

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

Product code: FLORAS 50 SC
Product name(s): Floras 50 SC, HerbiFlo 50 SC
Chemical active substance:
Florasulam, 50 g/L

Central Zone
Zonal Rapporteur Member State: Poland

CORE ASSESSMENT
(authorization)

Applicant: Elvita Sp. z o.o.
Submission date: November 2023, updated March 2024
MS Finalisation date: April 2024 (initial Core Assessment)
June 2024 (final Core Assessment)

Version history

When	What
November 2023	Initial dRR – Elvita Sp. z o.o.
March 2024	Applicants' update (completed data, page 4 – amendments are highlighted in yellow).
April 2024	<p>Initial zRMS assessment</p> <p>The report in the dRR format has been prepared by the Applicant, therefore all comments, additional evaluations and conclusions of the zRMS are presented in grey commenting boxes. Minor changes are introduced directly in the text and highlighted in grey. Not agreed or not relevant information are struck through and shaded for transparency.</p> <p>Following the evaluation and before sending the document for commenting, all coloured highlighting was removed, from the parts updated by the Applicant, for better legibility.</p>
June 2024	<p>Final report (Core Assessment updated following the commenting period)</p> <p>No additional information or assessments after the commenting period.</p>

Table of Contents

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)	4
3.1	Summary and conclusions of zRMS on Section 3: Efficacy (KCP 6).....	4
3.2	Efficacy data (KCP 6)	8
3.2.1	Preliminary tests (KCP 6.1).....	17
3.2.2	Minimum effective dose tests (KCP 6.2)	18
3.2.3	Efficacy tests (KCP 6.2)	22
3.2.4	Crop safety studies (KCP 6.2).....	84
3.2.4	Summary and conclusions on the biological efficacy (KCP 6.2).....	84
3.3	Information on the occurrence or possible occurrence of the development of resistance (KCP 6.3).....	89
3.4	Adverse effects on treated crops (KCP 6.4)	92
3.4.1	Phytotoxicity to host crop (KCP 6.4.1)	93
3.4.2	Effect on the yield of treated plants or plant product (KCP 6.4.2).....	102
3.4.3	Effects on the quality of plants or plant products (KCP 6.4.3).....	103
3.4.4	Effects on transformation processes (KCP 6.4.4).....	104
3.4.5	Impact on treated plants or plant products to be used for propagation (KCP 6.4.5).....	105
3.5	Observations on other undesirable or unintended side-effects (KCP 6.5).....	105
3.5.1	Impact on succeeding crops (KCP 6.5.1)	105
3.5.2	Impact on other plants including adjacent crops (KCP 6.5.2).....	106
3.5.3	Effects on beneficial and other non-target organisms (KCP 6.5.3).....	107
3.6	Other/special studies.....	108
3.7	List of test facilities including the corresponding certificates	108
Appendix 1	Lists of data considered in support of the evaluation.....	109

3 **Efficacy Data and Information (including Value Data) on the Plant Protection Product** ~~Transformation of the dRR (applicant version) into the RR (zRMS version)~~

This document reviews the efficacy data and information for the product Florasulam 50 g/L. Florasulam was renewed as an active substance under Regulation 1107/2009 with Regulation 2015/1397 and Part B to the Annex of Regulation 540/2011 has been amended with Regulation 2015/1397.

Where appropriate this document refers to the conclusions of the EU review for florasulam. This is where:

- the active substance data is relied upon in the risk assessment of the formulation; or when
- the EU review concluded that additional data/information should be considered at national re-registration.

This product was not the representative formulation.

The Regulation for florasulam (2015/1397) provides specific provisions which need to be considered by the Applicant in the preparation of their submission and by the MS prior to granting an authorisation.

The product is based on an active substance that has been known for many years, contained in a well-known formulation used by many manufacturers. A much larger number of studies were presented than the minimum required. The research was carried out in various climatic conditions. Therefore, effectiveness and selectivity tests were performed only in 1 growing season.

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

Abstract

Comments of zRMS:

This application has been submitted for authorization of herbicide Floras 50 SC, containing 50 g/L florasulam (chemical group: triazolopyrimidine; HRAC group 2 (previously group B)). The intention of the Applicant is authorization of the herbicide Floras 50 SC also under the second trade name HerbiFlor 50 SC. For simplification, only the trade name Floras 50 SC will be used throughout dRR document.

Floras 50 SC is a systemic herbicide intended for the post-emergence control of broad-leaved weed species: ANTAR, BRSNW, CAPBP, DESSO, GALAP, MATIN, MYOAR, PAPRH, POLCO, SINAR, STEME, THLAR, VERPE in winter wheat and AMARE, ANTAR, BRSNW, CAPBP, CHEAL, DESSO, GAETE, GALAP, GASPA, MATIN, MELAL, MYOAR, POLAV, POLCO, SINAR, STEME, THLAR, VERPE in spring barley.

Minimum effective dose

Based on the submitted trials the highest tested dose rate of 0.1 L/ha of Floras 50 SC was the most effective in the trials conducted in winter wheat and spring barley and therefore has been proven as the minimum effective dose in the control of target broad-leaved weed species.

Efficacy

A total of 30 valid efficacy field trials carried out in 2022 were considered for the evaluation of herbicide Floras 50 SC. The trials were conducted in 1 EPPO zone: North-East (PL). Based on the submitted efficacy trial results it can be concluded that the herbicide Floras 50 SC, applied at the recommended dose rate of 0.1 L/ha is effective in the control of target broad-leaved weed species.

Summarizing the evaluation, the following target weed species can be accepted in North-East EPPO zone (PL) and classified according to SANCO/10055/2013 Rev. 4, 3 October 2013:

Winter wheat

Highly susceptible (HS): ANTAR, BRSNW, MATIN, MYOAR, THLAR

Susceptible (S): CAPBP, DESSO, GALAP, PAPRH, POLCO, SINAR, STEME

Moderately susceptible (MS): VERPE

Spring barley

Highly susceptible (HS): ANTAR, GASPA, MATIN, MELAL, POLAV

Susceptible (S): AMARE, BRSNW, CAPBP, DESSO, GALAP, MYOAR, POLCO, SINAR, STEME, THLAR,

VERPE

Moderately susceptible (MS): CHEAL, GAETE

Tolerant (T): VIOAR

For other weed species (CENCY, CHEAL, FUMOF, GERPU, LAMAM, LITAR, SONAR, VERHE in winter wheat and CENCY, CONAR, GALPA, LITAR, MATCH, PAPRH in spring barley) only single trial results are available. The efficacy data for POLPE (target weed species) is not sufficient due to national requirements.

Phytotoxicity, yield, propagation material, transformation processes

Phytotoxicity and adverse effects on the yield, propagation material, transformation processes are not expected after application of Floras 50 SC, when used according to GAP recommendations.

Succeeding crops

The following notes for succeeding crops are recommended to be included in the product label:

The product Floras 50 SC decomposes in the soil during the growing season to the level, that poses no risk to succeeding crops. In case it is necessary to close down the plantation where the product was used (as a result of crop damage caused by frost, disease or pest), it is possible to grow winter and spring cereals at this field after pre-sowing cultivation.

Adjacent crops

In order to avoid the risk of adverse effects on adjacent crops, being in accordance with the rules of good agricultural practice it is recommended to include, in the product label, the following remark: *When using Floras 50 SC do not allow spray drift to the neighbouring crop plantations.*

Resistance management strategy

The herbicide Floras 50 SC contains active substance: florasulam (chemical group: triazolopyrimidine; HRAC group: 2 (previously group B)). In order to avoid resistance build-up in target weeds, the following rules should be observed:

- use the herbicide according to the label recommendations including the recommended dose rate and the right application timing to ensure optimal weed control,*
- adjust the choice of herbicide and the decision about treatment to the prevailing (possibly potential) weed infestation, considering the dominant species and the harmfulness thresholds,*
- use the herbicide alternately or in mixture with other herbicides belonging to different chemical groups with different modes of action,*
- use herbicides (with different modes of action), that act on several weed life processes in rotation and/or mixture,*
- use the herbicide with a given mode of action only once during the growing season of the crop,*
- adapt the cultivation practises to field conditions, especially to the type and severity of weeds,*
- use various weed control methods including crop rotation etc.,*
- use only certified seeds,*
- clean agricultural machines to prevent the transfer of weed propagating material to other sites,*
- inform the authorization holder about not satisfying efficacy achieved,*
- for more information, contact your advisor, authorization holder or representative of the authorization holder.*

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

Acceptability of intended uses (and respective risk) for each GM, if applicable)														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use- No. *	Member state(s)	Crop and/ or situa- tion (crop destination / purpose of crop)	F, Fn, G, Gn, Gnp or I **	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks: e.g. g safener/ synergist per ha, other dose rate ex- pression, dose range (min-max)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. inter- val between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
Zonal uses (field or outdoor uses, certain types of protected crops)														
1	Poland	Winter wheat	F	<i>Anthemis arvensis</i> , <i>Brachiar- ia nana</i> , <i>Brassica napus</i> , <i>Capsella bursa-pastoris</i> , <i>Descurainia sophia</i> , <i>Fallopia convolvulus</i> , <i>Galium aparine</i> , <i>Tripleurospermum inodorum</i> , <i>Myosotis arvensis</i> , <i>Papaver rhoeas</i> , <i>Fallopia convolvulus</i> , <i>Sinapis arvensis</i> , <i>Stellaria media</i> , <i>Thlaspi arvense</i> , <i>Veronica persica</i> .	Foliar spraying; small drops	BBCH 12- 20-32	1	-	a) 0.1	Florasulam: 5.0	200- 400	-	Herbicide for use with field sprayers	A
2	Poland	Spring barley	F	<i>Anthemis arvensis</i> , <i>Amaran- thus retroflexus</i> , <i>Brassica napus</i> , <i>Capsella bursa- pastoris</i> , <i>Chenopodium al- bum</i> , <i>Descurainia sophia</i> , <i>Fallopia convolvulus</i> , <i>Galeopsis tetrahit</i> , <i>Galium aparine</i> , <i>Galinsoga parviflo- ra</i> , <i>Tripleurospermum ino- dorum</i> , <i>Silene latifolia subsp.</i> <i>Alba</i> , <i>Myosotis arvensis</i> , <i>Polygonum aviculare</i> , <i>Fallo- pia convolvulus</i> , <i>Persicaria maculosa</i> , <i>Sinapis arvensis</i> , <i>Stellaria media</i> , <i>Thlaspi</i>	Foliar spraying; small drops	BBCH 12- 32	1	-	a) 0.1	Florasulam: 5.0	200- 400	-	Herbicide for use with field sprayers	A

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use- No. *	Member state(s)	Crop and/ or situa- tion (crop destination / purpose of crop)	F, Fn, G, Gnp or I **	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks: e.g. g safener/ synergist per ha, other dose rate ex- pression, dose range (min-max)	zRMS Conclusion (efficacy)
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. inter- val between applications (days)	L product / ha a) max. rate per appl. b) max. total rate per crop/season	g as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min / max			
				<i>arvense, Veronica persica.</i>										

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

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

Column 15: zRMS conclusion.

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

3.2 Efficacy data (KCP 6)

Introduction

This document summarises the information related to the efficacy of the plant protection product Floras 50 SC containing the active substance florasulam (50 g/L).

Florasulam was included into Annex I of Directive 91/414/EEC (2010/77/EU). The SANCO report for Florasulam (SANCO/1406/2001-final) is considered to provide the relevant review information or a reference to where such information can be found.

The Annex I Inclusion Directive for florasulam (2002/64/EG, amended by 2010/77/EU) provides specific provisions under Part B which need to be considered by the Applicant in the preparation of their submission and by the MS prior to granting an authorisation:

For the implementation of the uniform principles of Annex VI, the conclusions of the review report on Florasulam, and in particular Appendices I and II thereof, as finalised in the Standing Committee on the Food Chain and Animal Health on 18/09/2002 shall be taken into account. In this overall assessment:

Member States should pay particular attention to the potential for ground water contamination, when the active substance is applied in regions with vulnerable soil and/or climatic conditions. Conditions of authorisation must include risk mitigation measures, where appropriate.

These concerns have been addressed within the current submission.

Appendix 1 of this document contains the list of references for support of the evaluation. Appendix 2 of this document is the table of intended uses for Floras 50 SC.

Information on the detailed composition of Floras 50 SC can be found in the confidential dossier of the submission (Registration Report - Part C).

Description of active substances

Active substances are Florasulam is not a new substance well-known active substance that has been used for many years in agricultural practice. Active substance is the ISO common names:

- Florasulam: 2',6', 8-Trifluoro-5-methoxy-[1.2.4]-triazolo [1,5-c] pyrimidine-2-sulfonanilide; CAS: 145701-23-1; CIPAC: 616

Mode of action

Florasulam: Inhibition of ALS (branched chain amino acid synthesis). Herbicide for post-emergence control of dicotyledonous weeds. Taken up by root and shoots, translocated in both xylem and phloem
Chemical group: Triazolopyrimidine.

Table 3.2-1: Details of the active substances

Active substance	Florasulam
Concentration (Unit: g/kg or g/L...)	50 g/L
Chemical group	Triazolopyrimidine
Group of pesticides	Herbicide

Description of the plant protection product

This document summarises the information related to the efficacy of the plant protection product Floras 50 SC. The formulation of this product is a suspension concentrate (SC). Floras 50 SC is a systemic herbicide used for the control of the more important weeds in spring and winter cereals.

Floras 50 SC is used for foliar application.

Table 3.2-2: Simplified table of requested uses for the product code.

Uses		Member State	Requested rate(s)	Comments / Other relevant details on GAPs
Crop(s)	Target(s)			
Winter wheat	<i>Anthemis arvensis</i> , <i>Brachiaria nana</i> , <i>Brassica napus</i> , <i>Capsella bursa-pastoris</i> , <i>Centaurea cyanus</i> , <i>Chenopodium album</i> , <i>Descurainia sophia</i> , <i>Fallopia convolvulus</i> , <i>Fumaria officinalis</i> , <i>Galium aparine</i> , <i>Geranium pusillum</i> , <i>Lamium amplexicaule</i> , <i>Buglossoides arvensis</i> , <i>Tripleurospermum inodorum</i> , <i>Myosotis arvensis</i> , <i>Papaver rhoeas</i> , <i>Fallopia convolvulus</i> , <i>Sinapis arvensis</i> , <i>Sonchus arvensis</i> , <i>Stellaria media</i> , <i>Thlaspi arvense</i> , <i>Veronica hederifolia</i> , <i>Veronica persica</i> , <i>Viola arvensis</i>	Poland	0.05–0.1 L/ha	-
Spring barley	<i>Anthemis arvensis</i> , <i>Amaranthus retroflexus</i> , <i>Brassica napus</i> , <i>Capsella bursa-pastoris</i> , <i>Centaurea cyanus</i> , <i>Chenopodium album</i> , <i>Convolvulus arvensis</i> , <i>Descurainia sophia</i> , <i>Fallopia convolvulus</i> , <i>Galeopsis tetrahit</i> , <i>Galium aparine</i> , <i>Galinsoga parviflora</i> , <i>Galinsoga aparine</i> , <i>Buglossoides arvensis</i> , <i>Matricaria chamomilla</i> , <i>Tripleurospermum inodorum</i> , <i>Silene latifolia</i> subsp. <i>Alba</i> , <i>Myosotis arvensis</i> , <i>Papaver rhoeas</i> , <i>Polygonum aviculare</i> , <i>Fallopia convolvulus</i> , <i>Persicaria maculosa</i> , <i>Sinapis arvensis</i> , <i>Stellaria media</i> , <i>Thlaspi arvense</i> , <i>Veronica persica</i> , <i>Viola arvensis</i>	Poland	0.05–0.1 L/ha	-

Description of the target pests weed species mentioned in the dossier

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

EPPO Code	Scientific name
ANTAR	<i>Anthemis arvensis</i>
AMARE	<i>Amaranthus retroflexus</i>
BRNSW BRSNW	<i>Brassica napus</i>
CAPBP	<i>Capsella bursa-pastoris</i>
CENCY	<i>Centaurea cyanus</i>
CHEAL	<i>Chenopodium album</i>
CONAR	<i>Convolvulus arvensis</i>
DESSO	<i>Descurainia sophia</i>
FALCO	<i>Fallopia convolvulus</i>
FUMOF	<i>Fumaria officinalis</i>
GAETE	<i>Galeopsis tetrahit</i>
GALAP	<i>Galium aparine</i>
GALPA	<i>Galinsoga aparine</i> , <i>Galium palustre</i>
GASPA	<i>Galinsoga parviflora</i>
GERPU	<i>Geranium pusillum</i>
LAMAM	<i>Lamium amplexicaule</i>
LITAR	<i>Buglossoides arvensis</i>
MATCH	<i>Matricaria chamomilla</i>
MATIN	<i>Tripleurospermum inodorum</i>
MELAL	<i>Silene latifolia</i> subsp. <i>alba</i>
MYOAR	<i>Myosotis arvensis</i>
PAPRH	<i>Papaver rhoeas</i>

EPPO Code	Scientific name
POLAV	<i>Polygonum aviculare</i>
POLCO	<i>Fallopia convolvulus</i>
POLPE	<i>Persicaria maculosa</i>
SINAR	<i>Sinapis arvensis</i>
SONAR	<i>Sonchus arvensis</i>
STEME	<i>Stellaria media</i>
THLAR	<i>Thlaspi arvense</i>
VERHE	<i>Veronica hederifolia</i>
VERPE	<i>Veronica persica</i>
VIOAR	<i>Viola arvensis</i>

ANTAR (*Anthemis arvensis*; family *Asteraceae*)

This winter and spring annual weed is spread all over Europe. It mainly occurs on rich, but lime-deficient loamy and sandy soils. Germination occurs at a maximum depth of 5-6 cm. Plants produce up to 4000- 5000 seeds per plant of 2-3 mm. Flowering is usually from June to September.

~~ANTAR was observed in 4 trials.~~ ANTAR occurred in a total of 4 trials (2 trials in winter wheat and 2 trials in spring barley).

AMARE (*Amaranthus retroflexus*; family *Amaranthaceae*)

True to one of its common names, forms a tumbleweed. It is native to the tropical Americas, but is widespread as an introduced species on most continents in a great number of habitats. This is an erect, annual herb reaching a maximum height near 3 m (9.8 ft). The leaves are nearly 15 cm (5.9 in) long on large individuals, the ones higher on the stem having a lance shape and those lower on the plant diamond or oval in shape.

~~AMARE was observed in 2 trials.~~ AMARE occurred in 2 trials in spring barley.

BRSNW (~~Winter rape~~ *Brassica napus*; family *Brassicaceae*)

The occurrence of volunteer oilseed rape is mainly dependent on the previous crop. Seed losses of 8-12 % during harvest of the oilseed rape, can mean several thousand seeds per m² being shed onto the soil. Volunteer seedlings can emerge in any crop that follows oilseed rape.

~~Weeds which belong to this genus were reported in 10 trials.~~ BRSNW occurred in a total of 10 trials (6 trials in winter wheat and 4 trials in spring barley).

CAPBP (*Capsella bursa-pastoris*; family *Brassicaceae*)

This winter and spring annual weed show a high reproduction rate, with 70000 seeds per plant. Therefore, it is widely spread all over the world, except for tropical regions. It arouses yield losses as well in winter as in spring cereals. Propagation occurs generatively. germination is possible nearly the whole year, but mainly in autumn. CAPBP blooms nearly the whole year. Direct harm to the crop is regarded low, but transmission of club root (*Plasmodiophora brassicae*) is possible.

~~CAPBP occurred in 13 trials.~~ CAPBP occurred in a total of 13 trials (7 trials in winter wheat and 6 trials in spring barley).

CENCY (*Centaurea cyanus*, family *Asteraceae*)

This winter annual weed sprouts from a depth of 1-6 cm and maintains germination capacity for 3 years. It blooms from May to October producing 7000 seeds per plant. This weed is well distributed in the northern hemisphere. It prefers friable, sandy-loamy grounds, but grows also on a fine crumbly mixture of clay and limestone soils.

~~CENCY was assessed in 2 trials.~~ CENCY occurred in a total of 2 trials (1 trial in winter wheat and 1 trial in spring barley).

CHEAL (*Chenopodium album*; family *Amaranthaceae*)

This cosmopolitan plant can be found in all parts of the world. The species is very heterogeneous. It grows on all soil types. but prefers fertile soils. The plants can achieve heights of 5-300 cm and roots can reach depths of 1 m. Flowering begins between May and August, depending on the climatic condi-

tions. Seed germination is possible between early spring and autumn. The seeds remain viable up to 10 years and also pass unharmed through the digestive system of animals.

~~Chenopodium album was reported in 5 trials.~~ CHEAL occurred in a total of 5 trials (1 trial in winter wheat and 4 trials in spring barley).

CONAR (*Convolvulus arvensis*; family *Convolvulaceae*)

Convolvulus arvensis is a perennial vine that typically climbs to 1 metre. The vine produces woody rhizomes from which it resprouts in the spring, or when the aboveground vines are removed. The leaves are spirally arranged, linear to arrowhead-shaped, 2-5 cm (0.79-1.97 in) long and alternate, with a 1-3 cm (0.39-1.18 in) petiole. The flowers are trumpet-shaped, 1-2.5 cm (0.39-0.98 in) diameter, white or pale pink, with five slightly darker pink radial stripes. Flowering occurs in the mid-summer when white to pale pink, funnel-shaped flowers develop. Flowers are approximately 0.75-1 in (1.9–2.5 cm) across and are subtended by small bracts. Fruit are is light brown, rounded and 0.125 inches (3.2 mm) wide. Each fruit contains 2 or 4 seeds that are eaten by birds and can remain viable in the soil for decades. The stems climb by twisting around other plant stems in a counter-clockwise direction.

~~1 trial.~~ CONAR occurred in 1 trial in spring barley.

DESSO (*Descurainia Sophia*; family *Brassicaceae*)

An annual or biennial (family *Brassicaceae*) found along roadsides, in agricultural fields, disturbed desert areas, scrub, grasslands and woodlands. It tends to prefer well-drained sandy or stony soils. Flowering plants can be toxic to cattle when they are eaten over a long period of time. It produces abundant seed, which can be spread by soil or water movement, and by clinging to animals, humans and vehicle tires, but its rate of spread is relatively slow except in disturbed areas. Flixweed may invade recently disturbed areas and then become less dominant as native species become re-established.

~~6 trials.~~ DESSO occurred in a total of 6 trials (4 trials in winter wheat and 2 trials in spring barley).

FALCO (*Fallopia convolvulus*)

~~Black bindweed is a herbaceous vine growing to 1–1.5 m (39–59 in) long, with stems that twine clockwise round other plant stems. The alternate triangular leaves are 1.5–6 cm long and 0.7–3 cm broad with a 6–15 (–50) mm petiole; the basal lobes of the leaves are pointed at the petiole. The flowers are small, and greenish pink to greenish white, clustered on short racemes. These clusters give way to small triangular achenes, with one seed in each achene. The flowers have 5 sepals, the 3 outer ones are larger and show a keel. It has 5 stamens and the fruit grows to 4 mm long. While it superficially resemble bindweeds in the genus Convolvulus there are many notable differences; it has ocrea (stipule sheath at nodes), which Convolvulus does not; and Convolvulus has conspicuous trumpet-shaped flowers while Black bindweed has flowers that are unobtrusive and only about 4 mm long. 5 trials.~~

FUMOF (*Fumaria officinalis*; family *Papaveraceae*)

Fumaria officinalis mainly infests grain and tilled crops, fodder grasses and flax. This weed prefers friable, nutrient-rich loams, usually low in lime. The plants produce up to 15000 seeds that maintain germinability in soil for 3-5 years. Optimum temperatures are between 18-20 °C.

~~FUMOF was reported in 1 trial.~~ FUMOF occurred in 1 trial in winter wheat.

GAETE (*Galeopsis tetrahit*; family *Lamiaceae*)

Common hemp-nettle is an erect annual plant and grows to a height of about 20 to 70 cm (8 to 28 in). The stem branches occasionally and is squarish and hairy, with glandular hairs on the upper part of the plant. The nodes are swollen and widely spaced and the pale green, stalked leaves are in opposite pairs. The leaf blades are hairy and are ovate with a long tapered tip and with regular large teeth on the margin. The inflorescence forms a terminal spike and is composed of whorls of pinkish flowers with dark markings on the lower lip. The calyx has five sharp-pointed lobes and the corolla forms a two-lipped flower about 15 to 20 mm (0.6 to 0.8 in) long with a fused tube. The upper lip of each flower is convex with dense, glandular hairs and the lower lip is three-lobed, the central lobe being the largest, squarish with a flat or rounded edge. There are four stamens, two long and two shorts, the gynoecium

has two fused carpels and the fruit is a four-chambered schizocarp. The plant has a slightly unpleasant smell. ~~3 trials.~~ GAETE occurred in 3 trials in spring barley.

GALAP (*Galium aparine*; family *Rubiaceae*)

Galium aparine is an early spring annual plant: its propagation occurs generatively. It germinates mainly in autumn and spring and blooms during May to October. This weed can germinate in darkness and light as well as in depths of 0 to 10 cm and a broad range of temperatures. It prefers moist loam and clay soils with a high content of organic matter and nitrogen. The ability of GALAP to climb on the crops leads to problems at harvest. Especially in moist years, yield losses can be high.

~~GALAP occurred in 12 trials.~~ GALAP occurred in a total of 12 trials (8 trials in winter wheat and 4 trials in spring barley).

GALPA (*Galium palustre*; family *Rubiaceae*)

Stem-thin and slender, lying down and lifting up, smooth or slightly rough-weathered. Reaches a length of 15–35 (55) cm. The whole plant turns black after drying. Leaves - thin, narrow-oblong or obovate-lanceolate, 0.5–1.2 cm long. They grow in whorls, usually 4, less often 5–6. Flowers - gathered in a loose panicle growing at the top of the stem. Flowers 2.5–3.5 mm in diameter, usually 4-fold, with white petals and red anthers. Perennial, hemicryptophyte. It blooms from May to August. It occurs on the banks of water, wet meadows and in swamps.

~~1 trial.~~ GALPA occurred in 1 trial in spring barley.

GASPA (*Galinsoga parviflora*; family *Asteraceae*)

Galinsoga parviflora grows to a height of 75 cm (30 inches). It is a branched herb with opposite stalked leaves, toothed at the margins. The flowers are in small heads. The 3–8 white ray-florets are about 1 mm (0.4 inches) long and 3-lobed. The central disc florets are yellow and tubular.

~~2 trials.~~ GASPA occurred in 2 trials in spring barley.

GERPU (*Geranium pusillum*; family *Geraniaceae*)

Geranium pusillum commonly known as small-flowered crane's-bill or (in North America) small geranium, is a herbaceous annual plant of the genus *Geranium*.

Small geranium is native to Europe but is introduced in almost every region of the USA and Canada, where it is associated with ecologically disturbed sites.

~~1 trial.~~ GERPU occurred in 1 trial in winter wheat.

LAMAM (*Lamium amplexicaule*; family *Lamiaceae*)

Henbit is an annual herb with a sprawling habit and short, erect, squarish, lightly hairy stems. It grows to a height of about 40 cm (16 in). The leaves are in opposite pairs, often with long internodes. The lower leaves are stalked and the upper ones stalkless, often fused, and clasping the stems. The blades are hairy and kidney-shaped, with rounded teeth. The flowers are relatively large and form a few-flowered terminal spike with axillary whorls. The calyx is regular with five lobes and closes up after flowering. The corolla is purplish-red, fused into a tube 15 to 20 mm (1/2 to 3/4 in) long. The upper lip is convex, 3 to 5 mm (1/8 to 3/16 in) long and the lower lip has three lobes, two small side ones and a larger central one 1.5 to 2.5 mm (1/16 to 1/8 in) long. There are four stamens, two long and two shorts. The gynoecium has two fused carpels and the fruit is a four-chambered schizocarp.

This plant flowers very early in the spring even in northern areas, and for most of the winter and the early spring in warmer locations such as the Mediterranean region. At times of year when there are not many pollinating insects, the flowers self-pollinate.

~~1 trial.~~ LAMAM occurred in 1 trial in winter wheat.

LITAR (*Buglossoides arvensis*; family *Boraginaceae*)

Lithospermum arvense (syn. *Buglossoides arvensis*), known as field gromwell, corn gromwell, bastard alkanet, and stone seed, is a flowering plant of the family Boraginaceae. It is native to Europe and Asia, as far north as Korea, Japan and Russia, and as far south as Afghanistan and northern Pakistan. It is known in other places as an introduced species, including much of North America and Australia. The European Union has granted the refined oil of the seed of *Buglossoides arvensis* novel food status

and some farmers are growing it commercially in the United Kingdom as a plant-variety patented (PVP) and trademarked cultivar (Ahiflower®).

~~2 trials.~~ **LITAR** occurred in a total of 2 trials (1 trial in winter wheat and 1 trial in spring barley).

MATCH (*Matricaria chamomilla*; family *Asteraceae*)

Matricaria recutita has a branched, erect and smooth stem, which grows to a height of 15–60 cm (6–23.5 in). The long and narrow leaves are bipinnate or tripinnate. The flowers are borne in panicle flower heads (capitula). The white ray florets are furnished with a ligule, while the disc florets are yellow. The hollow receptacle is swollen and lacks scales. This property distinguishes German chamomile from corn chamomile (*Anthemis arvensis*), which has a receptacle with scales. The flowers bloom in early to midsummer, and have a strong, aromatic smell.

~~1 trial was observed.~~ **MATCH** occurred in 1 trial in spring barley.

MATIN (*Tripleurospermum inodorum*; family *Asteraceae*)

Historically included the genus *Matricaria*, *Tripleurospermum inodorum* has been the subject of some controversy, with many revisions in recent years. The Flora Europaea uses *Matricaria perforata* for this species. Synonyms/other scientific names include *Tripleurospermum perforatum* (Mérat) Lainz, *Tripleurospermum maritimum* subsp. *Inodorum*.

~~9 trials was observed.~~ **MATIN** occurred in a total of 9 trials (7 trials in winter wheat and 2 trials in spring barley).

MELAL (*Silene latifolia* subsp. *alba*; family *Caryophyllaceae*)

Silene latifolia the white campion is a dioecious flowering plant in the family *Caryophyllaceae*, native to most of Europe, Western Asia and Northern Africa. It is a herbaceous annual, occasionally biennial or a short-lived perennial plant, growing to between 40–80 centimetres tall. It is also known in the US as bladder campion but should not be confused with *Silene vulgaris*, which is more generally called bladder campion.

The appearance depends on the age of the plant; when young they form a basal rosette of oval to lanceolate leaves 4–10 cm long, and when they get older, forked stems grow from these, with leaves in opposite pairs. The flowers grow in clusters at the tops of the stems, 2.5–3 cm diameter, with a distinctive inflated calyx and five white petals, each petal deeply notched; flowering lasts from late spring to early autumn. The entire plant is densely hairy. Occasional plants with pink flowers are usually hybrids with red campion. ~~2 trials.~~ **MELAL** occurred in 2 trials in spring barley.

MYOAR (*Myosotis arvensis*; family *Boraginaceae*)

Myosotis arvensis is an annual, sometimes biennial weed, achieving heights of 20–40 cm. Flowering time is from May to October, fructifying is starting in June. Optimum growing conditions can be found on fresh, fertile soils.

~~MYOAR was reported in 8 trials.~~ **MYOAR** occurred in a total of 8 trials (5 trials in winter wheat and 3 trials in spring barley).

PAPRH (*Papaver rhoeas*, family *Papaveraceae*)

Papaver rhoeas is an annual or facultative biennial, germiniparous weed. The stalks can reach heights of 60 cm, bearing large, soft flowers with bright red petals. Flowering is between April and June. The seeds keep germination ability in soil for 5–8 years. The plant grows on lime-rich, loamy to clayey soils. ~~PAPRH occurred in 9 trials.~~ **PAPRH** occurred in a total of 9 trials (8 trials in winter wheat and 1 trial in spring barley).

POLAV (*Polygonum aviculare*; family *Polygonaceae*)

Polygonum aviculare is distributed all over Europe and in the temperate zones all over the world. Plants grow on bare, nutrient-rich mineral soils and avoid extremely dry, permanently wet and very shady habitats. This weed is a weed plant among the crops of field cultures, spring wheat, often winter cereals and vegetable cultures.

~~POLAV was assessed in 2 trials.~~ **POLAV** occurred in 2 trials in spring barley.

POLCO (*Fallopia convolvulus*; family *Polygonaceae*)

Fallopia convolvulus is a climbing, annual weed, germinating mainly in spring. It has no special requirements on the soil, but prefers sandy, loamy or humic soils. The stems can grow up to 1 m by climbing or crouching on the soil. Black-bindweed is an herbaceous vine growing to 1–1.5 m (39–59 in) long, with stems that twine clockwise round other plant stems. The alternate triangular leaves are 1.5–6 cm long and 0.7–3 cm broad with a 6–15 (–50) mm petiole; the basal lobes of the leaves are pointed at the petiole. The flowers are small, and greenish-pink to greenish white, clustered on short racemes. These clusters give way to small triangular achenes, with one seed in each achene. The flowers have 5 sepals, the 3 outer ones are larger and show a keel. It has 5 stamens and the fruit grows to 4 mm long. While it superficially resembles bindweeds in the genus *Convolvulus* there are many notable differences; it has ocrea (stipule-sheath at nodes), which *Convolvulus* does not; and *Convolvulus* has conspicuous trumpet-shaped flowers while Black-bindweed has flowers that are unobtrusive and only about 4 mm long. 5 trials.

POLCO occurred in a total of 13 trials (4 trials in winter wheat and 9 trials in spring barley).

POLPE (*Persicaria maculosa*; family *Polygonaceae*)

Persicaria maculosa is an annual herb up to 80 cm (31 in) tall, with an erect rather floppy stem with swollen joints. The leaves are alternate and almost stalkless. The leaf blades often have a brown or black spot in the centre and are narrowly ovate and have entire margins.

2 trials. POLPE occurred in 2 trials in spring barley.

SINAR (*Sinapis arvensis*; family *Brassicaceae*)

Sinapis arvensis reaches on average 20–80 centimetres (7.9–31.5 in) of height, but under optimal conditions can exceed one metre. The stems are erect, branched and striated, with coarse spreading hairs especially near the base. The leaves are petiolate (stalked) with a length of 1–4 centimetres (0.39–1.57 in). The basal leaves are oblong, oval, lanceolate, lyrate, pinnatifid to dentate, 4–18 centimetres (1.6–7.1 in) long, 2–5 centimetres (0.79–1.97 in) wide. SINAR was reported in 7 trials. SINAR occurred in a total of 7 trials (2 trials in winter wheat and 5 trials in spring barley).

SONAR (*Sonchus arvensis*; family *Asteraceae*)

The plant grows up to 1.5 metres (4 ft 11 in) in height with leaves 10–35 cm long and 4–14 cm wide. It produces conspicuous yellow flowerheads about 3–5 cm wide, which are visited by various types of insects, especially hoverflies of the genus *Eristalis*.

1 trial. SONAR occurred in 1 trial in winter wheat.

STEME (*Stellaria media*; family *Caryophyllaceae*)

Common chickweed is common in most field cultures, but prefers rich soils with high content of organic matter and nutrients. It is a winter annual weed; the propagation is generative. The seeds are able to germinate the whole year; bloom is possible nearly the whole year.

