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#### Version history

Date	Data points containing amendments or additions <sup>1</sup> and	Document identifier and version number
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2020-03-11	including PEC calculations for soil and surface	[VI-0/0033-02-1]
	water/sediment included as requested by the RMS.	
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1 It is suggested	that applicants adopt a similar approach to showing revision	ns and version histor as outlined
in SANCO/10	that applicants adopt a similar approach to showing revision 80/2013 Chapter 4, 'How to revise an Assessment Report'.	
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#### CP 9 FATE AND BEHAVIOUR IN THE ENVIRONMENT

Aclonifen was included in Annex I to Council Directive 91/414/EEC in 2008 (Directive 2008/1160°C, Entry into Force on 01 August 2009).

Diflufenican was included on Annex I of Directive 91/414/EEC on 1 January 2009 under Ciclusion Directive 2008/66/EC and implemented under Regulation (EU) No 540/2010. The Annex I Inclusion Directives for Diflufenican (2008/66/EC) provide specific provisions under Part B which need to be considered by the applicant in the preparation of their submission and by the MS prior to granting an authorisation. For the implementation of the uniform principles of Armex VI, the conclusions of the review report on Diflufenican and in particular Appendices I and II thereof, as finalised in the Standing Committee on the Food Chain and Anjural Health of 14/03/2008 and on 16/06/2000 respectively, shall be taken into account.

The formulation Aclonifen + Diflufenican SC 600 (500+100 g/L) (of ACL DFF & 600 (500 £700) G), is a suspension concentrate formulation containing 500 g/L of aclonifen and 100 g/L of diflufenican. This formulation is registered throughout Europe under trade names such as Mationo Duo SC 600 (Product code specification #102000029998). This formulation was not a representative product under the previous dossier submitted for Annex I inclusion

This present dossier in support of approval renewal includes all the data submitted at the time of the Annex I inclusion, in summaries and data requirements.

No laboratory studies have been conducted with the formulated product as it is possible to extrapolate from data on aclonifen. Full details of the rate and behaviour of aclonifen in soil can be found in the active substance dossier pocument MoA Section 71. A summary of the rate in the environment is provided below.

#### CP 9.1 Fate and behaviour in soil

### CP 9.1.1 Rate of degradation in soil

Soil degradation studies with the formulation were not performed since it is possible to extrapolate from data obtained with the active substances.

#### Aclonifen

The fate and behaviour of actorifen in soil has been investigated in a comprehensive series of laboratory studies and when required, supported with data from field experiments. A number of studies were submitted for the first inclusion of actorifen into Annex I of Council Directive 91/414/EEC and reviewed under uniform principles (DAR, Germany, 2006). In addition a number of new studies are provided for the current EU review. For further information on the rate of degradation in soil please refer to Document MCA, Section 7.12.

Microbial breakdown of actionifer in soil leads to the formation of non-extractable soil bound residues, which accounted for a maximum of 20 to 50% of the applied [aniline-UL-14C]-aclonifen and 42 to 71% of the applied [phenoxy-UL-C]-actionifen, with very few intermediate products observed. Carbon dioxide was formed at maxima of between 1 to 12% AR in soil treated with the aniline label and 14 to 20% AR in soil treated the phenoxy label.

Supplemental studies have also been conducted to investigate the metabolism of aclonifen in soil under anaerobic and sterile conditions and to determine if photolysis contributed to the degradation of aclonifen on soil surfaces.

Under write conditions aclonifen was relatively stable confirming that its metabolism is largely microbially mediated. Non-extractable soil bound residues and material bound to aqueous soluble soil colloids were observed under sterile conditions at relatively constant levels throughout the incubation period, but at lower levels than observed in microbially viable soils, indicative of metabolites of



aclonifen also binding to the soil matrix with time in microbially active soils. Aclonifen was more rapidly metabolised under flooded anaerobic conditions. Anaerobic metabolism of aclonifen led to the formation of non extractable soil residues indicating the metabolic pathway was similar to that observed under aerobic conditions. Under anaerobic conditions numerous minor unidentified metabolites were formed from the point when the redox potential in soil and water layer became reductive. The presence of light accelerated the rate of degradation on soil, with no unique metabolites formed exceeding 0.2% of applied radioactivity.

During the course of these studies, no metabolites have been observed at amounts > 5% of applied. The hydroxylated metabolite M-01 was detected in soil at a maximum of .5%.

Figure 9.1.1-1: Metabolic pathway for aclonifen in soil

#### Diflufenican @

The fate and behaviour of diffusion soft has been investigated in a comprehensive series of laboratory studies and, when required supported with data from field experiments.

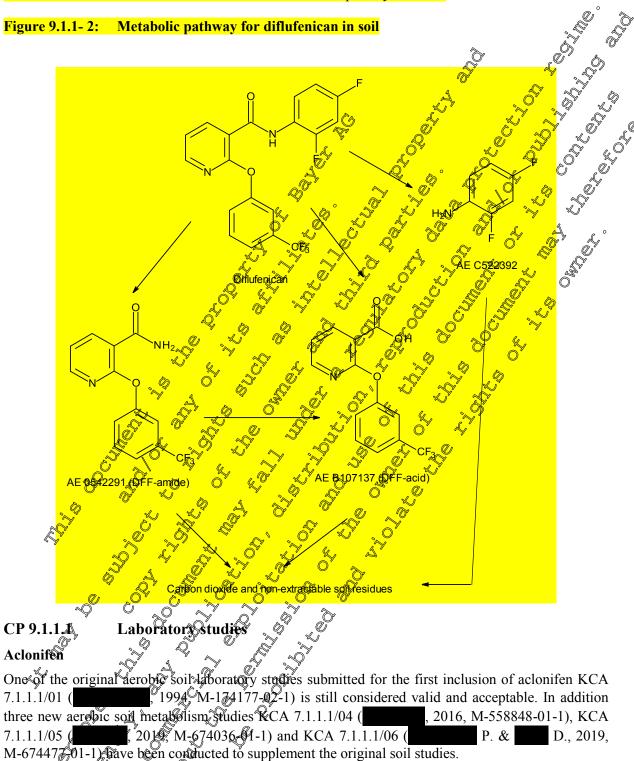
Degradation of differences in aerobic foil lead to the formation of two major metabolites AE B107137 (DFF-acid) and AE 0542291 DFF-acide) which accounted for a maximum of 16.8% and 26.3% of applied radioactivity, respectively.

Laboratory studies have consistently demonstrated that all three rings of the diflufenican structure are ultimately remeralised to carbon dioxido with up to 51% of the applied radioactivity being trapped in this form by the end of the study. Unextracted soil bound residues account for between 10 and 32% of the applied diffusion at the end of the studies. No other metabolites have ever been detected at levels approaching 10% in aerobic soil.

Supplemental studies have also been conducted to investigate the metabolism of diflufenican in soil under anaerobic conditions and to determine if photolysis contributed to the degradation of diflufenican on soil surfaces. Anaerobic degradation of diflufenican led to the formation of AE



B107137 as a major metabolite and under prolonged anaerobic conditions AE C522392 was formed at > 10% AR in soil. Diflufenican was shown to be stable to photolysis in soil



A new kinetic modelling assessment of laboratory aerobic soil according to FOCUS Degradation Kinetics (2006, 2004) has been provided (KCA 7.1.2.1.1/07, & & M-674934-01-1). Admirlen has been found to metabolise at a moderate rate in laboratory soil studies. DegT<sub>50</sub> values at 20°C ranged from 35.3 to 252.3 days with a geometric mean of 79.1 days. The results have been normalised to standard temperature and soil moisture (20°C and pF 2) according to FOCUS recommendations prior to using in FOCUS groundwater and surface water exposure assessments.



Table 9.1.1- 1: Summary of laboratory normalised DegT<sub>50</sub> (20 °C and pF2) values for aclonifen

Compound	Laboratory Normalised DT <sub>50</sub> (20 °C and pF2)									
	DegT50 range (days)	Number of datasets	Geometric mean DegTs (days) of for exposure assessment							
	(unys)	(11)	ioi caposare assessment							
Aclonifen	35.3 - 252.3	12	79.1							

For further information on laboratory studies please refer (a) Document MCA, Section 21.2.

#### **Diflufenican**

The degradation of diflufenican was investigated in four laboratory studies at 20° Cand 22° C. The data The latest were kinetically evaluated and normalise (20°C, field capacity (b°C) according to FOCUS recommendations during the Annex I Inclusion (Table 901.1- 20 DegT to values at 20 to 2200 ranged from 44.3 to 237.9 days with an arithmetric mean of 1408 days  $(Q_{10})$  2.20, Based on FSA requirements, which considers a Q<sub>10</sub> of Z.58 more appropriate to account for temperature dependent the laboratory degradation data were re-normalised. The formalised arithmetic mean Deg T<sub>90</sub> of 14 days (Q<sub>10</sub> of 2.58) has been used in FOCUS groundwater and surface water exposure assessments. requirements, which considers a Q10 of 2.58 more appropriate to account for temperature dependency, the laboratory degradation data were e-normalised. The formalised arithmetic mean DegT<sub>50</sub> of 143.2



Summary of laboratory normalised DegT<sub>50</sub> (20 °C and pF2) values for **Table 9.1.1- 2:** diflufenican

Diflufenican, La	boratory studio	es, aerobi	i <mark>c condit</mark>	<mark>ions</mark>					
<mark>Soil name</mark>	Soil type (USDA)	pH (CaCl <sub>2</sub> )	T (°C)	% MWHC	DT <sub>50</sub> (d)	DT <sub>90</sub> (d)	DT <sub>50</sub> (d) 20°C, pF2, Q <sub>10</sub> 2.2	St. (r <sup>2</sup> )	Kinetic V model
Sandy loam, St. Genis les Ollières, F	Sandy loam	7.7 <sup>A</sup>	22	75 of 0.33 bar	248.5	825.5	237.9 F	0:9980	SFO
Clay loam, Ongar, UK	Clay loam	6.6 A	<mark>22</mark>	75 of <b>2.33</b>	139.5	\$\frac{463.4}{\text{\$\infty}}	119.90	0.9967	SFO O
Ongar, 99/11, UK, pyridyl label	Loam <sup>C</sup>	6.5	20 ©	45 45 7	2326 200	772.7	193.5	0.9954	
Ongar, 99/11, UK, DFA label	Loam <sup>C</sup>	6.5	2 <del>0</del>	~ 7 <mark>45</mark>	206.6	684.3	172.1 7	<b>9</b> .997 <b>5</b>	SRO
Ongar, 99/11, UK, TFMP label	Loam <sup>C</sup>	6.5	* 20**		7176,30	585.8°	145.3 0	9.9967	SFO SFO
Royston, 00/06, UK	Clay loam D &	7.5 ×	20 20	46 <sup>7</sup>	\$ <mark>44.3</mark>	9 <mark>147.2</mark>	44.9°	<b>Ø</b> 9819	SFO
Baylham, 00/07, UK	Loamy sand E	<b>5</b> 95 ♠	\$\frac{20}{2}	45 V	129.3	429.5 «	<b>129.3</b>	<mark>0.9836</mark>	SFO
Woolverstone, 00/08, UK	Sandy Joam 2	Ŝ	20 ©	\$ \$\frac{45}{5}\$	₹ <mark>89.8</mark> Ô	298 <sup>6</sup> 3	<b>89/.8</b>	0.9890	SFO
Woolverstone, 00/08, UK	Sandy loan 2	\$ 8.9 W	*** <u>10</u> ^	45,7 25,2	<b>204.4</b>	<b>6</b> 79.0 ₽ ✓	<b>₩</b>	-	SFO
0	' S Aust	nmetric n		v		<i></i>	141.8 H (14	43.2 <sup>I</sup> )	
	- <mark>≪∫</mark> Geo	metric m	<del>cal</del> a (n=8	<b>)</b>	<i>\@</i>	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	128		

A pH medicum not stated

C Texture (ADAS) Clay Joan

D Texture (ADAS) Sidy Clay Joan

E Texture (ADAS) Sandy Joan

F DT<sub>50</sub> (20°C, pF2, Q<sub>10</sub> 238) = 235.6 day

G DT<sub>50</sub> (20°C, pF2, Q<sub>10</sub> 2.58) 23.8 days

H Endpoint according to EFSA scientiff Report (2007) formall but to pF2 and 20°C using Q10 of 2.2

Normalize oto pF2 and 20°C using Q10 of 2.8; endpoint used in PEC calculations

Tabornes AE B107137 (DFF-acid) and A dagradation data The degradation of the difflufedican metabolites AE B107137 (DFF-acid) and AE 0542291 (DFFamide) was investigated in laborator@studies at 20°C. Laboratory degradation data for the metabolites of diflufenical were kinetically evaluated and normalised (20°C, field capacity FC) according to FOCUS recommendations during the Auther I Inclusion (see Table 9.1.1-3 and Table 9.1.1-4).

B calculated by Rapporteur

C Texture (ADAS) Clay Cam
Texture (ADAS) Sith clay Loam
Texture (ADAS) Sandy loam
Texture (ADAS) Sandy loam



Table 9.1.1- 3: Summary of laboratory normalised DegT<sub>50</sub> (20 °C and pF2) values for AE B107137 (DFF acid)

<b>AE B107137 (D</b> 1	FF acid), Labor	ratory stu	<mark>idies, ae</mark> i	robic conditi	ons				, W
Soil name	Soil type (USDA)	pH (CaCl <sub>2</sub> )	T (°C)	% MWHC	DT <sub>50</sub> (d)	DT <sub>90</sub> (d)	DT <sub>50</sub> (d) 20°C pF2 / 10° kPa	St. (r²)	Kinetic Umodel
Hattersheim, SLS, D	silt loam 1	<mark>7.0</mark>	<mark>20</mark>	<mark>45</mark>	<mark>9.1</mark>	30.2	<del>7.5</del>	0.9919	SFO (
Frankfurt, SLV, D	sandy loam	<b>6.2</b>	<mark>20</mark>	45 ♥	<sup>7</sup> 17.9	59 <b>6</b>	13.9	0.9868	SFØ
Royston, Flint Hall, UK	silt loam 2	<mark>7.4</mark>	<mark>20</mark>	45°	14.5	Q 48.1	. 104 Q	0.9959	SFO O
	<mark>Arit</mark>	hmetric m	nean (n=3	3) × .		**			47
	Geo	metric m	ean (n=&		Ž.	Ž .	7 10.25	<i>L</i> .	.1

The worst-case non-normalised DT<sub>50</sub> values of 17.9 days for AE B107137 (DEF acid) was used to calculate PEC<sub>soil</sub> values in combination with the maximum amount of metabolite observed in parent studies (16.8%). The arithmetic mean normalised DT<sub>50</sub> value of 10.6 days has been used in FOCUS groundwater and surface water exposure assessments. A formation raction of 1 directly from parent was assumed for groundwater assessments.

Table 9.1.1-4: Summary of laboratory normalised DegT (20 % and F2) values for AE 0542290 (DFP amide)

	- V	41	القاء	<u> </u>	AL.V				
AE 0542291 (DF)			udies Que	robic cond	i <mark>tions</mark> 🙎				
	Soil@ype (USDA)	pff (CaCl <sub>2</sub> )	T&C)		DT50	DP <sub>0</sub>	DT <sub>50</sub> (d) <b>20°C, pF2</b> / 10 kPa	St. (r <sup>2</sup> )	Kinetic model
Hattersheim, SLS, D	silt loam 1	7.0	20°	6 45 F	13.5	45/2	<mark>11.1</mark>	0.987	SFO
Frankfurt SLV,	sandy loam	6.2	20 20		\$58.7 \$	¥ <mark>194.9</mark>	45.7	0.999	SFO
Royston, Flint Hall, UK	silt Poam 2	ZA ,		45 45 W	33.2	110.2	23.8	0.991	SFO
Q)	A rial	metri Cme	ean (n¥3)		)		<mark>26.9</mark>		
	U <sub>Z</sub> Geo	metric me	an (n=3)				23.0		

The worst-case non-normalised DT<sub>50</sub> values of \$8.7 days for AE 0542291 (DFF-amide) was used to calculate PEC<sub>soil</sub> values in combination with the maximum amount of metabolite observed in parent studies (26.3%). The aritimetic mean normalised DT<sub>50</sub> value of 26.9 days has been used in FOCUS groundwater apply surface water exposure assessments. A formation fraction of 1 directly from parent was assumed for groundwater assessments.

### CP 9.1.102 Field studie

### CP 93.1.20 Soil dissipation studies

#### Aclonifer

A terrestrial field dissipation study with aclonifen, formulated as BANDUR®, a suspension concentrate containing 600 g/L aclonifen, was conducted at four trial sites in Germany, Northern Europe. In addition, a second terrestrial field dissipation study with aclonifen, formulated as



BANDUR®, was conducted at two trial sites in Southern Europe; Almacelles in Spain and Cruas, Southern France.

Table 9.1.1-5: Summary of field DT50 values for aclonifen

Compound	F	ield dissipation DisT50 (not normalised)
	DisT50 range	Number of datasets Worst-case DisT 50 (days)
	(days)	for exposure assessment
Aclonifen	31.8 – 196.8	\$\tag{\text{96.8}} \tag{\text{96.8}}

For further information on field dissipation studies please refer to Document MCD, Section 7.12.2.1.

#### **Diflufenican**

The soil degradation of diffuserican was further investigated in two field dissipation studies with a total of 12 trial sites across Europe.

The first 6 trials have been conducted in Germany. Data for one trial at Osnabrück was excluded, due to unacceptably high data scatter. However, the results from the remaining 5 sites of this study were considered as supporting or supplementary data, as the samples were taken to britted depths of 5 cm. The further 6 trials have been conducted throughout Europe. The trial at Goch in Germany was excluded, due to unacceptably high concentrations of diffusenican in the control plots. The field dissipation data of 10 trials were kinefically evaluated and formalised to 20°C and moisture at field capacity (100 % field espacity pF2, 20°C, Qy 2.2) according standard FOCUS procedures.

To provide a conservative risk assessment, the worst-case field Disconstruction in soil, including PEC<sub>soil</sub> accumulation. However it should be noted this worst-case value is reported to be statistically not fully reliable, as it shows a very low coefficient of correlation?



Summary of field DT<sub>50</sub> values for diflufenican **Table 9.1.1- 6:** 

<b>Diflufenica</b>	n, Field studies							۰
Soil type (ADAS)	<b>Location</b>	pH (CaCl <sub>2</sub> )	Depth (cm)	DisT <sub>50</sub> (d) actual	DisT <sub>90</sub> (d) actual	St. (r <sup>2</sup> )	DT <sub>50</sub> (d) 20°C / pF2, Q <sub>10</sub> 2.2	Method of calculation
Silt loam T		7.2 <sup>n</sup>	5	214		0.86	88.4	, o , , ,
Sandy silt loam <sup>T</sup>	, D	6.5 <sup>n</sup>	<u>5</u>	245 245	D T	<b>10,87</b>	118.8	
Silt loam <sup>T</sup>	<mark>, D</mark>	6.7 <sup>n</sup>	<u>5</u>	240 240		<sup>№</sup> <mark>0.94</mark>	201.6	59 4
Silt clay loam <sup>T</sup>	, D	7.5 <sup>n</sup>	5	249 O	Q,	<mark>9.94</mark>	88.5 0	
Silt loam <sup>T</sup>	, D	5.7 <sup>n</sup>	<mark>5</mark> 🦠	° 215 °		<sup>3</sup> 0.90°	<b>3</b> 85.6 ∞	
<mark>Loamy</mark> sand	<mark>,</mark> , UK	5.8	30 C	621 <sup>Chr</sup>	2063 P	<b>9.493</b>	282.0	SFO .
<mark>Sandy silt</mark> loam	<mark>, F</mark>		(30 )	241°7′	<b>801</b>	0.796	<b>∞</b> 420 0	
Sandy loam	<mark>,</mark> NL	6.3 <sub>0</sub>	<sup>7</sup> 30 √		7 1290	<b>0</b> .495	1985 7	Š <mark>SFO</mark>
Clay	ES ,	<b>%</b> 7.6 ~ 5	⊗ <mark>JU</mark> (	P	784	0.198	<sup>0</sup> 122. <b>Q</b>	SFO
Clay loam	, I	60		© 224 °	744 «	<b>0.748</b>	<b>103.4</b>	SFO
	Geometric mean (n	<del>=</del> (5)	Q A	315		Ž,	<b>₹</b> 156.0	
	Median (n = 5)		0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<b>941</b>	7 0	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	130	

medium not resorted

# illes of the second sec CP 9.1.1.2.2

#### Aclonifen

Soil accumulation studies were carried out with aclonifer formulated as BANDUR®, a suspension concentrate containing 600 g/ aclor fren, as field DT90 values indicated some persistence leading to residual residue levels renaining one par after application under Northern European climates. Consequently, accumulation studies were conducted to determine aclonifen levels in soil following annual applications over a three year period at sites near was, Nordrhein Westfalen in Northern Bavaria in Southern Germany. No accumulation of aclonifen residues was German observed at either location.

For further information on field accumulation studies please refer to Document MCA, Section 7.1.2.2.2. The studies were waluated during the previous EU review and were accepted as plausible but were no considered difficient to address the potential accumulation of aclonifen in soil. An assessment of accumulated PECoil for a clonifen is provided in Document MCP, Section 9.1.3.

### Diflufenican

The accumulation potential of diffusenican was evaluated during the Annex I Inclusion and was accepted for the European Commission (SANCO/3782/08 – rev. 1 – 14 March 2008).

It is concluded in the EFSA Scientific Report 122 (2007) that the maximum soil concentration is 0.405 mg/kg over the top 5 cm soil layer. Plateau concentration (i.e. the maxuimum amount of diflufenican remaining immediately prior to the following years application) would be 0.245 mg/kg. Considering

statistically pot fully relieble



the worst-case soil an accumulation factor of 2.53 in the top 5 cm of soil was derived. This value is proposed for calculation of long-term PEC<sub>soil</sub> values.

Because of their short half-lives there is no possibility that degradation products of diflufenican would accumulate.

#### **CP 9.1.2 Mobility in the soil**

Studies on mobility in soil with the formulation were not performed, since it is possible of extrapolate from data obtained with the active substances.

#### **CP 9.1.2.1** Laboratory studies

#### **Aclonifen**

The adsorption/desorption characteristics of aclosifen was determined in standard batch equilibrium experiments. No correlation with soil pH was observed. For further information of laboratory studies please refer to Document MCA, Section 7.1.41.

Table 9.1.2-1: Summary of soil adsorption coefficients for actorifen

				0"	, / A.V	***	T.
Report reference	Soil Q .	Textore	ўн 🕽	∜OC (		<b>X</b> oc	<sup>◯</sup> 1/n
				) [%]	( <b>m1</b> )/g)	@mL/g)	(-)
KCA 7.1.3.1.1/01	Chazay d'Azergues	Joan &	621)**	JO	8.5	° 531%°	0.878
M-174332-01-1	(90/8)	Ť Į	W.	Ő. – – – – – – – – – – – – – – – – – – –		<b>&amp;</b>	
	Hurley (90/10)	Sandy loam	<sup>™</sup> 7.3 Д	V 1.7 Q	92.6	<b>Q</b> 447	0.885
	Speyer 2,2 (90/9)	Logony sand	5.7	<u> </u>	<b>26</b> 5.3		1.003
KCA 7.1.3.1.1/02	Laacher Hof AXXa	Sandy loam	\$#8 .	T.7	J 87.7	5156.9	0.8358
M-562667-02-1	Höfelgen am Hohensen	Silt Joan 🌣	6.2	₹ 2.0%	114,9	5594.8	0.8522
	Hørscheider Hof	Doam 5	56,	2.8	f81.5	6480.4	0.8778
	Laach@Hof Wurmwiese	Sandy loam	\$00	<i>a</i> ¥.9 ≈	<b>ॐ</b> 92.4	4863.8	0.8400
	Dolfendorf II 📡 🛴	Loâm	7.0	× 6.1 ×	252.5	4139.9	0.8615
Arithmetic mean			0	J. W	142.8	5951.6	0.8792
Geometric mean		D" "0"	<i>\(\text{\tin}\text{\tetx{\text{\tetx{\text{\text{\texi}\text{\texi}\text{\text{\texi}\text{\text{\texi{\texi{\texi{\texi{\texi{\texi{\texi{\texi{\texi{\texi{\texi}\titt{\ti}\texi{\texi{\texi{\texi{\texi{\texi{\texi{\texi</i>	, W	125.0	5727.0	0.8778

The geometric mean  $V_{cc}$  value of 5727 and arithmetic mean 1/n value of 0.88 were selected for PEC<sub>gw</sub> and PEC<sub>sw</sub> modelling.

#### **Diflufenican**

The mobility in soil of diffuserican and its degradation products AE B107137 (DFF-acid) and AE 0542291 (DFF-amide) were evaluated during the Annex I Inclusion and was accepted by the European Commission (SANCO/3/82/08) rev. 4 - 14 March 2008). Adsorption/desorption characteristics of diffuserican and its metabolites were determined in standard batch equilibrium experiments. No correlations with roll plewere observed.



Table 9.1.2- 2: Summary of soil adsorption coefficients for diflufenican

Soil name	Texture (USDA)	<mark>рН</mark>	OC (%)	K <sub>F</sub> (mL/g)	Koc (mL/g)	1/n °
Sandy loam, St. Genis les Ollières, F	Sandy loam	<mark>7.7</mark>	2.09	33.9 <sub>~~</sub>	1622	<b>6</b> 875
Loamy sand, Péage du Roussillon, F	Loamy sand	<mark>6.6</mark>	0.75	13.5	1800	( 0.917 )
Clay loam, Ongar, UK	Clay loam	<mark>6.6</mark>	1.68	39.8	2369 <sub>©</sub>	0.234 0.234
Silty clay loam, Chazay, F	Silty clay loam		2.26	<b>√</b> 48.9	2164	\$ <mark>@923</mark> \$
Ongar, Shelly Field, UK	Clay loam	<sup>©</sup> 6.2	2.4 @	≯ <mark>98.82</mark>	4748	0.90
Kissendorf, D	Silt loam	<mark>6.7</mark>	14	46.28	<b>3306</b>	
Manningtree, UK	Sandy lown	5.3	<b>3</b> %6	267.51 C	7431	9.991 D
Santilly, F	Loam	<mark>7.0</mark> ≪	0.9	39.8 <b>©</b>	<b>4</b> 328	0.940
Lleida, ES	Clay loam •	8.00	2,9	<mark>8891</mark>	3066 ×	0,9 <del>17</del>
Chazay, F	Glay logm	<u>%6.6</u>	<b>1</b> /.9	73.49	3868	0.879
Arithmetic mean (n=10)	4.0	V (	Q A		<b>3917</b>	© 0.917
Geometric mean (n=10)		Ğ		**************************************	<a>3091 </a> <a>\$\infty\$</a>	

For diflufenican the arithmetic mean Q<sub>c</sub> value of 3.417 and I/n value of 0.917 were selected for PEC<sub>gv</sub> and PEC<sub>sw</sub> modelling.

Table 9.1.2-3: Summary of soil adsorption coefficients for AE B10 137 (OFF-acid)

Soil name			exture %	pH OC		K <sub>OC</sub> (mL/g)	<mark>1/n</mark> (-)
Ongar, 98/26, UK		Q OL	oan .	97.0 \( \lambda \) 1.9	0.22	12	0.72
Beccles, 98/28, UK		' _ @	Sand 🛫	5.8 1.6C	0.44 <sup>°</sup>	<mark>7</mark>	<mark>0.99</mark>
Royston, 99/16, UK		J CI	ay loasp	<b>25</b> 4.7	<b>20.38</b>	8	0.54
Baylham, 99/17, LOK	, 4 ¢	y Sar	idy/Ioam (	6.0 1.8	0.42	23	0.68
Arithmetic mean (n=4)		<b>~</b>		O . C	7	<b>13</b>	0.734
Geometriç maan (n=4)	4 , 4J	A 8				11.1	

<sup>A</sup> Texture (ADAS) Clay loam

For AE B107137 (DFF-acid) the arithmetic mean  $K_{oc}$  value of 1/n value of 1

Table 9.1.2-4 Summary of soil adsorption coefficients for AE 0542291 (DFF-amide)

Soil name (USDA)	<mark>рН</mark>	OC (%)	K <sub>F</sub> (mL/g)	Koc (mL/g)	<mark>1/n</mark> (-)
Levington, E0703004, UK Sanity loam	<mark>6.0</mark>	0.8	1.3	<mark>160</mark>	<mark>0.80</mark>
Baylham, E160501A, UK O Sandy loam	<b>5.3</b>	1.2	1.5	127	0.84
Ongar, E2205010, UK	<mark>7.0</mark>	2.6	3.6	137	0.77
Ongar, E2205016, UK Sinfin, E070601A, UK Arithmetic mean (0=4)	<mark>6.0</mark>	3.9	4.0	103	0.85
Arithmetic mean (0=4)				132	0.815
Geometric mean (n=4)				130.2	

For  $\Delta E$  05/2291 OFF-amide) the arithmetic mean  $K_{oc}$  value of 132 and 1/n value of 0.815 were selected for  $PEC_{gw}$  and  $PEC_{gw}$  modelling.



#### **CP 9.1.2.2** Lysimeter studies

#### Aclonifen

The potential mobility of aclonifen has been assessed by modelling and therefore a lysimeter study not required.

#### **Diflufenican**

The lysimeter study performed for diflufenican was evaluated during the Annex I Inclusion and accepted by the European Commission (SANCO/3782/08 – rev. 1 – 14 March 2008). The study confirmed that, even after repeated application, neither diffusenical nor any of its degradation products were detected in the leachate at concentrations that would pose a risk to groundwater.

#### **CP 9.1.2.3** Field leaching studies

ncen assessed by modelling and therefore The potential mobility of aclonifen and diflufenicar field leaching studies are not required.

#### Estimation of concentrations in soil **CP 9.1.3**

Predicted environmental concentrations in soil (P.

#### PEC<sub>soil</sub> for Aclonifen

Data Point:	KCP 9.1.3/01 & & & & & & & & & & & & & & & & & & &
	A: A
Report Author:	
Report Year:	2019
Report Title:	Aclonifen. PECsoil in Europe - Use as spray application in legumes and winter
	kearagle in Europa
Report No:	VC(49025@ O & C & C
Document No:	M-075289-01-1
Guideline(s) followed in	Anne S S S S S S S S S S S S S S S S S S
study:  Deviations from current test guideline:  Prayious evaluation:	chone of the second sec
Deviations from current	Current guideline: FJU Commission (1995, and 2000). FOCUS (1997 and 2014)
test guideline:	Nodeviation & S Q
	Two, not spectromary submatted of
GLP/Officially	No pot conducted under @P/Officially recognised testing facilities
recognised testing	No pot conducted under (a) P/Officially, recognised testing facilities
Tacilities:	
Acceptability/Reliability:	Yes

The predicted environmental concentrations in soil (PEC<sub>soil</sub>) of aclonifen was estimated as follows using the standard approach for legumes and winter cereals. The results for winter cereals are summarised below. Calculations assumed an even distribution of the compound in upper 0-5 cm soil layer following application and a soil density of 1.5 g/cm<sup>3</sup>. A simple Excel spreadsheet was used for the calculations

The use of actionife from winter cereals was assessed according to the Good Agricultural Practice (GAP) as summarised below.



	• •			S	•	-
Individual crop	FOCUS crop	Rate	Interval	Plant interception	BBCH stage	Amount . reaching wil
		g/ha	(days)	(%)	(-)	g/hav
Winter Wheat	Winter cereals	350	-	0	0003	<b>85</b> 0 5
Winter Wheat	Winter cereals	175	_	0	Ø6-13	7175.

Table 9.1.3-1: Application data of aclonifen according to the use pattern in Europe

The calculations were based on the maximum intended application rate together with the maximum intended number of applications per season and (for multi-application sequences) the minimum interval between the applications. Crop interception was taken into account according to the BBCH growth stage, as recommended by FOCUS (2014).

Substance parameters used as input in the calculations are summarised in Table 9.125-2. The worst-case DT<sub>50</sub> field value of 196.8 days was selected for the PEC calculations.

Table 9.1.3-2: Compound and scenario input parameters as used for the calculation

Compound	Molar mass	(%)	DT50 (days)	Molar mass corr. Sactor (-)
Aclonifen	264.7		_£36.8	. × 1.0
Soil bulk density (g cm <sup>-3</sup> )				,
Son mixing acpui (cm)	5 0			<b>Y</b>
Tillage depth for plateau (if relevant) from	20	o * ~		

Standard PEC<sub>soil</sub> calculations use the soil mixing lepth of 5 cm for the calculation of the maximum concentrations. For the cases where the agricultural practice involves deep soil tillage (or other mixing process), the effect of the soil processing is taken into account for the assessment of long-term behaviour of the respective substance. In such case, a tillage depth of 20 cm is used for the evaluation of background soil concentrations. The details of the calculation can be found below.

A 1st tier estimation of the initial PECs concentration s done using the equation

$$PEC_{\text{soil}} = \frac{\mathbf{A} \cdot \mathbf{f}}{\rho_{\text{soil}} \cdot \mathbf{d}}$$
 (1)

with A being the normal angle field apprication rate of the fraction reaching soil surface (taking into account crop interception factors according to FOCUS),  $\rho_{soil}$  the dry soil bulk density, and d the thickness of the soil layer.

