Document Title

Summary of the fate and behaviour in the environment Bixafen + Fluopyram + Prothioconazole EC 260 (65+65+130 g/L)

Data Requirement(s)

Regulation (EC) No 1107/2009 & Regulation (EU) No 284/2013

Document MCP

Section 9: Fate and behaviour in the environment

According to the Guidance Document SANCO/10181/2013 for applicants on preparing dossiers for the approval of a chemical active substance

Date

2021-03-26

Author(s)

[redacted]

Bayer AG

Crop Science Division

M-765575-01-2

OWNERSHIP STATEMENT

Version history

Date [yyyy-mm-dd]	Data points containing amendments or additions1 and brief description	Document identifier and version number

[1] It is suggested that applicants adopt a similar approach to showing revisions and version history as outlined in SANCO/10180/2013 Chapter 4, 'How to revise an Assessment Report'.

Table of Contents

CP 9 FATE AND BEHAVIOUR IN THE ENVIRONMENT

Fluopyram was included in Annex I to Council Directive 91/414/EEC in 2013 (Regulation (EU) 802/2013 into Force on August 22, 2013). This Supplementary Dossier contains only data which were not submitted at the time of the Annex I inclusion of Fluopyram under Council Directive 91/414/EEC and which were therefore not evaluated during the first EU review. All data which were already submitted by Bayer AG (former Bayer CropScience) for the Annex I inclusion under Council Directive 91/414/EEC are contained in the Draft Assessment Report (DAR) and its Addenda and are included in the Baseline Dossier provided by Bayer.

The formulation Bixafen + Fluopyram + Prothioconazole EC 260 (65+65+130 g/L) abbreviation BIX + FLU + PTZ EC 260, is an emulsifiable concentrate formulation containing 65 g/L of Bixafen, 65 g/L Fluopyram and 130 g/L Prothioconazole. This formulation is registered throughout Europe under trade names such as Ascra Xpro EC 260. BIX+FLU+PTZ EC 260 was not already a representative formulation of Bayer AG for the Annex I inclusion of Prothioconazole under Council Directive 91/414/EEC.

BIX + FLU + PTZ EC 260 is an end use product proposed for use in the field on cereals (barley) based on the application pattern shown below.

Use pattern considered in this risk assessment

Table 9.1- 1: Intended application pattern

Crop	Timing of application (range)	Number of applications	Application interval [days]	Maximum label rate (range) [L prod./ha]	Maximum application rate, individual treatment (ranges) [kg a.s./ha] Fluopyram
Barley	BBCH 30-61	1	-	0.6	0.039
Barley	BBCH 30-61	1	-	1.2	0.078

CP 9.1 Fate and behaviour in soil

CP 9.1.1 Rate of degradation in soil

For information on the rate of degradation in soil please refer to Document MCA, Section 7.1.2.

CP 9.1.1.1 Laboratory studies

For information on laboratory studies please refer to Document MCA, Section 7.1.2.1.

CP 9.1.1.2 Field studies

For information on field studies please refer to Document MCA, Section 7.1.2.2.

CP 9.1.1.2.1 Soil dissipation studies

For information on field dissipation studies please refer to Document MCA, Section 7.1.2.2.1.

CP 9.1.1.2.2 Soil accumulation studies

For information on field accumulation studies please refer to Document MCA, Section 7.1.2.2.2.

CP 9.1.2 Mobility in the soil

For information on mobility studies please refer to Document MCA, Section 7.1.4.

CP 9.1.2.1 Laboratory studies

For information on laboratory studies please refer to Document MCA, Section 7.1.4.1.

CP 9.1.2.2 Lysimeter studies

For information on lysimeter studies please refer to Document MCA, Section 7.1.4.2.

CP 9.1.2.3 Field leaching studies

For information on field leaching studies please refer to Document MCA, Section 7.1.4.3.

CP 9.1.3 Estimation of concentrations in soil

Calculations of predicted environmental concentrations in soil (PEC_{soil}) are presented below.

Endpoints for PEC_{soil}

Table 9.1.3- 1: Modelling input parameters for fluopyram and its metabolites

Compound	Fluopyram	Fluopyram-7-hydroxy (FLU-7-OH)	Trifluoroacetic acid (TFA)
Molecular mass (g/mol)	396.72	412.72	114.02
Molar mass corr. factor	1	1.0403	0.2874
Max. occurrence in soil [%]	100	5.8	14.8
$DisT_{50}$ in soil (d)	1000*	85.52 [1)]	50.3 [2)]

* default
1) worst case lab, non-normalized
2) worst case $DisT_{50}$, including default degradation and leaching

PEC$_{soil}$ modelling approach

The predicted environmental concentrations in soil (PEC$_{soil}$) for the active substance fluopyram and its metabolites fluopyram-7-hydroxy (FLU-7-OH) and trifluoroacetic acid (TFA) were calculated based on a first-tier approach using a Microsoft® Excel spreadsheet under the assumption of an even distribution of the compound in the upper 0-5 cm soil layer. A standard soil density of 1.5 g/cm^3 was assumed. Crop interception will reduce the amount of a compound reaching the soil and therefore this has been taken into account depending on the growth stage at application. The interception rates follow the recommendations of the FOCUS groundwater guidance paper (FOCUS 2014a[1]).

Predicted environmental concentrations in soil (PEC$_{SOIL}$)

Important remark by the applicant: The modelling core information and the PEC$_{soil}$ values as presented below are interim values and are therefore subject to change until final modelling input parameters can be established. The applicant intends to provide final modelling core information and final PEC$_{soil}$ values latest by end of March 2022.

Data Point:	KCP 9.1.3/01
Report Author:	[redacted]
Report Year:	2021
Report Title:	Fluopyram (FLU): Core PECgw, PECsw, PECsoil EUR - Modelling core info document for groundwater, surface water and soil risk assessment in Europe
Report No:	EnSa-21-0077
Document No:	M-763252-01-1
Guideline(s) followed in study:	none
Deviations from current test guideline:	Current guideline: not applicable
Previous evaluation:	No, not previously submitted
GLP/Officially recognised testing facilities:	No, not conducted under GLP/Officially recognised testing facilities
Acceptability/Reliability:	Yes

Executive Summary

This document summarises the substance data for fluopyram and its metabolites as used for the purpose of soil risk assessment.

Modelling reports utilising this core info document should have the substance data presented in the form as shown in **Table 9.1.3- 1**.

[1] FOCUS, 2014a: Generic Guidance for Tier 1 FOCUS Groundwater Assessments, version 2.2

Data Point:	KCP 9.1.3/02
Report Author:	[redacted]
Report Year:	2021
Report Title:	Fluopyram (FLU) and metabolites: PECsoil EUR - Use in apples, spring cereals, winter cereals and vines in Europe
Report No:	EnSa-21-0075
Document No:	M-763355-01-1
Guideline(s) followed in study:	not applicable
Deviations from current test guideline:	Current guideline: not applicable
Previous evaluation:	No, not previously submitted
GLP/Officially recognised testing facilities:	No, not conducted under GLP/Officially recognised testing facilities
Acceptability/Reliability:	Yes

Please note: The modelling report is considering several use scenarios. Only those relevant for BIX + FLU + PTZ EC 260 are presented here.

Methods and Materials:

The predicted environmental concentrations in soil (PEC_{soil}) of fluopyram and its metabolites fluopyram-7-hydroxy (FLU-7-OH) and trifluoroacetic acid (TFA) were calculated in a first tier approach using a Microsoft® Excel spreadsheet. The use of fluopyram in barley (modelling crops: cereals) was assessed according to Good Agricultural Practice (GAP) under European cropping conditions.

A soil mixing depth of 5 cm was used for the calculation in cereals.

Detailed application data used for calculation of PEC_{soil} were compiled in Table 9.1.3- 2.

Table 9.1.3- 2: Application pattern used for PEC_{soil} calculations of fluopyram

Individual Crop	FOCUS crop used for Interception	Application				Amount reaching the soil per application
		Rate per Season [g a.s./ha]	Interval [days]	Plant Interception [%]	BBCH Stage	[g a.s./ha]
Barley I	Cereals	1 × 39	-	80	30 - 61	1 × 7.80
Barley II	Cereals	1 × 78	-	80	30 - 61	1 × 15.60

Findings: The PEC_{soil} values for fluopyram and its metabolites are summarized in the tables below.

Table 9.1.3- 3: PEC$_{soil}$ for fluopyram on cereals I, 1 × 39 g a.s./ha, 80% interception

PEC$_{soil}$ (mg/kg)		Cereals I			
		Single application		Multiple applications	
		Actual	TWA	Actual	TWA
Initial		0.010	-	-	-
Short term	24h	0.010	0.010	-	-
	2d	0.010	0.010	-	-
	4d	0.010	0.010	-	-
Long term	7d	0.010	0.010	-	-
	14d	0.010	0.010	-	-
	21d	0.010	0.010	-	-
	28d	0.010	0.010	-	-
	42d	0.010	0.010	-	-
	50d	0.010	0.010	-	-
	100d	0.010	0.010	-	-
Plateau concentration (20 cm) after year 10		0.009	-	-	-
PEC$_{accumulation}$ (PEC$_{act}$ +PEC$_{soil\ plateau}$)		0.019	-	-	-

Table 9.1.3- 4: PEC$_{soil}$ for fluopyram-7-hydroxy on cereals I, 1 × 39 g a.s./ha, 80% interception

PEC$_{soil}$ (mg/kg)		Cereals I			
		Single application		Multiple applications	
		Actual	TWA	Actual	TWA
Initial		<0.001	-	-	-
Short term	24h	<0.001	< 0.001	-	-
	2d	<0.001	< 0.001	-	-
	4d	<0.001	< 0.001	-	-
Long term	7d	<0.001	< 0.001	-	-
	14d	<0.001	< 0.001	-	-
	21d	<0.001	< 0.001	-	-
	28d	<0.001	< 0.001	-	-
	42d	<0.001	< 0.001	-	-
	50d	<0.001	< 0.001	-	-
	100d	<0.001	< 0.001	-	-
Plateau concentration (20 cm) after year 1		<0.001	-	-	-
PEC$_{accumulation}$ (PEC$_{act}$ +PEC$_{soil\ plateau}$)		<0.001	-	-	-

Table 9.1.3- 5: PEC$_{soil}$ for trifluoroacetic acid on cereals I, 1 × 39 g a.s./ha, 80% interception

PEC$_{soil}$ (mg/kg)		Cereals I			
		Single application		Multiple applications	
		Actual	TWA	Actual	TWA
Initial		<0.001	-	-	-
Short term	24h	<0.001	< 0.001	-	-
	2d	<0.001	< 0.001	-	-
	4d	<0.001	< 0.001	-	-
Long term	7d	<0.001	< 0.001	-	-
	14d	<0.001	< 0.001	-	-
	21d	<0.001	< 0.001	-	-
	28d	<0.001	< 0.001	-	-
	42d	<0.001	< 0.001	-	-
	50d	<0.001	< 0.001	-	-
	100d	<0.001	< 0.001	-	-
Plateau concentration (20 cm) after year 1		<0.001	-	-	-
PEC$_{accumulation}$ (PEC$_{act}$ +PEC$_{soil\ plateau}$)		<0.001	-	-	-

Table 9.1.3- 6: PEC$_{soil}$ for fluopyram on cereals II, 1 × 78 g a.s./ha, 80% interception

PEC$_{soil}$ (mg/kg)		Cereals II			
		Single application		Multiple applications	
		Actual	TWA	Actual	TWA
Initial		0.021	-	-	-
Short term	24h	0.021	0.021	-	-
	2d	0.021	0.021	-	-
	4d	0.021	0.021	-	-
Long term	7d	0.021	0.021	-	-
	14d	0.021	0.021	-	-
	21d	0.020	0.021	-	-
	28d	0.020	0.021	-	-
	42d	0.020	0.021	-	-
	50d	0.020	0.020	-	-
	100d	0.019	0.020	-	-
Plateau concentration (20 cm) after year 10		0.018	-	-	-
PEC$_{accumulation}$ (PEC$_{act}$ +PEC$_{soil\ plateau}$)		0.039	-	-	-

Table 9.1.3- 7: PEC$_{soil}$ for fluopyram-7-hydroxy on cereals II, 1 × 78 g a.s./ha, 80% interception

PEC$_{soil}$ (mg/kg)		Cereals II			
		Single application		Multiple applications	
		Actual	TWA	Actual	TWA
Initial		0.001	-	-	-
Short term	24h	0.001	0.001	-	-
	2d	0.001	0.001	-	-
	4d	0.001	0.001	-	-
Long term	7d	0.001	0.001	-	-
	14d	0.001	0.001	-	-
	21d	0.001	0.001	-	-
	28d	0.001	0.001	-	-
	42d	<0.001	0.001	-	-
	50d	<0.001	0.001	-	-
	100d	<0.001	< 0.001	-	-
Plateau concentration (20 cm) after year 1		<0.001	-	-	-
PEC$_{accumulation}$ (PEC$_{act}$ +PEC$_{soil\ plateau}$)		0.001	-	-	-

Table 9.1.3- 8: PEC$_{soil}$ for trifluoroacetic acid on cereals II, 1 × 78 g a.s./ha, 80% interception

PEC$_{soil}$ (mg/kg)		Cereals II			
		Single application		Multiple applications	
		Actual	TWA	Actual	TWA
Initial		<0.001	-	-	-
Short term	24h	<0.001	< 0.001	-	-
	2d	<0.001	< 0.001	-	-
	4d	<0.001	< 0.001	-	-
Long term	7d	<0.001	< 0.001	-	-
	14d	<0.001	< 0.001	-	-
	21d	<0.001	< 0.001	-	-
	28d	<0.001	< 0.001	-	-
	42d	<0.001	< 0.001	-	-
	50d	<0.001	< 0.001	-	-
	100d	<0.001	< 0.001	-	-
Plateau concentration (20 cm) after year 1		<0.001	-	-	-
PEC$_{accumulation}$ (PEC$_{act}$ +PEC$_{soil\ plateau}$)		<0.001	-	-	-

PEC$_{soil}$ for bixafen and prothioconzole and their metabolites

No soil assessment was required for bixafen and prothioconzole and their metabolites for the renewal process of fluopyram.

CP 9.2 Fate and behaviour in water and sediment

CP 9.2.1 Aerobic mineralisation in surface water

For information on aerobic mineralisation in surface water studies please refer to Document MCA, Section 7.2.2.2.

CP 9.2.2 Water/sediment study

For information on water/sediment studies please refer to Document MCA, Section 7.2.2.3.

CP 9.2.3 Irradiated water/sediment study

For information on irradiated water/sediment studies please refer to Document MCA, Section 7.2.2.4.

CP 9.2.4 Estimation of concentrations in groundwater

Calculations of predicted environmental concentrations in groundwater (PEC_{gw}) are presented below.

Endpoints for PEC_{gw}

Table 9.2.4- 1: Modelling parameters for fluopyram and its metabolites FLU-7-OH and TFA

Compound	Fluopyram	Fluopyram-7-hydroxy (FLU-7-OH)	Trifluoroacetic acid (TFA)
Molecular mass (g/mol)	396.7	412.7	114
Water solubility (mg/L)	19 (20°C)	33.75 (25°C)	500000 (20°C)
Saturated vapour pressure (Pa)	1.2 E-6 (20°C)	1.55 E-9 (20°C)	1.0 E-6 (20 - 30 °C)
DT_{50} in soil (d)	298.1 (Tier 1, field $DegT_{50}$ matrix), 254.4 (Tier 2a 1, TDS DT_{50} lab equilibrium), 216.48 (Tier 2a 2, TDS DT_{50} field equilibrium)	17.5 (lab)	1000
TDS $f_{NE\ lab}$	0.525 (Tier 2a)	-	-
TDS $k_{des\ lab}$ (1/d)	0.0285 (Tier 2a)	-	-
Koc (mL/g)	232.1	100.2	0
Kom (mL/g)	134.7	58.1	0
Freundlich exponent	0.843	0.929	1
Formation fraction	-	0.6342 from parent	0.5402, overall from parent, total molar yield
Plant uptake factor TSCF	0 (Tier 1) 0.3026 (Tier 2a, Briggs)	0 (Tier 1) 0.7256 (Tier 2a, Briggs)	0 (Tier 1) 0.17 (Tier 2a, cereals)
Rate constant (1/day)	0.00233 (Tier 1), 0.00272 (Tier 2a 1), 0.0032 (Tier 2a 2)	0.03954	0.00069

PEC_{gw} modelling approach

The predicted environmental concentrations in groundwater (PEC_{gw}) for the active substance fluopyram were calculated using the simulation models PEARL, PELMO and MACRO (scenario Châteaudun) following the recommendations of the FOCUS working group on groundwater scenarios.

The simulations are carried out over 26 years for pesticides which are applied every year. The simulation length increases to 46 and 66 years for pesticides which are applied only every second and third year, respectively. The first 6 years are intended as a so called 'warm up' period. The following years are taken into account for the assessment of the potential leaching behaviour. The 80th percentile of the average annual groundwater concentrations in the percolate at 1 m depth under a treated plantation were evaluated and were taken as the relevant PEC_{gw} values. In respect to the assessment of a potential groundwater contamination this shallow depth reflects a worst case. The effective long-term groundwater concentrations will be even lower due to dilution in the groundwater layer.

According to FOCUS, the calculations were conducted based on mean soil half-lives, referenced to standard temperature and moisture conditions. Crop interception will reduce the amount of a compound reaching the soil and therefore this has been taken into account depending on the growth stage at application. The interception rates follow the recommendations of FOCUS 2014a[2].

A summary of important substance input parameters is given in Table 9.2.4- 1.

CP 9.2.4.1 Calculation of concentrations in groundwater

Important remark by the applicant: The modelling core information and the PEC_{gw} values as presented below are interim values and are therefore subject to change until final modelling input parameters can be established. The applicant intends to provide final modelling core information and final PEC_{gw} values latest by end of March 2022.

For fluopyram, the metabolites fluopyram-7-hydroxy (FLU-7-OH) and trifluoroacetic acid (TFA) were considered.

Data Point:	KCP 9.2.4.1/01
Report Author:	[redacted]
Report Year:	2021
Report Title:	Fluopyram (FLU): Core PECgw, PECsw, PECsoil EUR - Modelling core info document for groundwater, surface water and soil risk assessment in Europe
Report No:	EnSa-21-0077
Document No:	M-763252-01-1
Guideline(s) followed in study:	none
Deviations from current test guideline:	Current guideline: not applicable
Previous evaluation:	No, not previously submitted
GLP/Officially recognised testing facilities:	No, not conducted under GLP/Officially recognised testing facilities
Acceptability/Reliability:	Yes

Executive Summary

This document summarises the substance data for fluopyram and its metabolites as used for the purpose of groundwater risk assessment. The following deterministic pesticide fate models were used in the calculations:

- FOCUS PEARL
- FOCUS PELMO
- FOCUS MACRO

The parameters correspond to standard EU requirements.

Modelling reports utilising this core info document should have the substance data presented in the form as shown in Table 9.2.4.1- 1 and Table 9.2.4.1- 2.

[2] FOCUS, 2014a: Generic Guidance for Tier 1 FOCUS Groundwater Assessments, version 2.2

Table 9.2.4.1- 1: Compound input parameters for fluopyram and its metabolites

Parameter	Unit	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Common				
Molar mass	(g/mol)	396.7	412.7	114.0 / 228.0*
Solubility	(mg/L)	19	33.8	500000
at temp.	(°C)	20	25	20
Vapour pressure	(Pa)	1.20E-06	1.55E-09	1.00E-06
at temp.	(°C)	20	20	20
Freundlich exponent	(-)	0.8432	0.929	1
fne, TDS	(-)	n.a.[1)] / 0.525[2) 3)]	0	0
kdes, TDS	(1/day)	n.a.[1)] / 0.0285[2) 3)]	0	0
Plant uptake factor	(-)	0[1)] / 0.3026[2),3)]	0[1)] / 0.7256[2),3)]	0[1)] / 0.17 (cereals) [2),3)]
Walker exponent	(-)	0.7	0.7	0.7
PEARL parameters				
Substance code	(-)	FLU[1)] / FLU21[2)] / FLU23[3)]	7OH[1)] / 7OH21[2)] / 7OH23[3)]	TFA[1)] / TFA21[2)] / TFA23[3)]
DT_{50}	(days)	298.1[1)] / 254.4[2)] / 216.48[3)]	17.5	1000
Formation fraction	(-)	-	0.6342	0.5402
Molar activ. energy	(kJ/mol)	65.4	65.4	65.4
Kom	(mL/g)	134.7	58.1	0
PELMO parameters				
Substance code	(-)	AS	A1	B1
Rate constant	(1/day)	0.00233[1)] / 0.00272[2)] / 0.0032[3)]	0.03954	0.00069
Q10	(-)	2.58	2.58	2.58
Koc	(mL/g)	232.1	100.2	0
MACRO parameters				
Substance code	(-)	FLU[1)] / FLU21[2)] / FLU23[3)]	7OH[1)] / 7OH21[2)] / 7OH23[3)]	TFA[1)] / TFA21[2)] / TFA23[3)]
Exponent moisture	(-)	0.49	0.49	0.49
Exponent temperature	(1/K)	0.0948	0.0948	0.0948
FRACEQ	(-)	n.a.[1)] / 0.344[2)3)]	0	0
SORPRATE	(1/day)	n.a.[1)] / 0.0098[2)3)]	0	0

1) Tier 1
2) Tier 2a 1
3) Tier 2a 2
*) Pelmo: Molar mass of TFA multiplied by 2, in combination with overall formation fraction per CF3 moiety, 0.2701., i.e. 0.5 * formation fraction per FLU molecule. This is done to adapt for limitations in PELMO with formation fractions > 1.

The model PELMO cannot deal with formation fractions > 1. Therefore, a formation fraction reflecting trifluoroacetic acid (TFA) formation per CF_3 moiety (related to max. ff 1) was used in combination with the molar mass of 2 TFA molecules. This adaptation of the formation in soil can be assumed reliable in case of TFA, since it is a non-sorbing metabolite, where equilibrium sorption is of no concern.

Table 9.2.4.1- 2: Degradation pathway related parameters for fluopyram and its metabolites

	Tier 1	Tier 2a 1	Tier 2a 2
Degradation fraction from → to (-) (FOCUS PEARL)	FLU → 7OH: 0.6342 FLU → TFA: 0.5402	FLU21 → 7OH21: 0.6342 FLU21 → TFA21: 0.5402	FLU23 → 7OH23: 0.6342 FLU23 → TFA23: 0.5402
Degradation rate from → to (1/day) (FOCUS PELMO) [a), b)]	Active Substance → A1: 0.0014748 Active Substance → B1: 6.28E-04 Active Substance → BR/CO2: 2.23E-04 A1 → BR/CO2: 0.0395406 B1 → BR/CO2: 6.93E-04	Active Substance → A1: 0.0017280 Active Substance → B1: 7.36E-04 Active Substance → BR/CO2: 2.61E-04 A1 → BR/CO2: 0.0395406 B1 → BR/CO2: 6.93E-04	Active Substance → A1: 0.0020306 Active Substance → B1: 8.65E-04 Active Substance → BR/CO2: 3.06E-04 A1 → BR/CO2: 0.0395406 B1 → BR/CO2: 6.93E-04
Conversion factor from → to (-) (FOCUS MACRO) [c)]	FLU → 7OH: 0.659777737 7OH → TFA: 0.155257118	FLU21 → 7OH21: 0.6597777 FLU21 → TFA21: 0.1552571	FLU23 → 7OH23: 0.6597777 FLU23 → TFA23: 0.1552571

a) Calculated as ln(2) / DT50 × formation fraction
b) formation fraction of TFA (B1) divided by 2 for adaptation to limitations in PELMO
c) Calculated as molar mass / molar mass predecessor × formation fraction

Data Point:	KCP 9.2.4.1/02
Report Author:	[redacted]
Report Year:	2021
Report Title:	Fluopyram (FLU) and metabolites: PECgw FOCUS PEARL, PELMO, MACRO EUR (Tier 1) - Use in apples, spring cereals, winter cereals and vines in Europe
Report No:	EnSa-21-0026
Document No:	M-763352-01-1
Guideline(s) followed in study:	none
Deviations from current test guideline:	Current guideline: not applicable
Previous evaluation:	No, not previously submitted
GLP/Officially recognised testing facilities:	No, not conducted under GLP/Officially recognised testing facilities
Acceptability/Reliability:	Yes

Data Point:	KCP 9.2.4.1/03
Report Author:	[redacted]
Report Year:	2021
Report Title:	Fluopyram (FLU) and metabolites: PECgw FOCUS PEARL, PELMO, MACRO EUR (Tier 2a 1, appl. every year) - Use in apples, spring cereals, winter cereals and vines in Europe
Report No:	EnSa-21-0053
Document No:	M-763421-01-1
Guideline(s) followed in study:	none
Deviations from current test guideline:	Current guideline: not applicable
Previous evaluation:	No, not previously submitted
GLP/Officially recognised testing facilities:	No, not conducted under GLP/Officially recognised testing facilities
Acceptability/Reliability:	Yes

Data Point:	KCP 9.2.4.1/04
Report Author:	[redacted]
Report Year:	2021
Report Title:	Fluopyram (FLU) and metabolites: PECgw FOCUS PEARL, PELMO, MACRO EUR (Tier 2a 1, appl. every 2nd year) - Use in apples, spring cereals, winter cereals and vines in Europe
Report No:	EnSa-21-0054
Document No:	M-763428-01-1
Guideline(s) followed in study:	none
Deviations from current test guideline:	Current guideline: not applicable
Previous evaluation:	No, not previously submitted
GLP/Officially recognised testing facilities:	No, not conducted under GLP/Officially recognised testing facilities
Acceptability/Reliability:	Yes

Data Point:	KCP 9.2.4.1/05
Report Author:	[redacted]
Report Year:	2021
Report Title:	Fluopyram (FLU) and metabolites: PECgw FOCUS PEARL, PELMO, MACRO EUR (Tier 2a 1, appl. every 3rd year) - Use in apples, spring cereals, winter cereals and vines in Europe
Report No:	EnSa-21-0055
Document No:	M-763423-01-1
Guideline(s) followed in study:	none
Deviations from current test guideline:	Current guideline: not applicable
Previous evaluation:	No, not previously submitted
GLP/Officially recognised testing facilities:	No, not conducted under GLP/Officially recognised testing facilities
Acceptability/Reliability:	Yes

Data Point:	KCP 9.2.4.1/06
Report Author:	[redacted]
Report Year:	2021
Report Title:	Fluopyram (FLU) and metabolites: PECgw FOCUS PEARL, PELMO, MACRO EUR (Tier 2a 3, appl. every year) - Use in apples, spring cereals, winter cereals and vines in Europe
Report No:	EnSa-21-0064
Document No:	M-763424-01-1
Guideline(s) followed in study:	none
Deviations from current test guideline:	Current guideline: not applicable
Previous evaluation:	No, not previously submitted
GLP/Officially recognised testing facilities:	No, not conducted under GLP/Officially recognised testing facilities
Acceptability/Reliability:	Yes

Data Point:	KCP 9.2.4.1/07
Report Author:	[redacted]
Report Year:	2021
Report Title:	Fluopyram (FLU) and metabolites: PECgw FOCUS PEARL, PELMO, MACRO EUR (Tier 2a 3, appl. every 2nd year) - Use in apples, spring cereals, winter cereals and vines in Europe
Report No:	EnSa-21-0065
Document No:	M-763425-01-1
Guideline(s) followed in study:	none
Deviations from current test guideline:	Current guideline: not applicable
Previous evaluation:	No, not previously submitted
GLP/Officially recognised testing facilities:	No, not conducted under GLP/Officially recognised testing facilities
Acceptability/Reliability:	Yes

Data Point:	KCP 9.2.4.1/08
Report Author:	[redacted]
Report Year:	2021
Report Title:	Fluopyram (FLU) and metabolites: PECgw FOCUS PEARL, PELMO, MACRO EUR (Tier 2a 3, appl. every 3rd year) - Use in apples, spring cereals, winter cereals and vines in Europe
Report No:	EnSa-21-0066
Document No:	M-763426-01-1
Guideline(s) followed in study:	none
Deviations from current test guideline:	Current guideline: not applicable
Previous evaluation:	No, not previously submitted
GLP/Officially recognised testing facilities:	No, not conducted under GLP/Officially recognised testing facilities
Acceptability/Reliability:	Yes

Please note: The modelling reports are considering several use scenarios. Only those relevant for BIX + FLU + PTZ EC 260 are presented here.