STEME was assessed in 14 trials. STEME occurred in a total of 15 trials (9 trials in winter wheat and 6 trials in spring barley).

THLAR (*Thlaspi arvense*; family *Brassicaceae*)

THLAR *Thlaspi arvense* is a winter and spring annual weed, with generative propagation. The plant achieves heights of 10 to 40 cm. Germination occurs in autumn and spring, blooming during May to October. It prefers fertile, humid and loamy soils. THLAR is common in nearly whole Europe.

THLAR occurred in 17 trials. THLAR occurred in a total of 17 trials (8 trials in winter wheat and 9 trials in spring barley).

VERHE, VERPE (*Veronica hederifolia*, *Veronica persica*; family *Plantaginaceae*)

Veronica sp. is annual, sometimes biennial, weed with growth heights between 10–40 cm. They bloom between March and May or June, some species often bloom a second time from August to October. *V. persica* is in flower from March to December, sometimes even in mid-winter. It propagates mainly by stolons. *V. persica* and *V. hederifolia* are the most common weeds of this species. They can cover the whole soil surface when strong weed pressure is given. They prefer fresh, fertile and often sandy soils.

~~VERHE, VERPE were observed in 12 trials.~~ VERHE occurred in 1 trial in winter wheat.
VERPE occurred in a total of 11 trials (5 trials in winter wheat and 6 trials in spring barley).

VIOAR (*Viola arvensis*; family *Violaceae*)

Viola arvensis is a common field weed. The annual, sometimes biennial plants of the genus *Viola* can achieve growth heights up to 30 cm. Flowering occurs from April until September, germination from April to May. Seeds keep their germination ability up to six years. The weed prefers fertile soils.

Species of the genus *Viola* were observed in 5 trials. VIOAR occurred in a total of 5 trials (3 trials in winter wheat and 2 trials in spring barley).

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

Crop and/or situation	Crop status		Pests or group of pests controlled	Pest status
	Major	minor		Major
Winter wheat	PL	-	<i>Anthemis arvensis</i> , <i>Brachia- ria nana</i> , <i>Brassica napus</i> , <i>Capsella bursa-pastoris</i> , <i>Centaurea cyanus</i> , <i>Cheno- podium album</i> , <i>Descurainia sophia</i> , <i>Fallopia convolvu- lus</i> , <i>Fumaria officinalis</i> , <i>Galium aparine</i> , <i>Geranium pusillum</i> , <i>Lamium amplexi- caule</i> , <i>Buglossoides arven- sis</i> , <i>Tripleurospermum inodorum</i> , <i>Myosotis arven- sis</i> , <i>Papaver rhoeas</i> , <i>Fallo- pia convolvulus</i> , <i>Sinapis arvensis</i> , <i>Sonchus arvensis</i> , <i>Stellaria media</i> , <i>Thlaspi arvense</i> , <i>Veronica hederifo- lia</i> , <i>Veronica persica</i> , <i>Viola arvensis</i>	PL
Spring barley	PL	-	<i>Anthemis arvensis</i> , <i>Ama- ranthus retroflexus</i> , <i>Brassi- ca napus</i> , <i>Capsella bursa- pastoris</i> , <i>Centaurea cyanus</i> , <i>Chenopodium album</i> , <i>Con- volvulus arvensis</i> , <i>Des- curainia sophia</i> , <i>Fallopia convolvulus</i> , <i>Galeopsis tetrahit</i> , <i>Galium aparine</i> , <i>Galinoga aparine</i> , <i>Ga- linsoga parviflora</i> , <i>Buglos- soides arvensis</i> , <i>Matricaria chamomilla</i> , <i>Tripleu- rospermum inodorum</i> , <i>Silene latifolia</i> subsp. <i>Alba</i> , <i>Myosotis arvensis</i> , <i>Papaver rhoeas</i> , <i>Polygonum avicu- lare</i> , <i>Fallopia convolvulus</i> , <i>Persicaria maculosa</i> , <i>Sina- pis arvensis</i> , <i>Stellaria me- dia</i> , <i>Thlaspi arvense</i> , <i>Ve- ronica persica</i> , <i>Viola arvensis</i>	

Information on trials submitted (3.2 Efficacy data)

Table 3.2-5: Presentation of trials (efficacy)

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)
					Poland	-		
Winter wheat	<i>Anthemis arvensis</i> , <i>Brachiaria nana</i> , <i>Brassica napus</i> , <i>Capsella bursa-pastoris</i> , <i>Centaurea cyanus</i> , <i>Chenopodium album</i> , <i>Descurainia sophia</i> , <i>Fallopia convolvulus</i> , <i>Fumaria officinalis</i> , <i>Galium aparine</i> , <i>Geranium pusillum</i> , <i>Lamium amplexicaule</i> , <i>Buglossoides arvensis</i> , <i>Tripleurospermum inodorum</i> , <i>Myosotis arvensis</i> , <i>Papaver rhoeas</i> , <i>Fallopia convolvulus</i> , <i>Sinapis arvensis</i> , <i>Sonchus arvensis</i> , <i>Stellaria media</i> , <i>Thlaspi arvense</i> , <i>Veronica hederifolia</i> , <i>Veronica persica</i> , <i>Viola arvensis</i>	Poland	2022	E	15	-	GEP	The study was conducted in Poland under different climate and soil for different varieties of rape-winter wheat.
Spring barley	<i>Anthemis arvensis</i> , <i>Amaranthus retroflexus</i> , <i>Brassica napus</i> , <i>Capsella bursa-pastoris</i> , <i>Centaurea cyanus</i> , <i>Chenopodium album</i> , <i>Convolvulus arvensis</i> , <i>Descurainia sophia</i> , <i>Fallopia convolvulus</i> , <i>Galeopsis tetrahit</i> , <i>Galium aparine</i> , <i>Galinsoga aparine</i> , <i>Galinsoga parviflora</i> , <i>Buglossoides arvensis</i> , <i>Matricaria chamomilla</i> , <i>Tripleurospermum inodorum</i> , <i>Silene latifolia</i> subsp. <i>Alba</i> , <i>Myosotis arvensis</i> , <i>Papaver rhoeas</i> , <i>Polygonum aviculare</i> , <i>Fallopia convolvulus</i> , <i>Persicaria maculosa</i> , <i>Sinapis arvensis</i> , <i>Stellaria media</i> , <i>Thlaspi arvense</i> , <i>Veronica persica</i> , <i>Viola arvensis</i>	Poland	2022	E	15	-	GEP	The study was conducted in Poland under different climate and soil for different varieties of rape-winter spring barley.
TOTAL					30			

* According to the GAP table

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

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

Table 3.2-6: Presentation of trials (selectivity)

Crop(s) *	Country	Years	Type of trial**	Number of trials (number of valid trials)		GEP, non-GEP, official***	Comments (any other relevant information)
				Poland	-		
Winter wheat	Poland	2022	E S	6	-	GEP	The study was conducted in Poland under different climate and soil for different varieties of rape-winter wheat.
Spring barley	Poland	2022	E S	6	-	GEP	The study was conducted in Poland under different climate and soil for different varieties of rape-winter spring barley.
TOTAL				12			

* According to the GAP table (with exception of HORVW, HORVS and TRZDU, which are not intended crops)

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

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

Table 3.2-7-1: Presentation of reference standards used in trials (efficacy)

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	Upton 050 SC	Poland	R-7/2019	Florasulam	SC	50 g/L	0.1 L/ha	0.1 L/ha	Foliar spraying. Recommended medium drops spraying. Used agricultural sprayers.
Spring barley	Upton 050 SC	Poland	R-7/2019	Florasulam	SC	50 g/L	0.1 L/ha	0.1 L/ha	Foliar spraying. Recommended medium drops spraying. Used agricultural sprayers.

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

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

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

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

Table 3.2-8-1: Presentation of reference standards used in trials (selectivity)

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	Upton 050 SC	Poland	R-7/2019	Florasulam	SC	50 g/L	0.1 L/ha 0.2 L/ha	0.1 L/ha 0.2 L/ha	Foliar spraying. Recommended medium drops spraying. Used agricultural sprayers.
Spring barley	Upton 050 SC	Poland	R-7/2019	Florasulam	SC	50 g/L	0.1 L/ha 0.2 L/ha	0.1 L/ha 0.2 L/ha	Foliar spraying. Recommended medium drops spraying. Used agricultural sprayers.

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

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

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

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

3.2.1 Preliminary tests (KCP 6.1)

Preliminary studies on product Floras 50 SC were not carried out because this herbicide contains active substance **florasulam** which is a well-known active substance that has been used for many years in agricultural practice. Preliminary studies have not been conducted because the active substance is known and has long been used in the protection of cereals. The active substances of Floras 50 SC are

registered and has been commonly used in agricultural practice for many years. The effect of the active substance **Florasulam** is well known and sufficient large scale efficacy trials are available to evaluate the effectiveness of Floras 50 SC. The performance of active substances is known to the authorities and it is used as a reference standard in official efficacy trials. Therefore, preliminary tests are not described and not required.

**Comments of zRMS on:
Preliminary tests (3.2.1)**

Accepted. Additional data not required.

3.2.2 Minimum effective dose tests (KCP 6.2)

To demonstrate the minimum effective dose rate, Floras 50 SC was applied at 0.05 L/ha; 0.08 L/ha; 0.1 L/ha. These rates reflect 50%, 60-80% and 100% of the full recommended rate of active substances, in accordance with the EPPO guideline PP 1/225 (4) (2) “Minimum effective dose”.

In studies in winter wheat used 3 doses of herbicide – Floras 50 SC: 0.05 L/ha; 0.08 L/ha; 0.1 L/ha.

In studies in spring barley used 3 doses of herbicide – Floras 50 SC: 0.05 L/ha; 0.08 L/ha; 0.1 L/ha.

The proposed dose is selected on the basis of its efficacy performance, product safety parameters and environmental limitations. To fully challenge the product efficacy was tested under a range of environmental conditions. In the appropriate researches of efficacy were tested several doses and to register was chosen the lowest effective.

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

Thirty efficacy trials conducted in 2022, in 1 EPPO zone: North-East (PL) present data to determine the Minimum Effective Dose (MED) of the herbicide Floras 50 SC, which was tested in a range of dose rates: 0.05 L/ha, 0.08 L/ha and 0.1 L/ha in all presented trials. Floras 50 SC is recommended to be applied at dose rate of 0.1 L/ha and lower dose rates correspond to 50% and 80% of the target dose rate 0.1 L/ha respectively. As indicated in the EPPO guideline PP 1/225 (2) Minimum effective dose, information on MED is required for a range of targets which are considered to be the most important, and for which control provides the major agricultural benefit. The tables presented below shows the results from efficacy trials with Floras 50 SC applied at three doses rates for all target broad-leaved weed species.

Minimum effective dose; mean overall percentage efficacy of Floras 50 SC applied at a range of dose rates against target broad-leaved weed species across trials carried out in winter wheat

Weed species	Number of trials	Weed density at application* (pl/m ²)		Mean % efficacy of Floras 50 SC						Statistical comparison (no. of trials)	
				0.05 L/ha (50% of target dose rate)		0.08 L/ha (80% of target dose rate)		0.1 L/ha (target dose rate)		0.05 L/ha to 1.0 L/ha	0.08 L/ha to 1.0 L/ha
		Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	Mean	Min & Max		
ANTAR	2	5.9	5.3-6.5	63.2	62.5-63.8	83.9	81.5-86.3	86.3	86.3-86.3	> (2)	= (2)
BRSNW	6	8.0	5.0-10.0	69.2	59.5-80.0	81.7	78.0-86.0	88.7	84.0-96.0	> (2) n/d (4)	> (1) < (1) n/d (4)
CAPBP	7	9.2	5.3-13.0	62.5	40.0-80.0	74.4	61.8-86.0	82.5	74.3-92.0	> (3) n/d (4)	> (3) n/d (4)
DESSO	4	8.0	5.0-15.0	57.0	42.5-75.0	73.8	63.8-80.0	80.5	75.0-84.0	> (2) n/d (2)	> (2) n/d (2)

GALAP	8	6.8	5.0-10.0	53.4	42.5-70.0	69.8	57.5-82.0	86.5	76.3-100.0	> (6) n/d (2)	> (6) n/d (2)
MATIN	7	6.7	5.0-8.5	72.2	52.5-92.5	83.7	69.8-96.3	90.3	84.0-100.0	> (3) n/d (4)	> (2) = (1) n/d (4)
MYOAR	5	7.5	5.0-13.0	69.9	60.8-80.0	85.0	77.5-91.3	93.8	84.0-100.0	> (3) n/d (2)	> (3) n/d (2)
PAPRH	8	9.2	5.0-28.0	62.3	42.5-80.0	75.6	55.0-100.0	88.5	76.8-100.0	> (5) n/d (3)	> (4) = (1) n/d (3)
POLCO	4	6.3	5.0-9.0	65.1	52.5-70.0	85.0	80.0-97.5	89.0	82.0-97.5	> (2) n/d (2)	> (1) = (1) n/d (2)
SINAR	2	5.0	5.0-5.0	73.5	67.0-80.0	79.5	73.0-86.0	85.5	81.0-90.0	n/d (2)	n/d (2)
STEME	9	7.1	5.0-13.3	66.5	56.3-78.0	82.8	73.0-95.0	91.0	80.0-100.0	> (5) n/d (4)	> (4) = (1) n/d (4)
THLAR	8	5.5	5.0-6.0	59.1	49.5-80.0	79.0	66.0-86.0	90.2	81.5-100.0	> (5) n/d (3)	> (5) n/d (3)
VERPE	5	8.7	5.0-15.0	31.4	0.0-65.0	52.5	27.5-73.0	71.4	57.5-80.0	> (4) n/d (1)	> (4) n/d (1)
Later assessments 50-60 DAA											
ANTAR	2	5.9	5.3-6.5	78.3	77.5-79.0	100.0	100.0-100.0	100.0	100.0-100.0	> (2)	(2)
BRSNW	6	8.0	5.0-10.0	79.6	70.0-88.0	89.7	85.0-96.0	95.8	91.0-100.0	> (2) n/d (4)	> (2) n/d (4)
CAPBP	7	9.2	5.3-13.0	66.6	44.5-84.0	80.5	66.3-90.0	91.2	86.0-100.0	> (3) n/d (4)	> (3) n/d (4)
DESSO	4	8.0	5.0-15.0	66.8	47.5-86.0	80.3	71.5-90.0	91.2	86.3-100.0	> (2) n/d (2)	> (2) n/d (2)
GALAP	8	6.8	5.0-10.0	60.5	35.0-85.0	79.2	67.5-100.0	90.4	84.5-100.0	> (5) n/d (3)	> (5) n/d (3)
MATIN	7	6.7	5.0-8.5	77.5	50.0-90.0	89.4	78.0-97.5	96.7	92.0-100.0	> (3) n/d (4)	> (2) = (1) n/d (4)
MYOAR	5	7.5	5.0-13.0	76.6	65.0-90.5	90.2	86.0-100.0	96.6	93.0-100.0	> (3) n/d (2)	> (2) = (1) n/d (2)
PAPRH	8	9.2	5.0-28.0	71.2	62.3-80.0	85.5	76.3-100.0	93.8	85.8-100.0	> (5) n/d (3)	> (4) = (1) n/d (3)
POLCO	4	6.3	5.0-9.0	67.9	55.0-80.0	87.3	80.0-95.0	90.2	82.0-97.5	> (2) n/d (2)	= (2) n/d (2)
SINAR	2	5.0	5.0-5.0	78.5	75.0-82.0	86.0	86.0-86.0	93.0	86.0-100.0	n/d (2)	n/d (2)
STEME	9	7.1	5.0-13.3	73.2	55.0-85.0	89.1	82.0-96.0	94.4	87.0-100.0	> (5) n/d (4)	> (2) = (3) n/d (4)
THLAR	8	5.5	5.0-6.0	64.3	50.0-85.0	81.7	75.0-88.0	95.6	88.0-100.0	> (5) n/d (3)	> (5) n/d (3)
VERPE	5	8.7	5.0-15.0	36.3	0.0-77.0	51.9	0.0-86.0	75.1	72.5-88.0	> (3) n/d (2)	> (3) n/d (2)

*In 5 trials (NUZ 07/22/1, NUZ 07/22/2, NUZ 07/22/3, NUZ 07/22/4, NUZ 07/22/5) weed density was not determined at application. Therefore, data on weed density was taken from the first assessment timing.

Minimum effective dose; mean overall percentage efficacy of Floras 50 SC applied at a range of dose rates against broad-leaved weed species across trials carried out in spring barley

Weed species	Number of trials	Weed density at application* (pl/m ²)		Mean % efficacy of Floras 50 SC						Statistical comparison (no. of trials)	
				0.05 L/ha (50% of target dose rate)		0.08 L/ha (80% of target dose rate)		0.1 L/ha (target dose rate)		0.05 L/ha to 1.0 L/ha	0.08 L/ha to 1.0 L/ha
		Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	Mean	Min & Max		
ANTAR	2	7.9	7.3-8.5	74.8	72.8-76.8	84.8	80.8-88.8	94.7	91.3-98.0	> (2)	> (2)
AMARE	2	6.5	5.0-8.0	54.1	46.8-61.3	73.3	70.8-75.8	85.0	84.5-85.5	> (2)	> (2)
BRSNW	4	5.0	5.0-5.0	51.9	27.5-65.0	70.7	45.0-80.0	90.5	77.5-95.5	> (4)	> (4)
CAPBP	6	9.0	6.0-12.0	70.6	52.5-78.0	79.3	76.0-83.0	83.6	80.0-88.8	> (1) n/d (5)	> (1) n/d (5)
CHEAL	4	9.0	5.0-17.5	26.7	0.0-51.8	47.0	18.8-65.5	69.9	52.5-77.0	> (4)	> (4)
DESSO	2	6.0	5.0-7.0	76.5	75.0-78.0	80.0	78.0-82.0	84.0	84.0-84.0	n/d (2)	n/d (2)
GAETE	3	5.8	5.0-6.3	64.8	46.3-78.0	71.8	59.3-78.0	79.8	78.0-83.0	> (1) n/d (2)	> (1) n/d (2)
GALAP	4	6.5	5.0-7.3	49.1	40.0-60.0	70.7	65.5-76.0	81.7	78.0-85.0	> (3) n/d (1)	> (3) n/d (1)
GASPA	2	7.4	6.3-8.5	69.8	67.5-72.0	81.7	79.5-83.8	94.7	94.8-94.5	> (2)	> (2)
MATIN	2	7.7	6.0-9.3	72.9	72.0-73.8	81.8	77.5-86.0	90.7	89.3-92.0	> (2)	> (2)
MELAL	2	6.0	6.0-6.0	36.3	35.0-37.5	69.4	67.3-71.3	97.5	97.5-97.5	> (2)	> (2)
MYOAR	3	5.7	5.0-6.0	61.7	45.0-75.0	76.8	65.0-87.5	88.2	82.0-100.0	> (2) n/d (1)	> (2) n/d (1)
POLAV	2	6.5	5.5-7.5	65.5	58.0-73.0	82.1	80.8-83.3	91.4	88.3-94.5	> (2)	> (1) n/d (1)
POLCO	9	6.3	5.0-8.0	66.0	52.5-78.0	76.5	62.5-83.0	86.9	82.0-93.8	> (6) n/d (3)	> (5) = (1) n/d (3)
POLPE	2	6.8	5.5-8.0	67.3	60.5-74.0	76.5	68.0-85.0	92.4	86.8-98.0	> (2)	> (2)
SINAR	5	13.2	6.0-21.0	74.6	68.0-80.0	78.4	75.0-82.0	82.2	80.0-85.0	n/d (5)	n/d (5)
STEME	6	7.8	5.0-11.0	73.6	68.0-80.0	79.3	74.0-83.0	83.7	76.0-94.0	> (1) n/d (5)	> (1) n/d (5)
THLAR	9	6.2	5.0-7.8	69.1	45.0-80.0	79.7	67.0-84.3	86.6	78.8-97.5	> (4) n/d (5)	> (4) n/d (5)
VERPE	6	5.8	5.0-8.0	54.6	0.0-78.0	67.4	37.5-82.0	82.1	68.8-95.0	> (2) n/d (4)	> (2) n/d (4)
				Later assessments 41-56 DAA							
ANTAR	2	7.9	7.3-8.5	79.6	78.3-80.8	96.5	95.0-98.0	100	100.0-100.0	> (2)	> (1) = (1)
AMARE	2	6.5	5.0-	59.4	53.8-	77.8	76.0-	85.5	85.5-	> (2)	> (2)

			8.0		65.0		79.5		85.5		
BRSNW	4	5.0	5.0-5.0	62.5	55.0-65.0	76.0	68.8-78.8	94.2	86.3-100.0	> (4)	> (4)
CAPBP	6	9.0	6.0-12.0	74.6	42.5-85.0	84.7	76.3-90.0	91.3	88.0-95.0	> (1) n/d (5)	> (1) n/d (5)
CHEAL	4	9.0	5.0-17.5	28.7	0.0-57.0	52.4	22.5-72.8	72.7	50.0-82.0	> (4)	> (4)
DESSO	2	6.0	5.0-7.0	83.5	82.0-85.0	87.5	85.0-90.0	92.0	90.0-94.0	n/d (2)	n/d (2)
GAETE	3	5.8	5.0-6.3	68.8	51.3-80.0	78.6	70.8-85.0	84.0	82.0-88.0	> (1) n/d (2)	> (1) n/d (2)
GALAP	4	6.5	5.0-7.3	61.2	40.0-81.0	77.7	67.5-87.0	89.8	87.3-92.0	> (3) n/d (1)	> (3) n/d (1)
GASPA	2	7.4	6.3-8.5	76.5	75.5-77.5	93.7	88.0-99.3	99.7	99.3-100.0	> (2)	> (1) = (1)
MATIN	2	7.7	6.0-9.3	77.2	76.8-77.5	91.3	90.0-92.5	100.0	100.0-100.0	> (2)	> (2)
MELAL	2	6.0	6.0-6.0	38.8	37.5-40.0	66.3	65.0-67.5	97.5	97.5-97.5	> (2)	> (2)
MYOAR	3	5.7	5.0-6.0	65.0	47.5-80.0	80.0	65.0-90.0	92.9	88.8-100.0	> (2) n/d (1)	> (2) n/d (1)
POLAV	2	6.5	5.5-7.5	77.4	75.0-79.8	89.4	89.3-89.5	100.0	100.0-100.0	> (2)	> (2)
POLCO	9	6.3	5.0-8.0	71.8	52.5-84.0	83.6	63.8-100.0	93.1	86.3-100.0	> (6) n/d (3)	> (5) = (1) n/d (3)
POLPE	2	6.8	5.5-8.0	76.9	75.5-78.3	90.2	88.3-92.0	100.0	100.0-100.0	> (2)	> (2)
SINAR	5	13.2	6.0-21.0	81.4	80.0-84.0	86.8	85.0-90.0	91.8	88.0-95.0	n/d (5)	n/d (5)
STEME	6	7.8	5.0-11.0	79.3	68.8-85.0	85.3	77.5-90.0	92.3	88.0-95.0	> (1) n/d (5)	> (1) n/d (5)
THLAR	9	6.2	5.0-7.8	73.9	55.0-83.0	84.9	76.3-92.0	91.7	85.5-95.0	> (4) n/d (5)	> (4) n/d (5)
VERPE	6	5.8	5.0-8.0	63.9	0.0-84.0	78.4	50.0-93.0	92.2	87.5-97.5	> (2) n/d (4)	> (2) n/d (4)

*In 5 trials (NUZ 07/22/8, NUZ 07/22/9, NUZ 07/22/10, NUZ 07/22/11, NUZ 07/22/12) weed density was not determined at application. Therefore, data on weed density was taken from the first assessment timing.

Based on the presented efficacy trial results, the dose rate of 0.1 L/ha of Floras 50 SC has been justified as MED for almost all target weed species: AMARE, BRSNW, CAPBP, CHEAL, DESSO, GAETE, GALAP, GASPA, MATIN, MELAL, MYOAR, PAPRH, POLAV, POLCO, POLPE, SINAR, STEME, THLAR, VERPE. A clear dose response was demonstrated comparing the target dose rate 0.1 L/ha with lower dose rates: 0.05 L/ha and 0.08 L/ha. For ANTAR the same efficacy results or slight differences have been noted between dose rate 0.08 L/ha and 0.1 L/ha in the trials carried out in winter wheat and spring barley respectively.

It can be concluded, that the highest tested dose rate of 1.0 L/ha of Floras 50 SC was the most effective in the trials conducted in winter wheat and spring barley and therefore has been proven as the minimum effective dose in the control of target broad-leaved weed species.

3.2.3 Efficacy tests (KCP 6.2)

Table 3.2.3-1 Details on trial methodology

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/214
	Specific guidelines	PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	15.0-25.5 m ²
	Number of replications	4
Crop	Trials per crop	Winter wheat (15) Spring barley (15)
	Varieties per crop	Winter wheat: Ahoj, Apostel, Arkadia, Euforia, Hondia, Joker, Kometa, Linus, Metronom, Patras, Plejada (2), RTG Kilimangaro, Symetria Spring barley: Charles, Ella, Extase, Freedway, Focus (3), KWS Atrika, KWS Irina, KWS Vermont, Pilote, Radek, Soldo, Trofeum, Wirtuoz
	Sowing period	Winter wheat: from September (27) to November (04) Spring barley: from March (05) to April (26)
Application	Crop stage (BBCH) at application	Winter wheat: from BBCH 23 to BBCH 32 Spring barley: from BBCH 13 to BBCH 32
	Timing Pest stage at application (1)	Post-emergence AMARE (BBCH 12-18) ANTAR (BBCH 11-17) BRSNW (BBCH 10-55) CAPBP (BBCH 12-24) CENCY (BBCH 14-18) CHEAL (BBCH 10-28) CONAR (BBCH 11-13) DESSO (BBCH 12-23) FUMOF (BBCH 15-29) GAETE (BBCH 12-23) GALAP (BBCH 12-30) GALPA (BBCH 22) GASPA (BBCH 14-24) GERPU (BBCH 13-15) LAMAM (BBCH 31-55) LITAR (BBCH 12-17) MATCH (BBCH 13-22) MATIN (BBCH 11-51) MELAL (BBCH 10-14) MYOAR (BBCH 10-22) PAPRH (BBCH 12-30) POLAV (BBCH 12-23) POLCO (BBCH 10-28) POLPE (BBCH 13-16) SINAR (BBCH 21-28) SONAR (BBCH 24) STEME (BBCH 12-65) THLAR (BBCH 11-65) VERHE (BBCH 21-24) VERPE (BBCH 10-61) VIOAR (BBCH 10-51)
	Number of applications Intervals between applications	1 (30 trials)
	Spray volumes	200-300 L/ha
Assessment	Assessment types	% of weed coverage, number of weeds/m ²
	Assessment dates	Winter wheat 13-14 DAA; 21-28 DAA; 50-60 DAA Spring barley

		10-14 DAA; 21-28 DAA; 41-56 DAA
Other relevant information	e.g. Soil type (in case of soil active substance ...)	clay loam, loam, loamy sand, sandy clay, sandy clay loam, sandy loam, silt loam
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Field trials

The tables below provide details of the efficacy studies for all applied uses.

Winter wheat

Study: 017-GP2022-01

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	15,0 m ²
	Number of replications	4
Crop	Trials per crop	<i>Triticum aestivum</i>
	Varieties per crop	Symetria
	Planting Date:	20.10.2021
Application	Crop stage (BBCH) at application	BBCH 29
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	- VERPE <i>Veronica persica</i> with a density of 5.5 plants/m ² . - MATIN <i>Tripleurospermum inodorum</i> with a density of 8.5 plants/m ² . - THLAR <i>Thlaspi arvense</i> with a density of 6 plants/m ² . - GALAP <i>Galium aparine</i> with a density of 6.5 plants/m ² . - STEME <i>Stellaria media</i> with a density of 13.5 13.3 plants/m ² . - BRSNN BRSNW <i>Brassica napus</i> with a density of 5.5 plants/m ² .
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	14 DAA, 28 DAA, 56 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	sandy loam, Organic Matter -2,1
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Pakość, Kujawsko-Pomorskie
	Application date	04.05.2022

Results:

BRSNN BRSNW <i>Brassica napus</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	46.3	86.3	100
Floras 50 SC	0.05	36.3	62.5	78.3
Floras 50 SC	0.08	41.3	82	92
Floras 50 SC	0.1	43.8	88	100

GALAP <i>Galium aparine</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	40	83.3	87.3
Floras 50 SC	0.05	33.8	53.8	63.3

Floras 50 SC	0.08	36.3	65	78.3
Floras 50 SC	0.1	40	84	88.8

MATIN <i>Tripleurospermum inodorum</i>		Assesment		
Product	Dose (100/ha L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	36.3	91.3	100
Floras 50 SC	0.05	30	69.5	81.8
Floras 50 SC	0.08	32.5	82	90
Floras 50 SC	0.1	37.5	92	100

STEME <i>Stellaria media</i>		Assesment		
Product	Dose (100/ha L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	40	84.3	86.3
Floras 50 SC	0.05	28.8	56.3	69.3
Floras 50 SC	0.08	37.5	75	82
Floras 50 SC	0.1	42.5	84.8	88.5

THLAR <i>Thlaspi arvense</i>		Assesment		
Product	Dose (100/ha L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	36.3	85.3	90.5
Floras 50 SC	0.05	30	50	59.3
Floras 50 SC	0.08	36.3	78	83.8
Floras 50 SC	0.1	38.8	85.5	92.8

VERPE <i>Veronica persica</i>		Assesment		
Product	Dose (100/ha L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	33.8	70.8	78.3
Floras 50 SC	0.05	27.5	52	59.5
Floras 50 SC	0.08	32.5	66.8	73.3
Floras 50 SC	0.1	31.3	74.5	80

Conclusions:

1. Floras at 0.1 L/ha provided moderate to good levels of control against all the evaluated weed species.
2. Dose response among rates was clearly visible.
3. Floras at 0.1 L/ha showed comparable or slightly better efficacy than the reference of UPTON 50 SC.
4. All treatments can be considered safe when applied in winter wheat (cv. Symetria).
5. No phytotoxicity symptoms recorded, no differences in crop vigor after application of test products in comparison to untreated.
6. No effect on other pests or non-target organisms was observed.
7. No factors have negatively affected the course and quality of a trial.

Study: 017-GP2022-02

Guidelines	Guidelines	PP 1/225(2) , PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	17,5 m ²
	Number of replications	4
Crop	Trials per crop	<i>Triticum aestivum</i>
	Varieties per crop	Arkadia
	Planting Date:	04.11.2021
Application	Crop stage (BBCH) at application	BBCH 31

	Timing Pest stage at application (1) Weed species occurred in the trial at the application	- VERHE <i>Veronica hederifolia</i> with a density of 5.8 plants/m ² ; - CAPBP <i>Capsella bursa-pastoris</i> with a density of 8.3 plants/m ² ; - VIOAR <i>Viola arvensis</i> with a density of 6.3 plants/m ² ; - GERPU <i>Geranium pusillum</i> with a density of 9.8 plants/m ² ; - ANTAR <i>Anthemis arvensis</i> with a density of 5.5 plants/m ² .
	Number of applications Intervals between applications	1 Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	14 DAA, 28 DAA, 50 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	sandy loam, Organic Matter -1,2 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Szamotoły, Wielkopolskie
	Application date	03.05.2022

Results:

ANTAR <i>Anthemis arvensis</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	50 DA-A
Upton 050 SC	0.1	51.3	84.8	100
Floras 50 SC	0.05	36.3	63.8	77.5
Floras 50 SC	0.08	45	81.5	100
Floras 50 SC	0.1	50	86.3	100

CAPBP <i>Capsella bursa-pastoris</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	50 DA-A
Upton 050 SC	0.1	50	82	89.3
Floras 50 SC	0.05	35	59.5	67.5
Floras 50 SC	0.08	42.5	70.8	80
Floras 50 SC	0.1	50	81.3	90.3

GERPU <i>Geranium pusillum</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	50 DA-A
Upton 050 SC	0.1	43.8	72.8	82.8
Floras 50 SC	0.05	28.8	41.3	51.3
Floras 50 SC	0.08	33.8	60	69.3
Floras 50 SC	0.1	41.3	75.8	84

VERHE <i>Veronica hederifolia</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	50 DA-A
Upton 050 SC	0.1	38.8	74.3	82
Floras 50 SC	0.05	30	42	46.3
Floras 50 SC	0.08	37.5	68	73.8
Floras 50 SC	0.1	40	77.3	83.3

VIOAR <i>Viola arvensis</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	50 DA-A
Upton 050 SC	0.1	37.5	75.5	82.8
Floras 50 SC	0.05	25	43	47.5
Floras 50 SC	0.08	31.3	56.8	65.8
Floras 50 SC	0.1	38.8	77.5	84

Conclusions:

1. Floras at 0.1 L/ha provided moderate to good levels of control against all the evaluated weed species.
2. Dose response among rates was clearly visible.
3. Floras at 0.1 L/ha showed comparable or slightly better efficacy than the reference of UPTON 50 SC.
4. All treatments can be considered safe when applied in Winter Wheat (cv. Arkadia).
5. No phytotoxicity symptoms recorded, no differences in crop vigor after application of test products in comparison to untreated.
6. No effect on other pests or non-target organisms was observed.
7. No factors have negatively affected the course and quality of a trial.

Winter wheat

Study: 017-GP2022-03

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	17,5 m ²
	Number of replications	4
Crop	Trials per crop	<i>Triticum aestivum</i>
	Varieties per crop	Hondia
	Planting Date:	27.09.2021
Application	Crop stage (BBCH) at application	BBCH 24
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	- ANTAR <i>Anthemis arvensis</i> with a density of 6.5 plants/m ² . - CAPBP <i>Capsella bursa-pastoris</i> with a density of 5.3 plants/m ² . - CENCY <i>Centaurea cyanus</i> with a density of 5.0 plants/m ² . - MATIN <i>Tripleurospermum inodorum</i> with a density of 5.5 plants/m ² . - MYOAR <i>Myosotis arvensis media</i> with a density of 5.3 plants/m ² . - PAPRH <i>Papaver rhoeas</i> with a density of 5.3 plants/m ² .
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	14 DAA, 28 DAA, 56 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	loamy sand, Organic Matter -2,2 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Łabiszyn, Kujawsko-Pomorskie
	Application date	30.04.2022

Results:

ANTAR <i>Anthemis arvensis</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	46.3	87.5	100
Floras 50 SC	0.05	28.8	62.5	79
Floras 50 SC	0.08	40	86.3	100
Floras 50 SC	0.1	47.5	86.3	100

CAPBP <i>Capsella bursa-pastoris</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	40	84	87.3
Floras 50 SC	0.05	27.5	40	44.5
Floras 50 SC	0.08	36.3	61.8	66.3

Floras 50 SC	0.1	41.3	85	88
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CENCY <i>Centaurea cyaneus</i>		Assesment		
Product	Dose (14 L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	33.8	70	71.3
Floras 50 SC	0.05	10	35	40
Floras 50 SC	0.08	27.5	58.8	60
Floras 50 SC	0.1	32.5	72.5	73.8

MATIN <i>Tripleurospermum inodorum</i>		Assesment		
Product	Dose (14 L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	48.8	86.3	96
Floras 50 SC	0.05	30	52.5	50
Floras 50 SC	0.08	45	69.8	78
Floras 50 SC	0.1	50	84.3	98

MYOAR <i>Myosotis arvensis</i> media		Assesment		
Product	Dose (14 L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	51.3	95.3	100
Floras 50 SC	0.05	37.5	60.8	90.5
Floras 50 SC	0.08	50	77.5	100
Floras 50 SC	0.1	51.3	94.8	100

PAPRH <i>Papaver rhoeas</i>		Assesment		
Product	Dose (14 L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	48.8	84	88
Floras 50 SC	0.05	33.8	65.5	63.8
Floras 50 SC	0.08	50	72.5	76.3
Floras 50 SC	0.1	51.3	85.3	85.8

Conclusions:

1. Floras at 0.1 L/ha provided moderate to good levels of control against all the evaluated weed species at assessment 28 DA-A.
2. Dose response among rates was clearly visible.
3. Floras at 0.1 L/ha showed comparable efficacy to the reference of UPTON 50 SC.
4. All treatments can be considered safe when applied in Winter Wheat (cv. Hondia).
5. No phytotoxicity symptoms recorded, no differences in crop vigor after application of test products in comparison to untreated.
6. No effect on other pests or non-target organisms was observed.
7. No factors have negatively affected the course and quality of a trial.