In single application scenarios, the initial PECO value is equal to the overall maximum. For multiple (n) applications with constant application rate, crop interception, and application interval, the maximum PECO can be written as

$$PEC_{\text{soil,max}} = \frac{A \cdot f}{\rho_{\text{soil}} \cdot d} \cdot \frac{1 - e^{-k \cdot n \cdot \Delta t}}{1 - e^{-k \cdot \Delta t}}$$
(2)

where  $\Delta t$  the application interval and k is the first order degradation rate, calculated from the soil halflife (DC as

$$k = \frac{\ln 2}{DT_{50}} \tag{3}$$



For multiple (n) applications with variable application rate, crop interception, or application interval, the PEC<sub>soil</sub> just after the application (i) can be calculated stepwise as

$$PEC(i)_{soil,max} = \frac{A(i) \cdot f(i)}{\rho_{soil} \cdot d} + PEC(i)_{soil,co}$$

where PEC<sub>soil,co</sub> represents the residue from the preceding applications at the time of the actual application. For the first application, PEC<sub>soil,co</sub> is zero, for the following applications of the written as

$$PEC(i)_{soil,co} = PEC(i - 1)_{soil} \cdot e^{-k\Delta t(i)}$$

with  $\Delta t(i)$  being the time interval between applications (i–1) and (i). PEC  $s_{oil,max}$  then defined as the maximum of the individual PEC  $s_{oil}$  values.

#### **Concentrations over time**

For first-order kinetics with a degradation rate the declining PEC value after the maximum can be calculated by

$$PEC(t) \checkmark PEC_{max} \cdot e^{-t/t}$$
 (7)

For a better companion of exposure and effect data time-weighted average concentrations (TWA) may be useful. For first-order kinetics, the TWA are given by the following formula.

$$TWA(t) = PEC_{max} \cdot \frac{1}{k \cdot t} \cdot (1 - e^{-kt})$$
(8)

#### Accumulation after long teros use

Potential accumulation after long term use is also assessed, based on the maximum PEC<sub>soil,max</sub> concentration of the respective compound, obtained as described before.

In case of a single application for a moltiple application sequence leading to the maximum PEC<sub>soil</sub> after the last application), it can be shown that the maximum concentration in soil after perpetual use (PEC<sub>soil</sub> can be expressed as

$$\widetilde{\text{PEC}}_{\text{soil,max}} \cdot \frac{1}{1 - e^{-k \cdot t}} \tag{9}$$

where t is the number of easy between two events where  $PEC_{soil,max}$  is reached, *i.e.*, 365 days for yearly applications, 730 days for bi-yearly applications, *etc.* This  $PEC_{soil}$  value is based on a normal mixing depth. In the case of a multiple application sequence leading to the maximum  $PEC_{soil}$  before the last application another approach has to be used.

The concentration in soil after an infinite number of applications and immediately before the application in the last year (the so called plateau concentration PEC<sub>plateau</sub>) can be written as



$$PEC_{plateau} = PEC_{soil,accu} \cdot \frac{d}{d_{accu}} \cdot e^{-k \cdot t}$$
 (10)

This formula can take the effect of deep soil tillage (or another mixing process) into account by distributing the soil residue amongst larger amounts of soil (larger soil mixing depth daccount), 20 cm). In the absence of such mixing process, the factors involving mixing depth cancel out The total PECsoil taking the effect of accumulation into account is then the "Sum of PECshateau maximum PEC<sub>soil</sub>, as defined previously.

$$PEC_{soil,total} = PEC_{plateau} + PEC_{soil,max}$$

$$(11)$$

 $PEC_{soil,total} = PEC_{plateau} + PEC_{soil,max}$ The plateau concentration is driven by the dissipation  $DT_{50}$  in soil. The ratio between maximum  $PEC_{soil}$  due to actual application and the respect to plateau as  $T_{50}$  and  $T_{50}$  in soil. The plateau concentration is driven by the dissipation  $DI_{50}$  in soil. The ratio between maximum PEC<sub>soil</sub> due to actual application and the respective plateau concentration (taking effect of allage into account here) can be written as  $\frac{PEC_{plateau}}{PEC_{soil,max}} = \frac{e^{-k \cdot t}}{1 - e^{-k \cdot t}} \cdot \frac{d}{daccu}$ Inspection of Equation (12) shows that this ratio is independent of the application rate. For a  $DI_{90}$  of less than a year, the plateau concentration is marginal (< 3% of actual PCC<sub>soil</sub> for t = 5 cm and

Detailed results (maximum, short-ferm and long-ferm PEC and TWA, and accumulation values) for individual uses are provided in the following tables. less than a year, the plateau concentration is marginal (< 3% of actual POEC soil of for d/= 5 cm and  $d_{accu} = 20$  cm). It is thus deemed appropriate to neglect the plateau concentration in such a case.



Table 9.1.3-3: PEC<sub>soil</sub> of aclonifen 1 x 350 g ha<sup>-1</sup> pre- and post-emergence on cereals

PEC <sub>soil</sub> (mg/kg)		Winter cereals 1 x 350 g/ha (0% intercept)					
		Single ap	plication	Multiple a	pplications		
		Actual	TWA	Actual	TXX		
Initial		0.4667		N/X	*N/A, *\$**		
Short term	24 h	0.4650	0.4658	4			
	2 d	0.4634	0.4650				
	4 d	0.4601	<b>%</b> 4634				
Long term	7 d	0.4553	<b>3</b> 0.4610				
	14 d	0.4442	( 0.4553 (				
	21 d	0.4334	0.4498	ر آ			
	28 d	0.4228	0.4444				
	42 d	0.4025	0.4338				
	50 d	0.391	©° 0.4 <b>25</b> 79 ≤				
	100 d	0.32® <sup>*</sup>	U 0.3933 💸	Y OF S	d. A		
Plateau o	concentration (20cm)	0,0446	. Ø - Q,	N/A (	)		
	PECaccumulation	(O) 5 1 1 2 Y		, Q/A «	NI/ACC		
(PEC	Cact + PEC <sub>soil</sub> plateau)	W.3113		N/A	N/A		

Table 9.1.3- 4: PEC<sub>soil</sub> of actonifen 1 x 175 g ha post-emergence on vereals