Methods and Materials:

Predicted environmental concentrations of the active substance fluopyram and its major soil degradation products in groundwater recharge (PEC_{gw}) were calculated for the use in Europe, using the simulation models FOCUS PEARL 4.4.4, FOCUS PELMO 5.5.3 and FOCUS MACRO 5.5.4. PEC_{gw} were evaluated as the 80th percentile of the mean annual leachate concentration at 1 m soil depth. Model parameters and scenarios consisting of weather, soil, and crop data were used as proposed by FOCUS (2014a,b[1,3]). The use of fluopyram in barley (modelling crops: spring cereals, winter cereals) was assessed according to Good Agricultural Practice (GAP) under European cropping conditions.

Detailed application data used for simulation of PEC_{gw} are compiled in Table 9.2.4.1- 3.

Table 9.2.4.1- 3: Application pattern used for PECgw calculations of fluopyram

Individual crop	FOCUS crop	Rate	Interval	Plant interception	BBCH stage	Amount reaching soil
		(g a.s./ha)	(days)	(%)	(-)	(g a.s./ha)
Spring Cereals I	Spring cereals	1 × 39	-	80	30 - 61	1 × 7.80
Spring Cereals II	Spring cereals	1 × 78	-	80	30 - 61	1 × 15.60
Winter Cereals I	Winter cereals	1 × 39	-	80	30 - 61	1 × 7.80
Winter Cereals II	Winter cereals	1 × 78	-	80	30 - 61	1 × 15.60

Input parameters - tiered approach:

A detailed description of the parameters used at the different steps is presented in Table 9.2.4.1- 4. More details on the selection of input parameter are given in the text below the table.

Table 9.2.4.1- 4: Tiered approach for fluopyram and its metabolites used for modelling

	Tier 1		Tier 2a 1		Tier 2a 2	
	DT_{50}	TSCF	DT_{50}	TSCF	DT_{50}	TSCF
FLU	298.1 a)	0 e)	254.4 b)	0.3026 f)	216.48 c)	0.3026 f)
FLU-7-OH	17.5 d)	0 e)	17.5 d)	0.7256 f)	17.5 d)	0.7256 f)
TFA	1000 e)	0 e)	1000 e)	0.17 g)	1000 e)	0.17 g)

a) $DegT_{50\ field\ matrix}$
b) TDS, DT_{50} lab equilibrium
c) TDS, DT_{50} field equilibrium
d) laboratory data
e) FOCUS worst case default
f) TSCF based on Briggs equation
g) TSCF based on experimental data

[3] FOCUS, 2014b: Assessing Potential for Movement of Active Substances and their Metabolites to Ground Water in the EU: The Final Report of the Ground Water Work Group of FOCUS EC Document Reference: Sanco/13144/2010 version 3, 613 pp.

Rate of degradation of fluopyram

Tier 1: The geometric mean field $DegT_{50}$ matrix value of 298.1 d derived from field dissipation studies was used for fluopyram.

Tier 2a: Degradation and time-dependent sorption studies showed aged-sorption effects for fluopyram. A geomean laboratory DT_{50} equilibrium of 254.4 d was used as Tier 2a 1 in groundwater assessment. At Tier 2a 2 a geomean field DT_{50} equilibrium of 216.5 d was used in groundwater assessment for fluopyram. In both cases, laboratory data for f_{NE} and k_{des} were used in combination with the DT_{50} equilibrium.

Plant uptake (TSCF) of fluopyram and its metabolites

Tier 1: For fluopyram and its metabolites a TSCF of 0 can be used for modelling as a first tier.

Tier 2a: As a more realistic tier a TSCF based on the Briggs equation of 0.3026 (fluopyram) and 0.7256 (FLU-7-OH) should be taken into account.

For a more realistic consideration of the plant uptake of TFA, a hydroponic plant uptake study has been carried out with cereal plants. As a second tier, a TSCF of 0.17 should be taken into account.

Input parameters for fluopyram and its metabolites were used as summarised in Table 9.2.4.1- 1 and Table 9.2.4.1- 2.

Application dates for the simulation runs were defined following the crop event dates of the respective crop and scenario (see Table 9.2.4.1- 5) as given by FOCUS (2014b). Crop interception was taken into account according to the BBCH growth stage, as recommended by FOCUS (2014a).

For use patterns with large application time windows, multiple starting times for modelling were chosen to cover the full application timeframe given in the GAP. This was done according to the proposal of the tool AppDate (Klein 2019). For application windows > 60 d, the earliest and the latest possible application dates were chosen for modelling. For windows > 90 d, a further application date was set to the middle of the considered application window according to AppDate.

Table 9.2.4.1- 5: First application dates and related information for fluopyram as used for the simulation runs; offset is relevant only for relative application dates, two sets of data are provided for crops with two seasons

Individual crop	**Spring Cereals I**	**Spring Cereals II**	**Winter Cereals I**	**Winter Cereals II**
Repeat interval for app. events	Every year Every 2nd year Every 3rd year	Every year Every 2nd year Every 3rd year	Every year Every 2nd year Every 3rd year	Every year Every 2nd year Every 3rd year
Application technique	Spray	Spray	Spray	Spray
Absolute / Relative to	Absolute	Absolute	Absolute	Absolute
Scenario	1st app. date (Julian day) Offset	1st app. date (Julian day) Offset	1st app. date (Julian day) Offset	1st app. date (Julian day) Offset
Chateaudun	16 Apr (106) -	16 Apr (106) -	15 Apr (105) -	15 Apr (105) -
Hamburg	28 Apr (118) -	28 Apr (118) -	04 May (124) -	04 May (124) -
Jokioinen	05 Jun (156) -	05 Jun (156) -	14 May (134) -	14 May (134) -
Kremsmuenster	27 Apr (117) -	27 Apr (117) -	24 Apr (114) -	24 Apr (114) -
Okehampton	22 Apr (112) -	22 Apr (112) -	21 Apr (111) -	21 Apr (111) -
Piacenza	- - -	- - -	19 Mar (78) -	19 Mar (78) -
Porto	16 Apr (106) -	16 Apr (106) -	30 Jan (30) -	30 Jan (30) -
Sevilla	- - -	- - -	06 Jan (6) -	06 Jan (6) -
Thiva	- - -	- - -	18 Jan (18) -	18 Jan (18) -

Findings:

PEC_{gw} were evaluated as the 80th percentile of the mean annual leachate at 1 m soil depth PEC_{gw} values for fluopyram and its metabolites are given in the following tables.

Tier 1: DT_{50} soil for fluopyram based on field data

Table 9.2.4.1- 6: Tier 1 PECgw for fluopyram and its metabolites on spring cereals I (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 39 g a.s./ha, 80% interception

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Spring Cereals I	Chateaudun	0.001	0.001	<0.001	<0.001	0.873	0.652
	Hamburg	0.058	0.039	0.011	0.008	0.836	0.581
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.798	0.696
	Kremsmuenster	0.033	0.024	0.007	0.005	0.427	0.455
	Okehampton	0.055	0.051	0.014	0.010	0.341	0.310
	Porto	0.018	0.022	0.005	0.006	0.355	0.335
		MACRO		MACRO		MACRO	
	Châteaudun	0.002		<0.001		0.699	

Table 9.2.4.1- 7: Tier 1 PEC_{gw} for fluopyram and its metabolites on spring cereals II (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 78 g a.s./ha, 80% interception

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Spring Cereals II	Chateaudun	0.011	0.003	0.002	0.001	1.749	1.303
	Hamburg	0.187	0.132	0.031	0.024	1.661	1.153
	Jokioinen	<0.001	<0.001	0.001	0.001	1.593	1.390
	Kremsmuenster	0.113	0.088	0.019	0.016	0.852	0.906
	Okehampton	0.159	0.147	0.028	0.027	0.677	0.613
	Porto	0.059	0.070	0.014	0.016	0.710	0.664
		MACRO		MACRO		MACRO	
	Châteaudun	0.015		0.003		1.398	

Table 9.2.4.1- 8: Tier 1 PEC_{gw} for fluopyram and its metabolites on winter cereals I (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 39 g a.s./ha, 80% interception

Crop	Scenario	80[th] percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Winter Cereals I	Chateaudun	0.003	<0.001	<0.001	<0.001	1.172	0.962
	Hamburg	0.051	0.047	0.010	0.010	0.672	0.610
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.942	0.827
	Kremsmuenster	0.033	0.032	0.007	0.007	0.372	0.419
	Okehampton	0.058	0.062	0.011	0.012	0.337	0.344
	Piacenza	0.029	0.034	0.005	0.007	0.620	0.634
	Porto	0.021	0.030	0.005	0.008	0.346	0.371
	Sevilla	<0.001	<0.001	<0.001	<0.001	1.588	0.732
	Thiva	<0.001	<0.001	<0.001	<0.001	1.677	1.028
		MACRO		MACRO		MACRO	
	Châteaudun	0.003		<0.001		1.255	

Table 9.2.4.1- 9: Tier 1 PEC_{gw} for fluopyram and its metabolites on winter cereals II (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 78 g a.s./ha, 80% interception

Crop	Scenario	80[th] percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Winter Cereals II	Chateaudun	0.017	0.002	0.003	0.001	2.357	1.921
	Hamburg	0.161	0.154	0.027	0.028	1.337	1.207
	Jokioinen	<0.001	<0.001	0.002	0.002	1.880	1.649
	Kremsmuenster	0.110	0.112	0.019	0.020	0.742	0.834
	Okehampton	0.165	0.177	0.029	0.031	0.668	0.680
	Piacenza	0.092	0.107	0.015	0.020	1.238	1.267
	Porto	0.067	0.097	0.015	0.022	0.689	0.738
	Sevilla	<0.001	<0.001	<0.001	<0.001	3.180	1.463
	Thiva	0.003	0.001	0.001	<0.001	3.354	2.060
		MACRO		MACRO		MACRO	
	Châteaudun	0.016		0.003		2.514	

Tier 2a 1: DT_{50} soil for fluopyram (TDS) based on laboratory data

Annual application

Table 9.2.4.1- 10: Tier 2a 1 PEC_{gw} for fluopyram and its metabolites on spring cereals I (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 39 g a.s./ha, 80% interception, annual application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Spring Cereals I	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.728	0.463
	Hamburg	0.013	0.003	0.004	0.002	0.620	0.404
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.601	0.483
	Kremsmuenster	0.004	0.002	0.002	0.001	0.344	0.339
	Okehampton	0.014	0.011	0.006	0.005	0.287	0.230
	Porto	0.004	0.005	0.002	0.003	0.290	0.239
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.600	

Table 9.2.4.1- 11: Tier 2a 1 PEC_{gw} for fluopyram and its metabolites on spring cereals II (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 78 g a.s./ha, 80% interception, annual application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Spring Cereals II	Chateaudun	<0.001	<0.001	<0.001	<0.001	1.456	0.926
	Hamburg	0.056	0.016	0.013	0.007	1.232	0.804
	Jokioinen	<0.001	<0.001	<0.001	<0.001	1.200	0.967
	Kremsmuenster	0.025	0.010	0.007	0.004	0.687	0.676
	Okehampton	0.059	0.050	0.017	0.015	0.570	0.458
	Porto	0.018	0.020	0.007	0.008	0.581	0.480
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		1.200	

Table 9.2.4.1- 12: Tier 2a 1 PEC_{gw} for fluopyram and its metabolites on winter cereals I (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 39 g a.s./ha, 80% interception, annual application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Winter Cereals I	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.917	0.587
	Hamburg	0.012	0.004	0.004	0.003	0.546	0.426
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.692	0.561
	Kremsmuenster	0.005	0.003	0.002	0.002	0.318	0.313
	Okehampton	0.019	0.017	0.007	0.006	0.290	0.259
	Piacenza	0.009	0.007	0.002	0.002	0.528	0.450
	Porto	0.005	0.007	0.002	0.004	0.307	0.279
	Sevilla	<0.001	<0.001	<0.001	<0.001	0.750	0.447
	Thiva	<0.001	<0.001	<0.001	<0.001	1.083	0.679
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.986	

Table 9.2.4.1- 13: Tier 2a 1 PEC_{gw} for fluopyram and its metabolites on winter cereals II (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 78 g a.s./ha, 80% interception, annual application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Winter Cereals II	Chateaudun	<0.001	<0.001	<0.001	<0.001	1.838	1.171
	Hamburg	0.051	0.023	0.012	0.009	1.086	0.847
	Jokioinen	<0.001	<0.001	<0.001	0.001	1.382	1.121
	Kremsmuenster	0.028	0.018	0.008	0.006	0.633	0.624
	Okehampton	0.071	0.066	0.018	0.018	0.576	0.515
	Piacenza	0.034	0.031	0.007	0.008	1.053	0.903
	Porto	0.024	0.028	0.008	0.011	0.612	0.556
	Sevilla	<0.001	<0.001	<0.001	<0.001	1.494	0.892
	Thiva	<0.001	<0.001	<0.001	<0.001	2.159	1.362
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		1.973	

Biennial application

Table 9.2.4.1- 14: Tier 2a 1 PEC_{gw} for fluopyram and its metabolites on spring cereals I (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 39 g a.s./ha, 80% interception, biennial application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Spring Cereals I	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.389	0.308
	Hamburg	0.008	0.005	0.002	0.002	0.303	0.191
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.306	0.247
	Kremsmuenster	0.003	0.002	0.001	0.001	0.190	0.169
	Okehampton	0.007	0.006	0.003	0.002	0.132	0.106
	Porto	0.002	0.002	<0.001	0.001	0.128	0.103
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.337	

Table 9.2.4.1- 15: Tier 2a 1 PEC_{gw} for fluopyram and its metabolites on spring cereals II (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 78 g a.s./ha, 80% interception, biennial application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Spring Cereals II	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.778	0.616
	Hamburg	0.028	0.017	0.007	0.005	0.604	0.380
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.610	0.494
	Kremsmuenster	0.013	0.008	0.004	0.003	0.379	0.338
	Okehampton	0.025	0.021	0.007	0.006	0.262	0.210
	Porto	0.006	0.007	0.003	0.004	0.255	0.205
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.674	

Table 9.2.4.1- 16: Tier 2a 1 PEC_{gw} for fluopyram and its metabolites on winter cereals I (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 39 g a.s./ha, 80% interception, biennial application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Winter Cereals I	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.497	0.396
	Hamburg	0.007	0.006	0.002	0.002	0.253	0.198
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.371	0.268
	Kremsmuenster	0.003	0.003	0.001	0.001	0.175	0.172
	Okehampton	0.008	0.008	0.003	0.003	0.128	0.112
	Piacenza	0.002	0.003	<0.001	0.001	0.253	0.228
	Porto	0.002	0.003	0.001	0.002	0.133	0.113
	Sevilla	<0.001	<0.001	<0.001	<0.001	0.553	0.246
	Thiva	<0.001	<0.001	<0.001	<0.001	1.174	0.374
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.469	

Table 9.2.4.1- 17: Tier 2a 1 PEC_{gw} for fluopyram and its metabolites on winter cereals II (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 78 g a.s./ha, 80% interception, biennial application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Winter Cereals II	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.994	0.792
	Hamburg	0.024	0.021	0.007	0.006	0.504	0.394
	Jokioinen	<0.001	<0.001	<0.001	0.001	0.741	0.537
	Kremsmuenster	0.013	0.011	0.004	0.004	0.349	0.343
	Okehampton	0.027	0.027	0.007	0.008	0.254	0.223
	Piacenza	0.010	0.010	0.003	0.004	0.504	0.456
	Porto	0.007	0.011	0.003	0.005	0.265	0.225
	Sevilla	<0.001	<0.001	<0.001	<0.001	1.101	0.493
	Thiva	<0.001	<0.001	<0.001	<0.001	2.349	0.750
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.937	

Triennial application

Table 9.2.4.1- 18: Tier 2a 1 PEC_{gw} for fluopyram and its metabolites on spring cereals I (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 39 g a.s./ha, 80% interception, triennial application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Spring Cereals I	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.265	0.192
	Hamburg	0.004	0.003	0.001	0.001	0.179	0.121
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.177	0.138
	Kremsmuenster	0.002	0.001	<0.001	0.001	0.133	0.115
	Okehampton	0.004	0.004	0.001	0.001	0.089	0.071
	Porto	<0.001	0.001	<0.001	0.001	0.079	0.062
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.212	

Table 9.2.4.1- 19: Tier 2a 1 PEC_{gw} for fluopyram and its metabolites on spring cereals II (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 78 g a.s./ha, 80% interception, triennial application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Spring Cereals II	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.530	0.383
	Hamburg	0.014	0.009	0.004	0.003	0.356	0.241
	Jokioinen	<0.001	0.001	<0.001	<0.001	0.353	0.275
	Kremsmuenster	0.007	0.004	0.002	0.002	0.265	0.229
	Okehampton	0.014	0.011	0.004	0.004	0.176	0.142
	Porto	0.003	0.004	0.002	0.002	0.158	0.124
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.424	

Table 9.2.4.1- 20: Tier 2a 1 PEC_{gw} for fluopyram and its metabolites on winter cereals I (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 39 g a.s./ha, 80% interception, triennial application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Winter Cereals I	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.327	0.262
	Hamburg	0.004	0.003	0.001	0.001	0.152	0.124
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.198	0.163
	Kremsmuenster	0.002	0.002	<0.001	0.001	0.122	0.117
	Okehampton	0.004	0.005	0.002	0.002	0.087	0.076
	Piacenza	0.001	0.002	<0.001	0.001	0.160	0.150
	Porto	<0.001	0.002	<0.001	0.001	0.087	0.069
	Sevilla	<0.001	<0.001	<0.001	<0.001	0.669	0.185
	Thiva	<0.001	<0.001	<0.001	<0.001	0.577	0.309
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.316	

Table 9.2.4.1- 21: Tier 2a 1 PEC_{gw} for fluopyram and its metabolites on winter cereals II (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 78 g a.s./ha, 80% interception, triennial application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Winter Cereals II	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.654	0.525
	Hamburg	0.012	0.011	0.004	0.004	0.304	0.249
	Jokioinen	<0.001	0.001	<0.001	0.001	0.396	0.325
	Kremsmuenster	0.006	0.006	0.002	0.002	0.244	0.235
	Okehampton	0.015	0.015	0.004	0.005	0.172	0.152
	Piacenza	0.005	0.005	0.002	0.002	0.319	0.301
	Porto	0.003	0.005	0.002	0.003	0.173	0.137
	Sevilla	<0.001	<0.001	<0.001	<0.001	1.334	0.369
	Thiva	<0.001	<0.001	<0.001	<0.001	1.154	0.619
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.632	

Tier 2a 2: DT_{50} soil for fluopyram (TDS) based on field data

Annual application

Table 9.2.4.1- 22: Tier 2a 2 PEC_{gw} for fluopyram and its metabolites on spring cereals I (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 39 g a.s./ha, 80% interception, annual application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Spring Cereals I	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.731	0.464
	Hamburg	0.006	0.002	0.003	0.002	0.642	0.419
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.616	0.495
	Kremsmuenster	0.001	0.001	0.001	0.001	0.356	0.343
	Okehampton	0.006	0.005	0.004	0.004	0.295	0.236
	Porto	0.001	0.002	0.001	0.002	0.291	0.237
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.602	

Table 9.2.4.1- 23: Tier 2a 2 PEC_{gw} for fluopyram and its metabolites on spring cereals II (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 78 g a.s./ha, 80% interception, annual application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Spring Cereals II	Chateaudun	<0.001	<0.001	<0.001	<0.001	1.462	0.930
	Hamburg	0.028	0.007	0.009	0.005	1.278	0.836
	Jokioinen	<0.001	<0.001	<0.001	<0.001	1.231	0.990
	Kremsmuenster	0.011	0.004	0.005	0.003	0.712	0.684
	Okehampton	0.029	0.024	0.012	0.011	0.588	0.470
	Porto	0.007	0.008	0.004	0.005	0.584	0.477
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		1.202	

Table 9.2.4.1- 24: Tier 2a 2 PEC_{gw} for fluopyram and its metabolites on winter cereals I (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 39 g a.s./ha, 80% interception, annual application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Winter Cereals I	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.915	0.617
	Hamburg	0.005	0.002	0.003	0.002	0.557	0.441
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.708	0.574
	Kremsmuenster	0.002	0.001	0.001	0.001	0.323	0.317
	Okehampton	0.009	0.007	0.005	0.005	0.298	0.266
	Piacenza	0.004	0.003	0.001	0.002	0.528	0.449
	Porto	0.002	0.003	0.001	0.002	0.309	0.280
	Sevilla	<0.001	<0.001	<0.001	<0.001	0.762	0.447
	Thiva	<0.001	<0.001	<0.001	<0.001	1.117	0.678
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.983	

Table 9.2.4.1- 25: Tier 2a 2 PEC_{gw} for fluopyram and its metabolites on winter cereals II (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 78 g a.s./ha, 80% interception, annual application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Winter Cereals II	Chateaudun	<0.001	<0.001	<0.001	<0.001	1.835	1.232
	Hamburg	0.025	0.010	0.008	0.007	1.111	0.878
	Jokioinen	<0.001	<0.001	<0.001	<0.001	1.415	1.147
	Kremsmuenster	0.012	0.007	0.005	0.004	0.645	0.632
	Okehampton	0.036	0.034	0.013	0.013	0.594	0.531
	Piacenza	0.016	0.014	0.005	0.005	1.055	0.901
	Porto	0.010	0.012	0.005	0.008	0.617	0.561
	Sevilla	<0.001	<0.001	<0.001	<0.001	1.518	0.893
	Thiva	<0.001	<0.001	<0.001	<0.001	2.227	1.359
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		1.966	

Biennial application

Table 9.2.4.1- 26: Tier 2a 2 PEC_{gw} for fluopyram and its metabolites on spring cereals I (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 39 g a.s./ha, 80% interception, biennial application

Crop	Scenario	80[th] percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Spring Cereals I	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.390	0.307
	Hamburg	0.003	0.002	0.002	0.001	0.312	0.197
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.310	0.250
	Kremsmuenster	0.001	0.001	<0.001	0.001	0.190	0.169
	Okehampton	0.003	0.003	0.002	0.002	0.135	0.107
	Porto	<0.001	0.001	<0.001	0.001	0.129	0.103
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.338	

Table 9.2.4.1- 27: Tier 2a 2 PEC_{gw} for fluopyram and its metabolites on spring cereals II (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 78 g a.s./ha, 80% interception, biennial application

Crop	Scenario	80[th] percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Spring Cereals II	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.779	0.614
	Hamburg	0.013	0.007	0.005	0.003	0.623	0.392
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.619	0.502
	Kremsmuenster	0.005	0.003	0.002	0.002	0.379	0.338
	Okehampton	0.012	0.010	0.005	0.004	0.269	0.212
	Porto	0.002	0.003	0.002	0.002	0.257	0.206
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.676	

Table 9.2.4.1- 28: Tier 2a 2 PEC_{gw} for fluopyram and its metabolites on winter cereals I (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 39 g a.s./ha, 80% interception, biennial application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Winter Cereals I	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.498	0.395
	Hamburg	0.003	0.003	0.001	0.001	0.260	0.203
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.376	0.270
	Kremsmuenster	0.001	0.001	<0.001	0.001	0.175	0.172
	Okehampton	0.004	0.004	0.002	0.002	0.130	0.113
	Piacenza	<0.001	0.001	<0.001	0.001	0.252	0.227
	Porto	<0.001	0.001	<0.001	0.001	0.134	0.114
	Sevilla	<0.001	<0.001	<0.001	<0.001	0.558	0.246
	Thiva	<0.001	<0.001	<0.001	<0.001	1.173	0.385
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.469	

Table 9.2.4.1- 29: Tier 2a 2 PEC_{gw} for fluopyram and its metabolites on winter cereals II (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 78 g a.s./ha, 80% interception, biennial application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Winter Cereals II	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.995	0.791
	Hamburg	0.011	0.009	0.004	0.004	0.519	0.406
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.751	0.541
	Kremsmuenster	0.005	0.004	0.002	0.002	0.349	0.345
	Okehampton	0.013	0.013	0.005	0.005	0.260	0.225
	Piacenza	0.004	0.004	0.002	0.002	0.503	0.455
	Porto	0.003	0.005	0.002	0.003	0.267	0.227
	Sevilla	<0.001	<0.001	<0.001	<0.001	1.112	0.493
	Thiva	<0.001	<0.001	<0.001	<0.001	2.346	0.772
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.938	

Triennial application

Table 9.2.4.1- 30: Tier 2a 2 PEC_{gw} for fluopyram and its metabolites on spring cereals I (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 39 g a.s./ha, 80% interception, triennial application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Spring Cereals I	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.265	0.191
	Hamburg	0.002	0.001	<0.001	0.001	0.179	0.122
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.178	0.138
	Kremsmuenster	<0.001	0.001	<0.001	<0.001	0.134	0.114
	Okehampton	0.002	0.002	<0.001	0.001	0.089	0.072
	Porto	<0.001	0.001	<0.001	<0.001	0.079	0.062
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.212	

Table 9.2.4.1- 31: Tier 2a 2 PEC_{gw} for fluopyram and its metabolites on spring cereals II (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 78 g a.s./ha, 80% interception, triennial application

Crop	Scenario	80th percentile PEC_{gw} at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Spring Cereals II	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.530	0.382
	Hamburg	0.006	0.004	0.003	0.002	0.358	0.245
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.356	0.277
	Kremsmuenster	0.002	0.002	0.001	0.001	0.267	0.228
	Okehampton	0.006	0.005	0.003	0.003	0.177	0.143
	Porto	<0.001	0.002	<0.001	0.001	0.158	0.124
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.425	

Table 9.2.4.1- 32: Tier 2a 2 PEC$_{gw}$ for fluopyram and its metabolites on winter cereals I (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 39 g a.s./ha, 80% interception, triennial application

Crop	Scenario	80th percentile PEC$_{gw}$ at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Winter Cereals I	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.327	0.262
	Hamburg	0.001	0.002	<0.001	0.001	0.153	0.127
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.199	0.163
	Kremsmuenster	<0.001	0.001	<0.001	<0.001	0.123	0.117
	Okehampton	0.002	0.002	<0.001	0.001	0.087	0.076
	Piacenza	<0.001	0.001	<0.001	<0.001	0.158	0.149
	Porto	<0.001	0.001	<0.001	0.001	0.087	0.069
	Sevilla	<0.001	<0.001	<0.001	<0.001	0.670	0.185
	Thiva	<0.001	<0.001	<0.001	<0.001	0.578	0.314
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.316	

Table 9.2.4.1- 33: Tier 2a 2 PEC$_{gw}$ for fluopyram and its metabolites on winter cereals II (with FOCUS PEARL/ PELMO/ MACRO) – 1 × 78 g a.s./ha, 80% interception, triennial application

Crop	Scenario	80th percentile PEC$_{gw}$ at 1 m soil depth (µg/L)					
		Fluopyram		Fluopyram-7-hydroxy		Trifluoroacetic acid	
		PEARL	PELMO	PEARL	PELMO	PEARL	PELMO
Winter Cereals II	Chateaudun	<0.001	<0.001	<0.001	<0.001	0.654	0.524
	Hamburg	0.005	0.005	0.002	0.002	0.305	0.254
	Jokioinen	<0.001	<0.001	<0.001	<0.001	0.399	0.327
	Kremsmuenster	0.002	0.002	0.001	0.001	0.246	0.234
	Okehampton	0.007	0.007	0.003	0.003	0.173	0.152
	Piacenza	0.002	0.002	<0.001	0.001	0.316	0.298
	Porto	0.001	0.002	<0.001	0.002	0.173	0.138
	Sevilla	<0.001	<0.001	<0.001	<0.001	1.337	0.369
	Thiva	<0.001	<0.001	<0.001	<0.001	1.156	0.628
		MACRO		MACRO		MACRO	
	Châteaudun	<0.001		<0.001		0.631	

Conclusion:

Following a tiered approach for all intended uses of BIX + FLU + PTZ EC 260 in barley there are no concerns for groundwater from the active substance fluopyram and its metabolites.