Winter wheat

Study: 017-GP2022-04

Guidelines	Guidelines	PP 1/225(2) , PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	17,5 m ²
	Number of replications	4
Crop	Trials per crop	Triticum aestivum
	Varieties per crop	Kometa
	Planting Date:	27.09.2021

Application	Crop stage (BBCH) at application	BBCH 24
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	- BRSNW <i>Brassica napus</i> with a density of 5.0 plants/m ² . - CAPBP <i>Capsella bursa-pastoris</i> with a density of 7.0 plants/m ² . - DESSO <i>Descurainia sophia</i> with a density of 6.5 plants/m ² . - GALAP <i>Galium aparine</i> with a density of 5.7 plants/m ² . - STEME <i>Stellaria media</i> with a density of 7.5 plants/m ² .
	Number of applications Intervals between applications	1 Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	14 DAA, 28 DAA, 56 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	sandy clay, Organic Matter -1,9 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Rogowo, Kujawsko-Pomorskie
	Application date	28.04.2022

Results:

BRSNW <i>Brassica napus</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	51.3	93.3	100
Floras 50 SC	0.05	35	59.5	77
Floras 50 SC	0.08	52.5	78.3	89.3
Floras 50 SC	0.1	55	96	100

CAPBP <i>Capsella bursa-pastoris</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	51.3	76.3	86.8
Floras 50 SC	0.05	30	47.8	47
Floras 50 SC	0.08	45	66.3	70
Floras 50 SC	0.1	52.5	74.3	86

DESSO <i>Descurainia sophia</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	38.8	73.3	85.3
Floras 50 SC	0.05	28.8	42.5	53.8
Floras 50 SC	0.08	32.5	63.8	71.5
Floras 50 SC	0.1	38.8	75	86.3

GALAP <i>Galium aparine</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	50	76.8	84.5
Floras 50 SC	0.05	35	48.8	64
Floras 50 SC	0.08	47.5	66	73.8
Floras 50 SC	0.1	51.3	76.3	84.5

STEME <i>Stellaria media</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	52.5	93.3	100

Floras 50 SC	0.05	31.3	65	81.3
Floras 50 SC	0.08	47.5	81.8	91.3
Floras 50 SC	0.1	55	92.8	100

Conclusions:

1. Floras at 0.1 L/ha provided moderate to very good levels of control against all the evaluated weed species at assessment 28 DA-A.
2. Dose response among rates was clearly visible.
3. Floras at 0.1 L/ha showed comparable efficacy to the reference of UPTON 50 SC.
4. All treatments can be considered safe when applied in Winter Wheat (cv. Kometa).
5. No phytotoxicity symptoms recorded, no differences in crop vigor after application of test products in comparison to untreated.
6. No effect on other pests or non-target organisms was observed.
7. No factors have negatively affected the course and quality of a trial.

Winter wheat

Study: 017-GP2022-05

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	17,5 m ²
	Number of replications	4
Crop	Trials per crop	<i>Triticum aestivum</i>
	Varieties per crop	Metronom
	Planting Date:	30.09.2021
Application	Crop stage (BBCH) at application	BBCH 31
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	- DESSO <i>Descurainia sophia</i> with a density of 5.5 plants/m ² - GALAP <i>Galium aparine</i> with a density of 6.8 plants/m ² - LITAR <i>Buglossoides arvensis</i> with a density of 6 plants/m ² - PAPRH <i>Papaver rhoeas</i> with a density of 5.5 plants/m ² - THLAR <i>Thlaspi arvense</i> media with a density of 6 plants/m ²
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	13 DAA, 28 DAA, 50 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	clay loam, Organic Matter -2
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Blonie, Mazowieckie
	Application date	04.05.2022

Results:

DESSO <i>Descurainia sophia</i>		Assesment		
Product	Dose (L/ha)	13 DA-A	28 DA-A	50 DA-A
Upton 050 SC	0.1	40	76.8	85.5
Floras 50 SC	0.05	26.3	42.5	47.5
Floras 50 SC	0.08	35	71.3	74.5
Floras 50 SC	0.1	40	78.8	86.3

GALAP <i>Galium aparine</i>		Assesment		
Product	Dose (L/ha)	13 DA-A	28 DA-A	50 DA-A
Upton 050 SC	0.1	50	75.8	85.8
Floras 50 SC	0.05	36.3	43.8	51.8
Floras 50 SC	0.08	42.5	63	76.3
Floras 50 SC	0.1	51.3	76.8	87.3

LITAR <i>Buglossoides arvensis</i>		Assesment		
Product	Dose (L/ha)	13 DA-A	28 DA-A	50 DA-A
Upton 050 SC	0.1	52.5	79.8	100
Floras 50 SC	0.05	40	40	76.8
Floras 50 SC	0.08	47.5	63.3	92.8
Floras 50 SC	0.1	53.8	81.5	100

PAPRH <i>Papaver rhoeas</i>		Assesment		
Product	Dose (L/ha)	13 DA-A	28 DA-A	50 DA-A
Upton 050 SC	0.1	55	73.3	88
Floras 50 SC	0.05	37.5	50	62.3
Floras 50 SC	0.08	50	63.8	76.3
Floras 50 SC	0.1	55	76.8	86.3

THLAR <i>Thlaspi arvense</i>		Assesment		
Product	Dose (L/ha)	13 DA-A	28 DA-A	50 DA-A
Upton 050 SC	0.1	53.8	78	86.3
Floras 50 SC	0.05	30	49.5	63
Floras 50 SC	0.08	47.5	66	76.8
Floras 50 SC	0.1	53.8	81.5	88

Conclusions:

1. Floras at 0.1 L/ha provided moderate levels of control against all the evaluated weed species at assessment 28 DA-A.
2. Dose response among rates was clearly visible.
3. Floras at 0.1 L/ha showed comparable efficacy to the reference of UPTON 50 SC.
4. All treatments can be considered safe when applied in Winter Wheat (cv. Metronom).
5. No phytotoxicity symptoms recorded, no differences in crop vigor after application of test products in comparison to untreated.
6. No effect on other pests or non-target organisms was observed.
7. No factors have negatively affected the course and quality of a trial.

Winter wheat

Study: SGS/2022/048/PL01

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	15,0 m ²
	Number of replications	4
Crop	Trials per crop	<i>Triticum aestivum</i>
	Varieties per crop	Joker
	Planting Date:	05.10.2021
Application	Crop stage (BBCH) at application	BBCH 31

	Timing Pest stage at application (1) Weed species occurred in the trial at the application	LAMAM <i>Lamium amplexicaule</i> MATIN <i>Tripleurospermum inodorum</i> STEME <i>Stellaria media</i> THLAR <i>Thlaspi arvense</i> VERPE <i>Veronica persica</i> VIOAR <i>Viola arvensis</i>
	Number of applications Intervals between applications	1 Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	14 DAA, 21 DAA, 55 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	loam, Organic Matter -2,1 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Oława, Dolnoslaskie
	Application date	21.04.2022

Results:

LAMAM <i>Lamium amplexicaule</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	21 DA-A	55 DA-A
Upton 050 SC	0.1	55	30	30
Floras 50 SC	0.05	35	0	0
Floras 50 SC	0.08	45	7.5	0
Floras 50 SC	0.1	55	32.5	32.5

MATIN <i>Tripleurospermum inodorum</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	21 DA-A	55 DA-A
Upton 050 SC	0.1	87.5	92.5	95
Floras 50 SC	0.05	82.5	92.5	90
Floras 50 SC	0.08	87.5	96.3	97.5
Floras 50 SC	0.1	90	97.5	97.5

STEME <i>Stellaria media</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	21 DA-A	55 DA-A
Upton 050 SC	0.1	87.5	95	95
Floras 50 SC	0.05	75	57.5	55
Floras 50 SC	0.08	73.8	87.5	90
Floras 50 SC	0.1	90	96.3	97.5

THLAR <i>Thlaspi arvense</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	21 DA-A	55 DA-A
Upton 050 SC	0.1	70	92.5	93.8
Floras 50 SC	0.05	50	50	50
Floras 50 SC	0.08	65	76.3	75
Floras 50 SC	0.1	75	97.5	98.8

VERPE <i>Veronica persica</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	21 DA-A	55 DA-A
Upton 050 SC	0.1	70	70	72.5
Floras 50 SC	0.05	35	20	22.5
Floras 50 SC	0.08	60	47.5	50
Floras 50 SC	0.1	75	72.5	75

VIOAR <i>Viola arvensis</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	21 DA-A	55 DA-A
Upton 050 SC	0.1	80	85	85
Floras 50 SC	0.05	37.5	42.5	40
Floras 50 SC	0.08	57.5	62.5	60
Floras 50 SC	0.1	83.8	96.3	96.3

Conclusions:

From the data collected in this trial it is possible to give a reply to the key questions:

1. Test product Floras 50 SC was applied at three dose rates: 0.05, 0.08 and 0.1 L/ha. Reference product Upton 050 SC at 0.1 L/ha. One application was performed (A: 21/04/2022). Within this trial six broadleaves weeds were present: VERPE (*Veronica persica*), THLAR (*Thlaspi arvense*), STEME (*Stellaria media*), LAMAM (*Lamium amplexicaule*), VIOAR (*Viola arvensis*) and MATIN (*Tripleurospermum inodorum*).

Efficacy assessments:

14 DAA (days after application):

VERPE- the best efficacy in test product at dose rate 0.1 L/ha (75%).

THLAR- the best efficacy in test product at dose rate 0.1 L/ha (75%).

STEME- the best efficacy in test product and reference at dose rate 0.1 L/ha (87.5-90%).

LAMAM- the best efficacy in test product and reference at dose rates (0.08-0.1 L/ha) (45-55%).

VIOAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (80-83.8%).

MATIN- the best efficacy in all treatments (82.5-90%).

21 DAA assessment:

VERPE - the best efficacy in test product and reference at dose rate 0.1 L/ha (70-72.5%).

THLAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (92.5-97.5%).

STEME- the best efficacy in test product and reference at dose rate 0.1 L/ha (95-96.3%).

LAMAM- the best efficacy in test product and reference at dose rate 0.1 L/ha (30-32.5%).

VIOAR - the best efficacy in test product at dose rate 0.1 L/ha (96.3%).

MATIN- the best efficacy in all treatments (92.5-97.5%).

55 DAA (before harvest) assessment:

VERPE - the best efficacy in test product and reference at dose rate 0.1 L/ha (70-72.5%).

THLAR - the best efficacy in test product and reference at dose rate 0.1 L/ha (93.8-98.8%).

STEME- the best efficacy in test product and reference at dose rates (0.08-0.1 L/ha) (90-97.5%).

LAMAM – none of the treatments controlled LAMAM, highest efficacy in test product and reference at dose rate 0.1 L/ha (30-32.5%).

VIOAR - the best efficacy in test product at dose rate 0.1 L/ha (96.3%). Reference Upton 050 SC efficacy at 85%.

MATIN - the best efficacy in all treatments (90-97.5%).

2. Efficacy of test product Floras 50 SC at 0.1 L/ha was at the same level as reference product Upton 050 SC at 0.1 L/ha.

3. The minimum effective dose rate of test product to control THLAR and VIOAR was 0.1 L/ha. The minimum effective dose rate to control STEME was 0.08 L/ha. The minimum effective dose rate to control MATIN was 0.05 L/ha. None of the trial treatments controlled VERPE and LAMAM.

4. No phytotoxicity symptoms recorded. No effects on non-target organisms were observed during this trial. No differences in crop vigor after application of test products in comparison to untreated.

Winter wheat

Study: SGS/2022/048/PL02

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	15,0 m ²
	Number of replications	4
Crop	Trials per crop	<i>Triticum aestivum</i>

	Varieties per crop	Patras
	Planting Date:	28.10.2021
Application	Crop stage (BBCH) at application	BBCH 25
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	FUMOF <i>Fumaria officinalis</i> GALAP <i>Galium aparine</i> MYOAR <i>Myosotis arvensis</i> PAPRH <i>Papaver rhoeas</i> POLCO <i>Fallopia convolvulus</i> STEME <i>Stellaria media</i>
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	13 DAA, 28 DAA, 60 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	silt loam, Organic Matter -3,8 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Borów, Dolnoslaskie
	Application date	21.04.2022

Results:

FUMOF <i>Fumaria officinalis</i>		Assesment		
Product	Dose (L/ha)	13 DA-A	28 DA-A	60 DA-A
Upton 050 SC	0.1	0	0	0
Floras 50 SC	0.05	0	0	0
Floras 50 SC	0.08	0	0	0
Floras 50 SC	0.1	0	0	0

GALAP <i>Galium aparine</i>		Assesment		
Product	Dose (L/ha)	13 DA-A	28 DA-A	60 DA-A
Upton 050 SC	0.1	57.5	90	90
Floras 50 SC	0.05	25	45	45
Floras 50 SC	0.08	47.5	67.5	67.5
Floras 50 SC	0.1	57.5	90	90

MYOAR <i>Myosotis arvensis</i>		Assesment		
Product	Dose (L/ha)	13 DA-A	28 DA-A	60 DA-A
Upton 050 SC	0.1	81.3	100	100
Floras 50 SC	0.05	52.5	67.5	67.5
Floras 50 SC	0.08	72.5	90	90
Floras 50 SC	0.1	81.3	100	100

PAPRH <i>Papaver rhoeas</i>		Assesment		
Product	Dose (L/ha)	13 DA-A	28 DA-A	60 DA-A
Upton 050 SC	0.1	90	97.5	100
Floras 50 SC	0.05	72.5	80	80
Floras 50 SC	0.08	85	100	100
Floras 50 SC	0.1	90	100	100

POLCO <i>Fallopia convolvulus</i>		Assesment		
Product	Dose (L/ha)	13 DA-A	28 DA-A	60 DA-A

Upton 050 SC	0.1	92.5	95	97.5
Floras 50 SC	0.05	72.5	52.5	55
Floras 50 SC	0.08	82.5	82.5	95
Floras 50 SC	0.1	92.5	92.5	96.3

STEME <i>Stellaria media</i>		Assesment		
Product	Dose (L/ha)	13 DA-A	28 DA-A	60 DA-A
Upton 050 SC	0.1	87.5	100	100
Floras 50 SC	0.05	75	75	75
Floras 50 SC	0.08	73.8	95	95
Floras 50 SC	0.1	90	100	100

Conclusions:

From the data collected in this trial it is possible to give a reply to the key questions:

1. Test product Floras 50 SC was applied at three dose rates: 0.05, 0.08 and 0.1 L/ha. Reference product Upton 050 SC at 0.1 L/ha. One application was performed (A: 21/04/2022). Within this trial six broadleaves weeds were present: PAPRH (*Papaver rhoeas*), POLCO (*Fallopia convulvulus*), STEME (*Stellaria media*), GALAP (*Galium aparine*), FUMOF (*Fumaria officinalis*) and MYOAR (*Myosotis arvensis*).

Efficacy assessments:

13 DAA (days after application):

PAPRH- the best efficacy in test product and reference at dose rates 0.08 -0.1 L/ha (85-90%).

POLCO- the best efficacy in test product and reference at dose rate 0.1 L/ha (92.5%).

STEME- the best efficacy in test product and reference at dose rate 0.1 L/ha (87.5-90%).

GALAP- the best efficacy in test product and reference at dose rate (0.1 L/ha) (57.5%).

FUMOF- none of the treatments controlled FUMOF.

MYOAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (81.3%).

28 DAA assessment:

PAPRH- the best efficacy in test product and reference at dose rates 0.08- 0.1 L/ha (97.5-100%).

POLCO- the best efficacy in test product and reference at dose rate 0.1 L/ha (92.5-95%).

STEME- the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (95-100%).

GALAP- the best efficacy in test product and reference at dose rate 0.1 L/ha (90%).

FUMOF – none of the treatments controlled FUMOF

MYOAR- the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (90-100%).

60 DAA (before harvest) assessment:

PAPRH- the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (100%).

POLCO- the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (95-97.5%).

STEME- the best efficacy in test product and reference at dose rates (0.08-0.1 L/ha) (95-100%).

GALAP – the best efficacy in test product and reference at dose rate 0.1 L/ha (90%).

FUMOF – none of the treatments controlled FUMOF

MYOAR - the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (90-100%).

2. Efficacy of test product Floras 50 SC at 0.1 L/ha was at the same level as reference product Upton 050 SC at 0.1 L/ha.

3. The minimum effective dose rate of test product to control PAPRH, POLCO, STEME and MYOAR was 0.08 L/ha. The minimum effective dose rate to control GALAP was 0.1 L/ha.

4. No phytotoxicity symptoms recorded. No effects on non-target organisms were observed during this trial. No differences in crop vigor after application of test products in comparison to untreated.

Winter wheat

Study: SGS/2022/048/PL03

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	17,5 m ²

	Number of replications	4
Crop	Trials per crop	<i>Triticum aestivum</i>
	Varieties per crop	Joker
	Planting Date:	01.10.2021
Application	Crop stage (BBCH)* at application	BBCH 30
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	MATIN <i>Tripleurospermum inodorum</i> MYOAR <i>Myosotis arvensis</i> PAPRH <i>Papaver rhoeas</i> THLAR <i>Thlaspi arvense</i> VERPE <i>Veronica persica</i>
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 250 L/ha
Assessment	Assessment	14 DAA, 28 DAA, 54 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	silt loam, Organic Matter -1,9
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Grodków, Opolskie
	Application date	21.04.2022

Results:

MATIN <i>Tripleurospermum inodorum</i>		Assesment		
Product	Dose (100 L/ha)	14 DA-A	28 DA-A	54 DA-A
Upton 050 SC	0.1	88.8	96.3	93.8
Floras 50 SC	0.05	72.5	80	80
Floras 50 SC	0.08	87.5	95	95
Floras 50 SC	0.1	91.3	100	97.5

MYOAR <i>Myosotis arvensis</i>		Assesment		
Product	Dose (100 L/ha)	14 DA-A	28 DA-A	54 DA-A
Upton 050 SC	0.1	82.5	100	100
Floras 50 SC	0.05	47.5	65	65
Floras 50 SC	0.08	75	91.3	88.8
Floras 50 SC	0.1	82.5	100	100

PAPRH <i>Papaver rhoeas</i>		Assesment		
Product	Dose (100 L/ha)	14 DA-A	28 DA-A	54 DA-A
Upton 050 SC	0.1	85	90	98.8
Floras 50 SC	0.05	32.5	45	67.5
Floras 50 SC	0.08	72.5	57.5	82.5
Floras 50 SC	0.1	86.3	92.5	100

THLAR <i>Thlaspi arvense</i>		Assesment		
Product	Dose (100 L/ha)	14 DA-A	28 DA-A	54 DA-A
Upton 050 SC	0.1	75	96.5	95
Floras 50 SC	0.05	55	55	50
Floras 50 SC	0.08	65	78.8	75
Floras 50 SC	0.1	77.5	98.8	98.8

VERPE <i>Veronica persica</i>		Assesment		
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Product	Dose (L/ha)	14 DA-A	28 DA-A	54 DA-A
Upton 050 SC	0.1	67.5	70	72.5
Floras 50 SC	0.05	32.5	20	22.5
Floras 50 SC	0.08	52.5	47.5	50
Floras 50 SC	0.1	72.5	72.5	72.5

Conclusions:

From the data collected in this trial it is possible to give a reply to the key questions:

1. Test product Floras 50 SC was applied at three dose rates: 0.05, 0.08 and 0.1 L/ha. Reference product Upton 050 SC at 0.1 L/ha. One application was performed (A: 21/04/2022). Within this trial five broadleaves' weeds were present: MATIN (*Tripleurospermum inodorum*), THLAR (*Thlaspi arvense*), PAPRH (*Papaver rhoeas*), MYOAR (*Myosotis arvensis*) and VERPE (*Veronica persica*).

Efficacy assessments:

14 DAA (days after application):

MATIN- the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (87.5-91.3%).

THLAR - the best efficacy in test product and reference at dose rate 0.1 L/ha (75-77.5%).

PAPRH- the best efficacy in test product and reference at dose rate 0.1 L/ha (85-86.3%).

MYOAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (82.5%).

VERPE- the best efficacy in test product and reference at dose rate 0.1 L/ha (67.5-72.5%).

28 DAA assessment:

MATIN - the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (95-100%).

THLAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (96.5-98.8%).

PAPRH- the best efficacy in test product and reference at dose rate 0.1 L/ha (90-92.5%).

MYOAR- the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (91.3-100%)

VERPE- the best efficacy in test product and reference at dose rate 0.1 L/ha (70-72.5%)

54 DAA (before harvest) assessment:

MATIN - the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (95-97.5%).

THLAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (95-98.8%).

PAPRH- the best efficacy in test product and reference at dose rate 0.1 L/ha (98.8-100%).

MYOAR - the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (88.8-100%).

VERPE - the best efficacy in test product and reference at dose rate 0.1 L/ha (72.5%).

2. Efficacy of test product Floras 50 SC at 0.1 L/ha was at the same level as reference product Upton 050 SC at 0.1 L/ha.

3. The minimum effective dose rate of test product to control MATIN and MYOAR was 0.08 L/ha. The minimum effective dose rate of test product to control THLAR and PAPRH was 0.1 L/ha. Maximum efficacy control of VERPE was 72.5% by test product and reference at dose rate 0.1 L/ha.

4. No phytotoxicity symptoms recorded. No effects on non-target organisms were observed during this trial. No differences in crop vigor after application of test products in comparison to untreated.

Winter wheat

Study: SGS/2022/048/PL04

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	15,0 m ²
	Number of replications	4
Crop	Trials per crop	<i>Triticum aestivum</i>
	Varieties per crop	Apostel
	Planting Date:	22.10.2020
Application	Crop stage (BBCH) at application	BBCH 25
	Timing Pest stage at application (+)	GALAP <i>Galium aparine</i> PAPRH <i>Papaver rhoeas</i>

	Weed species occurred in the trial at the application	POLCO <i>Fallopia convolvulus</i> STEME <i>Stellaria media</i>
	Number of applications Intervals between applications	1 Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	13 DAA, 28 DAA, 60 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	silt loam, Organic Matter -3,6 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Strzelin, Dolnoslaskie
	Application date	21.04.2022

Results:

GALAP <i>Galium aparine</i>		Assesment		
Product	Dose (L/ha)	13 DA-A	28 DA-A	60 DA-A
Upton 050 SC	0.1	85	92.5	100
Floras 50 SC	0.05	50	55	70
Floras 50 SC	0.08	67.5	77.5	100
Floras 50 SC	0.1	85	95	100

PAPRH <i>Papaver rhoeas</i>		Assesment		
Product	Dose (L/ha)	13 DA-A	28 DA-A	60 DA-A
Upton 050 SC	0.1	87.5	100	100
Floras 50 SC	0.05	65	80	80
Floras 50 SC	0.08	87.5	100	97.5
Floras 50 SC	0.1	88.8	100	100

POLCO <i>Fallopia convolvulus</i>		Assesment		
Product	Dose (L/ha)	13 DA-A	28 DA-A	60 DA-A
Upton 050 SC	0.1	85	100	87.5
Floras 50 SC	0.05	57.5	70	62.5
Floras 50 SC	0.08	77.5	97.5	90
Floras 50 SC	0.1	85	97.5	97.5

STEME <i>Stellaria media</i>		Assesment		
Product	Dose (L/ha)	13 DA-A	28 DA-A	60 DA-A
Upton 050 SC	0.1	85	97.5	96.3
Floras 50 SC	0.05	52.5	62.5	65
Floras 50 SC	0.08	81.3	88.8	91.3
Floras 50 SC	0.1	86.3	98.8	96.3

Conclusions:

From the data collected in this trial it is possible to give a reply to the key questions:

1. Test product Floras 50 SC was applied at three dose rates: 0.05, 0.08 and 0.1 L/ha. Reference product Upton 050 SC at 0.1 L/ha. One application was performed (A: 21/04/2022). Within this trial four broadleaves weeds were present: PAPRH (Papaver rhoeas), POLCO (Fallopia convolvulus), STEME (Stellaria media) and GALAP (Galium aparine).

Efficacy assessments:

13 DAA (days after application):

GALAP- the best efficacy in test product and reference at dose rate 0.1 L/ha (85%).
POLCO - the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (77.5-85%).
PAPRH- the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (87.5-88.8%).
STEME- the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (81.3-86.3%).

28 DAA assessment:

GALAP - the best efficacy in test product and reference at dose rate 0.1 L/ha (92.5-95%).
POLCO- the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (97.5-100%).
PAPRH- the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (100%).
STEME- the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (88.8-98.8%)

60 DAA (before harvest) assessment:

GALAP - the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (100%).
POLCO- the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (87.5-97.5%).
PAPRH- the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (97.5-100%).
STEME - the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (91.3-96.3%).

2. Efficacy of test product Floras 50 SC at 0.1 L/ha was at the same level as reference product Upton 050 SC at 0.1 L/ha.

3. The minimum effective dose rate of test product to control POLCO, PAPRH, STEME and GALAP was 0.08 L/ha.

4. No phytotoxicity symptoms recorded. No effects on non-target organisms were observed during this trial. No differences in crop vigor after application of test products in comparison to untreated.

Winter wheat

Study: SGS/2022/048/PL05

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	15,0 m ²
	Number of replications	4
Crop	Trials per crop	<i>Triticum aestivum</i>
	Varieties per crop	Ahoj
	Planting Date:	23.10.2021
Application	Crop stage (BBCH) at application	BBCH 30
	Timing Pest stage at application (+) Weed species occurred in the trial at the application	GALAP <i>Galium aparine</i> PAPRH <i>Papaver rhoeas</i> THLAR <i>Thlaspi arvense</i> VERPE <i>Veronica persica</i> VIOAR <i>Viola arvensis</i>
	Number of applications Intervals between applications	1 Not applicable
	Spray volumes	300 L/ha
	Assessment	14 DAA, 21 DAA, 54 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	silt loam, Organic Matter -2,8 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Wiązów, Dolnoslaskie
	Application date	21.04.2022

Results:

GALAP <i>Galium aparine</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	21 DA-A	54 DA-A
Upton 050 SC	0.1	82.5	91.3	92.5

Floras 50 SC	0.05	37.5	42.5	35
Floras 50 SC	0.08	55	57.5	71.3
Floras 50 SC	0.1	86.3	100	96.3

PAPRH <i>Papaver rhoeas</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	21 DA-A	54 DA-A
Upton 050 SC	0.1	83.8	87.5	96.3
Floras 50 SC	0.05	37.5	42.5	70
Floras 50 SC	0.08	72.5	55	81.3
Floras 50 SC	0.1	83.8	87.5	100

THLAR <i>Thlaspi arvense</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	21 DA-A	54 DA-A
Upton 050 SC	0.1	75	91.3	100
Floras 50 SC	0.05	50	50	55
Floras 50 SC	0.08	65	78.8	83.3
Floras 50 SC	0.1	75	100	100

VERPE <i>Veronica persica</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	21 DA-A	54 DA-A
Upton 050 SC	0.1	70	52.5	50
Floras 50 SC	0.05	17.5	0	0
Floras 50 SC	0.08	47.5	27.5	0
Floras 50 SC	0.1	60	57.5	60

VIOAR <i>Viola arvensis</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	21 DA-A	54 DA-A
Upton 050 SC	0.1	60	47.5	55
Floras 50 SC	0.05	25	0	0
Floras 50 SC	0.08	55	17.5	0
Floras 50 SC	0.1	60	50	50

Conclusions:

From the data collected in this trial it is possible to give a reply to the key questions:

1. Test product Floras 50 SC was applied at three dose rates: 0.05, 0.08 and 0.1 L/ha. Reference product Upton 050 SC at 0.1 L/ha. One application was performed (A: 21/04/2022). Within this trial five broadleaves weeds were present: PAPRH (Papaver rhoeas), VIOAR (Viola arvensis), VERPE (Veronica persica), THLAR (Thlaspi arvense) and GALAP (Galium aparine).

Efficacy assessments:

14 DAA (days after application):

PAPRH- the best efficacy in test product and reference at dose rate 0.1 L/ha (83.8%).

VIOAR- the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (55-60%).

VERPE- the best efficacy in test product and reference at dose rate 0.1 L/ha (60-70%).

THLAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (75%).

GALAP- the best efficacy in test product and reference at dose rate 0.1 L/ha (82.5-86.3%).

21 DAA assessment:

PAPRH - the best efficacy in test product and reference at dose rate 0.1 L/ha (87.5%).

VIOAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (47.5-50%).

VERPE- the best efficacy in test product and reference at dose rate 0.1 L/ha (52.5-57.5%).

THLAR- the best efficacy in test product at dose rate 0.1 L/ha (100%).

GALAP - the best efficacy in test product at dose rate 0.1 L/ha (100%).

54 DAA (before harvest) assessment:

- PAPRH - the best efficacy in test product and reference at dose rate 0.1 L/ha (96.3-100%).
VIOAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (50-55%).
VERPE- the best efficacy in test product and reference at dose rate 0.1 L/ha (50-60%).
THLAR – . the best efficacy in test product and reference at dose rate 0.1 L/ha (100%).
GALAP - the best efficacy in test product and reference at dose rate 0.1 L/ha (92.5-96.3%).
2. Efficacy of test product Floras 50 SC at 0.1 L/ha was at the same level as reference product Upton 050 SC at 0.1 L/ha.
3. The minimum effective dose rate of test product to control PAPRH, THLAR and GALAP was 0.1 L/ha. None of the trial treatments controlled VERPE and VIOAR.
4. No phytotoxicity symptoms recorded. No effects on non-target organisms were observed during this trial. No differences in crop vigor after application of test products in comparison to untreated.

Winter wheat

Study: NUZ 07/22/1

Guidelines	Guidelines	PP 1/225(2), PP 1/214 (4), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	25,5 m ²
	Number of replications	4
Crop	Trials per crop	<i>Triticum aestivum</i>
	Varieties per crop	RTG Kilimangaro
	Planting Date:	04.10.2021
Application	Crop stage (BBCH) at application	BBCH 27
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	PAPRH <i>Papaver rhoeas</i> – BBCH 21 CAPBP <i>Capsella bursa pastoris</i> - BBCH 24 BRANA BRSNW <i>Brasica napus</i> – BBCH 27 MATIN <i>Matricaria inodora</i> - BBCH 24 STEME <i>Stellaria media</i>) - BBCH 24 THLAR <i>Thlaspi arvense</i> – BBCH 23 GALAP <i>Galium aparine</i> – BBCH 28
	Number of applications Intervals between applications	1 Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	23 26 DAA, 49 52 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	Albic luvisol soil, good rye soil complex, class III a
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	RZD Kępa, Kępa Osiny, Lubelskie
	Application date	15.04.2022

Results:

BRANA BRSNW (<i>Brasica napus</i>)		Assesment	
Product	Dose (l/ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	85	92
Floras 50 SC	0.05	70	70
Floras 50 SC	0.08	84	85
Floras 50 SC	0.1	88	92

CAPBP (<i>Capsella bursa pastoris</i>)		Assesment	
Product	Dose (lit / ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	88	90
Floras 50 SC	0.05	70	70
Floras 50 SC	0.08	84	85
Floras 50 SC	0.1	85	92

GALAP (<i>Galium aparine</i>)		Assesment	
Product	Dose (lit / ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	87	87
Floras 50 SC	0.05	68	70
Floras 50 SC	0.08	80	80
Floras 50 SC	0.1	86	86

MATIN (<i>Matricaria inodora</i>)		Assesment	
Product	Dose (lit / ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	88	93
Floras 50 SC	0.05	69	72
Floras 50 SC	0.08	85	85
Floras 50 SC	0.1	88	94

PAPRH (<i>Papaver rhoeas</i>)		Assesment	
Product	Dose (lit / ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	88	90
Floras 50 SC	0.05	70	71
Floras 50 SC	0.08	84	85
Floras 50 SC	0.1	88	90

STEME (<i>Stellaria media</i>)		Assesment	
Product	Dose (litr/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	86	93
Floras 50 SC	0.05	68	70
Floras 50 SC	0.08	82	86
Floras 50 SC	0.1	88	92

THLAR (<i>Thlaspi arvense</i>)		Assesment	
Product	Dose (lit / ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	88	90
Floras 50 SC	0.05	68	70
Floras 50 SC	0.08	86	86
Floras 50 SC	0.1	86	92

Conclusions:

- 1) Floras 50 SC applied in dose 0.08 L/ha showed efficacy against weeds present in winter wheat canopy on level 80-86% depending on weed species.
- 2) Floras 50 SC applied in dose 0.1 L/ha shows very high efficacy (above 85%) against all weeds growing in winter wheat i.e. PAPRH, CAPBP, ~~BRANA~~ ~~BRSNW~~, MATIN, STEME, THLAR, GALAP.
- 3) The effectiveness of Floras 50 SC was similar to the standard herbicide.
- 4) An adverse or unexpected effect of the investigated plant protection products on the beneficial organisms or other ones which were not controlled was not observed.