PEC <sub>soil</sub> (mg/kg)		Winter cereals 1 x 475 g/ha/10% intercept)					
		Single ap	plication V	Multiple a	plications		
		Actual	TWA	Axtual	TWA		
Initial	4	() 23as a		∜N/A\$\$	N/A		
Short term	4 h	9 0.2325 P	×9.2329	& .~.			
[	d of	9 0.2325 9 0.2325 9 0.2317	<b>2</b> 0.2325	0" &"			
4	d\$ - \$	0.2301		Q <sub>I</sub>			
Long term 7		0.227	y 0 <b>3</b> 305 0	Z,			
	Ad S	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	>0.2277	***			
Short term  Long term  2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	21 d×	× 107 6	0.2217 0.22277 0.2220	$\mathbb{Z}$			
2	28, d , 9	△0.21 <b>(</b>	© 0.2222 °	p			
4	Žd Š	0.2012	· • • • • • • • • • • • • • • • • • • •				
	70 d 🔊 🔊   ^	° 0,4,957 ° 0	<sup>≪</sup> Ø.2139				
~~~~1	28 d	. O.1641					
Piateau concenti	ragion (Zuczm)	√ <sub>2</sub> 10.02,21,39	0' %	N/A	N/A		
A A	PECaccinaulation	O 3050 Q	F -	NT/A	NT/A		
(PCCact + P	C <sub>soil</sub> (plateau)	0 3 56 5	<i>∞</i> -	N/A	N/A		

Overview of maximum PEC<sub>sot</sub> values of actonifer for all use patterns under consideration is shown below.

Ø,	Use pattern	Aclonifen (mg/kg)
1	x 350 g/ha spray weatment on Winter cereals	0.4667
1	175 Ta spray treatment on Winter cereals	0.2333

The accumulation potential of aclonifen after long term use was also assessed, employing the larger soil depth for the calculation of the background concentration in cases where tillage is relevant. The results are presented below.



Use pattern	PECsoil	Aclonifen (mg/kg)
Winter cereals 1 x 350 g/ha	Plateau (20cm) Total (20 + 5 cm)	0.0446 0.5113
Winter cereals 1 x 175 g/ha	Plateau (20cm) Total (20 + 5 cm)	0.0223 0.2556

#### PECsoil for Diflufenican

	Use pattern	PECsoil	Aclonifen (mg/kg)	
Winter o	ereals 1 x 350 g/ha	Plateau (20cm) Total (20 + 5 cm)	0.0446 0.5113	
Winter o	ereals 1 x 175 g/ha	Plateau (20cm) Total (20 + 5 cm)	0.0223 0.2556	
PEC <sub>soil</sub> for Diflufenican				
Data Point:	KCP 9.1.3/02			
Report Author:				
Report Year:	2015			<b>*</b>
Report Title:	Diflufenican (DFF) and crops in Europe	I metabolites PECs of EU	Use in winte	rcereals; arable •
Report No:			» , O" «	
Document No:	M-510301-01@			
Guideline(s) followed in study:	M-510301-010			
Deviations from current	Current guideline: EU	Commission (1995 and 2)	000), <b>E</b> OCUS 49	97 and 2014)
test guideline:	No deviation V			&
Previous evaluation:	No rot previously sub			
GLP/Officially	No, not conducted und	GLP/Officially recogni	sed testing facilit	ies
recognised testing facilities:		GLP:Officially recogni		
Acceptability/Reliability:	Yes	<del>3</del> 3 0 (	) *\	

The predicted environmental concentrations in soil (PECS) of difflufenican and its metabolites were estimated as follows using the standard approach for winter cereals. The results are summarised below. Calculations assumed an even distribution of the compound in upper 0-5 cm soil layer following application and a soul density of 4.5 g/cm<sup>3</sup>. A simple Excel spreadsheet was used for the actonifen.

The use of difflufenican on winter cereals was assessed according to the Good Agricultural Practice (GAP) as summarised below.



Table 9.1.3- 5: Application data of diflufenican

<mark>Individual</mark> crop	FOCUS crop	Rate	Interval	Plant interception	BBCH stage	Amount . reaching fil
		<mark>g/ha</mark>	(days)	<mark>(%)</mark>	<b>(-)</b>	g/brav
Winter Wheat (GAP)	Winter cereals	<mark>70</mark>	-	0	00 <b>0</b> 3	
Winter Wheat (GAP)	Winter cereals	35	-	0	00-13	35,7 7 2,7 2,8
Winter Wheat (Simulation)	Winter cereals	80	-	<mark>0</mark>	00-30	\$\frac{780}{2}\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\t
Winter Wheat (Simulation)	Winter cereals	<mark>60</mark>		0	11-30	<b>60</b> 0

Plant interception is decided based on BBCH growth stage. The difference in BBCH stages between the GAP and the simulation has no impact as plant interception is set to zero.

The calculations conservatively cover the maximum intended application rates together with the maximum intended number of applications per season. Crop interception was taken into account according to the BBCH growth stage, a recommended by EOCUS 2014x

Substance parameters used as input in the falculations are summarised in Table 9.13-6. The worst-case non-normalised field DT<sub>50</sub> value of 621 days was selected for the PEC of calculations with diffusenican and worst-case non-normalised taboratory Dr 50 values of 17.9 and 58.7 days were selected for the diffusenican metabolities AF B107137 (DFF acida and AE 0542291 (DFF-amide). The DT<sub>50</sub> values and maximum occurrence of metabolities in soil are consistent with those provided in the EFSA Scientific Report 122 (2007), 1-83 for diffusenican.

Table 9.1.3- 6: Compaind and scenario input parameters as used for the calculation

Compound  Molar mass  In soil  (days	corr factor
Diflufenican 3943 P00 C 621	1.0
AE B10713 (DFF-acid) & \$\sqrt{283}  \text{16.8}  \text{17.9}	0.7177
AE 0542291 (DFF-amide) 58.7	0.7152
Soil bulk density (g cm <sup>3</sup> ) L C L5	
Soil mixing depth (gm) A & 5	
Tillage depth for plateau of relevant) (co) 20 7	

A Worst case non normalised fiel DT50, statistically not fully reliable, low r2

Standard PEC<sub>soil</sub> calculations use the soil mixing depth of 5 cm for the calculation of the maximum concentrations. For the cases where the agricultural practice involves deep soil tillage (or other mixing process), the effect of the soil processing is taken into account for the assessment of long-term behaviour of the respective substance. In such case, a tillage depth of 20 cm is used for the evaluation of background soil concentrations.

Detailed results (maximum, short-term and long-term PEC and TWA, and accumulation values) for individual uses are provided in the following tables.



Table 9.1.3-7: PEC<sub>soil</sub> of diflufenican 1 x 80 g ha<sup>-1</sup> pre- and post-emergence on cereals

PECsoil (mg/kg)		Winter cereals 1 x 80 g/ha (0% intercept)  Single application  Multiple applications					
		Single ap	plication	Multiple applications			
		Actual TWA		A at			
<b>Initial</b>		0.107	-	N/A	W/A, H		
Short term	24 h	<mark>0.107</mark>	0.107				
	2 d	<mark>0.106</mark>	<mark>0.107</mark>				
	<mark>4 d</mark>	<mark>0.106</mark>	₾ <mark>3.106</mark>				
Long term	<mark>7 d</mark>	<mark>0.106</mark>	<b>₹0.106</b>				
	14 d	<mark>0.105</mark>	0.106 0.105				
	21 d	<mark>0.104</mark>	©″ <mark>0.105</mark>				
	28 d	0.103	0.105				
	42 d	0.103 0.102	0.104 × ~				
	50 d	<mark>0.10</mark> ₺	& ° <mark>0.1394</mark>				
	100 d		Ŭ <mark>9</mark> ;¥01 💸		r. A .		
Plateau	concentration (20cm)	<mark>0.212</mark>	0.105 0.104 0.104 0.164 2 0.104 2 0.101		ON/A		
	PEC <sub>accumulation</sub>			N/A	N/A		
(PE	C <sub>act</sub> + PEC <sub>soil</sub> plateau)						

netabolities are vale the lower rate of 35 g PEC-accumulation (2021)

(PEC-act PTEC-accumulation (2021)

(PEC-accumulation (2021)

(PEC-act PTEC-accumulation (2021)

(PEC-accumulation (2021)

(P



Table 9.1.3- 8: PEC<sub>soil</sub> of diflufenican 1 x 60 g ha<sup>-1</sup> post-emergence on cereals

PEC <sub>soil</sub> (mg/kg)		Winter cereals 1 x 60 g/ha (0% intercept)  Single application  Multiple applications  Actual				
			Single application			
		Actual   I WA   Actuany		10% A		
<b>Initial</b>		0.080	-	N/X	N/A, N	
Short term	24 h 2 d	<mark>0.080</mark> 0.080	0.080 0.080		N/A G	
Long term	<mark>4 d</mark> 7 d	0.080 0.079	<b>©</b> .080 <b>™</b> 0.080			
zong verm	14 d 21 d	0.070	0.079 0.079			
	28 d	0.078	0.079			
	42 d 50 d	<mark>0.07</mark> €	0.078 0.058 V 9.076			
	100 d	0.07Q	<b>9</b> 976 2	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	<u>, , , , , , , , , , , , , , , , , , , </u>	
Plateau	concentration (20cm)	<u>0.159</u>	1 _ @ <mark>-</mark>	NA C	ON/A	
(PE	PEC <sub>accumulation</sub> Cact + PEC <sub>soil</sub> plateau)	0.239		N/A S	N/A	

PEC<sub>soil</sub> values for diflufenican and its metabolies are calculated for an application rate of 60 g a. s. a which is higher than the lower rate of 35 g a.s./ha applied via AGL+DFF SC 600 and thus covers the actual application rates of ACL+DFF SC 600

Table 9.1.3- 9: PEC<sub>soil</sub> of AE B107137 (DFF<sub>racid</sub>) following application of diffusenican 1 x 80 g hat pre- and post-emergence on cereals

	<u> </u>				
PEC <sub>soil</sub> (mg/kg)				g/ha 6% interce	<mark>ept)</mark>
		Single a	<b>Marien</b>	. 9	<b>pplications</b>
		Actual &	TWA	Actual	TWA
Long term Q	7 d 15 d 21 d 28 d 42 d 50 d 700 d	0.011 0.011 0.007 0.006 0.004 0.003 0.002	0.012 0.012 0.010 0.010 0.009 0.008 0.008	O <mark>N/A</mark>	N/A
Plateau conce	entration (20cm)	<b>≈0</b> 001≈		<u>-</u>	N/A
4	PEC <sub>accumpation</sub> PEC <sub>soil</sub> plateau)	O ON 2	- -	N/A	N/A

PEC<sub>soil</sub> values for diffusine an and its metabolites any calculated for an application rate of 80 g a.s./ha which is higher than the maximum rate of 70 g a.s./ha and the lower rate of 35 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of ACL+DFF C 600



# Table 9.1.3- 10: PEC<sub>soil</sub> of AE B107137 (DFF-acid) following application of diflufenican 1 x 60 g ha<sup>-1</sup> post-emergence on cereals

PECsoil (mg/kg)		Winter cereals 1 x 60 g/ha (0% intercept)				
			Single application		pplications	
		Actual	TWA	Actual	TWA O	
<b>Initial</b>		0.010	_	« <mark>N∕A</mark>	N/A	
Short term	24 h	<mark>0.009</mark>	<mark>0.009</mark>	AN/A	NAC S	
	<mark>2 d</mark>	<mark>0.009</mark>	<b></b>			
	<mark>4 d</mark>	<mark>0.008</mark>	<b>₹<mark>0.009</mark></b>			
Long term	<mark>7 d</mark>	<mark>0.007</mark>	0.008			
	<mark>14 d</mark>	<mark>0.000</mark>	© 0.007 5♥			
	<mark>21 d</mark>	0.004 0.003	<b>0.00</b> 7			
	<mark>28 d</mark>		0.006			
	<mark>42 d</mark>	<mark>0.00</mark> 2	0.0 <mark>05</mark> V 0.004			
	<mark>50 d</mark> _	0.00 <b>0</b> ″	<b>P 0,004</b>		L A .	
	100 d	<mark>&lt;<u>0</u>4001                                  </mark>	0.005 0.005 0.002 0.002			
Plateau	concentration (20cm)	<mark>≪0.001</mark> ~		F\> <b>\</b> \ <b>\</b> \'A √ ,	N/A	
(PE	PEC <sub>accumulation</sub> C <sub>act</sub> + PEC <sub>soil</sub> plateau)	0.040		N/A	N/A N/A	

PEC<sub>soil</sub> values for diflusenican and its metalgolites are calculated for an application rate of 60 g as /ha which is higher than the lower rate of 35 g a.s./ha applied via AOL+DFF SC 600 and thus covers the actual application rates of ACL+DFF SC 600

Table 9.1.3-11:

PEC<sub>soit</sub> of AE 9542291 (DFF amide) following application of difflufenican 1 x 80 g Ha<sup>-1</sup> pre- and post-emergence on cereats

	<del></del>	~~ (/)		. * * * * . * . * . * . * . * . * . * .	
PEC <sub>soil</sub> (mg/kg)		Wij	nter cereals 1 x 8	g/ha/0% interce	<mark>ept)</mark>
Initial Short term		Single ap	plication O	Martiple a	pplications
	<u> </u>	Actual	TYVA ,	<b>Actual</b>	TWA
Initial State of the state of t		0.020	y <mark>z</mark>	N/A	N/A
Short term O	2 d 🗸	) <u>19:020</u>	0.020 0.020 0.020	<b>V</b>	
	4 d	0.020 0.019 0.018 0.018	0,920 ~		
Long term	2 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2 4 d 2	0.018 0.017	0.019 0.018 4 0.048		
*	21 d 28 d 28 d 50 d	. 0.016 V			
	7 28 d	« " <mark>0.0.1,4</mark> 0°			
		0.014 0.014 0.0012 0.006	0.015		
·	1000	<u>എ<sup>6.006</sup>ത്</u>	© 0.012		
Plateau con	centration (20cm)	€0.000 • • • • • • • • • • • • • • • • • • •	W.//	<mark>-</mark>	N/A
	PEC <sub>soi</sub> plateau	0°000 0 0000	- -	N/A	N/A

PEC it values for diffuserican and its metabolitecture care care than the maximum rate of 70 g a.s./ha and the lower rate of 30 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus covers the actual application rates of 20 g a.s./ha applied via ACL+DFF SC 600 and thus actual application rates



# Table 9.1.3- 12: PEC<sub>soil</sub> of AE 0542291 (DFF-amide) following application of diflufenican 1 x 60 g ha<sup>-1</sup> post-emergence on cereals

PEC <sub>soil</sub> (mg/kg)		Winter cereals 1 x 60 g/ha (0% intercept)				
		Single application		Multiple a	pplication	
		Actual	TWA	Actival	TWA P	
<b>Initial</b>		0.015	-	<sub>∜</sub> N/A	N/A	
Short term	<mark>24 h</mark>	<mark>0.015</mark>	0.015	A <mark>N/A</mark>	NACT OF STATE OF STAT	
	<mark>2 d</mark>	<mark>0.015</mark>	<b>0</b> .015			
	<mark>4 d</mark>	<mark>0.014</mark>	<b>₹</b> 0.015	Q. a.	9 J	
Long term	<mark>7 d</mark>	<mark>0.014</mark>				
	<mark>14 d</mark>	0.015	0.014 0°			
	<mark>21 d</mark>	0.012	0.013			
	<mark>28 d</mark>		0.013			
	<mark>42 d</mark>	<mark>0.00</mark> %	O 0.002 V Sell			
	<mark>50 d</mark> _	0.000	<b>9</b> ,611		L A co	
	100 d	<mark>0.1005</mark> &	0.002 0.002 0.009 0.009			
Plateau Plateau	concentration (20cm)	<b>80.001</b>	~ <del>*</del>	►	N/A	
	$\frac{\text{PEC}_{\text{accumulation}}}{\text{C}_{\text{act}} + \text{PEC}_{\text{soil}} \text{ plateau})}$	l o nasy ,		WN/A P	Ç <mark>NQ.</mark>	
(PE	$C_{act} + PEC_{soil} plateau$	Q V.				

PEC<sub>soil</sub> values for diflusenican and its metalsolites are calculated for an application rate of 60 g as /ha which is higher than the lower rate of 35 g a.s./ha applied via AQL+DFF SC 600 and thus covers the actual application rates of ACL+DFF SC 600

An overview of the maximum PEC<sub>sol</sub> values of diffuser and its metabolites AE 107137 (DFF-acid) and AE 0542291 (DFF-amida) for all use patterns under consideration is shown below.

Diffuserican (DfV-acid) (mg/kg)	AE 0542291 (DFF-amide) (mg/kg)
1 x 80 g/ha spray treatment on Winter cereals $\sim$ 0.107 0.013	0.020
1 x 60 g/ha spray reatment on Winter ceneals 0.010	0.015

The accumulation potential of diffuseries an after long term use was also assessed, employing the larger soil depth for the calculation of the background concentration in cases where tillage is relevant. The results are presented below.

Use pattern PEGoil	Fiflufenican (mg/kg)	AE B107137 (DFF-acid) (mg/kg)	AE 0542291 (DFF-amide) (mg/kg)
Winter cereals 1 x 80 g/ha Plateau (200m)	<mark>0.212</mark>	<0.001	< 0.001
$\sqrt{20}$ $\sqrt{20}$ $\sqrt{5}$ cm $\sqrt{10}$	<b>0.319</b>	0.013	0.020
Winter cereals 1 x 60 gata  Plateau (20cm)  Total (20 + 50 m)	0.159	< 0.001	< 0.001
Total 20 + cm)	0.239	0.010	0.015

In the EFSA Scientific Report 122, 2007), 1-84 the maximum PEC<sub>soil</sub> for diflufenican is derived from a field soil accumulation study (2007), 1-84 the maximum PEC<sub>soil</sub> for diflufenican is derived from E, 1991, M-176400-01-1) conducted at 6 sites in the UK, The maximum concentration detected in the accumulation study (6.33 μg/cm² for sampling conducted over 0-30 cm soil depth) was converted to a concentration of 0.844 mg/kg in 0-5 cm soil depth in the Juflufenican, DAR [6.33 μg/cm² / 7.5 = 0.844 mg/kg in 5 cm soil assuming a bulk density of 1.3 g/cm²]. As the application rate in the accumulation study was 250 g a.s./ha, the soil concentration was reduced pro rata for an application rate of 120 g a.s./ha [0.844 mg/kg x 120/250 = 0.405 mg/kg]. This value (0.405 mg/kg) has been used in the Document MCP Section 10 as a worst-case PEC<sub>soil</sub> values for diflufenican.



#### PEC<sub>soil</sub> of ACL+DFF SC 600

PEC<sub>soil</sub> for the formulation is calculated using a standard approach with 5 cm mixing depth and soil density of 1.5 kg/L. Crop interception is not considered. No degradation data is available for the product. Therefore, TWA, plateau, and accumulation concentrations are not calculated, and depth is not relevant here.

Table 9.1.3- 13: PEC<sub>soil</sub> for ACL+DFF SC 600 on cereals

Preparation	Application rate (g/ha)	PEC <sub>act</sub> (mg/kg)	PEC <sub>twa</sub> 21 d	Tillage depth (cm)	PEC <sub>soil,platear</sub> (mg/kg)	PECact Stateau (mg/kg)
ACL+DFF SC 600	861 <sup>A</sup>	1.148	4 -	Q <mark>f</mark> &°	4- 4	

A Based on a product density of 1.230 g/mL, a maximum application rate of \$\infty\$0.7 L, \$\infty\$0duct/ha and 0\infty\$ crop interception

#### CP 9.2 Fate and behaviour in water and sediment

Studies on fate and behaviour in water sediment systems with the formulation were not performed since it is possible to extrapolate from data obtained with the active substances.

#### Aclonifen

The fate and behaviour of aclorifen in aquatic systems has been investigated under abjotic and biotic conditions in a series of laboratory studies. A number of studies were submitted for the first inclusion of aclonifen into Annex I of Council Directive \$1/414/EEC and reviewed under uniform principles (DAR, Germany, 2006). In addition a number of new studies are provided for the current EU review. All valid environment fate studies are considered in the MCA 7 dossier.

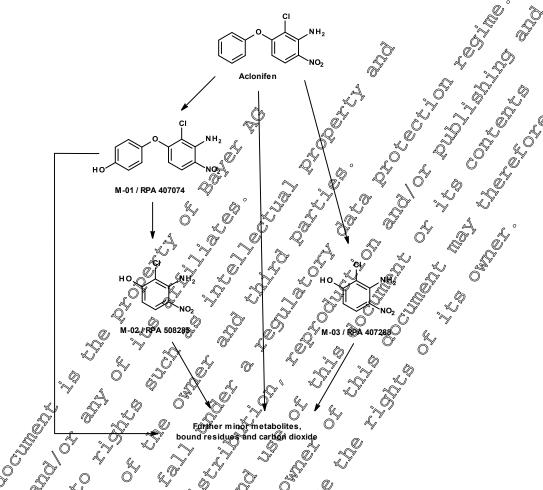
Under sterile aqueous conditions, at temperatures of 22°C, 50°C and 00°C, defonifen was found to be hydrolytically stable at pfv 5, 7 and 9. The photolytic degradation of [aniline-UL-\frac{14}{C}]-aclonifen in water has been investigated under sterile conditions in phosphate buffer solution at pH 7. Aclonifen exhibited slow degradation when irradiated in sterile pH 7 buffer solution at 25 °C, with up to 88 % of applied radioactivity still recovered as parent at the end of the study after 16 days (equivalent to 30 days natural sunlight). No major (>10%) metabolites were formed by photolysis in water. In aerobic mineralization studies treated with [aniline-UL-\frac{14}{C}]-aclonifen, the metabolites M-01 and M-02 were observed as major metabolites (\geq \frac{10}{C})%).

Water sediment studies have been conducted with  $^{04}$ C-actonifen, uniformly labelled in either the phenoxy or aniline rings. In water/sediment systems actorifen was readily degraded with total system  $DT_{50}$  values ranging from 5 to 44 days. The compound dissipated rapidly from the water phase with  $DT_{50}$  values of between  $^{\circ}$  to  $^{\circ}$  days. Once deposited in the sediment, parent continued to degrade over time with  $DT_{50}$  values of between  $^{\circ}$  to  $^{\circ}$  days.

In water sediment systems treated with [aniline-UL-14C]-aclonifen, M-01, M-02 and M-03 were observed as minor metabolites. The combined sum of the cleaved metabolites M-02 and M-03 observed throughout the water sediment study was at a maximum of only 4%. No significant metabolites were observed in water sediment studies treated with [phenoxy-UL-14C]-aclonifen. Formation of unextractable bound residues in sediment was the major metabolic pathway in aquatic systems. Under sterile conditions, aclonifen was relatively stable confirming that its metabolism is largely microbially mediated Non-extractable sediment bound residues were observed under sterile conditions at bouch lower levels than observed in microbially viable systems, indicative of metabolites of actionism also binding to the sediment matrix with time in microbially active systems. The metabolic pathway for aclonifen in aquatic systems is shown below.



Figure 9.2-1: Metabolic pathway for aclonifen in surface water



A new kinetic evaluation of the experimental data generated in two water sediment studies KCA 7.2.2.3/01 and KCA 7.2.2.3/06 has been conducted according to OCUS kinetics guidance with the aim of deriving DT<sub>5</sub> values for use as modelling and trigger endpoints ( & 2019, KCA 7.2.2.3/08). The geometric mean modelling endpoints DT<sub>50</sub> values for aclonifen are summarised in the table below.

Table 9.2-1: Summary of modelling endpoint DT<sub>50</sub> values for aclonifen in aquatic / sediment systems

Compound	Laboratory modelling endpoint DT50 (20 °C)				
4	DT range	Number of datasets (n)	Geometric mean DT <sub>50</sub> (days) for exposure assessment		
Total system	4.80@43.81\$	4	14.4		
Water phase	\$\hat{3} -3,39	4	1.7		
Sediment	\$ \text{3.43} \tag{9.49}	4	26.1		

Diflutenican

The fate and behaviour of diffusenican in aquatic systems has been investigated under abiotic and biotic conditions in a series of laboratory studies. The studies were evaluated during the Annex I Inclusion and was accepted by the European Commission (SANCO/3782/08 – rev. 1 – 14 March 2008).

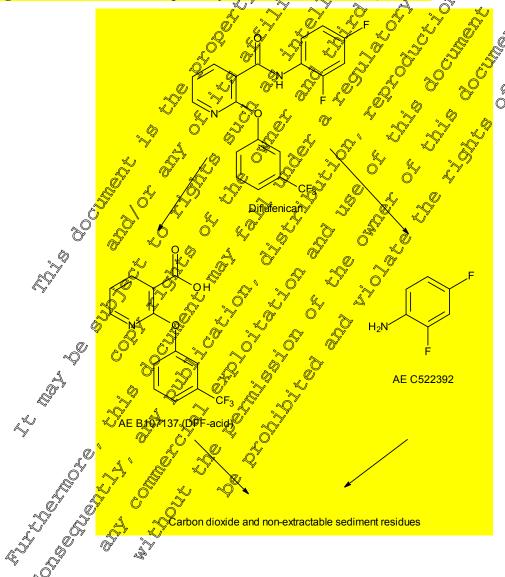


Diflufenican is stable to hydrolysis at pH 5, 7 and 9 under sterile aqueous conditions. The photolytic degradation of [pyridyl-2-<sup>14</sup>C]-diflufenican has been investigated under sterile conditions in aqueous phosphate buffer solution at pH 7. Diflufenican exhibited slow degradation when irradiated in sterile pH 7 buffer solution at 25 °C with a DT<sub>50</sub> value of 133 days (equivalent to 259 days of 50°N UK summer sunlight). No major (>10%) metabolites were formed by photolysis in water. The metabolite AE B107137 (DFF acid) was also hydrolytically stable at pH 5, 7 and 9 and photolytically stable at pH 7.

Water sediment studies have been conducted with <sup>14</sup>C-diflufenican, labelted in either the pyridine of 2,4-difluorophenyl rings. In water/sediment systems diflutenican was degraded with total system DJ values ranging from 90 to 345 days. The compound dissipated rapidly from the vater phase via a combination of partitioning to sediment and degradation.

AE B107137 (DFF-acid) was observed as a major metabolite at a maximum of 32.6% AR in water, 13.3% AR in sediment and 45.9% AR in the total system. AE C522392 was observed as a minor metabolite. The metabolic pathway for diflufencian in aquatic systems is shown below.

Figure 9.2- 2: Metabolic pathway for diflutenican in surface water





# Table 9.2- 2: Summary of modelling endpoint DT<sub>50</sub> values for diflufenican in aquatic / sediment systems

Compound	Labor	ratory modelling endpoint DT <sub>50</sub>	(20 °C)
	$\frac{\text{DT}_{50} \text{ range}}{\text{(days)}}$	Number of datasets (n)	Geometric mean DT (days)
Total system	90 - 345	4	175

### **CP 9.2.1** Aerobic mineralisation in surface water

This study is a new requirement under **Commission Regulation (EU)** No 284/2013 Two as robic mineralisation studies (OECD 309) with aclonifen were performed for Annex 1 Renewal, a chelagic test system KCA 7.2.2.2/01 (Mislanker S. & D., 2016 M-55) 20-01(2)) representative of the water column of the open waters or oceans and a suspended column test system KCA 7.2.2.2/02 ( COECD Test Guideline 309.

In the 'pelagic' test system the aerobic mineralisation of aclorifen was investigated in natural water at pH 7.1. The results indicated that aclorifen was slowly degraded in both low and high concentration tests but did not significantly mineralise (<1% ARS over the study duration. D\$50 values for aclonifen in pelagic water were 205.5 and 367 days. The aclonifen metabolite M-01 was formed at a maximum of 10% AR along with 3 other minor undentified metabolite X-01.

However exposure of aclonifen to open water is not expected as the compound  $\Phi$  very strongly adsorbed (mean  $K_{oc} > 5500$ ) & immobile in soil. Any residues unintentionally reaching surface waters will not reach open water such as lakes, reservoirs, esquaries of the sea.

In the 'suspended sectionent' sest system the aerobic mineralisation of acloraten was investigated in natural water at pH 69. The results indicated that acloraten was reachly metabolised in both low and high concentration fests but did not significantly mineralises 5% AR) over the study duration. DT50 values for acloraten in suspended sediment water were 25% and 99.2 days. The aclonifen metabolite M-02 was formed at a maximum of 17% AR in flasks treated with [aniline-UL-14C]-aclonifen. No significant metabolites were observed in flasks treated with [phenoxy-UL-14C]-aclonifen.

For further information on activities present to Document MCA, Section 7.2.2.2

#### 

#### Aclonifen

Water sediment studies KCA 7Q.2.3/Q (Eq. P. E., 2000, M-199647-01-1) and KCA 7.2.2.3/Q (D., 2019, M-674479-01-1) have been conducted with [14C]-aclonifen, uniformly cabelled in either the phenoxy or aniline rings. Aclonifen reached a maximum of 61.0% of applied radioactivity (AK) in the sediment at day 3 before declining to 4.1% at 100 days.

Aclonifen was regraded by hydroxylation to form M-01 and hydrolysis (of aclonifen or M-01) to form M-02. Under reduced conditions the formation of M-04 was observed on two occasions in the Manningtree system and once in the Organ system, possibly as a result of the reduction of M-02 as the reduced forms of aclorifen and M-01 were not observed. During the course of these studies, no metabolites were observed in either water or sediment phases at levels > 5% AR at more than one timepoint.



**Table 9.2.2-1:** Summary of total system DegT<sub>50</sub> values for aclonifen in aquatic / sediment systems

Phase	Sediment system	Model	St. (χ²err)	DT <sub>50</sub> (days)	
			(%)	(days)	
Total System	Manningtree	SFO	8.79	<b>3</b> 3.81	4 . 4
Total System	Ongar	HS DT <sub>90</sub> /3.32	5.84	40.06	
Total System	Anglersee	SFO	8.60	5.04	
Total System	Wiehltalsperre	SFO	12.98	4.80 گ	
		€ Geome	tric noan	14.4	
		4		. 4 4	
				? Q', Ö	& Ö <sup>y</sup>

For further information on water/sediment studies please refer to Document MCA Section 7.2

The degradation and dissipation behaviour of diffusencian in water sediment systems was investigated in two laboratory studies conducted with either [2-pyridyl-\dagged C]-or [2,4-difluor phenor \dagged C] abelled diflufenican in a total of 4 water section, by stems. The total section D I 50 values listed in the EFSA Conclusion Report are summarised in Table 9.2.2- 2 Difluterican reached maximum of 74.4% of applied radioactivity (AR) in the sediment at day 14 before declining to 568% at 365 days. Ŵ

**Table 9.2.2- 2:** Summary of total system DevT<sub>50</sub> values for diffurenication aquatic / sediment systems

4	· •\\				X 1 "\"\"
Phase &	Sédin	nent system	Model S		<b>97</b> 50 (days)
Total System?	Unter '	Widdersheim	SFO S	<b>Q.</b> 76	<b>90</b>
Total System	" <mark>Bio</mark>	kenbach	SFO <sup>S</sup>	<b>0.77</b> 2	<sup>154</sup>
Total System	≪/ n	w Pond	SPO S	0.82	<mark>345</mark>
Total System	Sv.	viss Lake	OSFO ()	<b>9</b> 596	195
			C Comet	ric mean	<mark>175</mark>

In FOCUS surface water evaluations for diffuenicar? the geometric mean total system DT 50 of 175 days has been used for the water phase and a default worst-case value of 1000 days for the sediment phase. For the metabolite Al B107/37 (DFF-acid) which was formed in water sediment systems at a maximum of 45.9% AR after 30 days, a T<sub>50</sub> of 76.2 days was used for the water phase and a default worst-case value of 1000 days for the sediment phase. The metabolite AE 0542291 (DFF amide) was not observed in water sediment systems.

#### Irradiated water/sediment study CP 9/2.3

An irradiated water sediment styll is by optional higher tier study which is not required for ACL+DFF SQ 600 (500 + 500) G.

## Estimation of concentrations in groundwater

calculations following use of ACL+DFF SC 600 (500 + 100) G, the following representative uses were considered.



Individual	FOCUS	Rate per Season	Interval	Timing of application
crop	crop	Aclonifen (g a.s. /ha)	(days)	BBCH Stage
Winter Wheat	Winter cereals	350	-	00-13
Winter Wheat	Winter cereals	175	-	00-13

#### PEC<sub>gw</sub> modelling approach

The predicted environmental concentrations in groundwater (PEC<sub>gw</sub>) for the active substance aclonden was calculated using the simulation models PEARL 4.4.4 and PELMO 5.3.3 following the recommendations of the FOCUS working group on groundwater scenarios. In addition, modelling was conducted for the Châteaudun scenario with MACRO 5.5.4.

The leaching calculations were run over 26 years, as proposed for pesticides which may be applied every year. The first six years are a 'warm up' period, only the last 20 years were considered for the assessment of the leaching potential (for biennial applications the simulations are run for 46 years, with the first six as 'warm up'). The 80th percentile of the average annual groundwater concentrations in the percolate at 1 m depth under a treated field were evaluated and were taken as the relevant PEC<sub>gw</sub> values. In respect to the assessment of a potential groundwater concentrations will be even lower due to dilution in the groundwater layer.

According to FOCUS, the calculations were conditived based or 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.

# CP 9.2.4.1 Calculation of concentrations in groundwater Predicted environmental concentrations in groundwater (PEC.)

#### PECgw for Acconifect

Data Point: Report Author:  Report Year: 2019  Report Title: Aclonica: PECSW FOCUS PEARL, PELMO and MACRO - Use in winter cereals and legimes in Europe  Report No: VC \$\frac{3}{0.02510}\$  Document No: MC75020-02-1  Guideline(s) followed in study: Current guideline: OCUS 2000 and 2014)  test guideline: No, not previously submitted  GLP/Officially No, not previously submitted		
Report Year:  Report Year:  Report Title:  Report No:  Document No:  Guideline(s) followed in study:  Deviations from current test guideline:  Previous evaluation:  GLP/Officially  No not conducted under GLP/Officially recognised testing facilities recognised testing  Report Year:  20	Data Point: 🗞	KCP 9.224.1/04
Report Title:  Report No:  Report No:  Document No:  Guideline(s) followed in study:  Deviations from current test guideline:  Previous evaluation:  Aclonitea: PEC w FOCUS PEARL, PELMO and MACRO - Use in winter cereals and legames in Europe  WC 5/02519  Document No:  MC 75020-02-1  Guideline(s) followed in study:  Deviations from current test guideline:  Previous evaluation:  No, not previously submitted  No, not previously submitted		
Report No:  Document No:  Guideline(s), followed in study:  Deviations from current test guideline:  Previous evaluation:  Cuffont guideline:  No, not previously submitted  CLP/Officially  Report No:  VC\$9/02519  Mo75020-02-1  Cuffont guideline:  Cuffont guideline:  No, not previously submitted  CLP/Officially  Report No:  VC\$9/02519  Mo75020-02-1  Cuffont guideline:  Cuffont guideline:  No, not previously submitted		
Report No:  Document No:  Guideline(s), followed in study:  Deviations from current test guideline:  Previous evaluation:  Cuffont guideline:  No, not previously submitted  CLP/Officially  Report No:  VC\$9/02519  Mo75020-02-1  Cuffont guideline:  Cuffont guideline:  No, not previously submitted  CLP/Officially  Report No:  VC\$9/02519  Mo75020-02-1  Cuffont guideline:  Cuffont guideline:  No, not previously submitted	Report Title:	Actonition: PECOW FOCUS PEARL, PELMO and MACRO - Use in winter cereals
Report No:  Document No:  Guideline(s), followed in study:  Deviations from current test guideline:  Previous evaluation:  Cuffont guideline:  No, not previously submitted  CLP/Officially  Report No:  VC\$9/02519  Mo75020-02-1  Cuffont guideline:  Cuffont guideline:  Cuffont guideline:  No, not previously submitted  CLP/Officially  Report No:  VC\$9/02519  Mo75020-02-1  Cuffont guideline:  CUFFONT guideline:  No, not previously submitted		and legames in Europe &
Guideline(s) followed in study:  Deviations from current test guideline:  Previous evaluation:  Current guideline:  No, not previously submitted  CLP/Officially  Recognised testing	Report No:	VC\$9/025p0
GLP/Officially  GLP/Officially  recognised testing	Document No:	M-6/5020-02-1
Deviations from current test guideline:  Previous evaluation:  Outfort guideline:  No, not previously submitted  OLP/Officially  recognised testing  Outfort guideline:  OCUS (2000 and 2014)  No, not previously submitted	Guideline(s), followed in	Sone Q Q Q
test guideline:  Previous evaluation:  No, not previously submitted  GLP/Officially  recognised testing  Officially  Recognised testing facilities		
Previous evaluation:  No, not previously submitted  GLP/Officially  Recognised testing facilities  Recognised testing facilities		Current guideline 200CUS (2000 and 2014)
GLP/Officially No not conducted under GLP/Officially recognised testing facilities recognised testing	test guideline:	
GLP/Officially No not conducted under GLP/Officially recognised testing facilities recognised testing facilities:	Previous evaluation:	No, not previously submitted
GLP/Officially  Nonet conducted under GLP/Officially recognised testing facilities recognised testing facilities		
recognised testing facilities:	GLP/Officially	No not conducted under GLP/Officially recognised testing facilities
facilities: N V N V V	recognised testing	
identics.	facilities:	
Acceptability/Reliability: Yes	Acceptability/Reliability:	1680

Producted environmental concentrations of the active substance aclonifen in groundwater recharge (PEC<sub>gw</sub>) 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.

Use of aclonifen in winter cereals and legumes was investigated in the report. The results for winter cereals are summarised in this document. Detailed application parameters are presented in Table 9.2.4-



1.

Table 9.2.4-1: Application data of aclonifen according to the use pattern in Europe

Individual crop	FOCUS crop	Rate	Interval	Plant interception	BBCH stage	Amount reaching soil
		g/ha	(days)	(%)	<b>(F)</b>	₹g/ha 🎺
Winter Wheat	Winter cereals	350	-	0	<u>3</u> 00-13	\$ 350
Winter Wheat	Winter cereals	175	- *	0	× 00-13	1/3

Applications were made at the date of emergence date for FOCUS ground water seenaries on winter cereals. Full details are given in Table 9.2.4-2.

Table 9.2.4- 2: Application dates of aclosoffen according to the use pattern in winter cereals

Crop	Scenario Application relative day used in modelling
Winter wheat	Chateaudun , Febergence
	Hamburg The American Emergence
	Kremsmuenster & Emèrgence & &
	Jokioine Day State Control of Con
	Jokioinem C Epitergence C C C C C C C C C C C C C C C C C C C
	piacenza "Emergence ""
	Porto Porto Emergence
	e lineigence
	Thixa Smergence

Further input parameters for PEC<sub>gw</sub> modelling of acconifenare summarised below in Table 9.2.4-3.

Table 9.2.4- 3: Compound input parameters for aclonifen

		S( I' )	* (0)		W//
	Parameter &		."\"   .	M(3)	lonifen
Ç	Molecular wei@h	it 🐫 💍		nol <sup>-1</sup>	<b>2</b> 64.7
ř	Vapour pressure Schability (at 20)	(at 20°C)	F F	'a U	.6 e-5
	Schubility (at 20)		mg		1.4
(	T <sub>50</sub> in soil			* h	79.1
^	Koc 🤝 🔬		mL	$g^{-1}$	5727
)	Kom S		o™L	_g-f	3322
	Freundlich expo	nent 🗸			0.878
(	ant uptake tact	or ()	\$ 8	ž <sup>*</sup>	0
رد	Iryboucht moisin	ire 🥎 🦄	, (	-)	0.49
	Exponent temper	ratute o	<b>1</b> /201	(K)	.0948

Following the proposal of the FOCUS working goup on groundwater scenarios, the concentrations in the percolate at 1 modepth were evaluated. This shallow depth reflects a worst case with respect to the assessment of a potential groundwater contamination. The effective long-term groundwater concentrations will be even be were due to drittion in the upper groundwater layer. Detailed results for all scenarios for FOCUS PEARL, FOCUS PELMO and FOCUS MACRO are listed below.



**Table 9.2.4-4:** FOCUS PEARL, PELMO and MACRO PECgw results of aclonifen in winter cereals at 350 g/ha

		80 <sup>th</sup> percentile l soil depti	PECgw at 1 m h (μg/L)	
Crop	Scenario	Aclor	nifen	
		PEARL	PELMO	
Winter	Chateaudun	< 0.001	<0.001	
wheat	Hamburg	< 0.001	<b>\$0</b> .001	
	Jokioinen	₹0.001	<0.001	
	Kremsmunster	<0.001	© <sup>™</sup> <0.001 ≪	
	Okehampton	(°0.001	<0,001 €	
	Piacenza	<0.001	\$0.001°	
	Porto 🗣	<0.001	<0.001	
	Sevilla 🐇	& <0.00D	<0.40001	
	Thiva O		<b>©</b> .001	- 4
MACRO	Chateaudun /	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		
			A . O *	
		, Ø' , \$ . (		
<b>FOCUS</b>	PEARQ, PELMO	and MACROP	ECgresults of	actionifen in
winter c	ereals at 175 g/hà			
	,O"			~.

FOCUS PEARL, PELMO and I **Table 9.2.4-5:** winter cereals at 175 g/ha

		~ ·	۸	•	~	(( ))	
	Crop		P .	Moth per	entile I	ECgwC	at 1 m
	_ 4,7		e	390	ii ucpii		۵
	Crop *	Scenavio		<b>~</b>	Aclon	ifa)	~ Q
	Ď		Ų L		ACIOII	MCN	
				PEA	rt 🎡	PE	
	Winter	Chateaudun		\$0 <u>%</u> 0(	01 🔘	<b>%</b> 0.	.001
æ	Wheat _	Hamburg	S.	<b>30.00</b>	) <u>[</u> ,		001
		Jokioinen	,	\$\frac{\infty}{0.06}		\$\ <\Q!	<b>20</b> 01
		Kæmsmuñste Okehaçındon Piacenza	r	Ç <sup>™</sup> <0: <b>®</b>	)1 ×	' <b>3</b> 9	001
		Okehampton		″ <b>@</b> .00	)1 🔊	<0.	.001
		Piąceńza ?		<b>\$0.00</b>	01	<b>√</b> <0.	.001
	<b>4</b>	🐧 🕭 🌣 🖰	p"	·@<0.0@	))	§r <0.	.001
	, Ø , Š	Sevilla	4	\$ <0.90	)1	< 0.	.001
		This This	%	<0.00	)1,%	< 0.	.001
1/1/	MACRO .	Chateaudun'		× V	<0.0	01	

Overview of the PECE values obtained with individual OCUS models (PEARL) and (PELMO) are shown below

PEC<sub>gw</sub> results of aclonifen for uses on winter

dereals dereal	1
	Aclonifen (μg/L)
Winter cereals 350g a.s./ha/1 application each year	< 0.001
Winter Sereals 175g and ha 1 application each year	< 0.001
Winter cereals 350g a.s./ha/1 application each year Winter cereals 175g as /ha 1 application each year	



Table 9.2.4- 7: Maximum FOCUS PELMO PEC<sub>gw</sub> results of aclonifen for uses on winter cereals

Use pattern	Aclonifen (μg/L)
Winter cereals 350g a.s./ha 1 application each year	< 0.001
Winter cereals 175g a.s./ha 1 application each year	<0.00

#### **CP 9.2.4.2** Additional field tests

No additional studies on the formulation ACL+DFF SC 600 (500 + 900 g/L) under field conditions are deemed necessary. The fate and behaviour of the compounds in this formulation are fully covered from laboratory experiments and modelling.

#### CP 9.2.5 Estimation of concentrations in surface water and sediment

#### Predicted environmental concentrations in surface water (PECsw)

Predicted environmental concentration of the herbifdes actonife and diffuserican in surface water (PEC<sub>sw</sub>) and sediment (PEC<sub>sed</sub>) were calculated for the representative uses in surone employing the tiered FOCUS Surface Water (SW) approach. All relevant entry routes of a compound arto surface water (principally a combination of spray drift and prinoff/etosion of draip flow) were considered in these calculations.

Step 1: In this, the most conservative step, all inputs are considered as a single leading to the water body and a worst-case PEC<sub>sw</sub> and PEC<sub>sw</sub> is calculated.

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

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

Step 4: PC values are refined by considering mitigation of easures or specific scenario descriptions on a case-by-case basis

#### PEC<sub>sw</sub> for aclon@en

For PEC<sub>sw</sub> and PEC<sub>sw</sub> calculations use of aclouden at application rates of 350 g a.s./ha and 175 g a.s./ha on winter cereals was considered.

The simplation model FOCUS SWASH v5.3 comprising of FOCUS PRZM v4.3.1, FOCUS MACRO v5.5.4 and FOCUS TOXSWA v5.3/3 was used to calculate the reported PEC<sub>sw</sub> values. SWAN v5.0.1 was used to apply Step 4 pringation measures.

Predicted environmental concentrations in surface water and sediment (PEC<sub>sw</sub> and PEC<sub>sed</sub>) at Steps 1 and 2 have been calculated for use on winter cereals. A comparison of the concentrations predicted at Steps 1 and 2 with ecotox cological endpoints indicated the exposure assessments for both compounds were too conservative to conduct a successful risk assessment for aquatic organisms. Consequently predicted environmental concentrations in surface water and sediment (PEC<sub>sw</sub> and PEC<sub>sed</sub>) at Step 3 and Step 4 have been calculated.



Data Point:	KCP 9.2.5/01
Report Author:	
Report Year:	2019
Report Title:	Aclonifen (ACL): PECsw,sed FOCUS - Use in winter cereals in Europe
Report No:	EnSa-19-0662
Document No:	M-675039-01-1
Guideline(s) followed in	none **
study:	
Deviations from current	Not applicable for MoA.
test guideline:	
Previous evaluation:	No, not previously submitted
GLP/Officially	No, not conducted under GLIO officially recognised testing facilities
recognised testing	
facilities:	
Acceptability/Reliability:	Yes & & & & & & & & & & & & & & & & & & &

Predicted environmental concentrations of the herbicide aclonifen in surface water (PEC<sub>sw</sub>) and sediment (PEC<sub>sed</sub>) were calculated for the use in winter cereals in Europe, employing the hiered FOCUS Surface Water approach. All relevant entry routes of a compound into surface water (principally a combination of spray drift and run fiverosion or drain flow) were considered in these calculations.

Intended GAPs for the use of acloruten in winter cereals in Europe were analysed and consolidated according to regulatory and modelling requirements. As a result, one of more uses may be covered by a single modelling GAP row (DGB). The translation of the regulatory GAP for modelling purposes is shown in Table 9.2.5-1.

Table 9.2.5-1: GAP translation for modelling purposes

GAP group ID	GAP group name (DGR) and use IDs	Covered exop(s)	Growth stage	Max. apps	Interval (days)	Rate (kg a.s./ha)
DGR I	© winter cereals ©	winter vereals	BBCH 00 13	<i>©</i> 1	=	1×0.35
DGR II 🔈	winter cereals	winter cereals	ВВСН <b>9</b> 9 - 13 д	1	=	1×0.175

The implementation of the modelling GAR at Steps 1-2 level is shown in Table 9.2.5-2. One or more calculations (modelling tasks, PMT) are necessary to fully cover the use assessed. The number and name of the respective PGR is provided for easier reference.

Table 9.2.5-Q FOCT'S Steps 1-2 specific data for the GAPs assessed

Run ID (DGR / PMT)	GAP group name (DGR)	Assessment name (PMT)	◆OCUS crop (crop group)	Season	Crop cover
DGR I PMT I	winter cerears	full o	cereals, winter (arable crops)	autumn (Oct - Feb)	no interception
DGR II PMT II	winter cereals	Shalf S	cereals, winter (arable crops)	autumn (Oct - Feb)	no interception

The implementation of the modelling GAP at Step 3 level is shown in the following tables. Please note that PMPs at Steps 132 and Step 3 do not necessarily fully correspond to each other due to inherent differences in the models. A 30d window starting 3 days after emergence was used to simulate the post-emergence applications.

A summary of all Step 3 PMTs is provided in Table 9.2.5- 3. The detailed information on individual uses is given in Table 9.2.5- 4 and Table 9.2.5- 5 for use on winter cereals at 350 g a.s./ha (DGR Winter cereals, PMT Full) and in Table 9.2.5- 6 and Table 9.2.5- 7 for use on winter cereals at 175 g



a.s./ha (DGR Winter cereals, PMT Half).

**Table 9.2.5- 3: Overview of FOCUS Step 3 assessments** 

Run IDs (DGR / PMT)	GAP group name (DGR)	Assessment name (PMT)	FOCUS crop
DGR I PMT I	Winter cereals	Full	Cereals, winter  (arable@rops)
DGR II PMT II	Winter cereals	Half O	Cereals, winter (apable crops)

#### Winter Cereals full rate 350 g a.s./ha

#### **Table 9.2.5-4:**

PMT II		Winter cereals		Half	Q.		(arable crops	
Winter Cereal	ls full 1	rate 350 g a.s./ha	4	Ĉ		o A		
Table 9.2.5- 4:	: 	Summarised FOCUS	Step 3	applicati	en data	PAT setti	ings)	
Assessment na	me	Scenario		W Appl	ication wi	ndow uses	in mødelling	<u>.</u>
Full		D1 Ditch/Stream D2 Ditch/Stream D3 Ditch D4 Pond/Stream D5 Pond/Stream D6 Ditch R1 Pond/Stream R3 Stream R4 Stream			5 16-1 29-0 17-1	Sep - 08 Jet - 26 N Nov 46-D Oct 28-N Jov - 17-D Jet - 26 N	ov Signature	
Table 9 2 5- 5:		Full FOCUS Sten 3 :	na licati	on date		Z 4		

Table 9.2.5- 5: Full FOCUS Step 3 application data										
Run IDs GAP group name ( Assessment name	per)		DGRU PMT9 Winter cereals							
FOCUS model Cool	o (crop group)		Cereals, winter (arable crops)							
Use pattern			0.35 kg a.s. Ma							
Appl. method (Run	-off CAM, depth i	nca	Ground Stray (1 Cappln soil linear, 4 cm)							
PAT start date (relative to crop event or absolute) 14 days before emergence										
PAT window ra	nge 🖉 🍼	&' <sub>&amp;'</sub> '	30 days for all scenarios (min = 30 days)							
Drainage Ø scenarios	PATO Start/end date () (Julian daxo)	Application Cate	Runoff Scenarios	PAT start/end date (Julian day)	Application date					
Ditch Stream	11 Sep/11 Oct	V 11-Sep	R1 Pond/Stream	29-Oct/28-Nov (302/332)	14-Nov					
D2 Ditch/Stream	11-Op 10-Nov (284/314)	11-O <sub>0</sub>	R3 Stream	17-Nov/17-Dec (321/351)	17-Nov					
D3 Ditch	77-Nov 07-Dec (397/341)	% % Nov	R4 Stream	27-Oct/26-Nov (300/330)	03-Nov					
Powd/Stream	03-Sep/08-Oct (251/281)	10-Sep								
Pond/Stream	27-Oct/26-Nov (300/330)	26-Nov								
D6	16-Nov/16-Dec	06-Dec								



Ditch (320/350)
-----------------

### Winter Cereals half rate 175 g a.s./ha

Summarised FOCUS Step 3 application data (PAT settings) **Table 9.2.5-6:** 