In Table 9.2.4.1- 34 to Table 9.2.4.1- 54 the maximum PEC_{gw} values of fluopyram and its metabolites for FOCUS PEARL/ PELMO/ MACRO calculations for all use patterns in barley (FOCUS crops: spring cereals, winter cereals) are given at Tier 1 (Table 9.2.4.1- 34 to Table 9.2.4.1- 36), Tier 2a 1 (Table 9.2.4.1- 37 to Table 9.2.4.1- 45) and Tier 2a 2 (Table 9.2.4.1- 46 to Table 9.2.4.1- 54).

Tier 1: DT_{50} soil for fluopyram based on field data

Table 9.2.4.1- 34: Maximum FOCUS PEARL PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 1

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	0.058	0.011	0.873
Spring Cereals II, 1×78 g a.s./ha	0.187	0.031	1.749
Winter Cereals I, 1×39 g a.s./ha	0.058	0.011	1.677
Winter Cereals II, 1×78 g a.s./ha	0.165	0.029	3.354

Table 9.2.4.1- 35: Maximum FOCUS PELMO PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 1

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	0.051	0.010	0.696
Spring Cereals II, 1×78 g a.s./ha	0.147	0.027	1.390
Winter Cereals I, 1×39 g a.s./ha	0.062	0.012	1.028
Winter Cereals II, 1×78 g a.s./ha	0.177	0.031	2.060

Table 9.2.4.1- 36: Maximum FOCUS MACRO PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 1

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	0.002	<0.001	0.699
Spring Cereals II, 1×78 g a.s./ha	0.015	0.003	1.398
Winter Cereals I, 1×39 g a.s./ha	0.003	<0.001	1.255
Winter Cereals II, 1×78 g a.s./ha	0.016	0.003	2.514

Tier 2a 1: DT_{50} soil for fluopyram (TDS) based on laboratory data

Annual application

Table 9.2.4.1- 37: Maximum FOCUS PEARL PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 1, annual application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	0.014	0.006	0.728
Spring Cereals II, 1×78 g a.s./ha	0.059	0.017	1.456
Winter Cereals I, 1×39 g a.s./ha	0.019	0.007	1.083
Winter Cereals II, 1×78 g a.s./ha	0.071	0.018	2.159

Table 9.2.4.1- 38: Maximum FOCUS PELMO PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 1, annual application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	0.011	0.005	0.483
Spring Cereals II, 1×78 g a.s./ha	0.050	0.015	0.967
Winter Cereals I, 1×39 g a.s./ha	0.017	0.006	0.679
Winter Cereals II, 1×78 g a.s./ha	0.066	0.018	1.362

Table 9.2.4.1- 39: Maximum FOCUS MACRO PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 1, annual application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	<0.001	<0.001	0.600
Spring Cereals II, 1×78 g a.s./ha	<0.001	<0.001	1.200
Winter Cereals I, 1×39 g a.s./ha	<0.001	<0.001	0.986
Winter Cereals II, 1×78 g a.s./ha	<0.001	<0.001	1.973

Biennial application

Table 9.2.4.1- 40: Maximum FOCUS PEARL PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 1, biennial application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	0.008	0.003	0.389
Spring Cereals II, 1×78 g a.s./ha	0.028	0.007	0.778
Winter Cereals I, 1×39 g a.s./ha	0.008	0.003	1.174
Winter Cereals II, 1×78 g a.s./ha	0.027	0.007	2.349

Table 9.2.4.1- 41: Maximum FOCUS PELMO PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 1, biennial application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	0.006	0.002	0.308
Spring Cereals II, 1×78 g a.s./ha	0.021	0.006	0.616
Winter Cereals I, 1×39 g a.s./ha	0.008	0.003	0.396
Winter Cereals II, 1×78 g a.s./ha	0.027	0.008	0.792

Table 9.2.4.1- 42: Maximum FOCUS MACRO PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 1, biennial application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	<0.001	<0.001	0.337
Spring Cereals II, 1×78 g a.s./ha	<0.001	<0.001	0.674
Winter Cereals I, 1×39 g a.s./ha	<0.001	<0.001	0.469
Winter Cereals II, 1×78 g a.s./ha	<0.001	<0.001	0.937

Triennial application

Table 9.2.4.1- 43: Maximum FOCUS PEARL PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 1, triennial application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	0.004	0.001	0.265
Spring Cereals II, 1×78 g a.s./ha	0.014	0.004	0.530
Winter Cereals I, 1×39 g a.s./ha	0.004	0.002	0.669
Winter Cereals II, 1×78 g a.s./ha	0.015	0.004	1.334

Table 9.2.4.1- 44: Maximum FOCUS PELMO PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 1, triennial application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	0.004	0.001	0.192
Spring Cereals II, 1×78 g a.s./ha	0.011	0.004	0.383
Winter Cereals I, 1×39 g a.s./ha	0.005	0.002	0.309
Winter Cereals II, 1×78 g a.s./ha	0.015	0.005	0.619

Table 9.2.4.1- 45: Maximum FOCUS MACRO PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 1, triennial application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	<0.001	<0.001	0.212
Spring Cereals II, 1×78 g a.s./ha	<0.001	<0.001	0.424
Winter Cereals I, 1×39 g a.s./ha	<0.001	<0.001	0.316
Winter Cereals II, 1×78 g a.s./ha	<0.001	<0.001	0.632

Tier 2a 2: DT_{50} soil for fluopyram (TDS) based on field data

Annual application

Table 9.2.4.1- 46: Maximum FOCUS PEARL PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 2, annual application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	0.006	0.004	0.731
Spring Cereals II, 1×78 g a.s./ha	0.029	0.012	1.462
Winter Cereals I, 1×39 g a.s./ha	0.009	0.005	1.117
Winter Cereals II, 1×78 g a.s./ha	0.036	0.013	2.227

Table 9.2.4.1- 47: Maximum FOCUS PELMO PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 2, annual application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	0.005	0.004	0.495
Spring Cereals II, 1×78 g a.s./ha	0.024	0.011	0.990
Winter Cereals I, 1×39 g a.s./ha	0.007	0.005	0.678
Winter Cereals II, 1×78 g a.s./ha	0.034	0.013	1.359

Table 9.2.4.1- 48: Maximum FOCUS MACRO PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 2, annual application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	<0.001	<0.001	0.602
Spring Cereals II, 1×78 g a.s./ha	<0.001	<0.001	1.202
Winter Cereals I, 1×39 g a.s./ha	<0.001	<0.001	0.983
Winter Cereals II, 1×78 g a.s./ha	<0.001	<0.001	1.966

Biennial application

Table 9.2.4.1- 49: Maximum FOCUS PEARL PEC$_{gw}$ results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 2, biennial application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	0.003	0.002	0.390
Spring Cereals II, 1×78 g a.s./ha	0.013	0.005	0.779
Winter Cereals I, 1×39 g a.s./ha	0.004	0.002	1.173
Winter Cereals II, 1×78 g a.s./ha	0.013	0.005	2.346

Table 9.2.4.1- 50: Maximum FOCUS PELMO PEC$_{gw}$ results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 2, biennial application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	0.003	0.002	0.307
Spring Cereals II, 1×78 g a.s./ha	0.010	0.004	0.614
Winter Cereals I, 1×39 g a.s./ha	0.004	0.002	0.395
Winter Cereals II, 1×78 g a.s./ha	0.013	0.005	0.791

Table 9.2.4.1- 51: Maximum FOCUS MACRO PEC$_{gw}$ results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 2, biennial application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	<0.001	<0.001	0.338
Spring Cereals II, 1×78 g a.s./ha	<0.001	<0.001	0.676
Winter Cereals I, 1×39 g a.s./ha	<0.001	<0.001	0.469
Winter Cereals II, 1×78 g a.s./ha	<0.001	<0.001	0.938

Triennial application

Table 9.2.4.1- 52: Maximum FOCUS PEARL PEC$_{gw}$ results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 2, triennial application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	0.002	<0.001	0.265
Spring Cereals II, 1×78 g a.s./ha	0.006	0.003	0.530
Winter Cereals I, 1×39 g a.s./ha	0.002	<0.001	0.670
Winter Cereals II, 1×78 g a.s./ha	0.007	0.003	1.337

Table 9.2.4.1- 53: Maximum FOCUS PELMO PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 2, triennial application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	0.002	0.001	0.194
Spring Cereals II, 1×78 g a.s./ha	0.005	0.003	0.382
Winter Cereals I, 1×39 g a.s./ha	0.002	0.001	0.314
Winter Cereals II, 1×78 g a.s./ha	0.007	0.003	0.628

Table 9.2.4.1- 54: Maximum FOCUS MACRO PEC_{gw} results of fluopyram and its metabolites in µg/L for the uses assessed – Tier 2a 2, triennial application

Use pattern	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Spring Cereals I, 1×39 g a.s./ha	<0.001	<0.001	0.212
Spring Cereals II, 1×78 g a.s./ha	<0.001	<0.001	0.425
Winter Cereals I, 1×39 g a.s./ha	<0.001	<0.001	0.316
Winter Cereals II, 1×78 g a.s./ha	<0.001	<0.001	0.631

PEC_{gw} for bixafen and prothioconazole and their metabolites

No groundwater assessment was required for bixafen and prothioconazole and their metabolites for the fluopyram active substance renewal process.

CP 9.2.4.2 Additional field tests

For information on additional field studies please refer to Document MCA, Section 7.1.2.2.1.

CP 9.2.5 Estimation of concentrations in surface water and sediment

Calculations of predicted environmental concentrations in surface water (PEC_{sw}) and sediment (PEC_{sed}) are presented below.

Endpoints for PEC_{sw}

Table 9.2.5- 1: Modelling input parameters for fluopyram and its metabolites FLU-7-OH and TFA – Tier 1 and Tier 2

Compound	Fluopyram	Fluopyram-7-hydroxy (FLU-7-OH)	Trifluoroacetic acid (TFA)
Molecular mass (g/mol)	396.72	412.72	114.02
Water solubility (mg/L)	19 (20°C)	33.75 (25°C)	500000 (20°C)
Saturated vapour pressure (Pa)	1.2 E-6 (20°C)	1.55 E-9 (20°C)	1.0 E-6 (20°C)
Koc (mL/g)	232.4	100.2	0*
Kom (mL/g)	134.7	58.1	0*
1/n	0.8432	0.9292	1*
Plant uptake factor TSCF	0 1) / 0.3026 2)	0 1) / 0.7256 2)	0 1) / 0.17 (cereals) 2)
Wash off factor from crop (1/m)	50	50	50
DT_{50} in soil (d)	298.8 (field)	17.53 (lab)	1000*
DT_{50} in water (d)	909 (Step 1,2) 1000* (Step 3,4)	1000*	1000*
DT_{50} in sediment (d)	909 (Step 1,2) 1000* (Step 3,4)	1000*	1000*
DT_{50} in total system (d)	909	1000	1000
DT_{50} on canopy (d)	10 1) / 2.122 (cereals) 2)	10*	10*
Maximum occurrence (%) Water/sediment: Soil:	 100 100	 0 5.8	 0 14.8
Formation fraction in soil	-	0.6342, from parent	0.5402, overall from parent, total molar yield
Formation fraciton in water, sediment	-	0	0

* default
1) Tier 1
2) Tier 2

PEC_{sw} modelling approach

Calculation of PEC values for the active substance according to FOCUS

$FOCUS_{sw}$ is a 4 step tiered approach:

Step 1: In this, the most conservative step, all inputs are considered as a single loading to the water body and a worst-case PEC_{sw} and PEC_{sed} is calculated.

Step 2: Individual loadings into the water body from different entry routes are considered. Scenarios are also considered for Northern and Southern Europe separately, but no specific crop scenarios are defined.

Step 3: An exposure assessment using realistic worst-case scenarios is made. The scenarios are representative for agricultural conditions in Europe and consider weather, soil, crop and different water-bodies. Simulations use the models PRZM, MACRO and TOXSWA.

Step 4: PEC values are refined by considering mitigation measures or specific scenario descriptions on a case-by-case basis.

A summary of important substance input parameters is given in Table 9.2.5- 1.

Data Point:	KCP 9.2.5/01
Report Author:	[redacted]
Report Year:	2021
Report Title:	Fluopyram (FLU): Core PECgw, PECsw, PECsoil EUR - Modelling core info document for groundwater, surface water and soil risk assessment in Europe
Report No:	EnSa-21-0077
Document No:	M-763252-01-1
Guideline(s) followed in study:	none
Deviations from current test guideline:	Current guideline: not applicable
Previous evaluation:	No, not previously submitted
GLP/Officially recognised testing facilities:	No, not conducted under GLP/Officially recognised testing facilities
Acceptability/Reliability:	Yes

Executive Summary

This document summarises the substance data for fluopyram and its metabolites as used for the purpose of surface water risk assessment.

Modelling reports utilising this core info document should have the substance data presented in the form as shown in Table 9.2.5- 2, Table 9.2.5- 3 and Table 9.2.5- 4.

Table 9.2.5- 2: Substance parameters used for fluopyram and its metabolites fluopyram-7-hydroxy (FLU-7-OH) and trifluoroacetic acid (TFA) at Steps 1-2 level (Tier 1 and Tier 2)

Parameter	Unit	Fluopyram	Fluopyram-7-hydroxy	Trifluoroacetic acid
Molar mass	(g/mol)	396.72	412.72	114.02
Water solubility	(mg/L)	19	33.75	500000
Koc	(mL/g)	232.1	100.2	1E-10
Degradation				
Soil	(days)	298.08	17.53	1000
Total system	(days)	909	1000	1000
Water	(days)	909	1000	1000
Sediment	(days)	909	1000	1000
Max occurrence				
Water / sediment	(%)	100	0	0
Soil	(%)	100	5.8	14.8

Table 9.2.5- 3: Substance parameters used for fluopyram and its metabolites at Step 3 level (Tier 1)

Parameter	Unit	Parent	Metabolite	Metabolite
Substance SWASH code		Fluopyram_Tier 1 FLU	FLU-7-hydroxy_Tier1 7OH	TFA_Tier1 TFA
General				
Molar mass	(g/mol)	396.72	412.72	114.02
Water solubility (temp.)	(mg/L)	19.0 (20 °C)	33.75 (25 °C)	500000 (20 °C)
Vapour pressure (temp.)	(Pa)	1.2E-06 (20 °C)	1.55E-09 (20 °C)	1E-06 (20 °C)
Crop processes				
Coefficient for uptake by plant (TSCF)	(-)	0	0	0
Wash-off factor	(1/m)	50	50	50
Sorption				
K_{OC}	(mL/g)	232.1	100.2	0
K_{OM}	(mL/g)	134.7	58.1	0
Freundlich exponent ($^1/_n$)	(-)	0.8432	0.9292	1
Transformation				
DT_{50} in soil	(days)	298.08	17.53	1000
temperature	(°C)	20	20	20
moisture content (pF)	(log(cm))	2	2	2
formation fraction in soil	(-)	-	0.6342	0.5402
DT_{50} in water	(days)	1000	1000	1000
temperature	(°C)	20	20	20
formation fraction in water	(-)	-	-	-
DT_{50} in sediment	(days)	1000	1000	1000
temperature	(°C)	20	20	20
formation fraction in sediment	(-)	-	-	-
DT_{50} on canopy	(days)	10	10	10
Exponent for the effect of moisture				
PRZM and TOXSWA (Walker exp.)	(-)	0.7	0.7	0.7
MACRO (calibrated value)	(-)	0.49	0.49	0.49
Effect of temperature				
TOXSWA (molar activat. energy)	(kJ/mol)	65.4	65.4	65.4
MACRO (effect of temperature)	(1/K)	0.0948	0.0948	0.0948
PRZM (Q10)	(-)	2.58	2.58	2.58

Table 9.2.5- 4: Substance parameters used for fluopyram and its metabolites at Step 3 level (Tier 2)

Parameter	Unit	Parent	Metabolite	Metabolite
Substance		Fluopyram_Tier 1	FLU-7-hydroxy_Tier 2	TFA_Tier 2
SWASH code		FLU	7OH	TFA
General				
Molar mass	(g/mol)	396.72	412.72	114.02
Water solubility (temp.)	(mg/L)	19.0 (20 °C)	33.75 (25 °C)	500000 (20 °C)
Vapour pressure (temp.)	(Pa)	1.2E-06 (20 °C)	1.55E-09 (20 °C)	1E-06 (20 °C)
Crop processes				
Coefficient for uptake by plant (TSCF)	(-)	0.3026 1)	0.7256 1)	0.17 (cereals) 3)
Wash-off factor	(1/m)	50	50	50
Sorption				
K_{OC}	(mL/g)	232.1	100.2	0
K_{OM}	(mL/g)	134.7	58.1	0
Freundlich exponent ($^1/_n$)	(-)	0.8432	0.9292	1
Transformation				
DT_{50} in soil	(days)	298.08	17.53	1000
temperature	(°C)	20	20	20
moisture content (pF)	(log(cm))	2	2	2
formation fraction in soil	(-)	-	0.6342	0.5402
DT_{50} in water	(days)	1000	1000	1000
temperature	(°C)	20	20	20
formation fraction in water	(-)	-	-	-
DT_{50} in sediment	(days)	1000	1000	1000
temperature	(°C)	20	20	20
formation fraction in sediment	(-)	-	-	-
DT_{50} on canopy	(days)	10 / 2.122 2)	10	10
Exponent for the effect of moisture				
PRZM and TOXSWA (Walker exp.)	(-)	0.7	0.7	0.7
MACRO (calibrated value)	(-)	0.49	0.49	0.49
Effect of temperature				
TOXSWA (molar activat. energy)	(kJ/mol)	65.4	65.4	65.4
MACRO (effect of temperature)	(1/K)	0.0948	0.0948	0.0948
PRZM (Q_{10})	(-)	2.58	2.58	2.58

1) TSCF based on Briggs equation
2) based on rain protected DFR study M-758592-01-1 and M-761989-01-1 (submitted in KCA 7)
3) based on experimental hydroponic study, see MCA KCA 7.1.4/02, M-762082-01-1

Input parameters - tiered approach:

Tier 1: Conservative default TSCF values of 0 and foliar DT_{50} values of 10 d are considered.

Tier 2: More realistic TSCF values are considered for fluopyram and FLU-7-OH according to Briggs equation. For TFA, a more realistic TSCF resulting from a hydroponic plant uptake study in cereals was taken into account.

Additionally, for fluopyram a foliar DT_{50} of 2.122 d for the washable substance amount on the leaf surface was used. This value is derived from a dislodgeable foliar residue study (DFR), carried out under rain protected conditions.

Predicted environmental concentrations in surface water (PEC_{sw}) and sediment (PEC_{sed}) of fluopyram and its metabolites

For fluopyram, the metabolites fluopyram-7-hydroxy (FLU-7-OH) and trifluoroacetic acid (TFA) were considered.

Important remark by the applicant: The modelling core information and the PEC_{sw} and PEC_{sed} values as presented below are interim values and are therefore subject to change until final modelling input parameters can be established. The applicant intends to provide final modelling core information and final PEC_{sw} and PEC_{sed} values latest by end of March 2022.

The overall surface water assessment involving fluopyram and its metabolites consists of the following calculations:

Data Point:	KCP 9.2.5/02
Report Author:	[redacted]
Report Year:	2021
Report Title:	Fluopyram (FLU) and metabolite: PECsw,sed FOCUS EUR (tier 1) - Use in apples, spring cereals, winter cereals and vines in Europe
Report No:	EnSa-21-0067
Document No:	M-763460-01-1
Guideline(s) followed in study:	none
Deviations from current test guideline:	Current guideline: not applicable
Previous evaluation:	No, not previously submitted
GLP/Officially recognised testing facilities:	No, not conducted under GLP/Officially recognised testing facilities
Acceptability/Reliability:	Yes

Data Point:	KCP 9.2.5/03
Report Author:	[redacted]
Report Year:	2021
Report Title:	Fluopyram (FLU) and metabolite: PECsw,sed FOCUS EUR (tier 1) - Use in apples, spring cereals, winter cereals and vines in Europe
Report No:	EnSa-21-0069
Document No:	M-763417-01-1
Guideline(s) followed in study:	none
Deviations from current test guideline:	Current guideline: not applicable
Previous evaluation:	No, not previously submitted
GLP/Officially recognised testing facilities:	No, not conducted under GLP/Officially recognised testing facilities
Acceptability/Reliability:	Yes

Data Point:	KCP 9.2.5/04
Report Author:	[redacted]
Report Year:	2021
Report Title:	Fluopyram (FLU) and metabolite: PECsw,sed FOCUS EUR (tier 2) - Use in spring cereals and winter cereals in Europe
Report No:	EnSa-21-0072
Document No:	M-763464-01-1
Guideline(s) followed in study:	none
Deviations from current test guideline:	Current guideline: not applicable
Previous evaluation:	No, not previously submitted
GLP/Officially recognised testing facilities:	No, not conducted under GLP/Officially recognised testing facilities
Acceptability/Reliability:	Yes

Data Point:	KCP 9.2.5/05
Report Author:	[redacted]
Report Year:	2021
Report Title:	Fluopyram (FLU) and metabolite: PECsw,sed FOCUS EUR (tier 2) - Use in spring cereals and winter cereals in Europe
Report No:	EnSa-21-0071
Document No:	M-763440-01-1
Guideline(s) followed in study:	none
Deviations from current test guideline:	Current guideline: not applicable
Previous evaluation:	No, not previously submitted
GLP/Officially recognised testing facilities:	No, not conducted under GLP/Officially recognised testing facilities
Acceptability/Reliability:	Yes

Please note: The modelling reports are considering several use scenarios. Only those relevant for BIX + FLU + PTZ EC 260 are presented here.

Methods and Materials:

Predicted environmental concentrations of the active substance fluopyram and its metabolites in surface water (PEC_{sw}) and sediment (PEC_{sed}) were calculated for the use in Europe, employing the tiered FOCUS Surface Water (SW) approach (FOCUS 2001, 2015). All relevant entry routes of a compound into surface water (principally a combination of spray drift and runoff/erosion or drain flow) were considered in these calculations.

The use of fluopyram in barley (FOCUS crops: cereals, spring and winter) was assessed according to Good Agricultural Practice (GAP) in Europe. Detailed application parameters are presented in Table 9.2.5- 5.

Table 9.2.5- 5: Application pattern used for PEC_{sw} calculations of fluopyram

Crop	BBCH stage	Rate [g a.s./ha]	Interval [days]	FOCUS crop (crop group)	Season	Crop cover
Spring Cereals I	30 - 61	1 × 39	-	Cereals, spring (arable crops)	Spring (Mar. - May) Summer (Jun. - Sep.)	Average crop cover
Winter Cereals I	30 - 61	1 × 39	-	Cereals, winter (arable crops)	Autumn (Oct. - Feb.) Spring (Mar. - May) Summer (Jun. - Sep.)	Average crop cover
Spring Cereals II	30 - 61	1 × 78	-	Cereals, spring (arable crops)	Spring (Mar. - May) Summer (Jun. - Sep.)	Average crop cover
Winter Cereals II	30 - 61	1 × 78	-	Cereals, winter (arable crops)	Autumn (Oct. - Feb.) Spring (Mar. - May) Summer (Jun. - Sep.)	Average crop cover

Substance input parameter are summarised in Table 9.2.5- 2, Table 9.2.5- 3 and Table 9.2.5- 4.

For the uses in barley in addition to FOCUS Step 1-2 values, FOCUS Step 3 values were calculated for the active substance fluopyram and its metabolites fluopyram-7-hydroxy (FLU-7-OH) and trifluoroacetic acid (TFA). In FOCUS Step 3, the application date for each scenario is determined by the Pesticide Application Timer (PAT), which is part of the FOCUS SW Scenarios. The user may only define an application time window. The actual application date is then set by the PAT in such a way that there are at least 10 mm of rainfall in the first 10 days after application, and at the same time less than 2 mm of rain per day in a five day period around the date of application. If no such date can be found within the application time window, the above rules are step-wise relaxed. Information on application dates can be found in Table 9.2.5- 6 and Table 9.2.5- 7.

Table 9.2.5- 6: Application dates of fluopyram for the FOCUS Step 3 calculations

Parameter	Spring cereals I & II, early	
PAT start date rel./absolute	Absolute	
Appl. method (appl. type)	Ground spray (2 – appl. foliar linear, 4 cm)	
No of appl.	1	
PAT window range	30	
Appl. interval	-	
Scenarios	PAT start/end date (Julian day)	Application date
D1 Ditch/Stream	27-May/26-Jun (147/177)	17-Jun
D3 Ditch	28-Apr/28-May (118/148)	04-May
D4 Pond/Stream	18-May/17-Jun (138/168)	30-May
D5 Pond/Stream	09-Apr/09-May (99/129)	14-Apr
R4 Stream	09-Apr/09-May (99/129)	04-May

Table 9.2.5- 7: Application dates of fluopyram for the FOCUS Step 3 calculations

Parameter	Winter cereals I & II, early		Winter cereals I & II, late	
PAT start date rel./absolute	Absolute		Absolute	
Appl. method (appl. type)	Ground spray (2 – appl. foliar linear, 4 cm)		Ground spray (2 – appl. foliar linear, 4 cm)	
No of appl.	1		1	
PAT window range	30		30	
Appl. interval	-		-	
Scenarios	PAT start/end date (Julian day)	Application date	PAT start/end date (Julian day)	Application date
D1 Ditch/Stream	25-Mar/24-Apr (84/114)	29-Mar	25-Jun/25-Jul (176/206)	25-Jun
D2 Ditch/Stream	04-Apr/04-May (94/124)	04-Apr	01-Jul/31-Jul (182/212)	01-Jul
D3 Ditch	16-Apr/16-May (106/136)	20-Apr	25-Jul/24-Aug (206/236)	24-Jul
D4 Pond/Stream	18-Mar/17-Apr (77/107)	19-Mar	23-Jun/23-Jul (174/204)	04-Jul
D5 Pond/Stream	15-Mar/14-Apr (74/104)	08-Apr	17-May/16-Jun (137/167)	27-May
D6 Ditch	16-Feb/18-Mar (47/77)	27-Feb	02-Apr/02-May (92/122)	09-Apr
R1 Pond/Stream	24-Apr/24-May (114/144)	26-Apr	12-Jun/12-Jul (163/193)	29-Jun
R3 Stream	19-Mar/18-Apr (78/108)	28-Mar	12-May/11-Jun (132/162)	18-May
R4 Stream	24-Jan/23-Feb (24/54)	04-Feb	17-May/16-Jun (137/167)	27-May

Findings:

Tier 1: FOCUS Step 1 and 2

The maximum PEC_{sw} and PEC_{sed} values for FOCUS Step 1 and 2 are given in the tables below for fluopyram and its metabolites fluopyram-7-hydroxy (FLU-7-OH) and trifluoroacetic acid (TFA) considering application in barley (FOCUS crops: spring cereals, winter cereals).