Winter wheat

Study: NUZ 07/22/2

Guidelines	Guidelines	PP 1/225(2), PP 1/214 (4), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	25,5 m ²
	Number of replications	4
Crop	Trials per crop	<i>Triticum aestivum</i>
	Varieties per crop	Linus
	Planting Date:	07.10.2021
Application	Crop stage (BBCH) at application	BBCH 27
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	MYOAR <i>Myositis arvensis</i> –BBCH 21 CAPBP <i>Capsella bursa pastoris</i> –BBCH 24 BRANA BRSNW <i>Brasica napus</i> –BBCH 27 STEME <i>Stellaria media</i> –BBCH 24 THLAR <i>Thlaspi arvense</i> –BBCH 23 SINAR <i>Sinapis arvensis</i> –BBCH 28
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	23 26 DAA, 49 52 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	Albic luvisol soil, good rye soil complex, class III a
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	RZD Kępa, Kępa Osiny, Lubelskie
	Application date	15.04.2022

Results:

BRANA BRSNW (<i>Brasica napus</i>)		Assesment	
Product	Dose (L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	92	96
Floras 50 SC	0.05	80	84
Floras 50 SC	0.08	86	86
Floras 50 SC	0.1	92	94

CAPBP (<i>Capsella bursa pastoris</i>)		Assesment	
Product	Dose (L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	92	98
Floras 50 SC	0.05	80	84
Floras 50 SC	0.08	86	86
Floras 50 SC	0.1	92	100

MYOAR (<i>Myositis arvensis</i>)		Assesment	
Product	Dose (L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	88	94
Floras 50 SC	0.05	80	82
Floras 50 SC	0.08	86	86
Floras 50 SC	0.1	90	93

SINAR (<i>Sinapis arvensis</i>)		Assesment	
Product	Dose (L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	90	98
Floras 50 SC	0.05	80	82
Floras 50 SC	0.08	86	86
Floras 50 SC	0.1	90	100

STEME (<i>Stellaria media</i>)		Assesment	
Product	Dose (L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	92	90
Floras 50 SC	0.05	78	82
Floras 50 SC	0.08	82	84
Floras 50 SC	0.1	90	90

THLAR (<i>Thlaspi arvense</i>)		Assesment	
Product	Dose (L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	92	98
Floras 50 SC	0.05	80	82
Floras 50 SC	0.08	86	85
Floras 50 SC	0.1	88	98

Conclusions:

- 1) Floras 50 SC applied in dose 0.08 L/ha showed efficacy against weeds present in winter wheat canopy on level 84-86% depending on weed species.
- 2) Floras 50 SC applied in dose 0.1 L/ha shows very high efficacy (above 90%) against all weeds growing in winter wheat i.e. MYOAR, CAPBP, BRANA, BRSNW, STEME, THLAR, SINAR.
- 3) The effectiveness of Floras 50 SC was similar to the standard herbicide.
- 4) An adverse or unexpected effect of the investigated plant protection products on the beneficial organisms or other ones which were not controlled was not observed.

Winter wheat

Study: NUZ 07/22/3

Guidelines	Guidelines	PP 1/225(2), PP 1/214 (4), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	25,5 m ²
	Number of replications	4
Crop	Trials per crop	<i>Triticum aestivum</i>
	Varieties per crop	Euforia
	Planting Date:	11.10.2021
Application	Crop stage (BBCH) at application	BBCH 27
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	PAPRH <i>Papaver rhoeas</i> –BBCH 24 CAPBP <i>Capsella bursa pastoris</i> - BBCH 24 VERPE <i>Veronica persica</i> —BBCH 27 STEME <i>Stellaria media</i> –BBCH 24 SINAR <i>Sinapis arvensis</i> –BBCH 23 CHEAL <i>Chenopodium album</i> BBCH 28
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	23 26 DAA, 49 52 DAA

Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	Fluvic Cambisols, good eye wheat soil complex, class III a
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	RZD Kępa, Kępa, Lubelskie
	Application date	15.04.2022

Results:

CHEAL (<i>Chenopodium album</i>)		Assesment	
Product	Dose (117/ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	84	86
Floras 50 SC	0.05	65	76
Floras 50 SC	0.08	75	78
Floras 50 SC	0.1	81	86

CAPBP (<i>Capsella bursa pastoris</i>)		Assesment	
Product	Dose (117/ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	80	86
Floras 50 SC	0.05	65	75
Floras 50 SC	0.08	72	86
Floras 50 SC	0.1	80	88

PAPRH (<i>Papaver rhoeas</i>)		Assesment	
Product	Dose (117/ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	90 80	98.8 86
Floras 50 SC	0.05	45 65	67.5 75
Floras 50 SC	0.08	57.5 72	82.5 85
Floras 50 SC	0.1	92.5 78	100 88

SINAR (<i>Sinapis arvensis</i>)		Assesment	
Product	Dose (117/ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	82	85
Floras 50 SC	0.05	67	75
Floras 50 SC	0.08	73	86
Floras 50 SC	0.1	81	86

STEME (<i>Stellaria media</i>)		Assesment	
Product	Dose (117/ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	82	85
Floras 50 SC	0.05	66	76
Floras 50 SC	0.08	73	86
Floras 50 SC	0.1	80	87

VERPE (<i>Veronica persica</i>)		Assesment	
Product	Dose (117/ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	80	85
Floras 50 SC	0.05	65	77
Floras 50 SC	0.08	73	86
Floras 50 SC	0.1	80	88

Conclusions:

- 1) Floras 50 SC applied in dose 0.08 L/ha showed efficacy against weeds present in winter wheat canopy on level 78-86% depending on weed species.
- 2) Floras 50 SC applied in dose 0.1 L/ha shows very high efficacy (above 85%) against all weeds growing in winter wheat i.e. PAPRH, CAPBP, VERPE, STEME, SINAR, CHEAL.
- 3) The effectiveness of Floras 50 SC was similar to the standard herbicide.
- 4) An adverse or unexpected effect of the investigated plant protection products on the beneficial organisms or other ones which were not controlled was not observed.

Winter wheat

Study: NUZ 07/22/4

Guidelines	Guidelines	PP 1/225(2), PP 1/214 (4), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	25,5 m ²
	Number of replications	4
Crop	Trials per crop	<i>Triticum aestivum</i>
	Varieties per crop	Plejada
	Planting Date:	11.10.2021
Application	Crop stage (BBCH) at application	BBCH 27
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	MYOAR <i>Myositis arvensis</i> –BBCH 24 CAPBP <i>Capsella bursa pastoris</i> - BBCH 24 BRANA <i>BRSNW Brasica napus</i> – BBCH 27 MATIN <i>Matricaria inodora</i> <i>Tripleurospermum inodorum</i> –BBCH 24 SONAR <i>Sonchus arvensis</i> –BBCH 24 DESSO <i>Descurainia sophia</i> –BBCH 23 FALCO <i>POLCO Fallopia convolvulus</i> –BBCH 28
	Number of applications Intervals between applications	1 Not applicable
	Spray volumes	300 L/ha
	Assessment	23 26 DAA, 49 52 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	Fluvic Cambisols, good eye wheat soil complex, class III a
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	RZD Kępa, Kępa, Lubelskie
	Application date	15.04.2022

Results:

BRANA BRSNW (<i>Brasica napus</i>)		Assesment	
Product	Dose (L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	80	90
Floras 50 SC	0.05	75	80
Floras 50 SC	0.08	82	90
Floras 50 SC	0.1	84	91

CAPBP (<i>Capsella bursa pastoris</i>)		Assesment	
Product	Dose (L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	82	95

Floras 50 SC	0.05	75	78
Floras 50 SC	0.08	80	90
Floras 50 SC	0.1	80	94

DESSO (<i>Descurainia sophia</i>)		Assesment	
Product	Dose (litre L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	84	90
Floras 50 SC	0.05	75	80
Floras 50 SC	0.08	80	85
Floras 50 SC	0.1	84	92

FALCO POLCO (<i>Fallopia convolvulus</i>)		Assesment	
Product	Dose (litre L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	82	82
Floras 50 SC	0.05	70	74
Floras 50 SC	0.08	80	80
Floras 50 SC	0.1	82	82

MATIN (<i>Matricaria inodora</i>) Tripleurospermum inodorum		Assesment	
Product	Dose (litre L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	84	91
Floras 50 SC	0.05	72	81
Floras 50 SC	0.08	80	84
Floras 50 SC	0.1	84	92

MYOAR (<i>Myositis arvensis</i>)		Assesment	
Product	Dose (litre L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	84	91
Floras 50 SC	0.05	76	78
Floras 50 SC	0.08	80	86
Floras 50 SC	0.1	84	90

SONAR (<i>Sonchus arvensis</i>)		Assesment	
Product	Dose (litre L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	85	92
Floras 50 SC	0.05	72	81
Floras 50 SC	0.08	80	85
Floras 50 SC	0.1	84	92

Conclusions:

- 1) Floras 50 SC applied in dose 0.08 L/ha showed efficacy against weeds present in winter wheat canopy on level 80-90% depending on weed species.
- 2) Floras 50 SC applied in dose 0.1 L/ha shows very high efficacy (above 90%) against MYOAR, CAPBP, ~~BRANA~~ **BRSNW**, MATIN, SONAR and DESSO, and ~~average (82%)~~ against ~~FALCO~~ **POLCO**.
- 3) The effectiveness of Floras 50 SC was similar to the standard herbicide.
- 4) An adverse or unexpected effect of the investigated plant protection products on the beneficial organisms or other ones which were not controlled was not observed.

Winter wheat

Study: NUZ 07/22/5

Guidelines	Guidelines	PP 1/225(2); PP 1/214 (4) , PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	25,5 m ²
	Number of replications	4
Crop	Trials per crop	<i>Triticum aestivum</i>
	Varieties per crop	Plejada
	Planting Date:	11.10.2021
Application	Crop stage (BBCH) at application	BBCH 27
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	DESSO <i>Descurainia sophia</i> – BBCH 23 FALCO POLCO (<i>Fallopia convolvulus</i> – BBCH 28 BRANA BRSNW (<i>Brasica napus</i> – BBCH 27 MATIN <i>Matricaria inodora</i> Tripleurospermum inodorum) – BBCH 24 STEME <i>Stellaria media</i> – BBCH 24 THLAR <i>Thlaspi arvense</i> – BBCH 23 GALAP <i>Galium aparine</i> – BBCH 28
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	23 26 DAA, 49 52 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	Albic luvisol soil, good rye soil complex, class III a
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	RZD Kępa, Kępa Pulki , Lubelskie
	Application date	15.04.2022

Results:

BRANA BRSNW (<i>Brasica napus</i>)		Assesment	
Product	Dose (litre/ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	82	98
Floras 50 SC	0.05	68	88
Floras 50 SC	0.08	78	96
Floras 50 SC	0.1	84	98

DESSO (<i>Descurainia sophia</i>)		Assesment	
Product	Dose (litre/ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	84	98
Floras 50 SC	0.05	68	86
Floras 50 SC	0.08	80	90
Floras 50 SC	0.1	84	100

FALCO POLCO (<i>Fallopia convolvulus</i>)		Assesment	
Product	Dose (litre/ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	84	98
Floras 50 SC	0.05	68	80
Floras 50 SC	0.08	80	84
Floras 50 SC	0.1	84	85

GALAP (<i>Galium aparine</i>)		Assesment	
Product	Dose (lit /ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	84	96
Floras 50 SC	0.05	70	85
Floras 50 SC	0.08	82	86
Floras 50 SC	0.1	84	90

MATIN (Matricaria inodora <i>Tripleurospermum inodorum</i>)		Assesment	
Product	Dose (lit /ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	82	100
Floras 50 SC	0.05	70	88
Floras 50 SC	0.08	78	96
Floras 50 SC	0.1	86	98

STEME (<i>Stellaria media</i>)		Assesment	
Product	Dose (lit /ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	82	100
Floras 50 SC	0.05	70	85
Floras 50 SC	0.08	80	96
Floras 50 SC	0.1	88	98

THLAR (<i>Thlaspi arvense</i>)		Assesment	
Product	Dose (lit /ha L/ha)	23 26 DAA	49 52 DA-A
Upton 050 SC	0.1	82	96
Floras 50 SC	0.05	70	85
Floras 50 SC	0.08	82	88
Floras 50 SC	0.1	84	96

Conclusions:

- 1) Floras 50 SC applied in dose 0.08 L/ha showed efficacy against weeds present in winter wheat canopy on level 84-96% depending on weed species.
- 2) Floras 50 SC applied in dose 0.1 L/ha shows very high efficacy (above 85%) against all weeds growing in winter wheat i.e. DESSO, ~~FALCO~~ POLCO, ~~BRANA~~ BRSNW, MATIN, STEME, THLAR and GALAP.
- 3) The effectiveness of *Floras 50 SC* was similar to the standard herbicide.
- 4) An adverse or unexpected effect of the investigated plant protection products on the beneficial organisms or other ones which were not controlled was not observed

Comments of zRMS:

The appropriate tables with compilation of efficacy trial results according to the dRR, part B3 template are presented in zRMS commenting box at the end of the chapter 3.2.3 Efficacy tests.

Efficacy of Floras 50 SC against concrete weeds – use in Winter wheat:

ANTAR					
-	Dose [l/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	48.8	86.2	100.0	78.3
Floras 50 SC	0.05	32.6	63.2	78.3	58.0
Floras 50 SC	0.08	42.5	83.9	100.0	75.5
Floras 50 SC	0.1	48.8	86.3	100.0	78.4

ANTAR					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	48.8	86.2	100.0	78.3
Floras 50 SC	0.05	32.6	63.2	78.3	58.0
Floras 50 SC	0.08	42.5	83.9	100.0	75.5
Floras 50 SC	0.1	48.8	86.3	100.0	78.4

BRNSW					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	48.8	86.4	96.0	77.1
Floras 50 SC	0.05	35.7	69.2	79.6	61.5
Floras 50 SC	0.08	46.9	81.7	89.7	72.8
Floras 50 SC	0.1	49.4	88.7	95.8	78.0

CAPBP					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	47.1	83.5	90.3	73.6
Floras 50 SC	0.05	30.8	62.5	66.6	53.3
Floras 50 SC	0.08	41.3	74.4	80.5	65.4
Floras 50 SC	0.1	47.9	82.5	91.2	73.9

CENCY					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	33.8	70.0	71.3	58.4
Floras 50 SC	0.05	10.0	35.0	40.0	28.3
Floras 50 SC	0.08	27.5	58.8	60.0	48.8
Floras 50 SC	0.1	32.5	72.5	73.8	59.6

CHEAL					
-	Dose [litr/ha]	-	2-Assess	3-Assess	Average
Upton 050 SC	0.1	-	84.0	86.0	85.0
Floras 50 SC	0.05	-	65.0	76.0	70.5
Floras 50 SC	0.08	-	75.0	78.0	76.5
Floras 50 SC	0.1	-	81.0	86.0	83.5

DESSO					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	39.4	79.5	89.7	69.5
Floras 50 SC	0.05	27.6	57.0	66.8	50.5
Floras 50 SC	0.08	33.8	73.8	80.3	62.6
Floras 50 SC	0.1	39.4	80.5	91.2	70.3

FALCO					
-	Dose [litr/ha]	-	2-Assess	3-Assess	Average
Upton 050 SC	0.1	-	83.0	90.0	86.5
Floras 50 SC	0.05	-	69.0	77.0	73.0
Floras 50 SC	0.08	-	80.0	82.0	81.0

Floras 50 SC	0.1	-	83.0	83.5	83.3
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FUMOF

-	Dose [ltr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	0.0	0.0	0.0	0.0
Floras 50 SC	0.05	0.0	0.0	0.0	0.0
Floras 50 SC	0.08	0.0	0.0	0.0	0.0
Floras 50 SC	0.1	0.0	0.0	0.0	0.0

GALAP

-	Dose [ltr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	60.8	85.1	90.4	78.8
Floras 50 SC	0.05	36.3	53.4	60.5	50.0
Floras 50 SC	0.08	49.4	69.8	79.2	66.1
Floras 50 SC	0.1	61.9	86.5	90.4	79.6

GERPU

-	Dose [ltr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	43.8	72.8	82.8	66.5
Floras 50 SC	0.05	28.8	41.3	51.3	40.5
Floras 50 SC	0.08	33.8	60.0	69.3	54.4
Floras 50 SC	0.1	41.3	75.8	84.0	67.0

LAMAM

-	Dose [ltr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	55.0	30.0	30.0	38.3
Floras 50 SC	0.05	35.0	0.0	0.0	11.7
Floras 50 SC	0.08	45.0	7.5	0.0	17.5
Floras 50 SC	0.1	55.0	32.5	32.5	40.0

LITAR

-	Dose [ltr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	52.5	79.8	100.0	77.4
Floras 50 SC	0.05	40.0	40.0	76.8	52.3
Floras 50 SC	0.08	47.5	63.3	92.8	67.9
Floras 50 SC	0.1	53.8	81.5	100.0	78.4

MATIN

-	Dose [ltr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	65.4	88.6	95.5	83.2
Floras 50 SC	0.05	53.8	72.2	77.5	67.8
Floras 50 SC	0.08	63.1	83.7	89.4	78.7
Floras 50 SC	0.1	67.2	90.3	96.7	84.7

MYOAR

-	Dose [ltr/ha]	1-Assess	2-Assess	3-Assess	Average
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Upton 050 SC	0.1	71.7	93.5	97.0	87.4
Floras 50 SC	0.05	45.8	69.9	76.6	64.1
Floras 50 SC	0.08	65.8	85.0	90.2	80.3
Floras 50 SC	0.1	71.7	93.8	96.6	87.4

PAPRH

-	Dose [litr/ha]	1 Assess	2 Assess	3 Assess	Average
Upton 050 SC	0.1	75.0	87.5	93.4	85.3
Floras 50 SC	0.05	46.5	62.3	71.2	60.0
Floras 50 SC	0.08	69.6	75.6	85.5	76.9
Floras 50 SC	0.1	75.9	88.5	93.8	86.0

POLCO

-	Dose [litr/ha]	1 Assess	2 Assess	3 Assess	Average
Upton 050 SC	0.1	88.8	97.5	92.5	92.9
Floras 50 SC	0.05	65.0	61.3	58.8	61.7
Floras 50 SC	0.08	80.0	90.0	92.5	87.5
Floras 50 SC	0.1	88.8	95.0	96.9	93.6

SINAR

-	Dose [litr/ha]	-	2 Assess	3 Assess	Average
Upton 050 SC	0.1	-	86.0	91.5	88.8
Floras 50 SC	0.05	-	73.5	78.5	76.0
Floras 50 SC	0.08	-	79.5	86.0	82.8
Floras 50 SC	0.1	-	85.5	93.0	89.3

SONAR

-	Dose [litr/ha]	-	2 Assess	3 Assess	Average
Upton 050 SC	0.1	-	85.0	92.0	88.5
Floras 50 SC	0.05	-	72.0	81.0	76.5
Floras 50 SC	0.08	-	80.0	85.0	82.5
Floras 50 SC	0.1	-	84.0	92.0	88.0

STEME

-	Dose [litr/ha]	1 Assess	2 Assess	3 Assess	Average
Upton 050 SC	0.1	70.5	90.2	94.0	84.9
Floras 50 SC	0.05	52.5	66.5	73.2	64.1
Floras 50 SC	0.08	62.8	82.8	89.1	78.2
Floras 50 SC	0.1	72.8	91.0	94.4	86.0

THLAR

-	Dose [litr/ha]	1 Assess	2 Assess	3 Assess	Average
Upton 050 SC	0.1	62.0	88.2	93.7	81.3
Floras 50 SC	0.05	43.0	59.1	64.3	55.5
Floras 50 SC	0.08	55.8	79.0	81.6	72.1
Floras 50 SC	0.1	64.0	90.2	95.6	83.2

VERHE					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	38.8	74.3	82.0	65.0
Floras 50 SC	0.05	30.0	42.0	46.3	39.4
Floras 50 SC	0.08	37.5	68.0	73.8	59.8
Floras 50 SC	0.1	40.0	77.3	83.3	66.9

VERPE					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	60.3	68.7	71.7	66.9
Floras 50 SC	0.05	28.1	31.4	36.3	31.9
Floras 50 SC	0.08	48.1	52.5	51.9	50.8
Floras 50 SC	0.1	59.7	71.4	75.1	68.7

VIOAR					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	59.2	69.3	74.3	67.6
Floras 50 SC	0.05	29.2	28.5	29.2	28.9
Floras 50 SC	0.08	47.9	45.6	41.9	45.2
Floras 50 SC	0.1	60.9	74.6	78.4	71.3

Summary – Winter Wheat:

EPPO Code	Name	Identification of study	Number of studies	Average of efficiency [%]		
				0.05 ltr/ha	0.08 ltr/ha	0.1 ltr/ha
ANTAR	Anthemis arvensis	017-GP2022-02 017-GP2022-03	2	58	75,5	78,4
BRSNW	Brassica-napus	NUZ-07/22/1 NUZ-07/22/2 NUZ-07/22/4 NUZ-07/22/5 017-GP2022-01 017-GP2022-04	6	61,5	72,8	78
CAPBP	Capsella bursa-pastoris	017-GP2022-02 017-GP2022-03 017-GP2022-04 NUZ-07/22/1 NUZ-07/22/2 NUZ-07/22/3 NUZ-07/22/4	7	53,3	65,4	73,9
CENCY	Centaurea-cyanus	017-GP2022-03	1	28,3	48,8	59,6
CHEAL	Chenopodium album	NUZ-07/22/3	1	70,5	76,5	83,5
DESSO	Descurainia-sophia	017-GP2022-04 017-GP2022-05 NUZ-07/22/4 NUZ-07/22/5	4	50,5	62,5	70,3
FALCO	Fallopia convolvulus	NUZ-07/22/4 NUZ-07/22/5	2	73	81	83,3
FUMOF	Fumaria officinalis	SGS/2022/048/PL02	1	0	0	0
GALAP	Galium aparine	017-GP2022-01 017-GP2022-04 017-GP2022-05 SGS/2022/048/PL02 SGS/2022/048/PL04 SGS/2022/048/PL05 NUZ-07/22/1 NUZ-07/22/5	8	50	66,1	79,6
GERPU	Geranium pusillum	017-GP2022-02	1	40,5	54,4	67

EPPO Code	Name	Identification of study	Number of studies	Average of efficacy [%]		
				0.05 ltr/ha	0.08 ltr/ha	0.1 ltr/ha
LAMAM	Lamium amplexicaule	SGS/2022/048/PL01	1	11,7	17,5	40
LITAR	Buglossoides arvensis	017-GP2022-05	1	52,3	67,9	78,4
MATIN	Tripleurospermum inodorum	017-GP2022-01 017-GP2022-03 SGS/2022/048/PL01 SGS/2022/048/PL03 NUZ-07/22/1 NUZ-07/22/4 NUZ-07/22/5	7	67,8	78,7	84,7
MYOAR	Myosotis arvensis	017-GP2022-03 SGS/2022/048/PL02 SGS/2022/048/PL03 NUZ-07/22/2 NUZ-07/22/4	5	64,1	80,3	87,4
PAPRH	Papaver rhoeas	017-GP2022-03 017-GP2022-05 SGS/2022/048/PL02 SGS/2022/048/PL03 SGS/2022/048/PL04 SGS/2022/048/PL05 NUZ-07/22/1 NUZ-07/22/3	8	60	76,9	86
POLCO	Fallopia convolvulus	SGS/2022/048/PL02 SGS/2022/048/PL04	2	61,7	87,5	93,6
SINAR	Sinapis arvensis	NUZ-07/22/2 NUZ-07/22/3	2	76	82,8	89,3
SONAR	Sonchus arvensis	NUZ-07/22/4	1	76,5	82,5	88
STEME	Stellaria media	017-GP2022-01 017-GP2022-04 SGS/2022/048/PL01 SGS/2022/048/PL02 SGS/2022/048/PL04 NUZ-07/22/1 NUZ-07/22/3 NUZ-07/22/5	8	64,1	78,2	86
THLAR	Thlaspi arvense	017-GP2022-01 017-GP2022-05 SGS/2022/048/PL01 SGS/2022/048/PL03 SGS/2022/048/PL05 NUZ-07/22/1 NUZ-07/22/2 NUZ-07/22/5	8	55,5	72,1	83,2
VERHE	Veronica hederifolia	017-GP2022-02	1	39,4	59,8	66,9
VERPE	Veronica persica	017-GP2022-01 SGS/2022/048/PL01 SGS/2022/048/PL03 SGS/2022/048/PL05 NUZ-07/22/3	5	31,9	50,8	68,7
VIOAR	Viola arvensis	017-GP2022-02 SGS/2022/048/PL01 SGS/2022/048/PL05	3	28,9	45,2	71,3

Comments:

Some of weeds have a low average efficacy, but second and third assessment steps indicate appropriate efficacy. The effectiveness of Floras 50 SC at a dose of 0.1 ltr/ha is very close to the reference preparation Upton 050 SC for each weed.

Spring Barley

Study: 017-GP2022-06

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	17,5 m ²
	Number of replications	4
Crop	Trials per crop	<i>Hordeum vulgare</i>
	Varieties per crop	Trofeum
	Planting Date:	18.04.2022
Application	Crop stage (BBCH)® at application	BBCH 31
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	- GALAP <i>Galium aparine</i> with a density of 7.3 plants/m ² . - MATCH <i>Matricaria chamomilla</i> with a density of 5.5 plants/m ² . - POLAV <i>Polygonum aviculare</i> with a density of 7.5 plants/m ² . - POLCO <i>Fallopia convolvulus</i> with a density of 5.8 plants/m ² . - THLAR <i>Thlaspi arvense</i> with a density of 6 plants/m ² .
	Number of applications Intervals between applications	1 Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	14 DAA, 28 DAA, 56 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	sandy clay loam, Organic Matter -1,8 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Pakość, Kujawsko-Pomorskie
	Application date	04.06.2022

Results:

GALAP <i>Galium aparine</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	49 DA-A
Upton 050 SC	0.1	43.8	78.3	86.8
Floras 50 SC	0.05	33.8	42.5	56.3
Floras 50 SC	0.08	38.8	65.5	76.3
Floras 50 SC	0.1	42.5	78	87.3

MATCH <i>Matricaria chamomilla</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	49 DA-A
Upton 050 SC	0.1	41.3	90	100
Floras 50 SC	0.05	28.8	61.3	71.8
Floras 50 SC	0.08	36.3	79.3	87.5
Floras 50 SC	0.1	42.5	90.5	100

POLAV <i>Polygonum aviculare</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	49 DA-A
Upton 050 SC	0.1	38.8	86.3	100
Floras 50 SC	0.05	31.3	58	75
Floras 50 SC	0.08	33.8	80.8	89.5
Floras 50 SC	0.1	37.5	88.3	100

POLCO <i>Fallopia convolvulus</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	49 DA-A

Upton 050 SC	0.1	43.8	88.5	100
Floras 50 SC	0.05	36.3	55	78.3
Floras 50 SC	0.08	40	82.5	100
Floras 50 SC	0.1	45	86.3	100

THLAR <i>Thlaspi arvense</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	49 DA-A
Upton 050 SC	0.1	36.3	78	83.8
Floras 50 SC	0.05	25	45	55
Floras 50 SC	0.08	31.3	67	76.3
Floras 50 SC	0.1	37.5	78.8	85.5

Conclusions:

1. FLORAS at 0.1 L/ha provided moderate to good levels of control against all the evaluated weed species at assessment 28 DA-A.
2. Dose response among rates was clearly visible.
3. FLORAS at 0.1 L/ha showed comparable efficacy to the reference of UPTON 50 SC.
4. All treatments can be considered safe when applied in Spring Barley (cv. Trofeum).
5. No phytotoxicity symptoms recorded, no differences in crop vigor after application of test products in comparison to untreated.
6. No effect on other pests or non-target organisms was observed.
7. No factors have negatively affected the course and quality of a trial.

Spring Barley

Study: 017-GP2022-07

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	17,5 m ²
	Number of replications	4
Crop	Trials per crop	<i>Hordeum vulgare</i>
	Varieties per crop	Wirtuoz
	Planting Date:	26.04.2022
Application	Crop stage (BBCH) at application	BBCH 23
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	- ANTAR <i>Anthemis arvensis</i> with a density of 8.5 plants/m ² - CHEAL <i>Chenopodium album</i> with a density of 7.5 plants/m ² - CONAR <i>Convolvulus arvensis</i> with a density of 5.5 plants/m ² - GAETE <i>Galeopsis tetrahit</i> with a density of 6.3 plants/m ² - MATIN <i>Tripleurospermum inodorum</i> with a density of 6 plants/m ²
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	14 DAA, 28 27 DAA, 49 48 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	clay loam, Organic Matter -1,7 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Blonie, Mazowieckie
	Application date	01.06.2022

Results:

ANTAR <i>Anthemis arvensis</i>		Assesment		
Product	Dose (14 27 48 L/ha)	14 DA-A	28 27 DA-A	49 48 DA-A
Upton 050 SC	0.1	47.5	89.5	100
Floras 50 SC	0.05	35	72.8	80.8
Floras 50 SC	0.08	43.8	80.8	98
Floras 50 SC	0.1	46.3	91.3	100

CHEAL <i>Chenopodium album</i>		Assesment		
Product	Dose (14 27 48 L/ha)	14 DA-A	28 27 DA-A	49 48 DA-A
Upton 050 SC	0.1	35	75.8	79.3
Floras 50 SC	0.05	26.3	51.8	57
Floras 50 SC	0.08	32.5	65.5	72.8
Floras 50 SC	0.1	35	77	81.3

CONAR <i>Convolvulus arvensis</i>		Assesment		
Product	Dose (14 27 48 L/ha)	14 DA-A	28 27 DA-A	49 48 DA-A
Upton 050 SC	0.1	33.8	77	81.3
Floras 50 SC	0.05	30	52	61.3
Floras 50 SC	0.08	31.3	65	77.3
Floras 50 SC	0.1	35	76.3	83.3

GAETE <i>Galeopsis tetrahit</i>		Assesment		
Product	Dose (14 27 48 L/ha)	14 DA-A	28 27 DA-A	49 48 DA-A
Upton 050 SC	0.1	31.3	73.3	78
Floras 50 SC	0.05	20	46.3	51.3
Floras 50 SC	0.08	28.8	59.3	70.8
Floras 50 SC	0.1	32.5	78.3	82

MATIN <i>Tripleurospermum inodorum</i>		Assesment		
Product	Dose (14 27 48 L/ha)	14 DA-A	28 27 DA-A	49 48 DA-A
Upton 050 SC	0.1	42.5	85.3	100
Floras 50 SC	0.05	32.5	72	77.5
Floras 50 SC	0.08	41.3	77.5	90
Floras 50 SC	0.1	45	89.3	100

Conclusions:

1. FLORAS at 0.1 L/ha provided moderate to good levels of control against all the evaluated weed species at assessment 27 DA-A.
2. Dose response among rates was clearly visible.
3. FLORAS at 0.1 L/ha showed comparable efficacy to the reference of UPTON 50 SC.
4. All treatments can be considered safe when applied in Spring Barley (cv. Wirtuoz).
5. No phytotoxicity symptoms recorded, no differences in crop vigor after application of test products in comparison to untreated.
6. No effect on other pests or non-target organisms was observed.
7. No factors have negatively affected the course and quality of a trial.

Spring Barley

Study: 017-GP2022-08

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental	Plot design	Randomized Complete Block (RCB)

design	Plot size	17,5 m ²
	Number of replications	4
Crop	Trials per crop	<i>Hordeum vulgare</i>
	Varieties per crop	Ella
	Planting Date:	31.03.2022
Application	Crop stage (BBCH) at application	BBCH 31
	Timing Post stage at application (1) Weed species occurred in the trial at the application	- AMARE <i>Amaranthus retroflexus</i> with a density of 8 plants/m ² - CHEAL <i>Chenopodium album</i> with a density of 17.5 plants/m ² - GASPA <i>Galinsoga parviflora</i> with a density of 6.3 plants/m ² . - POLCO <i>Fallopia convolvulus</i> with a density of 6 plants/m ² . - POLPE <i>Persicaria maculosa</i> with a density of 5.5 plants/m ² .
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	14 13 DAA, 28 27 DAA, 49 48 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	loamy sand, Organic Matter -2 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Labiszyn, Kujawsko-Pomorskie
	Application date	02.06.2022

Results:

AMARE <i>Amaranthus retroflexus</i>		Assesment		
Product	Dose (14 13 L/ha)	14 13 DA-A	28 27 DA-A	49 48 DA-A
Upton 050 SC	0.1	43.8	83.8	85
Floras 50 SC	0.05	33.8	46.8	53.8
Floras 50 SC	0.08	41.3	70.8	76
Floras 50 SC	0.1	45	84.5	85.5

CHEAL <i>Chenopodium album</i>		Assesment		
Product	Dose (14 13 L/ha)	14 13 DA-A	28 27 DA-A	49 48 DA-A
Upton 050 SC	0.1	36.3	74.3	80.8
Floras 50 SC	0.05	20	41.3	43.8
Floras 50 SC	0.08	31.3	61	69.3
Floras 50 SC	0.1	36.3	75	82

GASPA <i>Galinsoga parviflora</i>		Assesment		
Product	Dose (14 13 L/ha)	14 13 DA-A	28 27 DA-A	49 48 DA-A
Upton 050 SC	0.1	43.8	94.3	100
Floras 50 SC	0.05	37.5	67.5	77.5
Floras 50 SC	0.08	41.3	79.5	99.3
Floras 50 SC	0.1	45	94.8	100

POLCO <i>Fallopia convolvulus</i>		Assesment		
Product	Dose (14 13 L/ha)	14 13 DA-A	28 27 DA-A	49 48 DA-A
Upton 050 SC	0.1	36.3	89.5	100
Floras 50 SC	0.05	30	58.8	74.3
Floras 50 SC	0.08	36.3	65.8	88
Floras 50 SC	0.1	37.5	85	100

POLPE <i>Persicaria maculosa</i>		Assesment		
Product	Dose (14 13 L/ha)	14 13 DA-A	28 27 DA-A	49 48 DA-A
Upton 050 SC	0.1	40	88	100
Floras 50 SC	0.05	33.8	60.5	75.5
Floras 50 SC	0.08	38.8	68	88.3
Floras 50 SC	0.1	41.3	86.8	100

Conclusions:

1. FLORAS at 0.1 L/ha provided moderate to good levels of control against all the evaluated weed species at assessment 27 DA-A.
2. Dose response among rates was clearly visible.
3. FLORAS at 0.1 L/ha showed comparable efficacy to the reference of UPTON 50 SC.
4. All treatments can be considered safe when applied in Spring Barley (cv. Ella).
5. No phytotoxicity symptoms recorded, no differences in crop vigor after application of test products in comparison to untreated.
6. No effect on other pests or non-target organisms was observed.
7. No factors have negatively affected the course and quality of a trial.