Assessment name	Scenario	Application window used in modelling
Half	D1 Ditch/Stream	11-Sep 11-Oct
	D2 Ditch/Stream	11-Oct - 10-Nov
	D3 Ditch	07-Mov - 07-Dec
	D4 Pond/Stream	08 Sep - 08-Oct & Y
	D5 Pond/Stream	6 Oct - 26-Nov
	D6 Ditch	√ 516-Noy - 16-D@c
	R1 Pond/Stream	29-Opt - 28-Nov
	R3 Stream	17\(\text{Mov} = 17\(\text{Pec}\)
	R4 Stream	S S S Oct 26-Not S

		2		<b>1</b>	/	
		0 ,				
<b>Table 9.2.5- 7:</b>	Full FOCUS	S Step 3 applica	tion data 5			
Run IDs GAP group name (l Assessment name (l	DGR)		DGR II PMT II Winter verealso Half		G O	
FOCUS model crop	(crop group)		Cereals, winter (atal	ole crops)	7	
Use pattern		, A ~	0.175 kg/a.s./þ@	Ø , O		
Appl. method (Run	-off CAM, depth	inc.)	Ground spray (1 - an	pln soil linear 🕱 ci	m)	
PAT start date	aron avant anabe	Q F	4 days Pefore emer	Gence O		
(relative to crop event or absolute) 4 days before emergence  PAT window range 30 days)  PAT window range 30 days)						
rai willuow rai			30 days for all scena	-	s)	
Drainage scenarios	Start/end date Start/end date Julian day)	Application  date	Runoff Scenarios	♥PAT start/end date (Julian day)	Application date	
D1 Ditch/Stream	91-Sep/11-Oct (254/284)	11-Sep	R1 Pond Stream	29-Oct/28-Nov (302/332)	14-Nov	
Ditch/Stream	75-Oct/19-Nov (284/314)		R3 Stream	17-Nov/17-Dec (321/351)	17-Nov	
D3 Ditch	07 vov/05 Dec © (311541)	06-Nov	R4 Stream	27-Oct/26-Nov (300/330)	03-Nov	
Pond Stream	08-Sep/08-Oct 251/2819	7 10-Sep				
D5 Pond/Stream D6	27-Oct 26-Nov (300/330) 16-Nov 6-Dec	%6-Nov				

Standard procedures and settings were used for Steps 1-2 and 3 assessments. At Step 4 the following mitigation settings were used (see Table 9.2.5-8 and Table 9.2.5-9).



**Table 9.2.5-8:** Mitigation approaches used

Buffer length	Mitigation type	Drift reduction nozzles
0 m	Spray drift	0 %, 50 %, 75 %, 90 %
5 m	Spray drift	0 70, 30 70, 73 70, 70 70
10 m	Spray drift & RunOff	
15 m	Spray drift & RunOff	
20 m	Spray drift & RunOff	

**Table 9.2.5-9:** 

Fractional re	eduction in:	(O)	) m, 15 m	20 m
Runoff:	Volume		0.60	) 0.80°
	Flux	<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	0.60	0.80 <sup>*</sup>
Erosion:	Mass	L, b°	$0.85^{\circ}$	.0,995
	Flux	o' jo'	0.85	®0.95 €

Substance related parameters used for actionism in the calculations summarised in Table 9.2.5-10 and at Step 3/4/evel in Table 9.2.5-1

**Table 9.2.5-10:** 

	Spray drift			
	Spray drift & RunOff		<b>*</b>	
	Spray drift & RunOff		Ş	
	Spray drift & RunOff		. O	
		<b>'</b> S		
Ru	noff mitigation parameters use	d for t	he assessment 🔑 👙	9'
	al reduction in:	n, 15 m	<b>20 m</b>	
unoff:	49	).60	0.80 0.80 0.80 0.80	
unon:	Flux	).60 ).60	0.80	
rosion:	Mass & & &	) 8 <del>5</del>	17 195	
051011	Mass & & & C	):85	0.95	, «
arame	ters used for actionifen in the cal	cutatio	ns at FOCUS SW Steps	1-2 level are
le 9.2.5	5- 10 and at Step 3/4 level in Tab	Je/9.2.5		
Ç.,l	estance reframeters used at FO	CHE E	tone 2 loval	L. J.
Sui	ostance parameters used at 10		teps 1-2 leger	7
	5- 10 and at Step 3.4 level in Tab bstance parameters used at FO	@ Acl	ns at FOCUS SW. Steps 54.11. (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	
	*Winiar mass . I e (o/mol)	Z)	54.7 © 0 1.4 © 72 © 72 © 72 © 72 © 72 © 72 © 72 © 7	
	Water solubitiv (mg/I)		1.4	
%	Koc (mk/g) Degradation DT6 Soil	S 5	724	
	Degradation DT	P'		
Ĩ,	Soil S(days)		9.1	
	Total system (days)	@ 1	4.4	
_	Yeater (days) Sediment (days)			
	Max occurrence  Water / sediment		7.4	
T.	Waster / sediment (%)		100%	
L	Seil (%)	Ø j	1000	
		7 . (	\$.4 \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \(	
≯ Sųŀ	bstance parameters weed for ac	lonifer	at Step 3/4 level	
etek 🔎	Max occurrence Water / sediment (%) Soil (%)  ostance parameters used for ac	¥nit	Parent	
16d		,	Aclonifon	
⊥oe U coda			ACI	

		_0*	
	Parameter Substance SWASH code General Swash stance Swash	nit	Parent
4	Substance of the state of the s	~	Aclonifen
4	SWASH code of some state of some some some some some some some some		ACL
	Substance SWASH code  General  Molar mass  Water solubility (temp) Vapour pressure (temp.)		
,	Molar mass	(g/mol)	264.7
	Water solubility (temp.)	(mg/L)	1.4 (20 °C)
V	Vapour pressure (tentop.)	(Pa)	1.6E-05 (20 °C)
	Molar mass Water solubility (temp) Vapour pressure (temp).  Crop processes Oberfficient for optake by plant (TSCF) Wash off factor  Sorotion Freundlich exponent (1/n)  Transformation		
6	Coefficient for aptake by plant (TSCF)	(-)	0
É	Wash off factor &	(1/m)	50
	Sorotion		
	A 7	(mL/g)	5727.13
\$ .0	MOM A S	(mL/g)	3322
	Freundlich exponent (1/n)	(-)	0.88
S <sub>O</sub>	Transformation		
	DT <sub>50</sub> in soil	(days)	79.1
	temperature	(°C)	20
	moisture content (pF)	(log(cm))	2



Parameter		Unit	Parent	
formation frac	tion in soil	(-)	-	
DT <sub>50</sub> in water		(days)	1000	Qi° 🛼
temperature		(°C)	20	
formation frac	tion in water	(-)	-	
DT <sub>50</sub> in sedimen	t	(days)	14.40	
temperature		(°C)	26	
formation frac	tion in sediment	(-)		
DT <sub>50</sub> on canopy		(days)	√√10 √√	
Exponent for th	ne effect of moisture	Ö		
	ISWA (Walker exp.)	(-)	Q 0.7 Q	
MACRO (calibr	ated value)	(-)	0.49	
Effect of tempe	rature			
TOXSWA	(molar activation energy)	(kJ/moľ)	65.4	
MACRO	(effect of temperature)	• (1/K)		
PRZM	$(Q_{10})$		2.58	.4

The PEC values were calculated for acloritien according to the equations implemented in the "1-2 in FOCUS" calculator (see Table 92.5-12 and Table 92.5-13) lator (see Table 9.25-12 and Table 9.25-13)

FOCUS Steps 1-2 PECsw and PECsed for actonifen. GAP group frame

**Table 9.2.5-12:** winter cereals, assessment name full DGR DPMA)

Scenario FOCUS		Max PECsw (µg/L)*	Deminant entry route	* The Lib	Max PECsed (μg/kg)*	l
Step 1	- , Ø	Q6.7	RunOff	Z 120 Z	774	
Step 2						
Northern Europe	(Autumn)	\$ 697 *	Erosion O	5.81	390	*
Southern Europe	Oed-Feb.O Autum	5.67		70	315	*

Single applications are marked.

**ℱ**OCUS Steps 1-2 PFCsw and PBCsed for aclonifen, GAP group name Table **\$2.5-13**: winter cereals, as essment name half DGR II / PMT II)

Scenario FOCUS		Max PEC. (jùg/L)*	Dominant entry roore	7d-PEC <sub>sw,twa</sub> (μg/L)**	Max PECsed (μg/kg)*
Step 1	~ 0, 0,	<b>№</b> 36 ₽ (	<b>R</b> ymOff	5.99	387
Step 2			<b>)</b>		
Northern	Oct Feb.	3.49	Erosion	2.90	195 *
Europe	(Auturnn)		y"		
Southern	Oct Feb	© 2.84 ° €	Erosion	2.35	158 *
Europe	(Autumn)				

Single applications are marked.

Step 3 calculations were conducted for aclonifen employing the models of the FOCUS SW suite. Reported values represent leadings via all relevant entry routes (see Table 9.2.5- 14 and Table 9.2.5-15)

TWA interval as required by ecoto

TWA interval as required by ecotox



**Table 9.2.5-14:** FOCUS Step 3 PECsw and PECsed for aclonifen, GAP group name winter cereals, assessment name full (DGR I / PMT I)

Scenario FOCUS	Waterbody	Max PEC (μg/L)*		Dominant entry route	7d-PEC <sub>sw,twa</sub> (μg/L)**	Max PECsed (μg/kg)
Step 3					Ď	
D1	Ditch	2.22	*	Spray drift	1.63	8.52 \$
D1	Stream	1.95	*	Spray drift	0.344	₹.22 ₹ * ¢
D2	Ditch	2.23	*	Spray drift	£1.63	7.27
D2	Stream	1.98	*	Spra drift	1.45	C 696 X *
D3	Ditch	2.19	*	Spray drift	0.251	Q1.26 \$\frac{\pi}{2} *\pi
D4	Pond	0.076	*	Spray drift	0.068	2 0.570 2 V
D4	Stream	1.90	*	Spray drift	0.078	O 0,402
D5	Pond	0.076	*/_	, Spray drift	\$\times 0.4068	°∕9.648 ∜ *
D5	Stream	2.05	<i>"</i>	Spray Dift	<b>9</b> .111 <b>0</b>	√ 0.58   √ **
D6	Ditch	2.22 🐇	*	Spray drift	1.48	6\$2 2*
R1	Pond	0.105	*	RunOff	0.095	<b>≈</b> 1.42 <b>*</b> *
R1	Stream	1.44		Spray drift	0.087	3.69 *
R3	Stream	2501	<i>*</i>	Spray drift	\$\int 0.160 \tag{3}	* 132 *
R4	Stream	Y.45 Q	* 0	Spray drict	4 994 O	<b>2</b> .74 *

Single applications are marked

EOCUS Step & PECsw and PECsed for aclonifen, GAP group name winter cereals, assessment name half (PGR II PMT) II) **Table 9.2.5- 15:** 

		<u> </u>				
Scenario FOCUS	Waterbody	Max PECsw (fig/L)*	Dominant entry	7dzPECsw,twa (µg/L)**	Max PECsα (μg/kg)*	ed
Step 3				(P)		
D1 📡	Ditch 🔬	√1.11 → *	Spray drift	0.812	4.32	*
D1 🔊	Stream	0.962 *	Spray Fift 0	0.122	0.609	*
D2 ***	Ditch	1 2411 0 * * «	> Sparay drift	0.812	3.68	*
D2	Speam	Ø0.99Q **	Spray drift	0.723	3.27	*
D3	DitchQ	\$\frac{1}{2}\text{9}^2 \text{\frac{1}{2}}	Spray Fift	0.125	0.630	*
D4	Potod o	Ø:038 × * /	Spray drift	0.034	0.291	*
D4 _	🐧 Stream 🛇	\$\tag{90.950}\$	S∳ray drift	0.039	0.206	*
D5 🔎	Pond	0.038	Spray drift	0.034	0.331	*
D5_	Stream 🚄	#.02 ° * 5	Spray drift	0.056	0.292	*
Ď6	Ditch &	الم الم	Spray drift	0.737	3.20	*
R1	ூ Pond ॢ	0.049 0*	RunOff	0.045	0.697	*
R1	O Stream	0.722 <sub>€</sub> *	Spray drift	0.040	1.93	*
R3	Stream O	\$\times 1.00\$\text{\$\Pi\$} *	Spray drift	0.073	62.1	*
R4	Stream	0.726 *	Spray drift	0.043	1.52	*

FOCUS Step 4 calculations considering various mitigation measures for runoff and spray drift were conducted based on the Step 3 results (see Table 9.2.5- 16 and Table 9.2.5- 17 for PEC<sub>sw</sub> values and Table 9.2.5- 18 and Table 9.2.5- 19 for PEC<sub>sed</sub> values).

TWA interval as required by cotox

Single applications are marked.
TWA interval as required by ecotox



### Predicted environmental concentrations in surface water (PEC<sub>SW</sub>)

FOCUS Step 4 PECsw results for aclonifen, GAP group name winter cereals, assessment name full (DGR I / PMT I) **Table 9.2.5- 16:** 

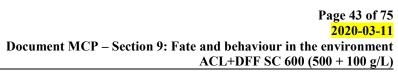
	1	Lais, assc.						A	
PEC <sub>sw</sub> (μg/L)	Scenario				Step 4 A	clonifen	A		
Nozzle	Vegetated strip (m)	None	None	None	<b>O</b> ne	None	10 m	SVO m	20 m
reduction	No spray buffer (m)	0 m	5 m	10 m	√ 15 m	<b>20</b> m	10 m	15@	20 m %
None	D1 Ditch	2.22	0.602	0.309	0.218	0.166	0.\$\frac{9}{9}	Ø.218	
50 %		1.11	0.301	<u></u> 0.159 ⊘	° 0.109	0.083	<b>70</b> 7.159	0.109	<b>Q.</b> 983
75 %		0.555	0.150	$\bigcirc 0.080^{\circ}$	0.054	Ø.041 <sub>8</sub>	0.080	0.054	△ 0.041 。
90 %		0.222	0.060	0,092	0.022	♥ 0.0 <u>1</u> 7	0032	9.022	0.00
None	D1 Stream	1.95	0.7.40	°√0%376 ©	0.250	05\195	~0.37 <u>6</u>	0.257	195
50 %		0.972	\$355¢	0.18	QA28	<b>0.098</b>	0.18	Ø128	0.098
75 %		0.485	√ 0.177°	0.094	0.064	0.00	6094	\$0.06 <b>4</b> \$	0.049
90 %		0.194	Q:071	₩.038	0.026	Ø 020 °	0.0380	0,026	0.020
None	D2 Ditch	2.23	Ø.603	0.319	0.218	Ø0.166	0,319	<b>©</b> .218	0.166
50 %	1	© 1.11 0	0.30	<b>©</b> 160	0.109	0:083	<b>79</b> .160	0.109	0.083
75 %	*	0.5 <b>.5</b> 6	0.150	\$0.080°	0.0\$4	0.041 🛚	0.080	0.054	0.041
90 %	D2 Stream	<b>6</b> 222	©0.060	0.032	\$0.022 (	0.01%	0.032	0.022	0.017
None	D2 Stream	Ç 1.98 💍	0.723	0.383	© 0.26 <b>Z</b>	0.199	0.383	0.262	0.199
50 %		0.990	© 0.361 ~	0.19	0.1031	Ø.099	0.191	0.131	0.099
75 %		<b>©</b> 494	0.18 <b>0</b>	0.096	<b>3</b> 0.065	0.050	0.096	0.065	0.050
90 % 🐧		0.1982	0.072	∂Ø.038 @	0.026	<b>9</b> 9 20	0.038	0.026	0.020
None	D3 Ditch	2,99	<b>3</b> .594	0.315	0.215	0.163	0.315	0.215	0.163
50 🖑		₹.10 ×	0.29	0°.¥57 ⟨	0.107	0.082	0.157	0.107	0.082
75 %		0.540	Q.Ĵ48	, ©0.079 C	0.054	0.041	0.079	0.054	0.041
90 %		0.319	€ <b>0</b> .059	0.03	Ø21	0.016	0.031	0.021	0.016
None '	D4 Pord ,	0.076	0.06%	Ø47 7	y 0.037	0.031	0.047	0.037	0.031
50 %		0.038	g 033 ·	©0.023	0.019	0.016	0.023	0.019	0.016
75 %		0.019 ~	0.016	0.012	0.009	0.008	0.012	0.009	0.008
20%		0.019	0.007	0.005	0.004	0.004	0.005	0.004	0.004
None	D4 Stream	1,00	<b>D</b> .694 A	0.368	0.251	0.191	0.368	0.251	0.191
50 %	4	£950 ×	0.346	0.184	0.125	0.095	0.184	0.125	0.095
75 %		0.474	0. <b>©</b> /3	0.092	0.063	0.048	0.092	0.063	0.048
90 % <b>%</b>		0490	0.069	0.037	0.032	0.032	0.037	0.032	0.032
None	DD5 Pond	Ø.076	0.065	0.047	0.037	0.031	0.047	0.037	0.031
\$\$\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\		0.038	0.033	0.024	0.019	0.016	0.024	0.019	0.016
75 %0		0.019	0.016	0.012	0.009	0.008	0.012	0.009	0.008
90 %	1	0.008	0.007	0.005	0.004	0.003	0.005	0.004	0.003
None	D5 Stream	2.05	0.748	0.397	0.271	0.206	0.397	0.271	0.206



PECsw (μg/L)	Scenario		Step 4 Aclonifen								
Nozzle	Vegetated strip (m)	None	None	None	None	None	10 m	10 m	200 m		
reduction	No spray buffer (m)	0 m	5 m	10 m	15 m	20 m	10 🖟	15 m	20 mg		
50 %		1.02	0.374	0.198	0.135	0.103	0.198	0.135	0.103		
75 %		0.512	0.187	0.099	0.068	0.051	√ <sup>®</sup> 0.099	0.968	0.051		
90 %		0.205	0.075	0.040	<b>%</b> .027	0.02	0.040	0.0270°	0.0%		
None	D6 Ditch	2.22	0.600	0.318	0.217	0.965	0.318	0.267	Ø¥65 &		
50 %		1.11	0.300	0.159	0.108	®.083	0.159	<b>Q</b> 108	$\mathbb{C}_{0.083}^{\mathbb{Z}}$		
75 %		0.553	0.150	0.079	0.062	0.06	0.079	0.062	0.052		
90 %		0.221	0.062	Ø.062	0.062	Ø,662	<b>√</b> 0.06 <b>2</b> √	0.062	0.062		
None	R1 Pond	0.105	0.101	0.095	g 992 ,	0.090°	0.048	0.045	0.03 <b>L</b> °		
50 %		0.092	0.091	~0.088 ×	0.086	0.085	<b>©</b> .040 🖔	0.038	0.021		
75 %		0.086	0085 (	~0.08 <b>4</b> €	0.083	©083 ×	J 0.036	0.035	<b>3</b> .019		
90 %		0.083	0.082	0.982	£0.081 ~	0.0845	0.634	<b>9</b> .034 ©	0.017		
None	R1 Stream	1.44 🍳	0.527	<b>3</b> ,477 °	y 0.47 <b>3</b>	0,477	Ø.279 É	0.214	0.145		
50 %		0.7\$2	·0,477	©0.477	0,497	<b>.</b> 477	0.21	<b>%</b> 214	0.111		
75 %		ð.477 ⊈	0.47	0 <b>.47</b> 7	<sub>@</sub> 0.477 <sup>4</sup>	0.477	0@14	0.214	0.111		
90 %	· %	©0.477	0.477	<b>3</b> .477 L	0.477	<b>9 4</b> 77 <i>4</i>	©0.214	0.214	0.111		
None	R3 Stream,	2,6	Ø9.732 €	0.54	.0.©13	<b>4</b> 0.513	0,388	0.265	0.201		
50 %		P.00	× 0.51%	0.513	<b>3</b> 0.513	0.503	6234	0.234	0.123		
75 %		0.5	045/13	0.513	0.543	<b>6</b> √513 €	©0.234	0.234	0.123		
90 %		0.513	©0.513	0.518	0.513	©0.513	0.234	0.234	0.123		
None	R4 Stream	×1.45	0.701	0,701	Ç0.701Ô	0,76/1	0.316	0.316	0.165		
50 %	*	0.726	<b>%</b> 701	0.701	0,76/1	<b>%</b> 701	0.316	0.316	0.165		
75 %		.09001	0.70	0.701	%701 <sub>%</sub>	0.701	0.316	0.316	0.165		
90 %		√0.701¢	0.79	<b>%</b> .701	¥ 0.701 €	0.701	0.316	0.316	0.165		

Table 9.2.5-0: FOCUS Step 4 PEC sw results for aclonifen, GAP group name winter cereals, assessment name half (DGR II / PMT II)

PEC	Scenary o				Step 4 A	clonifen			
Nozzle	Vegetated (	None	None (	None	None	None	10 m	10 m	20 m
reduction	ourrer (m)	0 m		10 m	15 m	20 m	10 m	15 m	20 m
None	Ditch	101	0.301	0.159	0.109	0.083	0.159	0.109	0.083
50		₹Ø.555	0.150	0.080	0.054	0.041	0.080	0.054	0.041
\$3 % \$3		0.277	0.075	0.040	0.027	0.021	0.040	0.027	0.021
90 %		0.111	0.030	0.016	0.011	0.008	0.016	0.011	0.008
None	D1 Stream	0.972	0.355	0.188	0.128	0.098	0.188	0.128	0.098
50 %		0.485	0.177	0.094	0.064	0.049	0.094	0.064	0.049





PEC <sub>sw</sub> (μg/L)	Scenario	Step 4 Aclonifen									
Nozzle	Vegetated strip (m)	None	None	None	None	None	10 m	10 m	20 m		
reduction	No spray buffer (m)	0 m	5 m	10 m	15 m	20 m	10 9	15 m	20 mg		
75 %		0.243	0.089	0.047	0.032	0.024	0.047	0.030	0.024		
90 %		0.097	0.035	0.019	0,013	0.010	<sup>3</sup> 0.019	0:013	0.010		
None	D2 Ditch	1.11	0.301	0.160	<b>7</b> 0.109	0.08	0.160	©0.109	0.08		
50 %		0.556	0.150	0.080	0.054	0.041	0.080%	0.054	Ø41 (		
75 %		0.278	0.075	0.040	0.027	©.021	0.049	0.027	O.021		
90 %		0.111	0.030	0.0016	0.011	0.008	0.016	0.011	0.008		
None	D2 Stream	0.990	0.361	<b>%</b> 0.191		Ø. 699	©0.19 <b>1</b> ©	0.131	0.099		
50 %		0.494	0.180	0.0%	9, <del>9</del> 65 ,	0.050	0.096	Ø:065 j	0.050		
75 %		0.247	0.090	√0. <b>0</b> 48 ∧	0.033	0.025	. <b>0</b> .048 «	0.033	0.025		
90 %		0.099	QQ36 Q	<b>0.019</b>	0.013	√9.010 ×		0.613	<b>3</b> .010		
None	D3 Ditch	1.10	0.297	0.157	0.107	0.082	0.57	<b>9</b> .107 &	0.082		
50 %		0.547	0.148	<b>3</b> ,079 2	y 0.054°	0,041	Ø.079_Ĉ	0.054	0.041		
75 %		0,2\$	~ <b>0</b> ,074	0.039	0,027	<b>Q</b> .020	0.039	Ø <u>.</u> 927	0.020		
90 %	•	Ø.109 ⟨£	0.03	0.016	@0.011 <sup>A</sup>	0.008	02016	0.011	0.008		
None	D4 Pond %	A .	0.633	Ø.023 <u>(</u>	0.019	0016	©0.023	0.019	0.016		
50 %	<b>√</b>	0,619	Ø9.016 (	1 to 10	.0. <b>0</b> 09	%,0.00 <u>8</u>	0,000	0.009	0.008		
75 %		0.009	0.008	0:006	<b>20</b> .005	0.004	<b>€</b> 006	0.005	0.004		
90 %		0.004	0.003	0.002	0.002	<b>6</b> 5002	©0.002	0.002	0.002		
None	DStream	0.950	©0.346	0.184	0.125	©0.095	0.184	0.125	0.095		
50 %	Stream	©.474 <sub>8</sub>	0.173	0.092	©0.063©	0,048	0.092	0.063	0.048		
75 % 🔊		0.237	<b>9</b> 5086	0.046	0.03/1	<b>©</b> .024	0.046	0.031	0.024		
90 %	\ \.\@	<u>0</u> 9095	0.035	0.008	%.013 <sub>%</sub>	0.013	0.018	0.013	0.013		
None	D5 Nond	\$0.038\$\times	0:093	0.024	√ 0.019 <sup>2</sup>	0.016	0.024	0.019	0.016		
50 %	D5 Pond	0.00	, , ,	¥ 0.012,	0,009	0.008	0.012	0.009	0.008		
75 %		€009 %	0.008	0.006	0.005	0.004	0.006	0.005	0.004		
90 % «		0.00	0.603	©.002		0.002	0.002	0.002	0.002		
None	D5 Stream	1.02	<b>%</b> .374	7 0.1 <del>28</del>	0.135	0.103	0.198	0.135	0.103		
50,%		<b>20</b> .512	N W W	0.099	0.068	0.051	0.099	0.068	0.051		
7¥%		0.256	0.093	0.049	0.034	0.026	0.049	0.034	0.026		
90 %		0.5±02 ×	Ø.037	$\odot$	0.014	0.010	0.020	0.014	0.010		
None	D6 Dirch	\$1.11	0.3@0	0.159	0.108	0.082	0.159	0.108	0.082		
50 %		0.553	0.150	0.079	0.054	0.041	0.079	0.054	0.041		
75 %		<b>276</b>	0.075	0.040	0.027	0.023	0.040	0.027	0.023		
90%		0.110	0.030	0.023	0.023	0.023	0.023	0.023	0.023		
None (	R1 Pond	0.049	0.048	0.045	0.043	0.042	0.023	0.023	0.016		
50 <b>©</b>	111 1 0114	0.043	0.042	0.043	0.040	0.042	0.019	0.021	0.010		
75 %	-	0.043	0.042	0.039	0.039	0.038	0.017	0.016	0.009		
90 %	-	0.040	0.040	0.039	0.039	0.038	0.017	0.016	0.009		



PECsw (μg/L)	Scenario		Step 4 Aclonifen								
Nozzle	Vegetated strip (m)	None	None	None	None	None	10 m	10 m	20 m		
reduction	No spray buffer (m)	0 m	5 m	10 m	15 m	20 m	10 9	15 m	© 20 mg		
None	R1 Stream	0.722	0.263	0.219	0.219	0.219	0.140	0.098	<b>0</b> .072		
50 %		0.361	0.219	0.219	0.219	0.219	√ <sup>®</sup> 0.098	0:098	~0.051×		
75 %		0.219	0.219	0.219	<b>1</b> 0.219	0.21	0.098	0.0980°	0.054		
90 %		0.219	0.219	0.219	0.219	0.219	0.098	0.098	Ø51 &		
None	R3 Stream	1.00	0.366	0.234	0.234	©.234	0.194	<b>Q</b> ,132	$\mathcal{O}_{0.10}$		
50 %		0.501	0.234	0.2034	0.234	0.23	0.107	0.107			
75 %		0.250	0.234	Ø.234	0.23		Ç0.10 <b>7</b> Ş		0.056		
90 %		0.234	0.234	0.234	£34 ,	0.234	0.107	<b>0</b> .107 2	0.056,		
None	R4 Stream	0.726	0.322	√0,3°22 ×	0.322	0.322	<b>0</b> .145 <	0.145	Q <b>Q</b> 76		
50 %		0.363	0 <b>%</b> 22 (	°0.322€	0.322	9.322 ×	0.145	0.1A5	<b>3</b> .076		
75 %		0.322	©0.322	0.322		© 0.3225	0.435	<b>9</b> .145 ©	0.076		
90 %		0.322	0.322	@.322 °	y 0.32 <b>3</b>	0,022	Ø.145 Ĉ	0.145	0.076		

Predicted environmental concentrations in sediment (PEC<sub>SEB</sub>)

Table 9.2.5- 18: FOCUS Step 4 PECsed results for actonifen, GAP group name winter cereals assessment name tull (DGR I / BMT I)

		· · · · ·	<del>y</del>		<u> </u>	<u> </u>	<del>-</del>		1
PEC <sub>sed</sub> (μg/kg)	Scenario		, ZG ,		Step A	clopifen	<b>@</b> ?		
Nozzle	Pegetated strip (m)	Pone	None	None	None	None	10 m	10 m	20 m
reduction	No spray & buffer (m)	9 (03) . (5)	S m	10 10	45,m	20 m	10 m	15 m	20 m
None		£8.52 £	2.30	27 §	, 0.87 <b>6</b>	0.670	1.27	0.876	0.670
50 %	D1 Disch	4.3	<b>4</b> 20 ,	°0.645 €	0.434	0.339	0.645	0.444	0.339
75 %		<b>2</b> ,19	٥٥.609) آ	0.307	<b>1</b> 0.224	0.171	0.327	0.224	0.171
90 %		0.892	0.247		<b>≫</b> 0.091	0.070	0.133	0.091	0.070
None O	D1 Stream	1,20	<b>6</b> 446 %	0.23	0.162	0.123	0.237	0.162	0.123
50,%		0.609 ^	0.223 0.4012	0:Q9	0.081	0.062	0.119	0.081	0.062
75,%		\$0.305 \$0.305 \$0.305	0.4012	<b>3</b> 0.060	0.041	0.031	0.060	0.041	0.031
90 %		0.423	<b>20</b> .045	0.024	0.016	0.012	0.024	0.016	0.012
None	D2 Diroh	<b>J</b> .27 ⊀	2.01	1.08	0.740	0.565	1.08	0.740	0.565
50 %		3.68	1902	0.544	0.373	0.285	0.544	0.373	0.285
75 %		1086	0.513	0.275	0.188	0.144	0.275	0.188	0.144
90%	D2 Stream	<b>40</b> .753	0.208	0.111	0.076	0.059	0.111	0.076	0.059
None N	D2 Stream	6.46	2.40	1.28	0.881	0.672	1.28	0.881	0.672
50 %		3.27	1.21	0.648	0.444	0.339	0.648	0.444	0.339
75 %		1.65	0.611	0.327	0.224	0.171	0.327	0.224	0.171
90 %		0.668	0.247	0.132	0.091	0.069	0.132	0.091	0.069



PEC <sub>sed</sub> (μg/kg)	Scenario	Step 4 Aclonifen								
Nozzle	Vegetated strip (m)	None	None	None	None	None	10 m	10 m	20 m	
reduction	No spray buffer (m)	0 m	5 m	10 m	15 m	20 m	10 9	15 m	20 mg	
None	D3 Ditch	1.26	0.343	0.182	0.125	0.095	0.182	0.125	0.095	
50 %		0.630	0.172	0.091	0.062	0.048	√ <sup>®</sup> 0.091	0.962	0.048	
75 %		0.316	0.086	0.046	<b>1</b> 031	0.02	0.046	0.031	0,024	
90 %		0.127	0.035	0.018	0.013	0.010	0.018	0.063	<b>6</b> 010	
None	D4 Pond	0.570	0.495	0.359	0.288	©.243	° 0.359	<b>Q</b> ,288	0.243	
50 %		0.291	0.252	0.9283	0.147	0.124	0.183	0.147	0.124	
75 %		0.148	0.129	<sup>©</sup> Ø.095	0.082	Ø. <del>0</del> 73	<b>√</b> 0.095	0.082	0.073	
90 %		0.072	0.066	0.056	9, <del>9</del> 51	0.0480		0.051	0.048	
None	D4 Stream	0.412	0.15	~0.080 ×	0.055	0.942	<b>©</b> .080 ×	0.055	0,042	
50 %		0.206	0075	>0.04Q	0.027	Ø.021 ×		0.027	<b>3</b> .021	
75 %		0.103	0.038	0.020	0.017	0.01	0.620	<b>3</b> .017 Q	0.017	
90 %		0.041	0.018	<b>3</b> ,017 2	y 0.01 <b>7</b>	0,017	Ø.017 Ĉ		0.017	
None	D5 Pond	0,648	~0,563	0.409	0,39/8	<b>2</b> 276	0.40	<b>%</b> 328	0.276	
50 %		Ø. <del>3</del> 31	0.28	0.209	©0.167 A	0.141	0209	0.167	0.141	
75 %	·	©0.169 <sup>©</sup>	0.437	<b>29</b> .106 <u>2</u>	0.085	0072 ·	0.106	0.085	0.072	
90 %	<u> </u>	0,669	Ø9.060 (	1 to 10	.0. <b>0</b> 35	& <sub>0.030</sub>	0,044	0.035	0.030	
None	D5 Stream	0.583	0.213	0.713	<b>6</b> .077	0.00	<b>6</b> 113	0.077	0.059	
50 %	D5 Stream	0.292	0.407	0.057	0.000	€029	©0.057	0.039	0.029	
75 %		0.146	©0.053	0.028	0.019	©0.015	0.028	0.019	0.015	
90 %		<b>40</b> .058	0.021	0,011	$\bigcirc 0.008 \bigcirc $	0,066	0.011	0.008	0.006	
None 😽	D6 Ditch &	6.32	<b>1</b> 76	0.940	0,646	<b>@</b> 494	0.940	0.646	0.494	
50 %		\$20	0.888	0.405	9.326 <sub>~</sub>	0.249	0.475	0.326	0.249	
75 %		1.62	0:499	9/240	¥ 0.165 €	0.126	0.240	0.165	0.126	
90 %	I & A	0.6\$8	0.182 °	0.097,	0,067	0.051	0.097	0.067	0.051	
None	OR1 Pond	©.42 %	01.360	1.95	9.20	1.16	0.674	0.614	0.393	
50 % a		1.20	1/.97	A.11	1.08	1.07	0.528	0.498	0.293	
75 % Ø	, Ø	1,009	Ø.07	1.04	1.03	1.02	0.456	0.441	0.243	
90,%		<b>△</b> 1.02 △	1.0	·100	0.997	0.993	0.413	0.408	0.214	
None	R1 Stream		3.86	3.65	3.65	3.65	0.707	0.704	0.281	
50 %		3,87 ×	3.65 Q	)	3.65	3.65	0.703	0.701	0.279	
75 %		3.66	3.65	3.65	3.65	3.65	0.701	0.700	0.277	
90 %		3.65	3.65	3.65	3.65	3.65	0.699	0.699	0.277	
None	& Stream	~\hat{2}2	122	122	122	122	18.6	18.6	6.27	
50%	Stream	122	122	122	122	122	18.6	18.6	6.26	
\$75 % S		122	122	122	122	122	18.6	18.6	6.26	
90 🐼	1	122	122	122	122	122	18.6	18.6	6.26	
None	R4 Stream	2.74	2.74	2.74	2.74	2.74	0.597	0.596	0.253	
50 %		2.74	2.74	2.74	2.74	2.74	0.596	0.596	0.253	



PEC <sub>sed</sub> (μg/kg)	Scenario		Step 4 Aclonifen								
Nozzle	Vegetated strip (m)	None	None	None	None	None	10 m	10 m	200m		
reduction	No spray buffer (m)	0 m	5 m	10 m	15 m	20 m	10.99	15 m	© 20 m		
75 %		2.74	2.74	2.74	2.74	2.74	0.596	0.596	<b>Q 2</b> 53		
90 %		2.74	2.74	2.74	2.74	2.74	0.596	0.596	0.253		
Table 9.2.5- 19: FOCUS Step 4 PECsed results for aclonifen, GAP group name winted cereals, assessment name half (DGR II / PMT II)											
PEC <sub>sed</sub> (μg/kg)	Scenario		Step Aclonifen								
	Vegetated	None	Nongs	- *	( )	Q. None	160.m	00 m 6	2005		

**Table 9.2.5- 19:** 

PEC <sub>sed</sub> (μg/kg)	Scenario				°Step 3 A	Aclonifen			\$\$ <sup>7</sup>
Nozzle	Vegetated strip (m)	None	None	Note	None "	None	100 m	90 m	2007
reduction	No spray buffer (m)	0 m	Sm &	10 m	13 m	20 m	10 10	₩ Wm	©20 m
None	D1 Ditch	4.32	1.20	0.645	0.444	0.339	<b>0</b> 645	\$0.44 <b>#</b> \$	0.339
50 %		2.19	Q.609	©0.327	0.22	[ ØM 71 °	0.3270	0,224	0.171
75 %		Ţ,	Ø.308	0.165	0.113	Ø.087	0,165	<b>Q</b> .113	0.087
90 %		©0.451 ©	0.125	<b>©</b> 067	0.046	0:03/5	<b>%</b> .067	0.046	0.035
None	D1 Stream	0.609	0.223	0.119	0.081	0.062 🕊	) 0.1 <b>(%</b> )	0.081	0.062
50 %		<b>6</b> 305	پ0.112 <u> </u>	0.060	_00.041 (	0.034	0.060	0.041	0.031
75 %		€0.153Ô	0.9\$6	0.030	0.02	0,016	<sub>@1</sub> 0.030	0.020	0.016
90 %		0.061	© 0.023 ~	y 0.012 y	0:008	Ø.006	0.012	0.008	0.006
None	352 Disch	<b>3</b> .68	0°1.0 <b>%</b> /	0543	<b>373</b>	0.285	0.543	0.373	0.285
50 % ू 🧔	) 'O'	1.86	0.413	Ø.274 @	0.188	<b>9</b> 143	0.274	0.188	0.143
75 %		0298	<b>3</b> 0.259	0.138	0.995	0.072	0.138	0.095	0.072
90 %		<b>₹</b> 07.380 ≾	0.10	<b>0.9</b> 56 (	0.038	0.029	0.056	0.038	0.029
None	D2 Stream	3.27	1,21	. © .647 ©	0.444	0.339	0.647	0.444	0.339
50 %		1365	©.611 €	0.336	<b>2</b> 224	0.171	0.326	0.224	0.171
75 %		0.833	0.308	£ 165	y 0.113	0.086	0.165	0.113	0.086
90 %	, co	0.337	Ø7¥24 °₂	©0.066	0.045	0.035	0.066	0.045	0.035
None	D3 Ditch	<sub>4</sub> 0.630 ~	0.172	0.091	0.062	0.048	0.091	0.062	0.048
50%		\$0.316	0,056	0.046	0.031	0.024	0.046	0.031	0.024
75 %		0.158	<b>@</b> .043 <b>.</b>	0.023	0.016	0.012	0.023	0.016	0.012
90 %	5° 4'	<b>0</b> .064 🔏	√0.017 ×	0.009	0.006	0.005	0.009	0.006	0.005
None &	D4Pond	0.294	0. <b>Q</b> 52	0.183	0.147	0.124	0.183	0.147	0.124
50 %		0.048	0.129	0.093	0.075	0.063	0.093	0.075	0.063
75 %		<b>₹</b> Ø.075	0.065	0.047	0.039	0.034	0.047	0.039	0.034
£96 % _\$		0.033	0.031	0.026	0.023	0.021	0.026	0.023	0.021
None	D4 Stream	0.206	0.075	0.040	0.027	0.021	0.040	0.027	0.021
50 %		0.103	0.038	0.020	0.014	0.010	0.020	0.014	0.010
75 %		0.052	0.019	0.010	0.007	0.007	0.010	0.007	0.007



PEC <sub>sed</sub> (μg/kg)	Scenario				Step 4 A	clonifen			
Nozzle	Vegetated strip (m)	None	None	None	None	None	10 m	10 m	200 m
reduction	No spray buffer (m)	0 m	5 m	10 m	15 m	20 m	10 <b>9</b> 7	15 m	© 20 m
90 %		0.021	0.008	0.007	0.007	0.007	<sub>₹</sub> 0.007	0.000	0.007
None	D5 Pond	0.331	0.287	0.209	0.167	0.141	<sup>J</sup> 0.209	0:¥67 °	<b>3</b> 0.141
50 %		0.169	0.147	0.106	<b>1</b> 085	0.07	0.106	0.085	0,0%2
75 %		0.086	0.075	0.054	0.043	0.037	0.054	0.0€3	Ø37 ¢
90 %		0.035	0.031	0.02	0.018	<b>4</b> .015	0.022	<b>Q</b> ,018	$\mathbb{O}_{0.015}$
None	D5 Stream	0.292	0.107	0.057	0.039	0.02	0.057	0.039	0.029
50 %		0.146	0.053	Ø.028	0.019	Ø.015	₩0.028 ₩	0.019	0.015
75 %		0.073	0.027	0.0	<b>9</b> 910 ,	$\sqrt{0.007}$	0.014	Ø.010 Å	0.00 <b>%</b> °
90 %		0.029	0.0	<b>20.0</b> 006 ∧	0.004	0.0 <del>0</del> 3	©.006 ×	0.004	0,003
None	D6 Ditch	3.20	0887 (	<i>`</i> ∕0.475 <i>©</i>	0.326	©249 ×	J 0.47 <b>5</b>	0,326	<b>3</b> .249
50 %		1.62	0.449	0.240	0,165	Ø 0.126	0.240	<b>3</b> 165 ©	0.126
75 %		0.819《	0.237	<b>3</b> 121	y 0.08 <b>3</b>	0,0064	J.121 Ĉ	0.08	0.064
90 %		0,392	0,092	©0.049	0,034	0.026	0.0	Ø£934	0.026
None	R1 Pond	ð.697 ⊈	0.66	0.610	©0.581 A	0.503	0@331	0.301	0.194
50 %	%	$^{\bigcirc}_{3}0.582^{\bigcirc}$	0.566	Ø.539 <u>(</u>	0.524	<b>63</b> 15	\$0.256\(\)	0.242	0.143
75 %	<	0.523	<b>@</b> .517 (	0.50	.0. <b>9</b> 96	‰0.492	0,200	0.212	0.118
90 %		0.491		0.382	<b>3</b> 0.479	0.408	<b>6</b> √198	0.195	0.103
None	R1 Sream	× 1.93×	<b>1</b> 92	√1.91, √	1.91	<b>4</b> √91 ≪	©0.362	0.360	0.142
50 %	R1 Stream	1.92	%1.91 <sub>0</sub>	1,9	1.91	Ş 1.91∜	0.359	0.359	0.141
75 %		₩1.91 <sub>@</sub>	1.91	<b>1991</b>	Ç 1.91 Õ	1,94	0.358	0.358	0.140
90 %		1.94	<b>5</b> 91	01.91	1.94	<b>P</b> .91	0.358	0.357	0.140
None	R3 Stream	<b>, 62</b> .1	62.1	6200	<b>₹</b> 62.0 <sub>%</sub>	62.0	9.44	9.43	3.18
50 %	9	<b>√</b> 62.1 <b>√</b>	62.9	<b>46</b> 2.0	√ 62.0°	62.0	9.43	9.43	3.18
75 %	l & A	620	62.0	62.0	620	62.0	9.43	9.43	3.18
90 %		<b>6</b> 2.0 %	62,00	620	62.0	62.0	9.42	9.42	3.17
None _	R4 Stream (	1.52	1.82	\$1.52 @	1.52	1.52	0.316	0.316	0.131
50 %	, Ø	1,5,2	4.52 S	1.52	1.52	1.52	0.316	0.316	0.131
75,%		<u>1.52</u>	7 1.52	°1,32	1.52	1.52	0.316	0.316	0.131
90%	] ~ ~ ~ ~	1.52	1.32	<b>1.52</b>	1.52	1.52	0.315	0.315	0.131

PEC<sub>sw</sub> for diflutenican

For PEC<sub>sw</sub> and PEC<sub>sw</sub> calculations use of diflutenican at application rates of 70 g a.s./ha and 35 g a.s./ha on watter coreals was considered.

The simulation model FOCUS SWASH v5.3 comprising of FOCUS PRZM v4.3.1, FOCUS MACRO

v5.5.4 and FOCUS TOXSWA v4.4.3 was used to calculate the reported PEC<sub>sw</sub> values. SWAN v4.0.1 was used to apply Step 4 mitigation measures.



Predicted environmental concentrations in surface water and sediment (PEC<sub>sw</sub> and PEC<sub>sed</sub>) at Steps 1 and 2 have been calculated for use on winter cereals. A comparison of the concentrations predicted at Steps 1 and 2 with ecotoxicological endpoints indicated the exposure assessments for both compounds were too conservative to conduct a successful risk assessment for aquatic organisms. Consequently predicted environmental concentrations in surface water and sediment (PEC<sub>sw</sub> and PEC<sub>sed</sub>) at Step 3 and Step 4 have been calculated.

Data Point:	KCP 9.2.5/02	Y
Report Author:	;	
Report Year:	<mark>2017</mark>	<b>~ %</b>
Report Title:	Diflufenican(DFF) and metabolites: PECsw, sed FOCUS FOR - Use in w	vinter
	cereals and spring cereal in Europe	
Report No:	EnSa-17-0592	4.Ji
Document No:	M-604961-01-1	.1
Guideline(s) followed in	not applicable	
study:		
Deviations from current	Current guideline: FOCUS (2001, 2007 and 2015)  No deviation	
test guideline:	No deviation V V V V V V V V V V V V V V V V V V V	_
Previous evaluation:	Current guideline: FOCUS (2001, 2007 and 2015) No deviation No, not previously submitted	<b>P</b>
		,
GLP/Officially	No, not conducted under GLP officially recognised testing facilities	
recognised testing		
facilities:		
Acceptability/Reliability:	Spes O D D D D D D D D D D D D D D D D D D	

Predicted invironmental concentrations of the herbicide attilufencian and it metabolites AE B107137 (DFF-acid) and AE 654229 (DFF-amide) in surface water (PEC<sub>sw</sub>) and sediment (PEC<sub>sed</sub>) were calculated for the use in winter cereals in Europe employing the tiered FOCUS Surface Water approach. Calculations were also performed for use in spring cereals in Europe but are not considered here as they are not refevant for representative use of ACE+DFF SC 600 (500 + 100) G. 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.

runoff/erosion or drain flow) were considered in these calculations.

Intended GAPs for the use of diffusencean in winter cereals in Europe were analysed and consolidated according to regulatory and modelling requirements. As a result, one or more uses may be covered by a single modelling GAP row (DGR). The translation of the regulatory GAP for modelling purposes is shown in Table 9.2.5-20.

Table 9.2.5-20: GAP translation for modelling purposes

GAP GAP group name (DER) and use His	Covered crop(s)	Growth stage	Max. apps	Interval (days)	Rate (kg a.s./ha)
DC&I winter cereals 1	winter cereals I	BBCH 00 - 09	1	•	$1 \times 0.07$
Winter cereals II	winter cereals II	BBCH 00 - 13	1	_	$1 \times 0.035$

The implementation of the modelling GAP at Steps 1-2 level is shown in Table 9.2.5-21. One or more calculations (modelling tasks, PMT) are necessary to fully cover the use assessed. The number and name of the respective DGR is provided for easier reference.



### Table 9.2.5- 21: FOCUS Steps 1-2 specific data for the GAPs assessed

Run IDs (DGR / PMT)	GAP group name (DGR)	Assessment name (PMT)	FOCUS crop (crop group)	Season	Crop cover
DGR I PMT I	winter cereals I	winter cereals I	cereals, winter (arable crops)	autumn (Oct Feb.)	min crop sover
DGR II PMT II	winter cereals II	winter cereals II	cereals, winter (arable crops)	auturn (Oct Feb.)	min crop ço çer

The implementation of the modelling GAP at Step 3 leve is shown in the following tables. Please note that PMTs at Steps 1-2 and Step 3 do not necessarily fully correspond to each other due to inherent differences in the models. A 30d window starting either 7 days before or after emergence was osed to simulate the post-emergence applications.

A summary of all Step 3 PMTs is provided in Table 9.2.5- 22. The detailed information on individual uses is given in Table 9.2.5-23 and Table 9.2.5-24 for pre-emergence use on winter cereals at 70 g a.s./ha (DGR I, PMT I), in Table 9.2.5-25 and Table 9.2.5-26 for post-emergence use on winter cereals at 70 g a.s./ha (DGR I, PMT II) in Table 9.2.5-27 and Table 9.2.5-28 for pre-emergence use on winter cereals at 35 g a.s./ha (DGR III PMT III) and in Table 9.2.5, 29 and Table 9.2.5, 30 for post-emergence use on winter cereals at 35 g a.s./ha (DGR/II, PM/I IV).

Overview of FOCUS Step 3 assessments **Table 9.2.5- 22:** 

Run IDs (DGR / PMT)	GAP group agame (DGR)  Assessment name (PMT)  FOCUS crop (crop group)
DGR I PMT I	Winter cereals I, 16 g/ha  Winter cereals I  (gee-emetgence) BBCH 0 - 9  (arable crops)
DGR I PMT II	Winter cereated, 70 g/ha Winter cereated (post-emergence) BBCH 10-13 (arable crops)
<mark>DGR II</mark> <mark>PMT III</mark>	Winter cereals I 35 g/ha Winter cereals II Cereals, winter (arable crops)
DGR II PMT IV	Winter cereals I, 35g/ha Winter cereals II  (post-emergence) BBCH 10-13  (arable crops)

### Winter Cereals full rate 70 ca.s./has pre-emergence

Summarised FOCUS Step 3 application data (PAT settings)

	9	_ (()	, 0		
Crop Q		enario e		S A	pplication window used in modelling
	O DOI	Ditch Stream		) "() `	18-Sep - 18-Oct
4	<b>≥</b> 2 1	Dite Stream			18-Oct - 17-Nov
	l 🧞 🗓	Ditch Ditch	*\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}}}}}}}\sqrt{\sqrt{\sqrt{\sq}}}}}}}\sqrt{\sqrt{\sqrt{\sqrt{\sq}}}}}}\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}}}}}}}\sqrt{\sqrt{\sqrt{\sq}}}}}}}}\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}\sq}\sqrt{\sq}}}}}\sqit{\sqrt{\sq}\sqrt{\sqrt{\sqrt{\sq}}}}}}\sqit{\sqrt{\sq}\sqrt{\sqrt{	<b>*</b>	14-Nov - 14-Dec
Winter cereals I	D44	ond/Stream			15-Sep - 15-Oct
	S DASI	ond Stream?	Y	<i>!</i>	03-Nov - 03-Dec
(pre-emerg)	۲ '\$' <mark>۱</mark>	Of Ditch Q			23-Nov - 23-Dec
	R1	Shd/Stream			05-Nov - 05-Dec
Q `	4 0 08	3 Stream	$\mathbb{Q}^{"}$		24-Nov - 24-Dec
	R R	4 Stream	*		03-Nov - 03-Dec

GAP name (DGR) O	DGR I / PMT I Winter cereals I Winter cereals I (pre-emerg)
	Cereals, winter (arable crops)
Use pattern	0.07 kg a.s./ha
Appl. method (Run-off CAM, depth inc.)	Ground spray (2- appln foliar linear, 4 cm)



PAT start date (relative to	crop event or abs	olute)	7 days before emerg	vence	
PAT window ran		<u> </u>	30 days for all scena	·	(S)
Drainage scenarios	PAT start/end date (Julian day)	Application date	Runoff scenarios	PAT start/end date (Juliate day)	Application (Cate
D1 Ditch/Stream	18-Sep/18-Oct (261/291)	03-Oct	R1 Pond/Stream	05-Nov/05-Dec (309/339)	14-Now
D2 Ditch/Stream	18-Oct/17-Nov (291/321)	03-Nov	R3 Stream	24-Nov/24-Dec (328/358)	195-Dec
D3 Ditch	14-Nov/14-Dec (318/348)	14-Nov	R4 Stream	%3-Nov/67-Dec % (307/337)	
D4 Pond/Stream	15-Sep/15-Oct (258/288)	28-Sep	Stream .		
D5 Pond/Stream	03-Nov/03-Dec (307/337)	27-Nox	R4 Stream		
<mark>D6</mark> Ditch	23-Nov/23-Dec (327/357)	06-Dec			

### Winter Cereals full rate 70% a.s./ha, post emergence

# Table 9.2.5- 25: Summarised FOCUS Step 3 application data (PAF settings)

<b>Crop</b>	Scenario Application window itsed in modelling
Winter cereals I	D1 Ditch Stream  D2 Ditch Stream  O1-Nov  O1-Nov  O1-Dec  28-Nov  28-Nov  28-Dec
Winter cereals I	
(post-enterg)	R1Rond/Steam \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	R3 Stream 9 9 08-Dec - 07-Jan 17-Nov - 17-Dec

## Table 9.2.5- 26; Full FOCUS Step 3 application data

1 11210 7 1210 20	~.	Sech Cubbine	^		
Run IDs	PMA Q		DÇÎK I / PMT II		
GAP name DGR)			Winter cereals I		
Assessment name (	PMI) Q		Winter cereals I (po	st-emerg)	
FOCUS model crop	p.(Grop group) &		Cereals, winter (aral	ole crops)	
Use pattern			0.07 kg a.s./ha		
Appl. method (Ran			Ground spray (2- ap	pln foliar linear, 4 o	<mark>cm)</mark>
PAT start Pate		W .			
(relative to	crop event or abs	<mark>olute)</mark>	7 days after emergence		
PAT window Pa			30 days for all scena	rios (min = 30 day	<mark>s)</mark>
scenaryos .	PAT startend date (Julian day)	Application date	Runoff scenarios	PAT start/end date (Julian day)	Application date
D1 Ditch/Stream	02-Oct/01-Nov (275/305)	03-Oct	R1 Pond/Stream	19-Nov/19-Dec (323/353)	19-Nov



D2 Ditch/Stream	01-Nov/01-Dec (305/335)	03-Nov	R3 Stream	08-Dec/07-Jan (342/7)	08-Dec
D3 Ditch	28-Nov/28-Dec (332/362)	28-Nov	R4 Stream	17-Nov/17-Dec (321/351)	10-Dec
D4 Pond/Stream	29-Sep/29-Oct (272/302)	29-Sep			
D5 Pond/Stream	17-Nov/17-Dec (321/351)	27-Nov	Ö		
D6 Ditch	07-Dec/06-Jan (341/6)	07-Dec			

### Winter Cereals half rate 35 g a.s./ha, pre-emergence

# Summarised FOCUS Step Papplication data (PAT settings)

Assessment name	Scenario Application window used in modelling
Winter cereals II	D1 Ditch/Stream D2 Ditch/Stream D3 Ditch/Stream D4 D1 Ditch/Stream D5 D1 Ditch/Stream D6 D1 Ditch/Stream D7 D1 Ditch/Stream D8 D1 Ditch/Stream D9 D1 D1 Ditch/Stream D9 D1
(post-emerg)	D1 Ditch/Stream  D2 Ditch/Stream  D3 Ditch  D4 Pond Stream  D4 Pond Stream  D5 Ditch  D6 Ditch/Stream  D6 Ditch/Stream  D7 Ditch/Stream  D8 Ditch/Stream  D8 Ditch/Stream  D9 Di
	D2 DetCh
	1 Don Mich Stream   0
	1 % MA Datab
	R1 Pond Stream R3 Stream R
	R1 Pond Stream  R3 Stream  R3 Stream  R4 Stream  R4 Stream  R5 Stream  R6 Stream  R6 Stream  R7 Stream  R7 Stream  R7 Stream  R8 Str
	2 Stream 5 4 0 4 03-Nov - 03 Dec

(258/288)

Pond/Stream

Table 9.2.5- 28: Rull FOCUS Step 3 applica	tron data	\$	
Run IDs GAP name (DGR) Assessment name (PMT)	DGROT / PMP III Wijgrer cereals II & Winter cereals II Opr	D	
FOCUS model crop (crop group)	Cereals, winter (aral	ole crops)	
Use pattern Q & Q Q Q	0.035 kg a.shha		
Appl. method (Run-off CAM, death inc.)	Ground Gray (2- ap	pln foliar linear, 4 o	<mark>em)</mark>
PAT start date (relative to cresp event or absolute)  PAT window range	7 days before emerg	<mark>ence</mark>	
PAT window range	3@days for all scena	rios (min = 30 days	s)
		B + E	
Dramage Start/end date Julian day	Runoff scenarios	PAT start/end date (Julian day)	Application date
Ditch/Stream  Start/enti date (Julian day)  18-Sep/18 Oct Ditch/Stream  (261/291)	Runoff scenarios  R1 Pond/Stream	start/end date	
D1 18-Sep/18-Oct 03-Get 261/201)	Runoff scenarios R1	start/end date (Julian day) 05-Nov/05-Dec	date
Ditch/Stream  Diagram of the property of the p	Runoff scenarios  R1 Pond/Stream  R3	start/end date (Julian day) 05-Nov/05-Dec (309/339) 24-Nov/24-Dec	<mark>date</mark> 14-Nov



D5 Pond/Stream	03-Nov/03-Dec (307/337)	27-Nov		
D6 Ditch	23-Nov/23-Dec (327/357)	06-Dec		

### Winter Cereals full rate 35 g a.s./ha, post-emergence

### Table 9.2.5- 29: Summarised FOCUS Step 3 application data (FAT settings)

Winter cereals II (post-emerg)  Winter cereals II (post-emerg)  D1 Ditch/Stream D2 Ditch/Stream D3 Ditch D4 Pond/Stream D5 Pond/Stream D6 Ditch R1 Pond/Stream R3 Stream R4 Stream R4 Stream R4 Stream R4 Stream R5 D1 Ditch/Stream R02-Oct - 01-Nov -	<b>Crop</b>	<b>Scenario</b>	Application window used in modeling
		D2 Ditch/Stream D3 Ditch D4 Pond/Stream D5 Pond/Stream D6 Ditch R1 Pond/Stream R3 Stream	02-Oct - 01-Nov 01-Nov - 01-Dec 28-Nov - 28-Dec 29-Sep-29-Oct

### Table 9.2.5- 30: Full FOCUS Step 3 application data

Run IDs GAP name (DGR)	OGRILL PMT IV
GAP name (DGR)	Winter cereals 11
Assessment name (PMT)	Winter cereals II (gost-emerg)
FOCUS model crop (crop group)	Greals, Winter (arable expres)
	10.035 kg a.s./hg &
Appl. method (Run-Alf CAM, depth inc.)	Ground spray (2- appln foliar linear, 4 cm)
PAT start date V V V	
(relative to crop event or absolute)	7 days after extergence
PAT window range	30 days for all scentaios (min = 30 days)
DATE OF A	DATE I

scenarios start/end date date (Julian day)	plication
	<mark>date</mark>
D1	19-Nov
Ditch/Stream Q (323/353) Pongestream (323/353)	
D2 O O-Nov(01-Dec 7 03-Nov 2 R3 08-Dec/07-Jan	08-Dec
Ditch/Stream (305/335) Stream (342/7)	
	10-Dec
Ditch (321/351)	
D5 \$\frac{17.N6\(\){17.1\(\){4}}}{\tag{7.Nov}}	
Pond/Stream @ (321/350)	
Pond/Stream (321/356)  Do (321/356)  Do (321/356)  Do (321/356)  O7-Dec(06-Jan O7-Dec	

Standard procedures and settings were used for Steps 1-2 and 3 assessments. At Step 4 the following mitigation settings were used (see Table 9.2.5- 31 and Table 9.2.5- 32).



Table 9.2.5- 31: Mitigation approaches used

<b>Buffer length</b>	Mitigation type	Drift reduction nozzles
<mark>0 m</mark>	Spray drift	0 %, 50 %, 75 %, 90 %
<mark>5 m</mark>	Spray drift	
10 m	Spray drift & RunOff	
<mark>15 m</mark>	Spray drift & RunOff	
20 m	Spray drift & RunOff	
	Ö	
<b>Table 9.2.5- 32:</b> Ru	noff mitigation parameters used for	or the assessment
Fraction	nal reduction in:	
Runoff:	Volume 0.60	0.80 × × ×
	Flux 🔊 💮 0.60	
<b>Erosion</b>	<mark>: Mass</mark> 📞 ్ర్ట్ల <mark>0.85</mark>	9 17 1 <mark>995</mark> 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	Flux Oʻ J. Wʻ 0.585	
	A O	

Table 9.2.5- 32: Runoff mitigation parameters used for the assessment

Fractional re	eduction in:	<b>€</b> 10	m, 15 m	<mark>20 m</mark> _
Runoff:	Volume		0.60	@° <mark>0.80</mark> 5
	Flux	<b>~</b>	0.60 ×	<b>0.80</b>
Erosion:	Mass	&, o°	0.85 V	" <mark>.0,95</mark>
	Flux		0.85	

Substance related parameters used for deflutence and its metabolites in the calculations at FOCUS SW Steps 1-2 level are summarised in able 2.2.5-33 and av Step 3.4 level in Table 9.2.3-34.

Substance parameters used at FOCUS Steps 7-2 level **Table 9.2.5-33:** 

		(V)		( )/5			
<b>Parameter</b>	Unit (	. 3		AF	F-acd)	<b>0</b>	<b>E 0542291</b> <b>DFF-amide)</b>
Molar mass	∘ <mark>(@mol)</mark> ○	<b>3</b>	943	1 , 2	83.21 410		<mark>282.22</mark>
Water solubility	mg/L		905 3417 0 7		410 V 2	Ş	8 <mark>88</mark>
Koc Degradation Soil Total system Water Sediment	💝 <mark>(ml/g)</mark> 🐪	Ş Ç	<b>(417</b> O) %		410 V 13 13 V 13 V 13 V 13 V 13 V 13 V 13	1	132
Degradation		, " (U		, a.			
Soil		, J	43.2		<u>10.6</u>		<mark>26.9</mark>
Total system	رر (d) المراجعة المرا				<mark>1000</mark> ,%		<mark>1000</mark>
Water		~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	175 🗳 🦠		10.6 1000 76.2		<mark>1000</mark>
Sediment		ا <sup>ای</sup> ا	000		<mark>1000</mark>		<mark>1000</mark>
Max occurrence				0 .	.) Tr		
Water / sediment	<u>ر%</u> (۱۷۵۲)		100		45.9		<mark>0.01</mark>
Soil 🗳 🦠	~ <mark>(%)</mark>		100 <sub>0</sub> 0′ ×		<mark>16.8</mark>		<mark>26.3</mark>

ubstance parameters used for diffufenican at Step 3/4 level

· 	Parameter Substance Substa	Unit	<b>Parent</b>
	Parameter  Substance SWASH code  General  Molar mass		<mark>Diflufenican</mark> DFF
4	THOTAL HASS	(g/mol)	394.3
é	pressure (temp.)	(mg/L) (Pa)	0.05 (20 °C) 4.25E-06 (25 °C)
	Crop processes  Coefficient for uptake by plant (TSCF)  Wash-of factor  Sorption  Koc	(-) (1/m)	0 50
	Sorption  Koc  Kom  Freundlich exponent (1/n)	(mL/g) (mL/g)	3417 1982 0.917
	Transformation DT50 in soil	(-) (d)	143.2



Parameter	<mark>Unit</mark>	Parent	
temperature	(°C)	<mark>20</mark>	
moisture content (pF)	(log(cm))	<mark>2</mark>	
formation fraction in soil	(-)	_ <mark>-</mark> _	
DT50 in water	<u>(d)</u>	175°	
temperature	(°C)	20\$	
formation fraction in water	(-)		
DT50 in sediment	(d)	<b>1000</b>	
temperature	(SC)	20	
formation fraction in sediment	(-)	A000 C 20 27 - 20 - 27 - 20 - 27 - 20 - 20 - 20	
DT50 on canopy	(d)	10 y	
PRZM and TOXSWA (Walker exp.) MACRO (calibrated value)	<u> </u>		
PRZM and TOXSWA (Walker exp.)	(-) «	\( \frac{1}{2} \) \( \frac{0.7}{2} \) \( \frac{1}{2} \) \( \frac{1} \) \( \frac{1} \) \( \frac{1}{2} \) \( \frac{1}{2}	
MACRO (calibrated value)	(-)	0.70 0.49	
Effect of temperature			<b>V V</b>
TOXSWA (molar activation energy)	(k.Jemol)	رُمْ الْمُورِّ <mark>65.4</mark> مَنْ الْمِرْ الْمُورِّ الْمُرْدِّ الْمُرْدِي	A .c .
MACRO (effect of temperature) of	(A/K)	<b>0.0948</b> O'	
$\begin{array}{ccc} \mathbf{PRZM} & (\mathbf{Q}_{10}) & & & & & & & & & & & & & & & \\ \end{array}$	<b>(-)</b>	<b>20</b> 8	
		0, 4, 4	

The PEC values were calculated for diffusenican and its metabolites according to the equations implemented in the "STEPS 1-2 in FOCUS" calculator (see Table 9.2.5- 95 and Table 9.2.5- 36 for diffusion, Table 9.2.5- 37 and Table 9.2.5- 38 for AE \$10713 (DFF-acid) and Vable 9.2.5- 39 and Table 9.2.5- 40) for AE \$407137 (DFF-acid) and Table 9.2.5-40) for AE \$407137 (DFF acid)

0 FOCUS Step 1-2 results for diflufencan, use winter cereals I (DGR I/ **Table 9.2.5- 35:** PMT LGAP frame Winter Cereals P) 70 g/ha

-			~ <del>``</del>	<del>?, ,`'</del> ×		·		
<b>Scenario</b>	Waterbody -	Max®	EC <sub>sw</sub>	Dominant entry route	7d PEC switwa	21 d-PEC <sub>sw,twa</sub> (μg/L)**	<mark>Max PEC</mark> (μg/kg) <sup>;</sup>	
<b>FOCUS</b>		0		Run M/Drain	4.2940		(rs/~s/)	
Step 1		4.84 <b>3</b>	ļ 🙏	Run Off/Drain.	4.2940 4.2940	4.1535	146.88	-
Step 2					4.2940			
Step 2  N-Europe S-Europe	Oct Feb. (Autumn)	2.2204 1.8081	* * * * * * * * * * * * * * * * * * *	RunOff/Draio. Runoff/Draio.	2 1628 1.7537	2.1411 1.7358	74.256 60.191	* *
* Single ap ** TWA-in	pplications market terral as required	d by@cotox			1./53/			
<u>A</u>	Oct Feb. (Autumn)  pplications make tensor as required							
	W 1			Runoff/Draig. Runoff/Draig.				
			Z					
			~~~	,				
		Y Y						



