# REGISTRATION REPORT

# Part B

# Section 8

# Environmental Fate

Detailed summary of the risk assessment

Product code: BAS 736 00 F

Product name(s): **Miralon**

Chemical active substance(s):

Fluxapyroxad, 50 g/L
Azoxystrobin, 75 g/L

Central Zone

Zonal Rapporteur Member State: Poland

CORE ASSESSMENT

(new authorization)

Applicant: BASF

Submission date: 08/2022

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MS Finalisation date: January 2023

# Version history

| When | What |
|---|---|
| 12/2021 | Initial dRR - BASF DocID 2021/2042971 |
| 08/2022 | Updated version - BASF DocID 2022/2039020 |
| 09/2022 | Dossier update after request for additional information |
| 09/2022 | Version evaluated by zRMS PL |
| 01/2023 | Version updated after commenting proces. |

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# 8 Fate and behaviour in the environment (KCP 9)

**Review Comments:**
This document describes the acceptable use conditions required for registration of BAS 736 00 F, an emulsifiable concentrate containing 50 g/L fluxapyroxad (BAS 700 F) and 75 g/L azoxystrobin (BAS 9164 F) for use as a fungicide in cereals.
This Part B document only reviews data and additional information that has not previously been considered within the EU review process.
Since this document is based on the information provided by the applicant, all review comments, additions and corrections have been made using commenting boxes or highlighted in grey.

## 8.1 Critical GAP and overall conclusions

### Table 8.1-1: Critical GAP for the formulated product

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Use-No.** (e) | **Member state(s)** | **Crop and/ or situation**<br><br>**(crop destination / purpose of crop)** | **F, Fn, Fpn G, Gn, Gpn or I** | **Pests or Group of pests controlled**<br><br>(additionally: developmental stages of the pest or pest group) | **Application** | | | | **Application rate** | | | **PHI** (days) | **Remarks:**<br><br>e.g. g safener/synergist per ha (f) | **Conclusion** |
| | | | | | Method / Kind | Timing / Growth stage of crop & season | Max. number a) per use b) per crop/ season | Min. interval between applications (days) | L product / ha a) max. rate per appl. b) max. total rate per crop/season | kg as/ha<br><br>a) max. rate per appl. b) max. total rate per crop/season Fluxapyroxad / Azoxystrobin | Water L/ha<br><br>min / max | | | Groundwater |
| **Zonal uses (field or outdoor uses, certain types of protected crops)** | | | | | | | | | | | | | | |
| 1 | DE, AT, BE, NL, IE, PL | wheat TRZAW, TRZAS TRZDU, TRZSP | F | Zymoseptoria tritici - SEPTTR<br>Puccinia triticina - PUCCRT<br>Puccinia striiformis - PUCCST<br>Pyrenophora tritici-repentis – PYRNTR<br>Blumeria graminis - ERYSGR | Spraying (SP) | 30 - 69 | a) 2<br>b) 2 | 21 | a) 2.00<br>b) 4.00 | a) 0.100 / 0.150<br>b) 0.200 / 0.300 | 100 - 300 | 35 | | A |
| 2 | DE, AT, BE, NL, IE | barley HORVW HORVS | F | Pyrenophora teres – PYRNTE<br>R. secalis - RHYNSE<br>R. collo-cygni – RAMUCC<br>Puccinia hordei – PUCCHD<br>Blumeria graminis - ERYSGR | Spraying (SP) | 30 - 69 | a) 2<br>b) 2 | 21 | a) 2.00<br>b) 4.00 | a) 0.100 / 0.150<br>b) 0.200 / 0.300 | 100 - 300 | 35 | | A |
| 3 | DE, AT, BE, NL, IE, PL | rye SECCW SECCS SECCE | F | R. secalis - RHYNSE<br>Puccinia recondita - PUCCRE | Spraying (SP) | 30 - 69 | a) 2<br>b) 2 | 21 | a) 2.00<br>b) 4.00 | a) 0.100 / 0.150<br>b) 0.200 / 0.300 | 100 - 300 | 35 | | A |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Use-No.** (e) | **Member state(s)** | **Crop and/ or situation** **(crop destination / purpose of crop)** | **F, Fn, Fpn G, Gn, Gpn or I** | **Pests or Group of pests controlled** (additionally: developmental stages of the pest or pest group) | **Application** | | | | **Application rate** | | | **PHI** (days) | **Remarks:** | **Conclusion** |
| | | | | | Method / Kind | Timing / Growth stage of crop & season | Max. number a) per use b) per crop/ season | Min. interval between applications (days) | L product / ha a) max. rate per appl. b) max. total rate per crop/season | kg as/ha a) max. rate per appl. b) max. total rate per crop/season Fluxapyroxad / Azoxystrobin | Water L/ha min / max | | e.g. g safener/synergist per ha (f) | Groundwater |
| 4 | DE, AT, BE, NL, IE, PL | triticale TTLWI TTLSO | F | Septoria spp. - SEPTSP Puccinia recondita - PUCCRE Puccinia striiformis – PUCCST Blumeria graminis - ERYSGR | Spraying (SP) | 30 - 69 | a) 2 b) 2 | 21 | a) 2.00 b) 4.00 | a) 0.100 / 0.150 b) 0.200 / 0.300 | 100 - 300 | 35 | | A |
| 5 | DE, AT, BE, NL, IE, PL | oat AVESA | F | Blumeria graminis - ERYSGR Puccinia coronata - PUCCCA | Spraying (SP) | 30 - 69 | a) 2 b) 2 | 21 | a) 2.00 b) 4.00 | a) 0.100 / 0.150 b) 0.200 / 0.300 | 100 - 300 | 35 | | A |
| 6 | PL | barley HORVW HORVS | F | Pyrenophora teres – PYRNTE R. secalis – RHYNSE Puccinia hordei - PUCCHD R. collo-cygni - RAMUCC | Spraying (SP) | 30 - 69 | a) 2 b) 2 | 21 | a) 2.00 b) 4.00 | a) 0.100 / 0.150 b) 0.200 / 0.300 | 100 - 300 | 35 | | A |
| 7 | CZ | wheat TRZAW, TRZAS TRZDU, TRZSP | F | Zymoseptoria tritici - SEPTTR Puccinia triticina - PUCCRT Puccinia striiformis - PUCCST Pyrenophora tritici-repentis – PYRNTR Blumeria graminis - ERYSGR | Spraying (SP) | 30 - 69 | a) 1 b) 1 | | a) 1.20 - 2.00 b) 1.20 - 2.00 | a) 0.100 / 0.150 b) 0.100 / 0.150 | 100 - 300 | 35 | | A |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Use-No.** (e) | **Member state(s)** | **Crop and/ or situation** **(crop destination / purpose of crop)** | **F, Fn, Fpn G, Gn, Gpn or I** | **Pests or Group of pests controlled** (additionally: developmental stages of the pest or pest group) | **Application** | | | | **Application rate** | | | **PHI** (days) | **Remarks:** e.g. g safener/synergist per ha (f) | **Conclusion** |
| | | | | | Method / Kind | Timing / Growth stage of crop & season | Max. number a) per use b) per crop/ season | Min. interval between applications (days) | L product / ha a) max. rate per appl. b) max. total rate per crop/season | kg as/ha a) max. rate per appl. b) max. total rate per crop/season Fluxapyroxad / Azoxystrobin | Water L/ha min / max | | | Groundwater |
| 8 | CZ | barley HORVW HORVS | F | Pyrenophora teres – PYRNTE R. secalis - RHYNSE R. collo-cygni – RAMUCC Puccinia hordei – PUCCHD Blumeria graminis - ERYSGR | Spraying (SP) | 30 - 69 | a) 1 b) 1 | | a) 1.20 - 2.00 b) 1.20 - 2.00 | a) 0.100 / 0.150 b) 0.100 / 0.150 | 100 - 300 | 35 | | A |
| 9 | CZ | rye SECCW SECCS SECCE | F | R. secalis - RHYNSE Puccinia recondita - PUCCRE | Spraying (SP) | 30 - 69 | a) 1 b) 1 | | a) 1.20 - 2.00 b) 1.20 - 2.00 | a) 0.100 / 0.150 b) 0.100 / 0.150 | 100 - 300 | 35 | | A |
| 10 | CZ | triticale TTLWI TTLSO | F | Septoria spp. - SEPTSP Puccinia recondita - PUCCRE Puccinia striiformis – PUCCST Blumeria graminis - ERYSGR | Spraying (SP) | 30 - 69 | a) 1 b) 1 | | a) 1.20 - 2.00 b) 1.20 - 2.00 | a) 0.100 / 0.150 b) 0.100 / 0.150 | 100 - 300 | 35 | | A |
| 11 | CZ | oat AVESA | F | Blumeria graminis - ERYSGR Puccinia coronata - PUCCCA | Spraying (SP) | 30 - 69 | a) 1 b) 1 | | a) 1.20 - 2.00 b) 1.20 - 2.00 | a) 0.100 / 0.150 b) 0.100 / 0.150 | 100 - 300 | 35 | | A |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Use-No.** (e) | **Member state(s)** | **Crop and/ or situation**<br><br>**(crop destination / purpose of crop)** | **F, Fn, Fpn G, Gn, Gpn or I** | **Pests or Group of pests controlled**<br><br>(additionally: developmental stages of the pest or pest group) | **Application** | | | | **Application rate** | | | **PHI** (days) | **Remarks:**<br><br>e.g. g safener/synergist per ha (f) | **Conclusion** |
| | | | | | Method / Kind | Timing / Growth stage of crop & season | Max. number a) per use b) per crop/ season | Min. interval between applications (days) | L product / ha a) max. rate per appl. b) max. total rate per crop/season | kg as/ha<br><br>a) max. rate per appl.<br>b) max. total rate per crop/season Fluxapyroxad / Azoxystrobin | Water L/ha<br><br>min / max | | | Groundwater |
| 12 | HU, SI, SK, RO | wheat TRZAW, TRZAS TRZDU, TRZSP | F | Zymoseptoria tritici - SEPTTR<br>Puccinia triticina - PUCCRT<br>Puccinia striiformis - PUCCST | Spraying (SP) | 30 - 69 | a) 2<br>b) 2 | 21 | a) 1.00 - 2.00<br>b) 1.00 - 4.00 | a) 0.100 / 0.150<br>b) 0.200 / 0.300 | 100 - 300 | 35 | | A |
| 13 | HU, SI, SK, RO | barley HORVW HORVS | F | Pyrenophora teres - PYRNTE<br>Puccinia hordei – PUCCHD<br>Blumeria graminis - ERYSGR | Spraying (SP) | 30 - 69 | a) 2<br>b) 2 | 21 | a) 1.00 - 2.00<br>b) 1.00 - 4.00 | a) 0.100 / 0.150<br>b) 0.200 / 0.300 | 100 - 300 | 35 | | A |
| 14 | HU, SI, SK, RO | rye SECCW SECCS SECCE | F | R. secalis - RHYNSE<br>Puccinia recondita - PUCCRE | Spraying (SP) | 30 - 69 | a) 2<br>b) 2 | 21 | a) 1.00 - 2.00<br>b) 1.00 - 4.00 | a) 0.100 / 0.150<br>b) 0.200 / 0.300 | 100 - 300 | 35 | | A |
| 15 | HU, SI, SK, RO | triticale TTLWI TTLSO | F | Zymoseptoria sp. – SEPTSP<br>Puccinia recondita – PUCCRE<br>Puccinia striiformis – PUCCST<br>Blumeria graminis – ERYSGR | Spraying (SP) | 30 - 69 | a) 2<br>b) 2 | 21 | a) 1.00 - 2.00<br>b) 1.00 - 4.00 | a) 0.100 / 0.150<br>b) 0.200 / 0.300 | 100 - 300 | 35 | | A |
| 16 | HU, SI, SK, RO | oat AVESA | F | Blumeria graminis - ERYSGR<br>Puccinia coronata - PUCCCA | Spraying (SP) | 30 - 69 | a) 2<br>b) 2 | 21 | a) 1.00 - 2.00<br>b) 1.00 - 4.00 | a) 0.100 / 0.150<br>b) 0.200 / 0.300 | 100 - 300 | 35 | | A |

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

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

(b) No authorization possible for uses where the line is highlighted in grey, Use should be crossed out when the notifier no longer supports this use

## Explanation for column 15 “Conclusion”

| | |
|---|---|
| A | Safe use |
| R | Further refinement and/or risk mitigation measures required |
| C | To be confirmed by cMS |
| N | No safe use |

**Table 8.1-2: Assessed (critical) uses during approval of fluxapyroxad concerning the Section Environmental Fate**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Use-No.*** | **Member state(s)** | **Crop and/or situation (crop destination / purpose of crop)** | **F, Fn, Fpn G, Gn, Gpn or I **** | **Pests or Group of pests controlled** (additionally: developmental stages of the pest or pest group) | **Application** | | | | **Application rate** | | | **PHI (days)** | **Remarks: e.g. g safener/ synergist per ha** |
| | | | | | Method / Kind | Timing / Growth stage of crop & season | Max. number a) per use b) per crop/ season | Min. interval between applications (days) | kg or L product/ha a) max. rate per appl. b) max. total rate per crop/season | kg as/ha a) max. rate per appl. b) max. total rate per crop/season | Water L/ha min/max | | |
| 1 | EU | Winter wheat, spring wheat, durum, winter barley, spring barley, triticale, rye, oat | F | *P. herpotrichoides, E. graminis, Septoria spp., Puccinia spp., P. trticirepentis, P. teres, R.secalis, R. collo-cygni* | Foliar spray | 25-69 | 2 | 21 | a) 2.0 | a) 0.125 | 100 - 300 | 35 | |

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

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

**Table 8.1-3: Assessed (critical) uses during approval of azoxystrobin concerning the Section Environmental Fate**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Use-No.*** | **Member state(s)** | **Crop and/or situation (crop destination / purpose of crop)** | **F, Fn, Fpn G, Gn, Gpn or I ****| **Pests or Group of pests controlled** (additionally: developmental stages of the pest or pest group) | **Application** | | | | **Application rate** | | | **PHI (days)** | **Remarks: e.g. g safener/ synergist per ha** |
| | | | | | Method / Kind | Timing / Growth stage of crop & season | Max. number a) per use b) per crop/ season | Min. interval between applications (days) | kg or L product/ha a) max. rate per appl. b) max. total rate per crop/season | g or kg as/ha a) max. rate per appl. b) max. total rate per crop/season | Water L/ha min/max | | |
| 1 | EU | Barley | F | *Pyrenophora teres* *Puccinia hordei* *Rhynchosporium secalis* *Gaeumannomyces graminis var. Tritici* Barley spotting | Foliar spray | 31-69 | 2 | 14 | 0.083 – 0.250 | 0.250 | 100 - 300 | 35[a] | [a]Timing of applications determined primarily by growth stage;1st no later than BBCH39, 2nd no later than BBCH59. [1] |
| 2 | EU | Wheat | F | *Septoria tritici* *Septoria nodorum* *Puccinia striiformis* *Puccinia recondita* *Gaeumannomyces graminis var. tritici* | Foliar spray | 31-69 | 2 | 14 | 0.083 – 0.250 | 0.250 | 100 - 300 | 35[b] | [b]Timing of applications determined primarily by growth stage; 1st application no later than BBCH39, 2nd application no later than BBCH69. [1] |

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

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

[1] There is no agreed technical specification covered by the toxicological risk assessment

## 8.2 Metabolites considered in the assessment

**Table 8.2-1: Metabolites of fluxapyroxad potentially relevant for exposure assessment**

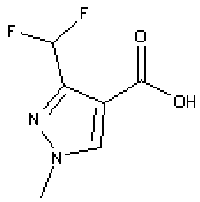
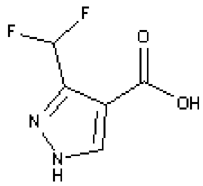
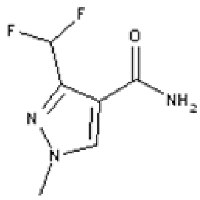
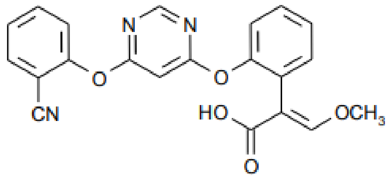
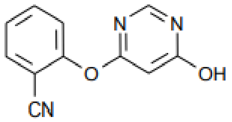
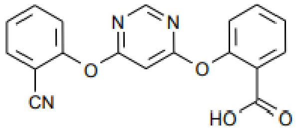
| Metabolite | Molar mass | Chemical structure | Maximum observed occurrence in compartments | Exposure assessment required due to |
|---|---|---|---|---|
| M700F001 | 176 |  | Soil: 12.1%<br><br>Water: 10.9%<br><br>Sediment: - | $PEC_{soil}$: yes, >10% a.s.<br><br>$PEC_{gw}$: yes, leaching potential to groundwater; >10% a.s.<br><br>$PEC_{sw/sed}$: yes, >10% a.s. |
| M700F002 | 162 |  | Soil: 70.5%<br><br>Water/Sediment: - | $PEC_{soil}$: yes, >10% a.s.<br><br>$PEC_{gw}$: yes, leaching potential to groundwater; >10% a.s.<br><br>$PEC_{sw/sed}$: no, not found in water/sediment studies, but possible entry to surface water via runoff and drainage |
| M700F007 | 175 |  | Soil: -<br><br>Water: 17.7%<br><br>Sediment: - | $PEC_{soil}$: no, substance not found in soil studies<br><br>$PEC_{gw}$: no, substance not found in soil studies<br><br>$PEC_{sw/sed}$: yes, >10% a.s. |

**Table 8.2-2: Metabolites of azoxystrobin potentially relevant for exposure assessment**

| Metabolite | Molar mass [g mol$^{-1}$] | Chemical structure | Maximum observed occurrence in compartments [%] | Exposure assessment required due to |
|---|---|---|---|---|
| R234886 | 389.4 |  | Soil: 28.8<br><br>Water: 10.8<br><br>Sediment: 15.6 | $PEC_{soil}$: yes, >10% a.s.<br><br>$PEC_{gw}$: yes, leaching potential to groundwater;<br>>10% a.s.<br><br>$PEC_{sw/sed}$: yes, >10% a.s. |
| R401553 | 213.2 |  | Soil: 17<br><br>Water/Sediment: 8.9 | $PEC_{soil}$: yes, >10% a.s.<br><br>$PEC_{gw}$: yes, leaching potential to groundwater;<br>>10% a.s.<br><br>$PEC_{sw/sed}$: no, not found in water/sediment studies, but possible entry to surface water via runoff and drainage |
| R402173 | 333.3 |  | Soil: 17<br><br>Water/Sediment: 2.4 | $PEC_{soil}$: yes, >10% a.s.<br><br>$PEC_{gw}$: yes, leaching potential to groundwater;<br>>10% a.s.<br><br>$PEC_{sw/sed}$: no, not found in water/sediment studies, but possible entry to surface water via runoff and drainage |

## 8.3 Rate of degradation in soil (KCP 9.1.1)

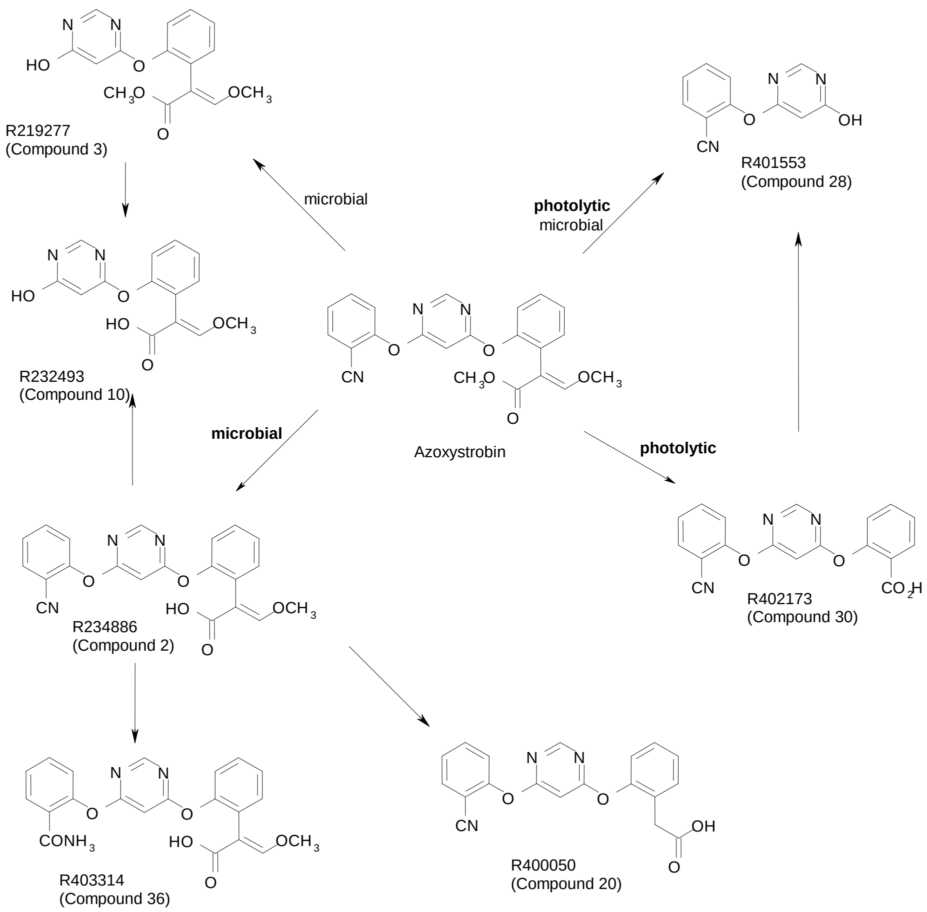
### Fluxapyroxad

All information on fluxapyroxad provided in this chapter was previously evaluated in the frame of the EU review of fluxapyroxad and were summarized from the EFSA Conclusion on the active substance [*EFSA (European Food Safety Authority), 2012. Conclusion on the peer review of the pesticide risk assessment of the active substance fluxapyroxad (BAS 700 F). EFSA Journal 2012;10(1):2522, 90 pp. doi:10.2903/j.efsa.2012.2522*].

### Azoxystrobin

The rate of degradation in soil of azoxystrobin was evaluated during the EU Review. The fate and behaviour of azoxystrobin and its metabolites R234886, R402173 and R401553 in soil are discussed in detail in the corresponding document of the EU review dossier where the study references can be found. Additional data were provided for metabolite R234886 as Confirmatory Data and evaluated by the EU RMS (*DAR (2014): Azoxystrobin: Addendum – Confirmatory Information. RMS United Kingdom. December 2014*). All other metabolites shown in the degradation pathway of azoxystrobin in soil (
Figure 8.3-1) are minor metabolites.

**Figure 8.3-1: Proposed pathway of azoxystrobin in soil**



## 8.3.1 Aerobic degradation in soil (KCP 9.1.1.1)

### 8.3.1.1 Fluxapyroxad and its metabolites

The rate of degradation of fluxapyroxad and metabolites in laboratory soil under aerobic conditions was evaluated during Annex I inclusion (*EFSA Journal 2012;10(1):2522*). No additional studies have been performed.