Fluopyram

Table 9.2.5- 8: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use spring cereals I -- spring -- 1× 39g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	10.3	RunOff	10.1	23.7
Step 2					
Northern Europe	Mar. - May (Spring)	1.87 *	RunOff	1.83	4.28 *
Southern Europe	Mar. - May (Spring)	3.44 *	RunOff	3.39	7.93 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 9: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use spring cereals I -- summer -- 1×39 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	10.3	RunOff	10.1	23.7
Step 2					
Northern Europe	Jun. - Sep. (Summer)	1.87 *	RunOff	1.83	4.28 *
Southern Europe	Jun. - Sep. (Summer)	2.66 *	RunOff	2.61	6.11 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 10: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- autumn -- 1×39 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	10.3	RunOff	10.1	23.7
Step 2					
Northern Europe	Oct. - Feb. (Autumn)	4.23 *	RunOff	4.17	9.76 *
Southern Europe	Oct. - Feb. (Autumn)	3.44 *	RunOff	3.39	7.93 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 11: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- spring -- 1×39 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	10.3	RunOff	10.1	23.7
Step 2					
Northern Europe	Mar. - May (Spring)	1.87 *	RunOff	1.83	4.28 *
Southern Europe	Mar. - May (Spring)	3.44 *	RunOff	3.39	7.93 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 12: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- summer -- 1×39 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	10.3	RunOff	10.1	23.7
Step 2					
Northern Europe	Jun. - Sep. (Summer)	1.87 *	RunOff	1.83	4.28 *
Southern Europe	Jun. - Sep. (Summer)	2.66 *	RunOff	2.61	6.11 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 13: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use spring cereals II -- spring -- 1×78 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	20.6	RunOff	20.2	47.3
Step 2					
Northern Europe	Mar. - May (Spring)	3.74 *	RunOff	3.67	8.57 *
Southern Europe	Mar. - May (Spring)	6.89 *	RunOff	6.79	15.9 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 14: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use spring cereals II -- summer -- 1×78 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	20.6	RunOff	20.2	47.3
Step 2					
Northern Europe	Jun. - Sep. (Summer)	3.74 *	RunOff	3.67	8.57 *
Southern Europe	Jun. - Sep. (Summer)	5.31 *	RunOff	5.23	12.2 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 15: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- autumn -- 1×78 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	20.6	RunOff	20.2	47.3
Step 2					
Northern Europe	Oct. - Feb. (Autumn)	8.46 *	RunOff	8.35	19.5 *
Southern Europe	Oct. - Feb. (Autumn)	6.89 *	RunOff	6.79	15.9 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 16: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- spring -- 1×78 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	20.6	RunOff	20.2	47.3
Step 2					
Northern Europe	Mar. - May (Spring)	3.74 *	RunOff	3.67	8.57 *
Southern Europe	Mar. - May (Spring)	6.89 *	RunOff	6.79	15.9 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 17: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- summer -- 1×78 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	20.6	RunOff	20.2	47.3
Step 2					
Northern Europe	Jun. - Sep. (Summer)	3.74 *	RunOff	3.67	8.57 *
Southern Europe	Jun. - Sep. (Summer)	5.31 *	RunOff	5.23	12.2 *

* Single applications are marked.
** TWA interval as required by ecotox

Fluopyram-7-hydroxy (FLU-7-OH)

Table 9.2.5- 18: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram-7-hydroxy following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use spring cereals I -- spring -- 1×39 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	0.692	-	0.687	0.693
Step 2					
Northern Europe	Mar. - May (Spring)	0.110 *	-	0.110	0.111 *
Southern Europe	Mar. - May (Spring)	0.221 *	-	0.219	0.221 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 19: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram-7-hydroxy following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use spring cereals I -- summer -- 1×39 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	0.692	-	0.687	0.693
Step 2					
Northern Europe	Jun. - Sep. (Summer)	0.110 *	-	0.110	0.111 *
Southern Europe	Jun. - Sep. (Summer)	0.166 *	-	0.164	0.166 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 20: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram-7-hydroxy following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- autumn -- 1×39 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	0.692	-	0.687	0.693
Step 2					
Northern Europe	Oct. - Feb. (Autumn)	0.276 *	-	0.274	0.277 *
Southern Europe	Oct. - Feb. (Autumn)	0.221 *	-	0.219	0.221 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 21: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram-7-hydroxy following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- spring -- 1×39 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	0.692	-	0.687	0.693
Step 2					
Northern Europe	Mar. - May (Spring)	0.110 *		0.110	0.111 *
Southern Europe	Mar. - May (Spring)	0.221 *	-	0.219	0.221 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 22: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram-7-hydroxy following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- summer -- 1×39 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	0.692	-	0.687	0.693
Step 2					
Northern Europe	Jun. - Sep. (Summer)	0.110 *	-	0.110	0.111 *
Southern Europe	Jun. - Sep. (Summer)	0.166 *	-	0.164	0.166 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 23: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram-7-hydroxy following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use spring cereals II -- spring -- 1×78 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	1.38	-	1.37	1.39
Step 2					
Northern Europe	Mar. - May (Spring)	0.221 *	-	0.219	0.221 *
Southern Europe	Mar. - May (Spring)	0.442 *	-	0.438	0.443 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 24: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram-7-hydroxy following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use spring cereals II -- summer -- 1×78 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	1.38	-	1.37	1.39
Step 2					
Northern Europe	Jun. - Sep. (Summer)	0.221 *		0.219	0.221 *
Southern Europe	Jun. - Sep. (Summer)	0.331 *	-	0.329	0.332 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 25: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram-7-hydroxy following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- autumn -- 1×78 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	1.38	-	1.37	1.39
Step 2					
Northern Europe	Oct. - Feb. (Autumn)	0.552 *	-	0.548	0.553 *
Southern Europe	Oct. - Feb. (Autumn)	0.442 *	-	0.438	0.443 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 26: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram-7-hydroxy following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- spring -- 1×78 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	1.38	-	1.37	1.39
Step 2					
Northern Europe	Mar. - May (Spring)	0.221 *	-	0.219	0.221 *
Southern Europe	Mar. - May (Spring)	0.442 *	-	0.438	0.443 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 27: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for fluopyram-7-hydroxy following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- summer -- 1×78 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	1.38	-	1.37	1.39
Step 2					
Northern Europe	Jun. - Sep. (Summer)	0.221 *		0.219	0.221 *
Southern Europe	Jun. - Sep. (Summer)	0.331 *	-	0.329	0.332 *

* Single applications are marked.
** TWA interval as required by ecotox

Trifluoroacetic acid (TFA)

Table 9.2.5- 28: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for trifluoroacetic acid following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use spring cereals I -- spring -- 1×39 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	0.553	-	0.549	<0.001
Step 2					
Northern Europe	Mar. - May (Spring)	0.088 *	-	0.088	<0.001 *
Southern Europe	Mar. - May (Spring)	0.177 *	-	0.175	<0.001 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 29: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for trifluoroacetic acid following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use spring cereals I -- summer -- 1×39 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	0.553	-	0.549	<0.001
Step 2					
Northern Europe	Jun. - Sep. (Summer)	0.088 *	-	0.088	<0.001 *
Southern Europe	Jun. - Sep. (Summer)	0.132 *	-	0.131	<0.001 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 30: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for trifluoroacetic acid following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- autumn -- 1×39 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	0.553	-	0.549	<0.001
Step 2					
Northern Europe	Oct. - Feb. (Autumn)	0.221 *	-	0.219	<0.001 *
Southern Europe	Oct. - Feb. (Autumn)	0.177 *	-	0.175	<0.001 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 31: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for trifluoroacetic acid following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- spring -- 1×39 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	0.553	-	0.549	<0.001
Step 2					
Northern Europe	Mar. - May (Spring)	0.088 *	-	0.088	<0.001 *
Southern Europe	Mar. - May (Spring)	0.177 *	-	0.175	<0.001 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 32: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for trifluoroacetic acid following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- summer -- 1×39 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	0.553	-	0.549	<0.001
Step 2					
Northern Europe	Jun. - Sep. (Summer)	0.088 *	-	0.088	<0.001 *
Southern Europe	Jun. - Sep. (Summer)	0.132 *	-	0.131	<0.001 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 33: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for trifluoroacetic acid following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use spring cereals II -- spring -- 1×78 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	1.11	-	1.10	<0.001
Step 2					
Northern Europe	Mar. - May (Spring)	0.177 *	-	0.175	<0.001 *
Southern Europe	Mar. - May (Spring)	0.353 *	-	0.350	<0.001 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 34: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for trifluoroacetic acid following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use spring cereals II -- summer -- 1×78 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	1.11	-	1.10	<0.001
Step 2					
Northern Europe	Jun. - Sep. (Summer)	0.177 *	-	0.175	<0.001 *
Southern Europe	Jun. - Sep. (Summer)	0.265 *	-	0.263	<0.001 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 35: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for trifluoroacetic acid following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- autumn -- 1×78 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	1.11	-	1.10	<0.001
Step 2					
Northern Europe	Oct. - Feb. (Autumn)	0.441 *	-	0.438	<0.001 *
Southern Europe	Oct. - Feb. (Autumn)	0.353 *	-	0.350	<0.001 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 36: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for trifluoroacetic acid following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- spring -- 1×78 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	1.11	-	1.10	<0.001
Step 2					
Northern Europe	Mar. - May (Spring)	0.177 *	-	0.175	<0.001 *
Southern Europe	Mar. - May (Spring)	0.353 *	-	0.350	<0.001 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 37: Tier 1 FOCUS Step 1, 2 PEC_{sw} and PEC_{sed} for trifluoroacetic acid following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- summer -- 1×78 g a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 1	-	1.11	-	1.10	<0.001
Step 2					
Northern Europe	Jun. - Sep. (Summer)	0.177 *		0.175	<0.001 *
Southern Europe	Jun. - Sep. (Summer)	0.265 *	-	0.263	<0.001 *

* Single applications are marked.
** TWA interval as required by ecotox

Tier 1: FOCUS Step 3

The maximum PEC_{sw} and PEC_{sed} values for FOCUS Step 3 are given in the tables below for fluopyram and its metabolites fluopyram-7-hydroxy (FLU-7-OH) and trifluoroacetic acid (TFA) considering application in barley (FOCUS crops: cereals, spring and winter). The reported PEC_{sw} and PEC_{sed} values represent loadings via all relevant entry routes.

Fluopyram

Table 9.2.5- 38: Tier 1 FOCUS Step 3 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use spring cereals I -- early -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 3					
D1	Ditch	1.28 *	Drainage	1.12	7.52 *
D1	Stream	0.798 *	Drainage	0.694	4.35 *
D3	Ditch	0.247 *	Spray drift	0.014	0.118 *
D4	Pond	0.317 *	Drainage	0.308	1.73 *
D4	Stream	0.319 *	Drainage	0.206	0.642 *
D5	Pond	0.234 *	Drainage	0.224	1.85 *
D5	Stream	0.226 *	Spray drift	0.077	0.419 *
R4	Stream	0.557 *	RunOff	0.055	0.358 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 39: Tier 1 FOCUS Step 3 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- early -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	1.91	*	Drainage	1.61	7.23	*
D1	Stream	1.22	*	Drainage	1.03	4.33	*
D2	Ditch	2.48	*	Drainage	1.32	7.47	*
D2	Stream	1.56	*	Drainage	0.653	4.13	*
D3	Ditch	0.247	*	Spray drift	0.012	0.110	*
D4	Pond	0.341	*	Drainage	0.331	1.81	*
D4	Stream	0.346	*	Drainage	0.221	0.664	*
D5	Pond	0.227	*	Drainage	0.218	1.84	*
D5	Stream	0.223	*	Spray drift	0.077	0.419	*
D6	Ditch	0.409	*	Drainage	0.116	0.468	*
R1	Pond	0.029	*	RunOff	0.027	0.183	*
R1	Stream	0.299	*	RunOff	0.018	0.129	*
R3	Stream	0.440	*	RunOff	0.020	0.254	*
R4	Stream	0.515	*	RunOff	0.024	0.221	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 40: Tier 1 FOCUS Step 3 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- late -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	0.981	*	Drainage	0.839	4.85	*
D1	Stream	0.613	*	Drainage	0.520	2.72	*
D2	Ditch	0.799	*	Drainage	0.449	3.39	*
D2	Stream	0.500	*	Drainage	0.260	2.10	*
D3	Ditch	0.248	*	Spray drift	0.020	0.147	*
D4	Pond	0.213	*	Drainage	0.206	1.17	*
D4	Stream	0.214	*	Spray drift	0.138	0.430	*
D5	Pond	0.103	*	Drainage	0.099	0.986	*
D5	Stream	0.231	*	Spray drift	0.041	0.212	*
D6	Ditch	0.251	*	Spray drift	0.070	0.293	*
R1	Pond	0.091	*	RunOff	0.085	0.440	*
R1	Stream	0.408	*	RunOff	0.037	0.377	*
R3	Stream	0.499	*	RunOff	0.027	0.211	*
R4	Stream	0.188	*	RunOff	0.010	0.136	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 41: Tier 1 FOCUS Step 3 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use spring cereals II -- early -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	2.56	*	Drainage	2.31	14.2	*
D1	Stream	1.60	*	Drainage	1.44	8.26	*
D3	Ditch	0.495	*	Spray drift	0.027	0.226	*
D4	Pond	0.663	*	Drainage	0.645	3.44	*
D4	Stream	0.673	*	Drainage	0.428	1.26	*
D5	Pond	0.526	*	Drainage	0.505	3.90	*
D5	Stream	0.461	*	Spray drift	0.175	0.895	*
R4	Stream	1.20	*	RunOff	0.112	0.682	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 42: Tier 1 FOCUS Step 3 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- early -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 3					
D1	Ditch	3.84 *	Drainage	3.12	13.2 *
D1	Stream	2.46 *	Drainage	2.01	7.91 *
D2	Ditch	5.22 *	Drainage	3.05	14.6 *
D2	Stream	3.31 *	Drainage	1.42	8.46 *
D3	Ditch	0.494 *	Spray drift	0.024	0.211 *
D4	Pond	0.704 *	Drainage	0.685	3.57 *
D4	Stream	0.723 *	Drainage	0.454	1.29 *
D5	Pond	0.510 *	Drainage	0.492	3.90 *
D5	Stream	0.457 *	Spray drift	0.175	0.892 *
D6	Ditch	0.814 *	Drainage	0.234	0.911 *
R1	Pond	0.058 *	RunOff	0.052	0.338 *
R1	Stream	0.622 *	RunOff	0.036	0.257 *
R3	Stream	0.929 *	RunOff	0.043	0.501 *
R4	Stream	1.04 *	RunOff	0.047	0.432 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 43: Tier 1 FOCUS Step 3 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 (65+65+130 g/L) to barley II (modelling use winter cereals II -- late -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	2.10	*	Drainage	1.82	9.15	*
D1	Stream	1.31	*	Drainage	1.14	5.19	*
D2	Ditch	1.70	*	Drainage	0.932	6.44	*
D2	Stream	1.07	*	Drainage	0.544	3.96	*
D3	Ditch	0.496	*	Spray drift	0.041	0.282	*
D4	Pond	0.436	*	Drainage	0.423	2.27	*
D4	Stream	0.439	*	Drainage	0.281	0.824	*
D5	Pond	0.236	*	Drainage	0.228	2.12	*
D5	Stream	0.461	*	Spray drift	0.088	0.467	*
D6	Ditch	0.503	*	Spray drift	0.134	0.541	*
R1	Pond	0.188	*	RunOff	0.176	0.864	*
R1	Stream	0.844	*	RunOff	0.077	0.718	*
R3	Stream	1.10	*	RunOff	0.058	0.433	*
R4	Stream	0.362	*	RunOff	0.019	0.245	*

* Single applications are marked.
** TWA interval as required by ecotox

Fluopyram-7-hydroxy (FLU-7-OH)

Table 9.2.5- 44: Tier 1 FOCUS Step 3 PEC_{sw} and PEC_{sed} for FLU-7-OH following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use spring cereals I -- early -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 3					
D1	Ditch	0.115 *	-	0.099	0.250 *
D1	Stream	0.072 *	-	0.061	0.142 *
D3	Ditch	<0.001 *	-	<0.001	<0.001 *
D4	Pond	0.029 *	-	0.028	0.089 *
D4	Stream	0.027 *	-	0.017	0.029 *
D5	Pond	0.028 *	-	0.027	0.114 *
D5	Stream	0.021 *	-	0.009	0.024 *
R4	Stream	0.003 *	-	<0.001	<0.001 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 45: Tier 1 FOCUS Step 3 PEC_{sw} and PEC_{sed} for FLU-7-OH following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- early -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 3					
D1	Ditch	0.140 *	-	0.101	0.221 *
D1	Stream	0.090 *	-	0.066	0.129 *
D2	Ditch	0.182 *	-	0.119	0.320 *
D2	Stream	0.125 *	-	0.073	0.189 *
D3	Ditch	<0.001 *	-	<0.001	<0.001 *
D4	Pond	0.032 *	-	0.031	0.091 *
D4	Stream	0.030 *	-	0.019	0.029 *
D5	Pond	0.027 *	-	0.027	0.114 *
D5	Stream	0.021 *	-	0.009	0.024 *
D6	Ditch	0.025 *	-	0.011	0.029 *
R1	Pond	<0.001 *	-	<0.001	0.001 *
R1	Stream	0.004 *	-	<0.001	0.001 *
R3	Stream	0.008 *	-	<0.001	0.003 *
R4	Stream	0.009 *	-	<0.001	0.002 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 46: Tier 1 FOCUS Step 3 PEC_{sw} and PEC_{sed} for FLU-7-OH following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- late -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	0.082	*	-	0.060	0.130	*
D1	Stream	0.052	*	-	0.039	0.076	*
D2	Ditch	0.075	*	-	0.042	0.141	*
D2	Stream	0.047	*	-	0.023	0.080	*
D3	Ditch	<0.001	*	-	<0.001	<0.001	*
D4	Pond	0.016	*	-	0.016	0.046	*
D4	Stream	0.016	*	-	0.010	0.015	*
D5	Pond	0.014	*	-	0.013	0.062	*
D5	Stream	0.012	*	-	0.005	0.013	*
D6	Ditch	0.013	*	-	0.005	0.013	*
R1	Pond	<0.001	*	-	<0.001	0.002	*
R1	Stream	0.005	*	-	<0.001	0.001	*
R3	Stream	0.014	*	-	<0.001	0.003	*
R4	Stream	0.008	*	-	<0.001	0.003	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 47: Tier 1 FOCUS Step 3 PEC_{sw} and PEC_{sed} for FLU-7-OH following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use spring cereals II -- early -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	0.224	*	-	0.194	0.473	*
D1	Stream	0.140	*	-	0.119	0.267	*
D3	Ditch	<0.001	*	-	<0.001	0.003	*
D4	Pond	0.061	*	-	0.059	0.184	*
D4	Stream	0.054	*	-	0.036	0.061	*
D5	Pond	0.057	*	-	0.055	0.227	*
D5	Stream	0.043	*	-	0.017	0.047	*
R4	Stream	0.005	*	-	<0.001	0.002	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 48: Tier 1 FOCUS Step 3 PEC_{sw} and PEC_{sed} for FLU-7-OH following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- early -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 3					
D1	Ditch	0.266 *	-	0.191	0.423 *
D1	Stream	0.169 *	-	0.125	0.247 *
D2	Ditch	0.336 *	-	0.225	0.601 *
D2	Stream	0.233 *	-	0.142	0.360 *
D3	Ditch	<0.001 *	-	<0.001	0.002 *
D4	Pond	0.066 *	-	0.064	0.189 *
D4	Stream	0.059 *	-	0.040	0.061 *
D5	Pond	0.056 *	-	0.055	0.229 *
D5	Stream	0.041 *	-	0.018	0.048 *
D6	Ditch	0.049 *	-	0.023	0.059 *
R1	Pond	<0.001 *	-	<0.001	0.002 *
R1	Stream	0.008 *	-	<0.001	0.002 *
R3	Stream	0.016 *	-	<0.001	0.005 *
R4	Stream	0.017 *	-	<0.001	0.004 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 49: Tier 1 FOCUS Step 3 PEC_{sw} and PEC_{sed} for FLU-7-OH following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- late -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	0.157	*	-	0.114	0.250	*
D1	Stream	0.100	*	-	0.075	0.146	*
D2	Ditch	0.149	*	-	0.082	0.266	*
D2	Stream	0.093	*	-	0.045	0.151	*
D3	Ditch	<0.001	*	-	<0.001	<0.001	*
D4	Pond	0.033	*	-	0.032	0.094	*
D4	Stream	0.032	*	-	0.020	0.030	*
D5	Pond	0.029	*	-	0.028	0.125	*
D5	Stream	0.022	*	-	0.010	0.027	*
D6	Ditch	0.024	*	-	0.011	0.025	*
R1	Pond	0.001	*	-	0.001	0.003	*
R1	Stream	0.008	*	-	<0.001	0.002	*
R3	Stream	0.025	*	-	<0.001	0.006	*
R4	Stream	0.015	*	-	<0.001	0.005	*

* Single applications are marked.
** TWA interval as required by ecotox

Trifluoroacetic acid (TFA)

Table 9.2.5- 50: Tier 1 FOCUS Step 3 PEC_{sw} and PEC_{sed} for TFA following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use spring cereals I -- early -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	0.244	*	-	0.236	0.128	*
D1	Stream	0.151	*	-	0.144	0.076	*
D3	Ditch	0.431	*	-	0.431	0.286	*
D4	Pond	0.692	*	-	0.689	0.425	*
D4	Stream	0.285	*	-	0.268	0.161	*
D5	Pond	0.929	*	-	0.923	0.589	*
D5	Stream	0.382	*	-	0.364	0.171	*
R4	Stream	0.001	*	-	<0.001	<0.001	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 51: Tier 1 FOCUS Step 3 PEC_{sw} and PEC_{sed} for TFA following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- early -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	0.361	*	-	0.352	0.172	*
D1	Stream	0.223	*	-	0.215	0.102	*
D2	Ditch	0.264	*	-	0.245	0.151	*
D2	Stream	0.177	*	-	0.155	0.097	*
D3	Ditch	0.470	*	-	0.470	0.308	*
D4	Pond	0.805	*	-	0.802	0.484	*
D4	Stream	0.351	*	-	0.330	0.185	*
D5	Pond	1.00	*	-	0.998	0.635	*
D5	Stream	0.442	*	-	0.421	0.191	*
D6	Ditch	0.589	*	-	0.544	0.296	*
R1	Pond	<0.001	*	-	<0.001	<0.001	*
R1	Stream	<0.001	*	-	<0.001	<0.001	*
R3	Stream	0.003	*	-	<0.001	<0.001	*
R4	Stream	0.001	*	-	<0.001	<0.001	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 52: Tier 1 FOCUS Step 3 PEC$_{sw}$ and PEC$_{sed}$ for TFA following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- late -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC$_{sw}$ (µg/L)*		Dominant entry route	21d-PEC$_{sw,twa}$ (µg/L)**	Max PEC$_{sed}$ (µg/kg)*	
Step 3							
D1	Ditch	0.185	*	-	0.180	0.088	*
D1	Stream	0.114	*	-	0.110	0.052	*
D2	Ditch	0.122	*	-	0.114	0.070	*
D2	Stream	0.081	*	-	0.072	0.045	*
D3	Ditch	0.279	*	-	0.279	0.165	*
D4	Pond	0.333	*	-	0.332	0.199	*
D4	Stream	0.146	*	-	0.137	0.075	*
D5	Pond	0.431	*	-	0.429	0.271	*
D5	Stream	0.173	*	-	0.165	0.078	*
D6	Ditch	0.265	*	-	0.244	0.133	*
R1	Pond	<0.001	*	-	<0.001	<0.001	*
R1	Stream	<0.001	*	-	<0.001	<0.001	*
R3	Stream	0.008	*	-	<0.001	<0.001	*
R4	Stream	0.002	*	-	<0.001	<0.001	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 53: Tier 1 FOCUS Step 3 PEC$_{sw}$ and PEC$_{sed}$ for TFA following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use spring cereals II -- early -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC$_{sw}$ (µg/L)*		Dominant entry route	21d-PEC$_{sw,twa}$ (µg/L)**	Max PEC$_{sed}$ (µg/kg)*	
Step 3							
D1	Ditch	0.481	*	-	0.467	0.253	*
D1	Stream	0.299	*	-	0.285	0.150	*
D3	Ditch	0.863	*	-	0.863	0.572	*
D4	Pond	1.38	*	-	1.37	0.846	*
D4	Stream	0.570	*	-	0.535	0.320	*
D5	Pond	1.85	*	-	1.84	1.18	*
D5	Stream	0.763	*	-	0.726	0.342	*
R4	Stream	0.002	*	-	<0.001	<0.001	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 54: Tier 1 FOCUS Step 3 PEC_{sw} and PEC_{sed} for TFA following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- early -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 3					
D1	Ditch	0.719 *	-	0.701	0.342 *
D1	Stream	0.444 *	-	0.427	0.203 *
D2	Ditch	0.526 *	-	0.488	0.301 *
D2	Stream	0.350 *	-	0.309	0.193 *
D3	Ditch	0.941 *	-	0.941	0.616 *
D4	Pond	1.60 *	-	1.60	0.965 *
D4	Stream	0.702 *	-	0.659	0.368 *
D5	Pond	2.00 *	-	1.99	1.27 *
D5	Stream	0.883 *	-	0.841	0.380 *
D6	Ditch	1.18 *	-	1.09	0.591 *
R1	Pond	<0.001 *	-	<0.001	<0.001 *
R1	Stream	0.001 *	-	<0.001	<0.001 *
R3	Stream	0.005 *	-	<0.001	<0.001 *
R4	Stream	0.002 *	-	<0.001	<0.001 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 55: Tier 1 FOCUS Step 3 PEC_{sw} and PEC_{sed} for TFA following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- late -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	0.367	*	-	0.358	0.175	*
D1	Stream	0.227	*	-	0.218	0.104	*
D2	Ditch	0.242	*	-	0.225	0.138	*
D2	Stream	0.160	*	-	0.143	0.089	*
D3	Ditch	0.558	*	-	0.558	0.330	*
D4	Pond	0.664	*	-	0.662	0.396	*
D4	Stream	0.290	*	-	0.273	0.150	*
D5	Pond	0.858	*	-	0.853	0.539	*
D5	Stream	0.346	*	-	0.329	0.156	*
D6	Ditch	0.531	*	-	0.489	0.265	*
R1	Pond	<0.001	*	-	<0.001	<0.001	*
R1	Stream	0.002	*	-	<0.001	<0.001	*
R3	Stream	0.013	*	-	<0.001	<0.001	*
R4	Stream	0.004	*	-	<0.001	<0.001	*

* Single applications are marked.
** TWA interval as required by ecotox

Tier 1: FOCUS Step 4

The maximum PEC_{sw} values for FOCUS Step 4 are given in the tables below for fluopyram and its metabolite fluopyram-7-hydroxy (FLU-7-OH) considering application in barley (FOCUS crops: cereals, spring and winter). The reported PEC_{sw} values represent loadings via all relevant entry routes.