**Table 9.2.5- 36:** FOCUS Step 1-2 results for diflufenican, use winter cereals II (DGR II / PMT II; GAP name winter cereals II) 35 g/ha

Scenario FOCUS	Waterbody	<mark>Max PEC<sub>sw</sub> (μg/L)*</mark>	Dominant entry route	7d-PEC <sub>sw,twa</sub> (μg/L)**	21d-PEC <sub>sw,twa</sub> (μg/L)**	Max PECsed (μg/kg)*
Step 1	-	<mark>2.4217 -</mark>	RunOff/Drain.	2.1470	2.0767	73.439
Step 2				₽n.		
N-Europe S-Europe	Oct Feb. (Autumn)	1.1100 0.9041 *	RunOff/Drain. RunOff/Drain.	1.0814 0.8769	1.0706 0.8679	37 128 0 * 30.095 *

Single applications marked

Table 9.2.5- 37: FOCUS Step 1-2 results for AE B 107137 (DFF acid), use winter cereals It of DGR I / PMT I; GAP name winter cereals It 70 g as:/ha (DGR I / PMT I; GAP mayne winter cereals I) 70 g as /ha

Scenario	Waterbody	Max PEC (μg/L)	ontry route	7d-PECsy,twa (µg/Ø)**	21d-PECsw,twa	Max PECsed  (pg/kg)*
<b>FOCUS</b>						
Step 1	-	10 <b>\$</b> 41	Runoff/Drain.	<b>10.510</b>	10.26	√ <mark>1.3690 -</mark>
Step 2				≥ ماما		
N-Europe S-Europe	Oct Feb. (Autumn)	4.9759 4.0312	Run Off/Drain. Run Off/Dein.	4.8216 3.8963	4.5346 3.6643	0.6463 * 0.5223 *

Single applications marked

FOCUS Step 1-2 results for AKB107137 (DEF-acid), use winter cereals II **Table 9.2.5** (DGR ILPMTH; GAP name winter cereals II) 35 g as./ha

Scenario	Waterbody	Max PECsw	Dominant	7d-PFCsw,twa	21d-PECsw,twa	Max PEC <sub>sed</sub>
<b>FOCUS</b>		(µg/L)*			(µg/L)**	(µg/kg)*
Step 1	\$ - \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	<b>3.270%</b> -∧	Ruiion/Diaiii.	5.2562	5.2307	0.6845
Step 2						
N-Europe S-Europe	Oct Feb (Auturon)	24880 2.0106 *	KinOff/Drain. KunOff/Drain.	2.4108 1.9482	2.2673 1.8322	0.3231 * 0.2611 *

TWA-interval as required by ecotox

<sup>\*</sup> Single applications marked

\* TWA-interval as required by edgtox

\* TWA-interval as required by edgtox



**Table 9.2.5-39:** FOCUS Step 1-2 results for AE 0542291 (DFF-amide), use winter cereals I (DGR I / PMT I; GAP name winter cereals I) 70 g as./ha

Scenario FOCUS	Waterbody	<mark>Max PEC<sub>sw</sub></mark> (μg/L)*	Dominant entry route	7d-PEC <sub>sw,twa</sub> (μg/L)**	21d-PEC <sub>sw,twa</sub> (µg/L)**	Max PEGsed (µg/kg)*
Step 1	-	3.7364 -	RunOff/Drain.	3.7274	3.7094	4,9320 y -
Step 2				₽ <sub>A</sub>		
N-Europe S-Europe	Oct Feb. (Autumn)	1.6853 1.3483 *	RunOff/Drain. RunOff/Drain.	1.6812 1.3450	1.6731 1.3385	23246 2.7797 * *

\*\* Single applications marked
TWA-interval as required by ecotox

Table 9.2.5- 40: FOCUS Step 1-2 results for AE 0542291 (DFF-amide), use winter cereals II

(DCD II / PMT II) GAP name winter cereals III) 35 g as./ha (DGR II / PMT II: TAP name winter cereals II) 35 as./ha

<b>Scenario</b>	<b>Waterbody</b>	Max PEC®	Dominant	7d-PECsw,twa	21d-PEC sw,twa	Max PEC <sub>sed</sub>
		μg/L)©	entry route	(μg/ <b>ΙΟ)**</b>	<mark>(µg/L)**</mark> "	(pg/kg)*
<b>FOCUS</b>						
Step 1	-	1.8682 ×	Runoff/Drain.	1.8620	1.8547	<mark>√ 2.4660 -</mark>
Step 2				d		
N-Europe	Oct Feb. 🗞	0.8427	Run Off/Drain.	<b>№</b> 8406	20.8366	1.1123 *
S-Europe	(Autumn)	<mark>0,6</mark> 741	RanOff/Drain.	0.6725	0.6693	<mark>0.8899 *</mark>

Single applications marked

Step 3 calculations were conducted for diffifenition employing the models of the FOCUS SW suite. Reported values represent loadings via all relevant entry routes (see Table 9.2.5- 41 to Table 9.2.5-44)



**Table 9.2.5- 41:** FOCUS Step 3 results for diflufenican, use winter cereals I (pre-emerg) (DGR I / PMT I; GAP name winter cereals I) 70 g/ha

Scenario	Waterbody	Max PEC <sub>sw</sub> (μg/L)*	Dominant entry route	7d-PEC <sub>sw,twa</sub> (μg/L)**	21d-PEC <sub>sw,twa</sub> (μg/L)**	Max PEC <sub>sed</sub> (μg/kg)*
<b>FOCUS</b>						
Step 3					4	
D1	Ditch	0.4483 *	Spray drift	0.3372	<mark>√√0.2496</mark> %	2.0970
D1	Stream	<mark>0.3906</mark> *	Spray drift	🔘 <mark>0.0499</mark> 🧳	🔖 <mark>0.0414</mark> 📡	0.91,29
D2	Ditch	<mark>0.4928 *</mark>	Spray drift ^	0.2450 Q	0.1403	29630 × *
D2	Stream	0.3825 *	Spray drift	0.0540 O	0.04 <b>5</b> 4	<b>2.253g</b>
D3	Ditch	<mark>0.4403</mark> *	Spray d <u>ri</u> ft	0.0495 <sup>*</sup>	0.0168	1 0 2381 *71
D4	Pond	<mark>0.0156</mark> *	<b>Drainage</b>	0.0145	0.Q125	02087
D4	Stream	0.3817 *	Spray drift	0 <del>0</del> 0157	0.0052	• <mark>0,0819</mark> ≪ <mark>*</mark>
D5	<b>Pond</b>	0.0153 *	Spray drift	<b>0.0138</b>	<b>∞</b> 0.01 <b>20</b>	> <mark>0.1425</mark>
D5	<b>Stream</b>	<mark>0.4118 *</mark>	Spray drift	0.02 <b>24</b>	<mark>√0.0<b>07</b>5</mark> √	0.1452 <mark>*</mark> 。
D6	Ditch	0.4452 *	ASpray@rift	© 0.3 <del>04</del> 0 🔏	<b>0</b> 1228 Oʻ	1 <mark>1 9800                                  </mark>
R1	Pond	0.0349 *	Rumoff ~	<b>6</b> 0319	<u></u>	0.5081 *
R1	Stream	<mark>0.2902</mark>	Spray drift	0.03080	0.0163	♥ <mark>0.547€ *</mark>
R3	<b>Stream</b>	0.4071 <b>*</b>	& Spray drift	0.020H	Ů <mark>0.<b>0</b>€24</mark> Ø	* <mark>0.5ٍ781 *</mark>
R4	Stream	0.2920 *	Spray Frift	V 07.03339	9 <b>0</b> 114	<b>0.4345</b> *

Single applications marked

\*\* Single applications marked

TWA-interval as required by ecolox

Table 9.2.5- 42: FOCUS Step 3 results for diffusenican, use winter cereals I (post-emerg) DGR 7 PMFII; GAP name winter cereals 1970 g/ha

					<u>~</u>	
Scenario FOCUS	Waterbody	Max PECs	Dominant extry route	76 PEC shewa Σ(μg/I) ÷	<mark>24d-PECsw,twa</mark> (μg/L)**	<mark>Max PEC<sub>sed</sub> (μg/kg)*</mark>
Step 3				Q) . O		
D1 D1 D2 D2	Ditch Stream Ditch Pond Stream Stream Stream Pond Stream Pond Stream Otten Stream	0.3807 0.9453 @ 0.4118	* Spray drift  Spray drift  * Spray drift	0,3074 0,0514 0,2428 0.0535 0.0460 0.0139 0.0157 0.0138 0.0224 0.3064 0.0326	0.2499 0.0428 0.1381 0.0436 0.0156 0.0120 0.0052 0.0120 0.0075 0.1207 0.0287	2.1610 * 0.9491 * 2.3910 * 1.2060 * 0.2227 * 0.2031 * 0.0819 * 0.1408 * 0.1152 * 1.1910 * 0.5141 *
R1 R3 R4	Stream Stream Stream	000902 0.4071		0.0312 0.0200 0.0349	0.0105 0.0141 0.0136	0.5583 * 0.5770 * 0.5066 *



**Table 9.2.5- 43:** FOCUS Step 3 results for diflufenican, use winter cereals II (pre-emerg) (DGR II / PMT III; GAP name winter cereals II) 35 g/ha