**Table 8.3-1: Summary of aerobic degradation rates for fluxapyroxad - laboratory studies**

| **Fluxapyroxad, laboratory studies, aerobic conditions [a]** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Soil name** | **Soil type** | **pH ($CaCl_2$)** | **Temp. [°C]** | **Moisture [% MWHC]** | **$DT_{50}$ [d]** | **$DT_{90}$ [d]** | **$DT_{50}$ [d] 20°C pF2/10kPa** | **Chi² [%]** | **Kinetic model** | **Evaluated on EU level Reference** |
| Bruch West [b] | Sandy loam | 7.1 | 20 | 40 | 89.3 [c] | - | 70.3 [d] | 1.0 - 2.2 | SFO/ FOMC | Yes / EFSA 2012 |
| Arahal | Silty clay loam | 7.6 | 20 | 40 | 244 | 809 | 139 | 6.9 | SFO | Yes, EFSA (2012) |
| Kleve Keeken | Loam | 6.7 | 20 | 40 | 689 | >1000 | 424 | 2.2 | SFO | Yes, EFSA (2012) |
| Nierswalde | Silt loam | 6.4 | 20 | 40 | 409 | >1000 | 271 | 2.7 | SFO | Yes, EFSA (2012) |
| **Geometric mean (n=4)** | | | | | | | **183** | | | |
| **pH-dependency:** | | | | | | | **no** | | | |

[a] Supportive information, field data applied for environmental exposure modeling
[b] More than one test value is available for Bruch West soil (n=4), three labels were investigated (one label with different kinetic for derivation of trigger and modeling endpoints)
[c] Geometric mean of three labels (best-fit, aniline label FOMC, other SFO) = trigger endpoint
[d] Geometric mean of three labels (all SFO) = modeling endpoint

**Table 8.3-2: Summary of aerobic degradation rates for M700F001- laboratory studies**

| M700F001, laboratory studies, aerobic conditions – Modelling endpoints | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Soil name** | **Soil type (USDA)** | **pH ($CaCl_2$)** | **Temp. [°C]** | **Moisture [% MWHC]** | **$DT_{50}$ [d]** | **$DT_{90}$ [d]** | **$DT_{50}$ [d] 20°C pF2/10kPa** | **Chi² [%]** | **Kinetic model** | **Evaluated on EU level Reference** |
| Bruch West | Sandy loam | 7.1 | 20 | 40 | 10.0 | 33.1 | 7.7 | 25.1 | SFO | Yes, EFSA (2012) |
| Li 10 | Loamy sand | 6.3 | 20 | 40 | 9.3 | 30.7 | 8.9 | 2.9 | SFO | Yes, EFSA (2012) |
| Lufa 2.2 | Sand | 5.9 | 20 | 40 | 6.5 | 21.5 | 5.2 | 1.1 | SFO | Yes, EFSA (2012) |
| Wisconsin | Loamy sand | 5.9 | 20 | 40 | 2.5 | 8.2 | 2.3 | 4.8 | SFO | Yes, EFSA (2012) |
| **Geometric mean (n=4)** | | | | | | | **5.4** | | | |
| **pH-dependency:** | | | | | | | **no** | | | |

**Table 8.3-3: Summary of aerobic degradation rates for M700F002 - laboratory studies**

| M700F002, laboratory studies, aerobic conditions [a] | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Soil name** | **Soil type (USDA)** | **pH ($CaCl_2$)** | **Temp. [°C]** | **Moisture [% MWHC]** | **$DT_{50}$ [d]** | **$DT_{90}$ [d]** | **$DT_{50}$ [d] 20°C pF2/10kPa** | **Chi² [%]** | **Kinetic model** | **Evaluated on EU level Reference** |
| Li 10 | Loamy sand | 6.3 | 20 | 40 | 168 | 557 | 161 | 2.2 | SFO Box Model | Yes, EFSA (2012) |
| Lufa 2.2 | Sand | 5.9 | 20 | 40 | 148 | 490 | 117 | 2.1 | SFO Box Model | Yes, EFSA (2012) |
| Wisconsin | Loamy sand | 5.9 | 20 | 40 | 131 | 435 | 118 | 3.4 | SFO Box Model | Yes, EFSA (2012) |
| **Geometric mean (n=3)** | | | | | | | **131** | | | |
| **pH-dependency:** | | | | | | | **no** | | | |

[a] Supportive information, field data applied for environmental exposure modeling

### 8.3.1.2 Azoxystrobin and its metabolites

Studies on the aerobic degradation rates of azoxystrobin and its metabolites R234886, R402173 and R401553 are considered to be data provided in support of the active substance. All relevant detailed experimental information has been submitted for EU review of azoxystrobin (*EFSA Journal 2010; 8(4): 1542*). Additional data were provided for metabolite R234886 in the Addendum for confirmatory Information (see *DAR, 2014* for further details).

A summary of the degradation rates is provided in Table 8.3-4 to Table 8.3-7.

In two soils a formation fraction of R234886 from parent could be derived (ff = 0.9716 in "Hyde farm" soil and ff = 0.7764 in "18 Acres" soil). The following arithmetic mean formation fraction was calculated based on these data: ff of R234886 from parent = 0.874.

**Table 8.3-4: Summary of aerobic degradation rates for azoxystrobin - laboratory studies**

| Azoxystrobin, Laboratory studies, aerobic conditions | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Soil name** | **Soil type (USDA)** | **pH ($H_2O$)** | **t. [°C]** | **MWHC [%]** | **$DT_{50}$ [d]** | **$DT_{90}$ [d]** | **$DT_{50}$ [d] 20°C pF2/10kPa** | **Chi² [%]** | **Kinetic model** | **Evaluated on EU level / Reference** |
| 18 Acres | sandy clay loam | 6.4 | 20 | 40 | 56.4 | 187[a] | 35.2 | 3.70 | SFO | Yes / EFSA, 2010; Tummon 1994 |
| East Anglia | sand | 7.9 | 20 | 40 | 66.9 | 222 | 57.2 | 5.34 | SFO | Yes / EFSA, 2010; Tummon 1994 |
| Wisborough Green | silty clay loam | 5.9 | 20 | 40 | 94.1 | 313 | 54.1 | 5.60 | SFO | Yes / EFSA, 2010; Tummon 1994 |
| 18 Acres | sandy clay loam | 7 | 20 | 75% 1/3 bar moisture | 87.0 | 289[a] | 65.2 | 2.06 | SFO | Yes / EFSA, 2010; Warinton, Chalofti, Harvey, 1996 |
| Hyde Farm | sandy clay loam | 7 | 20 | 75% 1/3 bar moisture | 72.8 | 242 | 48.5 | 7.10 | SFO | Yes / EFSA, 2010; Warinton, Chalofti, Harvey, 1996 |
| Visalia | sandy loam | 8.4 | 20 | 75% 1/3 bar moisture | 141.6 | 470 | 79.9 | 2.97 | SFO | Yes / EFSA, 2010; Warinton, Chalofti, Harvey, 1996 |
| Derbyshire | clay loam | 7.5 | 20 | Field Capacity | 118.4 | 393 | 118.4 | 4.84 | SFO | Yes / EFSA, 2010; Evans, 2001 |
| Holland | sandy loam | 8.2 | 20 | Field Capacity | 153.4 | 510 | 153.4 | 1.92 | SFO | Yes / EFSA, 2010; Evans, 2001 |

| Azoxystrobin, Laboratory studies, aerobic conditions | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Soil name** | **Soil type (USDA)** | **pH ($H_2O$)** | **t. [ºC]** | **MWHC [%]** | **$DT_{50}$ [d]** | **$DT_{90}$ [d]** | **$DT_{50}$ [d] 20°C pF2/10kPa** | **$Chi^2$ [%]** | **Kinetic model** | **Evaluated on EU level / Reference** |
| Lincolnshire | sandy loam | 7.4 | 20 | Field Capacity | 248 | 824 | 248 | 7.5 | SFO | Yes / EFSA, 2010; Evans, 2001 |
| **Geometric mean (n=9)** | | | | | | | **84.5[a]** | | | |
| pH-dependency: | | | | | | | No | | | |

[a] True geometric mean (geometric mean of 18 Acres soils taken first)

**Table 8.3-5: Summary of aerobic degradation rates for R234886 - laboratory studies**

| R234886, Laboratory studies, aerobic conditions | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Soil name** | **Soil type (USDA)** | **pH ($H_2O$)** | **t. [ºC]** | **MWHC [%]** | **$DT_{50}$ [d]** | **$DT_{90}$ [d]** | **$DT_{50}$ [d] 20°C pF2/10kPa** | **$Chi^2$ [%]** | **Kinetic model** | **Evaluated on EU level / Reference** |
| **Acidic soils** | | | | | | | | | | |
| Wisborough Green | Clay loam | 5.3 | 20 | pF2 | 97.6 | 259 | 97.6 | 3.4 | DFOP | Yes / DAR, 2014[b]; Oddy & Simmonds, 2011 |
| Frensham | Sandy loam | 5.4 | 20 | pF2 | 110 | 309 | 110 | 2.4 | DFOP | Yes / DAR, 2014[b]; Oddy & Simmonds, 2011 |
| Ohio | Loamy sand | 5.8 | 20 | pF2 | 89.9 | 299 | 89.9 | 5.0 | SFO | Yes / DAR, 2014[b]; Oddy & Simmonds, 2011 |
| Nuptown | Sandy clay loam | 6.2 | 20 | pF2 | 94.9 | 203 | 94.9 | 6.0 | DFOP | Yes / DAR, 2014[b]; Oddy & Simmonds, 2011 |
| Georgia | Loamy sand | 7.1 | 20 | pF2 | 102 | 339 | 102 | 5.7 | SFO | Yes / DAR, 2014[b]; Oddy & Simmonds, 2011 |
| **Alkaline soils** | | | | | | | | | | |
| 18 Acres | Sandy clay loam | 7.0 | 20 | 75% 1/3 bar moisture | 23.7 | 78.8 | 17.8 | 5.9 | SFO | Yes / DAR, 2014 [b]; Warinton, 1996 |
| Gartenacker | Silt loam | 7.3 | 20 | pF2 | 25.7 | 85.3 | 25.7 | 3.6 | SFO | Yes / DAR, 2014[b]; Oddy & Simmonds, 2011 |
| Pappelacker | Sandy loam | 7.4 | 20 | pF2 | 47.1 | 156 | 47.1 | 1.4 | SFO | Yes / DAR, 2014[b]; Oddy & Simmonds, 2011 |
| Hyde Farm[a] | Sandy loam | 7.5 | 20 | 75% 1/3 bar moisture | 31.8 | 105.6 | 21.2 | 12.3 | SFO | Yes / DAR, 2014 [b]; Warinton, 1996 |
| East Anglia[a] | Loamy Sand | 7.8 | 20 | 40 | 56.5 | 188 | 43.4 | 3.3 | SFO | Yes / DAR, 2014 [b]; Jones & Robertson 1999 |

| R234886, Laboratory studies, aerobic conditions | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Soil name** | **Soil type (USDA)** | **pH ($H_2O$)** | **t. [ºC]** | **MWHC [%]** | **$DT_{50}$ [d]** | **$DT_{90}$ [d]** | **$DT_{50}$ [d] 20°C pF2/10kPa** | **Chi² [%]** | **Kinetic model** | **Evaluated on EU level / Reference** |
| North Dakota | Sandy loam | 7.8 | 20 | pF2 | 65.4 | 217 | 65.4 | 4.7 | SFO | Yes / DAR, 2014 [b] |
| Vetroz | Loam | 7.9 | 20 | pF2 | 69.1 | 229 | 69.1 | 2.8 | SFO | Yes / DAR, 2014[b]; Oddy & Simmonds, 2011 |
| **Geometic mean, acidic soils (n=5)** | | | | | | | **98.6** | | | |
| **Geometric mean, alkaline soils (n=7)** | | | | | | | **36.7** | | | |
| pH-dependency: | | | | | | | Yes | | | |

Soils were classified as either acidic or alkaline based on their adsorption and degradation characteristics as well as pH.
[a] original studies peer reviewed (EFSA Journal 2010; 8 (4):1542)
[b] DAR (2014): Azoxystrobin: Addendum – Confirmatory Information. RMS United Kingdom. December 2014

**Figure 8.3-2: R234886 - Distribution of $DegT_{50}$ with soil pH**

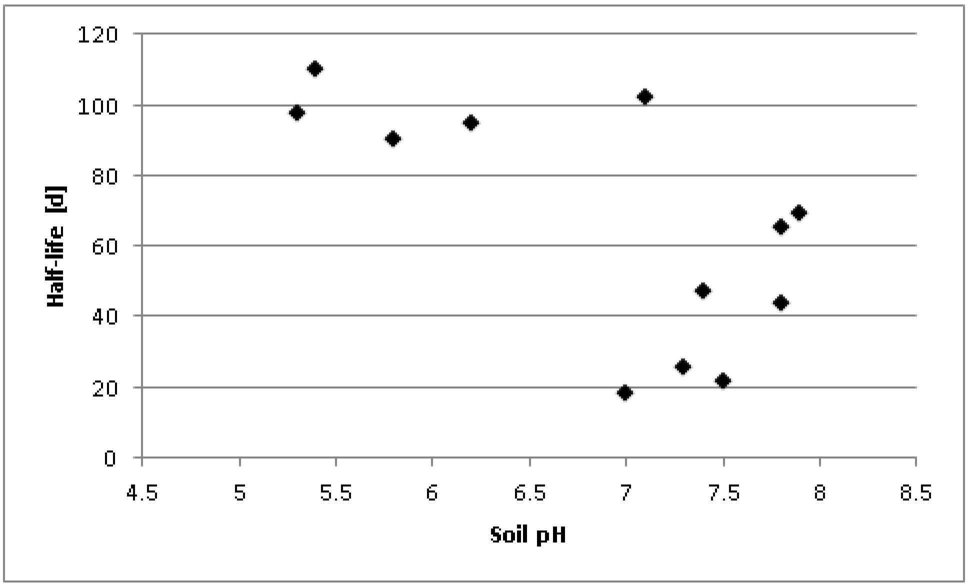


**Table 8.3-6: Summary of aerobic degradation rates for R402173 - laboratory studies**

| R402173, Laboratory studies, aerobic conditions | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Soil name** | **Soil type (USDA)** | **pH ($H_2O$)** | **t. [ºC]** | **MWHC [%]** | **$DT_{50}$ [d]** | **$DT_{90}$ [d]** | **$DT_{50}$ [d] 20°C pF2/10kPa** | **$Chi^2$ [%]** | **Kinetic model** | **Evaluated on EU level / Reference** |
| Frensham | sandy loam | 6.6 | 20 | 40 | 8.44 | 28.0 | 5.7 | 8.6 | SFO | Yes / EFSA, 2010; Jones, Campbell, 1998 |
| Wisborough Green | silty clay loam | 6.4 | 20 | 40 | 4.24 | 14.1 | 2.4 | 12.3 | SFO | Yes / EFSA, 2010; Jones, Campbell, 1998 |
| East Anglia | loamy sand | 7.9 | 20 | 40 | 9.80 | 32.6 | 7.5 | 12.7 | SFO | Yes / EFSA, 2010; Jones, Campbell, 1998 |
| **Geometric mean (n=3)** | | | | | | | **4.68** | | | |
| pH-dependency: | | | | | | | No | | | |

**Table 8.3-7: Summary of aerobic degradation rates for R401553 - laboratory studies**

| R401553, Laboratory studies, aerobic conditions | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Soil name** | **Soil type (USDA)** | **pH ($H_2O$)** | **t. [ºC]** | **MWHC [%]** | **$DT_{50}$ [d]** | **$DT_{90}$ [d]** | **$DT_{50}$ [d] 20°C pF2/10kPa** | **$Chi^2$ [%]** | **Kinetic model** | **Evaluated on EU level / Reference** |
| Frensham | sandy loam | 6.6 | 20 | 40 | 1.36 | 4.52 | 0.9 | 9.1 | SFO | Yes / EFSA, 2010; Jones, Entwistle, 1998 |
| Wisborough Green | silty clay loam | 6.4 | 20 | 40 | 1.59 | 5.29 | 0.9 | 10.9 | SFO | Yes / EFSA, 2010; Jones, Entwistle, 1998 |
| East Anglia | loamy sand | 7.9 | 20 | 40 | 2.01 | 6.68 | 1.5 | 12.3 | SFO | Yes / EFSA, 2010; Jones, Entwistle, 1998 |
| **Geometric mean (n=3)** | | | | | | | **1.07** | | | |
| pH-dependency: | | | | | | | No | | | |

## 8.3.2 Anaerobic degradation in soil (KCP 9.1.1.1)

### 8.3.2.1 Fluxapyroxad and its metabolites

Fluxapyroxad was stable under anaerobic conditions and ~~no metabolites were formed.~~ no metabolites specific to the anaerobic degradation pathway and relevant for the risk assessment were formed.

### 8.3.2.2 Azoxystrobin and its metabolites

The study on the anaerobic degradation rates of azoxystrobin is considered to be data provided in support of the active substance. All relevant detailed experimental information has been submitted for EU review of azoxystrobin (*EFSA Journal 2010; 8(4): 1542*). The soil anaerobic studies and endpoints are deemed not relevant to current risk assessment.

**Table 8.3-8: Summary of anaerobic degradation rates of azoxystrobin – laboratory studies**

| **Azoxystrobin, Laboratory studies, anaerobic conditions** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Soil name** | **Soil type (USDA)** | **pH ($H_2O$)** | **t. [°C]** | **MWHC [%]** | **$DT_{50}$ [d]** | **$DT_{90}$ [d]** | **$DT_{50}$ [d] 20°C pF2/10kPa** | **$Chi^2$ [%]** | **Kinetic model** | **Evaluated on EU level / Reference** |
| 18 Acres | Sandy clay loam | 7.0 | 20 | flooded | 59.8 | 198 | 59.8 | 3.41 | SFO | Yes / EFSA, 2010; Warinton, Chalofti, Harvey, 1996 |
| Hyde Farm | Sandy loam | 7.0 | 20 | flooded | 49.0 | 163 | 49.0 | 6.76 | SFO | Yes / EFSA, 2010 Warinton, Chalofti, Harvey, 1996 |
| **Geometric mean (n=2)** | | | | | | | **54.1** | | | |
| pH-dependency: | | | | | | | No | | | |

All studies on anaerobic degradation in soil of azoxystrobin have been reviewed under Council Directive 91/414/EEC.

## 8.4 Field studies (KCP 9.1.1.2)

Studies on degradation in soil with the formulation were not performed, since it is possible to extrapolate from data obtained with the active substance.

The field dissipation rates of fluxapyroxad and its metabolites M700F002 were evaluated during Annex I inclusion [*EFSA Journal 2012;10(1):2522*]. No additional studies have been performed.

The field dissipation rates of azoxystrobin were evaluated during Annex I inclusion [*EFSA Journal 2010;8(4):1542*]. No additional studies have been performed.

### 8.4.1 Soil dissipation testing on a range of representative soils (KCP 9.1.1.2.1)

#### 8.4.1.1 Fluxapyroxad and its metabolites

**Triggering endpoints**

**Table 8.4-1: Summary of aerobic degradation rates for fluxapyroxad - field studies: Triggering endpoints**

| **Fluxapyroxad, field studies – Triggering endpoints** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Soil type (USDA)** | **Location** | **pH ($CaCl_2$)** | **Depth [cm]** | **DissT$_{50}$ [d] actual** | **DT$_{90}$ [d] actual** | **Chi$^2$ [%]** | **Kinetic model** | **Evaluated on EU level Reference** |
| Loam | United Kingdom | 6.9 | 0-30 | 370 [a] | >1000 | 6.8 | FOMC [a] | Yes, EFSA (2012) |
| Loamy sand | Germany (East) | 5.0 | 0-30 | 140 | >1000 | 8.5 | FOMC | Yes, EFSA (2012) |
| Silt loam | Germany (West) | 6.1 | 0-30 | 132 | >1000 | 6.4 | FOMC | Yes, EFSA (2012) |
| Silt loam | France | 7.4 | 0-20 | 284 | >1000 | 7.0 | FOMC | Yes, EFSA (2012) |
| Silt loam | Italy | 7.6 | 0-10 | 38.9 | 854.0 | 6.7 | DFOP | Yes, EFSA (2012) |
| Silty clay loam | Spain | 7.7 | 0-50 | 124 [b] | 882 [b] | 8.4 | FOMC | Yes, EFSA (2012) |
| | | | **Maximum (n=6)** | **370** | | | | |

[a] Corresponding FOMC parameters: α: 2.059, β: 13.1342
[b] Re-calculated by RMS

**Table 8.4-2: Summary of aerobic degradation rates for M700F002- field studies: Triggering endpoints**

| M700F002, field studies – Triggering endpoints | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Soil type (USDA)** | **Location** | **pH ($CaCl_2$)** | **Depth [cm]** | **$DissT_{50}$ [d] actual** | **$DT_{90}$ [d] actual** | **Chi[2] [%]** | **Kinetic model** | **Evaluated on EU level** |
| Loamy sand | Denmark | 5.8 | 0-40 | 39.2 [a] | 188.4 | 12.0 | FOMC [a] | Yes EFSA (2012) |
| Silt loam | Germany | 6.4 | 0-40 | 38.0 | 154.5 | 5.7 | FOMC | Yes EFSA (2012) |
| Silt loam | Italy | 7.7 | 0-70 | 37.4 | 185.9 | 7.0 | FOMC | Yes, EFSA (2012) |
| Loam | Southern France | 5.5 | 0-60 | 25.5 | 84.8 | 6.9 | SFO | Yes, EFSA (2012) |
| | | | **Maximum (n=4)** | ~~Denmark~~ **39.2** | | | | |

[a] Corresponding FOMC parameters: α: 2.4056, β: 117.5

## Modelling endpoints

**Table 8.4-3: Summary of aerobic degradation rates for fluxapyroxad - field studies: Modelling endpoints**

| Fluxapyroxad, field studies – Modelling endpoints | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Soil type (USDA)** | **Location** | **pH ($CaCl_2$)** | **Depth [cm]** | **$DT_{50,slow}$ [d] 20°C, pF2** | **$DT_{50,fast}$ [d] 20°C, pF2** | **Chi[2] [%]** | **Kinetic model** | **Evaluated on EU level Reference** |
| Loam | United Kingdom | 6.9 | 0-30 | 187 [a] | 26.8 [b] | HS | 7.1 | Yes, EFSA (2012) |
| Loamy sand | Germany (East) | 5.0 | 0-30 | 83.9 | 83.9 | SFO | 7.1 | Yes, EFSA (2012) |
| Silt loam | Germany (West) | 6.1 | 0-30 | 193 [a] | 28.5 [b] | HS | 4.6 | Yes, EFSA (2012) |
| Silt loam | France | 7.4 | 0-20 | 132 | 132 | SFO | 7.7 | Yes, EFSA (2012) |
| Silt loam | Italy | 7.6 | 0-10 | 224 [a] | 40.1 [b] | HS | 8.3 | Yes, EFSA (2012) |
| Silty clay loam | Spain | 7.7 | 0-50 | 131 | 131 | SFO | 8.0 | Yes, EFSA (2012) |
| | | | **Geometric mean (n=6)** | **151** | **59.5** | | | |
| | | | **pH-dependency:** | **No** | | | | |

[a] Calculated from slow phase ($k_2$) degradation rate ($ln(2)/k_2$)
[b] Calculated from fast phase ($k_1$) degradation rate ($ln(2)/k_1$)

**Table 8.4-4: Summary of aerobic degradation rates for M700F002- field studies: Modelling endpoints**

| M700F002, field studies – Modelling endpoints | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Soil type (USDA)** | **Location** | **pH ($CaCl_2$)** | **Depth [cm]** | **$DT_{50}$ [d] 20°C, pF2** | **$Chi^2$ [%]** | **Kinetic model** | **Evaluated on EU level Reference** |
| Loamy sand | Denmark | 5.8 | 0-40 | 17.9 | 13.2 | SFO | Yes, EFSA (2012) |
| Silt loam | Germany | 6.4 | 0-40 | 23.1 | 10.3 | SFO | Yes, EFSA (2012) |
| Silt loam | Italy | 7.7 | 0-70 | 44.1 | 11.9 | SFO | Yes, EFSA (2012) |
| Loam | Southern France | 5.5 | 0-60 | 24.6 | 9.1 | SFO | Yes, EFSA (2012) |
| | | | **Geometric mean (n=4)** | **25.9** | | | |
| | | | **pH-dependency** | **no** | | | |

## 8.4.1.2 Azoxystrobin and its metabolites

The field dissipation rate of azoxystrobin was evaluated during the EU review (*EFSA Journal 2010; 8(4): 1542*). No additional studies have been performed.