Fluopyram

Table 9.2.5- 56: Tier 1 PEC_{sw} values for fluopyram, following single application of BIX + FLU + PTZ EC 260 to barley I according to surface water Step 4 (modelling use spring cereals I -- early -- 0.039 kg a.s./ha)

PEC_{sw} (µg/L)	Scenario	Step 4 fluopyram_Tier 1							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	1.28	1.28	1.28	1.28	1.28	1.28		
50 %		1.28	1.28	1.28	1.28	1.28	1.28		
75 %		1.28	1.28	1.28	1.28	1.28	1.28		
90 %		1.28	1.28	1.28	1.28	1.28	1.28		
None	D1 Stream	0.798	0.798	0.798	0.798	0.798	0.798		
50 %		0.798	0.798	0.798	0.798	0.798	0.798		
75 %		0.798	0.798	0.798	0.798	0.798	0.798		
90 %		0.798	0.798	0.798	0.798	0.798	0.798		
None	D3 Ditch	0.247	0.067	0.036	0.019	0.036	0.019		
50 %		0.124	0.034	0.018	0.009	0.018	0.009		
75 %		0.062	0.017	0.009	0.005	0.009	0.005		
90 %		0.025	0.007	0.004	0.002	0.004	0.002		
None	D4 Pond	0.317	0.317	0.316	0.316	0.316	0.316		
50 %		0.316	0.316	0.316	0.315	0.316	0.315		
75 %		0.316	0.316	0.315	0.315	0.315	0.315		
90 %		0.315	0.315	0.315	0.315	0.315	0.315		
None	D4 Stream	0.319	0.319	0.319	0.319	0.319	0.319		
50 %		0.319	0.319	0.319	0.319	0.319	0.319		
75 %		0.319	0.319	0.319	0.319	0.319	0.319		
90 %		0.319	0.319	0.319	0.319	0.319	0.319		
None	D5 Pond	0.234	0.233	0.233	0.233	0.233	0.233		
50 %		0.233	0.233	0.233	0.233	0.233	0.233		
75 %		0.233	0.233	0.233	0.232	0.233	0.232		
90 %		0.232	0.232	0.232	0.232	0.232	0.232		
None	D5 Stream	0.226	0.185	0.185	0.185	0.185	0.185		
50 %		0.185	0.185	0.185	0.185	0.185	0.185		
75 %		0.185	0.185	0.185	0.185	0.185	0.185		
90 %		0.185	0.185	0.185	0.185	0.185	0.185		
None	R4 Stream	0.557	0.557	0.557	0.557	0.252	0.131		
50 %		0.557	0.557	0.557	0.557	0.252	0.131		
75 %		0.557	0.557	0.557	0.557	0.252	0.131		
90 %		0.557	0.557	0.557	0.557	0.252	0.131		

Table 9.2.5- 57: Tier 1 PEC$_{sw}$ values for fluopyram, following single application of BIX + FLU + PTZ EC 260 to barley I according to surface water Step 4 (modelling use winter cereals I -- early -- 0.039 kg a.s./ha)

PEC$_{sw}$ (µg/L)	**Scenario**	**Step 4 fluopyram_Tier 1**							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	1.91	1.91	1.91	1.91	1.91	1.91		
50 %		1.91	1.91	1.91	1.91	1.91	1.91		
75 %		1.91	1.91	1.91	1.91	1.91	1.91		
90 %		1.91	1.91	1.91	1.91	1.91	1.91		
None	D1 Stream	1.22	1.22	1.22	1.22	1.22	1.22		
50 %		1.22	1.22	1.22	1.22	1.22	1.22		
75 %		1.22	1.22	1.22	1.22	1.22	1.22		
90 %		1.22	1.22	1.22	1.22	1.22	1.22		
None	D2 Ditch	2.48	2.48	2.48	2.48	2.48	2.48		
50 %		2.48	2.48	2.48	2.48	2.48	2.48		
75 %		2.48	2.48	2.48	2.48	2.48	2.48		
90 %		2.48	2.48	2.48	2.48	2.48	2.48		
None	D2 Stream	1.56	1.56	1.56	1.56	1.56	1.56		
50 %		1.56	1.56	1.56	1.56	1.56	1.56		
75 %		1.56	1.56	1.56	1.56	1.56	1.56		
90 %		1.56	1.56	1.56	1.56	1.56	1.56		
None	D3 Ditch	0.247	0.067	0.036	0.019	0.036	0.019		
50 %		0.124	0.034	0.018	0.009	0.018	0.009		
75 %		0.062	0.017	0.009	0.005	0.009	0.005		
90 %		0.025	0.007	0.004	0.002	0.004	0.002		
None	D4 Pond	0.341	0.341	0.340	0.340	0.340	0.340		
50 %		0.340	0.340	0.340	0.340	0.340	0.340		
75 %		0.340	0.340	0.340	0.340	0.340	0.340		
90 %		0.340	0.340	0.340	0.340	0.340	0.340		
None	D4 Stream	0.346	0.346	0.346	0.346	0.346	0.346		
50 %		0.346	0.346	0.346	0.346	0.346	0.346		
75 %		0.346	0.346	0.346	0.346	0.346	0.346		
90 %		0.346	0.346	0.346	0.346	0.346	0.346		
None	D5 Pond	0.227	0.227	0.226	0.226	0.226	0.226		
50 %		0.226	0.226	0.226	0.226	0.226	0.226		
75 %		0.226	0.226	0.226	0.226	0.226	0.226		
90 %		0.226	0.226	0.226	0.226	0.226	0.226		
None	D5 Stream	0.223	0.185	0.185	0.185	0.185	0.185		
50 %		0.185	0.185	0.185	0.185	0.185	0.185		

PEC_{sw} (µg/L)	**Scenario**	**Step 4 fluopyram_Tier 1**							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
75 %		0.185	0.185	0.185	0.185	0.185	0.185		
90 %		0.185	0.185	0.185	0.185	0.185	0.185		
None	D6 Ditch	0.409	0.409	0.409	0.409	0.409	0.409		
50 %		0.409	0.409	0.409	0.409	0.409	0.409		
75 %		0.409	0.409	0.409	0.409	0.409	0.409		
90 %		0.409	0.409	0.409	0.409	0.409	0.409		
None	R1 Pond	0.029	0.029	0.028	0.027	0.013	0.007		
50 %		0.027	0.027	0.026	0.026	0.011	0.006		
75 %		0.026	0.026	0.025	0.025	0.011	0.006		
90 %		0.025	0.025	0.025	0.025	0.010	0.005		
None	R1 Stream	0.299	0.299	0.299	0.299	0.136	0.071		
50 %		0.299	0.299	0.299	0.299	0.136	0.071		
75 %		0.299	0.299	0.299	0.299	0.136	0.071		
90 %		0.299	0.299	0.299	0.299	0.136	0.071		
None	R3 Stream	0.440	0.440	0.440	0.440	0.201	0.105		
50 %		0.440	0.440	0.440	0.440	0.201	0.105		
75 %		0.440	0.440	0.440	0.440	0.201	0.105		
90 %		0.440	0.440	0.440	0.440	0.201	0.105		
None	R4 Stream	0.515	0.515	0.515	0.515	0.234	0.123		
50 %		0.515	0.515	0.515	0.515	0.234	0.123		
75 %		0.515	0.515	0.515	0.515	0.234	0.123		
90 %		0.515	0.515	0.515	0.515	0.234	0.123		

Table 9.2.5- 58: Tier 1 PEC$_{sw}$ values for fluopyram, following single application of BIX + FLU + PTZ EC 260 to barley I according to surface water Step 4 (modelling use winter cereals I -- late -- 0.039 kg a.s./ha)

PEC$_{sw}$ (µg/L)	Scenario	Step 4 fluopyram_Tier 1							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	0.981	0.981	0.981	0.981	0.981	0.981		
50 %		0.981	0.981	0.981	0.981	0.981	0.981		
75 %		0.981	0.981	0.981	0.981	0.981	0.981		
90 %		0.981	0.981	0.981	0.981	0.981	0.981		
None	D1 Stream	0.613	0.613	0.613	0.613	0.613	0.613		
50 %		0.613	0.613	0.613	0.613	0.613	0.613		
75 %		0.613	0.613	0.613	0.613	0.613	0.613		
90 %		0.613	0.613	0.613	0.613	0.613	0.613		
None	D2 Ditch	0.799	0.799	0.799	0.799	0.799	0.799		
50 %		0.799	0.799	0.799	0.799	0.799	0.799		
75 %		0.799	0.799	0.799	0.799	0.799	0.799		
90 %		0.799	0.799	0.799	0.799	0.799	0.799		
None	D2 Stream	0.500	0.500	0.500	0.500	0.500	0.500		
50 %		0.500	0.500	0.500	0.500	0.500	0.500		
75 %		0.500	0.500	0.500	0.500	0.500	0.500		
90 %		0.500	0.500	0.500	0.500	0.500	0.500		
None	D3 Ditch	0.248	0.067	0.036	0.019	0.036	0.019		
50 %		0.124	0.034	0.018	0.009	0.018	0.009		
75 %		0.062	0.017	0.009	0.005	0.009	0.005		
90 %		0.025	0.007	0.004	0.002	0.004	0.002		
None	D4 Pond	0.213	0.212	0.212	0.211	0.212	0.211		
50 %		0.211	0.211	0.211	0.211	0.211	0.211		
75 %		0.211	0.211	0.211	0.211	0.211	0.211		
90 %		0.211	0.211	0.211	0.210	0.211	0.210		
None	D4 Stream	0.214	0.210	0.210	0.210	0.210	0.210		
50 %		0.210	0.210	0.210	0.210	0.210	0.210		
75 %		0.210	0.210	0.210	0.210	0.210	0.210		
90 %		0.210	0.210	0.210	0.210	0.210	0.210		
None	D5 Pond	0.103	0.102	0.102	0.102	0.102	0.102		
50 %		0.102	0.102	0.102	0.101	0.102	0.101		
75 %		0.102	0.101	0.101	0.101	0.101	0.101		
90 %		0.101	0.101	0.101	0.101	0.101	0.101		
None	D5 Stream	0.231	0.106	0.106	0.106	0.106	0.106		
50 %		0.115	0.106	0.106	0.106	0.106	0.106		

PEC_{sw} (µg/L)	**Scenario**	**Step 4 fluopyram_Tier 1**							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
75 %		0.106	0.106	0.106	0.106	0.106	0.106		
90 %		0.106	0.106	0.106	0.106	0.106	0.106		
None	D6 Ditch	0.251	0.167	0.167	0.167	0.167	0.167		
50 %		0.167	0.167	0.167	0.167	0.167	0.167		
75 %		0.167	0.167	0.167	0.167	0.167	0.167		
90 %		0.167	0.167	0.167	0.167	0.167	0.167		
None	R1 Pond	0.091	0.090	0.089	0.087	0.038	0.020		
50 %		0.088	0.087	0.087	0.086	0.036	0.019		
75 %		0.086	0.086	0.086	0.085	0.035	0.018		
90 %		0.085	0.085	0.085	0.085	0.035	0.017		
None	R1 Stream	0.408	0.408	0.408	0.408	0.186	0.097		
50 %		0.408	0.408	0.408	0.408	0.186	0.097		
75 %		0.408	0.408	0.408	0.408	0.186	0.097		
90 %		0.408	0.408	0.408	0.408	0.186	0.097		
None	R3 Stream	0.499	0.499	0.499	0.499	0.227	0.119		
50 %		0.499	0.499	0.499	0.499	0.227	0.119		
75 %		0.499	0.499	0.499	0.499	0.227	0.119		
90 %		0.499	0.499	0.499	0.499	0.227	0.119		
None	R4 Stream	0.188	0.188	0.188	0.188	0.086	0.045		
50 %		0.188	0.188	0.188	0.188	0.086	0.045		
75 %		0.188	0.188	0.188	0.188	0.086	0.045		
90 %		0.188	0.188	0.188	0.188	0.086	0.045		

Table 9.2.5- 59: Tier 1 PEC_{sw} values for fluopyram, following single application of BIX + FLU + PTZ EC 260 to barley II according to surface water Step 4 (modelling use spring cereals II -- early -- 0.078 kg a.s./ha)

PEC_{sw} (µg/L)	Scenario	Step 4 fluopyram_Tier 1							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	2.56	2.56	2.56	2.56	2.56	2.56		
50 %		2.56	2.56	2.56	2.56	2.56	2.56		
75 %		2.56	2.56	2.56	2.56	2.56	2.56		
90 %		2.56	2.56	2.56	2.56	2.56	2.56		
None	D1 Stream	1.60	1.60	1.60	1.60	1.60	1.60		
50 %		1.60	1.60	1.60	1.60	1.60	1.60		
75 %		1.60	1.60	1.60	1.60	1.60	1.60		
90 %		1.60	1.60	1.60	1.60	1.60	1.60		
None	D3 Ditch	0.494	0.134	0.071	0.037	0.071	0.037		
50 %		0.247	0.067	0.036	0.019	0.036	0.019		
75 %		0.124	0.034	0.018	0.009	0.018	0.009		
90 %		0.049	0.013	0.007	0.004	0.007	0.004		
None	D4 Pond	0.663	0.662	0.661	0.661	0.661	0.661		
50 %		0.661	0.661	0.660	0.660	0.660	0.660		
75 %		0.660	0.660	0.660	0.660	0.660	0.660		
90 %		0.660	0.660	0.659	0.659	0.659	0.659		
None	D4 Stream	0.673	0.673	0.673	0.673	0.673	0.673		
50 %		0.673	0.673	0.673	0.673	0.673	0.673		
75 %		0.673	0.673	0.673	0.673	0.673	0.673		
90 %		0.673	0.673	0.673	0.673	0.673	0.673		
None	D5 Pond	0.526	0.525	0.525	0.524	0.525	0.524		
50 %		0.525	0.524	0.524	0.524	0.524	0.524		
75 %		0.524	0.524	0.524	0.524	0.524	0.524		
90 %		0.524	0.524	0.523	0.523	0.523	0.523		
None	D5 Stream	0.461	0.392	0.392	0.392	0.392	0.392		
50 %		0.392	0.392	0.392	0.392	0.392	0.392		
75 %		0.392	0.392	0.392	0.392	0.392	0.392		
90 %		0.392	0.392	0.392	0.392	0.392	0.392		
None	R4 Stream	1.20	1.20	1.20	1.20	0.543	0.284		
50 %		1.20	1.20	1.20	1.20	0.543	0.284		
75 %		1.20	1.20	1.20	1.20	0.543	0.284		
90 %		1.20	1.20	1.20	1.20	0.543	0.284		

Table 9.2.5- 60: Tier 1 PEC_{sw} values for fluopyram, following single application of BIX + FLU + PTZ EC 260 to barley II according to surface water Step 4 (modelling use winter cereals II -- early -- 0.078 kg a.s./ha)

PEC_{sw} (µg/L)	Scenario	Step 4 fluopyram_Tier 1							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	3.84	3.84	3.84	3.84	3.84	3.84		
50 %		3.84	3.84	3.84	3.84	3.84	3.84		
75 %		3.84	3.84	3.84	3.84	3.84	3.84		
90 %		3.84	3.84	3.84	3.84	3.84	3.84		
None	D1 Stream	2.46	2.46	2.46	2.46	2.46	2.46		
50 %		2.46	2.46	2.46	2.46	2.46	2.46		
75 %		2.46	2.46	2.46	2.46	2.46	2.46		
90 %		2.46	2.46	2.46	2.46	2.46	2.46		
None	D2 Ditch	5.22	5.22	5.22	5.22	5.22	5.22		
50 %		5.22	5.22	5.22	5.22	5.22	5.22		
75 %		5.22	5.22	5.22	5.22	5.22	5.22		
90 %		5.22	5.22	5.22	5.22	5.22	5.22		
None	D2 Stream	3.31	3.31	3.31	3.31	3.31	3.31		
50 %		3.31	3.31	3.31	3.31	3.31	3.31		
75 %		3.31	3.31	3.31	3.31	3.31	3.31		
90 %		3.31	3.31	3.31	3.31	3.31	3.31		
None	D3 Ditch	0.494	0.134	0.071	0.037	0.071	0.037		
50 %		0.247	0.067	0.036	0.019	0.036	0.019		
75 %		0.124	0.034	0.018	0.009	0.018	0.009		
90 %		0.049	0.013	0.007	0.004	0.007	0.004		
None	D4 Pond	0.704	0.704	0.703	0.703	0.703	0.703		
50 %		0.703	0.703	0.702	0.702	0.702	0.702		
75 %		0.702	0.702	0.702	0.702	0.702	0.702		
90 %		0.702	0.702	0.702	0.702	0.702	0.702		
None	D4 Stream	0.723	0.723	0.723	0.723	0.723	0.723		
50 %		0.723	0.723	0.723	0.723	0.723	0.723		
75 %		0.723	0.723	0.723	0.723	0.723	0.723		
90 %		0.723	0.723	0.723	0.723	0.723	0.723		
None	D5 Pond	0.510	0.510	0.509	0.509	0.509	0.509		
50 %		0.509	0.509	0.509	0.508	0.509	0.508		
75 %		0.508	0.508	0.508	0.508	0.508	0.508		
90 %		0.508	0.508	0.508	0.508	0.508	0.508		
None	D5 Stream	0.457	0.383	0.383	0.383	0.383	0.383		
50 %		0.383	0.383	0.383	0.383	0.383	0.383		

PEC_{sw} (µg/L)	Scenario	Step 4 fluopyram_Tier 1							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
75 %		0.383	0.383	0.383	0.383	0.383	0.383		
90 %		0.383	0.383	0.383	0.383	0.383	0.383		
None	D6 Ditch	0.814	0.814	0.814	0.814	0.814	0.814		
50 %		0.814	0.814	0.814	0.814	0.814	0.814		
75 %		0.814	0.814	0.814	0.814	0.814	0.814		
90 %		0.814	0.814	0.814	0.814	0.814	0.814		
None	R1 Pond	0.058	0.057	0.054	0.052	0.026	0.014		
50 %		0.053	0.052	0.050	0.050	0.022	0.012		
75 %		0.050	0.050	0.049	0.049	0.021	0.011		
90 %		0.049	0.048	0.048	0.048	0.020	0.010		
None	R1 Stream	0.622	0.622	0.622	0.622	0.282	0.148		
50 %		0.622	0.622	0.622	0.622	0.282	0.148		
75 %		0.622	0.622	0.622	0.622	0.282	0.148		
90 %		0.622	0.622	0.622	0.622	0.282	0.148		
None	R3 Stream	0.929	0.929	0.929	0.929	0.424	0.222		
50 %		0.929	0.929	0.929	0.929	0.424	0.222		
75 %		0.929	0.929	0.929	0.929	0.424	0.222		
90 %		0.929	0.929	0.929	0.929	0.424	0.222		
None	R4 Stream	1.04	1.04	1.04	1.04	0.474	0.248		
50 %		1.04	1.04	1.04	1.04	0.474	0.248		
75 %		1.04	1.04	1.04	1.04	0.474	0.248		
90 %		1.04	1.04	1.04	1.04	0.474	0.248		

Table 9.2.5- 61: Tier 1 PEC_{sw} values for fluopyram, following single application of BIX + FLU + PTZ EC 260 to barley II according to surface water Step 4 (modelling use winter cereals II -- late -- 0.078 kg a.s./ha)

PEC_{sw} (µg/L)	Scenario	Step 4 fluopyram_Tier 1							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	2.10	2.10	2.10	2.10	2.10	2.10		
50 %		2.10	2.10	2.10	2.10	2.10	2.10		
75 %		2.10	2.10	2.10	2.10	2.10	2.10		
90 %		2.10	2.10	2.10	2.10	2.10	2.10		
None	D1 Stream	1.31	1.31	1.31	1.31	1.31	1.31		
50 %		1.31	1.31	1.31	1.31	1.31	1.31		
75 %		1.31	1.31	1.31	1.31	1.31	1.31		
90 %		1.31	1.31	1.31	1.31	1.31	1.31		
None	D2 Ditch	1.70	1.70	1.70	1.70	1.70	1.70		
50 %		1.70	1.70	1.70	1.70	1.70	1.70		
75 %		1.70	1.70	1.70	1.70	1.70	1.70		
90 %		1.70	1.70	1.70	1.70	1.70	1.70		
None	D2 Stream	1.07	1.07	1.07	1.07	1.07	1.07		
50 %		1.07	1.07	1.07	1.07	1.07	1.07		
75 %		1.07	1.07	1.07	1.07	1.07	1.07		
90 %		1.07	1.07	1.07	1.07	1.07	1.07		
None	D3 Ditch	0.496	0.134	0.071	0.037	0.071	0.037		
50 %		0.248	0.067	0.036	0.019	0.036	0.019		
75 %		0.124	0.034	0.018	0.009	0.018	0.009		
90 %		0.050	0.014	0.007	0.004	0.007	0.004		
None	D4 Pond	0.436	0.435	0.434	0.433	0.434	0.433		
50 %		0.434	0.433	0.433	0.432	0.433	0.432		
75 %		0.433	0.433	0.432	0.432	0.432	0.432		
90 %		0.432	0.432	0.432	0.432	0.432	0.432		
None	D4 Stream	0.439	0.439	0.439	0.439	0.439	0.439		
50 %		0.439	0.439	0.439	0.439	0.439	0.439		
75 %		0.439	0.439	0.439	0.439	0.439	0.439		
90 %		0.439	0.439	0.439	0.439	0.439	0.439		
None	D5 Pond	0.236	0.236	0.235	0.235	0.235	0.235		
50 %		0.235	0.235	0.234	0.234	0.234	0.234		
75 %		0.234	0.234	0.234	0.234	0.234	0.234		
90 %		0.234	0.234	0.234	0.233	0.234	0.233		
None	D5 Stream	0.461	0.214	0.214	0.214	0.214	0.214		
50 %		0.231	0.214	0.214	0.214	0.214	0.214		

PEC_{sw} (µg/L)	Scenario	Step 4 fluopyram_Tier 1							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
75 %		0.214	0.214	0.214	0.214	0.214	0.214		
90 %		0.214	0.214	0.214	0.214	0.214	0.214		
None	D6 Ditch	0.503	0.326	0.326	0.326	0.326	0.326		
50 %		0.326	0.326	0.326	0.326	0.326	0.326		
75 %		0.326	0.326	0.326	0.326	0.326	0.326		
90 %		0.326	0.326	0.326	0.326	0.326	0.326		
None	R1 Pond	0.188	0.187	0.184	0.181	0.079	0.041		
50 %		0.182	0.181	0.180	0.178	0.075	0.038		
75 %		0.179	0.178	0.178	0.177	0.073	0.037		
90 %		0.177	0.177	0.176	0.176	0.072	0.036		
None	R1 Stream	0.844	0.844	0.844	0.844	0.384	0.202		
50 %		0.844	0.844	0.844	0.844	0.384	0.202		
75 %		0.844	0.844	0.844	0.844	0.384	0.202		
90 %		0.844	0.844	0.844	0.844	0.384	0.202		
None	R3 Stream	1.10	1.10	1.10	1.10	0.501	0.262		
50 %		1.10	1.10	1.10	1.10	0.501	0.262		
75 %		1.10	1.10	1.10	1.10	0.501	0.262		
90 %		1.10	1.10	1.10	1.10	0.501	0.262		
None	R4 Stream	0.362	0.362	0.362	0.362	0.165	0.087		
50 %		0.362	0.362	0.362	0.362	0.165	0.087		
75 %		0.362	0.362	0.362	0.362	0.165	0.087		
90 %		0.362	0.362	0.362	0.362	0.165	0.087		

Fluopyram-7-hydroxy (FLU-7-OH)

Table 9.2.5- 62: Tier 1 PEC$_{sw}$ values for FLU-7-OH, following single application of BIX + FLU + PTZ EC 260 to barley I according to surface water Step 4 (modelling use spring cereals I -- early -- 0.039 kg a.s./ha)

PEC$_{sw}$ (µg/L)	**Scenario**	**Step 4 FLU-7- OH _Tier I**							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	0.115	0.115	0.115	0.115	0.115	0.115		
50 %		0.115	0.115	0.115	0.115	0.115	0.115		
75 %		0.115	0.115	0.115	0.115	0.115	0.115		
90 %		0.115	0.115	0.115	0.115	0.115	0.115		
None	D1 Stream	0.072	0.072	0.072	0.072	0.072	0.072		
50 %		0.072	0.072	0.072	0.072	0.072	0.072		
75 %		0.072	0.072	0.072	0.072	0.072	0.072		
90 %		0.072	0.072	0.072	0.072	0.072	0.072		
None	D3 Ditch	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	D4 Pond	0.029	0.029	0.029	0.029	0.029	0.029		
50 %		0.029	0.029	0.029	0.029	0.029	0.029		
75 %		0.029	0.029	0.029	0.029	0.029	0.029		
90 %		0.029	0.029	0.029	0.029	0.029	0.029		
None	D4 Stream	0.027	0.027	0.027	0.027	0.027	0.027		
50 %		0.027	0.027	0.027	0.027	0.027	0.027		
75 %		0.027	0.027	0.027	0.027	0.027	0.027		
90 %		0.027	0.027	0.027	0.027	0.027	0.027		
None	D5 Pond	0.028	0.028	0.028	0.028	0.028	0.028		
50 %		0.028	0.028	0.028	0.028	0.028	0.028		
75 %		0.028	0.028	0.028	0.028	0.028	0.028		
90 %		0.028	0.028	0.028	0.028	0.028	0.028		
None	D5 Stream	0.021	0.021	0.021	0.021	0.021	0.021		
50 %		0.021	0.021	0.021	0.021	0.021	0.021		
75 %		0.021	0.021	0.021	0.021	0.021	0.021		
90 %		0.021	0.021	0.021	0.021	0.021	0.021		
None	R4 Stream	0.003	0.003	0.003	0.003	0.001	<0.001		
50 %		0.003	0.003	0.003	0.003	0.001	<0.001		
75 %		0.003	0.003	0.003	0.003	0.001	<0.001		
90 %		0.003	0.003	0.003	0.003	0.001	<0.001		

Table 9.2.5- 63: Tier 1 PEC_{sw} values for FLU-7-OH, following single application of BIX + FLU + PTZ EC 260 to barley I according to surface water Step 4 (modelling use winter cereals I -- early -- 0.039 kg a.s./ha)