Spring Barley

Study: 017-GP2022-09

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	15,0 m ²
	Number of replications	4
Crop	Trials per crop	<i>Hordeum vulgare</i>
	Varieties per crop	Extase
	Planting Date:	13.04.2022
Application	Crop stage (BBCH)® at application	BBCH 23
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	- AMARE <i>Amaranthus retroflexus</i> with a density of 5 plants/m ² . - ANTAR <i>Anthemis arvensis</i> with a density of 7.3 plants/m ² . - CENCY <i>Centaurea cyanus</i> with a density of 6 plants/m ² . - GASPA <i>Galinsoga parviflora</i> with a density of 8.5 plants/m ² . - PAPRH <i>Papaver rhoeas</i> with a density of 6.3 plants/m ² . - POLPE <i>Persicaria maculosa</i> with a density of 8 plants/m ² .
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	14 DAA, 28 DAA, 56 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	loamy sand, Organic Matter -2,3 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Rogowo, Kujawsko-Pomorskie
	Application date	20.05.2022

Results:

AMARE <i>Amaranthus retroflexus</i>		Assesment		
Product	Dose (14 13 L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	51.3	85.5	86
Floras 50 SC	0.05	30	61.3	65

Floras 50 SC	0.08	42	75.8	79.5
Floras 50 SC	0.1	47.5	85.5	85.5

ANTAR <i>Anthemis arvensis</i>		Assesment		
Product	Dose (100 L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	42.5	98.5	100
Floras 50 SC	0.05	38.8	76.8	78.3
Floras 50 SC	0.08	40	88.8	95
Floras 50 SC	0.1	43.8	98	100

CENCY <i>Centaurea cyaneus</i>		Assesment		
Product	Dose (100 L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	37.5	75	72.5
Floras 50 SC	0.05	22.5	47.5	42.5
Floras 50 SC	0.08	31.3	63.8	63.8
Floras 50 SC	0.1	35	76.3	73.8

GASPA <i>Galinsoga parviflora</i>		Assesment		
Product	Dose (100 L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	46.3	93	98.5
Floras 50 SC	0.05	37.5	72	75.5
Floras 50 SC	0.08	42.5	83.8	88
Floras 50 SC	0.1	45	94.5	99.3

PAPRH <i>Papaver rhoeas</i>		Assesment		
Product	Dose (100 L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	37.5	83	85.5
Floras 50 SC	0.05	28.8	57.5	60
Floras 50 SC	0.08	35	76.3	77.5
Floras 50 SC	0.1	35	85.5	86.8

POLPE <i>Persicaria maculosa</i>		Assesment		
Product	Dose (100 L/ha)	14 DA-A	28 DA-A	49 DA-A
Upton 050 SC	0.1	41.3	96.3	100
Floras 50 SC	0.05	33.8	74	78.3
Floras 50 SC	0.08	37.5	85	92
Floras 50 SC	0.1	40	98	100

Conclusions:

1. FLORAS at 0.1 L/ha provided moderate to very good levels of control against all the evaluated weed species at assessment 28 DA-A.
2. Dose response among rates was clearly visible.
3. FLORAS at 0.1 L/ha showed comparable efficacy to the reference of UPTON 50 SC.
4. All treatments can be considered safe when applied in Spring Barley (cv. Extase).
5. No phytotoxicity symptoms recorded, no differences in crop vigor after application of test products in comparison to untreated.
6. No effect on other pests or non-target organisms was observed.
7. No factors have negatively affected the course and quality of a trial.

Spring Barley

Study: 017-GP2022-10

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
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Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	15,0 m ²
	Number of replications	4
Crop	Trials per crop	<i>Hordeum vulgare</i>
	Varieties per crop	Soldo
	Planting Date:	05.04.2022
Application	Crop stage (BBCH) at application	BBCH 22
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	- GALAP <i>Galium aparine</i> with a density of 6.5 plants/m ² . - LITAR <i>Buglossoides arvensis</i> with a density of 6.3 plants/m ² . - MATIN <i>Tripleurospermum inodorum</i> with a density of 9.3 plants/m ² . - POLAV <i>Polygonum aviculare</i> with a density of 5.5 plants/m ² . - THLAR <i>Thlaspi arvense</i> with a density of 7.8 plants/m ² .
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	14 DAA, 28 DAA, 56 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance)	sandy loam, Organic Matter -2,2 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Szamotuły, Wielkopolskie
	Application date	14.05.2022

Results:

GALAP <i>Galium aparine</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	40	84.5	87.5
Floras 50 SC	0.05	26.3	53.8	67.5
Floras 50 SC	0.08	37.5	73.8	80
Floras 50 SC	0.1	41.3	85	90

LITAR <i>Buglossoides arvensis</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	46.3	95.8	100
Floras 50 SC	0.05	36.8	76	79.5
Floras 50 SC	0.08	41.3	87.3	100
Floras 50 SC	0.1	45	96	100

MATIN <i>Tripleurospermum inodorum</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	47.5	90.5	100
Floras 50 SC	0.05	32.5	73.8	76.8
Floras 50 SC	0.08	40	86	92.5
Floras 50 SC	0.1	45	92	100

POLAV <i>Polygonum aviculare</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	42.5	93.3	100
Floras 50 SC	0.05	30	73	79.8

Floras 50 SC	0.08	35	83.3	89.3
Floras 50 SC	0.1	41.3	94.5	100

THLAR <i>Thlaspi arvense</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	56 DA-A
Upton 050 SC	0.1	37.5	89.3	92.8
Floras 50 SC	0.05	28.8	68	72
Floras 50 SC	0.08	32.5	84.3	84.3
Floras 50 SC	0.1	40	92	92

Conclusions:

1. FLORAS at 0.1 L/ha provided good to very good levels of control against all the evaluated weed species at assessment 28 DA-A.
2. Dose response among rates was clearly visible.
3. FLORAS at 0.1 L/ha showed comparable efficacy to the reference of UPTON 50 SC.
4. All treatments can be considered safe when applied in Spring Barley (cv. Soldo).
5. No phytotoxicity symptoms recorded, no differences in crop vigor after application of test products in comparison to untreated.
6. No effect on other pests or non-target organisms was observed.
7. No factors have negatively affected the course and quality of a trial.

Spring Barley

Study: SGS/2022/049/PL01

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	15,0 m ²
	Number of replications	4
Crop	Trials per crop	<i>Hordeum vulgare</i>
	Varieties per crop	KWS Atrika
	Planting Date:	13.04.2022
Application	Crop stage (BBCH)* at application	BBCH 14
	Timing Pest stage at application (+) Weed species occurred in the trial at the application	CAPBP <i>Capsella bursa-pastoris</i> GALAP <i>Galium aparine</i> MYOAR <i>Myosotis arvensis</i> POLCO <i>Fallopia convolvulus</i> VIOAR <i>Viola arvensis</i>
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	13 DAA, 28 DAA, 41 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	sandy loam, Organic Matter -1,8 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Nidzica, Warminsko-mazurskie
	Application date	10.05.2022

Results:

CAPBP <i>Capsella bursa-pastoris</i>		Assesment		
Product	Dose (0.1 L/ha)	13 DA-A	28 DA-A	41 DA-A
Upton 050 SC	0.1	75	80	85
Floras 50 SC	0.05	37.5	52.5	42.5
Floras 50 SC	0.08	67.5	78.8	76.3
Floras 50 SC	0.1	76.3	88.8	90

GALAP <i>Galium aparine</i>		Assesment		
Product	Dose (0.1 L/ha)	13 DA-A	28 DA-A	41 DA-A
Upton 050 SC	0.1	82.5	82.5	92.5
Floras 50 SC	0.05	40	40	40
Floras 50 SC	0.08	67.5	67.5	67.5
Floras 50 SC	0.1	83.8	83.8	90

MYOAR <i>Myosotis arvensis</i>		Assesment		
Product	Dose (0.1 L/ha)	14 DA-A	28 DA-A	41 DA-A
Upton 050 SC	0.1	80	80	88.8
Floras 50 SC	0.05	45	45	47.5
Floras 50 SC	0.08	65	65	65
Floras 50 SC	0.1	82.5	82.5	88.8

POLCO <i>Fallopia convolvulus</i>		Assesment		
Product	Dose (0.1 L/ha)	13 DA-A	28 DA-A	41 DA-A
Upton 050 SC	0.1	80	86.3	85
Floras 50 SC	0.05	55	71.3	55
Floras 50 SC	0.08	60	72.5	67.5
Floras 50 SC	0.1	80	88.8	86.3

VIOAR <i>Viola arvensis</i>		Assesment		
Product	Dose (litr/ha)	13 DA-A	28 DA-A	41 DA-A
Upton 050 SC	0.1	0	0	0
Floras 50 SC	0.05	0	0	0
Floras 50 SC	0.08	0	0	0
Floras 50 SC	0.1	0	0	0

Conclusions:

From the data collected in this trial it is possible to give a reply to the key questions:

1. Test product Floras 50 SC was applied at three dose rates: 0.05, ~~0.08~~ 0.08 and 0.1 L/ha. Reference product Upton 050 SC at 0.1 L/ha. One application was performed (A: 10/05/2022). Within this trial five broadleaves weeds were present: VIOAR (*Viola arvensis*), CAPBP (*Capsella bursa-pastoris*), POLCO (*Fallopia convolvulus*), GALAP (*Galium aparine*) and MYOAR (*Myosotis arvensis*).

Efficacy assessments:

13 DAA (days after application):

VIOAR- none of the treatments controlled target weed

CAPBP- the best efficacy in test product and reference at dose rate 0.1 L/ha (75-76.3%).

POLCO- the best efficacy in test product and reference at dose rate 0.1 L/ha (80%).

GALAP- the best efficacy in test product and reference at dose rate 0.1 L/ha (82.5-83.8%).

MYOAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (80-82.5%).

28 DAA assessment:

VIOAR- none of the treatments controlled target weed

CAPBP- the best efficacy in test product at dose rate 0.1 L/ha (88.8%).

POLCO- the best efficacy in test product and reference at dose rate 0.1 L/ha (86.3-88.8%).

GALAP - the best efficacy in test product and reference at dose rate 0.1 L/ha (82.5-83.8%).

MYOAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (80-82.5%).

41 DAA (before harvest) assessment:

VIOAR- none of the treatments-controlled target weed

CAPBP- the best efficacy in test product and reference at dose rate 0.1 L/ha (85-90%).

POLCO - the best efficacy in test product and reference at dose rate 0.1 L/ha (85-86.3%).

GALAP- the best efficacy in test product and reference at dose rate 0.1 L/ha (90-92.5%).

MYOAR - the best efficacy in test product and reference at dose rate 0.1 L/ha (88.8%).

2. Efficacy of test product Floras 50 SC at 0.1 L/ha was at the same level as reference product Upton 050 SC at 0.1 L/ha.

3. The minimum effective dose rate of test product to control CAPBP, POLCO, GALAP and MYOAR was 0.1 L/ha.

4. No phytotoxicity symptoms recorded. No effects on non-target organisms were observed during this trial. No differences in crop vigor after application of test products in comparison to untreated.

Spring Barley

Study: SGS/2022/049/PL02

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	18,0 m ²
	Number of replications	4
Crop	Trials per crop	<i>Hordeum vulgare</i>
	Varieties per crop	Pilote
	Planting Date:	12.04.2022
Application	Crop stage (BBCH) at application	BBCH 14
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	BRSNW Brassica napus POLCO Fallopia convolvulus STEME Stellaria media THLAR Thlaspi arvense
	Number of applications Intervals between applications	1 Not applicable
	Spray volumes	300 L/ha
	Assessment	10 DAA, 28 DAA, 55 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	sandy loam, Organic Matter -2,3 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Kozłowo, Warminsko-mazurskie
	Application date	10.05.2022

Results:

BRSNW Brassica napus		Assesment		
Product	Dose (L/ha)	10 DA-A	28 DA-A	55 DA-A
Upton 050 SC	0.1	95	95	95
Floras 50 SC	0.05	62.5	65	65
Floras 50 SC	0.08	77.5	78.8	78.8
Floras 50 SC	0.1	92.5	95.5	95.5

POLCO <i>Fallopia convolvulus</i>		Assesment		
Product	Dose (0.1 L/ha)	10 DA-A	28 DA-A	55 DA-A
Upton 050 SC	0.1	87.5	98.3	98.3
Floras 50 SC	0.05	50	68.8	72.5
Floras 50 SC	0.08	71.3	81.3	82.5
Floras 50 SC	0.1	86.3	93.3	93.3

STEME <i>Stellaria media</i>		Assesment		
Product	Dose (0.1 L/ha)	10 DA-A	28 DA-A	55 DA-A
Upton 050 SC	0.1	88.8	92.3	92.3
Floras 50 SC	0.05	60	68.8	68.8
Floras 50 SC	0.08	77.5	77.5	77.5
Floras 50 SC	0.1	87.5	94	94

THLAR <i>Thlaspi arvense</i>		Assesment		
Product	Dose (0.1 L/ha)	10 DA-A	28 DA-A	55 DA-A
Upton 050 SC	0.1	93.8	93.8	93.8
Floras 50 SC	0.05	65	70	70
Floras 50 SC	0.08	81.3	83.8	83.8
Floras 50 SC	0.1	92	95	95

Conclusions:

From the data collected in this trial it is possible to give a reply to the key questions:

1. Test product Floras 50 SC was applied at three dose rates: 0.05, ~~0.08~~ 0.08 and 0.1 L/ha. Reference product Upton 050 SC at 0.1 L/ha. One application was performed (A: 10/05/2022). Within this trial five broadleaves weeds were present: STEME (*Stellaria media*), POLCO (*Fallopia convolvulus*), THLAR (*Thlaspi arvense*) and BRSNW (*Brassica napus*).

Efficacy assessments:

10 DAA (days after application):

STEME- the best efficacy in test product and reference at dose rate 0.1 L/ha (87.5-88.8%).

POLCO- the best efficacy in test product and reference at dose rate 0.1 L/ha (86.3-87.5%).

THLAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (92.5-93.8%).

BRSNW- the best efficacy in test product and reference at dose rate 0.1 L/ha (92.5-95%).

28 DAA assessment:

STEME- the best efficacy in test product and reference at dose rate 0.1 L/ha (92.3-94%).

POLCO- the best efficacy in test product and reference at dose rate 0.1 L/ha (93.3-98.3%).

THLAR - the best efficacy in test product and reference at dose rate 0.1 L/ha (93.8-95%).

BRSNW- the best efficacy in test product and reference at dose rate 0.1 L/ha (95-95.5%).

55 DAA (before harvest) assessment:

STEME- the best efficacy in test product and reference at dose rate 0.1 L/ha (92.3-94%).

POLCO - the best efficacy in test product and reference at dose rate 0.1 L/ha (93.3-98.3%).

THLAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (93.8-95%).

BRSNW - the best efficacy in test product and reference at dose rate 0.1 L/ha (95-95.5%).

2. Efficacy of test product Floras 50 SC at 0.1 L/ha was at the same level as reference product Upton 050 SC at 0.1 L/ha.

3. The minimum effective dose rate of test product to control STEME, POLCO, THLAR and BRSNW was 0.1 L/ha.

4. No phytotoxicity symptoms recorded. No effects on non-target organisms were observed during this trial. No differences in crop vigor after application of test products in comparison to untreated.

Study: SGS/2022/049/PL03

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	15,0 m ²
	Number of replications	4
Crop	Trials per crop	<i>Hordeum vulgare</i>
	Varieties per crop	Charles
	Planting Date:	08.03.2022
Application	Crop stage (BBCH)® at application	BBCH 21
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	CHEAL <i>Chenopodium album</i> BRSNW <i>Brassica napus</i> MELAL <i>Silene latifolia subsp. alba</i> MYOAR <i>Myosotis arvensis</i> VERPE <i>Veronica persica</i> VIOAR <i>Viola arvensis</i>
	Number of applications Intervals between applications	1 Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	14 DAA, 28 DAA, 50 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	silt loam, Organic Matter -2,2 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Domaniów, Dolnoslaskie
	Application date	28.04.2022

Results:

BRSNW <i>Brassica napus</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	50 DA-A
Upton 050 SC	0.1	71.3	95	100
Floras 50 SC	0.05	35	55	65
Floras 50 SC	0.08	50	78.8	78.8
Floras 50 SC	0.1	75	95	100

CHEAL <i>Chenopodium album</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	50 DA-A
Upton 050 SC	0.1	57.5	57.5	65
Floras 50 SC	0.05	0	0	0
Floras 50 SC	0.08	47.5	42.5	45
Floras 50 SC	0.1	65	75	77.5

MELAL <i>Silene latifolia subsp. alba</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	50 DA-A
Upton 050 SC	0.1	75	83.8	83.8
Floras 50 SC	0.05	37.5	37.5	40
Floras 50 SC	0.08	55	67.5	65
Floras 50 SC	0.1	82.5	97.5	97.5

MYOAR <i>Myosotis arvensis</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	50 DA-A
Upton 050 SC	0.1	80	100	100

Floras 50 SC	0.05	50	65	67.5
Floras 50 SC	0.08	75	87.5	90
Floras 50 SC	0.1	80	100	100

VERPE <i>Veronica persica</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	50 DA-A
Upton 050 SC	0.1	72.5	77.5	75
Floras 50 SC	0.05	0	0	0
Floras 50 SC	0.08	40	40	50
Floras 50 SC	0.1	77.5	95	97.5

VIOAR <i>Viola arvensis</i>		Assesment		
Product	Dose (L/ha)	14 DA-A	28 DA-A	50 DA-A
Upton 050 SC	0.1	50	60	67.5
Floras 50 SC	0.05	0	0	0
Floras 50 SC	0.08	0	0	0
Floras 50 SC	0.1	45	65	70

Conclusions:

From the data collected in this trial it is possible to give a reply to the key questions:

1. Test product Floras 50 SC was applied at three dose rates: 0.05, 0.08 and 0.1 L/ha. Reference product Upton 050 SC at 0.1 L/ha. One application was performed (A: 28/04/2022). Within this trial six broadleaves weeds were present: CHEAL (*Chenopodium album*), VERPE (*Veronica persica*), MYOAR (*Myosotis arvensis*), VIOAR (*Viola arvensis*), BRSNW (*Brassica napus*) and MELAL (*Silene latifolia*).

Efficacy assessments:

14 DAA (days after application):

CHEAL- the best efficacy in test product and reference at dose rate 0.1 L/ha (57.5-65%).

VERPE- the best efficacy in test product and reference at dose rate 0.1 L/ha (72.5-77.5%).

MYOAR- the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (75-80%).

VIOAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (45-50%).

BRSNW- the best efficacy in test product and reference at dose rate 0.1 L/ha (71.3-75%).

MELAL- the best efficacy in test product and reference at dose rate 0.1 L/ha (75-82.5%).

28 DAA assessment:

CHEAL- the best efficacy in test product at dose rate 0.1 L/ha (75%).

VERPE- the best efficacy in test product at dose rate 0.1 L/ha (95%).

MYOAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (100%).

VIOAR - the best efficacy in test product and reference at dose rate 0.1 L/ha (60-65%).

BRSNW- the best efficacy in test product and reference at dose rate 0.1 L/ha (95%).

MELAL- the best efficacy in test product at dose rate 0.1 L/ha (97.5%).

50 DAA (before harvest) assessment:

CHEAL- the best efficacy in test product at dose rate 0.1 L/ha (77.5%).

VERPE- the best efficacy in test product at dose rate 0.1 L/ha (97.5%).

MYOAR - the best efficacy in test product and reference at dose rates 0.08- 0.1 L/ha (90-100%).

VIOAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (67.5-70%).

BRSNW - the best efficacy in test product and reference at dose rate 0.1 L/ha (100%).

MELAL- the best efficacy in test product at dose rate 0.1 L/ha (97.5%).

2. Efficacy of test product Floras 50 SC at 0.1 L/ha was slightly better in comparison to reference product Upton 050 SC at 0.1 L/ha.

3. The minimum effective dose rate of test product to control VERPE, BRSNW and MELAL was 0.1 L/ha. The minimum effective dose rate to control MYOAR was 0.08 L/ha.

4. No phytotoxicity symptoms recorded. No effects on non-target organisms were observed during this trial. No differences in crop vigor after application of test products in comparison to untreated.

Spring Barley

Study: SGS/2022/049/PL04

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	18,75 m ²
	Number of replications	4
Crop	Trials per crop	<i>Hordeum vulgare</i>
	Varieties per crop	Feedway
	Planting Date:	19.03.2022
Application	Crop stage (BBCH) at application	BBCH 23
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	BRSNW <i>Brassica napus</i> CHEAL <i>Chenopodium album</i> POLCO <i>Fallopia convolvulus</i> VERPE <i>Veronica persica</i>
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 200 L/ha
Assessment	Assessment	10 DAA, 21 DAA, 56 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	loamy sand, Organic Matter -1,1 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Gąsawa, Kujawsko-pomorskie
	Application date	09.05.2022

Results:

BRSNW <i>Brassica napus</i>		Assesment		
Product	Dose (100 L/ha)	10 DA-A	21 DA-A	56 DA-A
Upton 050 SC	0.1	57.5	78.8	86.3
Floras 50 SC	0.05	22.5	27.5	55
Floras 50 SC	0.08	32.5	45	68.8
Floras 50 SC	0.1	52.5	77.5	86.3

CHEAL <i>Chenopodium album</i>		Assesment		
Product	Dose (100 L/ha)	10 DA-A	21 DA-A	56 DA-A
Upton 050 SC	0.1	8.8	52.5	52.5
Floras 50 SC	0.05	2.5	13.8	13.8
Floras 50 SC	0.08	3.8	18.8	22.5
Floras 50 SC	0.1	2.5	52.5	50

POLCO <i>Fallopia convolvulus</i>		Assesment		
Product	Dose (100 L/ha)	10 DA-A	21 DA-A	56 DA-A
Upton 050 SC	0.1	55	77.5	85
Floras 50 SC	0.05	37.5	52.5	52.5
Floras 50 SC	0.08	42.5	62.5	63.8
Floras 50 SC	0.1	55	82.5	86.3

VERPE <i>Veronica persica</i>		Assesment		
Product	Dose (litr/ha)	10 DA-A	21 DA-A	56 DA-A
Upton 050 SC	0.1	47.5	70	90.8
Floras 50 SC	0.05	27.5	32.5	61.3
Floras 50 SC	0.08	37.5	37.5	72.5
Floras 50 SC	0.1	47.5	68.8	87.5

Conclusions:

From the data collected in this trial it is possible to give a reply to the key questions:

1. Test product Floras 50 SC was applied at three dose rates: 0.05, 0.08 and 0.1 L/ha. Reference product Upton 050 SC at 0.1 L/ha. One application was performed (A: 9/05/2022). Within this trial four broadleaves weeds were present: BRSNW (*Brassica napus*), POLCO (*Fallopia convolvulus*), CHEAL (*Chenopodium album*) and VERPE (*Veronica persica*).

Efficacy assessments:

10 DAA (days after application):

BRSNW- the best efficacy in test product and reference at dose rate 0.1 L/ha (52.5-57.5%).

POLCO- the best efficacy in test product and reference at dose rate 0.1 L/ha (55%).

CHEAL- none of the treatments controlled target weed

VERPE- the best efficacy in test product and reference at dose rate 0.1 L/ha (47.5%).

21 DAA assessment:

BRSNW- the best efficacy in test product and reference at dose rate 0.1 L/ha (77.5-78.8%).

POLCO- the best efficacy in test product at dose rate 0.1 L/ha (77.5-82.5%).

CHEAL- the best efficacy in test product and reference at dose rate 0.1 L/ha (52.5%).

VERPE - the best efficacy in test product and reference at dose rate 0.1 L/ha (68.6-70%).

56 DAA (before harvest) assessment:

BRSNW- the best efficacy in test product and reference at dose rate 0.1 L/ha (86.3%).

POLCO- the best efficacy in test product and reference at dose rate 0.1 L/ha (85-86.3%).

CHEAL - the best efficacy in test product and reference at dose rate 0.1 L/ha (50-52.5%).

VERPE- the best efficacy in test product and reference at dose rate 0.1 L/ha (87.5-90.8%).

2. Efficacy of test product Floras 50 SC at 0.1 L/ha was at the same level as reference product Upton 050 SC at 0.1 L/ha.

3. The minimum effective dose rate of test product to control BRSNW, POLCO and VERPE was 0.1 L/ha.

4. No phytotoxicity symptoms recorded. No effects on non-target organisms were observed during this trial. No differences in crop vigor after application of test products in comparison to untreated.

Spring Barley

Study: SGS/2022/049/PL05

Guidelines	Guidelines	PP 1/225(2), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	18,0 m ²
	Number of replications	4
Crop	Trials per crop	<i>Hordeum vulgare</i>
	Varieties per crop	KWS Irina
	Planting Date:	05.03.2022
Application	Crop stage (BBCH) at application	BBCH 22
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	BRSNW <i>Brassica napus</i> MELAL <i>Silene latifolia</i> subsp. <i>alba</i> POLCO <i>Fallopia convolvulus</i> THLAR <i>Thlaspi arvense</i>

	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 250 L/ha
Assessment	Assessment	14 DAA, 23 DAA, 44 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	silt loam, Organic Matter -2,9 %
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	Żórawina, Dolnoslaskie
	Application date	04.05.2022

Results:

BRSNW <i>Brassica napus</i>		Assesment		
Product	Dose (100 L/ha)	14 DA-A	23 DA-A	44 DA-A
Upton 050 SC	0.1	78.8	91.3	95
Floras 50 SC	0.05	80 40	60	65
Floras 50 SC	0.08	73.8	80	77.5
Floras 50 SC	0.1	80	93.8	95

MELAL <i>Silene latifolia subsp. alba</i>		Assesment		
Product	Dose (100 L/ha)	14 DA-A	23 DA-A	44 DA-A
Upton 050 SC	0.1	77.5	86.3	86.3
Floras 50 SC	0.05	40	35	37.5
Floras 50 SC	0.08	52.5	71.3	67.5
Floras 50 SC	0.1	81.3	97.5	97.5

POLCO <i>Fallopia convolvulus</i>		Assesment		
Product	Dose (100 L/ha)	14 DA-A	23 DA-A	44 DA-A
Upton 050 SC	0.1	77.5	95	90
Floras 50 SC	0.05	50	57.5	70
Floras 50 SC	0.08	65	78.8	82.5
Floras 50 SC	0.1	80	93.8	95

THLAR <i>Thlaspi arvense</i>		Assesment		
Product	Dose (100 L/ha)	14 DA-A	23 DA-A	44 DA-A
Upton 050 SC	0.1	83.8	95	93.8
Floras 50 SC	0.05	55	65	67.5
Floras 50 SC	0.08	75	85	82.5
Floras 50 SC	0.1	85	97.5	95

Conclusions:

From the data collected in this trial it is possible to give a reply to the key questions:

1. Test product Floras 50 SC was applied at three dose rates: 0.05, ~~0.08~~ 0.08 and 0.1 L/ha. Reference product Upton 050 SC at 0.1 L/ha. One application was performed (A: 4/5/2022). Within this trial four broadleaves weeds were present: THLAR (*Thlaspi arvense*), POLCO (*Fallopia convolvulus*), MELAL (*Silene latifolia*) and BRSNW (*Brassica napus*).

Efficacy assessments:

14 DAA (days after application):

THLAR- the best efficacy in test product and reference at dose rates 0.08-0.1 L/ha (75-85%).

POLCO- the best efficacy in test product and reference at dose rate 0.1 L/ha (77.5-80%).

MELAL- the best efficacy in test product and reference at dose rate 0.1 L/ha (77.5-81.3%).

BRSNW- the best efficacy in test product and reference at dose rates 0.08- 0.1 L/ha (73.8-80%).

23 DAA assessment:

THLAR- the best efficacy in test product and reference at dose rates 0.08- 0.1 L/ha (85-97.5%).

POLCO- the best efficacy in test product and reference at dose rate 0.1 L/ha (93.8-95%).

MELAL - the best efficacy in test product at dose rate 0.1 L/ha (97.5%).

BRSNW- the best efficacy in test product and reference at dose rate 0.1 L/ha (91.3-93.8%).

44 DAA (before harvest) assessment:

THLAR- the best efficacy in test product and reference at dose rate 0.1 L/ha (93.8-95%).

POLCO - the best efficacy in test product and reference at dose rate 0.1 L/ha (90-95%).

MELAL- the best efficacy in test product and reference at dose rate 0.1 L/ha (86.3-97.5%).

BRSNW - the best efficacy in test product and reference at dose rate 0.1 L/ha (95%).

2. Efficacy of test product Floras 50 SC at 0.1 L/ha was at the same level as reference product Upton 050 SC at 0.1 L/ha.

3. The minimum effective dose rate of test product to control THLAR, POLCO, MELAL and BRSNW was 0.1 L/ha.

4. No phytotoxicity symptoms recorded. No effects on non-target organisms were observed during this trial. No differences in crop vigor after application of test products in comparison to untreated.

Spring Barley

Study: NUZ 07/22/8

Guidelines	Guidelines	PP 1/225(2), PP 1/214 (4), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	25,5 m ²
	Number of replications	4
Crop	Trials per crop	<i>Hordeum vulgare</i>
	Varieties per crop	KWS Vermont
	Planting Date:	20.04.2022
Application	Crop stage (BBCH)* at application	BBCH 23
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	SINAR <i>Sinapis arvensis</i> —BBCH 23 CAPBP <i>Capsella bursa pastoris</i> —BBCH 23 STEME <i>Stellaria media</i> —BBCH 22 THLAR <i>Thlaspi arvense</i> —BBCH 23 GALAP <i>Galium aparine</i> —BBCH 12 GALPA <i>Galinsoga parviflora</i> Galium palustre —BBCH 22 VERPE <i>Veronica persica</i> BBCH 23
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	21 DAA, 43 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	Eutric Fluvisols, good wheat soil complex, class IIIa
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	RZD Kępa, Kępa, Lubelskie
	Application date	16.05.2022

Results:

CAPBP <i>Capsella bursa-pastoris</i>		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	82	90

Floras 50 SC	0.05	68	80
Floras 50 SC	0.08	76	86
Floras 50 SC	0.1	81	93

GALAP <i>Galium aparine</i>		Assesment	
Product	Dose (litre /ha L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	80	93
Floras 50 SC	0.05	60	81
Floras 50 SC	0.08	76	87
Floras 50 SC	0.1	80	92

GALPA <i>Galinsoga parviflora</i> <i>Galium palustre</i>		Assesment	
Product	Dose (litre /ha L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	80	92
Floras 50 SC	0.05	65	81
Floras 50 SC	0.08	75	88
Floras 50 SC	0.1	80	91

SINAR <i>Sinapis arvensis</i>		Assesment	
Product	Dose (litre /ha L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	80	90
Floras 50 SC	0.05	68	80
Floras 50 SC	0.08	75	86
Floras 50 SC	0.1	80	91

STEME <i>Stellaria media</i>		Assesment	
Product	Dose (litre /ha L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	78	90
Floras 50 SC	0.05	68	80
Floras 50 SC	0.08	74	85
Floras 50 SC	0.1	76	93

THLAR <i>Thlaspi arvense</i>		Assesment	
Product	Dose (litre /ha L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	80	92
Floras 50 SC	0.05	68	80
Floras 50 SC	0.08	78	87
Floras 50 SC	0.1	80	92

VERPE <i>Veronica persica</i>		Assesment	
Product	Dose (litre /ha L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	80	91
Floras 50 SC	0.05	66	78
Floras 50 SC	0.08	75	85
Floras 50 SC	0.1	78	92

Conclusions:

- 1) Floras 50 SC applied in dose 0.05 L/ha showed efficacy against weeds present in spring barley canopy on level 78-81% depending on weed species.
- 2) Floras 50 SC applied in dose 0.08 L/ha shows very high efficacy (above 85%) against all weeds growing in spring barley i.e. SINAR, CAPBP, STEME, THLAR, GALAP, GALPA, and VERPE.

Increasing the dose of Floras 50 SC to 0.1 L/ha increased the effectiveness of weed control by 3-8%, depending on the species.

- 3) The effectiveness of Floras 50 SC was similar to the standard herbicide.
- 4) Regardless of the dose, no negative symptoms of Floras 50 SC on the barley plants were observed
- 5) An adverse or unexpected effect of the investigated plant protection products on the beneficial organisms or other ones which were not controlled was not observed.

Spring Barley

Study: NUZ 07/22/9

Guidelines	Guidelines	PP 1/225(2), PP 1/214 (4), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	25,5 m ²
	Number of replications	4
Crop	Trials per crop	<i>Hordeum vulgare</i>
	Varieties per crop	Focus
	Planting Date:	20.04.2022
Application	Crop stage (BBCH)* at application	BBCH 23
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	SINAR <i>Sinapis arvensis</i> –BBCH 22 CAPBP <i>Capsella bursa pastoris</i> –BBCH 22 STEME <i>Stellaria media</i> –BBCH 22 THLAR <i>Thlaspi arvense</i> –BBCH 23 VERPE <i>Veronica persica</i> –BBCH 24 FALCO POLCO <i>Fallopia convolvulus</i> -BBCH 18 GAETE <i>Galeopsis tetrahit</i> –BBCH 23
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	21 DAA, 43 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	Albic Luvisols, good wheat soil complex, class IIIa
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	RZD Kępa, Kępa Osiny, Lubelskie
	Application date	16.05.2022

Results:

CAPBP <i>Capsella bursa pastoris</i>		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	83	95 93
Floras 50 SC	0.05	75	80
Floras 50 SC	0.08	81 83	85 86
Floras 50 SC	0.1	84 85	95 92

GAETE <i>Galeopsis tetrahit</i>		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	78	82
Floras 50 SC	0.05	70	75
Floras 50 SC	0.08	78	80
Floras 50 SC	0.1	78	82

FALCO POLCO <i>Fallopia convolvulus</i>		Assesment	
Product	Dose (100 L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	83	95
Floras 50 SC	0.05	75	80
Floras 50 SC	0.08	83	88
Floras 50 SC	0.1	84	95

SINAR <i>Sinapis arvensis</i>		Assesment	
Product	Dose (100 L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	83	95
Floras 50 SC	0.05	75	80
Floras 50 SC	0.08	81	85
Floras 50 SC	0.1	84	95

STEME <i>Stellaria media</i>		Assesment	
Product	Dose (100 L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	83 84	93 95
Floras 50 SC	0.05	75 76	80
Floras 50 SC	0.08	83	86 88
Floras 50 SC	0.1	85 84	92 95

THLAR <i>Thlaspi arvense</i>		Assesment	
Product	Dose (100 L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	84	92
Floras 50 SC	0.05	77	80
Floras 50 SC	0.08	82	88
Floras 50 SC	0.1	82	93

VERPE <i>Veronica persica</i>		Assesment	
Product	Dose (100 L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	83	95
Floras 50 SC	0.05	76	80
Floras 50 SC	0.08	82	85
Floras 50 SC	0.1	82	93

Conclusions:

- 1) Floras 50 SC applied in dose 0.05 L/ha showed efficacy against weeds present in spring barley canopy on level 75-80% depending on weed species.
- 2) Floras 50 SC applied in dose 0.08 L/ha shows very high efficacy (above 85%) against SINAR, CAPBP, STEME, THLAR, VERPE, **FALCO POLCO** and average against **GALTE GAETE**. Increasing the dose of Floras 50 SC to 0.1 L/ha increased the effectiveness of weed control by 2-10%, depending on the species.
- 3) The effectiveness of Floras 50 SC was similar to the standard herbicide.
- 4) Regardless of the dose, no negative symptoms of Floras 50 SC on the barley plants were observed
- 5) An adverse or unexpected effect of the investigated plant protection products on the beneficial organisms or other ones which were not controlled was not observed.