The dissipation of azoxystrobin was investigated in ten surface applied trials and five soil-incorporated trials. Data from all studies were evaluated according to FOCUS Kinetics (FOCUS, 2006) and normalised to FOCUS reference conditions (20°C and pF2 soil moisture content). After this process, 13 degradation end-points were considered relevant for evaluating the dissipation of azoxystrobin under field conditions. In the 10 surface-applied trials, bi-phasic decline of azoxystrobin was observed, which was attributed to photolysis on the surface followed by microbial degradation in the soil. In the remaining three in-furrow (i.e. soil incorporated) trials, degradation was best described by single first order kinetics and was assumed to occur via microbial processes in the absence of light. The resulting triggering and modelling endpoints are presented in Table 8.4-5 and Table 8.4-6 respectively.

### Triggering endpoints

**Table 8.4-5: Summary of aerobic degradation rates for azoxystrobin - field studies: Triggering endpoints**

| Azoxystrobin, Field studies – Triggering endpoints | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Soil type (USDA)** | **Location** | **pH ($H_2O$)** | **Depth [cm]** | **$DissT_{50}$ [d] Actual** | **$DT_{90}$ [d] Actual** | **Kinetic parameters** | **$Chi^2$ [%]** | **Kinetic model** | **Evaluated on EU level / Reference** |
| **Applied to bare soil and incorporated** | | | | | | | | | |
| Sandy clay loam | Spalding (UK) | 7.5 (0-15 cm) | 30 | 261.9 | 869.9 | - | 10.6 | SFO | Yes / EFSA, 2010; Kay, Emburey, 2002 |
| Silty clay loam | Nagele (NL) | 7.9 (0-15 cm) | 30 | 186.4 | 619.3 | - | 10.2 | SFO | Yes / EFSA, 2010; Poppezijn, Emburey, 2002 |

| Azoxystrobin, Field studies – Triggering endpoints | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Soil type (USDA)** | **Location** | **pH ($H_2O$)** | **Depth [cm]** | **DissT$_{50}$ [d] Actual** | **DT$_{90}$ [d] Actual** | **Kinetic parameters** | **Chi$^2$ [%]** | **Kinetic model** | **Evaluated on EU level / Reference** |
| Sandy clay loam | Shirebrook (UK) | 6.7 (0-20 cm) | 30 | 120.9 | 401.7 | - | 17.2 | SFO | Yes / EFSA, 2010; Emburey, 2002 |
| **Maximum (n=3)** | | | | **261.9** | **869.9** | | | | |

## Modelling endpoints

**Table 8.4-6: Summary of aerobic degradation rates for azoxystrobin - field studies: Modelling endpoints**

| Azoxystrobin, Field studies – Modelling endpoints | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Soil type (USDA)** | **Location** | **pH ($H_2O$)** | **Depth [cm]** | **DT$_{50}$ [d] 20°C, pF2 fast phase** | **DT$_{50}$ [d] 20°C, pF2 slow phase** | **Kinetic model** | **Evaluated on EU level / Reference** |
| **Applied to bare soil and incorporated** | | | | | | | |
| Sandy clay loam | Spalding (UK) | 7.5 (0-15 cm) | 30 | 106.7 | | SFO | Yes / EFSA, 2010; Kay, Emburey, 2002 |
| Silty clay loam | Nagele (NL) | 7.9 (0-15 cm) | 30 | 86.3 | | SFO | Yes / EFSA, 2010; Poppezijn, Emburey, 2002 |
| Sandy clay loam | Shirebrook (UK) | 6.7 (0-20 cm) | 30 | 56.1 | | SFO | Yes / EFSA, 2010; Emburey, 2002 |
| Geometric mean (n=3) | | | | 80.2 | | | |
| **Applied to soil and not incorporated** | | | | | | | |
| Clay loam | Volpedo (IT) | 8.2 (0-20 cm) | 30 | 2.62 [a] | 80.6 [a] | DFOP | Yes / EFSA, 2010; Bonfanti, Earl, 1995 |
| Sandy loam | Bienenbuttel-Varendorf (DE) | 6.4 (0-30 cm) | 30 | 2.95 [a] | 61.3 [a] | DFOP | Yes / EFSA, 2010; Earl, Chamier, 1995 |
| Sandy clay loam | Saxa-Anhalt (DE) | 6.6 (0-30 cm) | 30 | 1.64 [a] | 93.7 [a] | DFOP | Yes / EFSA, 2010; Earl, Chamier, 1995a |
| Clay loam | Isle/Sorgue (FR) | 8.5 (0-20 cm) | 30 | 4.65 [a] | 121.6 [a] | DFOP | Yes / EFSA, 2010; Barnaud, Tummon, Earl, 1995 |
| Sandy loam | Monteux Vaucluse (FR) | 8.5 (0-20 cm) | 30 | 4.03 [a] | 68 [a] | DFOP | Yes / EFSA, 2010; Barnaud, Tummon, Earl, 1995a |
| Silt loam | St Vigor (FR) | 6.1 (0-20 cm) | 30 | 3.02 [a] | 34.5 [a] | DFOP | Yes / EFSA, 2010; Barnaud, Tummon, Earl, 1995b |

| Azoxystrobin, Field studies – Modelling endpoints | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Soil type (USDA)** | **Location** | **pH ($H_2O$)** | **Depth [cm]** | **$DT_{50}$ [d] 20°C, pF2 fast phase** | **$DT_{50}$ [d] 20°C, pF2 slow phase** | **Kinetic model** | **Evaluated on EU level / Reference** |
| Silty clay loam | Massalombarda (FR) | 8.3 (0-20 cm) | 30 | 1.39 [a] | 105 [a] | DFOP | Yes / EFSA, 2010; Bonfanti, Tummon, Earl, 1995 |
| Clay loam | Grisolles (FR) | 7.7 (0-20 cm) | 30 | 13.3 [a] | 66 [a] | DFOP | Yes / EFSA, 2010; Eschenbrenner, Tummon, Earl, 1995 |
| Clay | Cambridgeshire (UK) | 8.0 (0-20 cm) | 30 | 2.09 [a] | 93.7 [a] | DFOP | Yes / EFSA, 2010; Hall, Earl, 1995 |
| Clay | Somerset (UK) | 8.1 (0-20 cm) | 30 | 0.42 [a] | 73.7 [a] | DFOP | Yes / EFSA, 2010; Myles, Tummon, Earl, 1995 |
| **Geometric mean (n=10)** | | | | **2.55** | **75.9** | | |
| **Overall geometric mean, slow phase (n=13) [b]** | | | | **78** | | | |
| pH-dependency | | | | No | | | |

[a] $Q_{10}$ of 2.58 for the correction of the temperature effect was used in the normalization procedure for the whole, biphasic decline
[b] calculated from the geometric mean of the soil incorporated field studies (80.2 days) and the slow phase of the non-incorporated studies (75.9 days)

The azoxystrobin degradation products R234886, R230130, R402173 and R401553 were analysed alongside parent in the bare soil dissipation trials. R230130 was not detected at any site (limit of quantification, LOQ 0.02 mg $kg^{-1}$). Both photolytic metabolites, R402173 and R401553 were found in field trials at significant levels (>10%), while less than 5% was found to be degraded into R234886. R234886 was only observed in one dissipation trial with a maximum residue of 0.03 mg $kg^{-1}$ 92 days after application, then declining to below the LOQ (0.02 mg $kg^{-1}$) 176 days after application. A maximum occurrence of R402173 and R401553 were detected in all trials at a maximum level of 0.05 and 0.03 mg $kg^{-1}$, respectively. These residues were equivalent to a maximum of 17% of parent residue for both metabolites (corrected for molecular weight). These maximal amounts were all observed during the first three months of the trials and levels had fallen to less than the LOQ by the end of the studies (0.01 mg $kg^{-1}$ for R402173 and R401553).

The following formation fractions were calculated based on these data: ffm of R402173 from parent = 0.385, ffm of R401553 from parent = 0.392, ffm of R401553 from R402173 = 0.468.

All studies supporting the field dissipation rates of azoxystrobin have been reviewed for azoxystrobin under Council Directive 91/414/EEC.

## 8.4.2 Soil accumulation testing (KCP 9.1.1.2.2)

### 8.4.2.1 Fluxapyroxad and its metabolites

The accumulation behaviour of fluxapyroxad in soil was evaluated in the context of the approval process. No additional studies have been performed.

Since $DT_{90}$ values of fluxapyroxad in soil studies were generally high, field soil accumulation studies were started in 2008 at two sites in Europe (UK and Germany) with an annual application rate of 2 x 125 g $ha^{-1}$

in the relevant crops wheat and barley. Both studies are still ongoing and scheduled to run for several years. At this point in time, no conclusion can be made yet from the experimental studies about the risk of accumulation of fluxapyroxad in soil. Based on model simulations, the potential of fluxapyroxad for unacceptable accumulation in soil after repeated application according to good agricultural practice is low.

### 8.4.2.2 Azoxystrobin and its metabolites

Based on the field dissipation data azoxystrobin is likely to significantly accumulate in soil with repeated applications. The potential for accumulation has been assessed by calculation under Section 8.7.

## 8.5 Mobility in soil (KCP 9.1.2)

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

### 8.5.1 Fluxapyroxad and its metabolites

The mobility of fluxapyroxad and its metabolites in laboratory soil was evaluated during Annex I inclusion (*EFSA Journal 2012;10(1):2522*). No additional studies have been performed.

**Table 8.5-1: Summary of soil adsorption/desorption for fluxapyroxad**

| **Fluxapyroxad** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Soil name** | **Soil type** | **OC [%]** | **pH ($CaCl_2$)** | **$K_f$ [mL g$^{-1}$]** | **$K_{foc}$ [mL g$^{-1}$]** | **1/n [-]** | **Evaluated on EU level Reference** |
| LUFA 2.1 | Sand | 0.52 | 5.2 | 4.3 | 818 | 0.945 | Yes EFSA (2012) |
| Obihiro [a] | Sandy Loam | 2.74 | 5.6 | 15.2 [a] | 556 [a] | 0.897 [a] | Yes EFSA (2012) |
| Li 10 | Loamy Sand | 0.88 | 5.9 | 6.8 | 777 | 0.916 | Yes EFSA (2012) |
| New Jersey | Silt Loam | 0.90 | 6.3 | 8.6 | 955 | 0.921 | Yes EFSA (2012) |
| Nierswalde | Silt Loam | 1.63 | 6.5 | 17.9 | 1101 | 0.942 | Yes EFSA (2012) |
| LUFA 2.3 | Sandy Loam | 1.09 | 6.9 | 5.7 | 527 | 0.875 | Yes EFSA (2012) |
| La Gironda | Silty Clay Loam | 3.84 | 7.5 | 12.3 | 320 | 0.902 | Yes EFSA (2012) |
| California | Sandy Loam | 0.41 | 7.6 | 2.5 | 603 | 0.900 | Yes EFSA (2012) |
| **Arithmetic mean (n = 7)** | | | | | - | **0.914** | |
| **Geometric mean (n = 7)** | | | | | **681** | - | |
| **pH-dependency** | | | | | **No** | | |

[a] The soil Obihiro (vulcanic ash) was not considered for mean calculation.

**Table 8.5-2: Summary of soil adsorption/desorption for M700F001**

| **M700F001** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Soil name** | **Soil type** | **OC [%]** | **pH [-]** | **$K_f$ [mL g$^{-1}$]** | **$K_{foc}$ [mL g$^{-1}$]** | **1/n [-]** | **Ref.** |
| LUFA 2.1 | Sand | 0.52 | 5.2 | 0.02 | 4.2 | 0.715 | Yes EFSA (2012) |
| Obihiro [a] | Sandy Loam | 2.74 | 5.6 | 1.80 [a] | 65.8 [a] | 0.981 [a] | Yes EFSA (2012) |
| Li 10 | Loamy Sand | 0.88 | 5.9 | 0.03 | 3.6 | 1.047 | Yes EFSA (2012) |
| New Jersey | Silt Loam | 0.90 | 6.3 | 0.03 | 3.4 | 0.914 | Yes EFSA (2012) |
| Nierswalde | Silt Loam | 1.63 | 6.5 | 0.11 | 6.7 | 1.002 | Yes EFSA (2012) |
| LUFA 2.3 | Sandy Loam | 1.09 | 6.9 | 0 [b] | 0 [c] | 0.9 [d] | Yes EFSA (2012) |
| La Gironda | Silty Clay Loam | 3.84 | 7.5 | 0 [b] | 0 [c] | 0.9 [d] | Yes EFSA (2012) |
| California | Sandy Loam | 0.41 | 7.6 | 0 [b] | 0 [c] | 0.9 [d] | Yes EFSA (2012) |
| **Arithmetic mean (n = 7)** | | | | | - | **0.911** | |
| **Geometric mean (n = 7)** | | | | | **2.3[e]** | - | |

[a] The soil Obihiro (vulcanic ash) was not considered for mean calculation
[b] As for three soils sorption of M700F001 was observed to show weak or no correlation with soil organic carbon content, or were derived from only two concentration levels $K_f$ values were assumed to be zero
[c] $K_{foc}$ values were set to 1 to allow calculations of the geometric mean values
[d] No Freundlich exponent could be derived from soil; set to default acc. FOCUS recommendations
[e] For re-calculation to geometric mean soils showing no adsorption ($K_{foc}$ = 0 mL g$^{-1}$) were substituted by $K_{foc}$ = 1 mL g$^{-1}$

**Table 8.5-3: Summary of soil adsorption/desorption for M700F002**

| M700F002 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Soil name** | **Soil type** | **OC [%]** | **pH [-]** | **$K_f$ [mL g$^{-1}$]** | **$K_{foc}$ [mL g$^{-1}$]** | **1/n [-]** | **Ref.** |
| LUFA 2.1 | Sand | 0.52 | 5.2 | 0.07 | 13.1 | 0.969 | Yes EFSA (2012) |
| Obihiro [a] | Sandy Loam | 2.74 | 5.6 | 2.74 [a] | 99.9 [a] | 0.963 [a] | Yes EFSA (2012) |
| Li 10 | Loamy Sand | 0.88 | 5.9 | 0.04 | 4.8 | 0.842 | Yes EFSA (2012) |
| New Jersey | Silt Loam | 0.90 | 6.3 | 0.13 | 14.1 | 1.165 | Yes EFSA (2012) |
| Nierswalde | Silt Loam | 1.63 | 6.5 | 0.15 | 9.0 | 0.937 | Yes EFSA (2012) |
| LUFA 2.3 | Sandy Loam | 1.09 | 6.9 | 0.06 | 5.6 | 1.078 | Yes EFSA (2012) |
| La Gironda | Silty Clay Loam | 3.84 | 7.5 | 0.04 | 1.0 | 0.990 | Yes EFSA (2012) |
| California | Sandy Loam | 0.41 | 7.6 | 0.02 | 5.6 | 0.764 | Yes EFSA (2012) |
| **Arithmetic mean (n = 7)** | | | | | - | **0.964** | |
| **Geometric mean (n = 7)** | | | | | **5.9** | - | |

[a] The soil Obihiro (vulcanic ash) was not considered for mean calculation.

## 8.5.2 Azoxystrobin and its metabolites

Studies on the mobility in soil of azoxystrobin and its metabolites R234886, R402173 and R401553 are considered to be data provided in support of the active substance. All relevant detailed experimental information has been submitted for EU review of azoxystrobin (*EFSA Journal 2010; 8(4): 1542*). Additional data were provided for metabolite R234886 in the Addendum for confirmatory Information (see *DAR, 2014* for further details) in order to provide more detailed information on pH-dependent sorption of this metabolite.

A summary of the soil adsorption data is provided in Table 8.5-4 to Table 8.5-7.

**Table 8.5-4: Summary of soil adsorption/desorption for azoxystrobin**

| Azoxystrobin | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Soil name** | **Soil type (USDA)** | **OC [%]** | **pH ($H_2O$)** | **$K_f$ [mL g$^{-1}$]** | **$K_{foc}$ [mL g$^{-1}$]** | **1/n [-]** | **Evaluated on EU level/ Reference** |
| Hyde Farm (UK) | Sandy clay loam | 1.7 | 7.5 | 7.9 | 465 | 0.84 | Yes / EFSA, 2010; Rowe, Lane, 1994 |

| Azoxystrobin | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Soil name** | **Soil type (USDA)** | **OC [%]** | **pH ($H_2O$)** | **$K_f$ [mL $g^{-1}$]** | **$K_{foc}$ [mL $g^{-1}$]** | **1/n [-]** | **Evaluated on EU level/ Reference** |
| East Anglia (UK) | Loamy sand | 1.7 | 7.8 | 4 | 235 | 0.82 | Yes / EFSA, 2010; Rowe, Lane, 1994 |
| Kenny Hill (UK) | Loamy sand | 3.0 | 7.9 | 6.2 | 207 | 0.85 | Yes / EFSA, 2010; Rowe, Lane, 1994 |
| Lilly Field (UK) | Sand | 0.3 | 5.5 | 1.5 | 500 | 0.84 | Yes / EFSA, 2010; Rowe, Lane, 1994 |
| Nebo (UK) | Silty clay loam | 1.6 | 4.9 | 9.5 | 594 | 0.90 | Yes / EFSA, 2010; Rowe, Lane, 1994 |
| Pickett Piece (UK) | Clay loam | 2.8 | 5.5 | 15 | 536 | 0.90 | Yes / EFSA, 2010; Rowe, Lane, 1994 |
| **Arithmetic mean (n=6)** | | | | | 423 | **0.86** | |
| **Geometric mean (n=6)** | | | | | **392** | - | |
| pH-dependency | | | | | No | | |

The adsorption of R234886 in soil has previously been determined in six soils and reviewed during the Annex I Renewal of azoxystrobin. The evaluation concluded that adsorption of R234886 was inversely correlated with pH; i.e. decreasing adsorption with increasing pH.

Since publication of the EFSA conclusion (2010), R234886 soil adsorption has been further evaluated in the same nine soils used for the additional degradation study (Simmonds, 2011) and was evaluated in the DAR (2014).

The soil adsorption data from all studies are presented in order of ascending pH in

Table 8.5-5. The correlation of soil adsorption and pH was confirmed with the additional data. The relationship was linear with a fit of log $K_{foc}$ vs. pH (Figure 8.5-1). The Georgia soil had a higher $K_{foc}$ than would have been expected from its pH and appears to be an outlier. This soil also had a slower rate of degradation compared to its apparent pH.

Because of the clear relationship of adsorption with pH, paired acidic/alkaline values have been used in modelling assessments (

Table 8.5-5).

**Table 8.5-5: Summary of soil adsorption/desorption for R234886**

| R234886 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Soil Name** | **Soil Type (USDA)** | **OC [%]** | **pH ($H_2O$)** | **$K_f$ [mL g$^{-1}$]** | **$K_{foc}$ [mL g$^{-1}$]** | **1/n [-]** | **Evaluated on EU level / Reference** |
| **Acidic soils [a]** | | | | | | | |
| Nebo (UK) | - | 1.6 | 4.9 | 6.8 | 420 | 0.900 | Yes / EFSA, 2010 [b]; Ferguson, Muller, Lane, 1994 |
| Wisborough Green (UK) | - | 2.4 | 5.3 | 2.43 | 101 | 0.542 [d] | Yes / DAR, 2014 [c]; Simmonds, 2011 |
| Frensham (UK) | - | 1.8 | 5.4 | 1.83 | 100 | 0.639 [d] | Yes / DAR, 2014 [c]; Simmonds, 2011 |
| Lilly Field (UK) | - | 0.3 | 5.5 | 1.4 | 490 | 0.790 | Yes / DAR, 2014 [c]; Simmonds, 2011 |
| Pickett Piece (UK) | - | 2.8 | 5.5 | 10 | 360 | 0.890 | Yes / EFSA, 2010 [b]; Ferguson, Muller, Lane, 1994 |
| Ohio (US) | - | 1.4 | 5.8 | 1.52 | 112 | 0.663 [d] | Yes / DAR, 2014 [c] |
| Nuptown (UK) | - | 2.5 | 6.2 | 1.53 | 62 | 0.705 | Yes / DAR, 2014 [c] |
| Georgia (US) | - | 0.7 | 7.1 | 1.22 | 182 | 0.832 | Yes / DAR, 2014 [c] |
| **Alkaline soils [a]** | | | | | | | |
| Gartenacker (CH) | - | 2.7 | 7.3 | 0.87 | 33 | 0.820 | Yes / DAR, 2014 [c]; Simmonds, 2011 |
| Pappelacker (CH) | - | 1.1 | 7.4 | 0.42 | 37 | 0.803 | Yes / DAR, 2014 [c]; Simmonds, 2011 |
| Hyde Farm (UK) | - | 1.7 | 7.5 | 0.85 | 49 | 0.850 | Yes / EFSA, 2010 [b], Ferguson, Muller, Lane, 1994 |
| East Anglia (UK) | - | 1.7 | 7.8 | 0.35 | 21 | 0.760 | Yes / EFSA, 2010 [b], Ferguson, Muller, Lane, 1994 |
| North Dakota (US) | - | 2.8 | 7.8 | 1.65 | 59 | 0.863 | Yes / DAR, 2014 [c]; Simmonds, 2011 |
| Vetroz (CH) | - | 2.4 | 7.9 | 0.72 | 30 | 0.861 | Yes / DAR, 2014 [c]; Simmonds, 2011 |
| Kenny Hill (UK) | - | 3.0 | 7.9 | 0.82 | 28 | 0.900 | Yes / |

| R234886 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Soil Name** | **Soil Type (USDA)** | **OC [%]** | **pH ($H_2O$)** | **$K_f$ [mL g$^{-1}$]** | **$K_{foc}$ [mL g$^{-1}$]** | **1/n [-]** | **Evaluated on EU level / Reference** |
| | | | | | | | EFSA, 2010 [b], Ferguson, Muller, Lane, 1994 |
| **Arithmetic mean, acidic soils (n=8)** | | | | | 228.4 | **0.78** [e] | |
| **Geometric mean, acidic soils (n=8)** | | | | | **177.0** | - | |
| **Arithmetic mean, alkaline soils (n=7)** | | | | | 36.7 | **0.83** | |
| **Geometric mean, alkaline soils (n=7)** | | | | | **34.8** | - | |
| pH-dependency | | | | | Yes | | |

[a] Soils were classified as either acidic or alkaline based on their adsorption and degradation characteristics as well as pH
[b] EFSA Journal 2010; 8 (4): 1542
[c] DAR (2014): Azoxystrobin: Addendum – Confirmatory Information. RMS United Kingdom. December 2014
[d] values rounded to 0.7 used in modelling as this is the minimum reliable 1/n value stated in FOCUS (2000)
[e] arithmetic mean used in modelling; based on 1/n values of 0.7 for Wisborough Green, Frensham and Ohio