<b>Scenario</b>	Waterbody	<mark>Max PEC<sub>sw</sub> (μg/L)*</mark>	Dominant entry route	7d-PEC <sub>sw,twa</sub> (μg/L)**	21d-PEC <sub>sw,twa</sub> (µg/L)**	Max PEς sed (μg/kg)*
<b>FOCUS</b>				N. O		
Step 3					4	
D1	Ditch	0.2233 *	Spray drift	0.1672	0.1228 ×	0.9897
D1	Stream	<mark>0.1954 *</mark>	Spray drift	🔘 <mark>0.0247</mark> 🔏	🔖 <mark>0.0118</mark> 🎺	0.2654
D2	Ditch	<mark>0.2413 *</mark>	Spray drift	0.1169 Q	0.0636	<b>1</b> 99700 ≪ *
D2	Stream	<mark>0.1889</mark> *	Spray drift√	0.0229 O	0.0186	0.522 <b>7</b> * 4
D3	Ditch	<mark>0.2199</mark> *	Spray drift	0.0245	0.0084	0.11 <b>9</b> 5 <b>*</b>
D4	Pond	<mark>0.0076 *</mark>	Spray <b>Or</b> ift	0,0068	0.0059	<mark>0⊿018</mark> 🐉
D4	Stream	<mark>0.1910 *</mark>	Spray drift	0 <del>2</del> 9078 ~	0.0026	× <mark>0,0411</mark> ≪♥ <mark>*</mark>
D5	Pond	<mark>0.0077 *</mark>	Spray drift	~0.0069 <sup>~</sup>	< 0.00 <b>6€</b> 0.00 € 0.00	°> <mark>0.0726</mark> √° *
D5	Stream	<mark>0.2060 *</mark>	Spray drift	0.0142	0.0 <b>0</b> 8	, <mark>0.0≨∜8                                    </mark>
D6	Ditch	0.2224 *	ASpray@rift	<b>© 0.1√34</b>	<mark>0,,0609</mark>	0 <b>59</b> 84
R1	<b>Pond</b>	0.0170 * *	Rumoff ~	<b>6</b> 0155	<b>©</b> .0136	0.2547 *
R1	Stream	0.1452 👸	Spray drift	. 90.01490°	0.00 <b>50</b>	♥ <mark>0.284\$</mark> * *
R3	<b>Stream</b>	0.2037	& Spray drift	0.00 <b>9</b>	© <mark>0.<b>0€</b>60                                   </mark>	* <mark>0.3144 *</mark>
R4	<b>Stream</b>	0.1461 *	Spray drift	0.0162	<b>0</b> 0054	<b>Q.</b> 2291 *

Single applications marked

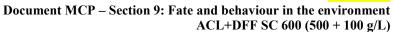
FOCUS Step 3 results for digutenican, use winter cereals II (post-emerg) **Table 9.2.5- 44:** DGR T / PMT IV; GAP name youter cereals (1) 35 g/ha

	1		L 4			· · · · · · · · · · · · · · · · · · ·	
Scena	<mark>ario</mark>	Water body	Max PEC.	<b>Dominant</b>	70 PEC silvewa	20d-PECsw,twa	Max PEC <sub>sed</sub>
<b>FOC</b>	US		Tug/L)	entry route	<sup>™</sup> (μg/ <b>L</b> )***	<b>(μg/L)**</b>	<mark>(μg/kg)*</mark>
		<u> </u>	kl n				
Step 3							
D1	KG	Ditch ©	<b>2233</b> **	Spray drift	0,1672	0.1228	<mark>0.9926 *</mark>
D1	* "/	Stream	<b>*</b> 0.19 <b>54</b> *	Spray drift	<u>0</u> 0247	0.0125	<mark>0.2805</mark> *
D2		Ditch	1 × 0 2449.3°	Spray drift	©.1159	0.0625	1.0390 *
D2		Stream 🚄	0.8884 S	Spray drift	© <mark>0.0224</mark>	<mark>0.0179</mark>	<mark>0.4998</mark> *
$\mathbf{D3}$		Stream A Ditch	0.5884 2.2197 °*	Spray drift	0.0224 0.0230	<mark>0.0078</mark>	<mark>0.1118 *</mark>
D4	•	~♥ Pond _	0.0076	Spray drift	0.0068	<mark>0.0059</mark>	<mark>0.0992 *</mark>
D4	. 1	Stream	) 0.1490 0 🟂	Spray drift	<mark>0.0078</mark>	<mark>0.0026</mark>	<mark>0.0411 *</mark>
D5		" Pond 💍	<mark>0,490°77</mark>	Spray drift	<mark>0.0069</mark>	<mark>0.0060</mark>	<mark>0.0718 *</mark>
D5		Stream	0.206Q *	Spraydrift	0.011 <mark>2</mark>	0.0038	<mark>0.0578</mark> *
$\frac{D6}{}$	.W	Ditch	0.2224 *	Spray drift	<mark>0.1526</mark>	<mark>0.0599</mark>	<mark>0.6039</mark> *
R1	Y	Pond 8	0.0173 *	<b>Runoff</b>	<mark>0.0158</mark>	<mark>0.0139</mark>	<mark>0.2575</mark> *
R1		<b>S</b> tream	0U452	Spray drift	<mark>0.0151</mark>	0.0051	<mark>0.2898 *</mark>
R3		≪Stream  Note that Note t	<b>9</b> .2037 *	Spray drift	<mark>0.0096</mark>	<mark>0.0068</mark>	0.3138 <b>*</b>
R4	Á	Stream Stream	<b>0.1440 *</b>	Spray drift	<mark>0.0166</mark>	0.0065	<mark>0.2666 *</mark>

FOCUS Step 4 calculations considering various mitigation measures for runoff and spray drift were conducted based on the Step 3 results (see Table 9.2.5- 45 to Table 9.2.5- 48 for PEC<sub>sw</sub> values and Table 9.2.5- 49 to Table 9.2.5- 52 for PEC<sub>sed</sub> values).

TWA-interval as required by eq

Single pplications marked TWA interval as required by cotox





### Predicted environmental concentrations in surface water (PECsw)

Table 9.2.5- 45: Single application FOCUS Step 4 results for diflufenican, use winter cereals I (pre-emerg) (DGR I / PMT I; GAP name winter cereals I) 70 pha

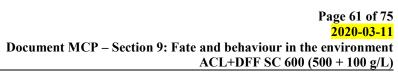
									S P
PECsw (μg/L)	Scenario				STEP 4 D	<mark>iflufenica</mark> ı		4	
Nozzle	Vegetated strip (m)	None	None	None	None	None &	10m low	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Y
reduction	No spray buffer (m)	<mark>0 m</mark>	<mark>5 m</mark>	10 m	15 m	2050	10 m		I (( )) ~9L/
None	D1 Ditch	0.4483	0.1227	0.1103	0.1103	<b>Q</b> 1103	0.1103	0c1103	℃ <mark>0.1103</mark> €
<mark>50 %</mark>		0.2249	0.1103	0.4\(\pi\)03	0.1103	7 <mark>0.1103</mark>	0.1103	8.1103	0.1.493
<mark>75 %</mark>		0.1132	0.1103	©.1103	- X	0:M03	<b>0.1102</b>	0.1103	0.1103
<mark>90 %</mark>		0.1103	0.1103	0.1163	0 P103	<mark>♥.1103</mark> ℃	0.1103	<b>S</b> 103	0.1103°
None	D1 Stream	0.3906	0.1427	Q.0757 A	Ø.069 <b>%</b>	0.0 <del>6</del> 97	<b>0</b> 757 <sub>4</sub>	0.0697	0,0697
<del>50 %</del>		0.1953	<mark>0.6714</mark> (	<b>7</b> 0.0697	0.0697	0 <mark>,0</mark> 697	0.069	0.0697	<b>0.0697</b>
<mark>75 %</mark>		0.0976	<b>9</b> .0697	0.0697	Ø697 <sub>~</sub>	0.0690	0,6697	<b>0.0697</b>	0.0697
<mark>90 %</mark>		0.069 <b>7</b>	0.0697	<b>0</b> 30697	0.069	0,0697	<b>0</b> .0697	0.0697	0.0697
None	D2 Ditch	0.4928	2557	0.255	0.2557	<b>Q</b> 2557	0.25	<mark>0 \$557</mark>	0.2557
<mark>50 %</mark>		<mark>0.2706</mark> %	, 0.2550	<mark>0.2\$57</mark>	<b>2.2557</b>	0.2557	<u>0</u> 2557	0.2557	0.2557
<mark>75 %</mark>	<b>%</b>	0.2557	0.2557	<b>Q</b> :2557	0.2557	0×2557	<b>0.2557</b>	0.2557	0.2557
<mark>90 %</mark>	W	0.2557	<b>№</b> 2557 ©	0.2557	<b>9.2357</b>	© <mark>0.2557</mark>	0.2537	0.2557	0.2557
None	D2 Stron	0.3825	> <mark>0.16/2</mark>	0.3612	<b>8.1612</b>	0.16 22	0.¥612	0.1612	0.1612
<del>50 %</del>	J. J.	0.2023	0.1612	0.1612	0.1692	g ¥612	<mark>0.1612</mark>	0.1612	0.1612
<mark>75 %</mark>		0_1612	<b>8.1612</b>	0.16)2	<b>Q.1612</b>	0.1612	0.1612	0.1612	0.1612
<mark>90 %</mark>	. · · ·	₹ <mark>0.1612</mark>	0.1612	<b>Q.1612</b>	\$0.1612 <sup>©</sup>	0.1612	0.1612	0.1612	0.1612
None None	D3 Ditch	0.4403	<b>00</b> 194	0.0633	0.0430	<b>0.0329</b>	0.0633	0.0430	0.0329
50 %	, Ø	Q 2201	0.0597	0.096	0.0215	0.0165	0.0316	0.0215	0.0165
<mark>75 %</mark>	\$ <sup>2</sup> .	0.1106	0.0298	0158	0.0108	0.0082	0.0158	0.0108	0.0082
<mark>90 %</mark>		0.0340	<b>6</b> 0119	0.0063	0.0043	0.0033	0.0063	0.0043	0.0033
None	D4 Pond	Ø.0156°×	0.0150	0.0137	0.0130	0.0126	0.0137	0.0130	0.0126
50 % <u> </u>	, — , (i	D'0 0 180	0.0127	<b>20.0121</b>	0.0118	0.0116	0.0121	0.0118	0.0116
75 %		0.0218	0.0116		0.0112	0.0111	0.0113	0.0112	0.0111
$\Omega \Omega / \Omega /$	Z	0.0110		<b>0.0109</b>	0.0108	0.0108	0.0109	0.0108	0.0108
None	D4 Stream	0.3807	0.1395	0.0740	0.0523	0.0523	0.0740	0.0523	0.0523
50 %	Q .4 °	00/908		0.0523	0.0523	0.0523	0.0523	0.0523	0.0523
75 %		0.0954	0.0323	0.0523	0.0523	0.0523	0.0523	0.0523	0.0523
90 %		0.0523	0.0523	0.0523	0.0523	0.0523	0.0523	0.0523	0.0523
Norse	5 Potte	0,0153	0.0133	0.0095	0.0076	0.0064	0.0095	0.0076	0.0064
<b>50%</b> Ø		7 <mark>0.0077</mark>	0.0067	0.0048	0.0039	0.0033	0.0048	0.0039	0.0033
75 % 75 %		0.0039	0.0034	0.0024	0.0020	0.0019	0.0024	0.0020	0.0019
90 %		0.0019	0.0018	0.0018	0.0017	0.0017	0.0018	0.0017	0.0017
None	D5 Stream	0.4118	0.1505	0.0798	0.0545	0.0415	0.0798	0.0545	0.0415



PECsw (μg/L)	Scenario				STEP 4 D	iflufenican	l		
Nozzle	Vegetated strip (m)	None	None	None	None	None	10m low	10m low	20m high
reduction	No spray buffer (m)	<mark>0 m</mark>	5 m	10 m	15 m	20 m	1,0 m	15 m	20.03
<mark>50 %</mark>		0.2059	0.0752	0.0399	0.0272	0.0207	<mark>∮9.0399</mark>	0.0072	Ø0207
<mark>75 %</mark>		0.1029	0.0376	0.0200	000143	0.0143	0.0200	<b>9</b> .0143	0.014
<mark>90 %</mark>		0.0411	0.0150	0.0143	<mark>0.0143</mark>	0.0443	200	U <mark>0.0143</mark>	0,0143
None	D6 Ditch	0.4452	0.1652	0.1652	0.1652	<b>§</b> 1652	0.165Q	0.1632	9.1652
<mark>50 %</mark>		0.2226	0.1652	0.1692	0.1652	0.16 <b>52</b>	0.1852 ,	<b>©</b> .1652	0.1652
<mark>75 %</mark>		0.1652	0.1652	@ <mark>0.1652</mark>		0,1652	<b>9.1652</b> 0	0.1652	0CJ652
<mark>90 %</mark>		0.1652	0.1652	$0_{0.1652}$	0.652	<b>%</b> .1652	0.16 <b>%</b>	0CJ652	△ <u>0.1652</u> 。
None	R1 Pond	0.0349	0.0341		0.0317	0.0342	0.0155	0.0147	0.0085
<mark>50 %</mark>		0.0317	0.0313	% <mark>0.0306</mark> @	0.03/ <b>02</b>	0.0299	<b>0.0135</b>	0.0431	<b>6</b> 0071
<mark>75 %</mark>		0.0302	<b>6.0300</b> %	0.0296	<b>9.02</b> 94	0.0293	0.0026	<b>©</b> 124	0.0065
<mark>90 %</mark>		0.0292	0.0292	0.0290	0.0289	0.0289	<b>©</b> 0120	0.0119	0.0061
None	R1 Stream	0.2902	0.4791	<b>70.1791</b>	0.1791	<b>8</b> 7791	0.080P	0 <u>00801</u>	0.0417
<mark>50 %</mark>		0.1791	0.1791	<mark>0.1791</mark>	(080	0.179	0,0801	<del>0.0801</del>	0.0417
<mark>75 %</mark>	۰,	<b>0</b> 0.17910	0.1391	<b>Q</b> 4791	0.1791	0.7791	0.0801	0.0801	0.0417
<mark>90 %</mark>	√ n	0.1791	<mark>0.1791</mark>	0.179 <b>©</b>	<mark>0.15</mark> 91	۷ <mark>ٍ 0.1791</mark>	J. 0.0867	0.0801	0.0417
None	R3 Stream	0.4071	0.18 <b>30</b>	0.1830	<b>0.1830</b>	0.1830	00824	0.0824	0.0431
<mark>50 %</mark>		(0.2035)	0.1830	0.1830 Ç	0.1836	0.1830	@ <mark>0.0824</mark>	0.0824	0.0431
<mark>75 %</mark>		0.1830	<b>Q.1830</b>	0.18 <b>30</b>	0.1830	©.1830	0.0824	0.0824	0.0431
<mark>90 %</mark>		0.1830	0.1830	0.4830	<b>8.1830</b>	0.1830	0.0824	0.0824	0.0431
i tone	R4 Stream	0.2920	0,2542	<b>3.2542</b>	0.2 <b>54</b> 2	<b>002542</b>	0.1147	0.1147	0.0599
50 % S	· O	0.0342	<b>6.2542</b>	0.25 2	Ø. <b>2</b> 542	0 <mark>0.2542</mark>	0.1147	0.1147	0.0599
<mark>75 %</mark>		4 <mark>0.2542</mark>	0.2592		√ <mark>0.2542</mark>	0.2542	0.1147	0.1147	0.0599
<mark>90 %</mark>	R4 Stream	0.25	<b>0</b> 2542	0.2542	0.2\$42	0.2542	0.1147	0.1147	0.0599

Table 9.25 46: Single application FQCUS Step 4 results for diffusenican, use winter cereals I (post-emerg) (DGR I / PMT II; GAP name winter cereals I) 70

PECsw (μg/L)	(μg/L) Scenario (μg/L) STEP 4 Diflufenican										
Noz <b>yl</b> ę	sarib (m)		None None	None	None	None	10m low	10m low	20m high		
reduction None	No spray buffer (m)	.1.1	<mark>5 m</mark>	10 m	15 m	<mark>20 m</mark>	10 m	15 m	<mark>20 m</mark>		
None	D1 Ditch	0.4485	0.1229	0.1122	0.1122	0.1122	0.1122	0.1122	0.1122		
<del>50 %</del>		0.2251	0.1122	0.1122	0.1122	0.1122	0.1122	0.1122	0.1122		
<mark>75 %</mark>		0.1134	0.1122	0.1122	0.1122	0.1122	0.1122	0.1122	0.1122		





Nozzle reduction	Q)°	Q.		1	iflufenicar	STEP 4 D	,			Scenario	PECsw (μg/L)
None   D2 Ditch   0.4903   0.2601   0	n high		10m low	10m low	None	None	None	None	None		Nozzle
None	O n	20 <sup>4</sup>	15 m	<mark>100 m</mark>	20 m	15 m	10 m	<mark>5 m</mark>	0 m		reduction
S0 %   0.1953   0.0714   0.0708   0.0	112 <b>2</b>	<b>9</b> .11	01/22		- (6	<b>&gt;</b> .	0.1122	0.1122	0.1122		<mark>90 %</mark>
75 %   0.0976   0.0708   0.0	N/ n	₹ <sup>0.07</sup>	~~~		0.0708	<b>0</b> 708	0.0758	0.1427	0.3906	D1 Stream	None
75 %   0.0976   0.0708   0.0	7708 <sub>(4</sub>	0.07	0.0708		0.0008	, <mark>0.0708</mark>	0	0.0714	0.1953		<mark>50 %</mark>
None   D2 Ditch   0.4903   0.2601   0.2661   0.2661   0.2601   0	<mark>)708</mark>	© <mark>0.07</mark>	**		<b>Q</b> 0708	0.0708	♠ . //	0.0708	<mark>0.0976</mark>		<mark>75 %</mark>
S0 %	<b>2798</b>	0.07	<b>8.0708</b>	<b>⊘</b> ∧	∕ <mark>0.07<b>%</b></mark>	0.0708	0.40708	0.0708	0.0708		<mark>90 %</mark>
75 %   0.2601   0.2	<mark>2601</mark>	0.26	0.2601	0.2601	0.2601	0.26 <b>9</b>	\$ <mark>0.2601</mark>	0.2601	0.4903	D2 Ditch	None
None   D2 Stream   0.3813   0.1639   0.0430   0.0532   0.0430   0.0532   0.0430   0.0532   0.0430   0.0532   0.0430   0.0215   0.0430   0.0215   0.0430   0.0215   0.0430   0.0215   0.0430   0.0215   0.0430   0.0215   0.0430   0.0215   0.0430   0.0215   0.0430   0.0215   0.0430   0.0215   0.0430   0.0215   0.0430   0.0232   0.0430   0.0215   0.0215	26 <b>Q1</b> °	0.26	<b>2</b> .2601	0.2601	<b>♥.2601</b>	0.2601	0.2664	0.2601	0.2681		<del>50 %</del>
None   D3 Ditch   0.4399   0.1639   0.0430   0	<b>2601</b>	0.26	0.2601	<b>6</b> 2601	0.2601	Ø.260 <sub>2</sub>	Q.2601 A	0.2661	0.2601		<mark>75 %</mark>
None D2 Stream 0.3813 0.1639 0.4639 0.1639 0		<b>®</b> .26	0.2601	2600	<mark>0</mark> 2601	0.2601	<b>~0.2601</b>	<mark>0.2601</mark> (	0.2601		<mark>90 %</mark>
So %	<mark>1639</mark>	0.16	<b>€</b> .1639¢	0,1639	0 <mark>0.1639</mark>	Ø 7639	0.1639	<b>Q.1639</b>	0.3813	D2 Stream	None
75 % 0,1639 0,16	<mark>1639</mark>	0.16	0.1639	<b>9.1639</b> Ĉ	0,1639	> <mark>0.1639</mark>	<b>@</b> 1639 ?	0.1639	0.2011		<mark>50 %</mark>
90 %   0.1639   0.1639   0.1639   0.1639   0.1639   0.1639   0.1639   0.1639   0.1639   0.1639   0.1639   0.1639   0.1639   0.0430   0.0503   0.0430   0.0503   0.0430   0.0503   0.0430   0.0503   0.0430   0.0503   0.0430   0.0215   0.0503   0.0430   0.0215   0.0503   0.0430   0.0215   0.0503   0.0430   0.0215   0.0439   0.0439   0.0439   0.0638   0.0063   0.0063   0.0063   0.0063   0.0043   0.0063   0.0043   0.0063   0.0043   0.0063   0.0043   0.0063   0.0043   0.0063   0.0043   0.0063   0.0043   0.0063   0.0043   0.0063   0.0043   0.0063   0.0043   0.0063   0.0043   0.0063   0.0043   0.0063   0.0043   0.0063   0.0043   0.0063   0.0043   0.0063   0.0043   0.0063   0.0043   0.0064   0.0106   0.0114   0.0111   0.0102   0.0114   0.0111   0.0102   0.0104   0.0104   0.0106   0.0105   0.0064   0.0064   0.0106   0.0105   0.0064   0.0064   0.0504   0.0	<mark>1639</mark>	0.16	<mark>0.4639</mark>		Q1639	0.1839	0.163	Q. 1639	0. <u>16</u> 39		<mark>75 %</mark>
None D3 Ditch	<mark>1639</mark>	0.16	0.1639		0.1639	Q.1639	0.1639	0.1639	0.1639 ¢		<mark>90 %</mark>
50 % 75 % 90 % 90 % 90 % 90 % 90 % 90 % 90 % 90	0329	0.03	0.0430	0.0632		0	(7/ 5-	0.1093	©0.4399	D3 Ditch %	None
None D4 Pond 0.0152 0.0143 0.0130 0.0124 0.0120 0.0130 0.0124 0.  50 % 0.0124 0.0121 0.0114 0.0111 0.0169 0.0114 0.0111 0.  75 % 0.0134 0.0108 0.0106 0.0165 0.0101 0.0106 0.0105 0.  90 % 0.03815 0.1395 0.040 0.0505 0.0504 0.0740 0.0505 0.  50 % 0.1588 0.0697 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.  75 % 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.  90 % 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.  None D5 Pond 0.053 0.0133 0.0095 0.0076 0.0064 0.0095 0.0076 0.  50 % 0.0039 0.0034 0.0024 0.0019 0.0017 0.0024 0.0019 0.  None D5 Stream 0.4118 0.1365 0.0798 0.0545 0.0415 0.0798 0.0545 0.	0164	0.01	0.0215		& <mark>0.0164</mark>	0.0215	0.03	<b>2</b> 00596	0.2199		<del>50 %</del>
None D4 Pond 0.0152 0.0143 0.0130 0.0124 0.0120 0.0130 0.0124 0.  50 % 0.0124 0.0121 0.0114 0.0111 0.0169 0.0114 0.0111 0.  75 % 0.0134 0.0108 0.0106 0.0165 0.0101 0.0106 0.0105 0.  90 % 0.03815 0.1395 0.040 0.0505 0.0504 0.0740 0.0505 0.  50 % 0.1588 0.0697 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.  75 % 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.  90 % 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.  None D5 Pond 0.053 0.0133 0.0095 0.0076 0.0064 0.0095 0.0076 0.  50 % 0.0039 0.0034 0.0024 0.0019 0.0017 0.0024 0.0019 0.  None D5 Stream 0.4118 0.1365 0.0798 0.0545 0.0415 0.0798 0.0545 0.	0082	0.00	0.0107	0.0158	0.00\(\text{92}\)	<b>₹</b> 0.0107		0.02	0.1099		<mark>75 %</mark>
None D4 Pond 0.0152 0.0143 0.0130 0.0124 0.0120 0.0130 0.0124 0.  50 % 0.0124 0.0121 0.0114 0.0111 0.0169 0.0114 0.0111 0.  75 % 0.0134 0.0108 0.0106 0.0165 0.0101 0.0106 0.0105 0.  90 % 0.03815 0.1395 0.040 0.0505 0.0504 0.0740 0.0505 0.  50 % 0.1588 0.0697 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.  75 % 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.  90 % 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.  None D5 Pond 0.053 0.0133 0.0095 0.0076 0.0064 0.0095 0.0076 0.  50 % 0.0039 0.0034 0.0024 0.0019 0.0017 0.0024 0.0019 0.  None D5 Stream 0.4118 0.1365 0.0798 0.0545 0.0415 0.0798 0.0545 0.	0033	0.00	0.0043	© <mark>0.0063</mark>	Ø.0033	$\sim$ $(//)$	0.0063	0.0119	0.0439		90 %
75 %	0120	0.01	0.0124	0.0130	©0.0120	0.0124	0.0130	<b>%</b> .0143	0.0152	D4 Pond	None
None D4 Speam 0.3813 0.1395 0.0740 0.0505 0.0504 0.0740 0.0505 0.  50 % 0.1908 0.0697 0.0504 0.0504 0.0504 0.0504 0.0504 0.  75 % 0.0509 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.  None D5 Pond 0.0253 0.0133 0.0095 0.0076 0.0064 0.0095 0.0076 0.  50 % 0.0039 0.0034 0.0024 0.0019 0.0017 0.0024 0.0019 0.  None D5 Stream 0.4118 0.1305 0.0798 0.0545 0.0415 0.0798 0.0572 0.0399 0.0272 0.0207 0.0399 0.0272 0.0207 0.0399 0.0272 0.0207 0.0399 0.0272 0.0207 0.0399 0.0272 0.0207 0.0399 0.0272 0.0207 0.	<mark>)109</mark>	0.01	0.0111	0.0114	<mark>0.Qf69</mark>	\$ <mark>0.0111</mark>	Q 0114	0.0,121			<del>50 %</del>
None D4 Speam 0.3813 0.1395 0.0740 0.0505 0.0504 0.0740 0.0505 0.  50 % 0.1908 0.0697 0.0504 0.0504 0.0504 0.0504 0.0504 0.  75 % 0.0509 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.  None D5 Pond 0.0253 0.0133 0.0095 0.0076 0.0064 0.0095 0.0076 0.  50 % 0.0039 0.0034 0.0024 0.0019 0.0017 0.0024 0.0019 0.  None D5 Stream 0.4118 0.1305 0.0798 0.0545 0.0415 0.0798 0.0572 0.0399 0.0272 0.0207 0.0399 0.0272 0.0207 0.0399 0.0272 0.0207 0.0399 0.0272 0.0207 0.0399 0.0272 0.0207 0.0399 0.0272 0.0207 0.	<mark>)104</mark>	0.01	0.0105	0.0106	~ <mark>0.0104</mark>	0.0405	0.0106	<b>00110</b>	0.01 <sup>M</sup>		75 % ×
None D4 Speam 0.3813 0.1395 0.0740 0.0505 0.0504 0.0740 0.0505 0.  50 % 0.1908 0.0697 0.0504 0.0504 0.0504 0.0504 0.0504 0.  75 % 0.0509 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.  None D5 Pond 0.0253 0.0133 0.0095 0.0076 0.0064 0.0095 0.0076 0.  50 % 0.0039 0.0034 0.0024 0.0019 0.0017 0.0024 0.0019 0.  None D5 Stream 0.4118 0.1305 0.0798 0.0545 0.0415 0.0798 0.0572 0.0399 0.0272 0.0207 0.0399 0.0272 0.0207 0.0399 0.0272 0.0207 0.0399 0.0272 0.0207 0.0399 0.0272 0.0207 0.0399 0.0272 0.0207 0.	<mark>)101</mark>	0.01	0.0101	0.0102	0.0101	0.0101°	0:0102		Q.9704	, Ø	
50 % 0.1908 0.0697 0.0504 0.0504 0.0504 0.0504 0.0504 0.  75 % 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.  90 % 0.0509 0.0504 0.0504 0.0504 0.0504 0.0504 0.0504 0.  None D5 Pond 0.0253 0.0133 0.0095 0.0076 0.0064 0.0095 0.0076 0.  50 % 0.0039 0.0034 0.0024 0.0019 0.0017 0.0024 0.0019 0.  90 % 0.0039 0.0034 0.0024 0.0019 0.0017 0.0024 0.0019 0.  None D5 Stream 0.4118 0.1305 0.0798 0.0545 0.0415 0.0798 0.0545 0.	<mark>0504</mark>	0.05	0.0505	0.0740	0.0504	0.0505	<b>0.</b> 0740	0.1395	l " ※	DA Chron	None
90 %	0504	0.05	0.0504	0.0504	0.0504	0.0504		.// .	0.1908	i i j	<del>50 %</del>
90 %	0504	0.05	0.0504	0.0504	0.0504	0.0504	@ V	(Cn - (	<b>€</b> 0954 %		75 %
None D5 Stream 0.0752 0.0752 0.0399 0.0272 0.0299 0.0272 0.0299 0.0272 0.0299 0.0272 0.0299 0.0272 0.0299 0.0272 0.0299 0.0272 0.0299 0.0272 0.0299 0.0272 0.0299 0.0272 0	0504	0.05	0.0504	0.0504	0.0504	0.0504	/2°~ " (/	~ ~	0.05	,	<mark>90 %</mark> 🧘
50% 0.0039 0.0034 0.0019 0.0017 0.0024 0.0019 0.0019 0.0015 0.0015 0.0015 0.0015 0.0015 0.0015 0.0015 0.0015 0.0015 0.0015 0.0015 0.0016 0.0016 0.0015 0.0016 0.0016 0.0015 0.0016 0.0016 0.0015 0.0016 0.0016 0.0016 0.0015 0.0016 0.001	0064	0.00	0.0076	0.0095	0.0064	0.0076		0.0133	0.0253	D5 Pond	None
75 % 0.0039 0.0034 0.0019 0.0017 0.0024 0.0019 0.  90 % 0.0017 0.0017 0.0016 0.0015 0.0015 0.0016 0.0015 0.  None D5 Stream 0.4118 0.1305 0.0798 0.0545 0.0415 0.0798 0.0545 0.  50 % 0 0.0059 0.0752 0.0399 0.0272 0.0290 0.0272 0.0200	0032	0.00	0.0038	0.0048	0.0032	0.0038		ام	•		
90 %	0017			0.0024		0.0019	N/A		(V)	P	- A
None D5 Stream 0.4118 0.1505 0.0798 0.0545 0.0415 0.0798 0.0545 0.	0015						/	0/1 ~			
50 % 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0415							//	0.411,8	D5 Straam	None
	0207	-	0.0272	0.0399	0.0207	0.0272	0.0399	0.0752	0.2039		50 % Ø
75 0 0.029 0.0376 0.0200 0.0136 0.0135 0.0200 0.0136 0.	0135									Ž A	75%
75 % 0.0411 0.0150 0.0135 0.01	0135										90% P
	1701	-								D6 Ditch	None
50 % 0.2226 0.1701 0.1701 0.1701 0.1701 0.1701 0.1701 0.		0.17									50 %
		0.17									



PECsw (μg/L)	Scenario			,	STEP 4 D	iflufenican	i		. W	
Nozzle	Vegetated strip (m)	None	None	None	None	None	10m low	10m low	2000 high	ð
reduction	No spray buffer (m)	<mark>0 m</mark>	<mark>5 m</mark>	<mark>10 m</mark>	15 m	<mark>20 m</mark>	₩ m	15 m	200m	
<mark>90 %</mark>		0.1701	0.1701	0.1701	0.1701	0.1701 × 0.0318	(0.1701)	0.1701	<b>%</b> .1701	*
None	R1 Pond	0.0357	0.0348	0.0331	<b>323</b>	0.0318	0.0159	0.0151	0.00 <b>8</b> 7	Ī
<mark>50 %</mark>		0.0323	0.0319	0.0311	0.0307	0,0004	0.0138	0.0134	<mark>0.0073</mark> (	
<mark>75 %</mark>		0.0307	0.0305	0.0301	0.0299	Q,0297	0.0128	<u>Qr.0126</u>	©0.0066	
<mark>90 %</mark>		0.0297	0.0296	0.0294	0.0294	∕ <mark>0.029⁄3</mark>	0.0122	<b>8</b> .0121	0.0662	Ī
None	R1 Stream	0.2902	0.1809	\$ <mark>0.1809</mark> \$	0.1869	0:1809	& <mark>0.081@</mark>	0.0810	0.0421	Ī
<mark>50 %</mark>		0.1809	0.1809	0.1869	<mark>0,4809</mark>	<b>Ø</b> .180 <b>9</b>	0.0810	<b>g</b> :0810	0.04 <b>21</b> °	Ī
<mark>75 %</mark>		0.1809	0.1869			0.1809	<b>6</b> 0810√	0.0810	0.0421	Ī
<mark>90 %</mark>		0.1809	<mark>0,48</mark> 09 (	<b>~</b> 0.1809		0 <mark>9809</mark> ×	J <mark>0.0810</mark>	0.0810	<b>©</b> .0421	1
None	R3 Stream	0.4071	<b>9.1818</b>			0.1818	<mark>0,6\$19</mark>	<b>0.</b> 0819	0.0428	1
<mark>50 %</mark>		0.2035 <sup>©</sup>	0.1818	<mark>@</mark> 1818	> <mark>0.18<b>18</b></mark>	0,1818	<b>9</b> .0819	0.0819	0.0428	1
<mark>75 %</mark>		0.1848	Q.Y818	0.181	0.1818	<b>Q</b> .1818	0.08	0.0819	0.0428	1
<mark>90 %</mark>	_		0.1818	0.1818	<mark>Q.1818</mark> 4		00819	0.0819	0.0428	
None	R4 Stream %	9 <mark>0.2878</mark>	0.2595	0.2595 0.2595	0.2595	02595	<b>0</b> .1171	0.1171	0.0612	
<mark>50 %</mark>	<	0.2595	<b>2595</b> C	0.25		80.2595	0.1 1971	0.1171	0.0612	
<mark>75 %</mark>		0.2595	7 0.25 <b>%</b>	0,2395	<b>9.2595</b>	0.2595	<mark>0.1171</mark>	0.1171	0.0612	
<mark>90 %</mark>		0.259 <del>5</del>	0.2395	0.2595		<mark>9,2595</mark>	© <mark>0.1171</mark>	0.1171	0.0612	