Spring Barley

Study: NUZ 07/22/10

Guidelines	Guidelines	PP 1/225(2); PP 1/214 (4); PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	25,5 m ²
	Number of replications	4
Crop	Trials per crop	<i>Hordeum vulgare</i>
	Varieties per crop	Radek
	Planting Date:	20.04.2022
Application	Crop stage (BBCH)* at application	BBCH 23
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	STEME <i>Stellaria media</i> –BBCH 21 SINAR <i>Sinapis arvensis</i> –BBCH 21 CAPBP <i>Capsella bursa pastoris</i> –BBCH 21 DESSO <i>Descurainia sophia</i> –BBCH 21 POLCO <i>Fallopia convolvulus</i> –BBCH 15 VERPE <i>Veronica persica</i> –BBCH 21 THLAR <i>Thlaspi arvense</i> –BBCH 21
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	21 DAA, 43 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	Albic Luvisols, good wheat soil complex, class IIIa
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	RZD Kępa, Kępa Osiny, Lubelskie
	Application date	16.05.2022

Results:

CAPBP <i>Capsella bursa pastoris</i>		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	85	95
Floras 50 SC	0.05	78	84 85
Floras 50 SC	0.08	82	90
Floras 50 SC	0.1	85	95

DESSO <i>Descurainia sophia</i>		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	85	94
Floras 50 SC	0.05	78	85
Floras 50 SC	0.08	82	90
Floras 50 SC	0.1	84	94

POLCO <i>Fallopia convolvulus</i>		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	85	93
Floras 50 SC	0.05	78	84
Floras 50 SC	0.08	82	94
Floras 50 SC	0.1	86	94

SINAR <i>Sinapis arvensis</i>		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	86	95
Floras 50 SC	0.05	80	84
Floras 50 SC	0.08	82	90
Floras 50 SC	0.1	85	95

STEME <i>Stellaria media</i>		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	86	90
Floras 50 SC	0.05	80	85
Floras 50 SC	0.08	83	90
Floras 50 SC	0.1	85	95

THLAR <i>Thlaspi arvense</i>		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	85	93
Floras 50 SC	0.05	80	83
Floras 50 SC	0.08	83	92
Floras 50 SC	0.1	87	95

VERPE <i>Veronica persica</i>		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	86	94
Floras 50 SC	0.05	78	84
Floras 50 SC	0.08	82	93
Floras 50 SC	0.1	87	93

Conclusions:

- 1) Floras 50 SC applied in dose 0.05 L/ha showed efficacy against weeds present in spring barley canopy on level 83-85% depending on weed species.
- 2) Floras 50 SC applied in dose 0.08 L/ha shows very high efficacy (above 85%) against all weeds growing in spring barley i.e. STEME, SINAR, CAPBP, DESSO, ~~FALCO~~ POLCO, VERPE, and THLAR. Increasing the dose of Floras 50 SC to 0.1 L/ha increased the effectiveness of weed control by 0-5%, depending on the species.
- 3) The effectiveness of Floras 50 SC was similar to the standard herbicide.
- 4) Regardless of the dose, no negative symptoms of Floras 50 SC on the barley plants were observed
- 5) An adverse or unexpected effect of the investigated plant protection products on the beneficial organisms or other ones which were not controlled was not observed.

Spring Barley

Study: NUZ 07/22/11

Guidelines	Guidelines	PP 1/225(2), PP 1/214 (4), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	25,5 m ²
	Number of replications	4
Crop	Trials per crop	<i>Hordeum vulgare</i>
	Varieties per crop	Focus
	Planting Date:	20.04.2022

Application	Crop stage (BBCH) at application	BBCH 23
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	STEME <i>Stellaria media</i> - BBCH 21 SINAR <i>Sinapis arvensis</i> BBCH 21 CAPBP <i>Capsella bursa-pastoris</i> BBCH 21 DESSO <i>Descurainia sophia</i> BBCH 21 FALCO POLCO <i>Fallopia convolvulus</i> - BBCH 15 VERPE <i>Veronica persica</i> BBCH 21 THLAR <i>Thlaspi arvense</i> BBCH 21
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha
Assessment	Assessment	21 DAA, 43 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	Albic Podzols, good wheat soil complex, class IIIa
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	RZD Kępa, Kępa Pulki, Lubelskie
	Application date	16.05.2022

Results:

CAPBP <i>Capsella bursa-pastoris</i>		Assesment	
Product	Dose (litre/ha L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	83	90
Floras 50 SC	0.05	75	80
Floras 50 SC	0.08	78	85
Floras 50 SC	0.1	82	90

DESSO <i>Descurainia sophia</i>		Assesment	
Product	Dose (litre/ha L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	82	90
Floras 50 SC	0.05	75	82
Floras 50 SC	0.08	78	85
Floras 50 SC	0.1	84	90

GAETE <i>Galeopsis tetrahit</i>		Assesment	
Product	Dose (litre/ha L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	82	88
Floras 50 SC	0.05	78	80
Floras 50 SC	0.08	78	85
Floras 50 SC	0.1	83	88

MYOAR <i>Myosotis arvensis</i>		Assesment	
Product	Dose (litre/ha L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	82	88
Floras 50 SC	0.05	75	80
Floras 50 SC	0.08	78	85
Floras 50 SC	0.1	82	90

SINAR <i>Sinapis arvensis</i>		Assesment	
Product	Dose (litre/ha L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	83	90

Floras 50 SC	0.05	75	80
Floras 50 SC	0.08	78	86
Floras 50 SC	0.1	82	90

STEME <i>Stellaria media</i>		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	82	90
Floras 50 SC	0.05	74	82
Floras 50 SC	0.08	80	86
Floras 50 SC	0.1	83	88

THLAR <i>Thlaspi arvense</i>		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	81	88
Floras 50 SC	0.05	73	80
Floras 50 SC	0.08	78	85
Floras 50 SC	0.1	85	88

Conclusions:

- 1) Floras 50 SC applied in dose 0.05 L/ha showed efficacy against weeds present in spring barley canopy on level 80-82% depending on weed species.
- 2) Floras 50 SC applied in dose 0.08 L/ha shows very high efficacy (above 85%) against all weeds growing in spring barley i.e. SINAR, CAPBP, MYOAR, GALTE GAETE, STEME, DESSO, and THLAR. Increasing the dose of Floras 50 SC to 0.1 L/ha increased the effectiveness of weed control by 2-5%, depending on the species.
- 3) The effectiveness of Floras 50 SC was similar to the standard herbicide.
- 4) Regardless of the dose, no negative symptoms of Floras 50 SC on the barley plants were observed
- 5) An adverse or unexpected effect of the investigated plant protection products on the beneficial organisms or other ones which were not controlled was not observed.

Spring Barley

Study: NUZ 07/22/12

Guidelines	Guidelines	PP 1/225(2), PP 1/214 (4), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Experimental design	Plot design	Randomized Complete Block (RCB)
	Plot size	25,5 m ²
	Number of replications	4
Crop	Trials per crop	<i>Hordeum vulgare</i>
	Varieties per crop	Focus
	Planting Date:	20.04.2022
Application	Crop stage (BBCH) at application	BBCH 23
	Timing Pest stage at application (1) Weed species occurred in the trial at the application	CAPBP <i>Capsella bursa pastoris</i> -BBCH 21 STEME <i>Stellaria media</i> -BBCH 23 VERPE <i>Veronica persica</i> -BBCH 23 THLAR <i>Thlaspi arvense</i> -BBCH 22 POLCO <i>Fallopia convolvulus</i> -BBCH 21 SINAR <i>Sinapis arvensis</i> -BBCH 22
	Number of applications	1
	Intervals between applications	Not applicable
	Spray volumes	300 L/ha

Assessment	Assessment	21 DAA, 43 DAA
Other relevant information	e.g. Soil type, pH (in case of soil active substance ...)	Eutric Fluvisols, good wheat soil complex, class IIIa
	e.g. Natural / artificial inoculation...	Natural conditions
	e.g. Field / Greenhouse...	RZD Kępa, Kępa Sadłowice, Lubelskie
	Application date	16.05.2022

Results:

CAPBP (<i>Capsella bursa pastoris</i>)		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	83	88
Floras 50 SC	0.05	75	80
Floras 50 SC	0.08	78	85
Floras 50 SC	0.1	80	88

FALCO POLCO (<i>Fallopia convolvulus</i>)		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	78	90
Floras 50 SC	0.05	77	80
Floras 50 SC	0.08	80	86
Floras 50 SC	0.1	82	88

SINAR (<i>Sinapis arvensis</i>)		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	82	88
Floras 50 SC	0.05	75	83
Floras 50 SC	0.08	76	87
Floras 50 SC	0.1	80	88

STEME (<i>Stellaria media</i>)		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	80	90
Floras 50 SC	0.05	75	80
Floras 50 SC	0.08	78	85
Floras 50 SC	0.1	80	89

THLAR (<i>Thlaspi arvense</i>)		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	80	88
Floras 50 SC	0.05	76	78
Floras 50 SC	0.08	76	85
Floras 50 SC	0.1	82	90

VERPE (<i>Veronica persica</i>)		Assesment	
Product	Dose (L/ha)	21 DA-A	43 DA-A
Upton 050 SC	0.1	80	90
Floras 50 SC	0.05	75	80
Floras 50 SC	0.08	78	85
Floras 50 SC	0.1	82	90

Conclusions:

- 1) Floras 50 SC applied in dose 0.05 L/ha showed efficacy against weeds present in spring barley canopy on level 78-83% depending on weed species.
- 2) Floras 50 SC applied in dose 0.08 L/ha shows very high efficacy (above 85%) against all weeds growing in spring barley i.e. CAPBP, STEME, VERPE, THLAR, ~~FALCO~~ POLCO, and SINAR. Increasing the dose of Floras 50 SC to 0.1 L/ha increased the effectiveness of weed control by 1-5%, depending on the species.
- 3) The effectiveness of Floras 50 SC was similar to the standard herbicide.
- 4) Regardless of the dose, no negative symptoms of Floras 50 SC on the barley plants were observed
- 5) An adverse or unexpected effect of the investigated plant protection products on the beneficial organisms or other ones which were not controlled was not observed.

Comments of zRMS:

The appropriate tables with compilation of individual efficacy trial results according to the dRR, part B3 template are presented in zRMS commenting box at the end of the chapter 3.2.3 Efficacy tests.

Efficacy of Floras 50 SC against concrete weeds—use in Spring Barley:

AMARE					
-	Dose [l/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050-SC	0.1	47.6	84.7	85.5	72.6
Floras 50-SC	0.05	31.9	54.1	59.4	48.5
Floras 50-SC	0.08	41.7	73.3	77.8	64.2
Floras 50-SC	0.1	46.3	85.0	85.5	72.3

ANTAR					
-	Dose [l/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050-SC	0.1	45.0	94.0	100.0	79.7
Floras 50-SC	0.05	36.9	74.8	79.6	63.8
Floras 50-SC	0.08	41.9	84.8	96.5	74.4
Floras 50-SC	0.1	45.1	94.7	100.0	79.9

BRNSW					
-	Dose [l/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050-SC	0.1	75.7	90.0	94.1	86.6
Floras 50-SC	0.05	50.0	51.9	62.5	54.8
Floras 50-SC	0.08	58.5	70.7	76.0	68.4
Floras 50-SC	0.1	75.0	90.5	94.2	86.6

CAPBP					
-	Dose [l/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050-SC	0.1	75.0	82.7	90.5	82.7
Floras 50-SC	0.05	37.5	70.6	74.4	60.8
Floras 50-SC	0.08	67.5	79.0	84.6	77.0
Floras 50-SC	0.1	76.3	83.5	91.8	83.9

CENCY					
-	Dose [l/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050-SC	0.1	37.5	75.0	72.5	61.7

Floras 50 SC	0.05	22.5	47.5	42.5	37.5
Floras 50 SC	0.08	31.3	63.8	63.8	53.0
Floras 50 SC	0.1	35.0	76.3	73.8	61.7

CHEAL					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	34.4	65.0	69.4	56.3
Floras 50 SC	0.05	12.2	26.7	28.7	22.5
Floras 50 SC	0.08	28.8	47.0	52.4	42.7
Floras 50 SC	0.1	34.7	69.9	72.7	59.1

CONAR					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	33.8	77.0	81.3	64.0
Floras 50 SC	0.05	30.0	52.0	61.3	47.8
Floras 50 SC	0.08	31.3	65.0	77.3	57.9
Floras 50 SC	0.1	35.0	76.3	83.3	64.9

DESSO					
-	Dose [litr/ha]	-	2-Assess	3-Assess	Average
Upton 050 SC	0.1	-	83.5	92.0	87.8
Floras 50 SC	0.05	-	76.5	83.5	80.0
Floras 50 SC	0.08	-	80.0	87.5	83.8
Floras 50 SC	0.1	-	84.0	92.0	88.0

FALCO					
-	Dose [litr/ha]	-	2-Assess	3-Assess	Average
Upton 050 SC	0.1	-	82.0	92.7	87.3
Floras 50 SC	0.05	-	76.7	81.3	79.0
Floras 50 SC	0.08	-	81.7	89.3	85.5
Floras 50 SC	0.1	-	84.0	92.3	88.2

GAETE					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	31.3	77.8	82.7	63.9
Floras 50 SC	0.05	20.0	64.8	68.8	51.2
Floras 50 SC	0.08	28.8	71.8	78.6	59.7
Floras 50 SC	0.1	32.5	79.8	84.0	65.4

GALAP					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	55.4	81.3	90.0	75.6
Floras 50 SC	0.05	33.4	49.1	61.2	47.9
Floras 50 SC	0.08	47.9	70.7	77.7	65.4
Floras 50 SC	0.1	55.9	81.7	89.8	75.8

GALPA					
-	Dose [litr/ha]	-	2-Assess	3-Assess	Average
Upton 050 SC	0.1	-	80.0	92.0	86.0

Floras 50 SC	0.05	-	65.0	81.0	73.0
Floras 50 SC	0.08	-	75.0	88.0	81.5
Floras 50 SC	0.1	-	80.0	91.0	85.5

GASPA					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	45.1	93.7	99.3	79.3
Floras 50 SC	0.05	37.5	69.8	76.5	61.3
Floras 50 SC	0.08	41.9	81.7	93.7	72.4
Floras 50 SC	0.1	45.0	94.7	99.7	79.8

LITAR					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	46.3	95.8	100.0	80.7
Floras 50 SC	0.05	36.8	76.0	79.5	64.1
Floras 50 SC	0.08	41.3	87.3	100.0	76.2
Floras 50 SC	0.1	45.0	96.0	100.0	80.3

MATCH					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	41.3	90.0	100.0	77.1
Floras 50 SC	0.05	28.8	61.3	71.8	54.0
Floras 50 SC	0.08	36.3	79.3	87.5	67.7
Floras 50 SC	0.1	42.5	90.5	100.0	77.7

MATIN					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	45.0	87.9	100.0	77.6
Floras 50 SC	0.05	32.5	72.9	77.2	60.9
Floras 50 SC	0.08	40.7	81.8	91.3	71.2
Floras 50 SC	0.1	45.0	90.7	100.0	78.6

MELAL					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	76.3	85.1	85.1	82.1
Floras 50 SC	0.05	38.8	36.3	38.8	37.9
Floras 50 SC	0.08	53.8	69.4	66.3	63.1
Floras 50 SC	0.1	81.9	97.5	97.5	92.3

MYOAR					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	80.0	87.3	92.3	86.5
Floras 50 SC	0.05	47.5	61.7	65.0	58.1
Floras 50 SC	0.08	70.0	76.8	80.0	75.6
Floras 50 SC	0.1	81.3	88.2	92.9	87.5

PAPRH					
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-	Dose [ltr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	37.5	83.0	85.5	68.7
Floras 50 SC	0.05	28.8	57.5	60.0	48.8
Floras 50 SC	0.08	35.0	76.3	77.5	62.9
Floras 50 SC	0.1	35.0	85.5	86.8	69.1

POLAV					
-	Dose [ltr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	40.7	89.8	100.0	76.8
Floras 50 SC	0.05	30.7	65.5	77.4	57.9
Floras 50 SC	0.08	34.4	82.1	89.4	68.6
Floras 50 SC	0.1	39.4	91.4	100.0	76.9

POLCO					
-	Dose [ltr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	63.4	89.2	93.1	81.9
Floras 50 SC	0.05	43.1	60.7	67.1	57.0
Floras 50 SC	0.08	52.5	73.9	80.7	69.0
Floras 50 SC	0.1	64.0	88.3	93.5	81.9

POLPE					
-	Dose [ltr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	40.7	92.2	100.0	77.6
Floras 50 SC	0.05	33.8	67.3	76.9	59.3
Floras 50 SC	0.08	38.2	76.5	90.2	68.3
Floras 50 SC	0.1	40.7	92.4	100.0	77.7

SINAR					
-	Dose [ltr/ha]	-	2-Assess	3-Assess	Average
Upton 050 SC	0.1	-	82.8	91.6	87.2
Floras 50 SC	0.05	-	74.6	81.4	78.0
Floras 50 SC	0.08	-	78.4	86.8	82.6
Floras 50 SC	0.1	-	82.2	91.8	87.0

STEME					
-	Dose [ltr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	88.8	83.6	90.9	87.7
Floras 50 SC	0.05	60.0	73.5	79.3	70.9
Floras 50 SC	0.08	77.5	79.3	84.9	80.6
Floras 50 SC	0.1	87.5	83.8	91.8	87.7

THLAR					
-	Dose [ltr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	62.9	85.1	90.8	79.6
Floras 50 SC	0.05	43.5	69.1	73.9	62.2
Floras 50 SC	0.08	55.0	79.7	84.9	73.2

Floras 50 SC	0.1	63.6	86.6	91.7	80.6
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VERPE					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	60.0	79.4	89.3	76.2
Floras 50 SC	0.05	13.8	54.6	63.9	44.1
Floras 50 SC	0.08	38.8	65.8	78.4	61.0
Floras 50 SC	0.1	62.5	82.1	92.2	78.9

VIOAR					
-	Dose [litr/ha]	1-Assess	2-Assess	3-Assess	Average
Upton 050 SC	0.1	25.0	30.0	33.8	29.6
Floras 50 SC	0.05	0.0	0.0	0.0	0.0
Floras 50 SC	0.08	0.0	0.0	0.0	0.0
Floras 50 SC	0.1	22.5	32.5	35.0	30.0

Summary – Spring Barley:

EPPO Code	Name	Identification of study	Number of studies	Average of efficacy [%]		
				0.05 ltr/ha	0.08 ltr/ha	0.1 ltr/ha
ANTAR	<i>Anthemis arvensis</i>	017-GP2022-07 017-GP2022-09	2	63,8	74,4	79,9
AMARE	<i>Amaranthus retroflexus</i>	017-GP2022-08 017-GP2022-09	2	48,5	64,2	72,3
BRNSW	<i>Brassica napus</i>	SGS/2022/049/PL02 SGS/2022/049/PL03 SGS/2022/049/PL04 SGS/2022/049/PL05	4	54,8	68,4	86,6
CAPBP	<i>Capsella bursa-pastoris</i>	SGS/2022/049/PL01 NUZ-07/22/8 NUZ-07/22/9 NUZ-07/22/10 NUZ-07/22/11 NUZ-07/22/12	6	60,8	77,0	83,9
CENCY	<i>Centaurea cyanus</i>	017-GP2022-09	1	37,5	53,0	61,7
CHEAL	<i>Chenopodium album</i>	017-GP2022-07 017-GP2022-08 SGS/2022/049/PL03 SGS/2022/049/PL04	4	22,5	42,7	59,1
CONAR	<i>Convolvulus arvensis</i>	017-GP2022-07	1	47,8	57,9	64,9
DESSO	<i>Descurainia sophia</i>	NUZ-07/22/10 NUZ-07/22/11	2	80,0	83,8	88,0
FALCO	<i>Fallopia convolvulus</i>	NUZ-07/22/9 NUZ-07/22/10 NUZ-07/22/12	3	79,0	85,5	88,2
GAETE	<i>Galeopsis tetrahit</i>	017-GP2022-07 NUZ-07/22/9 NUZ-07/22/11	3	51,2	59,7	65,4
GALAP	<i>Galium aparine</i>	017-GP2022-06 017-GP2022-10 SGS/2022/049/PL01 NUZ-07/22/8	4	47,9	65,4	75,8
GALPA	<i>Galinsoga aparine</i>	NUZ-07/22/8	1	73,0	81,5	85,5
GASPA	<i>Galinsoga parviflora</i>	017-GP2022-08 017-GP2022-09	2	61,3	72,4	79,8
LITAR	<i>Buglossoides arvensis</i>	017-GP2022-10	1	64,1	76,2	80,3
MATCH	<i>Matricaria chamomilla</i>	017-GP2022-06	1	54,0	67,7	77,7
MATIN	<i>Tripleurospermum inodorum</i>	017-GP2022-07 017-GP2022-10	2	60,9	71,2	78,6
MELAL	<i>Silene latifolia</i> subsp. alba	SGS/2022/049/PL03	2	37,9	63,1	92,3

		SGS/2022/049/PL05				
MYOAR	<i>Myosotis arvensis</i>	SGS/2022/049/PL01 SGS/2022/049/PL03 NUZ 07/22/11	3	58,1	75,6	87,5
PAPRH	<i>Papaver rhoeas</i>	017-GP2022-09	1	48,8	62,9	69,1
POLAV	<i>Polygonum aviculare</i>	017-GP2022-06 017-GP2022-10	2	57,9	68,6	76,9
POLCO	<i>Fallopia convolvulus</i>	017-GP2022-06 017-GP2022-08 SGS/2022/049/PL01 SGS/2022/049/PL02 SGS/2022/049/PL04 SGS/2022/049/PL05	6	57,0	69,0	81,9
POLPE	<i>Persicaria maculosa</i>	017-GP2022-08 017-GP2022-09	2	59,3	68,3	77,7
SINAR	<i>Sinapis arvensis</i>	NUZ 07/22/8 NUZ 07/22/9 NUZ 07/22/10 NUZ 07/22/11 NUZ 07/22/12	5	78,0	82,6	87,0
STEME	<i>Stellaria media</i>	SGS/2022/049/PL02 NUZ 07/22/8 NUZ 07/22/9 NUZ 07/22/10 NUZ 07/22/11 NUZ 07/22/12	6	70,9	80,6	87,7
THLAR	<i>Thlaspi arvense</i>	017-GP2022-06 017-GP2022-10 SGS/2022/049/PL02 SGS/2022/049/PL05 NUZ 07/22/8 NUZ 07/22/9 NUZ 07/22/10 NUZ 07/22/11 NUZ 07/22/12	9	62,2	73,2	80,6
VERPE	<i>Veronica persica</i>	SGS/2022/049/PL03 SGS/2022/049/PL04 NUZ 07/22/8 NUZ 07/22/9 NUZ 07/22/10 NUZ 07/22/12	6	44,1	61,0	78,9
VIOAR	<i>Viola arvensis</i>	SGS/2022/049/PL01 SGS/2022/049/PL03	2	0	0	30,0

Comments:

Some of weeds have a low average efficacy, but second and third assessment steps indicate appropriate efficacy. The effectiveness of Floras 50 SC at a dose of 0.1 ltr/ha is very close to the reference preparation Upton 050 SC for each weed.

3.2.4 Crop safety studies (KCP 6.2)

Studies regarding crop safety were done in 2022. For each crop there were 6 trials performed. All results indicate no symptoms of phytotoxicity, no differences observed between Floras 50 SC and reference material (Upton 050 SC), no differences observed between treatments in yield and grain quality, no effects on non-target organisms were observed during all trials.

3.2.4 Summary and conclusions on the biological efficacy (KCP 6.2)

Florasulam is an active substance intended to the control of weeds in crops grown for agriculture. Active substance is of considerable economic and agronomic importance because of its efficacy and because of its special mode of action. By experiences from field testing, it is proven that plant

protection products containing active substance^s are highly effective and therefore may contribute to avoid severe crop loss, and do not cause phytotoxicity.

The obtained data in performed trials show that Floras 50 SC can be used according to below proposed scheme:

Crop(s)	Target(s)	Dose of Floras 50 SC
Winter wheat	<i>Anthemis arvensis</i> , <i>Brachiaria nana</i> , <i>Brassica napus</i> , <i>Capsella bursa-pastoris</i> , <i>Centaurea cyanus</i> , <i>Chenopodium album</i> , <i>Descurainia sophia</i> , <i>Fallopia convolvulus</i> , <i>Fumaria officinalis</i> , <i>Galium aparine</i> , <i>Geranium pusillum</i> , <i>Lamium amplexicaule</i> , <i>Buglossoides arvensis</i> , <i>Tripleurospermum inodorum</i> , <i>Myosotis arvensis</i> , <i>Papaver rhoeas</i> , <i>Fallopia convolvulus</i> , <i>Sinapis arvensis</i> , <i>Sonchus arvensis</i> , <i>Stellaria media</i> , <i>Thlaspi arvense</i> , <i>Veronica hederifolia</i> , <i>Veronica persica</i> , <i>Viola arvensis</i>	0.05— 0.1 L/ha
Spring barley	<i>Anthemis arvensis</i> , <i>Amaranthus retroflexus</i> , <i>Brassica napus</i> , <i>Capsella bursa-pastoris</i> , <i>Centaurea cyanus</i> , <i>Chenopodium album</i> , <i>Convolvulus arvensis</i> , <i>Descurainia sophia</i> , <i>Fallopia convolvulus</i> , <i>Galeopsis tetrahit</i> , <i>Galium aparine</i> , <i>Galinsoga aparine</i> , <i>Galinsoga parviflora</i> , <i>Buglossoides arvensis</i> , <i>Matricaria chamomilla</i> , <i>Tripleurospermum inodorum</i> , <i>Silene latifolia</i> subsp. Alba, <i>Myosotis arvensis</i> , <i>Papaver rhoeas</i> , <i>Polygonum aviculare</i> , <i>Fallopia convolvulus</i> , <i>Persicaria maculosa</i> , <i>Sinapis arvensis</i> , <i>Stellaria media</i> , <i>Thlaspi arvense</i> , <i>Veronica persica</i> , <i>Viola arvensis</i>	0.05— 0.1 L/ha

Comments of zRMS on: Efficacy tests (3.2.3)

A total of 30 valid efficacy field trials carried out in 2022 were considered for the evaluation of herbicide Floras 50 SC containing 50 g/L florasulam. The trials were conducted in 1 EPPO zone: North-East (PL). All the efficacy field trials were carried out by the officially GEP-recognized testing units.

Floras 50 SC is a systemic herbicide intended for the post-emergence control of broad-leaved weed species: ANTAR, BRSNW, CAPBP, DESSO, GALAP, MATIN, MYOAR, PAPRH, POLCO, SINAR, STEME, THLAR, VERPE in winter wheat and AMARE, ANTAR, BRSNW, CAPBP, CHEAL, DESSO, GAETE, GALAP, GASPA, MATIN, MELAL, MYOAR, POLAV, POLCO, SINAR, STEME, THLAR, VERPE in spring barley, at recommended dose rate of 0.1 L/ha and application timing ranging from BBCH 12-32.

Based on the application timing from the trials carried out in winter wheat (spring application only, BBCH 23-32) and in spring barley (BBCH 13-32), Floras 50 SC can be recommended to be applied at BBCH 12-32 in spring barley and only at spring at BBCH 20-32 in winter wheat.

The Applicant has presented a substantive reasoning for submitting efficacy trials from only 1 growing season: “The product is based on an active substance that has been known for many years, contained in a well-known formulation used by many manufacturers. A much larger number of studies were pre-sented than the minimum required. The research was carried out in various climatic conditions. Therefore, effectiveness and selectivity tests were performed only in 1 growing season”. The justification has been accepted by the zRMS.

The appropriate tables with compilation of efficacy trial results according to the dRR, part B3 template are presented below:

Mean overall percentage efficacy of Floras 50 SC applied at recommended dose rate against dicotyledonous weed species across trials carried out in winter wheat

Weed species	Number of trials	Weed density at application* (pl/m²)		Mean % efficacy of Floras 50 SC		Mean % efficacy of reference product (Upton 050 SC)		No of trials where Floras 50 S.C. is >, <, = compared to reference product
				0.1 L/ha		0.1 L/ha		
		Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	
ANTAR	2	5.9	5.3-6.5	86.3	86.3-86.3	86.2	84.8-87.5	= (2)
BRSNW	6	8.0	5.0-10.0	88.7	84.0-96.0	86.4	80.0-93.3	= (2) n/d (4)
CAPBP	7	9.2	5.3-13.0	82.5	74.3-92.0	83.5	76.3-92.0	= (3) n/d (4)
CENCY	1	5.0	5.0	72.5	72.5	70.0	70.0	= (1)
CHEAL	1	5.0	5.0	81.0	81.0	84.0	84.0	n/d (1)
DESSO	4	8.0	5.0-15.0	80.5	75.0-84.0	79.5	73.3-84.0	= (2) n/d (2)
FUMOF	1	5.0	5.0	0	0	0	0	-
GALAP	8	6.8	5.0-10.0	86.5	76.3-100.0	85.1	75.8-92.5	= (5) > (1) n/d (2)
GERPU	1	9.8	9.8	75.8	75.8	72.8	72.8	= (1)
LAMAM	1	5.0	5.0	32.5	32.5	30.0	30.0	= (1)
LITAR	1	6.0	6.0	81.5	81.5	79.8	79.8	= (1)
MATIN	7	6.7	5.0-8.5	90.3	84.0-100.0	88.6	82.0-96.3	= (3); n/d (4)
MYOAR	5	7.5	5.0-13.0	93.8	84.0-100.0	93.5	84.0-100.0	= (3) n/d (2)
PAPRH	8	9.2	5.0-28.0	88.5	76.8-100.0	87.5	73.3-100.0	= (5) n/d (3)
POLCO	4	6.3	5.0-9.0	89.0	82.0-97.5	90.3	82.0-100.0	= (2) n/d (2)
SINAR	2	5.0	5.0-5.0	85.5	81.0-90.0	86.0	82.0-90.0	n/d (2)
SONAR	1	6.0	6.0	84.0	84.0	85.0	85.0	n/d (1)
STEME	9	7.1	5.0-13.3	91.0	80.0-100.0	90.2	82.0-100.0	= (5) n/d (4)
THLAR	8	5.5	5.0-6.0	90.2	81.5-100.0	88.2	78.0-96.5	= (4) > (1) n/d (3)
VERHE	1	5.8	5.8	77.3	77.3	74.3	74.3	= (1)
VERPE	5	8.7	5.0-15.0	71.4	57.5-80.0	68.7	52.5-80.0	= (3) > (1) n/d (1)
VIOAR	3	9.4	6.3-12.0	74.6	50.0-96.3	69.3	47.5-85.0	= (2) > (1)
				Later assessments 50-60 DAA				
ANTAR	2	5.9	5.3-6.5	100.0	100.0-100.0	100.0	100.0-100.0	= (2)
BRSNW	6	8.0	5.0-10.0	95.8	91.0-100.0	96.0	90.0-100.0	= (2) n/d (4)
CAPBP	7	9.2	5.3-13.0	91.2	86.0-100.0	90.3	86.0-98.0	= (3) n/d (4)
CENCY	1	5.0	5.0	73.8	73.8	71.3	71.3	= (1)
CHEAL	1	5.0	5.0	86.0	86.0	86.0	86.0	n/d (1)
DESSO	4	8.0	5.0-15.0	91.2	86.3-100.0	89.7	85.3-98.0	= (2) n/d (2)
FUMOF	1	5.0	5.0	0	0	0	0	-
GALAP	8	6.8	5.0-10.0	90.4	84.5-100.0	90.4	84.5-100.0	= (5) n/d (3)
GERPU	1	9.8	9.8	84.0	84.0	82.8	82.8	= (1)
LAMAM	1	5.0	5.0	32.5	32.5	30.0	30.0	= (1)
LITAR	1	6.0	6.0	100.0	100.0	100.0	100.0	= (1)

MATIN	7	6.7	5.0-8.5	96.7	92.0-100.0	95.5	91.0-100.0	= (3) n/d (4)
MYOAR	5	7.5	5.0-13.0	96.6	93.0-100.0	97.0	91.0-100.0	= (3) n/d (2)
PAPRH	8	9.2	5.0-28.0	93.8	85.8-100.0	93.4	86.0-100.0	= (5) n/d (3)
POLCO	4	6.3	5.0-9.0	90.2	82.0-97.5	91.3	82.0-98.0	= (2) n/d (2)
SINAR	2	5.0	5.0-5.0	93.0	86.0-100.0	91.5	85.0-98.0	n/d (2)
SONAR	1	6.0	6.0	92.0	92.0	92.0	92.0	n/d (1)
STEME	9	7.1	5.0-13.3	94.4	87.0-100.0	94.0	85.0-100.0	= (5) n/d (4)
THLAR	8	5.5	5.0-6.0	95.6	88.0-100.0	93.7	86.3-100.0	= (5) n/d (3)
VERHE	1	5.8	5.8	83.3	83.3	82.0	82.0	= (1)
VERPE	5	8.7	5.0-15.0	75.1	72.5-88.0	71.7	50.0-85.0	= (3) n/d (2)
VIOAR	3	9.4	6.3-12.0	76.8	50.0-96.3	74.3	55.0-85.0	= (1) > (1) < (1)

*In 5 trials (NUZ 07/22/1, NUZ 07/22/2, NUZ 07/22/3, NUZ 07/22/4, NUZ 07/22/5) weed density was not determined at application. Therefore, data on weed density was taken from the first assessment timing.