**Figure 8.5-1: R234886 – Distribution of log $K_{foc}$ vs. soil pH**

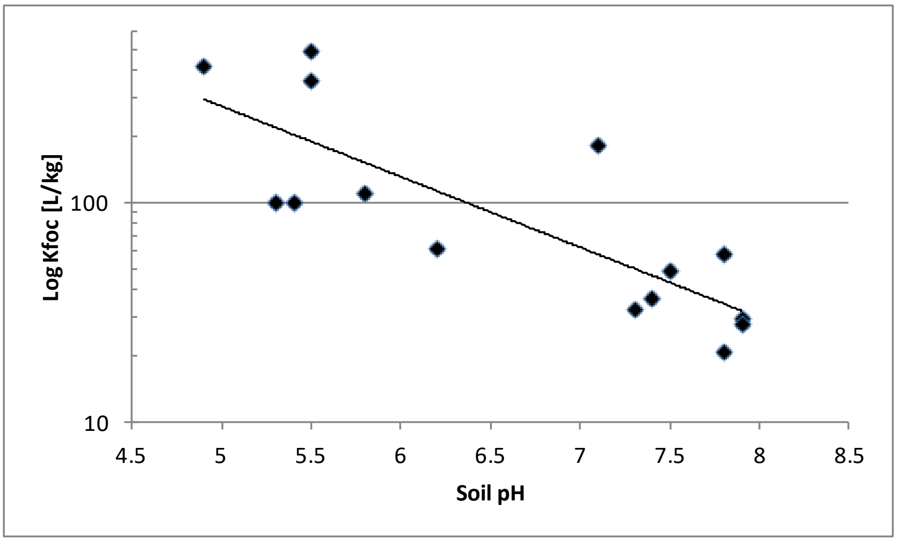


**Table 8.5-6: Summary of soil adsorption/desorption for R402173**

| R402173 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Soil Name** | **Soil Type (USDA)** | **OC [%]** | **pH ($H_2O$)** | **$K_f$ [mL $g^{-1}$]** | **$K_{foc}$ [mL $g^{-1}$]** | **1/n [-]** | **Evaluated on EU level / Reference** |
| Hyde Farm (UK) | Sandy clay loam | 1.74 | 7.5 | 0.65 | 37 | 0.96 | Yes / EFSA, 2010; Rowe, Lane, 1995 |
| ERTC (UK) | Loamy sand | 0.29 | 6.8 | 0.27 | 93 | 0.95 | Yes / EFSA, 2010; Rowe, Lane, 1995 |
| Kenny Hill (UK) | Sandy loam | 2.96 | 8.5 | 0.74 | 25 | 0.96 | Yes / EFSA, 2010; Rowe, Lane, 1995 |
| NRTC (UK) | Silty clay loam | 2.15 | 6.2 | 4.2 | 200 | 0.92 | Yes / EFSA, 2010; Rowe, Lane, 1995 |
| Wisborough Green (UK) | Silty clay loam | 2.38 | 5.6 | 2.0 | 86 | 0.93 | Yes / EFSA, 2010; Rowe, Lane, 1995 |
| Pickett Piece (UK) | Clay loam | 2.61 | 5.4 | 2.9 | 110 | 0.96 | Yes / EFSA, 2010; Rowe, Lane, 1995 |
| Arithmetic mean (n=6) | | | | | 91.8 | 0.95 | |
| Geometric mean (n=6) | | | | | 73.9 | - | |
| **Minimum / maximum value used for modelling (n=6)** | | | | | **25 / 200** | **0.96** [a] | |
| pH-dependency | | | | | Yes | | |

[a] 1/n related to minimum $K_{foc}$ was used in modelling

**Table 8.5-7: Summary of soil adsorption/desorption for R401553**

| R401553 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Soil Name** | **Soil Type (USDA)** | **OC [%]** | **pH ($H_2O$)** | **$K_f$ [mL $g^{-1}$]** | **$K_{foc}$ [mL $g^{-1}$]** | **1/n (-)** | **Evaluated on EU level/ Reference** |
| Hyde Farm (UK) | Sandy clay loam | 1.74 | 7.5 | 1.9 | 110 | 0.81 | Yes / EFSA, 2010; Rowe, Lane, 1995a |
| ERTC (UK) | Loamy sand | 0.29 | 6.8 | 0.76 | 260 | 0.81 | Yes / EFSA, 2010; Rowe, Lane, 1995a |
| Kenny Hill (UK) | Sandy loam | 2.96 | 8.5 | 2.4 | 81 | 0.84 | Yes / EFSA, 2010; Rowe, Lane, 1995a |
| NRTC (UK) | Silty clay loam | 2.15 | 6.2 | 11 | 500 | 0.89 | Yes / EFSA, 2010; Rowe, Lane, 1995a |
| Wisborough Green (UK) | Silty clay loam | 2.38 | 5.6 | 1.6 | 66 | 0.85 | Yes / EFSA, 2010; Rowe, Lane, 1995a |
| Pickett Piece (UK) | Clay loam | 2.61 | 5.4 | 2.9 | 110 | 0.92 | Yes / EFSA, 2010; Rowe, Lane, 1995a |
| **Arithmetic mean (n=6)** | | | | | 188 | **0.85** | |
| **Geometric mean (n=6)** | | | | | **143** | - | |
| pH-dependency | | | | | No | | |

## 8.5.3 Column leaching (KCP 9.1.2.1)

### 8.5.3.1 Fluxapyroxad and its metabolites

No column leaching studies have been performed with the active substance, its metabolites or any formulation, since reliable adsorption values were available for fluxapyroxad and metabolites M700F001 and M700F002.

### 8.5.3.2 Azoxystrobin and its metabolites

Studies on column leaching are considered to be data provided in support of the active substance; no leaching was observed for azoxystrobin. All column leaching studies on azoxystrobin have been reviewed under Council Directive 91/414/EEC.

### 8.5.4 Lysimeter studies (KCP 9.1.2.2)

#### 8.5.4.1 Fluxapyroxad and its metabolites

Lysimeter studies for fluxapyroxad, its metabolites or any formulation were not conducted since reliable adsorption coefficient values were obtained in laboratory soil mobility studies and leaching to groundwater in relevant amounts is not expected.

#### 8.5.4.2 Azoxystrobin and its metabolites

Where undertaken, lysimeter studies are considered to be data provided in support of the active substance. Based on the properties of azoxystrobin and the results of the ground water modelling (Section 8.8) lysimeter studies are not required.

### 8.5.5 Field leaching studies (KCP 9.1.2.3)

#### 8.5.5.1 Fluxapyroxad and its metabolites

No field leaching studies have been performed with the active substance fluxapyroxad and its metabolites.

#### 8.5.5.2 Azoxystrobin and its metabolites

Based on the properties of azoxystrobin and the results of the ground water modelling (Section 8.8) field leaching studies are not required.

## 8.6 Degradation in the water/sediment systems (KCP 9.2, KCP 9.2.1, KCP 9.2.2, KCP 9.2.3)

Studies on degradation in water/sediment systems with the formulation were not performed, since it is possible to extrapolate from data obtained with the active substance.

### 8.6.1 Fluxapyroxad and its metabolites

Studies on the degradation of fluxapyroxad and metabolites in aquatic systems were evaluated during Annex I inclusion (*EFSA Journal 2012;10(1):2522*). No additional studies have been performed.

**Table 8.6-1: Summary of degradation in water/sediment of fluxapyroxad**

| **Fluxapyroxad distribution**<br>Dark system: maximum observed in water immediately after application at day 0; maximum observed in sediment 77.0 % AR at study termination (day 100).<br>Irradiated system: maximum observed in water immediately after application at day 0; maximum observed in sediment 67.9% AR (day 43). | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Water/sediment system** | **pH water/ sed.** | **$DegT_{50}$ whole system (d)** | **$DegT_{90}$ whole syst. (d)** | **Kinetic, Fit** | **$DissT_{50}$ water (d)** | **$DissT_{90}$ water (d)** | **Kinetic, Fit** | **$DissT_{50}$ sed. (d)** | **Evaluated on EU level** |
| Berghauser Altrhein Speyer, Germany [a] | 7.3/7.4 | >1000 | >1000 | HS, $\chi^2$=0.8 | 3.4 | 87.7 | FOMC, $\chi^2$=1.4 | –[b] | Yes, EFSA (2012) |
| Ranschgraben Schifferstadt, Germany [a] | 7.2/5.4 | 694 | >1000 | SFO, $\chi^2$=0.8 | 5.1 | 264 | FOMC, $\chi^2$=2.5 | –[b] | Yes, EFSA (2012) |
| Berghauser Altrhein Speyer, Germany [c] | 7.3/7.4 | 145 | 482 | SFO, $\chi^2$=1.1 | 3.4 | 55.9 | DFOP, $\chi^2$=3.9 | –[b] | Yes, EFSA (2012) |
| Ranschgraben Schifferstadt, Germany [c] | 7.2/5.4 | 116 | 387 | SFO, $\chi^2$=0.9 | 7.0 | 55.6 | DFOP, $\chi^2$=3.5 | –[b] | Yes, EFSA (2012) |

[a] Dark system
[b] Not calculated due to insufficient decline phase.
[c] Irradiated system (13 h light – 11 h dark)

**Table 8.6-2: Summary of observed metabolites**

| | | |
|---|---|---|
| **M700F001 Water/sediment system** | Dark system: No metabolites observed above 5% AR.<br><br>Irradiated system: Max. in water 10.9 % AR after 43 d (Ranschgraben system; pyrazole label). Not observed in sediment. | EFSA conclusion (2012) |
| **M700F002 Water/sediment system** | Max. in water 3.7% at day 100 (end of the study) in dark conditions. Not observed in sediment. | DAR (2011) |
| **M700F007 Water/sediment system** | Dark system: No metabolites observed above 5% AR.<br><br>Irradiated system: Max. in water 7.5 % AR after 57 d (study termination) in Ranschgraben system (pyrazole label). Not observed in sediment.<br>The concentration of M700F007 was still increasing at study termination. Therefore, the remaining radioactivity of the parent fluxapyroxad (10.2%) was added to the maximum occurrence of M700F007 (7.5%), resulting in 17.7%. | EFSA conclusion (2012), DAR (2011) |

## 8.6.2 Azoxystrobin and its metabolites

The rate of degradation in water/sediment systems of azoxystrobin was evaluated during the EU review (*EFSA Journal 2010; 8(4): 1542)*. No additional studies have been performed. Data for the degradation of azoxystrobin metabolites R234886, R402173 and R401553 in water/sediment is not currently available.

**Table 8.6-3: Summary of degradation in water/sediment of azoxystrobin**

| **Azoxystrobin Distribution (max. water 91.2% after 0 days, max. sediment 90.5% after 0 days)** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Water/sediment system** | **pH water/ sed.** | **$DegT_{50}$ whole syst. [d]** | **$DegT_{90}$ whole syst. [d]** | **Kinetic model** | **$DissT_{50}$ water [d]** | **$DissT_{90}$ water [d]** | **Kinetic model** | **$DissT_{50}$ sed. [d]** | **Kinetic model** | **Evaluated on EU level / Reference** |
| Old Basing | 7.5 / 7.8 | 234 | 777 | SFO | - | - | - | - | - | Yes / EFSA, 2010; Warinton, 1994 |
| Virginia water | 6.4 / 6.9 | 180 | 598 | SFO | - | - | - | - | - | Yes / EFSA, 2010; Warinton, 1994 |
| **Geometric mean (n=2)** | | **205** | 682 | | | | | | | |

**Table 8.6-4: Summary of observed metabolites of azoxystrobin**

| Metabolite | Maximum observed value in water/sediment system | Evaluated on EU level / Reference |
|---|---|---|
| R234886 Water/sediment system | Max. in water 10.8% after 152 d<br>Max. in sediment 15.6% after 152 d<br>Max in total system 18.1% [a] | Yes / EFSA, 2010; Warinton, 1994 |
| R402173 Aquatic photolysis | Max. in water 2.4% | Yes / EFSA, 2010; Warinton, 1994 |
| R401553 Aquatic photolysis | Max. in water 8.9% | Yes / EFSA, 2010; Warinton, 1994 |

[a] note that the correct maximum occurrence level of this metabolite was agreed to be 18.1% AR (derived by calculating the individual mean for each of 3 label positions from data from 3 TLC solvent systems prior to calculating an overall mean). This value was used for modelling.

## 8.7 Predicted Environmental Concentrations in soil ($PEC_{soil}$) (KCP 9.1.3)

**Review Comments:**
The $PEC_{soil}$ calculations for fluxapyroxad, azoxystrobin, their metabolites and for formulation were provided by the Applicant and are considered acceptable. The EU agreed endpoints were used for $PEC_{soil}$ calculations.
The $PEC_{soil}$ reported below can be used for the risk assessment of the non-target organisms. Please refer to section 9.

### 8.7.1 Justification for new endpoints

Fluxapyroxad

EU agreed endpoints were used for $PEC_{soil}$ calculations of fluxapyroxad (*EFSA Journal 2012;10(1):2522*) and its respective metabolites.

In the EFSA conclusion (2012), the calculation of the accumulation in soil was based on the FOMC endpoints. However, for calculation of $PEC_{soil,plateau}$ FOMC kinetics is not suitable according to the EFSA IRIS workshop on soil persistence [*EFSA (2009): Report on the PPR Stakeholder Workshop Improved Realism in Soil Risk Assessment (IRIS), May 2009*]. To derive suitable DFOP values, an adapted approach (refitting DFOP values by fixing $k_2$ to the equivalent of 1000 days) was applied that lead to a $DT_{50}$ of 378 days.

Azoxystrobin

Unless otherwise stated, EU agreed endpoints refer to those stated in the EU review of azoxystrobin (*EFSA Journal 2010; 8(4): 1542 and DAR, 2014).*

### 8.7.2 Active substance(s) and relevant metabolite(s)

PEC calculations were conducted for twofold application to cereals. As a risk envelope, these calculations also cover single application at the same rate.

**Table 8.7-1: Input parameters related to application for $PEC_{soil}$ calculations to cereals**

| | |
|---|---|
| Use No° | 1-16 |
| Crop | Cereals |
| Application rate [g a.s $ha^{-1}$] | Fluxapyroxad: 100<br>Azoxystrobin: 150 |
| Number of applications [-] / interval [d] | 2 / 21 |
| Crop Interception [%] | 80 |
| Depth of soil layer (relevant for plateau concentration) [cm] | 5 / 20 (tillage depth for annual crops) |
| Models used for calculation | Fluxapyroxad and metabolites: ESCAPE 2.0<br>Azoxystrobin and metabolites: Excel |

**Table 8.7-2: Input parameters for fluxapyroxad and its metabolites for $PEC_{soil}$ calculations**

| Compound | Fluxapyroxad | M700F001 | M700F002 | Value in accordance to EU endpoint y/n Reference |
|---|---|---|---|---|
| Molecular weight [g mol$^{-1}$] | 381.3 | 176.1 | 162.0 | Yes<br>EFSA (2012) |
| Max. occurrence [%] | - [a] | 12.1<br>(DAT 30, laboratory dark aerobic conditions) | 70.5 [b]<br>(DAT 120, laboratory dark aerobic conditions) | Yes<br>EFSA (2012) |
| $DT_{50}$ [d] | 370<br>(FOMC[c], worst case, non-normalized, from field studies, n = 6)<br><br>378<br>(DFOP[e], worst case, non-normalized, from field studies, n = 6) | 10<br>(SFO, worst case, non-normalized, from laboratory study, n = 4) | 39.2<br>(FOMC[d], worst case, non-normalized, from field studies, n = 4) | Yes<br>EFSA (2012) |

DAT = days after treatment
[a] Not relevant for parent substance
[b] Maximum theoretical formation, i.e. M700F002 at study end plus remaining amounts of parent and M700F001
[c] Corresponding FOMC parameters: α: 2.059, β: 13.1342
[d] Corresponding FOMC parameters: α: 2.4056, β: 117.5
[e] Corresponding DFOP parameters: $k_1$: 0.0321 $d^{-1}$, $k_2$: 6.9 x $10^{-4}$ $d^{-1}$ (i.e. fixed to 1000 days), g: 0.3502

**Table 8.7-3: Input parameters for azoxystrobin and its metabolite for $PEC_{soil}$ calculations**

| Compound | Azoxystrobin | R234886 | R401553 | R402173 | Value in accordance to EU endpoint y/n Reference |
|---|---|---|---|---|---|
| Molecular weight [g mol$^{-1}$] | 403.4 | 389.4 | 213.2 | 333.3 | Yes<br>EFSA (2010) |
| Molecular correction | -[a] | 0.965 | 0.529 | 0.826 | Yes<br>EFSA (2010) |
| Max. occurrence [%] | -[a] | 28.8 | 17 | 17 | Yes<br>EFSA (2010) |
| $DT_{50,soil}$ [d] | 262[b] | -[c] | -[c] | -[c] | Yes<br>EFSA (2010) |

[a] Not relevant for parent substance
[b] (representative worst case from field (incorporated) studies)
[c] Only initial values calculated

### 8.7.2.1 Fluxapyroxad and its metabolites

| | |
|---|---|
| Comments of zRMS: | All input parameters for fluxapyroxad and its metabolites were considered acceptable as they followed the EFSA conclusion and LoEP or corresponded to standard default values. Thus, the zRMS considers the presented $PEC_{soil}$ calculations acceptable for the parent and its metabolites. |

| | |
|---|---|
| Reference: | CP 9.1.3/1 |
| Report | Predicted environmental concentrations of BAS 700 F – Fluxapyroxad and its metabolites in soil, groundwater, surface water and sediment following application to cereals in Europe considering endpoints according to Focus,<br>Mendez Gutierrez A., 2018<br>report No EU-CALC-2253<br>2018/1099939<br>Authority registration No |
| Guideline(s): | Focus Groundwater Scenarios (2000) Sanco/321/2000 rev. 2, FOCUS groundwater (2014): SANCO/13144/2010 v 3, Focus Groundwater (2014) GG for Tier 1 Focus GW Assessments v 2.2, FOCUS Kinetics (2006) SANCO/10058/2005 version 1.1 of Dec. 2014, FOCUS Surface Water Report SANCO/4802/2001 rev. 2, FOCUS (2015): Generic guidance for FOCUS surface water scenarios v 1.4, FOCUS (2007a): Landscape And Mitigation Factors In Aquatic Risk Assessment. Vol. 1, FOCUS (2007b): Landscape And Mitigation Factors In Aquatic Risk Assessment. Vol. 2, FOCUS Air (2008) SANCO/10553/2006 Rev. 2 June 2008 |
| Deviations: | No |
| GLP: | No, not compulsory to PEC reports |
| Acceptability: | Yes |

**Table 8.7-4: $PEC_{soil}$ for fluxapyroxad following application of 2 x 100 g a.s. $ha^{-1}$ to cereals**

| $PEC_{soil}$ [mg $kg^{-1}$] | | Multiple applications | |
|---|---|---|---|
| | | **Actual [a]** | **TWA [a]** |
| Initial | | 0.050 | - |
| Short term | 24h | 0.049 | 0.049 |
| | 2d | 0.049 | 0.049 |
| | 4d | 0.048 | 0.049 |
| Long term | 7d | 0.046 | 0.048 |
| | 14d | 0.044 | 0.047 |
| | 21d | 0.042 | 0.045 |
| | 28d | 0.041 | 0.044 |
| | 42d | 0.039 | 0.043 |
| | 50d | 0.038 | 0.042 |
| | 100d | 0.034 | 0.039 |
| Plateau concentration (20 cm) after 10 years [b] | | 0.028 | |
| $PEC_{accumulation}$ [b] ($PEC_{soil,ini}$ +$PEC_{soil\ plateau}$) | | 0.078 | |

[a] FOMC kinetics were considered for initial, actual and time-weighted average concentrations in soil
[b] Plateau and accumulated concentrations in soil are based on DFOP kinetics

## $PEC_{soil}$ of metabolites

Only global maximum values are reported, which can be considered as worst-case estimates of short-term and long-term exposure.

**Table 8.7-5: $PEC_{soil}$ for metabolite M700F001 following application of 2 x 100 g a.s. $ha^{-1}$ of fluxapyroxad to cereals**

| $PEC_{soil}$ [mg $kg^{-1}$] | Multiple applications |
|---|---|
| Initial | 0.002 |
| Plateau concentration (20 cm) after 10 years | - |
| $PEC_{accumulation}$ [a] ($PEC_{soil,ini}$ +$PEC_{soil\ plateau}$) | 0.004 |

[a] Calculated from accumulation concentration of fluxapyroxad

**Table 8.7-6: PEC$_{soil}$ for metabolite M700F002 following application of 2 x 100 g a.s. ha$^{-1}$ of fluxapyroxad to cereals**

| **PEC$_{soil}$ [mg kg$^{-1}$]** | **Multiple applications** |
|---|---|
| Initial | 0.014 |
| Plateau concentration (20 cm) after 10 years | - |
| PEC$_{accumulation}$ [a] (PEC$_{soil,ini}$ +PEC$_{soil\ plateau}$) | 0.023 |

[a] Calculated from accumulation concentration of fluxapyroxad

### 8.7.2.2 Azoxystrobin and its metabolites

| | |
|---|---|
| Comments of zRMS: | All input parameters for azoxystrobin and its metabolites were considered acceptable as they followed the EFSA conclusion and LoEP or corresponded to standard default values. Thus, the zRMS considers the presented PEC$_{soil}$ calculations acceptable for the parent and its metabolites. |

| | |
|---|---|
| Reference: | CP 9.1.3/2 |
| Report | Predicted environmental concentrations of BAS 9164 F – Azoxystrobin and its metabolites in soil, groundwater, surface water and sediment following application to cereals in Central Europe<br>Udita Chatterjee, 2022<br>report No CALC-2760<br>2022/2047818 |
| Guideline(s): | FOCUS Degradation Kinetics (2006) SANCO/10058/2005 version 1.1 (December 2014)<br>FOCUS (2014) Generic guidance for FOCUS Kinetics, v 1.1<br>FOCUS Groundwater Scenarios (2000) Sanco/321/2000 rev. 2<br>FOCUS Groundwater (2014) Sanco/13144/2010 v 3<br>FOCUS Groundwater (2014) Generic Guidance for Tier 1 v 2.2<br>FOCUS Surface Water (2001) SANCO/4802/2001-rev.2 final (May 2003)<br>FOCUS (2007) Landscape and Mitigation Factors in Aquatic Risk Assessment. Volume 1&2<br>FOCUS (2015) Generic guidance for FOCUS surface water scenarios, v1.4 |
| Deviations: | No |
| GLP: | No, not compulsory to PEC reports |
| Acceptability: | Yes |

**Table 8.7-7: $PEC_{soil}$ for azoxystrobin following application of 2 x 150 g a.s. $ha^{-1}$ to cereals**

| $PEC_{soil}$ [mg $kg^{-1}$] | | Multiple applications | |
|---|---|---|---|
| | | Actual | TWA |
| Initial | | 0.079 | - |
| Short term | 24h | 0.078 | 0.078 |
| | 2d | 0.078 | 0.078 |
| | 4d | 0.078 | 0.078 |
| Long term | 7d | 0.077 | 0.078 |
| | 14d | 0.076 | 0.077 |
| | 21d | 0.074 | 0.076 |
| | 28d | 0.073 | 0.076 |
| | 50d | 0.069 | 0.074 |
| | 100d | 0.060 | 0.069 |
| Plateau concentration (20 cm) after 10 years [b] | | 0.013 | |
| $PEC_{accumulation}$ [b] ($PEC_{soil,ini}$ +$PEC_{soil\ plateau}$) | | 0.091 | |

### $PEC_{soil}$ of metabolites

Only global maximum values are reported, which can be considered as worst-case estimates of short-term and long-term exposure. As a worst-case, no degradation between first and second application was assumed.