PEC_{sw} (µg/L)	Scenario	Step 4 FLU-7- OH _Tier 1							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	0.140	0.140	0.140	0.140	0.140	0.140		
50 %		0.140	0.140	0.140	0.140	0.140	0.140		
75 %		0.140	0.140	0.140	0.140	0.140	0.140		
90 %		0.140	0.140	0.140	0.140	0.140	0.140		
None	D1 Stream	0.090	0.090	0.090	0.090	0.090	0.090		
50 %		0.090	0.090	0.090	0.090	0.090	0.090		
75 %		0.090	0.090	0.090	0.090	0.090	0.090		
90 %		0.090	0.090	0.090	0.090	0.090	0.090		
None	D2 Ditch	0.182	0.182	0.182	0.182	0.182	0.182		
50 %		0.182	0.182	0.182	0.182	0.182	0.182		
75 %		0.182	0.182	0.182	0.182	0.182	0.182		
90 %		0.182	0.182	0.182	0.182	0.182	0.182		
None	D2 Stream	0.125	0.125	0.125	0.125	0.125	0.125		
50 %		0.125	0.125	0.125	0.125	0.125	0.125		
75 %		0.125	0.125	0.125	0.125	0.125	0.125		
90 %		0.125	0.125	0.125	0.125	0.125	0.125		
None	D3 Ditch	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	D4 Pond	0.032	0.032	0.032	0.032	0.032	0.032		
50 %		0.032	0.032	0.032	0.032	0.032	0.032		
75 %		0.032	0.032	0.032	0.032	0.032	0.032		
90 %		0.032	0.032	0.032	0.032	0.032	0.032		
None	D4 Stream	0.030	0.030	0.030	0.030	0.030	0.030		
50 %		0.030	0.030	0.030	0.030	0.030	0.030		
75 %		0.030	0.030	0.030	0.030	0.030	0.030		
90 %		0.030	0.030	0.030	0.030	0.030	0.030		
None	D5 Pond	0.027	0.027	0.027	0.027	0.027	0.027		
50 %		0.027	0.027	0.027	0.027	0.027	0.027		
75 %		0.027	0.027	0.027	0.027	0.027	0.027		
90 %		0.027	0.027	0.027	0.027	0.027	0.027		
None	D5 Stream	0.021	0.021	0.021	0.021	0.021	0.021		
50 %		0.021	0.021	0.021	0.021	0.021	0.021		

PEC_{sw} (µg/L)	Scenario	Step 4 FLU-7- OH _Tier 1							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
75 %		0.021	0.021	0.021	0.021	0.021	0.021		
90 %		0.021	0.021	0.021	0.021	0.021	0.021		
None	D6 Ditch	0.025	0.025	0.025	0.025	0.025	0.025		
50 %		0.025	0.025	0.025	0.025	0.025	0.025		
75 %		0.025	0.025	0.025	0.025	0.025	0.025		
90 %		0.025	0.025	0.025	0.025	0.025	0.025		
None	R1 Pond	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	R1 Stream	0.004	0.004	0.004	0.004	0.002	0.001		
50 %		0.004	0.004	0.004	0.004	0.002	0.001		
75 %		0.004	0.004	0.004	0.004	0.002	0.001		
90 %		0.004	0.004	0.004	0.004	0.002	0.001		
None	R3 Stream	0.008	0.008	0.008	0.008	0.004	0.002		
50 %		0.008	0.008	0.008	0.008	0.004	0.002		
75 %		0.008	0.008	0.008	0.008	0.004	0.002		
90 %		0.008	0.008	0.008	0.008	0.004	0.002		
None	R4 Stream	0.009	0.009	0.009	0.009	0.004	0.002		
50 %		0.009	0.009	0.009	0.009	0.004	0.002		
75 %		0.009	0.009	0.009	0.009	0.004	0.002		
90 %		0.009	0.009	0.009	0.009	0.004	0.002		

Table 9.2.5- 64: Tier 1 PEC_{sw} values for FLU-7- OH, following single application of BIX + FLU + PTZ EC 260 to barley I according to surface water Step 4 (modelling use winter cereals I -- late -- 0.039 kg a.s./ha)

PEC_{sw} (µg/L)	**Scenario**	**Step 4 FLU-7- OH _Tier 1**							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	0.082	0.082	0.082	0.082	0.082	0.082		
50 %		0.082	0.082	0.082	0.082	0.082	0.082		
75 %		0.082	0.082	0.082	0.082	0.082	0.082		
90 %		0.082	0.082	0.082	0.082	0.082	0.082		
None	D1 Stream	0.052	0.052	0.052	0.052	0.052	0.052		
50 %		0.052	0.052	0.052	0.052	0.052	0.052		
75 %		0.052	0.052	0.052	0.052	0.052	0.052		
90 %		0.052	0.052	0.052	0.052	0.052	0.052		
None	D2 Ditch	0.075	0.075	0.075	0.075	0.075	0.075		
50 %		0.075	0.075	0.075	0.075	0.075	0.075		
75 %		0.075	0.075	0.075	0.075	0.075	0.075		
90 %		0.075	0.075	0.075	0.075	0.075	0.075		
None	D2 Stream	0.047	0.047	0.047	0.047	0.047	0.047		
50 %		0.047	0.047	0.047	0.047	0.047	0.047		
75 %		0.047	0.047	0.047	0.047	0.047	0.047		
90 %		0.047	0.047	0.047	0.047	0.047	0.047		
None	D3 Ditch	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	D4 Pond	0.016	0.016	0.016	0.016	0.016	0.016		
50 %		0.016	0.016	0.016	0.016	0.016	0.016		
75 %		0.016	0.016	0.016	0.016	0.016	0.016		
90 %		0.016	0.016	0.016	0.016	0.016	0.016		
None	D4 Stream	0.016	0.016	0.016	0.016	0.016	0.016		
50 %		0.016	0.016	0.016	0.016	0.016	0.016		
75 %		0.016	0.016	0.016	0.016	0.016	0.016		
90 %		0.016	0.016	0.016	0.016	0.016	0.016		
None	D5 Pond	0.014	0.014	0.014	0.014	0.014	0.014		
50 %		0.014	0.014	0.014	0.014	0.014	0.014		
75 %		0.014	0.014	0.014	0.014	0.014	0.014		
90 %		0.014	0.014	0.014	0.014	0.014	0.014		
None	D5 Stream	0.012	0.012	0.012	0.012	0.012	0.012		
50 %		0.012	0.012	0.012	0.012	0.012	0.012		

PEC_{sw} (µg/L)	**Scenario**	**Step 4 FLU-7- OH _Tier 1**							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
75 %		0.012	0.012	0.012	0.012	0.012	0.012		
90 %		0.012	0.012	0.012	0.012	0.012	0.012		
None	D6 Ditch	0.013	0.013	0.013	0.013	0.013	0.013		
50 %		0.013	0.013	0.013	0.013	0.013	0.013		
75 %		0.013	0.013	0.013	0.013	0.013	0.013		
90 %		0.013	0.013	0.013	0.013	0.013	0.013		
None	R1 Pond	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	R1 Stream	0.005	0.005	0.005	0.005	0.002	0.001		
50 %		0.005	0.005	0.005	0.005	0.002	0.001		
75 %		0.005	0.005	0.005	0.005	0.002	0.001		
90 %		0.005	0.005	0.005	0.005	0.002	0.001		
None	R3 Stream	0.014	0.014	0.014	0.014	0.006	0.003		
50 %		0.014	0.014	0.014	0.014	0.006	0.003		
75 %		0.014	0.014	0.014	0.014	0.006	0.003		
90 %		0.014	0.014	0.014	0.014	0.006	0.003		
None	R4 Stream	0.008	0.008	0.008	0.008	0.004	0.002		
50 %		0.008	0.008	0.008	0.008	0.004	0.002		
75 %		0.008	0.008	0.008	0.008	0.004	0.002		
90 %		0.008	0.008	0.008	0.008	0.004	0.002		

Table 9.2.5- 65: Tier 1 PEC_{sw} values for FLU-7- OH, following single application of BIX + FLU + PTZ EC 260 to barley II according to surface water Step 4 (modelling use spring cereals II -- early -- 0.078 kg a.s./ha)

PEC_{sw} (µg/L)	Scenario	Step 4 FLU-7- OH _Tier 1							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	0.224	0.224	0.224	0.224	0.224	0.224		
50 %		0.224	0.224	0.224	0.224	0.224	0.224		
75 %		0.224	0.224	0.224	0.224	0.224	0.224		
90 %		0.224	0.224	0.224	0.224	0.224	0.224		
None	D1 Stream	0.140	0.140	0.140	0.140	0.140	0.140		
50 %		0.140	0.140	0.140	0.140	0.140	0.140		
75 %		0.140	0.140	0.140	0.140	0.140	0.140		
90 %		0.140	0.140	0.140	0.140	0.140	0.140		
None	D3 Ditch	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	D4 Pond	0.061	0.061	0.061	0.061	0.061	0.061		
50 %		0.061	0.061	0.061	0.061	0.061	0.061		
75 %		0.061	0.061	0.061	0.061	0.061	0.061		
90 %		0.061	0.061	0.061	0.061	0.061	0.061		
None	D4 Stream	0.054	0.054	0.054	0.054	0.054	0.054		
50 %		0.054	0.054	0.054	0.054	0.054	0.054		
75 %		0.054	0.054	0.054	0.054	0.054	0.054		
90 %		0.054	0.054	0.054	0.054	0.054	0.054		
None	D5 Pond	0.057	0.057	0.057	0.057	0.057	0.057		
50 %		0.057	0.057	0.057	0.057	0.057	0.057		
75 %		0.057	0.057	0.057	0.057	0.057	0.057		
90 %		0.057	0.057	0.057	0.057	0.057	0.057		
None	D5 Stream	0.043	0.043	0.043	0.043	0.043	0.043		
50 %		0.043	0.043	0.043	0.043	0.043	0.043		
75 %		0.043	0.043	0.043	0.043	0.043	0.043		
90 %		0.043	0.043	0.043	0.043	0.043	0.043		
None	R4 Stream	0.005	0.005	0.005	0.005	0.002	0.001		
50 %		0.005	0.005	0.005	0.005	0.002	0.001		
75 %		0.005	0.005	0.005	0.005	0.002	0.001		
90 %		0.005	0.005	0.005	0.005	0.002	0.001		

Table 9.2.5- 66: Tier 1 PEC_{sw} values for FLU-7- OH, following single application of BIX + FLU + PTZ EC 260 to barley II according to surface water Step 4 (modelling use winter cereals II -- early -- 0.078 kg a.s./ha)

PEC_{sw} (µg/L)	Scenario	Step 4 FLU-7- OH _Tier 1							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	0.266	0.266	0.266	0.266	0.266	0.266		
50 %		0.266	0.266	0.266	0.266	0.266	0.266		
75 %		0.266	0.266	0.266	0.266	0.266	0.266		
90 %		0.266	0.266	0.266	0.266	0.266	0.266		
None	D1 Stream	0.169	0.169	0.169	0.169	0.169	0.169		
50 %		0.169	0.169	0.169	0.169	0.169	0.169		
75 %		0.169	0.169	0.169	0.169	0.169	0.169		
90 %		0.169	0.169	0.169	0.169	0.169	0.169		
None	D2 Ditch	0.336	0.336	0.336	0.336	0.336	0.336		
50 %		0.336	0.336	0.336	0.336	0.336	0.336		
75 %		0.336	0.336	0.336	0.336	0.336	0.336		
90 %		0.336	0.336	0.336	0.336	0.336	0.336		
None	D2 Stream	0.233	0.233	0.233	0.233	0.233	0.233		
50 %		0.233	0.233	0.233	0.233	0.233	0.233		
75 %		0.233	0.233	0.233	0.233	0.233	0.233		
90 %		0.233	0.233	0.233	0.233	0.233	0.233		
None	D3 Ditch	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	D4 Pond	0.066	0.066	0.066	0.066	0.066	0.066		
50 %		0.066	0.066	0.066	0.066	0.066	0.066		
75 %		0.066	0.066	0.066	0.066	0.066	0.066		
90 %		0.066	0.066	0.066	0.066	0.066	0.066		
None	D4 Stream	0.059	0.059	0.059	0.059	0.059	0.059		
50 %		0.059	0.059	0.059	0.059	0.059	0.059		
75 %		0.059	0.059	0.059	0.059	0.059	0.059		
90 %		0.059	0.059	0.059	0.059	0.059	0.059		
None	D5 Pond	0.056	0.056	0.056	0.056	0.056	0.056		
50 %		0.056	0.056	0.056	0.056	0.056	0.056		
75 %		0.056	0.056	0.056	0.056	0.056	0.056		
90 %		0.056	0.056	0.056	0.056	0.056	0.056		
None	D5 Stream	0.041	0.041	0.041	0.041	0.041	0.041		
50 %		0.041	0.041	0.041	0.041	0.041	0.041		

PEC_{sw} (µg/L)	Scenario	Step 4 FLU-7- OH _Tier 1							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
75 %		0.041	0.041	0.041	0.041	0.041	0.041		
90 %		0.041	0.041	0.041	0.041	0.041	0.041		
None	D6 Ditch	0.049	0.049	0.049	0.049	0.049	0.049		
50 %		0.049	0.049	0.049	0.049	0.049	0.049		
75 %		0.049	0.049	0.049	0.049	0.049	0.049		
90 %		0.049	0.049	0.049	0.049	0.049	0.049		
None	R1 Pond	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	R1 Stream	0.008	0.008	0.008	0.008	0.004	0.002		
50 %		0.008	0.008	0.008	0.008	0.004	0.002		
75 %		0.008	0.008	0.008	0.008	0.004	0.002		
90 %		0.008	0.008	0.008	0.008	0.004	0.002		
None	R3 Stream	0.016	0.016	0.016	0.016	0.007	0.004		
50 %		0.016	0.016	0.016	0.016	0.007	0.004		
75 %		0.016	0.016	0.016	0.016	0.007	0.004		
90 %		0.016	0.016	0.016	0.016	0.007	0.004		
None	R4 Stream	0.017	0.017	0.017	0.017	0.008	0.004		
50 %		0.017	0.017	0.017	0.017	0.008	0.004		
75 %		0.017	0.017	0.017	0.017	0.008	0.004		
90 %		0.017	0.017	0.017	0.017	0.008	0.004		

Table 9.2.5- 67: Tier 1 PEC_{sw} values for FLU-7- OH, following single application of BIX + FLU + PTZ EC 260 to barley II according to surface water Step 4 (modelling use winter cereals II -- late -- 0.078 kg a.s./ha)

PEC_{sw} (µg/L)	**Scenario**	**Step 4 FLU-7- OH _Tier 1**							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	0.157	0.157	0.157	0.157	0.157	0.157		
50 %		0.157	0.157	0.157	0.157	0.157	0.157		
75 %		0.157	0.157	0.157	0.157	0.157	0.157		
90 %		0.157	0.157	0.157	0.157	0.157	0.157		
None	D1 Stream	0.100	0.100	0.100	0.100	0.100	0.100		
50 %		0.100	0.100	0.100	0.100	0.100	0.100		
75 %		0.100	0.100	0.100	0.100	0.100	0.100		
90 %		0.100	0.100	0.100	0.100	0.100	0.100		
None	D2 Ditch	0.149	0.149	0.149	0.149	0.149	0.149		
50 %		0.149	0.149	0.149	0.149	0.149	0.149		
75 %		0.149	0.149	0.149	0.149	0.149	0.149		
90 %		0.149	0.149	0.149	0.149	0.149	0.149		
None	D2 Stream	0.093	0.093	0.093	0.093	0.093	0.093		
50 %		0.093	0.093	0.093	0.093	0.093	0.093		
75 %		0.093	0.093	0.093	0.093	0.093	0.093		
90 %		0.093	0.093	0.093	0.093	0.093	0.093		
None	D3 Ditch	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	D4 Pond	0.033	0.033	0.033	0.033	0.033	0.033		
50 %		0.033	0.033	0.033	0.033	0.033	0.033		
75 %		0.033	0.033	0.033	0.033	0.033	0.033		
90 %		0.033	0.033	0.033	0.033	0.033	0.033		
None	D4 Stream	0.032	0.032	0.032	0.032	0.032	0.032		
50 %		0.032	0.032	0.032	0.032	0.032	0.032		
75 %		0.032	0.032	0.032	0.032	0.032	0.032		
90 %		0.032	0.032	0.032	0.032	0.032	0.032		
None	D5 Pond	0.029	0.029	0.029	0.029	0.029	0.029		
50 %		0.029	0.029	0.029	0.029	0.029	0.029		
75 %		0.029	0.029	0.029	0.029	0.029	0.029		
90 %		0.029	0.029	0.029	0.029	0.029	0.029		
None	D5 Stream	0.022	0.022	0.022	0.022	0.022	0.022		
50 %		0.022	0.022	0.022	0.022	0.022	0.022		

PEC$_{sw}$ (µg/L)	Scenario	Step 4 FLU-7- OH _Tier 1							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
75 %		0.022	0.022	0.022	0.022	0.022	0.022		
90 %		0.022	0.022	0.022	0.022	0.022	0.022		
None	D6 Ditch	0.024	0.024	0.024	0.024	0.024	0.024		
50 %		0.024	0.024	0.024	0.024	0.024	0.024		
75 %		0.024	0.024	0.024	0.024	0.024	0.024		
90 %		0.024	0.024	0.024	0.024	0.024	0.024		
None	R1 Pond	0.001	0.001	0.001	0.001	<0.001	<0.001		
50 %		0.001	0.001	0.001	0.001	<0.001	<0.001		
75 %		0.001	0.001	0.001	0.001	<0.001	<0.001		
90 %		0.001	0.001	0.001	0.001	<0.001	<0.001		
None	R1 Stream	0.008	0.008	0.008	0.008	0.004	0.002		
50 %		0.008	0.008	0.008	0.008	0.004	0.002		
75 %		0.008	0.008	0.008	0.008	0.004	0.002		
90 %		0.008	0.008	0.008	0.008	0.004	0.002		
None	R3 Stream	0.025	0.025	0.025	0.025	0.011	0.006		
50 %		0.025	0.025	0.025	0.025	0.011	0.006		
75 %		0.025	0.025	0.025	0.025	0.011	0.006		
90 %		0.025	0.025	0.025	0.025	0.011	0.006		
None	R4 Stream	0.015	0.015	0.015	0.015	0.007	0.004		
50 %		0.015	0.015	0.015	0.015	0.007	0.004		
75 %		0.015	0.015	0.015	0.015	0.007	0.004		
90 %		0.015	0.015	0.015	0.015	0.007	0.004		

Tier 2: FOCUS Step 1 and 2

The maximum PEC_{sw} and PEC_{sed} values for FOCUS Step 1 and 2 are the same for Tier 1 and Tier 2 due to identical parameterization.

Tier 2: FOCUS Step 3

The maximum Tier 2 PEC_{sw} and PEC_{sed} values for FOCUS Step 3 are given in the tables below for fluopyram and its metabolites fluopyram-7-hydroxy (FLU-7-OH) and trifluoroacetic acid (TFA) considering application in barley (FOCUS crops: cereals, spring and winter). The reported PEC_{sw} and PEC_{sed} values represent loadings via all relevant entry routes.

Fluopyram

Table 9.2.5- 68: Tier 2 FOCUS Step 3 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use spring cereals I -- early -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	1.01	*	Drainage	0.886	6.47	*
D1	Stream	0.631	*	Drainage	0.549	3.70	*
D3	Ditch	0.247	*	Spray drift	0.014	0.118	*
D4	Pond	0.249	*	Drainage	0.242	1.39	*
D4	Stream	0.249	*	Drainage	0.162	0.516	*
D5	Pond	0.208	*	Drainage	0.200	1.66	*
D5	Stream	0.223	*	Spray drift	0.068	0.376	*
R4	Stream	0.259	*	RunOff	0.023	0.143	*

* Single applications are marked
** TWA interval as required by ecotox

Table 9.2.5- 69: Tier 2 FOCUS Step 3 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- early -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	1.80	*	Drainage	1.52	6.87	*
D1	Stream	1.15	*	Drainage	0.968	4.11	*
D2	Ditch	2.29	*	Drainage	1.22	7.03	*
D2	Stream	1.44	*	Drainage	0.611	3.88	*
D3	Ditch	0.247	*	Spray drift	0.012	0.110	*
D4	Pond	0.319	*	Drainage	0.310	1.71	*
D4	Stream	0.324	*	Drainage	0.207	0.624	*
D5	Pond	0.202	*	Drainage	0.194	1.68	*
D5	Stream	0.220	*	Spray drift	0.068	0.378	*
D6	Ditch	0.357	*	Drainage	0.102	0.416	*
R1	Pond	0.017	*	RunOff	0.015	0.114	*
R1	Stream	0.163	*	Spray drift	0.009	0.063	*
R3	Stream	0.236	*	RunOff	0.011	0.142	*
R4	Stream	0.413	*	RunOff	0.019	0.180	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 70: Tier 2 FOCUS Step 3 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- late -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	0.403	*	Drainage	0.354	2.25	*
D1	Stream	0.253	*	Drainage	0.220	1.21	*
D2	Ditch	0.296	*	Spray drift	0.236	1.54	*
D2	Stream	0.253	*	Spray drift	0.196	0.968	*
D3	Ditch	0.248	*	Spray drift	0.020	0.147	*
D4	Pond	0.064	*	Drainage	0.062	0.408	*
D4	Stream	0.214	*	Spray drift	0.040	0.143	*
D5	Pond	0.029	*	Drainage	0.027	0.319	*
D5	Stream	0.231	*	Spray drift	0.013	0.079	*
D6	Ditch	0.249	*	Spray drift	0.043	0.223	*
R1	Pond	0.035	*	RunOff	0.032	0.182	*
R1	Stream	0.163	*	Spray drift	0.014	0.137	*
R3	Stream	0.229	*	Spray drift	0.013	0.100	*
R4	Stream	0.163	*	Spray drift	0.003	0.045	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 71: Tier 2 FOCUS Step 3 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use spring cereals II -- early -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	2.04	*	Drainage	1.83	12.2	*
D1	Stream	1.28	*	Drainage	1.14	7.00	*
D3	Ditch	0.495	*	Spray drift	0.027	0.226	*
D4	Pond	0.523	*	Drainage	0.509	2.78	*
D4	Stream	0.527	*	Drainage	0.339	1.02	*
D5	Pond	0.470	*	Drainage	0.451	3.52	*
D5	Stream	0.455	*	Spray drift	0.156	0.804	*
R4	Stream	0.558	*	RunOff	0.046	0.272	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 72: Tier 2 FOCUS Step 3 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- early -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	3.60	*	Drainage	2.94	12.5	*
D1	Stream	2.31	*	Drainage	1.89	7.50	*
D2	Ditch	4.83	*	Drainage	2.81	13.7	*
D2	Stream	3.06	*	Drainage	1.30	7.94	*
D3	Ditch	0.494	*	Spray drift	0.024	0.211	*
D4	Pond	0.655	*	Drainage	0.638	3.34	*
D4	Stream	0.673	*	Drainage	0.423	1.20	*
D5	Pond	0.455	*	Drainage	0.438	3.54	*
D5	Stream	0.451	*	Spray drift	0.155	0.804	*
D6	Ditch	0.708	*	Drainage	0.204	0.799	*
R1	Pond	0.034	*	RunOff	0.031	0.211	*
R1	Stream	0.325	*	Spray drift	0.018	0.126	*
R3	Stream	0.497	*	RunOff	0.023	0.279	*
R4	Stream	0.835	*	RunOff	0.038	0.351	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 73: Tier 2 FOCUS Step 3 PEC_{sw} and PEC_{sed} for fluopyram following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- late -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	0.933	*	Drainage	0.791	4.34	*
D1	Stream	0.584	*	Drainage	0.491	2.34	*
D2	Ditch	0.623	*	Drainage	0.474	2.94	*
D2	Stream	0.504	*	Spray drift	0.394	1.84	*
D3	Ditch	0.496	*	Spray drift	0.041	0.282	*
D4	Pond	0.136	*	Drainage	0.132	0.809	*
D4	Stream	0.427	*	Spray drift	0.086	0.284	*
D5	Pond	0.064	*	Drainage	0.061	0.665	*
D5	Stream	0.461	*	Spray drift	0.026	0.161	*
D6	Ditch	0.498	*	Spray drift	0.086	0.428	*
R1	Pond	0.072	*	RunOff	0.067	0.357	*
R1	Stream	0.351	*	RunOff	0.030	0.260	*
R3	Stream	0.504	*	RunOff	0.028	0.206	*
R4	Stream	0.327	*	Spray drift	0.006	0.081	*

* Single applications are marked.
** TWA interval as required by ecotox

Fluopyram-7-hydroxy (FLU-7-OH)