Mean overall percentage efficacy of Floras 50 SC applied at recommended dose rate against dicotyledonous weed species across trials carried out in spring barley

Common weed species across trials carried out in spring barley								
Weed species	Number of trials	Weed density at application* (pl/m ²)		Mean % efficacy of Floras 50 SC		Mean % efficacy of reference product (Upton 050 SC)		No of trials where Floras 50 S.C. is >, <, = compared to reference product
				0.1 L/ha		0.1 L/ha		
		Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	
AMARE	2	6.5	5.0-8.0	85.0	84.5-85.5	84.7	83.8-85.5	= (2)
ANTAR	2	7.9	7.3-8.5	94.7	91.3-98.0	94.0	89.5-98.5	= (2)
BRSNW	4	5.0	5.0-5.0	90.5	77.5-95.5	90.0	78.8-95.0	= (4)
CAPBP	6	9.0	6.0-12.0	83.6	80.0-88.8	82.7	80.0-85.0	> (1) n/d (5)
CENCY	1	6.0	6.0	76.3	76.3	75.0	75.0	= (1)
CHEAL	4	9.0	5.0-17.5	69.9	52.5-77.0	65.0	52.5-75.8	= (3) > (1)
CONAR	1	5.5	5.5	76.3	76.3	77.0	77.0	= (1)
DESSO	2	6.0	5.0-7.0	84.0	84.0-84.0	83.5	82.0-85.0	n/d (2)
GAETE	3	5.8	5.0-6.3	79.8	78.0-83.0	77.8	73.3-82.0	= (1) n/d (2)
GALAP	4	6.5	5.0-7.3	81.7	78.0-85.0	81.3	78.3-84.5	= (3) n/d (1)
GALPA	1	6.0	6.0	80.0	80.0	80.0	80.0	n/d (1)
GASPA	2	7.4	6.3-8.5	94.7	94.8-94.5	93.7	93.0-94.3	= (2)
LITAR	1	6.3	6.3	96.0	96.0	95.8	95.8	= (1)
MATCH	1	5.5	5.5	90.5	90.5	90.0	90.0	= (1)
MATIN	2	7.7	6.0-9.3	90.7	89.3-92.0	87.9	85.3-90.5	= (2)
MELAL	2	6.0	6.0-6.0	97.5	97.5-97.5	85.1	83.8-86.3	> (2)
MYOAR	3	5.7	5.0-6.0	88.2	82.0-100.0	87.3	80.0-100.0	= (2) n/d (1)
PAPRH	1	6.3	6.3	85.5	85.5	83.0	83.0	= (1)
POLAV	2	6.5	5.5-7.5	91.4	88.3-94.5	89.8	86.3-93.3	= (2)
POLCO	9	6.3	5.0-8.0	86.9	82.0-93.8	86.8	77.5-98.3	= (6) n/d (3)
POLPE	2	6.8	5.5-8.0	92.4	86.8-98.0	92.2	88.0-96.3	= (2)
SINAR	5	13.2	6.0-21.0	82.2	80.0-85.0	82.8	80.0-86.0	n/d (5)

STEME	6	7.8	5.0-11.0	83.7	76.0-94.0	83.7	78.0-92.3	= (1) n/d (5)
THLAR	9	6.2	5.0-7.8	86.6	78.8-97.5	85.1	78.0-95.0	= (4) n/d (5)
VERPE	6	5.8	5.0-8.0	82.1	68.8-95.0	79.4	70.0-86.0	= (1) > (1) n/d (4)
VIOAR	2	7.5	7.0-8.0	32.5	0.0-65.0	30.0	0.0-60.0	= (2)
Later assessments 41-56 DAA								
AMARE	2	6.5	5.0-8.0	85.5	85.5-85.5	85.5	85.0-86.0	= (2)
ANTAR	2	7.9	7.3-8.5	100.0	100.0-100.0	100.0	100.0-100.0	= (2)
BRSNW	4	5.0	5.0-5.0	94.2	86.3-100.0	94.1	86.3-100.0	= (4)
CAPBP	6	9.0	6.0-12.0	91.3	88.0-95.0	90.2	85.0-95.0	= (1) n/d (5)
CENCY	1	6.0	6.0	73.8	73.8	72.5	72.5	= (1)
CHEAL	4	9.0	5.0-17.5	72.7	50.0-82.0	69.4	52.5-80.8	= (3) > (1)
CONAR	1	5.5	5.5	83.3	83.3	81.3	81.3	= (1)
DESSO	2	6.0	5.0-7.0	92.0	90.0-94.0	92.0	90.0-94.0	n/d (2)
GAETE	3	5.8	5.0-6.3	84.0	82.0-88.0	82.7	78.0-88.0	= (1) n/d (2)
GALAP	4	6.5	5.0-7.3	89.8	87.3-92.0	90.0	86.8-93.0	= (3) n/d (1)
GALPA	1	6.0	6.0	91.0	91.0	92.0	92.0	n/d (1)
GASPA	2	7.4	6.3-8.5	99.7	99.3-100.0	99.3	98.5-100.0	= (2)
LITAR	1	6.3	6.3	100.0	100.0	100.0	100.0	= (1)
MATCH	1	5.5	5.5	100.0	100.00	100.0	100.0	= (1)
MATIN	2	7.7	6.0-9.3	100.0	100.0-100.0	100.0	100.0-100.0	= (2)
MELAL	2	6.0	6.0-6.0	97.5	97.5-97.5	85.1	83.8-86.3	> (2)
MYOAR	3	5.7	5.0-6.0	92.9	88.8-100.0	92.3	88.0-100.0	= (2) n/d (1)
PAPRH	1	6.3	6.3	86.8	86.8	85.5	85.5	= (1)
POLAV	2	6.5	5.5-7.5	100.0	100.0-100.0	100.0	100.0-100.0	= (2)
POLCO	9	6.3	5.0-8.0	93.1	86.3-100.0	92.9	85.0-100.0	= (4) > (1) < (1) n/d (3)
POLPE	2	6.8	5.5-8.0	100.0	100.0-100.0	100.0	100.0-100.0	= (2)
SINAR	5	13.2	6.0-21.0	91.8	88.0-95.0	91.6	88.0-95.0	n/d (5)
STEME	6	7.8	5.0-11.0	92.3	88.0-95.0	91.2	90.0-95.0	= (1) n/d (5)
THLAR	9	6.2	5.0-7.8	91.7	85.5-95.0	90.8	83.8-95.0	= (4) n/d (5)
VERPE	6	5.8	5.0-8.0	92.2	87.5-97.5	89.3	75.0-95.0	= (1) > (1) n/d (4)
VIOAR	2	7.5	7.0-8.0	35.0	0.0-70.0	33.8	0.0-67.5	= (2)

*In 5 trials (NUZ 07/22/8, NUZ 07/22/9, NUZ 07/22/10, NUZ 07/22/11, NUZ 07/22/12) weed density was not determined at application. Therefore, data on weed density was taken from the first assessment timing.

Conclusions from the evaluation

Based on the presented trial results, the following target weed species can be accepted in North-East EPPO zone (PL) and classified according to SANCO/10055/2013 Rev. 4, 3 October 2013:

Winter wheat

Highly susceptible (HS): ANTAR, BRSNW, MATIN, MYOAR, THLAR

Susceptible (S): CAPBP, DESSO, GALAP, PAPRH, POLCO, SINAR, STEME

Moderately susceptible (MS): VERPE

Spring barley

Highly susceptible (HS): ANTAR, GASPA, MATIN, MELAL, POLAV

Susceptible (S): AMARE, BRSNW, CAPBP, DESSO, GALAP, MYOAR, POLCO, SINAR, STEME, THLAR, VERPE

Moderately susceptible (MS): CHEAL, GAETE

Tolerant (T): VIOAR

The overall classification of weed susceptibility has been presented only for target weed species with sufficient efficacy data/ number of trials.

For other weed species (CENCY, CHEAL, FUMOF, GERPU, LAMAM, LITAR, SONAR, VERHE in winter wheat and CENCY, CONAR, GALPA, LITAR, MATCH, PAPRH in spring barley) only single trial results are available. The efficacy data for POLPE (target weed species) is not sufficient due to national requirements.

Additional remark

The presented data have been submitted to support the authorization of the product Floras 50 SC in the control of broad-leaved weeds in cereal crops: winter wheat and spring barley in Poland (North-East EPPO zone). All the trials submitted to cover the requested uses, were carried out only in North-East EPPO zone (PL). No trials were conducted in Maritime or South-East EPPO zone. In case of possible future applications in other Member States (e.g. art. 40 Mutual recognition), the decision on acceptance data from North-East EPPO zone will be made on the national level, according to the national requirements.

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

Resistance is the naturally inherited ability of some weed biotypes within a population to survive an application of herbicides, which would control this weed population on normal application conditions effectively. Resistance is of great commercial relevance both for the operator and for the manufacturer. For the operator due to the fact that less efficacy represents yield losses of qualitative and quantitative nature and resulted in higher costs of weed control: for the manufacturer because development of resistance could ruin the return of investment in the development of an active substance. Regarding Florasulam resistance to HRAC group 2 (previously B)-Herbicides is reported for 129 174 weed species worldwide. Within Europe, resistance against a total of 24 54 weed species were reported by HRAC International Herbicide-Resistant Weed Database.

Regarding active substance Florasulam, the evaluation of the inherent risk shows a high risk for development of weed resistance, especially with respect to *Stellaria media*, *Sinapis arvensis*, *Papaver rhoeas* and *Tripleurospermum maritimum* subsp. *inodorum*. On the other hand, the evaluation of agronomic risk to develop resistance to Floras 50 SC is regarded medium, if the product is used according to the label recommendations and unrestricted use pattern.

Number of cases of weeds resistant to HRAC group B 2-herbicides and the cases reported for group 0 herbicides may imply a high risk for the development of resistance, if the active ingredients would be used separately.

Due to the characteristics of the product Floras 50 SC, which contains two active substances with a different mode of action, this The risk to develop resistance is reduced, especially if product Floras 50 SC is used according to label restrictions and using also products containing active substances from different chemical groups with different mode of action.

More detailed data on the occurrence or possible occurrence of development of resistance have been presented by the Applicant in part A and subsequently verified by zRMS and transferred to part B3.

An analysis of the occurrence and possible development of resistance associated with the GAP uses of the test product Floras 50 SC (florasulam) based on the most recent resistance situation should be provided according to EPPO Standard PP 1/213 (4) 'Resistance risk analysis'.

The resistance risk of Floras 50 SC was evaluated by combining the inherent factors posed by the herbicide and the inherent factors of the target weeds under consideration of the agronomic risk of the

intended use.

As a basis for this analysis, available resistance data were mainly retrieved from Heap, I.: ‘The International Survey of Herbicide Resistant Weeds’ and the database of the ‘Herbicide Resistance Action Committee’ (HRAC). Details on the species-specific biological characteristics of the target weeds were retrieved from publications in the public domain (e.g. websites of the German BVL (Federal Office of Consumer Protection and Food Safety), the German JKI (Federal Research Centre for Cultivated Plants), and official plant protection services).

Mode of Action of Floras 50 SC (containing florasulam):

Florasulam: Inhibition of ALS (branched chain amino acid synthesis). Herbicide for post-emergence control of dicotyledonous weeds. Taken up by root and shoots, translocated in both xylem and phloem. Chemical group: Triazolopyrimidine.

FLORASULAM

is classified as a HRAC group 2 (previously group B) herbicide. Herbicidal activity rests upon the inhibition of the acetolactate synthase (ALS). ALS is a key enzyme in the biosynthesis of the branched-chain amino acids isoleucine, leucine, and valine. The inhibition of ALS eventually leads to a blockage of DNA synthesis. 58 different active ingredients belong to this group, including the chemical families triazolopyrimidine, sulfonyleurea, imidazolinonepyrimidinyl(thio)benzoate and sulfonylaminocarbonyltriazolinone. The active ingredient florasulam belongs to the chemical family triazolopyrimidine. This group includes as well the active ingredients cloransulam-methyl, diclosulam, flumetsulam, metosulam, penoxsulam and pyroxsulam.

ALS resistance (HRAC group 2) in dicotyledonous weeds is mainly due to Target Site Resistance (TSR) resulting from changes in the ALS enzyme conferred to a point mutation. Delye, C.; Pernin, F. and Scarabel, L. (2011) investigated the diversity of ALS resistance mechanisms in *Papaver rhoeas* in Italy. It has been demonstrated that TSR is assigned to the mutant alleles Arg197, His197, Leu197, Ser197, Thr197 and Leu574. However, with respect to the active ingredient florasulam moderate or no resistance was detected at field rates.

Resistant weed populations against HRAC group 2 herbicides have been documented worldwide. About 708 resistant cases are documented worldwide. However, the majority of cases have been documented in Northern America. Within the Central EU Zone, about 45 resistance cases have been documented.

According to the International Herbicide-Resistant Weed Database, worldwide cases of resistance against herbicides of the HRAC class 2 are recorded for 174 different weed species. About 106 cases have been reported for dicotyledonous weed species and 68 cases for monocotyledonous weeds.

Within the Central EU Zone ALS resistance cases have been reported in 9 different dicotyledonous weeds. Resistance cases associated with the active ingredient florasulam have been found in 4 dicotyledonous species: *Papaver rhoeas*, *Stellaria media*, *Tripleurospermum perforatum*, *Anthriscus caucalis*.

Cross resistance: ALS resistance (HRAC group 2) is mainly due to Target Site Resistance (TSR) resulting from changes in the ALS enzyme conferred to a point mutation. TSR is associated with an increased likelihood of cross resistance between active ingredients between the same HRAC group.

With respect to the active ingredient florasulam worldwide 36 resistance cases have been reported for 23 different weed species. Within the Central EU Zone 7 resistance cases have been reported for 6 different species. In the majority of cases cross resistance has been reported to ALS inhibitors (HRAC Group 2) herbicides. In one case located in Israel multiple sites of action resistance was re-reported in a publication and in the HRAC database for the monocotyledonous species *Lolium rigidum*. However, as monocotyledonous species usually are not sensitive to florasulam the conclusion for multi-site resistance in this grass weed are considered to be of low relevance.

Baseline sensitivity data can be referred to from product registration within the Central EU Zone. Herbicidal products based on the active ingredient florasulam have been introduced to the market in 1999. Despite the fact that any specific baseline sensitivity data obtained prior to the use of florasulam products was not compiled, the sensitivity level and variation is considered to be well documented in field trials included in product registration dossiers submitted for first authorisations in the EU. These dossiers include efficacy data of florasulam products for herbicidal use. These can be considered as

‘baseline’ sensitivity data to give an understanding of the variation in sensitivity of target populations. According to the national pesticide databases several products containing florasulam are registered in the EU.

A possible occurrence of weed resistance is not only the result of inherent factors of the active ingredient and/or the target weeds, but arises from a number of different external factors e.g. dose rate, application timing, application technique, climatic conditions, field history, and others. These have direct or indirect influence on the interrelation between the chemistry of a compound and the physiology of a weed plant which is resulting in the agronomic risk.

Considering the inherent factors of the herbicide and the inherent factors of the target weeds together with the agronomic risk, a medium resistance risk is concluded for the uses of Floras 50 SC applied for. This conclusion is not only based on the documentation of reported florasulam resistance cases – which are generally limited within the Central EU Zone – but as well on the low potential for future development of resistant weed species. Despite the fact that for the species *Amaranthus retroflexus* (AMARE), *Chenopodium album* (CHEAL), *Matricaria* spp. (MATSS), *Papaver rhoeas* (PAPRH), *Stellaria media* (STEME) and *Matricaria maritima* subsp. *inodora* (MATIN) a high inherent resistance risk was assessed, the agronomic risk is assumed to be merely medium as a result of the conditions of use of FLORAS 50 SC.

A special monitoring program is not envisaged due to the results of this resistance risk analysis concluding a medium risk for this product. However, observations of potential changes in the performance of any product should generally be reported to relevant company representatives and/or advisory organisations. Especially weed species with an elevated resistance risk should be carefully observed. Suspicious biotypes should be tested in special biotests to verify whether an observed reduced performance of a product is actually due to resistance or whether it was an effect of other factors as e.g. unfavourable use conditions.

Management strategy

Since the resistance risk of the uses of Floras 50 SC as applied for are considered to be medium, the implementation of a special management strategy is required. General principles of good agricultural practice should be considered to lower the weed pressure as presented below:

- frequent alternation with products belonging to other HRAC mode of action groups,
- use products at recommended doses and spray intervals,
- follow label recommendations,
- apply only under appropriate weather and soil conditions,
- avoid seeding of weed populations in-field,
- monitor pest populations in order to detect first shifts in sensitivity.

The resistance management strategy proposed by the Applicant to be included in the product label is presented below:

The herbicide Floras 50 SC contains active substance: florasulam belonging to triazolopyrimidine chemical group (HRAC group: 2). To prevent possible resistance development, the following rules should be applied:

- use the herbicide according to the label recommendations including the recommended dose rate and the right application timing to ensure optimal weed control,
- adjust the choice of herbicide and the decision about treatment to the prevailing (possibly potential) weed infestation, considering the dominant species and the harmfulness thresholds,
- use the herbicide alternately or in mixture with other herbicides belonging to different chemical groups with different modes of action,
- use herbicides (with different modes of action), that act on several weed life processes in rotation and/or mixture,
- use the herbicide with a given mode of action only once during the growing season of the crop,
- adapt the cultivation practises to field conditions, especially to the type and severity of weeds,
- use various weed control methods including crop rotation etc.,
- use only certified seeds,
- clean agricultural machines to prevent the transfer of weed propagating material to other sites,

- inform the authorization holder about not satisfying efficacy achieved,
- for more information, contact your advisor, authorization holder or representative of the authorization holder.

Comments of zRMS on:

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

The herbicide Floras 50 SC contains active substance: florasulam (chemical group: triazolopyrimidine; HRAC group: 2 (previously group B). Florasulam is an inhibitor of acetolactate synthase (ALS) - enzyme involved in the biosynthesis of amino acids (leucine, isoleucine and valine). Florasulam is systemic herbicide taken up by root and shoots, translocated in both xylem and phloem, intended for post-emergence control of broad-leaved weeds, especially *Galium aparine*, *Stellaria media*, *Polygonum convolvulus*, *Matricaria* spp. and various cruciferae in cereals and maize.

According to the International Herbicide-Resistant Weed Database (www.weedscience.org, date of access: April, 2024), 708 cases of 174 weed species (including 54 and 45 resistance cases in Europe and within the Central EU Zone respectively) have been reported from 1984 to 2023 to HRAC 2 herbicides. 9 dicotyledonous weed species with documented resistance to HRAC 2 herbicides have been reported within the Central EU Zone (*Amaranthus retroflexus*, *Anthriscus caucalis*, *Centaurea cyanus*, *Conyza canadensis*, *Kochia scoparia*, *Matricaria chamomilla*, *Papaver rhoeas*, *Stellaria media*, *Tripleurospermum perforatum*). Globally 36 cases of resistance associated with florasulam have been reported in 23 weed species, including 16 species in Europe (*Alopecurus myosuroides*, *Amaranthus retroflexus*, *Anthriscus caucalis*, *Apera spica-venti*, *Capsella bursa-pastoris*, *Chenopodium album*, *Galium spurium*, *Lolium perenne* ssp. *multiflorum*, *Matricaria chamomilla*, *Papaver rhoeas*, *Rumex obtusifolius*, *Senecio vulgaris*, *Sinapis arvensis*, *Spergula arvensis*, *Stellaria media*, *Tripleurospermum inodorum*). Resistance cases associated with the active ingredient florasulam has been found in 4 dicotyledonous species: *Anthriscus caucalis*, *Papaver rhoeas*, *Stellaria media*, *Tripleurospermum perforatum* within Central EU Zone. The overall risk of resistance development to Floras 50 SC considering inherent factors: high herbicide resistance risk, medium agronomic resistance risk and high weeds resistance risk is regarded medium, if the product is used according to the label recommendations and unrestricted use pattern.

Based on the presented data and recommendations of Good Experimental Practice, to avoid the possible development of resistance, the resistance management strategy proposed by the Applicant in the draft label is presented below. This strategy has been accepted by the zRMS.

“The herbicide Floras 50 SC contains active substance: florasulam belonging to triazolopyrimidine chemical group (HRAC group: 2). To prevent possible resistance development, the following rules should be applied:

- use the herbicide according to the label recommendations including the recommended dose rate and the right application timing to ensure optimal weed control,
- adjust the choice of herbicide and the decision about treatment to the prevailing (possibly potential) weed infestation, considering the dominant species and the harmfulness thresholds,
- use the herbicide alternately or in mixture with other herbicides belonging to different chemical groups with different modes of action,
- use herbicides (with different modes of action), that act on several weed life processes in rotation and/or mixture,
- use the herbicide with a given mode of action only once during the growing season of the crop,
- adapt the cultivation practises to field conditions, especially to the type and severity of weeds,
- use various weed control methods including crop rotation etc.,
- use only certified seeds,
- clean agricultural machines to prevent the transfer of weed propagating material to other sites,
- inform the authorization holder about not satisfying efficacy achieved,
- for more information, contact your advisor, authorization holder or representative of the authorization holder.

3.4 ~~Phytotoxicity to host crop (KCP 6.4.1)~~ Adverse effects on treated crops (KCP 6.4)

Table 3.4-1. Presentation of trials

Crop*	Country	Type of trial**	Number of trials	Years	GEP, non-GEP, official***	Comments (any other relevant information)
			North-East			
Winter wheat	Poland	S + Y + Q	6	2022	GEP	-
Spring barley	Poland	S + Y + Q	6	2022	GEP	-
TOTAL	-	-	12	-	-	-

* 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

3.4.1 Phytotoxicity to host crop (KCP 6.4.1)

In all trials conducted phytotoxicity was assessed. Phytotoxicity assessment of the tested product (Floras 50 SC) was made in 12 trials. No case of significant adverse effects were recorded on any cultivars at the proposed dose rates of 0.1 L/ha.

No signs of phytotoxicity effects were observed in all trials. Phytotoxicity in all tested samples was 0%.

No phytotoxicity for Floras 50 SC and the reference standards was observed throughout the trials.

At any tested rate, Floras 50 SC was perfectly safe for all crops and cultivars tested in the efficacy programme.

Summary:

Test report	NUZ 07/22/6
Crop/Variety	Winter wheat / Spencer
Guidelines	PP 1/225(2), PP 1/214 (4), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Region	RZD Kępa, Kępa Osiny (lubelskie)
Application	15.04.2022 (BBCH 27)
Remarks	very good wheat soil complex, class II; Assessment of phytotoxicity on a scale of 1–9 (1 – no symptoms of phytotoxicity); rating scale of 0 to 100 (% control or injury)

Results:

Treat. No.	Treatment Name	Rate (kg/ha) Dose (L/ha)	Phytotoxicity in percentage		
			BBCH 30 22.04.2022 DAA 7	BBCH 32 11.05.2022 DAA 26	BBCH 65 06.06.2022 DAA 52
1	Control Untreated		0	0	0
2	Floras 50 S.C.	0.1	0	0	0
3	Floras 50 S.C.	0.2	0	0	0
4	Upton 050 SC	0.1	0	0	0
5	Upton 050 SC	0.2	0	0	0

	Object	Dose (L/ha)	Yield of seeds (t/ha)	Moisture of grains (%)	Weight of thousand grains (g)	Weight of 1 hl of grains	Protein content in grains (%)
1	Control Untreated		7.2	13.0	43.6	74.6	13.3
2	Floras 50 S.C.	0.1	6.9	13.0	43.8	75.6	13.2
3	Floras 50 S.C.	0.2	7.4	13.1	43.9	75.4	13.2
4	Upton 050 S.C.	0.1	7.5	13.3	43.0	74.5	13.1
5	Upton 050 S.C.	0.2	7.4	13.2	43.2	74.6	13.4

	LSD 0.05		n.s. [§]	n.s.	n.s.	n.s.	n.s.
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Conclusions:

- 1) Floras 50 SC applied in doses 0.1 and 0.2 L/ha showed no phytotoxic effects on the winter wheat ~~plant plants~~ variety Spencer.
- 2) Yield and elements of the quality of the winter wheat grain variety Spencer from the objects with studied herbicides were comparable to the results gained from the control.
- 3) An adverse or unexpected effect of the investigated plant protection product on the beneficial organisms or other ones which were not controlled was not observed.

Test report	NUZ 07/22/7
Crop/Variety	Winter wheat / RTG Kilimangaro
Guidelines	PP 1/225(2) , PP 1/214 (4), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Region	RZD Kępa, Kępa Osiny (lubelskie)
Application	15.04.2022 (BBCH 26)
Remarks	very good wheat soil complex, class II; Assessment of phytotoxicity on a scale of 1–9 (1—no symptoms of phytotoxicity) rating scale of 0 to 100 (% control or injury)

Results:

Treatm No	Treatment Name	Rate (kg/ha) Dose (L/ha)	Fitotoxicity Phytotoxicity in percentage		
			BBCH 30 22.04.2022 DAA 7	BBCH 32 11.05.2022 DAA 26	BBCH 65 06.06.2022 DAA 52
1	Control Untreated		0	0	0
2	Floras 50 SC	0.1	0	0	0
3	Floras 50 SC	0.2	0	0	0
4	Upton 050 SC	0.1	0	0	0
5	Upton 050 SC	0.2	0	0	0

	Object	Dose (L/ha)	Yield of seeds (t/ha)	Moisture of grains in %	Weight of thousand grains (g)	Weight of 1 hl of grains	Protein content in grains (%)
1	Control Untreated		6.9	13.5	40.1	75.0	13.3
2	Floras 50 SC	0.1	6.8	13.5	40.9	75.9	13.4
3	Floras 50 SC	0.2	6.7	13.6	41.5	74.8	13.2
4	Upton 050 SC	0.1	7.2	13.2	41.3	74.3	13.4
5	Upton 050 SC	0.2	7.0	13.3	41.0	74.9	13.4
	LSD 0.05		n.s. [§]	n.s.	n.s.	n.s.	n.s.

Conclusions:

- 1) Floras 50 SC applied in doses 0.1 and 0.2 L/ha showed no phytotoxic effects on the winter wheat ~~plant plants~~ variety RTG Kilimangaro.
- 2) Yield and elements of the quality of the winter wheat grain variety RTG Kilimangaro from the objects with studied herbicides were comparable to the results gained from the control.
- 3) An adverse or unexpected effect of the investigated plant protection product on the beneficial organisms or other ones which were not controlled was not observed.

Test report	NUZ 07/22/13
Crop/Variety	Spring Barley / KWS Vermont
Guidelines	PP 1/225(2) , PP 1/214 (4), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Region	RZD Kępa, Kępa (lubelskie)
Application	16.04.05.2022 (BBCH 23)

Remarks	very good wheat soil complex, class II IIIa; Assessment of phytotoxicity on a scale of 1–9 (1 – no symptoms of phytotoxicity) rating scale of 0 to 100 (% control or injury)
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Results:

Treat No.	Treatment Name	Rate (kg/ha) Dose (L/ha)	Fitotoxicity Phytotoxicity in percentage		
			BBCH 30 22.04.2022 DAA 7	BBCH 32 11.05.2022 DAA 31	BBCH 65 06.06.2022 DAA 42
1	Control Untreated		0	0	0
2	Floras 50 SC	0.1	0	0	0
3	Floras 50 SC	0.2	0	0	0
4	Upton 050 SC	0.1	0	0	0
5	Upton 050 SC	0.2	0	0	0

	Object	Dose (L/ha)	Yield of seeds (t/ha)	Moisture of grains in %	Weight of thousand grains (g)	Weight of 1 hl of grains	Protein content in grains (%)
1	Control Untreated		5.90	12.8	43.1	74.5	12.2
2	Floras 50 SC	0.1	5.93	12.6	43.4	75.2	12.2
3	Floras 50 SC	0.2	5.99	12.8	43.4	75.9	12.3
4	Upton 050 SC	0.1	6.01	12.7	43.6	75.3	12.1
5	Upton 050 SC	0.2	5.99	12.4	42.9	75.4	12.3
	LSD 0.05		n.s. [±]	n.s.	n.s.	n.s.	n.s.

Conclusions:

- 1) Floras 50 SC applied in doses 0.1 and 0.2 L/ha showed no phytotoxic effects on the spring barley plants variety KWS Vermont.
- 2) Yield and elements of the quality of the spring barley grain variety KWS Vermont from the objects with studied herbicides were comparable to the results gained from the control.
- 3) An adverse or unexpected effect of the investigated plant protection product on the beneficial organisms or other ones which were not controlled was not observed.

Test report	NUZ 07/22/14
Crop/Variety	Spring Barley / Focus
Guidelines	PP 1/225(2), PP 1/214 (4), PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Region	RZD Kępa, Kępa Osiny (lubelskie)
Application	16.04.05.2022 (BBCH 23)
Remarks	very good wheat soil complex, class II IIIa; Assessment of phytotoxicity on a scale of 1–9 (1 – no symptoms of phytotoxicity) rating scale of 0 to 100 (% control or injury)

Results:

Treat- ment No.	Treatment Name	Rate (kg/ha) Dose (L/ha)	Phytotoxicity in percentage		
			BBCH 30 22.04.2022 DAA 7	BBCH 32 11.05.2022 DAA 31	BBCH 65 06.06.2022 DAA 42
1	Control Untreated		0	0	0
2	Floras 50 SC	0.1	0	0	0
3	Floras 50 SC	0.2	0	0	0
4	Upton 050 SC	0.1	0	0	0
5	Upton 050 SC	0.2	0	0	0

	Object	Dose (L/ha)	Yield of seeds (t/ha)	Moisture of grains in %	Weight of thousand grains (g)	Weight of 1 hl of grains	Protein content in grains (%)
1	Control Untreated		5.11	13.8	44.5	73.2	12.5
2	Floras 50 SC	0.1	5.16	13.8	44.8	73.5	12.7
3	Floras 50 SC	0.2	4.98	13.6	45.1	73.8	12.5
4	Upton 050 SC	0.1	5.14	13.7	44.2	73.9	12.3
5	Upton 050 SC	0.2	5.14	13.6	44.8	72.9	12.7
	LSD 0.05		n.s. [±]	n.s.	n.s.	n.s.	n.s.

Conclusions:

- 1) Floras 50 SC applied in doses 0.1 and 0.2 L/ha showed no phytotoxic effects on the spring barley plants-variety Focus.
- 2) Yield and elements of the quality of the spring barley grain variety Focus from the objects with studied herbicides were comparable to the results gained from the control.
- 3) An adverse or unexpected effect of the investigated plant protection product on the beneficial organisms or other ones which were not controlled was not observed.

Test report	SGS/2022/046/PL01
Crop/Variety	Winter wheat / Euforia
Guidelines	PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3), PP 1/225(2)
Region	Białożewin, Żnin, (Kujawsko-pomorskie)
Application	25.04.2022 (BBCH 31)
Remarks	loamy sand; rating scale of 0 to 100 (e.g. % control or injury)

Results:

No.	Treatment Name	Dose (L/ha)	Phytotoxicity			
			DAA 14	DAA 24	DAA 32	DAA 42
1	Control Untreated	-	0	0	0	0
2	Floras 50 SC	0.1	0	0	0	0
3	Floras 50 SC	0.2	0	0	0	0
4	Upton 050 SC	0.1	0	0	0	0
5	Upton 050 SC	0.2	0	0	0	0

No.	Object	Dose (L/ha)	Moisture (%)	Yield [t/ha]	Mass of a thousand grains (g)
1	Control Untreated	-	13.7	6.54	46.76
2	Floras 50 SC	0.1	13.9	6.54	47.08
3	Floras 50 SC	0.2	14.0	6.50	46.95
4	Upton 050 SC	0.1	13.8	6.51	47.57
5	Upton 050 SC	0.2	13.8	6.54	47.11

Conclusions:

1. Test product Floras 50 SC was applied at two dose rates: 0.1 and 0.2L/ha. Reference product Upton 050 SC was applied at 0.1 and 0.2L/ha. One single application was performed at BBCH 30-31. No phytotoxicity symptoms recorded. No vigor differences between treatments.
2. No phytotoxicity symptoms were recorded after application of treatments tested herbicides. No vigor differences were observed. Test product was safe to the crop winter wheat variety Euforia.
3. No negative impact on yield after application of test products and references. No difference in quality grain analysis: HLW, TGW and protein content.

Test report	SGS/2022/046/PL02
Crop/Variety	Winter wheat / Julius
Guidelines	PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3), PP 1/225(2)
Region	Cerewica, Żnin (Kujawsko-pomorskie)
Application	24.04.2022 (BBCH 30)
Remarks	loamy sand; Rating scale of 0 to 100 (0-100 % control or injury)

Results:

No.	Treatment Name	Dose (L /ha)	Phytotoxicity			
			DAA 10	DAA 21	DAA 28	DAA 35
1	Control: Untreated	-	0	0	0	0
2	Floras 50 SC	0.1	0	0	0	0
3	Floras 50 SC	0.2	0	0	0	0
4	Upton 050 SC	0.1	0	0	0	0
5	Upton 050 SC	0.2	0	0	0	0

No.	Object	Dose (L/ha)	Moisture (%)	Yield [t/ha]	Mass of a thousand grains (g)
1	Control: Untreated	-	13.3	6.85	42.87
2	Floras 50 SC	0.1	13.2	6.86	44.32
3	Floras 50 SC	0.2	13.3	6.82	43.45
4	Upton 050 SC	0.1	13.2	6.89	42.32
5	Upton 050 SC	0.2	13.3	6.88	43.19

Conclusions:

1. Test product Floras 50 SC was applied at two dose rates: 0.1 and 0.2 L/ha. Reference product Upton 050 SC was applied at 0.1 and 0.2 L/ha. One single application was performed at BBCH 29-30. No phytotoxicity symptoms recorded. No vigor differences between treatments.
2. No phytotoxicity symptoms were recorded after application of treatments tested herbicides. No vigor differences were observed. Test product was safe to the crop winter wheat variety Julius.
3. No negative impact on yield after application of test products and references. No difference in quality grain analysis: HLW, TGW and protein content.

Test report	SGS/2022/047/PL01
Crop/Variety	Spring Barley / Melius
Guidelines	PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3), PP 1/225(2)
Region	Cerewica, Żnin (Kujawsko-pomorskie)
Application	09.05.2022 (BBCH 23)
Remarks	sandy loam; Rating scale of 0 to 100 (0-100 % control or injury)

Results:

No.	Treatment Name	Dose (L /ha)	Phytotoxicity			
			DAA 10	DAA 21	DAA 30	DAA 42
1	Control: Untreated	-	0	0	0	0
2	Floras 50 SC	0.1	0	0	0	0
3	Floras 50 SC	0.2	0	0	0	0
4	Upton 050 SC	0.1	0	0	0	0
5	Upton 050 SC	0.2	0	0	0	0

No.	Object	Dose (L/ha)	Moisture (%)	Yield [t/ha]	Mass of a thousand grains (g)
1	Control: Untreated	-	12.3	6.56	45.00
2	Floras 50 SC	0.1	12.3	6.55	45.34
3	Floras 50 SC	0.2	12.2	6.58	44.74
4	Upton 050 SC	0.1	12.2	6.55	44.39
5	Upton 050 SC	0.2	12.2	6.60	45.40

Conclusions:

1. Test product Floras 50 SC was applied at two dose rates: 0.1 and 0.2 L/ha. Reference product Upton 050 SC was applied at 0.1 and 0.2 L/ha. One single application was performed at BBCH 22-24. No phytotoxicity symptoms recorded. No vigor differences between treatments.
2. No phytotoxicity symptoms were recorded after application of treatments tested herbicides. No vigor differences were observed. Test product was safe to the crop spring barley variety Melius.
3. No negative impact on yield after application of test products and references. No difference in quality grain analysis: HLW, TGW and protein content.

Test report	SGS/2022/047/PL02
Crop/Variety	Spring Barley / KWS Olof
Guidelines	PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3), PP 1/225(2)
Region	Podgórzyn, Żnin, (Kujawsko-pomorskie)
Application	26.04.2022 (BBCH 12)
Remarks	loam; Rating scale of 0 to 100 (0 = 0% control or injury)

Results:

No.	Treatment Name	Dose (L /ha)	Phytotoxicity			
			DAA 14	DAA 28	DAA 35	DAA 45
1	Control: Untreated	-	0	0	0	0
2	Floras 50 SC	0.1	0	0	0	0
3	Floras 50 SC	0.2	0	0	0	0
4	Upton 050 SC	0.1	0	0	0	0
5	Upton 050 SC	0.2	0	0	0	0

No.	Object	Dose [L/ha]	Moisture (%)	Yield [t/ha]	Mass of a thousand grains (g)
1	Control: Untreated	-	12.0	7.73	46.49
2	Floras 50 SC	0.1	12.0	7.77	46.35
3	Floras 50 SC	0.2	12.0	7.86	46.48
4	Upton 050 SC	0.1	12.0	7.81	45.89
5	Upton 050 SC	0.2	12.1	7.77	46.71

Conclusions:

1. Test product Floras 50 SC was applied at two dose rates: 0.1 and 0.2 L/ha. Reference product Upton 050 SC was applied at 0.1 and 0.2 L/ha. One single application was performed at BBCH 12-13. No phytotoxicity symptoms recorded. No vigor differences between treatments.
2. No phytotoxicity symptoms were recorded after application of treatments tested herbicides. No vigor differences were observed. Test product was safe to the crop spring barley variety KWS Olof.

3. No negative impact on yield after application of test products and references. No difference in quality grain analysis: HLW, TGW and protein content.