**Table 8.7-8: $PEC_{soil}$ for azoxystrobin's metabolites following application of 2 x 150 g a.s. $ha^{-1}$ to cereals**

| Multiple applications | R234886 | R401553 | R402173 |
|---|---|---|---|
| $PEC_{soil}$ initial [mg $kg^{-1}$] after second application | 0.022 | 0.007 | 0.011 |

## 8.7.2.3 $PEC_{soil}$ of BAS 736 00 F

Maximum $PEC_{soil}$ was calculated for the formulation BAS 736 00 F based on a worst-case scenario, which leads to the highest effective soil load of the formulation. A volumetric application rate of 2 L $ha^{-1}$ for the use in cereals in combination with 80% interception corresponding to the earliest possible growth stage as proposed by the GAP (BBCH 30) was considered for the calculations. The $PEC_{soil,max}$ was calculated over 5 cm soil depth and assumed a soil bulk density of 1.5 g $cm^{-3}$.

**Table 8.7-9: $PEC_{soil}$ for BAS 736 00 F on cereals**

| Crop | Application rate of formulation [L $ha^{-1}$] | Formulation density [g $cm^{-3}$] | Crop interception [%] | Effective soil load [g $ha^{-1}$] | $PEC_{ini}$ [mg $kg^{-1}$] 5 cm soil depth |
|---|---|---|---|---|---|
| Cereals | 2 | 1.078 | 80 | 431.2 | 0.575 |

## 8.8 Predicted Environmental Concentrations in groundwater ($PEC_{gw}$) (KCP 9.2.4)

**Review Comments:**

The $PEC_{GW}$ calculations for fluxapyroxad, azoxystrobin and their metabolites were provided by the Applicant and are considered acceptable.

According FOCUS DG SANTE for active substances and their relevant metabolites $PEC_{GW}$ calculations after 1 January 2022 should be performed with new versions of models: FOCUS PEARL 5.5.5 and FOCUS PELMO 6.6.4. Nevertheless, as submission date is December 2021, thus the calculation performed with FOCUS MACRO 5.5.4, FOCUS PEARL 4.4.4 and FOCUS PELMO 5.5.3 were accepted. The EU agreed endpoints were used. Geometric mean $K_{foc}$ and $K_{fom}$ (instead of an arithmetic mean $K_{foc}$ and $K_{fom}$) for all compounds were derived from the datasets presented in the EFSA Journal 2012;10(1):2522 and EFSA Journal 2010; 8(4):1542 with Confirmatory Data for metabolite R234886, for consistency with current EU Guidance [*EFSA (2014): EFSA Guidance Document for evaluating laboratory and field dissipation studies to obtain DegT50 values of active substances of plant protection products and transformation products of these active substances in soil. EFSA Journal 2014;12(5):3362*].

The $PEC_{GW}$ of fluxapyroxad (80$^{th}$ percentile) at 1 m depth following uses on cereals were less than 0.1 µg/L in all scenarios. The potential for the metabolites to leach to ground water has been assessed using the same approach. The maximum $PEC_{GW}$ of M700F001 and M700F002 were 0.292 µg/L and 2.838 µg/L, respectively. Assessment of the relevance of these metabolites according to the stepwise procedure of the EC guidance document SANCO/221/2000 –rev.10 is presented in Section B10.

The $PEC_{GW}$ of azoxystrobin (80$^{th}$ percentile) at 1 m depth following uses on cereals were less than 0.1 µg/L in all scenarios. The potential for the metabolites to leach to ground water has been assessed using the same approach. The maximum $PEC_{GW}$ of R401553 and R402173 were below 0.1 µg/L in all scenarios. As the sorption of metabolites R234886 is pH dependent, the lowest $K_{foc}$ and associated 1/n values from the sorption datasets for metabolite were selected for input as a worst-case at Tier 1. Further simulations were performed for metabolite R234886 at Tier 2 using scenario specific $K_{foc}$ values, which were derived using regression analysis. The maximum Tier 2 $PEC_{GW}$ was 0.513 µg/L. Assessment of the relevance of these metabolites according to the stepwise procedure of the EC guidance document SANCO/221/2000 –rev.10 is presented in Section B10.

In conclusion, the results demonstrate that Miralon can be applied safely according to the recommended use patterns without risk of fluxapyroxad, azoxystrobin and their metabolites exceeding acceptable levels in groundwater.

### 8.8.1 Justification for new endpoints

**Fluxapyroxad**

EU agreed endpoints were used for $PEC_{gw}$ calculations of fluxapyroxad and its respective metabolites [*EFSA Journal 2012;10(1):2522*].

For the central EU core assessment, geometric mean sorption values ($K_{foc}$ and $K_f$) were calculated from the sorption data summarized in the EFSA conclusion (2012) for consistency with current EU Guidance [*EFSA (2014): EFSA Guidance Document for evaluation laboratory and field dissipation studies to obtain DegT50 values of active substances of plant protection products and transformation products of these active substances in soil. EFSA Journal 2014;12(5):3662*].

**Azoxystrobin**

The $K_{foc}$ used in modelling for azoxystrobin, R234886 and R401553 were re-calculated based on the recommendation of the latest guideline (*EFSA (2014) EFSA Guidance Document for evaluation laboratory and field dissipation studies to obtain DegT50 values of active substances of plant protection products and transformation products of these active substances in soil. EFSA Journal 2014;12(5):3662 [37 pp.]*). The individual values from which the geometric mean is calculated are those established for azoxystrobin (*EFSA Journal 2010; 8(4): 1542 or DAR, 2014*). Since adsorption of R402173 is pH-dependent (EFSA, 2010), the worst-case $K_{foc}$ value of 25 L/kg together with the corresponding 1/n value of 0.96 was used for the calculations.

## 8.8.2 Active substance(s) and relevant metabolite(s) (KCP 9.2.4.1)

$PEC_{gw}$ calculations were conducted for twofold application to cereals. As a risk envelope, these calculations also cover single application at the same rate.

**Table 8.8-1: Input parameters related to application for $PEC_{gw}$ calculations**

| | | |
|---|---|---|
| Use No. | 1-16 | 1-16 |
| Crop | Winter Cereals | Spring Cereals |
| Application rate [g a.s. ha$^{-1}$] | Fluxapyroxad: 100<br>Azoxystrobin: 150 | Fluxapyroxad: 100<br>Azoxystrobin: 150 |
| Number of applications/interval [d] | 2 / ~~21~~ 14 | 2 / ~~21~~ 14 |
| Crop interception [%] | 80 | 80 |
| Frequency of application | annual | annual |
| Models used for calculation | FOCUS PEARL v4.4.4, FOCUS PELMO v5.5.3, FOCUS MACRO v~~5.5.3~~ 5.5.4 | |

**Table 8.8-2: Application dates used for groundwater risk assessment for winter cereals**

| Crop | Scenario | Application dates (absolute) | |
|---|---|---|---|
| | | 1st Application | 2nd Application |
| Winter cereals | Châteaudun | 1st May (121) [a] | 15th May (135) [a] |
| | Hamburg | 1st May | 15th May |
| | Jokioinen | 1st June | 15th June |
| | Kremsmünster | 1st May | 15th May |
| | Okehampton | 1st May | 15th May |
| | Piacenza | 15th March | 29th March |
| | Porto | 15th March | 29th March |
| | Sevilla | 15th March | 29th March |
| | Thiva | 15th March | 29th March |

[a] Julian day for FOCUS-MACRO calculations

**Table 8.8-3: Application dates used for groundwater risk assessment for spring cereals (1st application date 28 days after emergence)**

| Crop | Scenario | Application dates (absolute) | |
|---|---|---|---|
| | | 1st Application[a] | 2nd Application |
| Spring cereals | Châteaudun | 7th Apr (97) [b] | 21st April (111) [a] |
| | Hamburg | 29th April | 13th May |
| | Jokioinen | 15th June | 29th June |
| | Kremsmünster | 29th April | 13th May |
| | Okehampton | 29th April | 13th May |
| | Porto | 7th April | 21th April |

[a] 28 days after emergence
[b] Julian day for FOCUS-MACRO calculations

### 8.8.2.1 Fluxapyroxad and its metabolites

**Table 8.8-4: Input parameters related to fluxapyroxad and metabolite(s) for $PEC_{gw}$ calculations**

| **Compound** | **Fluxapyroxad** | **M700F001** | **M700F002** | **Value in accordance to EU endpoint y/n Reference** |
|---|---|---|---|---|
| Molecular weight [g $mol^{-1}$] | 381.3 | 176.1 | 162.0 | Yes<br>EFSA 2012 |
| Water solubility [mg $L^{-1}$] | 3.8 (20°C) | 39990 (20°C) | 31580 (20°C) | Yes<br>EFSA 2012 |
| Saturated vapor pressure [Pa] | 1.0 x $10^{-10}$ (20°C) | 1.0 x $10^{-10}$ (20°C) | 1.0 x $10^{-10}$ (20°C) | Parent:<br>Yes, EFSA 2012<br>Metabolites:<br>FOCUS default |
| $DT_{50,soil}$ [d] | 151 (slow phase) (geometric mean of normalized $DT_{50,\ field}$ values, n = 6)<br><br>59.5 (fast phase) (geometric mean of normalized $DT_{50,\ field}$ values, n = 6) | 5.4<br>(geometric mean of laboratory study, normalized, n = 4) | 25.9<br>(geometric mean of field studies, normalized, n = 4) | Yes<br>EFSA 2012 |
| Transformation rate (PELMO) | Slow phase:<br>To M700F001: 0.004590<br>Fast phase:<br>To M700F001: 0.011650 | To M700F002: 0.128361 | To sink: 0.026762 | Calculated |
| $K_{foc}$ [mL $g^{-1}$] | 681<br>(geometric mean, n = 7) | 2.3<br>(geometric mean [a], n = 7) | 5.9<br>(geometric mean, n = 7) | Yes, single values [b]<br>EFSA 2012 |
| $K_{fom}$ [mL $g^{-1}$] | 395<br>(geometric mean, n = 7) | 1.3<br>(geometric mean [c], n = 7) | 3.4<br>(geometric mean, n = 7) | Yes, single values [b]<br>EFSA 2012 |
| Freundlich exponent 1/n [-] | 0.914<br>(arithmetic mean, n = 7) | 0.911<br>(arithmetic mean, n = 7) | 0.964<br>(arithmetic mean, n = 7) | Yes<br>EFSA 2012 |
| Plant Uptake [-] | 0 | 0 | 0 | FOCUS default |
| Formation fraction (PEARL) | - [c] | 1 from parent (worst case) | 1 from M700F001 (worst case) | Yes<br>EFSA 2012 |
| Conversion fraction (MACRO) | - [c] | 0.462 from parent | 0.920 from M700F001 | Yes<br>EFSA 2012 |

[a] For re-calculation to geometric mean soils showing no adsorption ($K_{foc}$ = 0 mL $g^{-1}$) were substituted by $K_{foc}$ = 1 mL $g^{-1}$
[b] The geometric mean was used instead of the arithmetic mean in accordance with the latest guideline (EFSA Journal 2014;12(5):3662). The individual values from which the geometric mean is calculated, are those established in EFSA (2012)
[c] Not relevant for parent substance

**$PEC_{gw}$**

| | |
|---|---|
| Comments of zRMS: | The geometric means were used for the Kfoc values, instead of the arithmetic mean values reported in the Review Report, in line with guidance developed since the LoEP of fluxapyroxad was determined.<br>The zRMS considers the presented $PEC_{gw}$ calculations acceptable for the parent and its metabolites. |

| | |
|---|---|
| Reference: | CP 9.2.4.1/1 |
| Report | Predicted environmental concentrations of BAS 700 F – Fluxapyroxad and its metabolites in soil, groundwater, surface water and sediment following application to cereals in Europe considering endpoints according to Focus,<br>Mendez Gutierrez A., 2018<br>report No EU-CALC-2253<br>2018/1099939<br>Authority registration No |
| Guideline(s): | Focus Groundwater Scenarios (2000) Sanco/321/2000 rev. 2, FOCUS groundwater (2014): SANCO/13144/2010 v 3, Focus Groundwater (2014) GG for Tier 1 Focus GW Assessments v 2.2, FOCUS Kinetics (2006) SANCO/10058/2005 version 1.1 of Dec. 2014, FOCUS Surface Water Report SANCO/4802/2001 rev. 2, FOCUS (2015): Generic guidance for FOCUS surface water scenarios v 1.4, FOCUS (2007a): Landscape And Mitigation Factors In Aquatic Risk Assessment. Vol. 1, FOCUS (2007b): Landscape And Mitigation Factors In Aquatic Risk Assessment. Vol. 2, FOCUS Air (2008) SANCO/10553/2006 Rev. 2 June 2008 |
| Deviations: | No |
| GLP: | No, not compulsory to PEC reports |
| Acceptability: | Yes |

**Table 8.8-5: PEC$_{gw}$ for fluxapyroxad (fast phase degradation) and its metabolites on winter cereals – multiple application (2 x 100 g ha$^{-1}$)**

| Model | Crop | Scenario | 80$^{th}$ Percentile PEC$_{gw}$ at 1 m Soil Depth [µg L$^{-1}$] | | |
|---|---|---|---|---|---|
| | | | Fluxapyroxad | M700F001 | M700F002 |
| PEARL 4.4.4 | Winter cereals | Châteaudun | <0.001 | 0.006 | 0.579 |
| | | Hamburg | <0.001 | 0.097 | 1.944 |
| | | Jokioinen | <0.001 | 0.178 | 2.838 |
| | | Kremsmünster | <0.001 | 0.022 | 0.992 |
| | | Okehampton | <0.001 | 0.046 | 1.047 |
| | | Piacenza | <0.001 | 0.012 | 0.452 |
| | | Porto | <0.001 | 0.022 | 0.543 |
| | | Sevilla | <0.001 | 0.002 | 0.173 |
| | | Thiva | <0.001 | 0.006 | 0.323 |
| PELMO 5.5.3 | Winter cereals | Châteaudun | <0.001 | 0.007 | 0.486 |
| | | Hamburg | <0.001 | 0.110 | 1.703 |
| | | Jokioinen | <0.001 | 0.245 | 2.599 |
| | | Kremsmünster | <0.001 | 0.033 | 1.066 |
| | | Okehampton | <0.001 | 0.065 | 1.055 |
| | | Piacenza | <0.001 | 0.029 | 0.621 |
| | | Porto | <0.001 | 0.048 | 0.579 |
| | | Sevilla | <0.001 | 0.006 | 0.191 |
| | | Thiva | <0.001 | 0.007 | 0.230 |
| MACRO 5.5.4 | Winter cereals | Châteaudun | <0.001 | 0.006 | 0.479 |

**Table 8.8-6: $PEC_{gw}$ for fluxapyroxad (slow phase degradation) and its metabolites on winter cereals – multiple application (2 x 100 g $ha^{-1}$)**

| Model | Crop | Scenario | 80th Percentile $PEC_{gw}$ at 1 m Soil Depth [µg $L^{-1}$] | | |
|---|---|---|---|---|---|
| | | | Fluxapyroxad | M700F001 | M700F002 |
| PEARL 4.4.4 | Winter cereals | Châteaudun | 0.001 | 0.026 | 0.594 |
| | | Hamburg | <0.001 | 0.045 | 0.620 |
| | | Jokioinen | <0.001 | 0.005 | 0.242 |
| | | Kremsmünster | <0.001 | 0.011 | 0.422 |
| | | Okehampton | <0.001 | 0.209 | 2.772 |
| | | Piacenza | <0.001 | 0.010 | 0.659 |
| | | Porto | 0.001 | 0.133 | 2.071 |
| | | Sevilla | <0.001 | 0.032 | 1.048 |
| | | Thiva | 0.002 | 0.066 | 1.111 |
| PELMO 5.5.3 | Winter cereals | Châteaudun | <0.001 | 0.011 | 0.567 |
| | | Hamburg | 0.001 | 0.164 | 1.827 |
| | | Jokioinen | <0.001 | 0.288 | 2.656 |
| | | Kremsmünster | 0.001 | 0.050 | 1.120 |
| | | Okehampton | 0.002 | 0.093 | 1.156 |
| | | Piacenza | 0.001 | 0.062 | 0.806 |
| | | Porto | <0.001 | 0.095 | 0.731 |
| | | Sevilla | <0.001 | 0.014 | 0.278 |
| | | Thiva | <0.001 | 0.016 | 0.364 |
| MACRO 5.5.4 | Winter cereals | Châteaudun | <0.001 | 0.010 | 0.562 |

**Table 8.8-7: $PEC_{gw}$ for fluxapyroxad (fast phase degradation) and its metabolites on spring cereals – multiple application (2 x 100 g $ha^{-1}$)**

| Model | Crop | Scenario | 80th Percentile $PEC_{gw}$ at 1 m Soil Depth [µg $L^{-1}$] | | |
|---|---|---|---|---|---|
| | | | Fluxapyroxad | M700F001 | M700F002 |
| PEARL 4.4.4 | Spring cereals | Châteaudun | <0.001 | 0.006 | 0.537 |
| | | Hamburg | <0.001 | 0.115 | 2.521 |
| | | Jokioinen | <0.001 | 0.202 | 2.440 |
| | | Kremsmünster | <0.001 | 0.024 | 1.054 |
| | | Okehampton | <0.001 | 0.044 | 1.058 |
| | | Porto | <0.001 | 0.038 | 0.613 |
| PELMO 5.5.3 | Spring cereals | Châteaudun | <0.001 | 0.007 | 0.398 |
| | | Hamburg | <0.001 | 0.111 | 1.622 |
| | | Jokioinen | <0.001 | 0.246 | 2.238 |
| | | Kremsmünster | <0.001 | 0.033 | 1.042 |
| | | Okehampton | <0.001 | 0.060 | 0.995 |
| | | Porto | <0.001 | 0.051 | 0.583 |
| MACRO 5.5.4 | Spring cereals | Châteaudun | <0.001 | 0.007 | 0.464 |

**Table 8.8-8: $PEC_{gw}$ for fluxapyroxad (slow phase degradation) and its metabolites on spring cereals – multiple application (2 x 100 g $ha^{-1}$)**

| Model | Crop | Scenario | 80th Percentile $PEC_{gw}$ at 1 m Soil Depth [µg $L^{-1}$] | | |
|---|---|---|---|---|---|
| | | | Fluxapyroxad | M700F001 | M700F002 |
| PEARL 4.4.4 | Spring cereals | Châteaudun | <0.001 | 0.011 | 0.619 |
| | | Hamburg | 0.001 | 0.150 | 2.566 |
| | | Jokioinen | <0.001 | 0.225 | 2.437 |
| | | Kremsmünster | <0.001 | 0.035 | 1.099 |
| | | Okehampton | 0.001 | 0.067 | 1.129 |
| | | Porto | <0.001 | 0.059 | 0.677 |
| PELMO 5.5.3 | Spring cereals | Châteaudun | <0.001 | 0.011 | 0.475 |
| | | Hamburg | 0.001 | 0.164 | 1.745 |
| | | Jokioinen | <0.001 | 0.292 | 2.201 |
| | | Kremsmünster | <0.001 | 0.050 | 1.102 |
| | | Okehampton | 0.001 | 0.086 | 1.065 |
| | | Porto | <0.001 | 0.097 | 0.707 |
| MACRO 5.5.4 | Spring cereals | Châteaudun | <0.001 | 0.012 | 0.557 |

The leaching of unacceptable amounts of fluxapyroxad following application to winter and spring cereals, is highly unlikely since the 80th percentiles of the predicted annual leachate concentration of fluxapyroxad were below 0.1 µg $L^{-1}$ in all tested scenarios and models.

The maximum 80$^{th}$ percentiles of the predicted annual leachate concentration of the toxicological non-relevant metabolite M700F001 was calculated to be 0.288 µg $L^{-1}$ and 0.292 µg $L^{-1}$ following twofold application of fluxapyroxad to winter cereals and spring cereals, respectively.

The maximum 80$^{th}$ percentiles of the predicted annual leachate concentration of the toxicological non-relevant metabolite M700F002 was calculated to be 2.838 µg $L^{-1}$ and 2.566 µg $L^{-1}$ following twofold application of fluxapyroxad to winter and spring cereals, respectively.

Therefore, it can be concluded that the use of fluxapyroxad is not likely to pose an unacceptable risk to shallow groundwater if the active substance is used in compliance with label recommendations.