Table 9.2.5- 74: Tier 2 FOCUS Step 3 PEC_{sw} and PEC_{sed} for FLU-7-OH following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use spring cereals I -- early -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	0.095	*	-	0.082	0.213	*
D1	Stream	0.059	*	-	0.050	0.121	*
D3	Ditch	<0.001	*	-	<0.001	<0.001	*
D4	Pond	0.023	*	-	0.023	0.072	*
D4	Stream	0.022	*	-	0.014	0.024	*
D5	Pond	0.025	*	-	0.024	0.103	*
D5	Stream	0.019	*	-	0.008	0.021	*
R4	Stream	0.002	*	-	<0.001	<0.001	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 75: Tier 2 FOCUS Step 3 PEC_{sw} and PEC_{sed} for FLU-7-OH following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- early -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	0.133	*	-	0.095	0.204	*
D1	Stream	0.085	*	-	0.062	0.119	*
D2	Ditch	0.171	*	-	0.111	0.302	*
D2	Stream	0.117	*	-	0.068	0.179	*
D3	Ditch	<0.001	*	-	<0.001	<0.001	*
D4	Pond	0.029	*	-	0.028	0.084	*
D4	Stream	0.028	*	-	0.018	0.027	*
D5	Pond	0.025	*	-	0.024	0.104	*
D5	Stream	0.020	*	-	0.008	0.022	*
D6	Ditch	0.022	*	-	0.010	0.026	*
R1	Pond	<0.001	*	-	<0.001	<0.001	*
R1	Stream	0.002	*	-	<0.001	<0.001	*
R3	Stream	0.005	*	-	<0.001	0.002	*
R4	Stream	0.007	*	-	<0.001	0.002	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 76: Tier 2 FOCUS Step 3 PEC_{sw} and PEC_{sed} for FLU-7- OH following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- late -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 3					
D1	Ditch	0.041 *	-	0.030	0.055 *
D1	Stream	0.026 *	-	0.019	0.034 *
D2	Ditch	0.030 *	-	0.017	0.060 *
D2	Stream	0.019 *	-	0.010	0.034 *
D3	Ditch	<0.001 *	-	<0.001	<0.001 *
D4	Pond	0.005 *	-	0.005	0.016 *
D4	Stream	0.006 *	-	0.003	0.005 *
D5	Pond	0.004 *	-	0.004	0.020 *
D5	Stream	0.004 *	-	0.002	0.004 *
D6	Ditch	0.005 *	-	0.002	0.005 *
R1	Pond	<0.001 *	-	<0.001	<0.001 *
R1	Stream	0.002 *	-	<0.001	<0.001 *
R3	Stream	0.006 *	-	<0.001	0.001 *
R4	Stream	0.003 *	-	<0.001	0.001 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 77: Tier 2 FOCUS Step 3 PEC_{sw} and PEC_{sed} for FLU-7- OH following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use spring cereals II -- early -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 3					
D1	Ditch	0.183 *	-	0.159	0.401 *
D1	Stream	0.115 *	-	0.098	0.226 *
D3	Ditch	<0.001 *	-	<0.001	0.002 *
D4	Pond	0.049 *	-	0.048	0.149 *
D4	Stream	0.044 *	-	0.029	0.050 *
D5	Pond	0.051 *	-	0.050	0.205 *
D5	Stream	0.039 *	-	0.016	0.043 *
R4	Stream	0.005 *	-	<0.001	0.001 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 78: Tier 2 FOCUS Step 3 PEC_{sw} and PEC_{sed} for FLU-7- OH following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- early -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	0.250	*	-	0.179	0.388	*
D1	Stream	0.160	*	-	0.118	0.226	*
D2	Ditch	0.315	*	-	0.211	0.566	*
D2	Stream	0.219	*	-	0.132	0.339	*
D3	Ditch	<0.001	*	-	<0.001	0.002	*
D4	Pond	0.060	*	-	0.059	0.173	*
D4	Stream	0.055	*	-	0.037	0.056	*
D5	Pond	0.051	*	-	0.049	0.208	*
D5	Stream	0.038	*	-	0.017	0.044	*
D6	Ditch	0.042	*	-	0.020	0.051	*
R1	Pond	<0.001	*	-	<0.001	0.001	*
R1	Stream	0.005	*	-	<0.001	0.001	*
R3	Stream	0.010	*	-	<0.001	0.003	*
R4	Stream	0.013	*	-	<0.001	0.004	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 79: Tier 2 FOCUS Step 3 PEC_{sw} and PEC_{sed} for FLU-7- OH following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- late -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*	Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*
Step 3					
D1	Ditch	0.079 *	-	0.057	0.103 *
D1	Stream	0.050 *	-	0.037	0.064 *
D2	Ditch	0.060 *	-	0.034	0.114 *
D2	Stream	0.037 *	-	0.019	0.065 *
D3	Ditch	<0.001 *	-	<0.001	<0.001 *
D4	Pond	0.011 *	-	0.011	0.032 *
D4	Stream	0.011 *	-	0.007	0.010 *
D5	Pond	0.009 *	-	0.009	0.040 *
D5	Stream	0.008 *	-	0.003	0.008 *
D6	Ditch	0.009 *	-	0.004	0.010 *
R1	Pond	<0.001 *	-	<0.001	0.001 *
R1	Stream	0.003 *	-	<0.001	0.001 *
R3	Stream	0.010 *	-	<0.001	0.002 *
R4	Stream	0.005 *	-	<0.001	0.002 *

* Single applications are marked.
** TWA interval as required by ecotox

Trifluoroacetic acid (TFA)

Table 9.2.5- 80: Tier 2 FOCUS Step 3 PEC_{sw} and PEC_{sed} for TFA following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use spring cereals I -- early -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	0.191	*	-	0.185	0.102	*
D1	Stream	0.119	*	-	0.113	0.060	*
D3	Ditch	0.350	*	-	0.350	0.231	*
D4	Pond	0.548	*	-	0.546	0.337	*
D4	Stream	0.230	*	-	0.216	0.128	*
D5	Pond	0.768	*	-	0.764	0.485	*
D5	Stream	0.303	*	-	0.288	0.137	*
R4	Stream	0.001	*	-	<0.001	<0.001	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 81: Tier 2 FOCUS Step 3 PEC_{sw} and PEC_{sed} for TFA following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- early -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	0.272	*	-	0.265	0.131	*
D1	Stream	0.168	*	-	0.162	0.078	*
D2	Ditch	0.198	*	-	0.183	0.114	*
D2	Stream	0.142	*	-	0.117	0.073	*
D3	Ditch	0.382	*	-	0.382	0.247	*
D4	Pond	0.666	*	-	0.664	0.398	*
D4	Stream	0.289	*	-	0.272	0.151	*
D5	Pond	0.818	*	-	0.813	0.514	*
D5	Stream	0.341	*	-	0.326	0.150	*
D6	Ditch	0.419	*	-	0.390	0.212	*
R1	Pond	<0.001	*	-	<0.001	<0.001	*
R1	Stream	<0.001	*	-	<0.001	<0.001	*
R3	Stream	0.002	*	-	<0.001	<0.001	*
R4	Stream	<0.001	*	-	<0.001	<0.001	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 82: Tier 2 FOCUS Step 3 PEC$_{sw}$ and PEC$_{sed}$ for TFA following single application(s) of BIX + FLU + PTZ EC 260 to barley I (modelling use winter cereals I -- late -- 0.039 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC$_{sw}$ (µg/L)*	Dominant entry route	21d-PEC$_{sw,twa}$ (µg/L)**	Max PEC$_{sed}$ (µg/kg)*
Step 3					
D1	Ditch	0.050 *	-	0.049	0.024 *
D1	Stream	0.031 *	-	0.030	0.014 *
D2	Ditch	0.045 *	-	0.041	0.025 *
D2	Stream	0.030 *	-	0.026	0.016 *
D3	Ditch	0.097 *	-	0.097	0.058 *
D4	Pond	0.113 *	-	0.113	0.068 *
D4	Stream	0.050 *	-	0.047	0.025 *
D5	Pond	0.132 *	-	0.131	0.082 *
D5	Stream	0.051 *	-	0.049	0.023 *
D6	Ditch	0.090 *	-	0.083	0.045 *
R1	Pond	<0.001 *	-	<0.001	<0.001 *
R1	Stream	<0.001 *	-	<0.001	<0.001 *
R3	Stream	0.003 *	-	<0.001	<0.001 *
R4	Stream	<0.001 *	-	<0.001	<0.001 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 83: Tier 2 FOCUS Step 3 PEC$_{sw}$ and PEC$_{sed}$ for TFA following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use spring cereals II -- early -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC$_{sw}$ (µg/L)*	Dominant entry route	21d-PEC$_{sw,twa}$ (µg/L)**	Max PEC$_{sed}$ (µg/kg)*
Step 3					
D1	Ditch	0.378 *	-	0.366	0.201 *
D1	Stream	0.235 *	-	0.224	0.119 *
D3	Ditch	0.699 *	-	0.699	0.461 *
D4	Pond	1.09 *	-	1.09	0.671 *
D4	Stream	0.458 *	-	0.431	0.254 *
D5	Pond	1.53 *	-	1.52	0.966 *
D5	Stream	0.603 *	-	0.574	0.274 *
R4	Stream	0.002 *	-	<0.001	<0.001 *

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 84: Tier 2 FOCUS Step 3 PEC_{sw} and PEC_{sed} for TFA following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- early -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	0.541	*	-	0.527	0.259	*
D1	Stream	0.334	*	-	0.322	0.154	*
D2	Ditch	0.395	*	-	0.364	0.226	*
D2	Stream	0.280	*	-	0.232	0.145	*
D3	Ditch	0.765	*	-	0.764	0.493	*
D4	Pond	1.32	*	-	1.32	0.792	*
D4	Stream	0.574	*	-	0.541	0.300	*
D5	Pond	1.63	*	-	1.62	1.02	*
D5	Stream	0.681	*	-	0.649	0.300	*
D6	Ditch	0.836	*	-	0.778	0.423	*
R1	Pond	<0.001	*	-	<0.001	<0.001	*
R1	Stream	<0.001	*	-	<0.001	<0.001	*
R3	Stream	0.003	*	-	<0.001	<0.001	*
R4	Stream	0.002	*	-	<0.001	<0.001	*

* Single applications are marked.
** TWA interval as required by ecotox

Table 9.2.5- 85: Tier 2 FOCUS Step 3 PEC_{sw} and PEC_{sed} for TFA following single application(s) of BIX + FLU + PTZ EC 260 to barley II (modelling use winter cereals II -- late -- 0.078 kg a.s./ha)

Scenario FOCUS	Waterbody	Max PEC_{sw} (µg/L)*		Dominant entry route	21d-$PEC_{sw,twa}$ (µg/L)**	Max PEC_{sed} (µg/kg)*	
Step 3							
D1	Ditch	0.098	*	-	0.096	0.047	*
D1	Stream	0.061	*	-	0.058	0.028	*
D2	Ditch	0.089	*	-	0.082	0.050	*
D2	Stream	0.059	*	-	0.052	0.032	*
D3	Ditch	0.194	*	-	0.194	0.115	*
D4	Pond	0.226	*	-	0.225	0.134	*
D4	Stream	0.100	*	-	0.093	0.051	*
D5	Pond	0.262	*	-	0.261	0.164	*
D5	Stream	0.102	*	-	0.097	0.046	*
D6	Ditch	0.180	*	-	0.166	0.090	*
R1	Pond	<0.001	*	-	<0.001	<0.001	*
R1	Stream	0.001	*	-	<0.001	<0.001	*
R3	Stream	0.006	*	-	<0.001	<0.001	*
R4	Stream	0.001	*	-	<0.001	<0.001	*

* Single applications are marked.
** TWA interval as required by ecotox

Tier 2: FOCUS Step 4

The maximum Tier 2 PEC_{sw} values for FOCUS Step 4 are given in the tables below for fluopyram and its metabolite fluopyram-7-hydroxy (FLU-7-OH) considering application in barley (FOCUS crops: cereals, spring and winter). The reported PEC_{sw} values represent loadings via all relevant entry routes.

Fluopyram

Table 9.2.5- 86: Tier 2 PEC_{sw} values for fluopyram following single application of BIX + FLU + PTZ EC 260 to barley I according to surface water Step 4 (modelling use spring cereals I -- early -- 0.039 kg a.s./ha)

PECsw (µg/L)	Scenario	Step 4 fluopyram_cereals_Tier 2							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	1.01	1.01	1.01	1.01	1.01	1.01		
50 %		1.01	1.01	1.01	1.01	1.01	1.01		
75 %		1.01	1.01	1.01	1.01	1.01	1.01		
90 %		1.01	1.01	1.01	1.01	1.01	1.01		
None	D1 Stream	0.631	0.631	0.631	0.631	0.631	0.631		
50 %		0.631	0.631	0.631	0.631	0.631	0.631		
75 %		0.631	0.631	0.631	0.631	0.631	0.631		
90 %		0.631	0.631	0.631	0.631	0.631	0.631		
None	D3 Ditch	0.247	0.067	0.036	0.019	0.036	0.019		
50 %		0.124	0.034	0.018	0.009	0.018	0.009		
75 %		0.062	0.017	0.009	0.005	0.009	0.005		
90 %		0.025	0.007	0.004	0.002	0.004	0.002		
None	D4 Pond	0.249	0.249	0.248	0.248	0.248	0.248		
50 %		0.248	0.248	0.248	0.248	0.248	0.248		
75 %		0.248	0.248	0.248	0.247	0.248	0.247		
90 %		0.247	0.247	0.247	0.247	0.247	0.247		
None	D4 Stream	0.249	0.249	0.249	0.249	0.249	0.249		
50 %		0.249	0.249	0.249	0.249	0.249	0.249		
75 %		0.249	0.249	0.249	0.249	0.249	0.249		
90 %		0.249	0.249	0.249	0.249	0.249	0.249		
None	D5 Pond	0.208	0.208	0.208	0.208	0.208	0.208		
50 %		0.208	0.208	0.208	0.207	0.208	0.207		
75 %		0.207	0.207	0.207	0.207	0.207	0.207		
90 %		0.207	0.207	0.207	0.207	0.207	0.207		
None	D5 Stream	0.223	0.167	0.167	0.167	0.167	0.167		
50 %		0.167	0.167	0.167	0.167	0.167	0.167		
75 %		0.167	0.167	0.167	0.167	0.167	0.167		
90 %		0.167	0.167	0.167	0.167	0.167	0.167		

None	R4 Stream	0.259	0.259	0.259	0.259	0.117	0.061		
50 %		0.259	0.259	0.259	0.259	0.117	0.061		
75 %		0.259	0.259	0.259	0.259	0.117	0.061		
90 %		0.259	0.259	0.259	0.259	0.117	0.061		

Table 9.2.5- 87: Tier 2 PEC_{sw} values for fluopyram following single application of BIX + FLU + PTZ EC 260 to barley I according to surface water Step 4 (modelling use winter cereals I -- early -- 0.039 kg a.s./ha)

PECsw (µg/L)	Scenario	Step 4 fluopyram_cereals_Tier 2							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	1.80	1.80	1.80	1.80	1.80	1.80		
50 %		1.80	1.80	1.80	1.80	1.80	1.80		
75 %		1.80	1.80	1.80	1.80	1.80	1.80		
90 %		1.80	1.80	1.80	1.80	1.80	1.80		
None	D1 Stream	1.15	1.15	1.15	1.15	1.15	1.15		
50 %		1.15	1.15	1.15	1.15	1.15	1.15		
75 %		1.15	1.15	1.15	1.15	1.15	1.15		
90 %		1.15	1.15	1.15	1.15	1.15	1.15		
None	D2 Ditch	2.29	2.29	2.29	2.29	2.29	2.29		
50 %		2.29	2.29	2.29	2.29	2.29	2.29		
75 %		2.29	2.29	2.29	2.29	2.29	2.29		
90 %		2.29	2.29	2.29	2.29	2.29	2.29		
None	D2 Stream	1.44	1.44	1.44	1.44	1.44	1.44		
50 %		1.44	1.44	1.44	1.44	1.44	1.44		
75 %		1.44	1.44	1.44	1.44	1.44	1.44		
90 %		1.44	1.44	1.44	1.44	1.44	1.44		
None	D3 Ditch	0.247	0.067	0.036	0.019	0.036	0.019		
50 %		0.124	0.034	0.018	0.009	0.018	0.009		
75 %		0.062	0.017	0.009	0.005	0.009	0.005		
90 %		0.025	0.007	0.004	0.002	0.004	0.002		
None	D4 Pond	0.319	0.319	0.318	0.318	0.318	0.318		
50 %		0.318	0.318	0.318	0.318	0.318	0.318		
75 %		0.318	0.318	0.318	0.318	0.318	0.318		
90 %		0.318	0.318	0.318	0.318	0.318	0.318		
None	D4 Stream	0.324	0.324	0.324	0.324	0.324	0.324		
50 %		0.324	0.324	0.324	0.324	0.324	0.324		
75 %		0.324	0.324	0.324	0.324	0.324	0.324		
90 %		0.324	0.324	0.324	0.324	0.324	0.324		
None	D5 Pond	0.202	0.202	0.202	0.202	0.202	0.202		

PECsw (µg/L)	Scenario	Step 4 fluopyram_cereals_Tier 2							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
50 %		0.202	0.202	0.201	0.201	0.201	0.201		
75 %		0.201	0.201	0.201	0.201	0.201	0.201		
90 %		0.201	0.201	0.201	0.201	0.201	0.201		
None	D5 Stream	0.220	0.171	0.171	0.171	0.171	0.171		
50 %		0.171	0.171	0.171	0.171	0.171	0.171		
75 %		0.171	0.171	0.171	0.171	0.171	0.171		
90 %		0.171	0.171	0.171	0.171	0.171	0.171		
None	D6 Ditch	0.357	0.357	0.357	0.357	0.357	0.357		
50 %		0.357	0.357	0.357	0.357	0.357	0.357		
75 %		0.357	0.357	0.357	0.357	0.357	0.357		
90 %		0.357	0.357	0.357	0.357	0.357	0.357		
None	R1 Pond	0.017	0.016	0.015	0.014	0.008	0.005		
50 %		0.015	0.014	0.014	0.013	0.006	0.003		
75 %		0.014	0.013	0.013	0.013	0.006	0.003		
90 %		0.013	0.013	0.013	0.013	0.005	0.003		
None	R1 Stream	0.163	0.138	0.138	0.138	0.063	0.033		
50 %		0.138	0.138	0.138	0.138	0.063	0.033		
75 %		0.138	0.138	0.138	0.138	0.063	0.033		
90 %		0.138	0.138	0.138	0.138	0.063	0.033		
None	R3 Stream	0.236	0.236	0.236	0.236	0.108	0.056		
50 %		0.236	0.236	0.236	0.236	0.108	0.056		
75 %		0.236	0.236	0.236	0.236	0.108	0.056		
90 %		0.236	0.236	0.236	0.236	0.108	0.056		
None	R4 Stream	0.413	0.413	0.413	0.413	0.188	0.099		
50 %		0.413	0.413	0.413	0.413	0.188	0.099		
75 %		0.413	0.413	0.413	0.413	0.188	0.099		
90 %		0.413	0.413	0.413	0.413	0.188	0.099		

Table 9.2.5- 88: Tier 2 PEC_{sw} values for fluopyram following single application of BIX + FLU + PTZ EC 260 to barley I according to surface water Step 4 (modelling use winter cereals I -- late -- 0.039 kg a.s./ha)

PECsw (µg/L)	Scenario	Step 4 fluopyram_cereals_Tier 2							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	0.403	0.403	0.403	0.403	0.403	0.403		
50 %		0.403	0.403	0.403	0.403	0.403	0.403		
75 %		0.403	0.403	0.403	0.403	0.403	0.403		
90 %		0.403	0.403	0.403	0.403	0.403	0.403		
None	D1 Stream	0.253	0.253	0.253	0.253	0.253	0.253		
50 %		0.253	0.253	0.253	0.253	0.253	0.253		
75 %		0.253	0.253	0.253	0.253	0.253	0.253		
90 %		0.253	0.253	0.253	0.253	0.253	0.253		
None	D2 Ditch	0.296	0.286	0.286	0.286	0.286	0.286		
50 %		0.286	0.286	0.286	0.286	0.286	0.286		
75 %		0.286	0.286	0.286	0.286	0.286	0.286		
90 %		0.286	0.286	0.286	0.286	0.286	0.286		
None	D2 Stream	0.253	0.178	0.178	0.178	0.178	0.178		
50 %		0.178	0.178	0.178	0.178	0.178	0.178		
75 %		0.178	0.178	0.178	0.178	0.178	0.178		
90 %		0.178	0.178	0.178	0.178	0.178	0.178		
None	D3 Ditch	0.248	0.067	0.036	0.019	0.036	0.019		
50 %		0.124	0.034	0.018	0.009	0.018	0.009		
75 %		0.062	0.017	0.009	0.005	0.009	0.005		
90 %		0.025	0.007	0.004	0.002	0.004	0.002		
None	D4 Pond	0.064	0.064	0.063	0.063	0.063	0.063		
50 %		0.063	0.063	0.063	0.063	0.063	0.063		
75 %		0.063	0.063	0.063	0.062	0.063	0.062		
90 %		0.062	0.062	0.062	0.062	0.062	0.062		
None	D4 Stream	0.214	0.078	0.062	0.062	0.062	0.062		
50 %		0.107	0.062	0.062	0.062	0.062	0.062		
75 %		0.062	0.062	0.062	0.062	0.062	0.062		
90 %		0.062	0.062	0.062	0.062	0.062	0.062		
None	D5 Pond	0.029	0.028	0.028	0.028	0.028	0.028		
50 %		0.028	0.028	0.028	0.027	0.028	0.027		
75 %		0.027	0.027	0.027	0.027	0.027	0.027		
90 %		0.027	0.027	0.027	0.027	0.027	0.027		
None	D5 Stream	0.231	0.084	0.045	0.036	0.045	0.036		
50 %		0.115	0.042	0.036	0.036	0.036	0.036		

PECsw (µg/L)	**Scenario**	**Step 4 fluopyram_cereals_Tier 2**							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
75 %		0.058	0.036	0.036	0.036	0.036	0.036		
90 %		0.036	0.036	0.036	0.036	0.036	0.036		
None	D6 Ditch	0.249	0.072	0.072	0.072	0.072	0.072		
50 %		0.125	0.072	0.072	0.072	0.072	0.072		
75 %		0.072	0.072	0.072	0.072	0.072	0.072		
90 %		0.072	0.072	0.072	0.072	0.072	0.072		
None	R1 Pond	0.035	0.034	0.032	0.031	0.016	0.009		
50 %		0.031	0.031	0.030	0.030	0.014	0.007		
75 %		0.030	0.030	0.029	0.029	0.012	0.006		
90 %		0.029	0.029	0.029	0.029	0.012	0.006		
None	R1 Stream	0.163	0.158	0.158	0.158	0.071	0.037		
50 %		0.158	0.158	0.158	0.158	0.071	0.037		
75 %		0.158	0.158	0.158	0.158	0.071	0.037		
90 %		0.158	0.158	0.158	0.158	0.071	0.037		
None	R3 Stream	0.229	0.228	0.228	0.228	0.104	0.054		
50 %		0.228	0.228	0.228	0.228	0.104	0.054		
75 %		0.228	0.228	0.228	0.228	0.104	0.054		
90 %		0.228	0.228	0.228	0.228	0.104	0.054		
None	R4 Stream	0.163	0.060	0.055	0.055	0.032	0.017		
50 %		0.082	0.055	0.055	0.055	0.025	0.013		
75 %		0.055	0.055	0.055	0.055	0.025	0.013		
90 %		0.055	0.055	0.055	0.055	0.025	0.013		

Table 9.2.5- 89: Tier 2 PEC_{sw} values for fluopyram following single application of BIX + FLU + PTZ EC 260 to barley II according to surface water Step 4 (modelling use spring cereals II -- early -- 0.078 kg a.s./ha)

PECsw (µg/L)	Scenario	Step 4 fluopyram_cereals_Tier 2							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	2.04	2.04	2.04	2.04	2.04	2.04		
50 %		2.04	2.04	2.04	2.04	2.04	2.04		
75 %		2.04	2.04	2.04	2.04	2.04	2.04		
90 %		2.04	2.04	2.04	2.04	2.04	2.04		
None	D1 Stream	1.28	1.28	1.28	1.28	1.28	1.28		
50 %		1.28	1.28	1.28	1.28	1.28	1.28		
75 %		1.28	1.28	1.28	1.28	1.28	1.28		
90 %		1.28	1.28	1.28	1.28	1.28	1.28		
None	D3 Ditch	0.494	0.134	0.071	0.037	0.071	0.037		
50 %		0.247	0.067	0.036	0.019	0.036	0.019		
75 %		0.124	0.034	0.018	0.009	0.018	0.009		
90 %		0.049	0.013	0.007	0.004	0.007	0.004		
None	D4 Pond	0.523	0.523	0.522	0.522	0.522	0.522		
50 %		0.522	0.522	0.521	0.521	0.521	0.521		
75 %		0.521	0.521	0.521	0.520	0.521	0.520		
90 %		0.520	0.520	0.520	0.520	0.520	0.520		
None	D4 Stream	0.527	0.527	0.527	0.527	0.527	0.527		
50 %		0.527	0.527	0.527	0.527	0.527	0.527		
75 %		0.527	0.527	0.527	0.527	0.527	0.527		
90 %		0.527	0.527	0.527	0.527	0.527	0.527		
None	D5 Pond	0.470	0.469	0.469	0.468	0.469	0.468		
50 %		0.468	0.468	0.468	0.468	0.468	0.468		
75 %		0.468	0.468	0.468	0.467	0.468	0.467		
90 %		0.467	0.467	0.467	0.467	0.467	0.467		
None	D5 Stream	0.456	0.350	0.350	0.350	0.350	0.350		
50 %		0.350	0.350	0.350	0.350	0.350	0.350		
75 %		0.350	0.350	0.350	0.350	0.350	0.350		
90 %		0.350	0.350	0.350	0.350	0.350	0.350		
None	R4 Stream	0.558	0.558	0.558	0.558	0.252	0.132		
50 %		0.558	0.558	0.558	0.558	0.252	0.132		
75 %		0.558	0.558	0.558	0.558	0.252	0.132		
90 %		0.558	0.558	0.558	0.558	0.252	0.132		

Table 9.2.5- 90: **Tier 2 PEC_{sw} values for fluopyram following single application of BIX + FLU + PTZ EC 260 to barley II according to surface water Step 4 (modelling use winter cereals II -- early -- 0.078 kg a.s./ha)**

PECsw (µg/L)	Scenario	Step 4 fluopyram_cereals_Tier 2							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	3.60	3.60	3.60	3.60	3.60	3.60		
50 %		3.60	3.60	3.60	3.60	3.60	3.60		
75 %		3.60	3.60	3.60	3.60	3.60	3.60		
90 %		3.60	3.60	3.60	3.60	3.60	3.60		
None	D1 Stream	2.31	2.31	2.31	2.31	2.31	2.31		
50 %		2.31	2.31	2.31	2.31	2.31	2.31		
75 %		2.31	2.31	2.31	2.31	2.31	2.31		
90 %		2.31	2.31	2.31	2.31	2.31	2.31		
None	D2 Ditch	4.83	4.83	4.83	4.83	4.83	4.83		
50 %		4.83	4.83	4.83	4.83	4.83	4.83		
75 %		4.83	4.83	4.83	4.83	4.83	4.83		
90 %		4.83	4.83	4.83	4.83	4.83	4.83		
None	D2 Stream	3.06	3.06	3.06	3.06	3.06	3.06		
50 %		3.06	3.06	3.06	3.06	3.06	3.06		
75 %		3.06	3.06	3.06	3.06	3.06	3.06		
90 %		3.06	3.06	3.06	3.06	3.06	3.06		
None	D3 Ditch	0.494	0.134	0.071	0.037	0.071	0.037		
50 %		0.247	0.067	0.036	0.019	0.036	0.019		
75 %		0.124	0.034	0.018	0.009	0.018	0.009		
90 %		0.049	0.013	0.007	0.004	0.007	0.004		
None	D4 Pond	0.655	0.655	0.655	0.654	0.655	0.654		
50 %		0.654	0.654	0.654	0.654	0.654	0.654		
75 %		0.654	0.654	0.653	0.653	0.653	0.653		
90 %		0.653	0.653	0.653	0.653	0.653	0.653		
None	D4 Stream	0.673	0.673	0.673	0.673	0.673	0.673		
50 %		0.673	0.673	0.673	0.673	0.673	0.673		
75 %		0.673	0.673	0.673	0.673	0.673	0.673		
90 %		0.673	0.673	0.673	0.673	0.673	0.673		
None	D5 Pond	0.455	0.454	0.454	0.453	0.454	0.453		
50 %		0.453	0.453	0.453	0.453	0.453	0.453		
75 %		0.453	0.453	0.452	0.452	0.452	0.452		
90 %		0.452	0.452	0.452	0.452	0.452	0.452		
None	D5 Stream	0.451	0.351	0.351	0.351	0.351	0.351		
50 %		0.351	0.351	0.351	0.351	0.351	0.351		

