plants number, shoot length and shoot dry weight measurements at the end of the experiment, expressed as g of florasulam/ha for all test species are given below.

	Pea <i>Pisum sativum</i>	Sunflower <i>Helianthus annuus</i>	Carrot <i>Daucus carota</i>	Flax <i>Linum usitatissimum</i>	Onion <i>Allium cepa</i>	Corn <i>Zea mays</i>
Plant number at the end of the experiment						
ER₅₀	> 4.88*	1.19 (0.93 – 1.52)	> 4.88*	> 4.88*	1.64 (1.25 – 2.20)	> 4.88*
NOER	≥ 4.88*	0.31	≥ 4.88*	≥ 4.88*	0.61	≥ 4.88*
Shoot length (plants without roots)						
ER₅₀	1.46 (1.02 – 2.13)	0.40 (0.24 – 0.68)	0.37 (0.19 – 0.76)	0.42 (0.30 – 0.61)	0.69 (0.42 – 1.14)	> 4.88*
NOER	0.08	0.04	0.02	0.04	0.04	1.22
Plant dry weight (plants without roots)						
ER₅₀	2.22 (1.57 – 3.15)	0.23 (0.16 – 0.33)	0.08 (0.04 – 0.18)	0.48 (0.32 – 0.73)	2.21 (0.73 – 6.64**)	> 4.88*
NOER	0.31	0.04	0.02	0.04	0.15	1.22

The ER₁₀, ER₂₅, ER₅₀ and NOER values were calculated using the ToxRat Professional 3.3.0 computer software.

*the value could not be determined but it can be probably higher than the highest rate of the test item used in the experiment, i.e. 4.88 g of florasulam / ha

**the value determined as higher than the highest application rate, i.e. 4.88 g of florasulam / ha

The ER50 and NOER values, determined on the basis of plants number, shoot length and shoot dry weight measurements at the end of the experiment, expressed as g of flufenacet/ha for all test species are given below.

	Pea <i>Pisum sativum</i>	Sunflower <i>Helianthus annuus</i>	Carrot <i>Daucus carota</i>	Flax <i>Linum usitatissimum</i>	Onion <i>Allium cepa</i>	Corn <i>Zea mays</i>
Plant number at the end of the experiment						
ER₅₀	> 121.88*	29.65 (23.33 – 37.88)	> 121.88*	> 121.88*	40.84 (31.25 – 54.94)	> 121.88*
NOER	≥ 121.88*	7.62	≥ 121.88	≥ 121.88*	15.24	≥ 121.88*
Shoot length (plants without roots)						
ER₅₀	36.48 (25.48 – 53.23)	10.01 (6.05 – 16.88)	9.34 (4.72 – 18.91)	10.57 (7.41 – 15.26)	17.15 (10.50 – 28.59)	> 121.88*
NOER	1.92	0.98	0.49	0.98	0.98	30.47
Plant dry weight (plants without roots)						
ER₅₀	55.42 (39.26 – 78.72)	5.78 (4.11 – 8.24)	2.09 (0.99 – 4.54)	11.93 (7.95 – 18.16)	55.17 (18.29 – 165.77**)	> 121.88*
NOER	7.62	0.98	0.49	0.98	3.81	30.47

The ER₁₀, ER₂₅, ER₅₀ and NOER values were calculated using the ToxRat Professional 3.3.0 computer software.

*the value could not be determined but it can be probably higher than the highest rate of the test item used in the experiment, i.e. 121.88 g of flufenacet / ha

**the value determined as higher than the highest application rate, i.e. 121.88 g of flufenacet / ha

The ER50 and NOER values, determined on the basis of plants number, shoot length and shoot dry weight measurements at the end of the experiment, expressed as g of diflufenican/ha for all test species are given below.

	Pea <i>Pisum sativum</i>	Sunflower <i>Helianthus annuus</i>	Carrot <i>Daucus carota</i>	Flax <i>Linum usitatissimum</i>	Onion <i>Allium cepa</i>	Corn <i>Zea mays</i>
Plant number at the end of the experiment						
ER₅₀	> 99.00*	24.08 (18.95 – 30.77)	> 99.00*	> 99.00*	33.17 (25.38 – 44.63)	> 99.00*
NOER	≥ 99.00*	6.19	≥ 99.00	≥ 99.00*	12.38	≥ 99.00*
Shoot length (plants without roots)						
ER₅₀	29.63 (20.69 – 43.24)	8.13 (4.92 – 13.71)	7.59 (3.84 – 15.36)	8.58 (6.02 – 12.04)	13.93 (8.53 – 23.22)	> 99.00*
NOER	1.56	0.79	0.40	0.79	0.79	24.75
Plant dry weight (plants without roots)						
ER₅₀	45.02 (31.89 – 63.94)	4.69 (3.33 – 6.70)	1.70 (0.80 – 3.69)	9.69 (6.45 – 14.75)	44.81 (14.85 – 134.65**)	> 99.00*
NOER	6.19	0.79	0.40	0.79	3.09	24.75

The ER₁₀, ER₂₅, ER₅₀ and NOER values were calculated using the ToxRat Professional 3.3.0 computer software.

*the value could not be determined but it can be probably higher than the highest rate of the test item used in the experiment, i.e. 99.00 g of diflufenican / ha

**the value determined as higher than the highest application rate, i.e. 99.00 g of diflufenican / ha

The test item, i.e. CHR/H/FDF 574 SC had an impact on vegetative vigour of pea, sunflower, carrot, flax onion and corn. The impact varied from significant and moderate to little inhibition of plants growth and depend on the test plant species.

The test item caused mortality of carrot (rates: 200.0 and 400.0 mL/ha), onion (rates: 25.0, 100.0, 200.0, 400.0 mL/ha), sunflower (rates: from 25.0 to 400 mL/ha).

The death of pea, flax and corn plants was not observed during the experiment.

The lowest ER50 value determined on the basis of the plant shoot length at the end of the experiment, was observed for carrot and it was equal to 30.7 mL of the test item/ha.

The lowest ER50 value determined on the basis of the plant shoot weight at the end of the experiment, was observed for carrot and it was equal to 6.9 mL of the test item/ha.

Some phytotoxic symptoms as stunted growth, deformations, wilting, chlorosis, necrosis and mortality of plants were observed after 21 days of the exposure.

The following order of the test plant sensitivity was noticed (on the basis of plant shoot length and plant shoot dry weight):

carrot > sunflower > flax > onion > pea > corn.

VALIDITY CRITERIA

On the basis of the obtained results, it was stated that the following validity criteria of the study aimed at evaluating the impact of CHR/H/FDF 574 SC on vegetative vigour of terrestrial plants were met:

- the seedling emergence of plants (validity criterion: at least 70%) was as follows:

85.7 – 92.9% – pea,

83.3 – 90.5% – sunflower,

90.0 – 100.0% – carrot,

85.0 – 100.0% – flax,

92.5 – 100.0% – onion,

80.0 – 90.0% – corn,

- the mean plant survival of the control was 100% for all tested species (validity criterion: at least 90%),

- the control plants did not exhibit any visible phytotoxic symptoms,

- environmental conditions for all plants belonging to the same species were identical.

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

None

Appendix 8 Summary of data on succeeding crop

None