### 8.8.2.2 Azoxystrobin and its metabolites

| | |
|---|---|
| Comments of zRMS: | The geometric means were used for the Kfoc values, instead of the arithmetic mean values reported in the Review Report, in line with guidance developed since the LoEP of azoxystrobin was determined.<br>The version AppDate 3 has been developed for new models i.e. FOCUS PELMO 6.6.4 and is not consistent with the currently used FOCUS GW model versions. Nevertheless, it not change the generally result of the risk assessment.<br>The zRMS considers the presented $PEC_{gw}$ calculations acceptable for the parent and metabolites R401553, R402173, the Tier 1 and 2 for R234886. |

| | |
|---|---|
| Reference: | CP 9.2.4.1/2 |
| Report | Predicted environmental concentrations of BAS 9164 F – Azoxystrobin and its metabolites in soil, groundwater, surface water and sediment following application to cereals in Central Europe<br>Udita Chatterjee, 2022<br>report No CALC-2760<br>2022/2047818 |
| Guideline(s): | FOCUS Degradation Kinetics (2006) SANCO/10058/2005 version 1.1 (December 2014)<br>FOCUS (2014) Generic guidance for FOCUS Kinetics, v 1.1<br>FOCUS Groundwater Scenarios (2000) Sanco/321/2000 rev. 2<br>FOCUS Groundwater (2014) Sanco/13144/2010 v 3<br>FOCUS Groundwater (2014) Generic Guidance for Tier 1 v 2.2<br>FOCUS Surface Water (2001) SANCO/4802/2001-rev.2 final (May 2003)<br>FOCUS (2007) Landscape and Mitigation Factors in Aquatic Risk Assessment. Volume 1&2<br>FOCUS (2015) Generic guidance for FOCUS surface water scenarios, v1.4 |
| Deviations: | No |
| GLP: | No, not compulsory to PEC reports |
| Acceptability: | Yes |

**Table 8.8-9: Input parameters related to active substance azoxystrobin, R234886, R402173 and R401553 for $PEC_{gw}$ calculations**

| Compound | Azoxystrobin | R234886 | R402173 | R401553 | Value in accordance with EU endpoint / Reference |
|---|---|---|---|---|---|
| Molar mass [g $mol^{-1}$] | 403.4 | 389.4 | 333.3 | 213.2 | Yes / EFSA, 2010 |
| Water solubility [mg $L^{-1}$] | 6.0 (20°C) | 57 (25°C) | 61 (25°C) | 560 (25°C) | Yes / EFSA, 2010 |
| Saturated vapour pressure [Pa] | 0 | 0 | 0 | 0 | Loss due to volatilisation was not considered → worst case |
| $DT_{50,soil}$ [d] | 78[a] * (n = 2)<br><br>2.55[b] * (n = 10)<br><br>(geometric mean, field studies normalisation to pF2, 20°C with $Q_{10}$ of 2.58) | **Acidic soils:** 98.6 ** (n = 5)<br><br>**Alkaline soils:** 36.7 ** (n = 7)<br><br>(geometric mean, lab studies, normalisation to pF2, 20°C with $Q_{10}$ of 2.58) | 4.7* (geometric mean, lab studies, normalisation to pF2, 20°C with $Q_{10}$ of 2.58, n = 3) | 1.1* (geometric mean, lab studies, normalisation to pF2, 20°C with $Q_{10}$ of 2.58, n = 3) | * Yes / EFSA, 2010<br>** Yes / DAR, 2014 [c] |
| Transformation rate | **Microbial pathway:** 0.007767 (to R234886) 0.001120 (to sink)<br><br>**Photolytic pathway:** 0.104652 (to R402173) 0.106554 (to R401553) 0.060616 (to sink) | **Acidic soils:** 0.007030 (to sink)<br><br>**Alkaline soils:** 0.018887 (to sink) | 0.069020 (to R401553)<br><br>0.078458 (to sink) | 0.630134 (to sink) | Calculated for PELMO; (ln(2) / $DT_{50}$) × FFm |
| $K_{foc}$ / $K_{fom}$ [mL $g^{-1}$] | 392 / 227 * (geometric mean, n = 6) | **Acidic soils:** 177 / 103** (geometric mean, n = 8)<br><br>**Alkaline soils:** 34.8 / 20.2** (geometric mean, n = 7) | 25 / 14.5*** (worst case, n = 6) | 143 / 82.9 * (geometric mean, n = 6) | * No [d] / EFSA, 2010<br>** No [d] / EFSA, 2010 & DAR, 2014[c]<br><br>***Yes / EFSA, 2010<br><br>$K_{fom} = K_{foc} / 1.724$ |

| Compound | Azoxystrobin | R234886 | R402173 | R401553 | Value in accordance with EU endpoint / Reference |
|---|---|---|---|---|---|
| 1/n | 0.86 (arithmetic mean, n = 6) | **Acidic soils:** 0.78 (arithmetic mean, n=8)<br><br>**Alkaline soils:** 0.83 (arithmetic mean, n=7) | 0.96 (relate to worst case $K_{foc}$) | 0.85 (arithmetic mean, n = 6) | Yes / EFSA, 2010 |
| Plant uptake factor | 0 [f] / 0.5 * | 0 ** | 0 ** | 0 ** | * Yes / DAR, 2014 & Weinfurtner, 2013<br>** Yes / DAR, 2014 [c] |
| Formation fraction | - | 0.874 from parent | 0.385 from parent | 0.392 from parent<br><br>0.468 from R402173 | Yes / EFSA, 2010 |
| Conversion fraction | - | 0.844 from parent | 0.318 from parent | 0.302[e] from parent | for MACRO; molar mass (metabolite)/molar mass (parent) × formation fraction |

[a] calculated from the geometric mean of the soil incorporated field studies (80.2 days, n = 3) and the slow phase of the non-incorporated studies (75.9 days, n = 10)
[b] geometric mean, quick phase, field
[c] DAR (2014): Azoxystrobin: Addendum – Confirmatory Information. RMS United Kingdom. December 2014.
[d] Differs from the EFSA conclusion as the latest guideline (EFSA Journal 2014;12(5):3662) recommends the use of the geometric mean instead of the arithmetic mean or median. The individual values from which the geometric mean is calculated, are those established in azoxystrobin, EFSA Journal 2010; 8(4):1542 and DAR (2014)
[e] For the secondary metabolite R401553 the formation fraction was multiplied along the pathway; therefore 213.2/403.4 × ((0.385 × 0.468)+0.392)
[f] an additional set of runs are conducted with the worst-case PUF of 0, all other input parameters remain identical

**$PEC_{gw}$**

**Table 8.8-10: $PEC_{gw}$ for azoxystrobin and its soil metabolite on winter cereals – multiple application (2 x 150 g $ha^{-1}$), PUF 0**

| Model | Crop | Scenario | 80th Percentile $PEC_{gw}$ at 1 m Soil Depth [µg $L^{-1}$] | | | |
|---|---|---|---|---|---|---|
| | | | Azoxystrobin | R234886 (tier 1) | R234886 (tier 2 acid) | R234886 (tier 2 alkaline) |
| PEARL 4.4.4 | Winter cereals | Châteaudun | <0.001 | 3.337 | < 0.001 | 0.034 |
| | | Hamburg | <0.001 | 5.552 | < 0.001 | 0.395 |
| | | Jokioinen | <0.001 | 4.500 | < 0.001 | 0.129 |
| | | Kremsmünster | <0.001 | 3.621 | < 0.001 | 0.248 |
| | | Okehampton | <0.001 | 3.795 | < 0.001 | 0.333 |
| | | Piacenza | <0.001 | 2.796 | < 0.001 | 0.120 |
| | | Porto | <0.001 | 2.407 | < 0.001 | 0.129 |
| | | Sevilla | <0.001 | 0.195 | < 0.001 | < 0.001 |
| | | Thiva | <0.001 | 3.776 | < 0.001 | 0.021 |
| PELMO 5.5.3 | Winter cereals | Châteaudun | <0.001 | 3.300 | < 0.001 | 0.022 |
| | | Hamburg | <0.001 | 5.998 | 0.001 | 0.433 |
| | | Jokioinen | <0.001 | 4.846 | < 0.001 | 0.182 |
| | | Kremsmünster | <0.001 | 4.263 | < 0.001 | 0.262 |
| | | Okehampton | <0.001 | 3.936 | 0.001 | 0.384 |
| | | Piacenza | <0.001 | 3.516 | < 0.001 | 0.199 |
| | | Porto | <0.001 | 2.921 | < 0.001 | 0.248 |
| | | Sevilla | <0.001 | 0.971 | < 0.001 | 0.001 |
| | | Thiva | <0.001 | 2.319 | < 0.001 | 0.009 |
| MACRO 5.5.4 | Winter cereals | Châteaudun | <0.001 | 2.990 | < 0.001 | 0.041 |

**Table 8.8-11: PEC$_{gw}$ for azoxystrobin and its soil photolysis metabolites on winter cereals – multiple application (2 x 150 g ha$^{-1}$), PUF 0**

| Model | Crop | Scenario | 80th Percentile PEC$_{gw}$ at 1 m Soil Depth [µg L$^{-1}$] | | |
|---|---|---|---|---|---|
| | | | Azoxystrobin | R401553 | R402173 |
| PEARL 4.4.4 | Winter cereals | Châteaudun | <0.001 | <0.001 | <0.001 |
| | | Hamburg | <0.001 | <0.001 | 0.001 |
| | | Jokioinen | <0.001 | <0.001 | <0.001 |
| | | Kremsmünster | <0.001 | <0.001 | <0.001 |
| | | Okehampton | <0.001 | <0.001 | <0.001 |
| | | Piacenza | <0.001 | <0.001 | <0.001 |
| | | Porto | <0.001 | <0.001 | <0.001 |
| | | Sevilla | <0.001 | <0.001 | <0.001 |
| | | Thiva | <0.001 | <0.001 | <0.001 |
| PELMO 5.5.3 | Winter cereals | Châteaudun | <0.001 | <0.001 | <0.001 |
| | | Hamburg | <0.001 | <0.001 | <0.001 |
| | | Jokioinen | <0.001 | <0.001 | <0.001 |
| | | Kremsmünster | <0.001 | <0.001 | <0.001 |
| | | Okehampton | <0.001 | <0.001 | <0.001 |
| | | Piacenza | <0.001 | <0.001 | <0.001 |
| | | Porto | <0.001 | <0.001 | <0.001 |
| | | Sevilla | <0.001 | <0.001 | <0.001 |
| | | Thiva | <0.001 | <0.001 | <0.001 |
| MACRO 5.5.4 | Winter cereals | Châteaudun | n.c.[a] | <0.001 | <0.001 |

[a] azoxystrobin not calculated, R401553 and R402173 applied as parents

**Table 8.8-12: PEC$_{gw}$ for azoxystrobin and its soil metabolite on spring cereals – multiple application (2 x 150 g ha$^{-1}$), PUF 0**

| Model | Crop | Scenario | 80th Percentile PEC$_{gw}$ at 1 m Soil Depth [µg L$^{-1}$] | | | |
|---|---|---|---|---|---|---|
| | | | Azoxystrobin | R234886 (tier 1) | R234886 (tier 2 acid) | R234886 (tier 2 alkaline) |
| PEARL 4.4.4 | Spring cereals | Châteaudun | <0.001 | 3.037 | <0.001 | 0.028 |
| | | Hamburg | <0.001 | 6.932 | <0.001 | 0.435 |
| | | Jokioinen | <0.001 | 4.245 | <0.001 | 0.135 |
| | | Kremsmünster | <0.001 | 3.979 | <0.001 | 0.256 |
| | | Okehampton | <0.001 | 3.991 | <0.001 | 0.312 |
| | | Porto | <0.001 | 2.457 | <0.001 | 0.175 |
| PELMO 5.5.3 | Spring cereals | Châteaudun | <0.001 | 2.645 | <0.001 | 0.016 |
| | | Hamburg | <0.001 | 5.669 | <0.001 | 0.373 |
| | | Jokioinen | <0.001 | 4.151 | <0.001 | 0.130 |
| | | Kremsmünster | <0.001 | 4.014 | <0.001 | 0.236 |
| | | Okehampton | <0.001 | 3.827 | 0.001 | 0.328 |
| | | Porto | <0.001 | 2.592 | <0.001 | 0.223 |
| MACRO 5.5.4 | Spring cereals | Châteaudun | <0.001 | 2.680 | < 0.001 | 0.037 |

**Table 8.8-13: $PEC_{gw}$ for azoxystrobin and its soil photolysis metabolites on spring cereals – multiple application (2 x 150 g $ha^{-1}$), PUF 0**

| Model | Crop | Scenario | 80th Percentile $PEC_{gw}$ at 1 m Soil Depth [µg $L^{-1}$] | | |
|---|---|---|---|---|---|
| | | | Azoxystrobin | R401553 | R402173 |
| PEARL 4.4.4 | Spring cereals | Châteaudun | <0.001 | <0.001 | <0.001 |
| | | Hamburg | <0.001 | <0.001 | <0.001 |
| | | Jokioinen | <0.001 | <0.001 | <0.001 |
| | | Kremsmünster | <0.001 | <0.001 | <0.001 |
| | | Okehampton | <0.001 | <0.001 | <0.001 |
| | | Porto | <0.001 | <0.001 | <0.001 |
| PELMO 5.5.3 | Spring cereals | Châteaudun | <0.001 | <0.001 | <0.001 |
| | | Hamburg | <0.001 | <0.001 | <0.001 |
| | | Jokioinen | <0.001 | <0.001 | <0.001 |
| | | Kremsmünster | <0.001 | <0.001 | <0.001 |
| | | Okehampton | <0.001 | <0.001 | <0.001 |
| | | Porto | <0.001 | <0.001 | <0.001 |
| MACRO 5.5.4 | Spring cereals | Châteaudun | n.c.[a] | <0.001 | <0.001 |

[a] azoxystrobin not calculated, R401553 and R402173 applied as parents

**Table 8.8-14: $PEC_{gw}$ for azoxystrobin and its soil metabolite on winter cereals – multiple application (2 x 150 g $ha^{-1}$), PUF 0.5 ***

| Model | Crop | Scenario | 80th Percentile $PEC_{gw}$ at 1 m Soil Depth [µg $L^{-1}$] | | | |
|---|---|---|---|---|---|---|
| | | | Azoxystrobin | R234886 (tier 1) | R234886 (tier 2 acid) | R234886 (tier 2 alkaline) |
| PEARL 4.4.4 | Winter cereals | Châteaudun | <0.001 | 3.425 | < 0.001 | 0.051 |
| | | Hamburg | <0.001 | 5.678 | < 0.001 | 0.467 |
| | | Jokioinen | <0.001 | 4.641 | < 0.001 | 0.181 |
| | | Kremsmünster | <0.001 | 3.710 | < 0.001 | 0.296 |
| | | Okehampton | <0.001 | 3.862 | < 0.001 | 0.404 |
| | | Piacenza | <0.001 | 2.834 | < 0.001 | 0.148 |
| | | Porto | <0.001 | 2.456 | < 0.001 | 0.163 |
| | | Sevilla | <0.001 | 0.213 | < 0.001 | < 0.001 |
| | | Thiva | <0.001 | 3.857 | < 0.001 | 0.029 |
| PELMO 5.5.3 | Winter cereals | Châteaudun | <0.001 | 3.299 | < 0.001 | 0.034 |
| | | Hamburg | <0.001 | 5.998 | 0.001 | 0.511 |
| | | Jokioinen | <0.001 | 4.843 | < 0.001 | 0.239 |
| | | Kremsmünster | <0.001 | 4.262 | < 0.001 | 0.314 |
| | | Okehampton | <0.001 | 3.936 | 0.001 | 0.459 |
| | | Piacenza | <0.001 | 3.516 | < 0.001 | 0.244 |
| | | Porto | <0.001 | 2.920 | < 0.001 | 0.291 |
| | | Sevilla | <0.001 | 0.971 | < 0.001 | 0.002 |
| | | Thiva | <0.001 | 2.319 | < 0.001 | 0.013 |
| MACRO 5.5.4 | Winter cereals | Châteaudun | <0.001 | 2.980 | < 0.001 | 0.039 |

* PUF of 0.5 is used for azoxystrobin and PUF of 0 is used for the metabolite

**Table 8.8-15: $PEC_{gw}$ for azoxystrobin and its soil photolysis metabolites on winter cereals – multiple application (2 x 150 g $ha^{-1}$), PUF 0.5 ***

| Model | Crop | Scenario | 80th Percentile $PEC_{gw}$ at 1 m Soil Depth [µg $L^{-1}$] | | |
|---|---|---|---|---|---|
| | | | Azoxystrobin | R401553 | R402173 |
| PEARL 4.4.4 | Winter cereals | Châteaudun | <0.001 | <0.001 | <0.001 |
| | | Hamburg | <0.001 | <0.001 | <0.001 |
| | | Jokioinen | <0.001 | <0.001 | <0.001 |
| | | Kremsmünster | <0.001 | <0.001 | <0.001 |
| | | Okehampton | <0.001 | <0.001 | <0.001 |
| | | Piacenza | <0.001 | <0.001 | <0.001 |
| | | Porto | <0.001 | <0.001 | <0.001 |
| | | Sevilla | <0.001 | <0.001 | <0.001 |
| | | Thiva | <0.001 | <0.001 | <0.001 |
| PELMO 5.5.3 | Winter cereals | Châteaudun | <0.001 | <0.001 | <0.001 |
| | | Hamburg | <0.001 | <0.001 | <0.001 |
| | | Jokioinen | <0.001 | <0.001 | <0.001 |
| | | Kremsmünster | <0.001 | <0.001 | <0.001 |
| | | Okehampton | <0.001 | <0.001 | <0.001 |
| | | Piacenza | <0.001 | <0.001 | <0.001 |
| | | Porto | <0.001 | <0.001 | <0.001 |
| | | Sevilla | <0.001 | <0.001 | <0.001 |
| | | Thiva | <0.001 | <0.001 | <0.001 |
| MACRO 5.5.4 | Winter cereals | Châteaudun | n.c.[a] | <0.001 | <0.001 |

[a] azoxystrobin not calculated, R401553 and R402173 applied as parents
* PUF of 0.5 is used for azoxystrobin and PUF of 0 is used for the metabolites

**Table 8.8-16: PEC$_{gw}$ for azoxystrobin and its soil metabolite on spring cereals – multiple application (2 x 150 g ha$^{-1}$), PUF 0.5 ***

| Model | Crop | Scenario | 80th Percentile PEC$_{gw}$ at 1 m Soil Depth [µg L$^{-1}$] | | | |
|---|---|---|---|---|---|---|
| | | | Azoxystrobin | R234886 (tier 1b) | R234886 (tier 2b acid) | R234886 (tier 2b alkaline) |
| PEARL 4.4.4 | Spring cereals | Châteaudun | <0.001 | 3.125 | <0.001 | 0.041 |
| | | Hamburg | <0.001 | 7.067 | <0.001 | 0.513 |
| | | Jokioinen | <0.001 | 4.328 | <0.001 | 0.184 |
| | | Kremsmünster | <0.001 | 4.078 | <0.001 | 0.312 |
| | | Okehampton | <0.001 | 4.057 | <0.001 | 0.381 |
| | | Porto | <0.001 | 2.504 | <0.001 | 0.213 |
| PELMO 5.5.3 | Spring cereals | Châteaudun | <0.001 | 2.644 | <0.001 | 0.024 |
| | | Hamburg | <0.001 | 5.668 | <0.001 | 0.454 |
| | | Jokioinen | <0.001 | 4.149 | <0.001 | 0.178 |
| | | Kremsmünster | <0.001 | 4.014 | <0.001 | 0.296 |
| | | Okehampton | <0.001 | 3.827 | 0.001 | 0.408 |
| | | Porto | <0.001 | 2.592 | <0.001 | 0.273 |
| MACRO 5.5.4 | Spring cereals | Châteaudun | <0.001 | 2.650 | < 0.001 | 0.035 |

* PUF of 0.5 is used for azoxystrobin and PUF of 0 is used for the metabolite

**Table 8.8-17: PEC$_{gw}$ for azoxystrobin and its soil photolysis metabolites on spring cereals – multiple application (2 x 150 g ha$^{-1}$), PUF 0.5***

| Model | Crop | Scenario | 80th Percentile PEC$_{gw}$ at 1 m Soil Depth [µg L$^{-1}$] | | |
|---|---|---|---|---|---|
| | | | Azoxystrobin | R401553 | R402173 |
| PEARL 4.4.4 | Spring cereals | Châteaudun | <0.001 | <0.001 | <0.001 |
| | | Hamburg | <0.001 | <0.001 | <0.001 |
| | | Jokioinen | <0.001 | <0.001 | <0.001 |
| | | Kremsmünster | <0.001 | <0.001 | <0.001 |
| | | Okehampton | <0.001 | <0.001 | <0.001 |
| | | Porto | <0.001 | <0.001 | <0.001 |
| PELMO 5.5.3 | Spring cereals | Châteaudun | <0.001 | <0.001 | <0.001 |
| | | Hamburg | <0.001 | <0.001 | <0.001 |
| | | Jokioinen | <0.001 | <0.001 | <0.001 |
| | | Kremsmünster | <0.001 | <0.001 | <0.001 |
| | | Okehampton | <0.001 | <0.001 | <0.001 |
| | | Porto | <0.001 | <0.001 | <0.001 |
| MACRO 5.5.4 | Spring cereals | Châteaudun | n.c.[a] | <0.001 | <0.001 |

[a] azoxystrobin not calculated, R401553 and R402173 applied as parents
* PUF of 0.5 is used for azoxystrobin and PUF of 0 is used for the metabolites

The leaching of unacceptable amounts of azoxystrobin and its soil photolysis metabolites R401553 and R402173 following application to winter and spring cereals, is highly unlikely since the 80$^{th}$ percentiles of the predicted annual leachate concentration of azoxystrobin were below 0.1 µg $L^{-1}$ in all tested scenarios and models.

At tier 1 (using a PUF of 0 for both azoxystrobin and R234886), the maximum 80$^{th}$ percentiles of the predicted annual leachate concentration of the toxicological non-relevant metabolite R234886 was calculated to be 5.998 µg $L^{-1}$ and 6.932 µg $L^{-1}$ following twofold application of azoxystrobin to winter cereals and spring cereals, respectively. When using PUF 0.5 for azoxystrobin and PUF 0 for R234886 at tier 1, the maximum 80$^{th}$ percentiles of the predicted annual leachate concentration of the toxicological non-relevant metabolite R234886 was calculated to be 5.998 µg $L^{-1}$ and 7.067 µg $L^{-1}$ following twofold application of azoxystrobin to winter cereals and spring cereals, respectively. Thus, changing the PUF of azoxystrobin does not significantly impact the maximum 80$^{th}$ percentiles of the leachate concentrations of metabolite R234886.

At tier 2 (using both PUF 0 and 0.5 for azoxystrobin), the maximum 80$^{th}$ percentiles of the predicted annual leachate concentration of the toxicological non-relevant metabolite R234886 was below 1 µg $L^{-1}$ following twofold application of azoxystrobin to winter cereals and spring cereals.

Therefore, it can be concluded that the use of azoxystrobin is not likely to pose an unacceptable risk to shallow groundwater if the active substance is used in compliance with label recommendations.

## 8.9 Predicted Environmental Concentrations in surface water ($PEC_{sw}$) (KCP 9.2.5)

**Review Comments:**

The $PECS_{SW/SED}$ calculations for fluxapyroxad, azoxystrobin and their metabolites were provided by the Applicant and are considered acceptable.

For active substances and relevant metabolites $PEC_{SW}$ calculations were performed with FOCUS STEPS 1-2 (active substances and metabolites) and FOCUS STEP 3 - 4 (active substances).

The EU agreed endpoints were used. Geometric mean $K_{foc}$ and $K_{fom}$ (instead of an arithmetic mean $K_{foc}$ and $K_{fom}$) for all compounds were derived from the datasets presented in the EFSA Journal 2012;10(1):2522 and EFSA Journal 2010; 8(4):1542 for consistency with current EU Guidance [*EFSA (2014): EFSA Guidance Document for evaluating laboratory and field dissipation studies to obtain DegT50 values of active substances of plant protection products and transformation products of these active substances in soil. EFSA Journal 2014;12(5):3362*].

The formulation $PEC_{sw}$ calculations were accepted.
The $PEC_{sw}$ reported below can be used for the risk assessment for aquatic organisms. Please refer to section 9.

### 8.9.1 Justification for new endpoints

**Fluxapyroxad**

EU agreed endpoints were used for $PEC_{sw}$ calculations of fluxapyroxad [*EFSA Journal 2012;10(1):2522*] and its respective metabolites. Geometric mean sorption values ($K_{foc}$ and $K_f$) were calculated from the sorption data summarized in the EFSA Conclusion (2012) for consistency with current EU Guidance (EFSA, 2014).

**Azoxystrobin**

The $K_{foc}$ used in modelling for azoxystrobin, R234886 and R401553 were re-calculated based on the recommendation of the latest guideline (EFSA, 2014). The individual values from which the geometric mean is calculated, are those established for azoxystrobin (*EFSA Journal 2010; 8(4): 1542 or DAR, 2014)*.

### 8.9.2 Active substance(s), relevant metabolite(s) and the formulation (KCP 9.2.5)

PEC calculations were conducted for twofold application to cereals. As a risk envelope, these calculations also cover single application at the same rate.

**Table 8.9-1: Input parameters related to application for $PEC_{sw/sed}$ calculations for winter and spring cereals**

| Use No. | 1-16 | |
|---|---|---|
| Crop | Winter cereals | Spring cereals |
| Crop growth stage [BBCH] | 30-69 | 30-69 |
| Application rate [kg a.s. $ha^{-1}$] | Fluxapyroxad: 100<br>Azoxystrobin: 150 | Fluxapyroxad: 100<br>Azoxystrobin: 150 |
| Number of applications/interval [d] | 2 / ~~21~~ 14 | 2 / ~~21~~ 14 |
| Application window | Mar-May<br>North Europe and South Europe<br>Average crop cover | - [a] |
| Application method | Ground spray | Ground spray |
| CAM (Chemical application method) | Foliar linear | Foliar linear |
| Soil depth [cm] | 4 | 4 |
| Models used for calculation | STEPS 1-2 in FOCUS v3.2<br>FOCUS SPIN v2.2, v3.3, FOCUS SWASH v5.3 (FOCUS PRZM v4.3.1, FOCUS MACRO v5.5.4, FOCUS TOXSWA v4.4.3, v5.5.3), SWAN 4.0.1 | |

[a] Risk envelope: spring cereals are covered by winter cereals at Step 1 and Step 2

The appropriate dates for the beginning and end of the application window for STEP3 calculations were selected relative to the emergence or harvest dates of winter and spring cereals.