PECsw (µg/L)	Scenario	Step 4 fluopyram_cereals_Tier 2							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
75 %		0.351	0.351	0.351	0.351	0.351	0.351		
90 %		0.351	0.351	0.351	0.351	0.351	0.351		
None	D6 Ditch	0.708	0.708	0.708	0.708	0.708	0.708		
50 %		0.708	0.708	0.708	0.708	0.708	0.708		
75 %		0.708	0.708	0.708	0.708	0.708	0.708		
90 %		0.708	0.708	0.708	0.708	0.708	0.708		
None	R1 Pond	0.034	0.032	0.030	0.028	0.016	0.009		
50 %		0.029	0.028	0.027	0.026	0.013	0.007		
75 %		0.026	0.026	0.025	0.025	0.011	0.006		
90 %		0.025	0.025	0.025	0.024	0.010	0.005		
None	R1 Stream	0.326	0.288	0.288	0.288	0.131	0.069		
50 %		0.288	0.288	0.288	0.288	0.131	0.069		
75 %		0.288	0.288	0.288	0.288	0.131	0.069		
90 %		0.288	0.288	0.288	0.288	0.131	0.069		
None	R3 Stream	0.497	0.497	0.497	0.497	0.227	0.119		
50 %		0.497	0.497	0.497	0.497	0.227	0.119		
75 %		0.497	0.497	0.497	0.497	0.227	0.119		
90 %		0.497	0.497	0.497	0.497	0.227	0.119		
None	R4 Stream	0.835	0.835	0.835	0.835	0.380	0.199		
50 %		0.835	0.835	0.835	0.835	0.380	0.199		
75 %		0.835	0.835	0.835	0.835	0.380	0.199		
90 %		0.835	0.835	0.835	0.835	0.380	0.199		

Table 9.2.5- 91: **Tier 2 PEC_{sw} values for fluopyram following single application of BIX + FLU + PTZ EC 260 to barley II according to surface water Step 4 (modelling use winter cereals II -- late -- 0.078 kg a.s./ha)**

PECsw (µg/L)	Scenario	Step 4 fluopyram_cereals_Tier 2							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	0.933	0.933	0.933	0.933	0.933	0.933		
50 %		0.933	0.933	0.933	0.933	0.933	0.933		
75 %		0.933	0.933	0.933	0.933	0.933	0.933		
90 %		0.933	0.933	0.933	0.933	0.933	0.933		
None	D1 Stream	0.584	0.584	0.584	0.584	0.584	0.584		
50 %		0.584	0.584	0.584	0.584	0.584	0.584		
75 %		0.584	0.584	0.584	0.584	0.584	0.584		
90 %		0.584	0.584	0.584	0.584	0.584	0.584		
None	D2 Ditch	0.623	0.623	0.623	0.623	0.623	0.623		
50 %		0.623	0.623	0.623	0.623	0.623	0.623		
75 %		0.623	0.623	0.623	0.623	0.623	0.623		
90 %		0.623	0.623	0.623	0.623	0.623	0.623		
None	D2 Stream	0.504	0.389	0.389	0.389	0.389	0.389		
50 %		0.389	0.389	0.389	0.389	0.389	0.389		
75 %		0.389	0.389	0.389	0.389	0.389	0.389		
90 %		0.389	0.389	0.389	0.389	0.389	0.389		
None	D3 Ditch	0.496	0.134	0.071	0.037	0.071	0.037		
50 %		0.248	0.067	0.036	0.019	0.036	0.019		
75 %		0.124	0.034	0.018	0.009	0.018	0.009		
90 %		0.050	0.014	0.007	0.004	0.007	0.004		
None	D4 Pond	0.136	0.136	0.135	0.134	0.135	0.134		
50 %		0.134	0.134	0.134	0.133	0.134	0.133		
75 %		0.133	0.133	0.133	0.133	0.133	0.133		
90 %		0.133	0.133	0.132	0.132	0.132	0.132		
None	D4 Stream	0.428	0.156	0.132	0.132	0.132	0.132		
50 %		0.214	0.132	0.132	0.132	0.132	0.132		
75 %		0.132	0.132	0.132	0.132	0.132	0.132		
90 %		0.132	0.132	0.132	0.132	0.132	0.132		
None	D5 Pond	0.064	0.064	0.063	0.063	0.063	0.063		
50 %		0.063	0.063	0.062	0.062	0.062	0.062		
75 %		0.062	0.062	0.062	0.062	0.062	0.062		
90 %		0.062	0.062	0.062	0.061	0.062	0.061		
None	D5 Stream	0.461	0.168	0.089	0.071	0.089	0.071		
50 %		0.231	0.084	0.071	0.071	0.071	0.071		

PECsw (µg/L)	Scenario	Step 4 fluopyram_cereals_Tier 2							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
75 %		0.115	0.071	0.071	0.071	0.071	0.071		
90 %		0.071	0.071	0.071	0.071	0.071	0.071		
None	D6 Ditch	0.498	0.141	0.141	0.141	0.141	0.141		
50 %		0.250	0.141	0.141	0.141	0.141	0.141		
75 %		0.141	0.141	0.141	0.141	0.141	0.141		
90 %		0.141	0.141	0.141	0.141	0.141	0.141		
None	R1 Pond	0.072	0.070	0.067	0.064	0.033	0.018		
50 %		0.065	0.065	0.063	0.062	0.028	0.015		
75 %		0.062	0.062	0.061	0.060	0.026	0.013		
90 %		0.060	0.060	0.060	0.060	0.025	0.013		
None	R1 Stream	0.351	0.351	0.351	0.351	0.158	0.083		
50 %		0.351	0.351	0.351	0.351	0.158	0.083		
75 %		0.351	0.351	0.351	0.351	0.158	0.083		
90 %		0.351	0.351	0.351	0.351	0.158	0.083		
None	R3 Stream	0.504	0.504	0.504	0.504	0.229	0.120		
50 %		0.504	0.504	0.504	0.504	0.229	0.120		
75 %		0.504	0.504	0.504	0.504	0.229	0.120		
90 %		0.504	0.504	0.504	0.504	0.229	0.120		
None	R4 Stream	0.327	0.149	0.107	0.107	0.063	0.033		
50 %		0.164	0.107	0.107	0.107	0.049	0.026		
75 %		0.107	0.107	0.107	0.107	0.049	0.026		
90 %		0.107	0.107	0.107	0.107	0.049	0.026		

Fluopyram-7-hydroxy (FLU-7-OH)

Table 9.2.5- 92: Tier 2 PEC_{sw} values for FLU-7-OH following single application of BIX + FLU + PTZ EC 260 to barley I according to surface water Step 4 (modelling use spring cereals 1 -- early -- 0.039 kg a.s./ha)

PECsw (µg/L)	Scenario	Step 4 FLU-7- OH _cereals_Tier 2							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	0.095	0.095	0.095	0.095	0.095	0.095		
50 %		0.095	0.095	0.095	0.095	0.095	0.095		
75 %		0.095	0.095	0.095	0.095	0.095	0.095		
90 %		0.095	0.095	0.095	0.095	0.095	0.095		
None	D1 Stream	0.059	0.059	0.059	0.059	0.059	0.059		
50 %		0.059	0.059	0.059	0.059	0.059	0.059		
75 %		0.059	0.059	0.059	0.059	0.059	0.059		
90 %		0.059	0.059	0.059	0.059	0.059	0.059		
None	D3 Ditch	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	D4 Pond	0.023	0.023	0.023	0.023	0.023	0.023		
50 %		0.023	0.023	0.023	0.023	0.023	0.023		
75 %		0.023	0.023	0.023	0.023	0.023	0.023		
90 %		0.023	0.023	0.023	0.023	0.023	0.023		
None	D4 Stream	0.022	0.022	0.022	0.022	0.022	0.022		
50 %		0.022	0.022	0.022	0.022	0.022	0.022		
75 %		0.022	0.022	0.022	0.022	0.022	0.022		
90 %		0.022	0.022	0.022	0.022	0.022	0.022		
None	D5 Pond	0.025	0.025	0.025	0.025	0.025	0.025		
50 %		0.025	0.025	0.025	0.025	0.025	0.025		
75 %		0.025	0.025	0.025	0.025	0.025	0.025		
90 %		0.025	0.025	0.025	0.025	0.025	0.025		
None	D5 Stream	0.019	0.019	0.019	0.019	0.019	0.019		
50 %		0.019	0.019	0.019	0.019	0.019	0.019		
75 %		0.019	0.019	0.019	0.019	0.019	0.019		
90 %		0.019	0.019	0.019	0.019	0.019	0.019		
None	R4 Stream	0.002	0.002	0.002	0.002	0.001	<0.001		
50 %		0.002	0.002	0.002	0.002	0.001	<0.001		
75 %		0.002	0.002	0.002	0.002	0.001	<0.001		
90 %		0.002	0.002	0.002	0.002	0.001	<0.001		

Table 9.2.5- 93: Tier 2 PEC_{sw} values for FLU-7- OH following single application of BIX + FLU + PTZ EC 260 to barley I according to surface water Step 4 (modelling use winter cereals I -- early -- 0.039 kg a.s./ha)

PECsw (µg/L)	**Scenario**	**Step 4 FLU-7- OH _cereals_Tier 2**							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	0.133	0.133	0.133	0.133	0.133	0.133		
50 %		0.133	0.133	0.133	0.133	0.133	0.133		
75 %		0.133	0.133	0.133	0.133	0.133	0.133		
90 %		0.133	0.133	0.133	0.133	0.133	0.133		
None	D1 Stream	0.085	0.085	0.085	0.085	0.085	0.085		
50 %		0.085	0.085	0.085	0.085	0.085	0.085		
75 %		0.085	0.085	0.085	0.085	0.085	0.085		
90 %		0.085	0.085	0.085	0.085	0.085	0.085		
None	D2 Ditch	0.171	0.171	0.171	0.171	0.171	0.171		
50 %		0.171	0.171	0.171	0.171	0.171	0.171		
75 %		0.171	0.171	0.171	0.171	0.171	0.171		
90 %		0.171	0.171	0.171	0.171	0.171	0.171		
None	D2 Stream	0.117	0.117	0.117	0.117	0.117	0.117		
50 %		0.117	0.117	0.117	0.117	0.117	0.117		
75 %		0.117	0.117	0.117	0.117	0.117	0.117		
90 %		0.117	0.117	0.117	0.117	0.117	0.117		
None	D3 Ditch	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	D4 Pond	0.029	0.029	0.029	0.029	0.029	0.029		
50 %		0.029	0.029	0.029	0.029	0.029	0.029		
75 %		0.029	0.029	0.029	0.029	0.029	0.029		
90 %		0.029	0.029	0.029	0.029	0.029	0.029		
None	D4 Stream	0.028	0.028	0.028	0.028	0.028	0.028		
50 %		0.028	0.028	0.028	0.028	0.028	0.028		
75 %		0.028	0.028	0.028	0.028	0.028	0.028		
90 %		0.028	0.028	0.028	0.028	0.028	0.028		
None	D5 Pond	0.025	0.025	0.025	0.025	0.025	0.025		
50 %		0.025	0.025	0.025	0.025	0.025	0.025		
75 %		0.025	0.025	0.025	0.025	0.025	0.025		
90 %		0.025	0.025	0.025	0.025	0.025	0.025		
None	D5 Stream	0.020	0.020	0.020	0.020	0.020	0.020		

PECsw (µg/L)	**Scenario**	**Step 4 FLU-7- OH _cereals_Tier 2**							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
50 %		0.020	0.020	0.020	0.020	0.020	0.020		
75 %		0.020	0.020	0.020	0.020	0.020	0.020		
90 %		0.020	0.020	0.020	0.020	0.020	0.020		
None	D6 Ditch	0.022	0.022	0.022	0.022	0.022	0.022		
50 %		0.022	0.022	0.022	0.022	0.022	0.022		
75 %		0.022	0.022	0.022	0.022	0.022	0.022		
90 %		0.022	0.022	0.022	0.022	0.022	0.022		
None	R1 Pond	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	R1 Stream	0.002	0.002	0.002	0.002	0.001	<0.001		
50 %		0.002	0.002	0.002	0.002	0.001	<0.001		
75 %		0.002	0.002	0.002	0.002	0.001	<0.001		
90 %		0.002	0.002	0.002	0.002	0.001	<0.001		
None	R3 Stream	0.005	0.005	0.005	0.005	0.002	0.001		
50 %		0.005	0.005	0.005	0.005	0.002	0.001		
75 %		0.005	0.005	0.005	0.005	0.002	0.001		
90 %		0.005	0.005	0.005	0.005	0.002	0.001		
None	R4 Stream	0.007	0.007	0.007	0.007	0.003	0.002		
50 %		0.007	0.007	0.007	0.007	0.003	0.002		
75 %		0.007	0.007	0.007	0.007	0.003	0.002		
90 %		0.007	0.007	0.007	0.007	0.003	0.002		

Table 9.2.5- 94: Tier 2 PEC_{sw} values for FLU-7- OH following single application of BIX + FLU + PTZ EC 260 to barley I according to surface water Step 4 (modelling use winter cereals I -- late -- 0.039 kg a.s./ha)

PECsw (µg/L)	Scenario	Step 4 FLU-7- OH _cereals_Tier 2							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	0.041	0.041	0.041	0.041	0.041	0.041		
50 %		0.041	0.041	0.041	0.041	0.041	0.041		
75 %		0.041	0.041	0.041	0.041	0.041	0.041		
90 %		0.041	0.041	0.041	0.041	0.041	0.041		
None	D1 Stream	0.026	0.026	0.026	0.026	0.026	0.026		
50 %		0.026	0.026	0.026	0.026	0.026	0.026		
75 %		0.026	0.026	0.026	0.026	0.026	0.026		
90 %		0.026	0.026	0.026	0.026	0.026	0.026		
None	D2 Ditch	0.030	0.030	0.030	0.030	0.030	0.030		
50 %		0.030	0.030	0.030	0.030	0.030	0.030		
75 %		0.030	0.030	0.030	0.030	0.030	0.030		
90 %		0.030	0.030	0.030	0.030	0.030	0.030		
None	D2 Stream	0.019	0.019	0.019	0.019	0.019	0.019		
50 %		0.019	0.019	0.019	0.019	0.019	0.019		
75 %		0.019	0.019	0.019	0.019	0.019	0.019		
90 %		0.019	0.019	0.019	0.019	0.019	0.019		
None	D3 Ditch	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	D4 Pond	0.005	0.005	0.005	0.005	0.005	0.005		
50 %		0.005	0.005	0.005	0.005	0.005	0.005		
75 %		0.005	0.005	0.005	0.005	0.005	0.005		
90 %		0.005	0.005	0.005	0.005	0.005	0.005		
None	D4 Stream	0.006	0.006	0.006	0.006	0.006	0.006		
50 %		0.006	0.006	0.006	0.006	0.006	0.006		
75 %		0.006	0.006	0.006	0.006	0.006	0.006		
90 %		0.006	0.006	0.006	0.006	0.006	0.006		
None	D5 Pond	0.004	0.004	0.004	0.004	0.004	0.004		
50 %		0.004	0.004	0.004	0.004	0.004	0.004		
75 %		0.004	0.004	0.004	0.004	0.004	0.004		
90 %		0.004	0.004	0.004	0.004	0.004	0.004		
None	D5 Stream	0.004	0.004	0.004	0.004	0.004	0.004		
50 %		0.004	0.004	0.004	0.004	0.004	0.004		

PECsw (µg/L)	Scenario	Step 4 FLU-7- OH _cereals_Tier 2							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
75 %		0.004	0.004	0.004	0.004	0.004	0.004		
90 %		0.004	0.004	0.004	0.004	0.004	0.004		
None	D6 Ditch	0.005	0.005	0.005	0.005	0.005	0.005		
50 %		0.005	0.005	0.005	0.005	0.005	0.005		
75 %		0.005	0.005	0.005	0.005	0.005	0.005		
90 %		0.005	0.005	0.005	0.005	0.005	0.005		
None	R1 Pond	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	R1 Stream	0.002	0.002	0.002	0.002	<0.001	<0.001		
50 %		0.002	0.002	0.002	0.002	<0.001	<0.001		
75 %		0.002	0.002	0.002	0.002	<0.001	<0.001		
90 %		0.002	0.002	0.002	0.002	<0.001	<0.001		
None	R3 Stream	0.006	0.006	0.006	0.006	0.003	0.001		
50 %		0.006	0.006	0.006	0.006	0.003	0.001		
75 %		0.006	0.006	0.006	0.006	0.003	0.001		
90 %		0.006	0.006	0.006	0.006	0.003	0.001		
None	R4 Stream	0.003	0.003	0.003	0.003	0.001	<0.001		
50 %		0.003	0.003	0.003	0.003	0.001	<0.001		
75 %		0.003	0.003	0.003	0.003	0.001	<0.001		
90 %		0.003	0.003	0.003	0.003	0.001	<0.001		

Table 9.2.5- 95: Tier 2 PEC$_{sw}$ values for FLU-7- OH following single application of BIX + FLU + PTZ EC 260 to barley II according to surface water Step 4 (modelling use spring cereals II -- early -- 0.078 kg a.s./ha)

PECsw (µg/L)	**Scenario**	**Step 4 FLU-7- OH _cereals_Tier 2**							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	0.183	0.183	0.183	0.183	0.183	0.183		
50 %		0.183	0.183	0.183	0.183	0.183	0.183		
75 %		0.183	0.183	0.183	0.183	0.183	0.183		
90 %		0.183	0.183	0.183	0.183	0.183	0.183		
None	D1 Stream	0.115	0.115	0.115	0.115	0.115	0.115		
50 %		0.115	0.115	0.115	0.115	0.115	0.115		
75 %		0.115	0.115	0.115	0.115	0.115	0.115		
90 %		0.115	0.115	0.115	0.115	0.115	0.115		
None	D3 Ditch	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	D4 Pond	0.049	0.049	0.049	0.049	0.049	0.049		
50 %		0.049	0.049	0.049	0.049	0.049	0.049		
75 %		0.049	0.049	0.049	0.049	0.049	0.049		
90 %		0.049	0.049	0.049	0.049	0.049	0.049		
None	D4 Stream	0.044	0.044	0.044	0.044	0.044	0.044		
50 %		0.044	0.044	0.044	0.044	0.044	0.044		
75 %		0.044	0.044	0.044	0.044	0.044	0.044		
90 %		0.044	0.044	0.044	0.044	0.044	0.044		
None	D5 Pond	0.051	0.051	0.051	0.051	0.051	0.051		
50 %		0.051	0.051	0.051	0.051	0.051	0.051		
75 %		0.051	0.051	0.051	0.051	0.051	0.051		
90 %		0.051	0.051	0.051	0.051	0.051	0.051		
None	D5 Stream	0.039	0.039	0.039	0.039	0.039	0.039		
50 %		0.039	0.039	0.039	0.039	0.039	0.039		
75 %		0.039	0.039	0.039	0.039	0.039	0.039		
90 %		0.039	0.039	0.039	0.039	0.039	0.039		
None	R4 Stream	0.005	0.005	0.005	0.005	0.002	0.001		
50 %		0.005	0.005	0.005	0.005	0.002	0.001		
75 %		0.005	0.005	0.005	0.005	0.002	0.001		
90 %		0.005	0.005	0.005	0.005	0.002	0.001		

Table 9.2.5- 96: Tier 2 PEC_{sw} values for FLU-7- OH following single application of BIX + FLU + PTZ EC 260 to barley II according to surface water Step 4 (modelling use winter cereals II -- early -- 0.078 kg a.s./ha)

PECsw (µg/L)	Scenario	Step 4 FLU-7- OH _cereals_Tier 2							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	0.250	0.250	0.250	0.250	0.250	0.250		
50 %		0.250	0.250	0.250	0.250	0.250	0.250		
75 %		0.250	0.250	0.250	0.250	0.250	0.250		
90 %		0.250	0.250	0.250	0.250	0.250	0.250		
None	D1 Stream	0.160	0.160	0.160	0.160	0.160	0.160		
50 %		0.160	0.160	0.160	0.160	0.160	0.160		
75 %		0.160	0.160	0.160	0.160	0.160	0.160		
90 %		0.160	0.160	0.160	0.160	0.160	0.160		
None	D2 Ditch	0.315	0.315	0.315	0.315	0.315	0.315		
50 %		0.315	0.315	0.315	0.315	0.315	0.315		
75 %		0.315	0.315	0.315	0.315	0.315	0.315		
90 %		0.315	0.315	0.315	0.315	0.315	0.315		
None	D2 Stream	0.219	0.219	0.219	0.219	0.219	0.219		
50 %		0.219	0.219	0.219	0.219	0.219	0.219		
75 %		0.219	0.219	0.219	0.219	0.219	0.219		
90 %		0.219	0.219	0.219	0.219	0.219	0.219		
None	D3 Ditch	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	D4 Pond	0.060	0.060	0.060	0.060	0.060	0.060		
50 %		0.060	0.060	0.060	0.060	0.060	0.060		
75 %		0.060	0.060	0.060	0.060	0.060	0.060		
90 %		0.060	0.060	0.060	0.060	0.060	0.060		
None	D4 Stream	0.055	0.055	0.055	0.055	0.055	0.055		
50 %		0.055	0.055	0.055	0.055	0.055	0.055		
75 %		0.055	0.055	0.055	0.055	0.055	0.055		
90 %		0.055	0.055	0.055	0.055	0.055	0.055		
None	D5 Pond	0.051	0.051	0.051	0.051	0.051	0.051		
50 %		0.051	0.051	0.051	0.051	0.051	0.051		
75 %		0.051	0.051	0.051	0.051	0.051	0.051		
90 %		0.051	0.051	0.051	0.051	0.051	0.051		
None	D5 Stream	0.038	0.038	0.038	0.038	0.038	0.038		
50 %		0.038	0.038	0.038	0.038	0.038	0.038		

PECsw (µg/L)	Scenario	Step 4 FLU-7- OH _cereals_Tier 2							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
75 %		0.038	0.038	0.038	0.038	0.038	0.038		
90 %		0.038	0.038	0.038	0.038	0.038	0.038		
None	D6 Ditch	0.042	0.042	0.042	0.042	0.042	0.042		
50 %		0.042	0.042	0.042	0.042	0.042	0.042		
75 %		0.042	0.042	0.042	0.042	0.042	0.042		
90 %		0.042	0.042	0.042	0.042	0.042	0.042		
None	R1 Pond	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	R1 Stream	0.005	0.005	0.005	0.005	0.002	0.001		
50 %		0.005	0.005	0.005	0.005	0.002	0.001		
75 %		0.005	0.005	0.005	0.005	0.002	0.001		
90 %		0.005	0.005	0.005	0.005	0.002	0.001		
None	R3 Stream	0.010	0.010	0.010	0.010	0.005	0.003		
50 %		0.010	0.010	0.010	0.010	0.005	0.003		
75 %		0.010	0.010	0.010	0.010	0.005	0.003		
90 %		0.010	0.010	0.010	0.010	0.005	0.003		
None	R4 Stream	0.013	0.013	0.013	0.013	0.006	0.003		
50 %		0.013	0.013	0.013	0.013	0.006	0.003		
75 %		0.013	0.013	0.013	0.013	0.006	0.003		
90 %		0.013	0.013	0.013	0.013	0.006	0.003		

Table 9.2.5- 97: Tier 2 PEC_{sw} values for FLU-7- OH following single application of BIX + FLU + PTZ EC 260 to barley II according to surface water Step 4 (modelling use winter cereals II -- late -- 0.078 kg a.s./ha)

PECsw (µg/L)	Scenario	Step 4 FLU-7- OH _cereals_Tier 2							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
None	D1 Ditch	0.079	0.079	0.079	0.079	0.079	0.079		
50 %		0.079	0.079	0.079	0.079	0.079	0.079		
75 %		0.079	0.079	0.079	0.079	0.079	0.079		
90 %		0.079	0.079	0.079	0.079	0.079	0.079		
None	D1 Stream	0.050	0.050	0.050	0.050	0.050	0.050		
50 %		0.050	0.050	0.050	0.050	0.050	0.050		
75 %		0.050	0.050	0.050	0.050	0.050	0.050		
90 %		0.050	0.050	0.050	0.050	0.050	0.050		
None	D2 Ditch	0.060	0.060	0.060	0.060	0.060	0.060		
50 %		0.060	0.060	0.060	0.060	0.060	0.060		
75 %		0.060	0.060	0.060	0.060	0.060	0.060		
90 %		0.060	0.060	0.060	0.060	0.060	0.060		
None	D2 Stream	0.037	0.037	0.037	0.037	0.037	0.037		
50 %		0.037	0.037	0.037	0.037	0.037	0.037		
75 %		0.037	0.037	0.037	0.037	0.037	0.037		
90 %		0.037	0.037	0.037	0.037	0.037	0.037		
None	D3 Ditch	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	D4 Pond	0.011	0.011	0.011	0.011	0.011	0.011		
50 %		0.011	0.011	0.011	0.011	0.011	0.011		
75 %		0.011	0.011	0.011	0.011	0.011	0.011		
90 %		0.011	0.011	0.011	0.011	0.011	0.011		
None	D4 Stream	0.011	0.011	0.011	0.011	0.011	0.011		
50 %		0.011	0.011	0.011	0.011	0.011	0.011		
75 %		0.011	0.011	0.011	0.011	0.011	0.011		
90 %		0.011	0.011	0.011	0.011	0.011	0.011		
None	D5 Pond	0.009	0.009	0.009	0.009	0.009	0.009		
50 %		0.009	0.009	0.009	0.009	0.009	0.009		
75 %		0.009	0.009	0.009	0.009	0.009	0.009		
90 %		0.009	0.009	0.009	0.009	0.009	0.009		
None	D5 Stream	0.008	0.008	0.008	0.008	0.008	0.008		
50 %		0.008	0.008	0.008	0.008	0.008	0.008		

PECsw (µg/L)	Scenario	Step 4 FLU-7- OH _cereals_Tier 2							
Nozzle reduction	Vegetated strip (m)	None	None	None	None	10 m	20 m		
	No spray buffer (m)	0 m	5 m	10 m	20 m	10 m	20 m		
75 %		0.008	0.008	0.008	0.008	0.008	0.008		
90 %		0.008	0.008	0.008	0.008	0.008	0.008		
None	D6 Ditch	0.009	0.009	0.009	0.009	0.009	0.009		
50 %		0.009	0.009	0.009	0.009	0.009	0.009		
75 %		0.009	0.009	0.009	0.009	0.009	0.009		
90 %		0.009	0.009	0.009	0.009	0.009	0.009		
None	R1 Pond	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
50 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
75 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
90 %		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
None	R1 Stream	0.003	0.003	0.003	0.003	0.002	<0.001		
50 %		0.003	0.003	0.003	0.003	0.002	<0.001		
75 %		0.003	0.003	0.003	0.003	0.002	<0.001		
90 %		0.003	0.003	0.003	0.003	0.002	<0.001		
None	R3 Stream	0.010	0.010	0.010	0.010	0.005	0.002		
50 %		0.010	0.010	0.010	0.010	0.005	0.002		
75 %		0.010	0.010	0.010	0.010	0.005	0.002		
90 %		0.010	0.010	0.010	0.010	0.005	0.002		
None	R4 Stream	0.005	0.005	0.005	0.005	0.002	0.001		
50 %		0.005	0.005	0.005	0.005	0.002	0.001		
75 %		0.005	0.005	0.005	0.005	0.002	0.001		
90 %		0.005	0.005	0.005	0.005	0.002	0.001		

Predicted environmental concentrations in surface water (PEC_{sw}) and sediment (PEC_{sed}) of bixafen and prothioconazole and their metabolites

No surface water and sediment assessment was required for bixafen and prothioconazole and their metabolites for the renewal process of the active substance fluopyram.

CP 9.3 Fate and behaviour in air

For information on the fate and behaviour in air please refer to Document MCA, Section 7.3.

CP 9.3.1 Route and rate of degradation in air and transport via air

For information on route and rate of degradation in air and transport via air please refer to Document MCA, Sections 7.3.1 and 7.3.2.

CP 9.4 Estimation of concentrations for other routes of exposure

There are no other routes of exposure if the product is used according to good agricultural practice. Therefore no further estimations are considered necessary.