Table 9.2.5 47: Single application FOOUS Step 4 results for diffusenican, use winter cereals II (presenerg) (DGR II /PMT IH; GAP name winter cereals II) 35

PECsw (μg/L)	Scenarie C				40%	iflufenicar	ı		
Nozzle reduction	Vegetated strip (m)	None	Mone ?	None	None None	None	10m low	10m low	20m high
reduction	No sptay buffer (m)	Om O	× ~	↑ m	15 m	20 m	10 m	15 m	20 m
None	D1 Ditch	0.20,33	<b>@</b> 0607	√ <mark>0.0398</mark>	0.0398	0.0398	0.0398	0.0398	0.0398
<del>50 %</del>		<b>0</b> 1117≪	0.0398	0.0398	0.0398	0.0398	0.0398	0.0398	0.0398
75 %		0.0559	0.9398	0.0398	0.0398	0.0398	0.0398	0.0398	0.0398
75 % 90 % Nane		0.098	0.0398	0.0398	0.0398	0.0398	0.0398	0.0398	0.0398
None	D1 Stream	√ <mark>0.1954</mark>	0.0712	0.0377	0.0257	0.0252	0.0377	0.0257	0.0252
Ø % Ø		0.0977	0.0356	0.0252	0.0252	0.0252	0.0252	0.0252	0.0252
75 % °	Di Steam	0.0488	0.0252	0.0252	0.0252	0.0252	0.0252	0.0252	0.0252
<mark>90 %</mark>		0.0252	0.0252	0.0252	0.0252	0.0252	0.0252	0.0252	0.0252
None	D2 Ditch	0.2413	0.1098	0.1098	0.1098	0.1098	0.1098	0.1098	0.1098



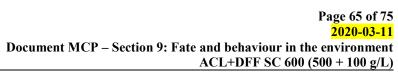
PECsw (μg/L)	Scenario				STEP 4 D	iflufenicar	1		Ø1°
Nozzle	Vegetated strip (m)	None	None	None	None	None	10m low	10m low	2000 high
reduction	No spray buffer (m)	<mark>0 m</mark>	5 m	10 m	15 m	20 m	₹Ø m	15 m	200m
<del>50 %</del>		0.1303	0.1098	0.1098	0.1098	( C	<b>0.1098</b>	01098	<b>9</b> .1098
<mark>75 %</mark>		0.1098	0.1098	0.1098	098	0.1098	0.1098	<b>0.1098</b>	0.10 <b>98</b>
<mark>90 %</mark>		0.1098	0.1098	0.1098 A	, <mark>0.1098</mark>	0,098	0.1098	0.1098	0.1028 0.7098
None	D2 Stream	0.1889	0.0743	0.0623	0.0693	<b>Q</b> ,0693	0.0693	0:0693	Ĉ <mark>0.0693</mark> ₽
<del>50 %</del>		0.0987	0.0693	0.2693	0.0693		0.0693	8.0693	// v
<mark>75 %</mark>		0.0693	0.0693	\$ <mark>0.0693</mark>	0.0693	0.0693	0.0692	0.0693	0.0693
<mark>90 %</mark>		0.0693	0.0693	0.0693	0,6693	⊙ <mark>Ø.0693</mark> ℃	0.0693	Ø 0693	0.0693°
None	D3 Ditch	0.2199	0.0597	Q.0316 A	Ø.021%	0.0463	Ø316 <sub>≪</sub>	0.0215	0.0¥63
<del>50 %</del>		0.1099	0.0298	<b>~0.0158</b> ©	0.0108	0.0041 0.0041	0.015	80 <del>10</del> ,0	<b>©</b> .0081
<mark>75 %</mark>		0.0549	<b>9.0149</b>	0.0079	0.0054	0.0040	0.0079	<b>0.0054</b>	0.0041
<mark>90 %</mark>		0.0220	0.0960	<b>@</b> 0032 %	> <mark>0.0023</mark>	0,0016	<b>0.0032</b> É		0.0016
None	D4 Pond	0.QQ <del>J</del> 6	Q.0068	0.006	0.0959	<b>Q</b> 0057	0.0062	<mark>0.0059</mark>	0.0057
<del>50 %</del>		0.0059 &	0.005	0.0054	Q.0052	0.0051	00054	0.0052	0.0051
<mark>75 %</mark>	9/	©0.0052	0.0052	<b>0</b> :0050	0.0049	0.0049	0.0050	0.0049	0.0049
90 %		n negato	<b>\$</b> 0048	0.004	0.0047	% <mark>0.0047</mark>	0.0048	0.0047	0.0047
None	D4 Stream	0.1910	0.06%	0.6368	Ø.0251	0.0237	0.0368	0.0251	0.0237
50 %		0.0955	0.6348	0.0237	0.0237	Ø.0237	© <mark>0.0237</mark>	0.0237	0.0237
75 %	D4 Stream	0.0477	<sup>®</sup> .0237	0.0237	0.0237	0.0237	0.0237	0.0237	0.0237
90 %		Ø.0237	0.0237	0.0237	\$0.0237 <sup>©</sup>	3 PS	0.0237	0.0237	0.0237
None	D5 Dand &	0.0077	<b>Q</b>	0.0048	0.0838	0.0032	0.0048	0.0038	0.0032
50 %		0.9039		0.0024	0.0019	o. //	0.0024	0.0019	0.0016
75 %		0001	0.0017	0.0012	0.0010	0.0008	0.0012	0.0010	0.0008
90 %	D3 Folid	0.0008		0.0008	0.0010	0.0007	0.0008	0.0010	0.0007
None .	55 Stream	<u>0.3000</u> €060%	0.0750	0.0000	0.0271	0.0206	0.0397	0.0007	0.0206
		0,1000	0.075	00000000000000000000000000000000000000	0.0271	0.0200	0.0199	0.0271	0.0103
50 % 75 %		0.1030	0.0188		0.0133	0.0103	0.0199	0.0133	0.0103
90%		0.0206	0.0180	0.00000 0.00063	0.0063	0.0063	0.0055	0.0063	0.0063
	<b>V</b>	0.222A	0.00 <b>25</b> 0.0720	©.0720	0.0003	0.0003	0.0003	0.0003	0.0003
50.0/	D6 Ditch	0.2201	9.0720 90.0726 9	0.0720	0.0720	0.0720	0.0720	0.0720	0.0720
75.0/		00/112	0.0720 0.0720		0.0720		0.0720		
00.00		0.0720	Ÿ	0.0720		0.0720		0.0720	0.0720
None 50 % 75 % 90 % None	DO DICE	0.0320	0.0720	0.0720	0.0720	0.0720	0.0720	0.0720	0.0720
INO MO	R1 Pomy	00170	0.0165	0.0158	0.0154	0.0151	0.0076	0.0072	0.0041
75 %		0.0154	0.0152	0.0148	0.0146	0.0145	0.0066	0.0064	0.0035
75 %O*		0.0146	0.0145	0.0143	0.0142	0.0142	0.0061	0.0060	0.0031
90 %		0.0142	0.0141	0.0140	0.0140	0.0140	0.0058	0.0058	0.0029
None	R1 Stream	0.1452	<mark>0.0858</mark>	<mark>0.0858</mark>	<mark>0.0858</mark>	0.0858	0.0384	0.0384	<mark>0.0200</mark>



PECsw (μg/L)	Scenario				STEP 4 Di	iflufenican	ı		w°
Nozzle	Vegetated strip (m)	None	None	None	None	None	10m low	10m low	2007 high
reduction	No spray buffer (m)	<mark>0 m</mark>	<mark>5 m</mark>	10 m	15 m	<mark>20 m</mark>	<b>10</b> m	15 m	200m
<mark>50 %</mark>		0.0858	0.0858	0.0858	0.0858	0.0858 ×	0.0384	0.0384	<b>9</b> .0200
<mark>75 %</mark>		0.0858	0.0858	0.0858	0858	0.0858	0.0384	0.0384	0.0200
<mark>90 %</mark>		0.0858	0.0858	0.0858 A	0.0858	0,0338	0.0384	0.0384	0.02000 0.02000 (
None	R3 Stream	0.2037	0.0867	0.086	0.0867	Q,0867	0.0393	Q:0390	0.0204
<mark>50 %</mark>		0.1018	0.0867	0. <b>Q8</b> 67	0.0867	0.08 <b>%</b>	0.0390	8.0390	
<mark>75 %</mark>		0.0867	0.0867	\$ <mark>0.0867</mark>	0.0867	0:0867	4 <mark>0.0390</mark>		0.0204
<mark>90 %</mark>		0.0867	0.0867	0.0867	<mark>0,9867</mark>	<b>®</b> .086		Ø.0390	0.0204°
None	R4 Stream	0.1461	0.1214	<b>Q.1214</b> ~	Ø.121%		<b>6</b> 0548√	0.0548	0,0286
<mark>50 %</mark>		0.1214	<mark>0,9214</mark> (	%0.1214 <sup>©</sup>		0 <mark>9214</mark> ×	0.054	0.0548	<b>©</b> .0286
<mark>75 %</mark>		0.1214	<b>9.1214</b>	0.12)4	Ø. ¥214	0.1214	0,6\$48	<b>6.0548</b>	0.0286
<mark>90 %</mark>		0.1214 <sup>2</sup>	0.1214	<b>@</b> 1214	y <mark>0.1214</mark>	0.1014	<b>9</b> .0548 Ĉ	0.0548	0.0286

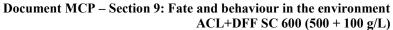
Table 9.2.5- 48: Single application FOCUS Step 4 results for diffutenican, use winter cereals II (post-emergy (DGR/II / PAIT IV; GAP name winter cereals II) 35 g/ha

	<b>Ø</b> ′ 1			<i>₹</i>	S . W		**		
PECsw S	Scenario\			~	STER Di	iflø fenican	<b>W</b>		
		~				100	<b>&gt;</b>		
Nozzle 🔊 🧐	vegetated strip (m)	None	None	None "	None	Me/ne	10m low	10m low	20m high
l b	No spragular (na)	y m	, J III	10 m	IS m	20 m	10 m	15 m	<mark>20 m</mark>
None I	Ol Ditch	0.22	0 <u>20</u> 807	<b>70.0408</b> C	0.0 <mark>408</mark>	0.0408	0.0408	0.0408	0.0408
<mark>50 %</mark>	District A	0. Dr 17	O.0408	0.0498	<b>6</b> 9407	0.0407	0.0408	0.0407	0.0407
7 5 70		<b>9.0559</b>	0.0408		y <mark>0.0407</mark>	0.0407	0.0407	0.0407	0.0407
90 % D	is a second	0.0408	<b>0.0407</b> %	0.0400	0.0407	0.0407	0.0407	0.0407	0.0407
	Ol Stream		0.0712	0.9377	0.0258	0.0258	0.0377	0.0258	0.0258
<b>50,</b> %		\$ <mark>0.0977</mark>	0.0356	<b>20258</b>	0.0258	0.0258	0.0258	0.0258	0.0258
<mark>75 %</mark>	v .	0.0488	0.0258	2 <mark>0.0258</mark>	0.0258	0.0258	0.0258	0.0258	0.0258
75 % 90 %		0258×	7 <mark>0.0258</mark>	0.0258	0.0258	0.0258	0.0258	0.0258	0.0258
None I	D2 Witch	0.2462	0 <del>.</del> 918	0.1118	0.1118	0.1118	0.1118	0.1118	0.1118
50 %	Ø* .1 □	<mark>0 Q 93</mark>	0.1118	0.1118	0.1118	0.1118	0.1118	0.1118	0.1118
75%		9 <mark>.1118</mark>	0.1118	0.1118	0.1118	0.1118	0.1118	0.1118	0.1118
290 % Z		0.1118	0.1118	0.1118	0.1118	0.1118	0.1118	0.1118	0.1118
90 % None 50 % 750% None None D	2 Stream	0.1884	0.0738	0.0705	0.0705	0.0705	0.0705	0.0705	0.0705
<mark>50 %</mark>		0.0982	0.0705	0.0705	0.0705	0.0705	0.0705	0.0705	0.0705
<mark>75 %</mark>		0.0705	0.0705	0.0705	0.0705	0.0705	0.0705	0.0705	0.0705





PECsw (μg/L)	Scenario				STEP 4 D	iflufenicar	ı		Q)°
Nozzle	Vegetated strip (m)	None	None	None	None	None	10m low	10m low	200 high
reduction	No spray buffer (m)	<mark>0 m</mark>	5 m	10 m	15 m	20 m	170 m	15 m	20 m
<mark>90 %</mark>		0.0705	0.0705	0.0705	0.0705		<b>0.0705</b>	0.0705	<b>9</b> .0705
None	D3 Ditch	0.2197	0.0596	0.0316	<b>0</b> 215	0.0163	0.0316	0.0215	0.0163
<del>50 %</del>		0.1098	0.0298	0.0158	<sub>/</sub> 0.0107	0,0081	0.0158	0.0107	<mark>0.0081</mark> &
<mark>75 %</mark>		0.0549	0.0149	0.0079	0.0054	<b>Q</b> ,0041	· 0.0079	0:0054	0.00410
<mark>90 %</mark>		0.0220	0.0060	0.0032	0.0021	2 <mark>0.00 %</mark>	0.0032	8.00219	0.0046
None	D4 Pond	0.0076	0.0065	<b>€0</b> .0059 €	0.00 <b>5</b> 6	0.0054	<b>0.005</b>	0.00 <del>8</del> 6	0.0054
<mark>50 %</mark>		0.0056	0.0054	0.0051	0,0049	<b>9.0048</b>	0.0051		0.0048°
<mark>75 %</mark>		0.0049	0.0049	Q.0047 A	Ø.0046	0.0046	<b>60047</b>	0.0046	0,0946
<mark>90 %</mark>		0.0046	0.0045	<b>70.0045</b>	0.0044	0.00044 ×	0.0045	0,0044	<b>6.0044</b>
None	D4 Stream	0.1910	Q.0696	0.0368	Ø.0251	0.0228	0,0368	<b>0.0251</b>	0.0228
<mark>50 %</mark>		0.095 <b>5</b>	0.0348	<b>0</b> 0228 2	0.02 <b>28</b>	0.0028	<b>6.0228</b> É	0.0228	0.0228
<mark>75 %</mark>		0.04 <sup>©</sup> 7	Q.0228	0.0228	0.0228	<b>Q</b> 0228	0.0228	<mark>0.0228</mark>	0.0228
<mark>90 %</mark>		0.0228 &	0.0228	0.0028	Q.0228	0.0228	000228	0.0228	0.0228
None	D5 Pond %	©0.0077	0.0066	<b>Q</b> :0048	0.0038	0.0032	0.0048	0.0038	0.0032
<del>50 %</del>	- «	0.0638	<b>2</b> 0033	0.0024	- C- C	8 <mark>0.0016</mark>	0.0024	0.0019	0.0016
<mark>75 %</mark>		0.0019	7 0.00 <b>2</b>	0.0012	Ø.0010	0.0008	0.0012	0.0010	0.0008
90 %		0.0008	0.0007	0.0002	$\sim$ 11/1 $\sim$	<b>9</b> 9006	© <mark>0.0007</mark>	0.0007	0.0006
None	Stream	0.2060	<b>%</b> .0750		0.0271	0.0206	0.0397	0.0271	0.0206
50 %	Stream Stream	<b>0.1030</b>	0.0375	A -	\$0.0135°	0.0163	0.0199	0.0135	0.0103
75 % °>		0.0515	020188	0.0099	0.0668	~ <mark>0.0059</mark>	0.0099	0.0068	0.0059
90 %		Q.9206 ,	0.0075	0.0939	0.0059		0.0059	0.0059	0.0059
None	D6 Detch	1 30 2224 ×	0.0741	0741		0.0741	0.0741	0.0741	0.0741
50 %	D6 Ditch	0.1312	0741	0.0741	0.0741	0.0741	0.0741	0.0741	0.0741
75 %		<b>9</b> 0741 %	0.074	0.0741	0.0741	0.0741	0.0741	0.0741	0.0741
90 %	-	0.07	0.0741	<b>20.0741</b>	N-	0.0741	0.0741	0.0741	0.0741
None			0.0169	, « » »	0.0157	0.0154	0.0078	0.0073	0.0042
50%	R1 Pond	20157 <sub>0</sub>		0.9151	0.0148	0.0147	0.0067	0.0065	0.0035
75 %	1	0.0149	0.0147	0.0146	0.0144	0.0144	0.0062	0.0061	0.0032
90 %		000144	©0.0143	/	0.0142	0.0142	0.0059	0.0058	0.0030
None &	R1 Stream	0.1452	0.0866	0.0866	0.0866	0.0866	0.0388	0.0388	0.0202
50 %	S C	0.0866	0.0866	0.0866	0.0866	0.0866	0.0388	0.0388	0.0202
75,%		0.0866	0.0866	0.0866	0.0866	0.0866	0.0388	0.0388	0.0202
		7 <mark>0.0866</mark>	0.0866	0.0866	0.0866	0.0866	0.0388	0.0388	0.0202
None 5	R3 Stream	0.2037	0.0861	0.0861	0.0861	0.0861	0.0388	0.0388	0.0202
50 %	NJ SUCAIII	0.2037	0.0861	0.0861	0.0861	0.0861	0.0393	0.0388	0.0203
20 70	-								
<mark>75 %</mark>	J	0.0861	0.0861	0.0861	0.0861	0.0861	0.0388	0.0388	0.0203





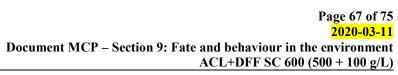
PECsw (μg/L)	Scenario			!	STEP 4 Di	iflufenican	ı		w°
Nozzle	Vegetated strip (m)	None	None	None	None	None	10m low	10m low	2000 high
reduction	No spray buffer (m)	<mark>0 m</mark>	<mark>5 m</mark>	10 m	15 m	<mark>20 m</mark>	<b>₽</b> m	15 m	200n
<mark>90 %</mark>		0.0861	0.0861	0.0861	0.0861	0.0861 ×	0.0388	0.0388	<b>9</b> .0203
None	R4 Stream	0.1440	0.1236	0.1236	<b>236</b>	0.1236	0.0558	0.0558	0.0291
<mark>50 %</mark>		0.1236	0.1236	0.1236	0.1236	0,036	0.0558		<mark>0:0</mark> 291 <sub>(k</sub>
<mark>75 %</mark>		0.1236	0.1236	0.1236	0.1236	Q,1236	0.0558 0.0558	<u>Qr.0558</u>	©0.0291
<mark>90 %</mark>		0.1236	0.1236	0.4236	0.1236		0.0558	8.0558	0.0291

Predicted environmental concentrations in sediment (PEC<sub>SER</sub>)

Table 9.2.5- 49:

Single application FOCUS Step 4 results for diffusionican, use winter cereals I (pre-emergy (DGR4/PMVI; GAP name winter cereals I) #0 g/ha

<b>PECsed</b>	C	Ź			TED A	Y 6			)
(µg/kg)	<b>Scenario</b>	Wong &	K) "		ZIEL (P)	viflufenicar			
Nozzle	Vegetated strip (m)	Ø None	None	Mone	None	None	Lom low	al Om lovy	20m high
reduction	No spray buffer (m)  D1 Darch	O The second	Ø <mark>5 m</mark> €	100	√ <mark>1</mark> \$m	20 m	1.0 mg	15 m	20 m
None	D1 Duch	( <mark>2.0970</mark> )	1.6690	1.3940	1.5670	1,5540	1.5940	1.5670	1.5540
<mark>50 %</mark>		1.8930	(1.5890 ×	1.5520	1.5380	<b>2.5320</b>	1.5520	1.5380	1.5320
<mark>75 %</mark>		<b>1</b> 5560	0 <mark>1.55<b>%</b>0</mark>	1.5310	<b>D:</b> 5240	1.5210	1.5310	1.5240	1.5210
<mark>90 %</mark> 🐧 🙋	.,	1.5680	1.5260	\$180 @	1.5160	1 40	1.5180	1.5160	1.5140
None	D1 Stream	0. <b>9</b> \$29	<b>2</b> 8972	0.8930	0.8914	<b>Ø</b> .8906	0.8930	0.8914	<mark>0.8906</mark>
50 %		0.9006 ×	0.8927	<mark>0.8906</mark>	0.889 <u>8</u>	0.8894	0.8906	0.8898	0.8894
<mark>75 %</mark>	D1 Stream	0.8944	0.8904	<b>. 70</b> .8893		0.8888	0.8893	0.8890	0.8888
<mark>90 %</mark>	@1 .OY	<mark>0,8906</mark>	<b>6.8890</b>	0.8886	<b>8885</b>	0.8884	0.8886	0.8885	0.8884
None "	D2 Ditch	<b>2.4630</b>	2.3870	~ S	>2.3680	2.3660	2.3730	2.3680	2.3660
50 % 75 %	Ö	2.4130	<b>2</b> 720 %	2.3660	2.3630	2.3620	2.3660	2.3630	2.3620
75 % <sup>®</sup>		2.3840	<sub>y</sub> 2.3650	2.3©20	2.3610	2.3600	2.3620	2.3610	2.3600
<mark>90%</mark>		\$ <mark>2.3690</mark>	2. <b>36</b> 10	<b>2</b> 3600	2.3590	2.3590	2.3600	2.3590	2.3590
None	D2, Stream	1.2530	<b>2510</b>	1.2510	1.2500	1.2500	1.2510	1.2500	1.2500
<del>50 %</del>	~ ^ ^ ·	2510×	1.2510	1.2500	1.2500	1.2500	1.2500	1.2500	1.2500
75 % 90 %		1.25 <b>¥</b> 0	1.2300	1.2500	1.2500	1.2500	1.2500	1.2500	1.2500
90 %		1,2300	1.2500	1.2500	1.2500	1.2500	1.2500	1.2500	1.2500
I NAME:	ESTINATION .	<b>9.2381</b>	0.0652	0.0347	0.0237	0.0181	0.0347	0.0237	0.0181
<b>₹0</b> % €		<sup>0</sup> .1196	0.0327	0.0174	0.0119	0.0091	0.0174	0.0119	0.0091
75 % 90 %		0.0601	0.0164	0.0087	0.0060	0.0046	0.0087	0.0060	0.0046
<mark>90 %</mark>		0.0242	0.0066	0.0035	0.0024	0.0018	0.0035	0.0024	0.0018
None	D4 Pond	0.2087	0.1926	0.1619	0.1465	0.1368	0.1619	0.1465	0.1368





PECsed (μg/kg)	Scenario				STEP 4 D	iflufenicar	ı		<b>O</b> °
Nozzle	Vegetated strip (m)	None	None	None	None	None	10m low	10m low	2007 high
reduction	No spray buffer (m)	<mark>0 m</mark>	<mark>5 m</mark>	10 m	15 m	<mark>20 m</mark>	<b>176√m</b>	15 m	200n
<mark>50 %</mark>		0.1469	0.1388	0.1234	0.1157	(**	<b>0.1234</b>	01957	<b>9</b> .1110
<mark>75 %</mark>		0.1160	0.1120	0.1046	010	0.0987	0.1046	0.1010	0.0987
<mark>90 %</mark>		0.0981	0.0966	0.0937 A	, <mark>0.0922</mark>	0.0913	0.0937	0.0922	0.0913 g
None	D4 Stream	0.0819	0.0514	0.0483	0.0477	<b>Q</b> ,0471	· 0.0487	<u>0</u> :0477	© <mark>0.047₁</mark> ©
<mark>50 %</mark>		0.0535	0.0485	0.40471	0.0466	2 <mark>0.04<i>6</i>3</mark>	0.0471	8.0466	0,0463
<mark>75 %</mark>		0.0496	0.0470	<b>Q</b> :0463	<u> </u>	0:0459	0.0462	0.0400	0.0459
<mark>90 %</mark>		0.0471	0.0460	0.04 <b>57</b>	<mark>0.9456</mark>	€.045€	0.0457	<b>g</b> :0456	
None	D5 Pond	0.1425	0.1257		8	0.0704	<b>6</b> 0948 <sub>4</sub>	0.0799	0.0704
<mark>50 %</mark>		0.0802	0.0723	<b>0.0573</b>	0.0497	0 <sup>0</sup> 0449	0.057	0.0497	<b>©</b> .0449
<mark>75 %</mark>		0.0500	<b>9.0469</b>	0.0384	Ø.Ø346	0.0322	<mark>0,6384</mark>	<b>0.0346</b> 0	0.0322
<mark>90 %</mark>		0.0316 <sup>Q</sup>	0.0300		> <mark>0.0254</mark>	0.0044	<b>6.0269</b>	0.0254	0.0244
None	D5 Stream	0.11\$2	Q.0424	0.0226	0.0°55	<b>Q</b> 0119	0.0226	0.0155	0.0119
<mark>50 %</mark>		0.0578 &	0.0213	0.0 <mark>415</mark>	<b>2</b> .0079	0.006	000115	0.0079	0.0061
<mark>75 %</mark>	%	90.0291	0.0308	<b>Q</b> :0058	0.0041	0.0039	0.0058	0.0041	0.0039
<mark>90 %</mark>	_	0.018	<b>2</b> 0045	0.0037	Q.9036	<a>∅.0035</a>	0.0037	0.0036	0.0035
None	D6 Digh	1.1800	7 0.33 <b>W</b>	0.1789	<b>9</b> .1234	0.0935	<mark>0.⁴789</mark>	0.1234	0.0955
<mark>50 %</mark>	J. J.	0.6002	0.4691	0.0919	0.0625	<mark>0</mark> ,9622	<mark>©0.0919</mark>	0.0675	0.0622
<mark>75 %</mark>		0.3058	<b>8.0869</b>	0.06)5	ø.0561	©0.0534	0.0615	0.0561	0.0534
<mark>90 %</mark>		<b>₹</b> 0.1260	0.0574	Q 0513	\$ <mark>0.0491</mark>	<mark>0.Q480</mark>	0.0513	0.0491	0.0480
None %	D1 Dand &	0.5081	<b>00</b> 938	0.4666	0.4\$30	~ <mark>0.4444</mark>	0.2333	0.2191	0.1317
50 %	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Q.#333 <sub></sub>	0.4462	04925	0.4257	0.4214	0.1979	0.1908	0.1073
75.0/	\$,	0.426	0.4224	4156	0.4121	0.4100	0.1802	0.1767	0.0951
<mark>90 %</mark>	RI FORD	0.4095	<b>4080</b>	0.4053	0.4039	0.4031	<mark>0.1696</mark>	0.1682	0.0878
None a	K1 Stream	\$47 <u>6</u> °×	0.542	0.5.407 2.5.407	0.5401	0.5399	0.1345	0.1339	0.0600
50 %	1 Stream	0.5433	0.5406	00.5398 0	0.5396	0.5394	0.1336	0.1333	0.0596
75 %		0.5312	0.5398	0.5394	0.5393	0.5392	0.1331	0.1330	0.0593
<mark>90%</mark>	S'	<b>5399</b>	0.5393	<u>0.</u> \$392	0.5391	0.5391	0.1329	0.1328	0.0592
None	R3 Stream	0.5781	0.5734	0.5721	0.5716	0.5713	0.1325	0.1320	0.0577
<del>50 %</del>		<mark>03/744</mark>	©0.5726	0.5713	0.5711	0.5710	0.1317	0.1315	0.0573
<mark>75 %</mark>		0.5725	0.5/13	0.5710	0.5708	0.5708	0.1313	0.1312	0.0571
90 %		0.5773	0.5709	0.5707	0.5707	0.5707	0.1311	0.1311	0.0570
75 % 90 % Ø	R4 Stream	<b>3</b> 4345	0.4313	0.4305	0.4301	0.4300	0.1401	0.1397	0.0686
<b>50</b> %	<b>R</b> 4 Stream	∑0.4320	0.4304	0.4300	0.4298	0.4297	0.1395	0.1394	0.0684
75 % 5		0.4307	0.4299	0.4297	0.4296	0.4296	0.1393	0.1392	0.0682
90 %		0.4300	0.4297	0.4296	0.4295	0.4295	0.1391	0.1391	0.0681



Document MCP – Section 9: Fate and behaviour in the environment ACL+DFF SC 600 (500 + 100 g/L)

Table 9.2.5- 50: Single application FOCUS Step 4 results for diflufenican, use winter cereals I (post-emerg) (DGR I / PMT II; GAP name winter cereals I)