The length of the application window that is required for the Pesticide Application Tool (PAT) to determine actual application dates was chosen to cover the whole application window as specified in the GAP considering the BBCH growth stage. For calculations of single and twofold application the same application window was applied.

For winter cereals, the start date of the application window at BBCH 30 was set to 1st May for the scenarios in Central Europe; for the scenario D4 where the window start was set 4 days earlier to cover the 44-day period. For spring cereals, the start date of the application window at BBCH 30 was set to 28 days after emergence.

The last possible application date was set to 42 days before harvest for winter and spring cereals. The resulting length of the application windows were 44 to 80 days depending on crop and FOCUS scenario.

**Table 8.9-2: FOCUS Step 3 Scenario related input parameters for $PEC_{sw/sed}$ calculations for the application of BAS 736 00 F**

| Crop | FOCUS Scenario | Application window used in modeling | Application date(s) chosen by SWASH (PAT)[#] | |
|---|---|---|---|---|
| | | | 1st application date* | 2nd application date |
| Winter cereals | D1 | 01-Jun – 15-Jul | 17-Jun-1982 | 02-Jul-1982 |
| | D2 | 01-May – 26-Jun | 07-May-1986 | 23-May-1986 |
| | D3 [+] | 01-May – 04-Jul | 04-May-1992 | 18-May-1992 |
| | D4 [+] | 27-May – 10-Jul | 30-May-1985 | 04-Jul-1985 |

| Crop | FOCUS Scenario | Application window used in modeling | Application date(s) chosen by SWASH (PAT)# | |
|---|---|---|---|---|
| | | | 1st application date* | 2nd application date |
| | D5 + | 15-Mar – 03-Jun | 08-Apr-1978 | 22-Apr-1978 |
| | D6 | 15-Mar – 19-May | 15-Mar-1986 | 09-Apr-1986 |
| | R1 + | 01-May – 19-Jun | 02-May-1984 | 13-Jun-1984 |
| | R3 + | 15-Mar – 20-May | 28-Mar-1980 | 11-Apr-1980 |
| | R4 + | 15-Mar – 03-Jun | 04-May-1984 | 27-May-1984 |
| Spring cereals | D1 | 02-Jun – 24-Jul | 17-Jun-1982 | 02-Jul-1982 |
| | D3 + | 29-Apr – 09-Jul | 04-May-1992 | 18-May-1992 |
| | D4 + | 24-May – 15-Jul | 30-May-1985 | 04-Jul-1985 |
| | D5 + | 12-Apr – 08-Jun | 14-Apr-1978 | 11-May-1978 |
| | R4 + | 12-Apr – 08-Jun | 04-May-1984 | 27-May-1984 |

# Pesticide Application Timing Calculator integrated in PRZM and MACRO
+ Scenario relevant for the central zone.
* For single applications, the same data as for the first application of the twofold application was always selected by PAT.

Global maxima from single and multiple applications and 21 d TWA values are reported. Please refer to respective study reports for detailed results of PEC calculations.

### 8.9.2.1 Fluxapyroxad and its metabolites

| | |
|---|---|
| Comments of zRMS: | The geometric means were used for the Kfoc values, instead of the arithmetic mean values reported in the Review Report, in line with guidance developed since the LoEP of fluxapyroxad was determined.<br>The $PEC_{sw}$ calculations for fluxapyroxad and its metabolites were provided by the Notifier and are considered acceptable. |

| | |
|---|---|
| Reference: | CP 9.2.5/1 |
| Report | Predicted environmental concentrations of BAS 700 F – Fluxapyroxad and its metabolites in soil, groundwater, surface water and sediment following application to cereals in Europe considering endpoints according to Focus,<br>Mendez Gutierrez A., 2018<br>report No EU-CALC-2253<br>BASF DocID 2018/1099939<br>Authority registration No |
| Guideline(s): | Focus Groundwater Scenarios (2000) Sanco/321/2000 rev. 2, FOCUS groundwater (2014): SANCO/13144/2010 v 3, Focus Groundwater (2014) GG for Tier 1 Focus GW Assessments v 2.2, FOCUS Kinetics (2006) SANCO/10058/2005 version 1.1 of Dec. 2014, FOCUS Surface Water Report SANCO/4802/2001 rev. 2, FOCUS (2015): Generic guidance for FOCUS surface water scenarios v 1.4, FOCUS (2007a): Landscape And Mitigation Factors In Aquatic Risk Assessment. Vol. 1, FOCUS (2007b): Landscape And Mitigation Factors In Aquatic Risk Assessment. Vol. 2, FOCUS Air (2008) SANCO/10553/2006 Rev. 2 June 2008 |
| Deviations: | No |

GLP: No not subject to GLP regulation

Acceptability: Yes

**Table 8.9-3: Input parameters related to fluxapyroxad and its metabolites for $PEC_{sw/sed}$ calculations**

| **Compound** | **Fluxapyroxad** | **M700F001** | **M700F002** | **M700F007** | **Value in accordance to EU endpoint y/n Reference** |
|---|---|---|---|---|---|
| Molecular weight [g $mol^{-1}$] | 381.3 | 176.1 | 162.0 | 175.1 | Yes EFSA (2012) |
| Vapour pressure [Pa] (20°C) | $1.0 \times 10^{-10}$ (default) | -[a] | -[a] | -[a] | Yes EFSA (2012) |
| Water solubility [mg $L^{-1}$] (20°C) | 3.8 | 39990 | 31580 | 1770 | Yes EFSA (2012) |
| Diffusion coefficient in water [$m^2$ $d^{-1}$] | $4.3 \times 10^{-5}$ | -[a] | -[a] | -[a] | Default |
| Diffusion coefficient in air [$m^2$ $d^{-1}$] | 0.43 | -[a] | -[a] | -[a] | Default |
| $K_{foc}$ [mL $g^{-1}$] | 681 (geometric mean, n = 7) | 2.3 (geometric [b], n = 7) | 5.9 (geometric mean, n = 7) | 1 (default) | Yes, single values [c] EFSA (2012) |
| Freundlich exponent 1/n [-] | 0.914 (arithmetic mean, n=7) | -[a] | -[a] | -[a] | Yes EFSA (2012) |
| Plant Uptake [-] | 0 | -[a] | -[a] | -[a] | FOCUS default |
| Wash-off factor from crop [1 $mm^{-1}$] | 0.05 (MACRO) 0.50 (PRZM) | -[a] | -[a] | -[a] | Default |
| $DT_{50,soil}$ [d] | 151 (geometric mean of field studies, normalized, n = 6) | 5.4 (geometric mean of laboratory study, normalized, n = 4) | 25.9 (geometric mean of field studies, normalized, n = 4) | 1.0 (default, substance not found in soil) | Yes EFSA (2012) |
| $DT_{50,water}$ [d] | 1000 (default) | 1000 (default) | 1000 (default) | 1000 (default) | Yes EFSA (2012) |
| $DT_{50,sed}$ [d] | | | | | |
| $DT_{50,whole\ system}$ [d] | | | | | |
| Maximum occurrence observed [%] | - [d] | Soil: 12.1 Total w/s system: 10.9 | Soil: 70.5 Total w/s system: 0.01 (default) | Soil: 0.01 (default) Total w/s system: 17.7 | Yes EFSA (2012) |
| Formation fraction [-] | - [d] | - [a] | - [a] | - [a] | - |

[a] Not required for Steps 1-2

[b] For re-calculation to geometric mean soils showing no adsorption ($K_{foc}$ = 0 mL $g^{-1}$) were substituted by $K_{foc}$ = 1 mL $g^{-1}$

[c] The geometric mean was used instead of the arithmetic mean in accordance with the latest guideline (EFSA Journal 2014;12(5):3662). The individual values from which the geometric mean is calculated are those established in the EFSA conclusion (2012)

[d] Not relevant for parent substance

**$PEC_{sw/sed}$ of fluxapyroxad FOCUS STEPs 1-3**

For actual and time-weighted average values of the $PEC_{sw}$ for fluxapyroxad please refer to DocID 2018/1099939.

**Table 8.9-4: FOCUS Steps 1, 2 and 3 $PEC_{sw}$ and $PEC_{sed}$ for fluxapyroxad following single/twofold application of 100 g a.s. $ha^{-1}$ to winter cereals**

| Scenario FOCUS | Waterbody / Season | Max. $PEC_{sw}$ [µg $L^{-1}$] | Dominant entry route | 21 d – $PEC_{sw,twa}$ [µg $L^{-1}$] | Max. $PEC_{sed}$ [µg $kg^{-1}$] |
|---|---|---|---|---|---|
| Step 1 | | | | | |
| - | - | 36.780 multiple | - | 35.665 multiple | 244.341 multiple |
| Step 2 | | | | | |
| Northern Europe | March-May | 6.323 multiple | - | 6.123 multiple | 41.943 multiple |
| Southern Europe | March-May | 11.641 multiple | - | 11.402 multiple | 78.134 multiple |
| Step 3 | | | | | |
| D1 | Ditch | 2.477 multiple | Drainage | 2.090 multiple | 17.060 multiple |
| D1 | Stream | 1.560 multiple | Drainage | 1.327 multiple | 8.824 multiple |
| D2 | Ditch | 4.874 multiple | Drainage | 2.175 multiple | 24.240 multiple |
| D2 | Stream | 3.031 multiple | Drainage | 1.243 multiple | 14.290 multiple |
| D3 | Ditch | 0.634 single | Drift | 0.061 multiple | 0.379 multiple |
| D4 | Pond | 0.440 multiple | Drainage | 0.426 multiple | 3.181 multiple |
| D4 | Stream | 0.582 multiple | Drainage | 0.266 multiple | 1.065 multiple |
| D5 | Pond | 0.338 multiple | Drainage | 0.330 multiple | 3.516 multiple |
| D5 | Stream | 0.549 multiple | Drainage | 0.168 multiple | 0.643 multiple |
| D6 | Ditch | 0.697 multiple | Drainage | 0.215 multiple | 1.120 multiple |
| R1 | Pond | 0.167 multiple | Runoff | 0.147 multiple | 1.313 multiple |
| R1 | Stream | 0.956 multiple | Runoff | 0.048 multiple | 1.299 multiple |
| R3 | Stream | 1.535 multiple | Runoff | 0.080 multiple | 1.442 multiple |
| R4 | Stream | 0.845 single and multiple | Runoff | 0.111 multiple | 0.938 single |

**Table 8.9-5: FOCUS Steps 1, 2 and 3 $PEC_{sw}$ and $PEC_{sed}$ for fluxapyroxad following single/twofold application of 100 g a.s. $ha^{-1}$ to spring cereals**

| Scenario FOCUS | Waterbody / Season | Max. $PEC_{sw}$ [µg $L^{-1}$] | Dominant entry route | 21 d – $PEC_{sw,twa}$ [µg $L^{-1}$] | Max. $PEC_{sed}$ [µg $kg^{-1}$] |
|---|---|---|---|---|---|
| Step 1[a] | | | | | |
| - | - | 36.780 multiple | - | 35.665 multiple | 244.341 multiple |
| Step 2[a] | | | | | |
| Northern Europe | March-May | 6.323 multiple | - | 6.123 multiple | 41.943 multiple |
| Southern Europe | March-May | 11.641 multiple | - | 11.402 multiple | 78.134 multiple |
| Step 3 | | | | | |
| D1 | Ditch | 3.306 multiple | Drainage | 3.008 multiple | 23.370 multiple |
| D1 | Stream | 2.068 multiple | Drainage | 1.867 multiple | 12.550 multiple |
| D3 | Ditch | 0.634 single | Drift | 0.095 multiple | 0.381 multiple |
| D4 | Pond | 0.576 multiple | Drainage | 0.574 multiple | 4.1 multiple |
| D4 | Stream | 0.724 multiple | Drainage | 0.428 multiple | 1.404 multiple |
| D5 | Pond | 0.301 multiple | Drainage | 0.299 multiple | 3.189 multiple |
| D5 | Stream | 0.536 single | Drift | 0.255 multiple | 0.569 multiple |
| R4 | Stream | 0.895 multiple | Runoff | 0.275 multiple | 0.982 single |

[a] At Steps 1 and 2 only the crop winter cereals was considered, representing the worst-case in the context of a risk envelope approach

**Table 8.9-6: $PEC_{sed,accu}$ values of fluxapyroxad after multi-year use in winter cereals**

| Crop scenario | Worst-case scenario, Waterbody | $PEC_{sed,max}$ [µg $kg^{-1}$] | $PEC_{sed,plateau}$ [µg $kg^{-1}$] | $PEC_{sed,accu}$ [µg $kg^{-1}$] |
|---|---|---|---|---|
| **Multiple application** | | | | |
| **Winter cereals 1 x 100 g a.s. $ha^{-1}$** | D2, ditch | 24.240 | 84.201 | 108.441 |

**Table 8.9-7: $PEC_{sed,accu}$ values of fluxapyroxad after multi-year use in spring cereals**

| Crop scenario | Worst-case scenario, Waterbody | $PEC_{sed,max}$ [µg $kg^{-1}$] | $PEC_{sed,plateau}$ [µg $kg^{-1}$] | $PEC_{sed,accu}$ [µg $kg^{-1}$] |
|---|---|---|---|---|
| **Multiple application** | | | | |
| **Spring cereals 1 x 100 g a.s. $ha^{-1}$** | D1, ditch | 23.370 | 81.179 | 104.549 |

## $PEC_{sw/sed}$ for fluxapyroxad FOCUS Step 4

**Table 8.9-8: FOCUS Step 4 $PEC_{sw}$ for fluxapyroxad following single/twofold application of 100 g a.s. ha$^{-1}$ to winter cereals**

| $PEC_{sw}$ [µg L$^{-1}$] | Scenario | Step 4 | | | | | |
|---|---|---|---|---|---|---|---|
| Nozzle reduction | Vegetated filter strip (m) | None | None | None | None | 10 | 20 |
| | No-spray buffer (m) | Edge-of-field | 5 | 10 | 20 | 10 | 20 |
| None | D1 ditch | 2.477 multiple | 2.477 multiple | 2.477 multiple | 2.477 multiple | 2.477 multiple | 2.477 multiple |
| 50% | | 2.477 multiple | 2.477 multiple | - | - | - | - |
| None | D1 stream | 1.560 multiple | 1.560 multiple | 1.560 multiple | 1.560 multiple | 1.560 multiple | 1.560 multiple |
| 50% | | 1.560 multiple | 1.560 multiple | - | - | - | - |
| None | D2 ditch | 4.874 multiple | 4.874 multiple | 4.874 multiple | 4.874 multiple | 4.874 multiple | 4.874 multiple |
| 50% | | 4.874 multiple | 4.874 multiple | - | - | - | - |
| None | D2 stream | 3.031 multiple | 3.031 multiple | 3.031 multiple | 3.031 multiple | 3.031 multiple | 3.031 multiple |
| 50% | | 3.031 multiple | 3.031 multiple | - | - | - | - |
| None | D3 ditch | 0.634 single | 0.172 single | 0.091 single | 0.047 single | 0.091 single | 0.047 single |
| 50% | | 0.317 single | 0.086 single | - | - | - | - |
| None | D4 pond | 0.440 multiple | 0.439 multiple | 0.437 multiple | 0.435 multiple | 0.437 multiple | 0.435 multiple |
| 50% | | 0.436 multiple | 0.435 multiple | - | - | - | - |
| None | D4 stream | 0.582 multiple | 0.582 multiple | 0.582 multiple | 0.582 multiple | 0.582 multiple | 0.582 multiple |
| 50% | | 0.582 multiple | 0.582 multiple | - | - | - | - |
| None | D5 pond | 0.338 multiple | 0.338 multiple | 0.338 multiple | 0.338 multiple | 0.338 multiple | 0.338 multiple |
| 50% | | 0.338 multiple | 0.338 multiple | - | - | - | - |
| None | D5 stream | 0.549 multiple | 0.549 multiple | 0.549 multiple | 0.549 multiple | 0.549 multiple | 0.549 multiple |
| 50% | | 0.549 multiple | 0.549 multiple | - | - | - | - |
| None | D6 ditch | 0.697 multiple | 0.697 multiple | 0.697 multiple | 0.697 multiple | 0.697 multiple | 0.697 multiple |
| 50% | | 0.697 multiple | 0.697 multiple | - | - | - | - |
| None | R1 pond | 0.167 multiple | 0.163 multiple | 0.157 multiple | 0.152 multiple | 0.073 multiple | 0.039 multiple |
| 50% | | 0.154 multiple | 0.152 multiple | - | - | - | - |
| None | R1 stream | 0.956 multiple | 0.956 multiple | 0.956 multiple | 0.956 multiple | 0.435 multiple | 0.228 multiple |

**Table 8.9-8: FOCUS Step 4 $PEC_{sw}$ for fluxapyroxad following single/twofold application of 100 g a.s. $ha^{-1}$ to winter cereals**

| $PEC_{sw}$ [µg $L^{-1}$] | Scenario | Step 4 | | | | | |
|---|---|---|---|---|---|---|---|
| Nozzle reduction | Vegetated filter strip (m) | None | None | None | None | 10 | 20 |
| | No-spray buffer (m) | Edge-of-field | 5 | 10 | 20 | 10 | 20 |
| 50% | | 0.956 multiple | 0.956 multiple | - | - | - | - |
| None | R3 stream | 1.535 multiple | 1.535 multiple | 1.535 multiple | 1.535 multiple | 0.701 multiple | 0.368 multiple |
| 50% | | 1.535 multiple | 1.535 multiple | - | - | - | - |
| None | R4 stream | 0.845 single and multiple | 0.845 single and multiple | 0.845 single and multiple | 0.845 single and multiple | 0.385 single and multiple | 0.201 single and multiple |
| 50% | | 0.845 single and multiple | 0.845 single and multiple | - | - | - | - |

**Table 8.9-9: FOCUS Step 4 $PEC_{sw}$ for fluxapyroxad following single/twofold application of 100 g a.s. $ha^{-1}$ to spring cereals**

| $PEC_{sw}$ [µg $L^{-1}$] | Scenario | Step 4 | | | | | |
|---|---|---|---|---|---|---|---|
| Nozzle reduction | Vegetated filter strip (m) | None | None | None | None | 10 | 20 |
| | No-spray buffer (m) | Edge-of-field | 5 | 10 | 20 | 10 | 20 |
| None | D1 ditch | 3.306 multiple | 3.306 multiple | 3.306 multiple | 3.306 multiple | 3.306 multiple | 3.306 multiple |
| 50% | | 3.306 multiple | 3.306 multiple | - | - | - | - |
| None | D1 stream | 2.068 multiple | 2.068 multiple | 2.068 multiple | 2.068 multiple | 2.068 multiple | 2.068 multiple |
| 50% | | 2.068 multiple | 2.068 multiple | - | - | - | - |
| None | D3 ditch | 0.634 single | 0.172 single | 0.091 single | 0.047 single | 0.091 single | 0.047 single |
| 50% | | 0.317 single | 0.086 single | - | - | - | - |
| None | D4 pond | 0.576 multiple | 0.575 multiple | 0.574 multiple | 0.572 multiple | 0.574 multiple | 0.572 multiple |
| 50% | | 0.573 multiple | 0.572 multiple | - | - | - | - |
| None | D4 stream | 0.724 multiple | 0.724 multiple | 0.724 multiple | 0.724 multiple | 0.724 multiple | 0.724 multiple |
| 50% | | 0.724 multiple | 0.724 multiple | - | - | - | - |
| None | D5 pond | 0.301 multiple | 0.301 multiple | 0.301 multiple | 0.301 multiple | 0.301 multiple | 0.301 multiple |
| 50% | | 0.301 multiple | 0.301 multiple | - | - | - | - |
| None | D5 stream | 0.536 single | 0.508 multiple | 0.508 multiple | 0.508 multiple | 0.508 multiple | 0.508 multiple |
| 50% | | 0.508 multiple | 0.508 multiple | - | - | - | - |
| None | R4 stream | 0.895 multiple | 0.895 multiple | 0.895 multiple | 0.895 multiple | 0.407 multiple | 0.213 multiple |
| 50% | | 0.895 multiple | 0.895 multiple | - | - | - | - |

## Metabolites of fluxapyroxad FOCUS STEPS 1-2

**Table 8.9-10: FOCUS Step 1 and 2 $PEC_{sw}$ and $PEC_{sed}$ for the metabolites of fluxapyroxad following single/twofold application of 100 g a.s. $ha^{-1}$ to winter cereals[a]**

| Scenario FOCUS | Season | Max $PEC_{sw}$ [µg $L^{-1}$] | Max $PEC_{sed}$ [µg $kg^{-1}$] |
|---|---|---|---|
| **M700F001** | | | |
| Step 1 | - | 7.153<br>multiple | 0.164<br>multiple |
| Step 2 | | | |
| Northern Europe | Mar-May | 0.798<br>multiple | 0.018<br>multiple |
| Southern Europe | Mar-May | 1.514<br>multiple | 0.035<br>multiple |
| **M700F002** | | | |
| Step 1 | - | 19.816<br>multiple | 1.169<br>multiple |
| Step 2 | | | |
| Northern Europe | Mar-May | 2.404<br>multiple | 0.142<br>multiple |
| Southern Europe | Mar-May | 4.807<br>multiple | 0.284<br>multiple |
| **M700F007** | | | |
| Step 1 | - | 5.564<br>multiple | 0.056<br>multiple |
| Step 2 | | | |
| Northern Europe | Mar-May | 0.955<br>multiple | 0.010<br>multiple |
| Southern Europe | Mar-May | 1.778<br>multiple | 0.018<br>multiple |

[a] At Steps 1 and 2 only the crop winter cereals was considered, which covers the use in spring cereals and represents the worst-case in the context of a risk envelope approach

### 8.9.2.2 Azoxystrobin and its metabolites

| | |
|---|---|
| Comments of zRMS: | The geometric means were used for the Kfoc values, instead of the arithmetic mean values reported in the Review Report, in line with guidance developed since the LoEP of azoxystrobin was determined.<br>The $PEC_{sw}$ calculations for azoxystrobin and its metabolites were provided by the Notifier and are considered acceptable. |

| | |
|---|---|
| Reference: | CP 9.2.5/2 |
| Report | Predicted environmental concentrations of BAS 9164 F – Azoxystrobin and its metabolites in soil, groundwater, surface water and sediment following application to cereals in Central Europe<br>Udita Chatterjee, 2022<br>report No CALC-2760<br>2022/2047818 |
| Guideline(s): | FOCUS Degradation Kinetics (2006) SANCO/10058/2005 version 1.1 (December 2014)<br>FOCUS (2014) Generic guidance for FOCUS Kinetics, v 1.1<br>FOCUS Groundwater Scenarios (2000) Sanco/321/2000 rev. 2<br>FOCUS Groundwater (2014) Sanco/13144/2010 v 3<br>FOCUS Groundwater (2014) Generic Guidance for Tier 1 v 2.2<br>FOCUS Surface Water (2001) SANCO/4802/2001-rev.2 final (May 2003)<br>FOCUS (2007) Landscape and Mitigation Factors in Aquatic Risk Assessment. Volume 1&2<br>FOCUS (2015) Generic guidance for FOCUS surface water scenarios, v1.4 |
| Deviations: | No |
| GLP: | No, not compulsory to PEC reports |
| Acceptability: | Yes |