Test report	018-GP2022-01
Crop/Variety	Winter wheat / Bogatka
Guidelines	PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Region	Wola Kalkowa, (Łódzkie)
Application	22.04.2022 (BBCH 23)
Remarks	Loam sandy clay; Rating scale of 0 to 100 (e.g. % control or injury)

Results:

No.	Treatment Name	Dose (L/ha)	Phytotoxicity			
			DAA 7	DAA 14	DAA 28	DAA 56
1	Control: Untreated	-	0	0	0	0
2	Floras 50 SC	0.1	0	0	0	0
3	Floras 50 SC	0.2	0	0	0	0
4	Upton 050 SC	0.1	0	0	0	0
5	Upton 050 SC	0.2	0	0	0	0

No.	Object	Dose (L/ha)	Moisture (%)	Yield [t/ha]	Mass of a thousand grains (g)
1	Control: Untreated	-	13.33	6.3	50.28
2	Floras 50 SC	0.1	13.30	6.2	50.43
3	Floras 50 SC	0.2	13.15	6.3	50.28
4	Upton 050 SC	0.1	13.30	6.2	50.15
5	Upton 050 SC	0.2	13.23	6.2	50.13

Conclusions:

1. Floras 50 SC can be considered safe when applied in Winter Wheat (cv. Bogatka).
2. At Harvest, there was no significant difference in yields (t/ha), grain density (HLW), grain size (TGW) or protein content.
3. No phytotoxicity symptoms recorded, no differences in crop vigor after application of test products in comparison to untreated.
4. No negative impact on yield after application of test products and references. No difference in quality grain analysis.
5. No effect on other pests or non-target organisms was observed.
6. No factors have negatively affected the course and quality of a trial.

Test report	018-GP2022-02
Crop/Variety	Winter wheat / Hondia
Guidelines	PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Region	Łabiszyn, (Kujawsko-Pomorskie)
Application	30.04.2022 (BBCH 23)
Remarks	loamy sand; Rating scale of 0 to 100 (e.g. % control or injury)

Results:

No.	Treatment Name	Dose (L/ha)	Phytotoxicity			
			DAA 7	DAA 14	DAA 28	DAA 49
1	Control: Untreated	-	0	0	0	0
2	Floras 50 SC	0.1	0	0	0	0
3	Floras 50 SC	0.2	0	0	0	0
4	Upton 050 SC	0.1	0	0	0	0
5	Upton 050 SC	0.2	0	0	0	0

No.	Control: Untreated	Dose (L/ha)	Moisture (%)	Yield [t/ha]	Mass of a thousand grains (g)
1	Control	-	13.25	6.0	49.95
2	Floras 50 SC	0.1	13.33	5.9	49.68
3	Floras 50 SC	0.2	13.15	6.0	50.00
4	Upton 050 SC	0.1	13.18	6.0	49.88
5	Upton 050 SC	0.2	13.23	6.0	49.90

Conclusions:

1. Floras 50 SC can be considered safe when applied in Winter Wheat (cv. Hondia).
2. At Harvest, there was no significant difference in yields (t/ha), grain density (HLW), grain size (TGW) or protein
3. No phytotoxicity symptoms recorded, no differences in crop vigor after application of test products in comparison to untreated.
4. No negative impact on yield after application of test products and references. No difference in quality grain analysis.
5. No effect on other pests or non-target organisms was observed.
6. No factors have negatively affected the course and quality of a trial.

Test report	018-GP2022-03
Crop/Variety	Spring Barley / Wirtuoz
Guidelines	PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Region	Blonie, (Mazowieckie)
Application	01.06.2022 (BBCH 31)
Remarks	clay loam; Rating scale of 0 to 100 (e.g. % control or injury)

Results:

No.	Treatment Name	Dose (L/ha)	Phytotoxicity			
			DAA 7	DAA 14	DAA 27	DAA 44
1	Control: Untreated	-	0	0	0	0
2	Floras 50 SC	0.1	0	0	0	0
3	Floras 50 SC	0.2	0	0	0	0
4	Upton 050 SC	0.1	0	0	0	0
5	Upton 050 SC	0.2	0	0	0	0

No.	Object	Dose (L/ha)	Moisture (%)	Yield [t/ha]	Mass of a thousand grains (g)
1	Control: Untreated	-	14.70	5.1	48.33
2	Floras 50 SC	0.1	14.83	5.0	47.18
3	Floras 50 SC	0.2	14.73	5.1	48.13
4	Upton 050 SC	0.1	14.80	5.1	47.78
5	Upton 050 SC	0.2	14.93	5.1	47.68

Conclusions:

1. Floras 50 SC can be considered safe when applied is Spring Barley (cv. Wirtuoz).
2. At harvest, there was no significant difference in yields (t/ha), grain density (HLW) or grain size (TGW).
3. No phytotoxicity symptoms recorded, no differences in crop vigor after application of test products in comparison to untreated.
4. No negative impact on yield after application of test products and references. No difference in quality grain analysis.
5. No effect on other pests or non-target organisms was observed.
6. No factors have negatively affected the course and quality of a trial.

Test report	018-GP2022-04
Crop/Variety	Spring Barley / Stratus
Guidelines	PP 1/152(4), PP 1/181(4), PP 1/135(4), PP 1/93(3)
Region	Łabiszyn, (Kujawsko-Pomorskie)
Application	20.05.2022 (BBCH 23)
Remarks	clayey sand; Rating scale of 0 to 100 (e.g. % control or injury)

Results:

No.	Treatment Name	Dose (L/ha)	Phytotoxicity			
			DAA - 7	DAA - 14	DAA - 28	DAA - 42
1	Control: Untreated	-	0	0	0	0
2	Floras 50 SC	0.1	0	0	0	0
3	Floras 50 SC	0.2	0	0	0	0
4	Upton 050 SC	0.1	0	0	0	0
5	Upton 050 SC	0.2	0	0	0	0

No.	Object	Dose (L/ha)	Moisture (%)	Yield [t/ha]	Mass of a thousand grains (g)
1	Control: Untreated	-	13.18	5.1	43.65
2	Floras 50 SC	0.1	13.08	5.3	43.55
3	Floras 50 SC	0.2	13.08	5.4	43.75
4	Upton 050 SC	0.1	13.23	5.2	44.15
5	Upton 050 SC	0.2	13.05	5.2	43.90

Conclusions:

1. Floras 50 SC can be considered safe when applied is Spring Barley (cv. Stratus).
2. At harvest, there was no significant difference in yields (t/ha), grain density (HLW) or grain size (TGW).
3. No phytotoxicity symptoms recorded, no differences in crop vigor after application of test products in comparison to untreated.
4. No negative impact on yield after application of test products and references. No difference in quality grain analysis.
5. No effect on other pests or non-target organisms was observed.
6. No factors have negatively affected the course and quality of a trial.

Comments of zRMS on:

Phytotoxicity to host crop (3.4.1)

Twelve selectivity trials carried out in winter wheat (6 trials) and in spring barley (6 trials) in North-East EPPO zone (PL) in 2022 have been submitted for the evaluation of the herbicide Floras 50 SC on the crop safety. The crop safety assessments of Floras 50 SC were also considered in 30 efficacy trials (15 trials in winter wheat and 15 in spring barley). A maximum recommended dose rate of 0.1 L/ha (1N) was considered in efficacy trials and dose rates: 0.1 L/ha (1N) and 0.2 L /ha (2N) were considered in selectivity trials. The results are presented in the tables below.

Overall summary of the crop safety of Floras 50 SC across all selectivity and efficacy trials carried out in winter wheat

Number of trials with...		Selectivity trials (6 trials)				Efficacy trials (15 trials)	
		Floras 50 SC		Upton 50 SC		Floras 50 SC	Upton 50 SC
		1N (0.1 L/ha)	2N (0.2 L/ha)	1N (0.1 L/ha)	2N (0.2 L/ha)	1N (0.1 L/ha)	1N (0.1 L/ha)
Maximum of	0%	6	6	6	6	15	15

phytotoxicity recorded during the trials	>0% to 5%	0	0	0	0	0	0
	>5% to 10%	0	0	0	0	0	0
	>10% to 15%	0	0	0	0	0	0
	>15 %	0	0	0	0	0	0
Level of symptoms at the last assessments	0%	6	6	6	6	15	15
	>0% to 5%	0	0	0	0	0	0
	>5% to 10%	0	0	0	0	0	0
	>10% to 15%	0	0	0	0	0	0
	>15 %	0	0	0	0	0	0

Overall summary of the crop safety of Floras 50 SC across all selectivity and efficacy trials carried out in spring barley

Number of trials with...		Selectivity trials (6 trials)				Efficacy trials (15 trials)	
		Floras 50 SC		Upton 50 SC		Floras 50 SC	Upton 50 SC
		1N (0.1 L/ha)	2N (0.2 L/ha)	1N (0.1 L/ha)	2N (0.2 L/ha)	1N (0.1 L/ha)	1N (0.1 L/ha)
Maximum of phytotoxicity recorded during the trials	0%	6	6	6	6	15	15
	>0% to 5%	0	0	0	0	0	0
	>5% to 10%	0	0	0	0	0	0
	>10% to 15%	0	0	0	0	0	0
	>15 %	0	0	0	0	0	0
Level of symptoms at the last assessments	0%	6	6	6	6	15	15
	>0% to 5%	0	0	0	0	0	0
	>5% to 10%	0	0	0	0	0	0
	>10% to 15%	0	0	0	0	0	0
	>15 %	0	0	0	0	0	0

No phytotoxicity symptoms caused by Floras 50 SC at the recommended dose rate of 0.1 L/ha (1N) and the double tested dose rate of 0.2 L/ha (2N) were recorded in all trials carried out on target crops. Similarly, no phytotoxicity was noted after application of reference product Upton 50 SC.

It can be concluded that Floras 50 SC at the recommended dose rate 0.1 L/ha can be safely used in winter wheat and in spring barley and no phytotoxicity is expected.

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

In all trials conducted phytotoxicity was assessed. The biological assessment of the effectiveness of experiments estimated the effect on the yield.

The yield was evaluated on the basis of 12 trials regarding crop safety assessment. In all studies Floras 50 SC showed no ~~phototoxie~~ phytotoxic effects, additional grain yield and grain quality. No significant differences occurred. There was no statistically significant difference between the treatment objects and untreated samples.

Data from individual trials presenting effect of Floras 50 SC on the yield is presented under point 3.4.1.

Comments of zRMS on:

Effects on yield of treated plants or plant products (3.4.2)

Twelve selectivity trials carried out in winter wheat (6 trials) and in spring barley (6 trials) in North-East EPPO zone (PL) in 2022 have been submitted for the evaluation of the herbicide Floras 50 SC. The effect of Floras 50 SC and reference product Upton 50 SC applied at 1N and 2N dose on the crop yield is presented in the table below.

Yield effect of Floras 50 SC in selectivity trials in winter wheat and spring barley

Weed species	Number of trials	Yield in the untreated control (t/ha)		% yield relative to the untreated								No of trials where Floras 50 S.C. is >, <, = compared to reference product
				Floras 50 SC 0.1 L/ha (1N)		Floras 50 SC 0.2 L/ha (2N)		Upton 50 SC 0.1 L/ha (1N)		Upton 50 SC 0.2 L/ha (2N)		
		Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	
Winter wheat	6	6.6	6.0-7.2	98.6	95.8-100.1	99.8	97.1-102.8	101.2	98.4-104.3	100.5	98.4-102.8	= (2) n/d (4)
Spring barlev	6	5.9	5.1-7.7	100.6	98.0-103.9	101.1	97.5-105.9	100.9	99.8-102	100.9	100.0-102.0	= (2) n/d (4)

Results from the presented selectivity trials show that Floras 50 SC, applied at 1N and 2N dose as well, has no negative impact on the yield of target crops (winter wheat and spring barley). No significant differences in the yield have been noted comparing results achieved for Floras 50 SC with reference product Upton SC.

Based on the submitted trial results it can be concluded that no negative impact of Floras 50 SC applied at recommended dose rate of 1.0 L/ha on the yield of target crops (winter wheat and spring barley) is expected.

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

In all trials conducted phytotoxicity was assessed. The biological assessment of the effectiveness of experiments estimated the effect on the yield.

The yield was evaluated on the basis of 12 trials regarding crop safety assessment. In all studies Floras 50 SC showed no ~~phototoxic~~ phytotoxic effects, additional grain yield and grain quality. No significant differences occurred. There was no statistically significant difference between the treatment objects and untreated samples.

Data from individual trials presenting effect of Floras 50 SC on the yield quality parameters is presented under point 3.4.1.

Comments of zRMS on:

Effects on quality of plants and plant products (3.4.3)

Twelve selectivity trials carried out in winter wheat (6 trials) and in spring barley (6 trials) in North-East EPPO zone (PL) in 2022 have been submitted for the evaluation of the herbicide Floras 50 SC. The effect of Floras 50 SC and reference product Upton SC applied at 1N and 2N dose on the yield quality parameters (TGW, HLW, protein content) is presented in the tables below.

Yield (quality) effect of Floras 50 SC in selectivity trials in winter wheat and spring barley

Weed species	Number of trials	Untreated control Absolute figures	% relative to the untreated		No of trials where Floras 50

				Floras 50 SC 0.1 L/ha (1N)		Floras 50 SC 0.2 L/ha (2N)		Upton 50 SC 0.1 L/ha (1N)		Upton 50 SC 0.2 L/ha (2N)		S.C. is >, <, = compared to reference product
		Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	Mean	Min & Max	
TGW (g)												
Winter wheat	6	45.6	40.1-50.3	101.0	99.5-103.4	101.0	100.0-103.5	100.3	98.6-103.0	100.4	99.1-102.2	= (1) n/d (5)
Spring barley	6	45.2	43.1-48.3	99.9	97.6-100.8	100.2	99.4-101.3	99.6	98.6-101.2	100.1	98.7-100.9	= (2) n/d (4)
HLW (Kg/hL)												
Winter wheat	6	76.74	74.60-81.33	100.3	99.5-101.3	100.1	99.6-101.1	99.9	99.1-100.5	100.0	99.2-100.4	= (1) n/d (5)
Spring barley	6	69.44	61.93-74.50	100.1	99.3-100.9	100.2	99.3-101.9	100.3	99.5-101.1	99.9	98.6-101.6	= (2) n/d (4)
Protein content (%)												
Winter wheat	6	14.0	13.1-15.8	100.2	99.2-101.5	99.7	97.9-101.2	99.7	98.5-101.1	99.6	97.3-101.1	= (2) 0.1 L/ha = (1) 0.2 L/ha > (1) 0.2 L/ha n/d (4)
Spring barley	4	12.5	12.2-12.8	100.6	100.0-101.6	100.2	99.2-100.8	99.6	98.4-100.8	101.0	100.0-101.6	n/d (4)

Results from all selectivity trials show no negative effect on the yield quality parameters (HLW and TGW) after application of Floras 50 SC at 1N and 2N dose as well. Similarly, there was no negative impact of the tested herbicide at 1 N and 2 N dose on the protein content in 6 trials conducted in winter wheat and 4 trials in spring barley. Similar results have been demonstrated for reference product Upton 50 SC. No significant differences in the yield quality parameters have been noted comparing results achieved for Floras 50 SC with reference product Upton SC. Some statistically significant differences in protein content between tested product at 2 N dose and reference product at 2 N dose have been only demonstrated in 1 trial carried out in winter wheat (in favor of tested product).

Based on the submitted trial results it can be concluded that no negative impact of Floras 50 SC applied at recommended dose rate of 0.1 L/ha on the yield quality parameters of target crops (winter wheat and spring barley) is expected.

3.4.4 Effects on transformation processes (KCP 6.4.4)

For Floras 50 SC no processing trials are available. There is no indication from agricultural practice that herbicides with the active substances Florasulam have affected the processing of harvested cereal grains in the past. Furthermore, the test product is intended for application in spring and winter cereals (BBCH 12-32 of the crop), not close to harvest or after harvest.

Comments of zRMS on: Effects on transformation processes (3.4.4)

Accepted. Additional data not required.

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

In all trials conducted, phytotoxicity was assessed. The biological assessment of the effectiveness of experiments estimated the effect on the yield.

The yield was evaluated on the basis of 12 trials regarding crop safety assessment. In all studies Floras 50 SC showed ~~phototoxic~~ no adverse effects on the crop, additional grain yield and grain quality. ~~No significant differences occurred.~~ There was no statistically significant difference between the treatment objects and untreated samples.

Comments of zRMS on:

Impact on treated plants or plant parts to be used for propagation (3.4.5)

No data on the effect of Floras 50 SC on the viability, germination capacity or development of seeds has been submitted by the Applicant. However, Floras 50 SC contains known active substance florasulam, used in cereal crop protection for many years. No cases of adverse effects of florasulam on cereal crop seeds have been documented and reported yet. It can be concluded that adverse effect of Floras 50 SC on plant parts used for propagation is not expected.

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

3.5.1 Impact on succeeding crops (KCP 6.5.1)

For a preliminary estimate of the impact on succeeding crops, a laboratory study on seedling emergence may be indicated. Positive assessment and details are described in dRR Section 9 this registration documentation.

Additionally, it is concluded that after the appropriate application of Floras 50 SC in cereals, all the possible following crops can be grown in the frame of usual crop rotation without ploughing. In case it is necessary to close down the plantation where the product was used (as a result of crop damage caused by frost, disease or pest), it is possible to grow spring cereals at this field after seedbed preparation (at the depth of min. 5 cm).

According to the data presented in part A, the half-life (DT_{50}) for Florasulam in soil is short – about 2-18 days. Therefore, the impact on succeeding crops is unlikely to occur.

Results from Terrestrial Plant Test: Seedling Emergence and Seedling Growth Test, transferred by zRMS from Section 9 are presented below.

Report:	10.6/01, Pawel Pieczka, 2022
Title:	Terrestrial Plant Test: Seedling Emergence and Seedling Growth Test
Document No:	G-13-22
Guidelines:	OECD 208
GLP	YES

Results:

On the basis of the obtained results it was proved that the test item i.e. Floras 50 SC had varied impact on seedling emergence and seedling growth of the tested plant species.

The delayed seedling emergence of carrot and onion was observed when compared with the control.

The accidental death of cabbage and flax was observed during the experiment.

On the basis of NOER, ER10, ER25 and ER50 values determined from the plant number it was proved that the test item inhibited the seedling emergence and the process of growth of flax and onion. No influence was observed in cultivation of cabbage, carrot, perennial ryegrass and oats.

On the basis of NOER, ER10, ER25 and ER50 values determined from the shoot length it was proved that the test item inhibited the process of growth of cabbage, flax, carrot and onion. Slight effect was observed in cultivation of perennial ryegrass and oats.

On the basis of NOER, ER10, ER25 and ER50 values determined from the dry shoot weight it was proved that the test item inhibited the process of growth of cabbage, flax and carrot. Moderate effect was observed in cultivation of onion, perennial ryegrass and oats. During the experiment the phytotoxic symptoms of the test item were noticed in cultivation of cabbage, flax, carrot, onion and oats.

Comments of zRMS on:

Impact on succeeding crops (3.5.1)

The presented results from Seedling Emergence and Seedling Growth Test provide information about sensitivity of tested crops. Adverse effects of Floras 50 SC were observed:

- inhibition of seedling emergence and growth (considering plant number) of flax and onion,
- inhibition of growth (considering shoot length) of cabbage, flax, carrot and onion. Slight effects are possible to occur on perennial ryegrass and oats,
- inhibition of growth (considering dry shoot weight) of cabbage, flax and carrot. Moderate effect is possible to occur on onion, perennial ryegrass and oats.
- phytotoxicity symptoms on cabbage, flax, carrot, onion and oat (the fewest on oats).

Based on the trial results, it can be concluded that adverse effects occurred in all tested crops: cabbage, flax, carrot, onion, perennial ryegrass and oats. The most sensitive crops were cabbage, flax, carrot and onion. The Applicant's recommendation for crop failure situation: *In case it is necessary to close down the plantation where the product was used (as a result of crop damage caused by frost, disease or pest), it is possible to grow spring cereals at this field after seedbed preparation (at the depth of min. 5 cm) may be accepted, provided that pre-sowing cultivation is necessary.*

The Applicant's recommendation regarding succeeding crops for normal crop rotation: *"All the possible following crops can be grown in the frame of usual crop rotation without ploughing"*, considering that the half-life (DT₅₀) for florasulam in soil is short – about 2-18 days, is acceptable.

During evaluation process, the Applicant has submitted a proposal for a slightly modified note for succeeding crops to be included in the product label: *The product Floras 50 SC decomposes in the soil during the growing season to a level that poses no risk to succeeding crops. In case it is necessary to close down the plantation where the product was used (as a result of crop damage caused by frost, disease or pest), it is possible to grow winter and spring cereals at this field after pre-sowing cultivation.*

The recommendations for succeeding crops proposed by the Applicant are acceptable.

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

None of the efficacy trials reported any effects on adjacent crops or plants. Application of Floras 50 SC according to the requirements of "Good Agricultural Practice" excludes lapses e.g. overspray of boundary stripes, overdose or applications in other than the registered crops or at other application times. Furthermore, Good Agricultural Practice avoids spray drift to adjacent crops by taking into account the wind speed, the droplet size and positioning of the spray boom. As Floras 50 SC is intended for control of dicotyledonous weeds, the product may cause damages on dicotyledonous adjacent crops if it is misused.

Results from Terrestrial Plant Test: Vegetative Vigour Test, transferred by zRMS from Section 9 are presented below.

Report:	10.6/02, Pawel Pieczka, 2022
Title:	Terrestrial Plant Test: Vegetative Vigour Test
Document No:	G-12-22
Guidelines:	OECD 227
GLP	YES

Results:

The test item, i.e. Floras 50 SC, applied at rates ranging from 0.2 to 100.0 mL/ha, had a varied impact on vegetative vigour of all tested plant species.

On the basis of NOER, ER10, ER25 and ER50 values determined from the plant number at the end of the experiment it was proved that the test item did not inhibit the process of growth of all tested plants species.

On the basis of NOER, ER10, ER25 and ER50 values determined from the shoot length it was proved that the test item inhibited the process of growth of cabbage, flax, carrot, onion. Slight effect was observed in cultivation of perennial ryegrass and oats.

On the basis of NOER, ER10, ER25 and ER50 values determined from the dry shoot weight it was proved that the test item inhibited the process of growth of cabbage, flax, carrot, onion. Slight effect was observed in cultivation of perennial ryegrass. No influence was observed in cultivation of oats.

During the experiment the phytotoxic symptoms of the test item were noticed in cultivation of all tested plant species.

In the study, the most sensitive plant to influence of the test item was carrot.

The most resistant species was oats.

Comments of zRMS on:

Impact on adjacent crops (3.5.2)

The presented results from Vegetative Vigour Test have shown adverse effects of Floras 50 SC on the tested crops:

- inhibition of growth (considering shoot length) of cabbage, flax, carrot and onion. Slight effects are possible to occur on perennial ryegrass and oats,
- inhibition of growth (considering dry shoot weight) of cabbage, flax, carrot and onion. Slight effects are possible to occur on perennial ryegrass.

Based on these trial results and according to the rules of Good Agricultural Practice, to avoid any risk of adverse effects on adjacent crops, it is recommended to include, in the product label, the following remark: *When using Floras 50 SC do not allow spray drift to the neighbouring crop plantations.*

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

During the course of the effectiveness trials observations indicating any effects whatsoever on beneficial or other non-target organisms were not reported. Furthermore, the lack of observations of negative impacts on non-target organisms is in accordance with the results of toxicity tests in ecotoxicologically relevant indicator species. Detailed studies on the possible adverse effects to beneficial organisms are submitted and summarised in Part B, Section 9 (Ecotoxicology).

Comments of zRMS on:

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

Adverse effects on non-target organisms were not observed in a part of efficacy trials. In other trials no observations on beneficial or non-target organisms have been reported. Detailed studies are contained in Part B, Section 9 (Ecotoxicology).

Summary and conclusion

Floras 50 SC is a herbicide without any unexpected action and to be harmful for any succeeding crop in normal crop rotation. There are no important phytotoxic effects on treated or on succeeding crops. There are no important phytotoxic effects on treated or on succeeding crops. Use of Floras 50 SC in accordance with the proposed scope of use (GAP) and the Principles of Good Agricultural Practice does not pose a risk to neighboring plants. During the course of the effectiveness trials observations indicating any effects whatsoever on beneficial or other non-target organisms were not reported.

3.6 Other/special studies

None available that could be considered relevant.

3.7 List of test facilities including the corresponding certificates

Table 3.7-1: List of test facilities

Test facility	Address	Certificate (Yes or No)
SGS Poland Sp. z o.o.; Poland	Ul. Jana Kazimierza 3, 01-248 Warszawa, Poland	Yes
Institute of Soil Science and Plant Cultivation - National Research Institute in Puławy	Ul. Czarzoryskich 8, 24-100 Puławy, Poland	Yes
Green & Property Consulting Anna Huszcza-Podgórska	ul. Na Stoku, nr 6/6, 26-600 Radom, 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	Vertebrate study Y/N	Owner
3.2.3 KCP 6.2	Krzysztof Ławiński	2022	FLORAS 50 SC - Evaluation of selectivity and efficacy against weeds in cereals. Poland 2022. Green & Property Consulting Study code: 029GPSE202201 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Krzysztof Ławiński	2022	FLORAS 50 SC - Evaluation of selectivity and efficacy against weeds in cereals. Poland 2022. Green & Property Consulting Study code: 029GPSE202202 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Krzysztof Ławiński	2022	FLORAS 50 SC - Evaluation of selectivity and efficacy against weeds in cereals. Poland 2022. Green & Property Consulting Study code: 029GPSE202203 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Krzysztof Ławiński	2022	FLORAS 50 SC - Evaluation of selectivity and efficacy against weeds in cereals. Poland 2022. Green & Property Consulting Study code: 029GPSE202204 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Krzysztof Ławiński	2022	FLORAS 50 SC - Evaluation of selectivity and efficacy against weeds in cereals. Poland 2022. Green & Property Consulting Study code: 029GPSE202205 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.3.1 KCP 6.4.1 6.4.2 6.4.3	Krzysztof Ławiński	2022	FLORAS 50 SC - Evaluation of selectivity in cereals. Poland 2022. Green & Property Consulting Study code: 030GPSS202201 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.3.1 KCP 6.4.1 6.4.2	Krzysztof Ławiński	2022	FLORAS 50 SC - Evaluation of selectivity in cereals. Poland 2022. Green & Property Consulting Study code: 030GPSS202202 GEP/Unpublished	N	Elvita Sp.z o.o Różewo

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
6.4.3					
3.2.3 KCP 6.2	Krzysztof Ławiński	2022	FLORAS 50 SC - Evaluation of selectivity and efficacy against weeds in cereals. Poland 2022. Green & Property Consulting Study code: 027GPSE202201 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Krzysztof Ławiński	2022	FLORAS 50 SC - Evaluation of selectivity and efficacy against weeds in cereals. Poland 2022. Green & Property Consulting Study code: 027GPSE202202 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Krzysztof Ławiński	2022	FLORAS 50 SC - Evaluation of selectivity and efficacy against weeds in cereals. Poland 2022. Green & Property Consulting Study code: 027GPSE202203 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Krzysztof Ławiński	2022	FLORAS 50 SC - Evaluation of selectivity and efficacy against weeds in cereals. Poland 2022. Green & Property Consulting Study code: 027GPSE202204 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Krzysztof Ławiński	2022	FLORAS 50 SC - Evaluation of selectivity and efficacy against weeds in cereals. Poland 2022. Green & Property Consulting Study code: 027GPSE202205 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.3.1 KCP 6.4.1 6.4.2 6.4.3	Krzysztof Ławiński	2022	FLORAS 50 SC - Evaluation of selectivity in cereals. Poland 2022. Green & Property Consulting Study code: 028GPSS202201 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.3.1 KCP 6.4.1 6.4.2 6.4.3	Krzysztof Ławiński	2022	FLORAS 50 SC - Evaluation of selectivity in cereals. Poland 2022. Green & Property Consulting Study code: 028GPSS202202 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3	Mateusz Krawczuk	2022	Efficacy evaluation on Floras 50 SC when applied into spring barley for the control of broadleaves weeds,	N	Elvita 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	Vertebrate study Y/N	Owner
KCP 6.2			Poland 2022. SGS Polska Sp. z o.o. Study code: SGS/2022/049/PL01 GEP/Unpublished		Różewo
3.2.3 KCP 6.2	Mateusz Krawczuk	2022	Efficacy evaluation on Floras 50 SC when applied into spring barley for the control of broadleaves weeds, Poland 2022. SGS Polska Sp. z o.o. Study code: SGS/2022/049/PL02 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Mateusz Krawczuk	2022	Efficacy evaluation on Floras 50 SC when applied into spring barley for the control of broadleaves weeds, Poland 2022. SGS Polska Sp. z o.o. Study code: SGS/2022/049/PL03 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Mateusz Krawczuk	2022	Efficacy evaluation on Floras 50 SC when applied into spring barley for the control of broadleaves weeds, Poland 2022. SGS Polska Sp. z o.o. Study code: SGS/2022/049/PL04 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Mateusz Krawczuk	2022	Efficacy evaluation on Floras 50 SC when applied into spring barley for the control of broadleaves weeds, Poland 2022. SGS Polska Sp. z o.o. Study code: SGS/2022/049/PL05 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.3.1 KCP 6.4.1 6.4.2 6.4.3	Mateusz Krawczuk	2022	Selectivity of Floras 50 SC when applied into spring barley, Poland 2022. SGS Polska Sp. z o.o. Study code: SGS/2022/047/PL01 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.3.1 KCP 6.4.1 6.4.2	Mateusz Krawczuk	2022	Selectivity of Floras 50 SC when applied into spring barley, Poland 2022. SGS Polska Sp. z o.o. Study code: SGS/2022/047/PL02 GEP/Unpublished	N	Elvita Sp.z o.o Różewo

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
6.4.3					
3.2.3 KCP 6.2	Mateusz Krawczuk	2022	Efficacy evaluation on Floras 50 SC when applied into winter wheat for the control of broadleaves weeds, Poland 2022. SGS Polska Sp. z o.o. Study code: SGS/2022/048/PL01 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Mateusz Krawczuk	2022	Efficacy evaluation on Floras 50 SC when applied into winter wheat for the control of broadleaves weeds, Poland 2022. SGS Polska Sp. z o.o. Study code: SGS/2022/048/PL02 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Mateusz Krawczuk	2022	Efficacy evaluation on Floras 50 SC when applied into winter wheat for the control of broadleaves weeds, Poland 2022. SGS Polska Sp. z o.o. Study code: SGS/2022/048/PL03 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Mateusz Krawczuk	2022	Efficacy evaluation on Floras 50 SC when applied into winter wheat for the control of broadleaves weeds, Poland 2022. SGS Polska Sp. z o.o. Study code: SGS/2022/048/PL04 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Mateusz Krawczuk	2022	Efficacy evaluation on Floras 50 SC when applied into winter wheat for the control of broadleaves weeds, Poland 2022. SGS Polska Sp. z o.o. Study code: SGS/2022/048/PL05 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.3.1 KCP 6.4.1 6.4.2 6.4.3	Mateusz Krawczuk	2022	Selectivity of Floras 50 SC when applied into winter wheat, Poland 2022. SGS Polska Sp. z o.o. Study code: SGS/2022/046/PL01 GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.3.1	Mateusz Krawczuk	2022	Selectivity of Floras 50 SC when applied into winter wheat, Poland 2022.	N	Elvita 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	Vertebrate study Y/N	Owner
KCP 6.4.1 6.4.2 6.4.3			SGS Polska Sp. z o.o. Study code: SGS/2022/046/PL02 GEP/Unpublished		Różewo
3.2.3 KCP 6.2	Jerzy Grabiński	2022	The effectiveness of Floras 50 SC in Spring Barley (<i>Hordeum vulgare</i>). Institute of Soil Science and Plant Cultivation Study code: NUZ 07/22/8 Report I GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Jerzy Grabiński	2022	The effectiveness of Floras 50 SC in Spring Barley (<i>Hordeum vulgare</i>). Institute of Soil Science and Plant Cultivation Study code: NUZ 07/22/9 Report II GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Jerzy Grabiński	2022	The effectiveness of Floras 50 SC in Spring Barley (<i>Hordeum vulgare</i>). Institute of Soil Science and Plant Cultivation Study code: NUZ 07/22/10 Report III GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Jerzy Grabiński	2022	The effectiveness of Floras 50 SC in Spring Barley (<i>Hordeum vulgare</i>). Institute of Soil Science and Plant Cultivation Study code: NUZ 07/22/11 Report IV GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Jerzy Grabiński	2022	The effectiveness of Floras 50 SC in Spring Barley (<i>Hordeum vulgare</i>). Institute of Soil Science and Plant Cultivation Study code: NUZ 07/22/12 Report V GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.3.1 KCP 6.4.1 6.4.2 6.4.3	Jerzy Grabiński	2022	The selectivity of Floras 50 SC in Spring Barley (<i>Hordeum vulgare</i>) cultivation. Institute of Soil Science and Plant Cultivation Study code: NUZ 07/22/13 Report I GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.3.1 KCP 6.4.1	Jerzy Grabiński	2022	The selectivity of Floras 50 SC in Spring Barley (<i>Hordeum vulgare</i>) cultivation. Institute of Soil Science and Plant Cultivation Study code: NUZ 07/22/14 Report II	N	Elvita Sp.z o.o Różewo

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
6.4.2 6.4.3			GEP/Unpublished		
3.2.3 KCP 6.2	Jerzy Grabiński	2022	The effectiveness of Floras 50 SC in Winter Wheat (<i>Triticum aestivum</i>). Institute of Soil Science and Plant Cultivation Study code: NUZ 07/22/1 Report I GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Jerzy Grabiński	2022	The effectiveness of Floras 50 SC in Winter Wheat (<i>Triticum aestivum</i>). Institute of Soil Science and Plant Cultivation Study code: NUZ 07/22/2 Report II GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Jerzy Grabiński	2022	The effectiveness of Floras 50 SC in Winter Wheat (<i>Triticum aestivum</i>). Institute of Soil Science and Plant Cultivation Study code: NUZ 07/22/3 Report III GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Jerzy Grabiński	2022	The effectiveness of Floras 50 SC in Winter Wheat (<i>Triticum aestivum</i>). Institute of Soil Science and Plant Cultivation Study code: NUZ 07/22/4 Report IV GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.2.3 KCP 6.2	Jerzy Grabiński	2022	The effectiveness of Floras 50 SC in Winter Wheat (<i>Triticum aestivum</i>). Institute of Soil Science and Plant Cultivation Study code: NUZ 07/22/5 Report V GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.3.1 KCP 6.4.1 6.4.2 6.4.3	Jerzy Grabiński	2022	The selectivity of Floras 50 SC in Winter Wheat (<i>Triticum aestivum</i>). Institute of Soil Science and Plant Cultivation Study code: NUZ 07/22/6 Report I GEP/Unpublished	N	Elvita Sp.z o.o Różewo
3.3.1 KCP 6.4.1 6.4.2 6.4.3	Jerzy Grabiński	2022	The selectivity of Floras 50 SC in Winter Wheat (<i>Triticum aestivum</i>). Institute of Soil Science and Plant Cultivation Study code: NUZ 07/22/7 Report II GEP/Unpublished	N	Elvita Sp.z o.o Różewo

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 6.5.1 (submitted under KCP 10.6)	Paweł Pieczka	2022	Terrestrial Plant Test: Seedling Emergence and Seedling Growth Test IPO Pszczyna G-13-22 GLP/No Published	N	Elvita Sp.z o.o Różewo
KCP 6.5.2 (submitted under KCP 10.6)	Paweł Pieczka	2022	Terrestrial Plant Test: Vegetative Vigour Test IPO Pszczyna G-12-22 GLP/No Published	N	Elvita Sp.z o.o Różewo

List of data submitted or referred to by the applicant and relied on, but already evaluated at EU peer review

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

List of data submitted by the applicant and not relied on

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