None   D2 Ditch   23910   23950   23960   23	<b>PECsed</b>	Scenario				STEP 4 D	iflufenican			
None   D2 Ditch   23910   23950   23960   23	<mark>(µg/kg)</mark>								ار	
None			None	None	None	None		10m low	10m low	20m high
None	reduction		0 m	5 m			20 m		% <mark>15 m</mark> ~	[ × 20 m ×
18670	None	D1 Ditch	2.1610	1.7330			1.6580	o o	1.6310	1.06 1 80 <sub>(4</sub>
None   D2 Stream   1_6330   1_5900   4_5830   1_5830   1_5830   1_5830   1_5850	<mark>50 %</mark>		1.8670	1.6540		1.6030	<b>Y</b> (2)	<b>~</b> 7		<b>1.5960</b>
None			1.7210	1.6140		(C)		<u> </u>	V V	* * * * * * * * * * * * * * * * * * * *
S0%	<mark>90 %</mark>		1.6330	1.5900	\$4,5830 &	1.5800	1.5 <b>7</b> 90	<b>1.5830</b>		
190	None	D1 Stream	0.9491	91	0.9292	(// 1) 0	<b>0</b> .926 <b>%</b>		<b>g</b> 9276	0.9268°
15%   1906   1	<del>50 %</del>		0.9367	0.9289	. 8/	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Α	69267 <sub>4</sub>		0.9256
None   D2 Ditch   2.3910   2.3150   2.3020   2.2976   2.2970   2	75 <mark>%</mark>		0.9305		\$ <mark>Ø</mark> .9255	0.92 <b>51</b>	009249 ×	70.9255		- Call *
50 %         2,350         2,010         2,2946         2,2920         2,2900         2,2960         2,2900         2,2900         2,2900         2,2900         2,2900         2,2900         2,2900         2,2890         2,2900         2,2890         2,2900         2,2890         2,2890         2,2890         2,2890         2,2890         2,2880         2,2840         1,2040         1,2040         1,2040         1,2040         1,2040         1,2040         1,2040         1,2040         1,2040         1,2040         1,2040	<del>90 %</del>		0.9268	0.9252	0.9248	0.9246	0 <mark>0.9246</mark>	0.9248		0.9246
75 %   25 130   2.2946   2.2900   2.2890   2.2	None	D2 Ditch	2.3910 <sup>Q</sup>	2.3 <u>150</u>	<mark>2,3020</mark> ?	2.2976	2.2940	\$3020°	<sup>3</sup> 2.2970	2.2940
None   D2 Stream   1,266   5,2050   1,2046   1,2040   1	<mark>50 %</mark>		2.3390	<b>2</b> .3010	<b>2</b> .2946	2. <b>292</b> 0	<b>2</b> 2900	<sup>©</sup> 2.29 <b>₽</b> 9		2.2900
None         D2 Stream,         1_2660         \$2050         1_2046         1_2040	<mark>75 %</mark>		2.9130 ¢	2.2940		4// 12	2.2890	2 <b>2</b> 900	2.2890	2.2890
None         D2 Stream,         1_2660         \$2050         1_2046         1_2040	<mark>90 %</mark>	9,	<b>2.2970</b>	2.2890	<b>2</b> 2880 <sub>1</sub>	2.2880	22870 g	<b>2</b> .288 <b>0</b>	<sup>2</sup> 2.2880	2.2870
None D3 D3ch 0.227 0.0609 0.9324 0.0221 0.0169 0.0324 0.0221 0.0169 0.0324 0.0221 0.0169 0.0324 0.0221 0.0169 0.0324 0.0221 0.0169 0.085 0.0163 0.0111 0.0085 0.085 0.0163 0.0111 0.0085 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0053 0.0108 0.0108 0.0108 0.0085 0.00856	None	D2 Stream			1.2040	o///	% <mark>1.2040</mark>	1.2040	1.2040	1.2040
None D3 D3ch 0.227 0.0609 0.9324 0.0221 0.0169 0.0324 0.0221 0.0169 0.0324 0.0221 0.0169 0.0324 0.0221 0.0169 0.0324 0.0221 0.0169 0.085 0.0163 0.0111 0.0085 0.085 0.0163 0.0111 0.0085 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0053 0.0108 0.0108 0.0108 0.0085 0.00856	<del>50 %</del>		1.2050	× 1.2040	1,2940	<b>∜¥.2040</b>	1.2000	1.2040	1.2040	1.2040
None D3 D3ch 0.227 0.0609 0.9324 0.0221 0.0169 0.0324 0.0221 0.0169 0.0324 0.0221 0.0169 0.0324 0.0221 0.0169 0.0324 0.0221 0.0169 0.085 0.0163 0.0111 0.0085 0.085 0.0163 0.0111 0.0085 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0053 0.0108 0.0108 0.0108 0.0085 0.00856	<mark>75 %</mark>		1.2049		1.2040	1.2040	<mark>1.2040</mark>	<mark>©1.2040</mark>	1.2040	1.2040
None D3 D3ch 0.227 0.0609 0.9324 0.0221 0.0169 0.0324 0.0221 0.0169 0.0324 0.0221 0.0169 0.0324 0.0221 0.0169 0.0324 0.0221 0.0169 0.085 0.0163 0.0111 0.0085 0.085 0.0163 0.0111 0.0085 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0056 0.0043 0.0082 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0033 0.0022 0.0017 0.0053 0.0108 0.0108 0.0108 0.0085 0.00856	<mark>90 %</mark>		1.2040	<sup>©</sup> ¥.2040	1.2040	1.2040	\$1.2040°	1.2040	1.2040	1.2040
S0 %   Q	None	1 1)3 Danch	<b>40.2227</b>	· // · · · · · ·		©0.0221	0,0869	0.0324	0.0221	0.0169
None   D4-Pong   0.2431   0.1870   0.1583   0.6409   0.1312   0.1563   0.1409   0.1312	50 % ×		0.129	070306	0.0163	0.041	~ <mark>0</mark> 90085	0.0163	0.0111	0.0085
None D4-Pong 0.4431	75 %	· "Ø	Q.9362	0.0154		0.0056 <sub>~</sub>	0.0043	0.0082	0.0056	0.0043
None D4-Pong 0.4431		<b>\$</b>	0.0226	0.0062	0.0033	0.0022	0.0017	0.0033	0.0022	0.0017
50 %         C1414         0.1332         0.178         0.1101         0.1053         0.1178         0.1101         0.1053           75 %         0.1102         0.4663         0.0989         0.0952         0.0929         0.0989         0.0952         0.0929           90 %         0.0924         0.0909         0.0880         0.0865         0.0880         0.0865         0.0880         0.0865         0.0880         0.0865         0.0880         0.0865         0.0886         0.0845         0.0446         0.0440         0.0445         0.0440         0.0434         0.0432         0.0440         0.0432         0.0427         0.0431         0.0429         0.0427         0.0426         0.0425         0.0426         0.0426         0.0425         0.0426         0.0426         0.0425         0.0426         0.0426         0.0425         0.0426         0	None	D#Pong >	0.2031	1870 ×	0.1563	0.1.709	0.1312	0.1563	0.1409	0.1312
75 %	50 %		~~	( )		n y	0.1053	0.1178	0.1101	
90 %	75 % <sub>2</sub> %		0.11/02	7	, , , , , , , , , , , , , , , , , , ,					0.0929
50 %         0.0504         0.0454         0.0434         0.0434         0.0432         0.0440         0.0432         0.0432         0.0440         0.0434         0.0432         0.0440         0.0434         0.0429         0.0427         0.0431         0.0429         0.0427           90 %         0.0440         0.0429         0.0426         0.0425         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0425         0.0426         0.0425         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0425         0.0426         0.0426         0.0426         0.0426         0.0426         0.0426         0.0426         0.0426         0.0420         0.0424         0.0428         0.0426         0.0246	90 %	, <u>©</u>	0.0224	- 12	9 .//.					0.0856
50 %         0.0564         0.0454         0.0440         0.0434         0.0432         0.0440         0.0434         0.0432         0.0440         0.0434         0.0432           75 %         0.0465         0.0439         0.0431         0.0429         0.0427         0.0431         0.0429         0.0427           90 %         0.0440         0.0429         0.0426         0.0425         0.0425         0.0426         0.0425           None         0.1408         0.1236         0.0920         0.0770         0.0675         0.0920         0.0770         0.0675           50 %         0.0470         0.0430         0.0355         0.0316         0.0292         0.0355         0.0316         0.0292           90 %         0.0286         0.0270         0.0240         0.0224         0.0215         0.0240         0.0224         0.0215           None         D5 Stream         0.1152         0.0423         0.0226         0.0155         0.0118         0.0226         0.0155         0.0118	- 1 M - 1	D4 Stream	<b>40.</b> 0819							0.0440
75 % 0.0439 0.0431 0.0429 0.0427 0.0431 0.0429 0.0427 90 % 0.0440 0.0429 0.0426 0.0425	50 %			0.0454						
90% 0.0440 0.0429 0.0426 0.0425 0.0426 0.0425 0.0425 0.0425 0.0425 0.0425 0.0425 0.0425 0.0425 0.0425 0.0425 0.0425 0.0425 0.0425 0.0425 0.0425 0.0425 0.0426 0.0425 0.0426 0.0425 0.0426 0.0426 0.0426 0.0426 0.0426 0.0420 0.0544 0.0468 0.0420 0.0470 0.0470 0.0430 0.0355 0.0316 0.0292 0.0355 0.0316 0.0292 0.0246 0.024 0.0215 0.0246 0.0240 0.0224 0.0215 0.0240 0.0224 0.0215 0.0426 0.0155 0.0118 0.0226 0.0155 0.0118			00465		/					
None   D5 Stream   O.1152   O.0423   O.0226   O.0770   O.0675   O.0920   O.0770   O.0488   O.0420   O.0544   O.0468   O.0420   O.0355   O.0316   O.0292   O.0355   O.0316   O.0292   O.0292   O.0240   O.			40	,,						
50 %         50 %         50 %         50 %         50 %         0.0695         0.0544         0.0468         0.0420         0.0544         0.0468         0.0420           50 %         0.0470         0.0430         0.0355         0.0316         0.0292         0.0355         0.0316         0.0292           90 %         0.0286         0.0270         0.0240         0.0224         0.0215         0.0240         0.0224         0.0215           None         D5 Stream         0.1152         0.0423         0.0226         0.0155         0.0118         0.0226         0.0155         0.0118	None O	Pond C		- 2						
90 %         0.0286         0.0270         0.0240         0.0224         0.0215         0.0240         0.0224         0.0215           None         D5 Stream         0.1152         0.0423         0.0226         0.0155         0.0118         0.0226         0.0155         0.0118	50%	2 A								
90 %         0.0286         0.0270         0.0240         0.0224         0.0215         0.0240         0.0224         0.0215           None         D5 Stream         0.1152         0.0423         0.0226         0.0155         0.0118         0.0226         0.0155         0.0118	75%									
1 tolic   D3 Steam   0.1132   0.0423   0.0133   0.0110   0.0220   0.0133   0.0110	90 %									
	None	D5 Stream								
- <del>20 / 0</del>   0.0114   0.0144   0.0215   0.0114   0.0070   0.0114   0.0070   0.0170   0.0070	50 %		0.0578	0.0213	0.0114	0.0078	0.0060	0.0114	0.0078	0.0060



PECsed (μg/kg)	Scenario				STEP 4 D	<mark>iflufenica</mark> n	i		Q)°
Nozzle	Vegetated strip (m)	None	None	None	None	None	10m low	10m low	2000 high
reduction	No spray buffer (m)	<mark>0 m</mark>	<mark>5 m</mark>	10 m	15 m	20 m	<mark>100 m</mark>	15 m	200m
<mark>75 %</mark>		0.0290	0.0108	0.0058	0.0040	0.0034	J <mark>0.0058</mark>	0.0040	<b>9</b> .0034
<mark>90 %</mark>		0.0117	0.0044	0.0033	0.0032	0.003	0.0033	0.0032	0.003A
None	D6 Ditch	1.1910	0.3340	<mark>0.1804</mark> A	0.1244	0.0962	0.1804	0.1234	<mark>0.0</mark> 962 (
<mark>50 %</mark>		0.6057	0.1705	0.0926	0.0676	Q,0623	0.09 <b>26</b>	<u>0.0676</u>	<b>0.0623</b>
<mark>75 %</mark>		0.3085	0.0875	0.2616	0.0562	∕ <mark>0.05≸</mark>	0.0616	8.0562	0.0595
<mark>90 %</mark>		0.1270	0.0574	%0.0514	0.0492	0.0481	<b>√0.051</b> ♣	0.0492	0.0481
None	R1 Pond	0.5141	0.4998	0.4723	0,4589	<b>0.4503</b>	0.2358	<b>g.2216</b>	0.13 <u>30</u> °
<mark>50 %</mark>		0.4593	0.4521	Q.4385 A	Ø.431 <b>%</b>	0.4 <del>2</del> 74	<b>62004</b>	0.1933	0.1086
<mark>75 %</mark>		0.4319	<mark>0.4283</mark> (	<b>0.4215</b>		0 <mark>9159</mark>	0.18 <b>2</b>	0.1791	<b>©</b> .0964
<mark>90 %</mark>		0.4154	<b>9.4149</b>	0.4173	<b>0.</b> 4099	0.4090	0,1,720	<b>0.1706</b> 0	0.0890
None	R1 Stream	0.5583 <sup>Q</sup>	0.5 <u>5</u> 26	<mark>@5510</mark> 7	<sub>&gt;</sub> 0.550	0.5001	<b>9.1368</b> Ĉ	0.1363	0.0611
<mark>50 %</mark>		0.55	Q.5509	0.550	<mark>0.5</mark> 498	<b>Q</b> 5497	0.1359	<mark>0.4356</mark>	0.0606
<mark>75 %</mark>		0.5/515 &	0.5501	0.5497	2.5495	0.5494	0 <b>0</b> 354	0.1353	0.0603
<mark>90 %</mark>	%	9 <mark>0.5501</mark>	0.5396	<b>0</b> .5494,	0.5493	0×5×493	0.1352	0.1351	0.0602
None	R3 Stream	0.5570	<b>\$5722</b> ©	0.57	<mark>0.9704</mark>	8 <mark>0.5702</mark>	0.1323	0.1318	0.0576
<mark>50 %</mark>	R3 Stream	0.5732	7 <mark>0.57<b>%</b></mark>	0.5702	<b>9.5699</b>	0.5698	0.¥315	0.1312	0.0572
<mark>75 %</mark>		0.5713	0.5701	0.569	0.5697		©0.1311	0.1310	0.0570
<mark>90 %</mark>		0.5702	<b>8.5697</b>	0.5696	2.5695	© 0.5695	0.1309	0.1308	0.0569
None	RA Stream	<b>₹</b> 0.5066	0.5042	Q \$035	\$0.5032	<mark>0.5931</mark>	0.1531	0.1529	0.0736
50 % S		0.5047	<b>0</b> 6034	0.5031	0.5030	~ <mark>0</mark> .5029	0.1528	0.1526	0.0734
75 %	~	Q.\$037	0.5034	0.5029	0.5029	0.5028	0.1526	0.1525	0.0733
<mark>90 %</mark>		0.503	0.5029	5028	0.5028	0.5028	0.1524	0.1524	0.0733

Table 9.2.5-51: Single application FOCUS Step 4 results for diffusenican, use winter cereals II (post-emergy (DGR II / PMT III; GAP name winter cereals II)

		Q,		<u> </u>					
PE@sed (µg/kg)	Scenario d			No.	STEP 4 Di	<mark>iflufenican</mark>	ı		
Nozzle 🔏	Vegetated strip (m)	None	None	None	None	None	10m low	10m low	20m high
reduction	No spray Confer (m)	Om O	5 m	10 m	15 m	20 m	10 m	15 m	<mark>20 m</mark>
None	D1 Dirch	0.989 <mark>7</mark>	0.5052	<mark>0.4664</mark>	0.4524	0.4452	0.4664	0.4524	0.4452
75 %		0.5745	0.4639	0.4445	0.4375	0.4339	0.4445	0.4375	0.4339
75 <b>©</b>		0.4986	0.4433	0.4336	0.4301	0.4283	0.4336	0.4301	0.4283
<mark>90 %</mark>		0.4530	0.4309	0.4271	0.4257	0.4250	0.4271	0.4257	0.4250
None	D1 Stream	0.2654	0.2571	0.2549	0.2541	0.2536	0.2549	0.2541	0.2536



PECsed (μg/kg)	Scenario				STEP 4 D	<mark>iflufenica</mark> r	i		. ©°
Nozzle	Vegetated strip (m)	None	None	None	None	None	10m low	10m low	2000 high
reduction	No spray buffer (m)	0 m	5 m	10 m	15 m	20 m	100 m	15 m	20 m
<mark>50 %</mark>		0.2589	0.2547	0.2536	0.2532	(	J 0.2536	0.2532	<b>9</b> .2530
<mark>75 %</mark>		0.2556	0.2535	0.2529	2527	0.2526	0.2529	0.2527	0.2526
<mark>90 %</mark>		0.2536	0.2528	0.2526 A	<i>y</i>	0,2524	0.2526	0.2525	<b>9</b> \$524
None	D2 Ditch	1.0700	1.0190	1.0120	1.0090	<b>Q,0080</b>	· 1.0120	1,0090	<u>1.0080</u>
<del>50 %</del>		1.0310	1.0110	1.0080	1.0070	1.0000	1.0080	9.0070	
<mark>75 %</mark>		1.0180	1.0080	\$ <mark>4.0060</mark>	<u> </u>		√ <mark>1.0060</mark> ♥	1.00%0	1.0050
<mark>90 %</mark>		1.0090	1.0050	1.0050	1,9040	9.0040°			1.0040°
None	D2 Stream	0.5227	0.5249	Q.5217 A	8	0.5246	<b>6</b> 3217		<mark>0,5216</mark>
<mark>50 %</mark>		0.5221	0.8217	70.5216 <sup>©</sup>	~ / ~ ~	0 <sup>3</sup> 215	0.5216	0.5215	<b>©</b> .5215
<mark>75 %</mark>		0.5218	@.5216	0.5275	<b>0.3215</b>	0.5215	0.5315	<b>5215</b> 0	
<mark>90 %</mark>		0.5216	, 4	<b>0</b> 5215	0.5215°	0.5015	<b>9.5215</b> Ĉ	0.5245	0.5215
None	D3 Ditch	0.1195	<b>Q.0327</b>	0.017	0. <b>0</b> 49	<b>Q</b> 0090	0.0174	<mark>0.0/119</mark>	0.0090
<mark>50 %</mark>		0.0600 &	0.0164	0.0087	<mark>_0.0060</mark> <sup>4</sup>	0.0045	0 <b>0</b> 087	0.0060	0.0045
<mark>75 %</mark>	%	$90.0301^{\circ}$	0.0083	<b>Q</b> :0044,	0.0030	0.0023	0.0044	0.0030	0.0023
<mark>90 %</mark>	~	0.0121	<b>©</b> 0033 (	0.00		8 <mark>0.0009</mark>	0.0028	0.0012	0.0009
None	D4 Pood	0.1018	7 0.09 <b>20</b>	0.0779	<b>9.0696</b>	0.0696	<mark>0.9779</mark>	0.0696	0.0646
<mark>50 %</mark>		0.0700		0.058Q	0.0 <b>53</b> 8	<b>9</b> ,0513	<mark>©0.0580</mark>	0.0538	0.0513
<mark>75 %</mark>	D4 Pm	0.0541	<b>8.0518</b>	0.0481	<mark>0.0461</mark>	© 0.0450	0.0481	0.0461	0.0450
<mark>90 %</mark>		<b>40.0447</b>	0.0439	Q 0425	\$0.0417	0.0412	0.0425	0.0417	0.0412
None None	D/ Stream	0.0414	00232	0.0217	0.042	~ <mark>0.0210</mark>	0.0217	0.0212	0.0210
50 %	~	Q.9242	0.021	0:0209	0.0207	0.0205	0.0209	0.0207	0.0205
<mark>75 %</mark>	D4 Sticales	0.022	0.0209	0205	0.0204	0.0203	0.0205	0.0204	0.0203
<mark>90 %</mark>		0.0210	<b>0</b> 0204	0.0203	0.0202	0.0202	0.0203	0.0202	0.0202
None 2	D5 Pond	<mark>\$.0726</mark> %	0.0629	0,0 <mark>476</mark>	0.0395	0.0346	0.0476	0.0395	0.0346
50 %	] " (	0000	0.0354	00.0281	0.0240	0.0216	0.0281	0.0240	0.0216
75 %		0.0243	0.0220	0.0183	0.0163	0.0151	0.0183	0.0163	0.0151
962%	\$\$ <sup>"</sup>	0148	<u> </u>	0.9124	0.0116	0.0111	0.0124	0.0116	0.0111
		0.0508	0.0212	0.0113	0.0077	0.0059	0.0113	0.0077	0.0059
50 %	\$ .4 \	00290	©0.0107	0.0057	0.0039	0.0030	0.0057	0.0039	0.0030
<mark>75 %</mark>		0.0146	0.0834	0.0029	0.0020	0.0017	0.0029	0.0020	0.0017
90 % Ø		0.0039	0.0022	0.0017	0.0016	0.0015	0.0017	0.0016	0.0015
None 50 % 75 % 90 % Ø Nore	D6 Ditch	<b>3</b> 5984	0.1677	0.0905	0.0623	0.0477	0.0905	0.0623	0.0477
<b>50</b> % &	D6 Ditch	<del>0.3041</del>	0.0855	0.0463	0.0321	0.0274	0.0463	0.0321	0.0274
75 % 90 %		0.1547	0.0439	0.0272	0.0244	0.0229	0.0272	0.0244	0.0229
90 %		0.0636	0.0250	0.0219	0.0207	0.0201	0.0219	0.0207	0.0201
None	R1 Pond	0.2547	0.2467	0.2335	0.2262	0.2218	0.1172	0.1096	0.0661
none	KI Ponu	0.2347	0.2407	0.2333	0.2202	0.2218	0.11/2	0.1090	0.0001



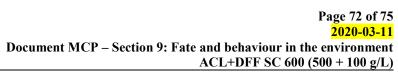
# Document MCP – Section 9: Fate and behaviour in the environment ACL+DFF SC 600 (500 + 100 g/L)

PECsed (μg/kg)	Scenario			,	STEP 4 D	iflufenican	i		w°
Nozzle	Vegetated strip (m)	None	None	None	None	None	10m low	10m low	2000 high
reduction	No spray buffer (m)	<mark>0 m</mark>	<mark>5 m</mark>	10 m	15 m	20 m	<b>10</b> m	15 m	20 m
<mark>50 %</mark>		0.2266	0.2226	0.2160	0.2123	6	J <mark>0.0990</mark>	0.0952	<b>9</b> .0536
<mark>75 %</mark>		0.2125	0.2105	0.2072	2054	0.2043	0.0899	0.0880	0.04 <b>%</b>
<mark>90 %</mark>		0.2041	0.2033	0.2019	0.2012	0,2008	0.0844	0.0836	0.0437 <sub>(4</sub>
None	R1 Stream	0.2845	0.2816	0.2800	0.2806	<b>Q</b> ,2805	0.0682	<u>0:0679</u>	©0.0302
<mark>50 %</mark>		0.2823	0.2808	0.2804	0.2803	√ <mark>0.28<b>©</b>2</mark>	0.0678	8.0676	0.0299
<mark>75 %</mark>		0.2811	0.2804	\$ <mark>0.2802</mark>	0.28 <del>9</del> 2	0.2801	4 <mark>0.067.5</mark>	0.0675	<b>0.0298</b>
<mark>90 %</mark>		0.2805	0.2802	0.2864	<mark>0,\$801</mark>	<b>Ø</b> .280 <b>Î</b>		<b>g</b> .0674	0.0297°
None	R3 Stream	0.3144	0.3120			0.3409	©0695 <sub>√</sub>	0.0693	0.0298
<mark>50 %</mark>		0.3125		<b>\^</b> 0.3109			J <mark>0.069</mark>	0.0690	<b>©</b> .0296
<mark>75 %</mark>		0.3115	<b>9.3109</b>		•	0.3106	0,689	<b>0.0689</b>	0.0295
<mark>90 %</mark>		0.3109			<sub>y</sub> 0.3100	0,3006	<b>0.0688</b> Ĉ	0.0688	0.0294
None	R4 Stream	0.2291	Q.2274	0.2276	0.2268	<b>Q</b> 2267	0.07	0.9713	0.0347
<mark>50 %</mark>		0.2278 &	, <mark>0.2270</mark>		<b>2.2266</b>	0.2266	0 <b>0</b> 712	0.0712	0.0346
<mark>75 %</mark>	<b>%</b>	$90.2271^{\circ}$	0.2267	Q.2266,	AL V	02265	<b>0.071</b>	0.0711	0.0345
<mark>90 %</mark>		0.2267	<b>2266</b>	0.2265	0.2265	0.2265	0.07900	0.0710	0.0345

Table 9.2.5- 52:

Single application FOCUS Step 4 results for diffusenican, use winter cereals II (post-emerg) (DGR II PMT) V; GAP name winter cereals II)

	405		,		<b>S</b>	√ n			
PECsed γ (μg/kg)	Scenario					illafenicar	<b>1</b>		
Nozzle	Vegerated strep (m)	Norte	None	None	N@e	None	10m low	10m low	20m high
reduction	No spray buffer (m)	O m	5 m	To m	10	20 m	10 m	15 m	20 m
None None	D1 Ditch	0.9926	<b>2</b> 5307	7 <mark>0.4919</mark>	<mark>0.4780</mark>	0.4708	0.4919	0.4780	<mark>0.4708</mark>
None 50 %		0.5999	9 <mark>0.489</mark>	<mark>0,4701</mark>	0.4631	0.4596	0.4701	0.4631	<mark>0.4596</mark>
75/%		♥ <mark>0.52}</mark> ‡	0.4689	<b>9.4592</b>	0.4558	0.4540	0.4592	0.4558	0.4540
<mark>90 %</mark>		<mark>0.4</mark> 786	<b>9.4566</b>	0.4527	0.4514	0.4507	0.4527	0.4514	0.4507
None	OD1 Stream	<b>9</b> .2805	<sup>J</sup> <mark>0.2722</mark> ~	0.2699	0.2691	0.2687	0.2699	0.2691	0.2687
50 %	D1 Stream	0.2730	0.2698	0.2687	0.2683	0.2681	0.2687	0.2683	0.2681
75 <b>%</b>	2 4	<b>9</b> 707	0.2686	0.2680	0.2678	0.2677	0.2680	0.2678	0.2677
<mark>9.0 %</mark>		0.2687	0.2679	0.2676	0.2676	0.2675	0.2676	0.2676	0.2675
None S	D2 Ditch	1.0390	0.9809	0.9740	0.9715	0.9702	0.9740	0.9715	0.9702
None \$\sqrt{50 \cdots}		0.9934	0.9736	0.9701	0.9688	0.9682	0.9701	0.9688	0.9682
<mark>75 %</mark>		0.9798	0.9699	0.9681	0.9675	0.9672	0.9681	0.9675	0.9672
<mark>90 %</mark>		0.9716	0.9676	0.9670	0.9667	0.9666	0.9670	0.9667	0.9666





PECsed (μg/kg)	<b>Scenario</b>			!	STEP 4 D	<mark>iflufenica</mark> n	i		Q <sub>1</sub> °
Nozzle	Vegetated strip (m)	None	None	None	None	None	10m low	10m low	2000 high
reduction	No spray buffer (m)	<mark>0 m</mark>	<mark>5 m</mark>	10 m	15 m	20 m	100 m	15 m	200m
None	D2 Stream	0.4998	0.4989	0.4987	0.4986	0.4986 ×	<b>0.4987</b>	0.4986	<b>9</b> .4986
<mark>50 %</mark>		0.4991	0.4987	0.4986	<del>4</del> 986	0.498	0.4986	0.4986	0.4985
<mark>75 %</mark>		0.4988	0.4986	0.4985	, <mark>0.4985</mark>	0,4985	0.4985	0.4285	09985
<mark>90 %</mark>		0.4986	0.4985	0.4985	0.4985	Q4985	0.4985	0:4985	0.4985
None	D3 Ditch	0.1118	0.0306	0.0063	0.0111	0.0084	0.0163	8.011,10	0.0084
<del>50 %</del>	-	0.0561	0.0154	\$0.0082	0.0056	0.0042	0.0082	0.0086	0.0042
<b>75 %</b>	-	0.0282	0.0077	0.0041	0,0028	<b>0.0021</b>	0.0041	Ø0028	0.0021
90 %	-	0.0113	0.0031	Q.0016 A	Ø.0013	0.0009	<b>©</b> 0016√		0,0009
None	D4 Pond	0.0992	0,000	0.0753°			0.075	0.0670	0.0621
<del>50 %</del>		0.0674	Ø.0629	0.0554	0.0513	00.0488	0.0554	Ø.0513	•
75 %	-	0.051 <del>5</del>	(1)		0.0435	0.0023	<b>0.0455</b> Ĉ		0.0423
90 %	_	0.0491	Q.0412	0.0398	0.0390	Q0386	0.0398	0.0390	0.0386
None	D4 Stream	0.0411 &	· y	0.0003	0.0198	(1/1 <sup>N</sup> »-	00203	0.0198	0.0195
50 %	•	0.0229	0.0202	<b>Q</b> :0195	-0	0.0191	0.0195	<u>a</u>	0.0191
75 %	- ~	0.0208	<b>3</b> 0195	and the same of th		©.0189	0.0190	0.0190	0.0189
		. 📎	0.0190	0.0788	\$\frac{1}{9}.0188	0.0197	0.0188	0.0188	0.0187
None	D5Fond	0.0718	0.6622	0.0465	0.0332		©0.0465	0.0382	0.0333
50 %	Dorona	0.0386	©.0342		Q.0228	0.0203	0.0268	0.0228	0.0203
75 %		₹ <mark>0.0230</mark>	0.0207	_ A ~	0.0150 0.	0.0203	0.0200	0.0228	0.0203
, in the second			0.0207	0.01 11	0.0130	~0.0098	0.0170	0.0130	0.0098
90 % None	0			V///	0.0077	0.7			
	D5 Stream	Q.9378		0.093 80.57		+	0.0113	0.0077	0.0059
50 %		0.0296	36 1	0.0057 0.0020	0.0039	0.0030	0.0057	0.0039	0.0030
75 %		0.0076	<b>0</b> 0054	0.0029		0.0015	0.0029	0.0020	0.0015
90 %		0.0059	0.0022	0.0015	0.0014	0.0013	0.0015	0.0014	0.0013
None A	D6 Ditch	0.60 <b>39</b> ″	0.4692	Ø.0912		0.0481	0.0912	0.0628	0.0481
50 %	Do Ditch	0.3069	0.0862		0.0323	0.0275	0.0467	0.0323	0.0275
<mark>7.5€%</mark>		1561 <sub>0</sub>	- (/ )	<u>0.0272</u>	0.0244	0.0230	0.0272	0.0244	0.0230
90 %	Q V	<sup>8</sup> <mark>0.06<b>⊕1</b>′</mark>	0.0251	©0.0219	0.0208	0.0202	0.0219	0.0208	0.0202
None	R1 Pond	00575	L//		0.2290	0.2246	0.1184	0.1108	0.0667
50 %		0.2294	0,2,\$3	0.2188	0.2151	0.2129	0.1001	0.0963	0.0542
75 % Ø		~ ~	0.2133	0.2100	0.2081	0.2071	0.0910	0.0891	0.0480
90 % None 50 % 75 % 90 %	R1 Weam	<b>0</b> 2068	0.2060	0.2047	0.2040	0.2035	0.0855	0.0848	0.0442
None o	R1 Stream	<mark>√0.2898</mark>	0.2868	0.2860	0.2857	0.2856	0.0694	0.0691	0.0307
50 % 75 %		0.2874	0.2859	0.2855	0.2854	0.2853	0.0689	0.0687	0.0304
<mark>75 %</mark>		0.2863	0.2855	0.2853	0.2852	0.2852	0.0687	0.0686	0.0303
<mark>90 %</mark>	1	0.2856	0.2853	0.2852	0.2851	0.2851	0.0685	0.0685	0.0302



PECsed (μg/kg)	Scenario	STEP 4 Diflufenican								
Nozzle	Vegetated strip (m)	None	None	None	None	None	10m low	10m low	2000 high	d
reduction	No spray buffer (m)	<mark>0 m</mark>	<mark>5 m</mark>	10 m	15 m	<mark>20 m</mark>	<b>16</b> m ⋅ 1 m	15 m	200m	
None	R3 Stream	0.3138	0.3113	0.3107	0.3104		<b>0.0694</b>	0.0592	<b>9</b> .0298	K,
<mark>50 %</mark>		0.3119	0.3106	0.3103	<b>3</b> 101	0.3100	0.0690	0.0689	0.0295	
<mark>75 %</mark>		0.3109	0.3103	0.3101	0.3100	0,3000	0.0688	0.0687	0.00294 (g	
<mark>90 %</mark>		0.3103	0.3100	0.3100	0.3099	Q,3099	· 0.0687	Q:0687	0.0294	,
None	R4 Stream	0.2666	0.2653	0.2650	0.2649		0.0782	<b>8.0780</b>		
<mark>50 %</mark>		0.2656	0.2650	\$ <mark>0.2648</mark>	0.2647	0.2647	0.0780	0.0779	0.0371	
<mark>75 %</mark>		0.2651	0.2648	0.2647		<b>0.2646</b>		<b>©</b> 20778	0.03 <b>71</b> °	]
<mark>90 %</mark>		0.2648	0.2647		<b>0</b> .2646	0.2 <del>6</del> 46	<b>6</b> 0778 <sub>4</sub>	0.0778	0.0370	1

### PECsw/sed of ACL+DFF SC 600

The PEC<sub>sw</sub> for the formulation was calculated according to the following formula:

Application rate & frequency / Crop 861 & ha ^ / winter cereals
Scenario / Drift percentile Arable crops 00th percentile (for on application)
Entry pathways considered & Drifty yes & Drifty yes
Vojatilis <mark>ation: no</mark> si constanti de la consta

A Based on a product density of 1.230 g/m/L and a maximum application rate of 1 x 0.7 L product/ha

PEC<sub>sw</sub> for the formulation are based the proposed application rate and spray drift values published by Rautmann et al. (2901) for a single application to field crops. Loadings are considered to reach a standard static dich (wieth 1 no depth 30 cm/sediment depth 5 cm, and sediment density 0.8 kg/L).

PEC<sub>sw</sub> values of the se of ACL+DFF SC 600 in winter cereals assume an application rate of 0.7 L/ha which will also cover use at lower application rates.

PEC<sub>sw</sub> via spray drift for ACL+DFF SC 600 following applications to Table 9.2.5- 53: winter cereals, 1 %0.7 Laba (= 1 × 861 g/ha)

Nozzle reduction \	No spray buffer (m) / drift (%)    1				
	1111/2011/0	5m <sup>2</sup> 0.57%	10m / 0.29%	15m / 0.20%	20 m / 0.15%
0 % drift reduction	<b>7.95</b>	2 1.64	0.83	0.57	0.43
50% drift reduction	ر <mark>3.9%</mark>	0.82	0.42	0.29	0.22
75% drift reduction	1 100	0.41	0.21	0.14	0.11
90% drift reduction	> <mark>0.80</mark>	<mark>0.16</mark>	0.08	0.06	0.04
Li. 27	A.				



#### **CP 9.3** Fate and behaviour in air

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

#### Aclonifen

The fate and behaviour in air of aclonifen were evaluated during the original EU review (**EFSA Scientific Report 2008; 149, 1-80**). Aclonifen has a low vapour pressure (100 x 10<sup>-5</sup> Pa at 20°C) and Henry's law constant (3.24 x 10<sup>-2</sup> Pa·m³·mol<sup>-1</sup> at 20°C); therefore volatilisation from soft or water is unlikely to constitute a relevant route for its environmental fate.

Table 9.3.1-1: Fate and behaviour in air (aclonifen; EFSA Scientific Report 2008 149, 1-80)

Parameter		Q'Aclorifen &	
Henry's Law Constant [Pa m³/mol]	3.03 Q 10-3 Pa·m <sup>3</sup> ·m <sup>2</sup>	] at 20 %	
Quantum yield of direct phototransformation $\Sigma > 290$ nm [mole/Einstein]	5 x 10 x		
Vapour pressure (at 20°C) [Pa]	1.6 x 10 <sup>-5</sup>		
Photochemical oxidative degradation in air	DT 57: 30.234 hours (1	Atkinson method)	
Metabolites	None 3		to the second

For further information on route and rate of degradation in air and transport on air please refer to Document MCA, Sections 7.30 and 73.2.

#### **Diflufenican**

The degradation rate in air (Atkinson method) of diffluserican and its anaerobic soil degradation product AE C522392 as well as the volatilization behaviour of diffuserican from soil or plant surfaces was evaluated during the Anne I inclusion and was accepted by the European Commission (SANCO/3782/08 rev. — 14 March 2008)

Table 9.3.1- 25 Fare and behaviour in air (diffusencean; FFSA Scientific Report 2007; 122, 1-

		@~ V	0 . 0
Parameter,			Diflufenican
Henry's Law Constant	[Pam <sup>3</sup> /mol] <		> 1, 18 x 10,2 Pa·m² mol-1
Quantum yield of disc $\Sigma > 290$ nm [mole/Eins		nation (	2/5 x 10 <sup>-5</sup>
Vapour pressure (at 25	<mark>&amp;C) [Pa]</mark> Č 🛴 🐎		4.25 × 10 <sup>-6</sup>
Photochemical oxidation	ve de wadati op ir	n air 🔎 📗	Day: 5.0 (EU), 3.3 d (USA) (Atkinson method)
Volatilisation			From plant surfaces (BBA guideline): Negligible (max. 0.3%)
			after 24 h From soil (BBA guideline): Negligible (< 0.01%) after 24 h
Metabolites	(O' L'		Metabolite AE C522392 was found to be volatile in an
Metabolites		n <sup>v</sup>   v	onaerobic soil degradation study (peak of 28.11% AR in volatile traps). However, because its DT50 in air is 10.5 h (via
			Atkinson calculation), it is unlikely to persist in the troposphere
			or be subject to long range transport.

The vapour pressure at 25 °C of the active substance diflufenican is < 10<sup>-5</sup> Pa. Hence the active substance diflufenican is regarded as non-volatile. Therefore exposure of adjacent surface waters and terrestrial ecosystems by the active substance diflufenican due to volatilization with subsequent deposition is not expected.



#### **CP 9.4** Estimation of concentrations for other routes of exposure

actice.

The state of the state aral practic, and The state of the s