**Table 8.9-11: Input parameters related to active substance azoxystrobin, R401553, R402173 and R234886 for $PEC_{sw}$ and $PEC_{sed}$ calculations STEPs 1/2 and 3**

| Compound | Azoxystrobin | R234886 | R402173 | R401553 | Value in accordance with EU endpoint / Reference |
|---|---|---|---|---|---|
| Molar mass [g $mol^{-1}$] | 403.4 | 389.4 | 333.3 | 213.2 | Yes, EFSA (2010) |
| Water solubility [mg $L^{-1}$] | 6.0 (20°C) | 57 (25°C) | 61 (25°C) | 560 (25°C) | Yes / EFSA (2010) |
| Saturated vapour pressure [Pa] | $1.1 \times 10^{-10}$ (20°C) (set to 0) | Not required for Step 1/2 | Not required for Step 1/2 | Not required for Step 1/2 | Yes / EFSA (2010) |
| $K_{foc}$ [mL $g^{-1}$] | 392* (geometric mean, n = 6) | **Acidic soils:** 177* (geometric mean, n = 8)<br><br>**Alkaline soils:** 34.8* | 25** (worst case for $PEC_{sw}$, n = 6)<br><br>200** (worst case for $PEC_{sed}$, n = 6) | 143* (geometric mean, n = 6) | *No[a] / EFSA (2010)<br><br>**Yes / EFSA (2010) |

| Compound | Azoxystrobin | R234886 | R402173 | R401553 | Value in accordance with EU endpoint / Reference |
|---|---|---|---|---|---|
| | | (geometric mean, n = 7) | | | |
| Freundlich Exponent 1/n | 0.86 (arithmetic mean, n = 6) | not required for Step 1/2 | not required for Step 1/2 | not required for Step 1/2 | Yes / EFSA (2010) |
| Plant Uptake | ~~0.5~~ 0 | not required for Step 1/2 | not required for Step 1/2 | not required for Step 1/2 | Yes / Weinfurtner, (2013), DAR, 2014 [c] |
| Wash-Off factor from Crop | 0.05 $mm^{-1}$ (MACRO)<br>0.50 $cm^{-1}$ (PRZM) | not required for Step 1/2 | not required for Step 1/2 | not required for Step 1/2 | FOCUS default |
| $DT_{50,soil}$ [d] | 78[b] * (geometric mean field , n =13) | 98.6 ** (geometric mean, acidic soils, n = 5)<br><br>36.7 ** (geometric mean, alkaline soils, n = 7) | 4.7 * (geometric mean, n =3) | 1.1 * (geometric mean, n =3) | * Yes / EFSA (2010)<br>** Yes / DAR (2014)<br><br>normalisation to pF2, 20 °C with $Q_{10}$ of 2.58, n = 5) |
| $DT_{50,water}$ [d] | 205 (Step 2, (geometric mean, total system, n = 2)<br><br>**Option 1:**<br>1000 [c] (Step 3, default)<br><br>**Option 2:**<br>205 [c] (Step 3, geometric mean, total system, n = 2) | 1000 (default value) | 1000 (default value) | 1000 (default value) | Yes / EFSA (2010) |
| $DT_{50,sed}$ [d] | 205 (Step 2, geometric mean, total system, n = 2)<br><br>**Option 1:**<br>205 [c] (Step 3, geometric mean, total system, n = 2)<br><br>**Option 2:**<br>1000 [c] (Step 3, default) | 1000 (default value) | 1000 (default value) | 1000 (default value) | Yes / EFSA (2010) |
| $DT_{50,whole\ system}$ [d] | 205 (geometric mean, normalisation to pF2, 20 °C with $Q_{10}$ of 2.58, n =2) | 1000 (default value) | 1000 (default value) | 1000 (default value) | Yes / EFSA (2010) |

| Compound | Azoxystrobin | R234886 | R402173 | R401553 | Value in accordance with EU endpoint / Reference |
|---|---|---|---|---|---|
| Maximum occurrence observed (% molar basis with respect to the parent) | - | Soil: 28.8[d]<br>Total system: 18.1 | Soil: 17[e]<br>Total system: 2.4[f] | Soil: 17[e]<br>Total system: 8.9[f] | Yes /<br>EFSA (2010) |

[a] differs from the EFSA conclusion as the latest guideline (*EFSA Journal 2014;12(5):3662*) recommends the use of the geometric mean instead of the arithmetic mean. The individual values from which the geometric mean is calculated, are those established in EFSA, 2011.

[b] calculated from the geometric mean of the soil incorporated field studies (80.2 days, n = 3) and the slow phase of the non-incorporated studies (75.9 days, n = 10)

[c] two options were simulated based on FOCUS (2015): Generic guidance for FOCUS surface water scenarios, version 1.4. 367pp

[d] in aerobic laboratory studies

[e] in field studies

[f] in aquatic photolysis studies

**$PEC_{sw/sed}$ of azoxystrobin FOCUS STEPs 1-3**

For actual and time-weighted average values of the $PEC_{sw}$ for azoxystrobin please refer to Appendix 3.

~~**Table 8.9-12: FOCUS Steps 1, 2 and 3 $PEC_{sw}$ and $PEC_{sed}$ for azoxystrobin following single/twofold application of 150 g a.s. $ha^{-1}$ to winter cereals**~~

| ~~Scenario FOCUS~~ | ~~Waterbody / Season~~ | ~~Max. $PEC_{sw}$ [µg $L^{-1}$]~~ | ~~Dominant entry route~~ | ~~21 d – $PEC_{sw,twa}$ [µg $L^{-1}$]~~ | ~~Max. $PEC_{sed}$ [µg $kg^{-1}$]~~ |
|---|---|---|---|---|---|
| ~~Step 1~~ | | | | | |
| ~~-~~ | ~~-~~ | ~~68.433 multiple~~ | ~~-~~ | ~~65.169 multiple~~ | ~~263.653 multiple~~ |
| ~~Step 2~~ | | | | | |
| ~~Northern Europe~~ | ~~March-May~~ | ~~11.290 multiple~~ | ~~-~~ | ~~10.711 multiple~~ | ~~43.330 multiple~~ |
| ~~Southern Europe~~ | ~~March-May~~ | ~~20.838 multiple~~ | ~~-~~ | ~~19.928 -multiple~~ | ~~80.630 multiple~~ |
| ~~Step 3~~ | | | | | |
| ~~D1~~ | ~~Ditch~~ | ~~3.474 multiple~~ | ~~Drainage~~ | ~~3.088 multiple~~ | ~~18.34 Multiple~~ |
| ~~D1~~ | ~~Stream~~ | ~~2.180 multiple~~ | ~~Drainage~~ | ~~1.917 multiple~~ | ~~10.22 multiple~~ |
| ~~D2~~ | ~~Ditch~~ | ~~5.996 multiple~~ | ~~Drainage~~ | ~~2.985 multiple~~ | ~~18.76 multiple~~ |
| ~~D2~~ | ~~Stream~~ | ~~3.774 multiple~~ | ~~Drainage~~ | ~~1.712 multiple~~ | ~~11.19 multiple~~ |
| ~~D3~~ | ~~Ditch~~ | ~~0.951 single~~ | ~~Spray drift~~ | ~~0.092 multiple~~ | ~~0.547 multiple~~ |
| ~~D4~~ | ~~Pond~~ | ~~0.556 multiple~~ | ~~Drainage~~ | ~~0.538 multiple~~ | ~~3.438 multiple~~ |
| ~~D4~~ | ~~Stream~~ | ~~0.793 single~~ | ~~Spray drift~~ | ~~0.344 multiple~~ | ~~1.316 multiple~~ |
| ~~D5~~ | ~~Pond~~ | ~~0.197 multiple~~ | ~~Drainage~~ | ~~0.192 multiple~~ | ~~1.910 multiple~~ |
| ~~D5~~ | ~~Stream~~ | ~~0.762 single~~ | ~~Spray drift~~ | ~~0.098 multiple~~ | ~~0.391 multiple~~ |
| ~~D6~~ | ~~Ditch~~ | ~~0.955 single~~ | ~~Spray drift~~ | ~~0.144 multiple~~ | ~~0.948 multiple~~ |
| ~~R1~~ | ~~Pond~~ | ~~0.276 multiple~~ | ~~Runoff~~ | ~~0.244 multiple~~ | ~~1.574 multiple~~ |
| ~~R1~~ | ~~Stream~~ | ~~1.62 multiple~~ | ~~Runoff~~ | ~~0.081 multiple~~ | ~~1.767 multiple~~ |
| ~~R3~~ | ~~Stream~~ | ~~3.111 multiple~~ | ~~Runoff~~ | ~~0.157 multiple~~ | ~~2.177 multiple~~ |
| ~~R4~~ | ~~Stream~~ | ~~2.841 multiple~~ | ~~Runoff~~ | ~~0.242 multiple~~ | ~~1.612 multiple~~ |

**Table 8.9-13: FOCUS Steps 1, 2 and 3 $PEC_{sw}$ and $PEC_{sed}$ for azoxystrobin following single/twofold application of 150 g a.s. $ha^{-1}$ to spring cereals**

| Scenario FOCUS | Waterbody / Season | Max. $PEC_{sw}$ [µg $L^{-1}$] | Dominant entry route | 21 d – $PEC_{sw,twa}$ [µg $L^{-1}$] | Max. $PEC_{sed}$ [µg $kg^{-1}$] |
|---|---|---|---|---|---|
| | | **Step 1[a]** | | | |
| - | - | 68.433 multiple | - | 65.169 multiple | 263.653 multiple |
| | | **Step 2[a]** | | | |
| Northern Europe | March-May | 11.290 multiple | - | 10.711 multiple | 43.330 multiple |
| Southern Europe | March-May | 20.838 multiple | - | 19.928 -multiple | 80.630 multiple |
| | | **Step 3** | | | |
| D1 | Ditch | 4.183 multiple | Drainage | 3.781 multiple | 24.96 multiple |
| D1 | Stream | 2.617 multiple | Drainage | 2.324 multiple | 13.71 multiple |
| D3 | Ditch | 0.951 single | Spray drift | 0.093 multiple | 0.550 multiple |
| D4 | Pond | 0.689 multiple | Drainage | 0.668 multiple | 4.228 multiple |
| D4 | Stream | 0.778 single | Spray drift | 0.437 multiple | 1.624 multiple |
| D5 | Pond | 0.194 multiple | Drainage | 0.189 multiple | 1.816 multiple |
| D5 | Stream | 0.801 single | Spray drift | 0.096 multiple | 0.381 multiple |
| R4 | Stream | 3.027 multiple | Runoff | 0.326 multiple | 2.379 multiple |

[a] At Steps 1 and 2 only the crop winter cereals was considered, representing the worst-case in the context of a risk envelope approach

**Table 8.9-14: FOCUS Steps 1, 2 and 3 $PEC_{sw}$ and $PEC_{sed}$ for azoxystrobin following single application of 150 g a.s. $ha^{-1}$ to winter cereals, PUF 0**

| Scenario FOCUS | Waterbody / Season | Max. $PEC_{sw}$ [µg $L^{-1}$] | Dominant entry route | 21 d – $PEC_{sw,twa}$ [µg $L^{-1}$] | Max. $PEC_{sed}$ [µg $kg^{-1}$] |
|---|---|---|---|---|---|
| **Step 1** | | | | | |
| - | - | 68.433 | - | 65.169 | 263.653 |
| **Step 2** | | | | | |
| Northern Europe | March-May | 6.080 | - | 5.760 | 23.301 |
| Southern Europe | March-May | 11.150 | - | 10.655 | 43.110 |
| **Step 3** | | | | | |
| D1 | Ditch | 1.701 | Drainage | 1.555 | 9.414 |
| D1 | Stream | 1.071 | Drainage | 1.966 | 5.220 |
| D2 | Ditch | 3.957 | Drainage | 1.813 | 9.880 |
| D2 | Stream | 2.490 | Drainage | 1.043 | 5.864 |
| D3 | Ditch | 0.950 | Spray drift | 0.049 | 0.461 |
| D4 | Pond | 0.219 | Drainage | 0.212 | 0.510 |
| D4 | Stream | 0.793 | Spray drift | 0.131 | 0.548 |
| D5 | Pond | 0.097 | Spray drift | 0.090 | 0.854 |
| D5 | Stream | 0.762 | Spray drift | 0.045 | 0.191 |
| D6 | Ditch | 0.955 | Spray drift | 0.102 | 0.797 |
| R1 | Pond | 0.134 | Runoff | 0.120 | 0.784 |
| R1 | Stream | 1.279 | Runoff | 0.082 | 0.591 |
| R3 | Stream | 1.362 | Runoff | 0.063 | 0.913 |
| R4 | Stream | 1.298 | Runoff | 0.105 | 0.698 |

**Table 8.9-15: FOCUS Steps 1, 2 and 3 $PEC_{sw}$ and $PEC_{sed}$ for azoxystrobin following twofold application of 150 g a.s. $ha^{-1}$ to winter cereals, PUF 0**

| Scenario FOCUS | Waterbody / Season | Max. $PEC_{sw}$ [µg $L^{-1}$] | Dominant entry route | 21 d – $PEC_{sw,twa}$ [µg $L^{-1}$] | Max. $PEC_{sed}$ [µg $kg^{-1}$] |
|---|---|---|---|---|---|
| **Step 1** | | | | | |
| - | - | 68.433 | - | 65.169 | 263.653 |
| **Step 2** | | | | | |
| Northern Europe | March-May | 11.290 | - | 10.711 | 43.330 |
| Southern Europe | March-May | 20.838 | - | 19.928 | 80.630 |
| **Step 3** | | | | | |
| D1 | Ditch | 3.491 | Drainage | 3.104 | 16.30 |
| D1 | Stream | 2.190 | Drainage | 1.926 | 10.09 |
| D2 | Ditch | 6.484 | Drainage | 3.251 | 18.09 |
| D2 | Stream | 4.081 | Drainage | 1.864 | 10.78 |
| D3 | Ditch | 0.831 | Spray drift | 0.087 | 0.523 |
| D4 | Pond | 0.563 | Drainage | 0.545 | 3.466 |
| D4 | Stream | 0.711 | Spray drift | 0.349 | 1.321 |
| D5 | Pond | 0.198 | Spray drift | 0.193 | 1.784 |
| D5 | Stream | 0.729 | Spray drift | 0.099 | 0.390 |
| D6 | Ditch | 0.836 | Spray drift | 0.144 | 0.937 |
| R1 | Pond | 0.278 | Runoff | 0.246 | 1.6 |
| R1 | Stream | 1.633 | Runoff | 0.082 | 1.762 |
| R3 | Stream | 3.128 | Runoff | 0.158 | 2.184 |
| R4 | Stream | 1.603 | Runoff | 0.189 | 1.383 |

**Table 8.9-16: FOCUS Steps 1, 2 and 3 $PEC_{sw}$ and $PEC_{sed}$ for azoxystrobin following single application of 150 g a.s. $ha^{-1}$ to spring cereals, PUF 0**

| Scenario FOCUS | Waterbody / Season | Max. $PEC_{sw}$ [µg $L^{-1}$] | Dominant entry route | 21 d – $PEC_{sw,twa}$ [µg $L^{-1}$] | Max. $PEC_{sed}$ [µg $kg^{-1}$] |
|---|---|---|---|---|---|
| **Step 1[a]** | | | | | |
| - | - | 68.433 | - | 65.169 | 263.653 |
| **Step 2[a]** | | | | | |
| Northern Europe | March-May | 6.080 | - | 5.760 | 23.301 |
| Southern Europe | March-May | 11.150 | - | 10.655 | 43.110 |
| **Step 3** | | | | | |
| D1 | Ditch | 2.436 | Drainage | 2.177 | 14.030 |
| D1 | Stream | 1.526 | Drainage | 1.351 | 7.809 |
| D3 | Ditch | 0.950 | Spray drift | 0.049 | 0.461 |
| D4 | Pond | 0.311 | Drainage | 0.301 | 2.056 |
| D4 | Stream | 0.778 | Drainage | 0.193 | 0.767 |
| D5 | Pond | 0.099 | Drainage | 0.097 | 0.904 |
| D5 | Stream | 0.801 | Spray drift | 0.049 | 0.205 |
| R4 | Stream | 1.770 | Runoff | 0.198 | 1.441 |

[a] At Steps 1 and 2 only the crop winter cereals was considered, representing the worst-case in the context of a risk envelope approach

**Table 8.9-17: FOCUS Steps 1, 2 and 3 $PEC_{sw}$ and $PEC_{sed}$ for azoxystrobin following twofold application of 150 g a.s. $ha^{-1}$ to spring cereals, PUF 0**

| Scenario FOCUS | Waterbody / Season | Max. $PEC_{sw}$ [µg $L^{-1}$] | Dominant entry route | 21 d – $PEC_{sw,twa}$ [µg $L^{-1}$] | Max. $PEC_{sed}$ [µg $kg^{-1}$] |
|---|---|---|---|---|---|
| **Step 1[a]** | | | | | |
| - | - | 68.433 | - | 65.169 | 263.653 |
| **Step 2[a]** | | | | | |
| Northern Europe | March-May | 11.290 | - | 10.711 | 43.330 |
| Southern Europe | March-May | 20.838 | - | 19.928 | 80.630 |
| **Step 3** | | | | | |
| D1 | Ditch | 4.190 | Drainage | 3.785 | 22.22 |
| D1 | Stream | 2.621 | Drainage | 2.326 | 12.75 |
| D3 | Ditch | 0.831 | Spray drift | 0.088 | 0.526 |
| D4 | Pond | 0.695 | Drainage | 0.673 | 4.227 |
| D4 | Stream | 0.714 | Drainage | 0.440 | 1.612 |
| D5 | Pond | 0.196 | Drainage | 0.191 | 1.707 |
| D5 | Stream | 0.721 | Spray drift | 0.097 | 0.384 |
| R4 | Stream | 1.771 | Runoff | 0.201 | 1.439 |

[a] At Steps 1 and 2 only the crop winter cereals was considered, representing the worst-case in the context of a risk envelope approach

## $PEC_{sw}$ of azoxystrobin - FOCUS Step 4 winter cereals

**Table 8.9-18: Global maximum $PEC_{sw}$ values for azoxystrobin, following single application (1 x 150 g a.s./ha) to cereals, winter according to surface water Step 4**

| $PEC_{sw}$ (µg/L) | Scenario | Step 4 | | | | |
|---|---|---|---|---|---|---|
| Nozzle reduction | Vegetative strip (m) | Edge of field | None | None | 10 | 20 |
| | No spray buffer (m) | | 10 | 20 | 10 | 20 |
| None | D1 ditch | 1.692 | 1.692 | 1.692 | | |
| 50 % | D1 ditch | | 1.692 | 1.692 | | |
| None | D1 stream | 1.066 | 1.066 | 1.066 | | |
| 50 % | D1 stream | | 1.066 | 1.066 | | |
| None | D2 ditch | 3.714 | 3.714 | 3.714 | | |
| 50 % | D2 ditch | | 3.714 | 3.714 | | |
| None | D2 stream | 2.337 | 2.337 | 2.337 | | |
| 50 % | D2 stream | | 2.337 | 2.337 | | |
| None | D3 ditch | 0.951 | 0.137 | 0.071 | | |
| 50 % | D3 ditch | | 0.068 | 0.036 | | |
| None | D4 pond | 0.215 | 0.213 | 0.212 | | |
| 50 % | D4 pond | | 0.211 | 0.210 | | |
| None | D4 stream | 0.793 | 0.254 | 0.254 | | |
| 50 % | D4 stream | | 0.254 | 0.254 | | |
| None | D5 pond | 0.096 | 0.091 | 0.091 | | |
| 50 % | D5 pond | | 0.091 | 0.091 | | |
| None | D5 stream | 0.762 | 0.151 | 0.146 | | |
| 50 % | D5 stream | | 0.146 | 0.146 | | |
| None | D6 ditch | 0.955 | 0.215 | 0.215 | | |
| 50 % | D6 ditch | | 0.215 | 0.215 | | |
| None | R1 pond | 0.132 | | | 0.057 | 0.031 |
| 50 % | R1 pond | | | | 0.052 | 0.027 |
| None | R1 stream | 1.266 | | | 0.575 | 0.301 |
| 50 % | R1 stream | | | | 0.575 | 0.301 |
| None | R3 stream | 1.350 | | | 0.616 | 0.323 |
| 50 % | R3 stream | | | | 0.616 | 0.323 |
| None | R4 stream | 1.265 | | | 0.571 | 0.298 |
| 50 % | R4 stream | | | | 0.571 | 0.298 |

**Table 8.9-19: Global maximum $PEC_{sw}$ values for azoxystrobin, following multiple applications (2 x 150 g a.s./ha) to cereals, winter according to surface water Step 4**

| $PEC_{sw}$ (µg/L) | Scenario | Step 4 | | | | |
|---|---|---|---|---|---|---|
| Nozzle reduction | Vegetative strip (m) | Edge of field | None | None | 10 | 20 |
| | No spray buffer (m) | | 10 | 20 | 10 | 20 |
| None | D1 ditch | 3.474 | 3.474 | 3.474 | | |
| 50 % | D1 ditch | | 3.474 | 3.474 | | |
| None | D1 stream | 2.180 | 2.180 | 2.180 | | |
| 50 % | D1 stream | | 2.180 | 2.180 | | |
| None | D2 ditch | 5.996 | 5.996 | 5.996 | | |
| 50 % | D2 ditch | | 5.996 | 5.996 | | |
| None | D2 stream | 3.774 | 3.774 | 3.774 | | |
| 50 % | D2 stream | | 3.774 | 3.774 | | |
| None | D3 ditch | 0.831 | 0.112 | 0.057 | | |
| 50 % | D3 ditch | | 0.056 | 0.029 | | |
| None | D4 pond | 0.556 | 0.551 | 0.549 | | |
| 50 % | D4 pond | | 0.548 | 0.547 | | |
| None | D4 stream | 0.711 | 0.578 | 0.578 | | |
| 50 % | D4 stream | | 0.578 | 0.578 | | |
| None | D5 pond | 0.197 | 0.197 | 0.197 | | |
| 50 % | D5 pond | | 0.197 | 0.197 | | |
| None | D5 stream | 0.729 | 0.304 | 0.304 | | |
| 50 % | D5 stream | | 0.304 | 0.304 | | |
| None | D6 ditch | 0.836 | 0.394 | 0.394 | | |
| 50 % | D6 ditch | | 0.394 | 0.394 | | |
| None | R1 pond | 0.276 | | | 0.119 | 0.063 |
| 50 % | R1 pond | | | | 0.108 | 0.056 |
| None | R1 stream | 1.620 | | | 0.737 | 0.386 |
| 50 % | R1 stream | | | | 0.737 | 0.386 |
| None | R3 stream | 3.111 | | | 1.420 | 0.745 |
| 50 % | R3 stream | | | | 1.420 | 0.745 |
| None | R4 stream | 2.841 | | | 1.282 | 0.669 |
| 50 % | R4 stream | | | | 1.282 | 0.669 |

**Table 8.9-20: Global maximum $PEC_{sw}$ values for azoxystrobin, following single application (1 x 150 g a.s./ha) to cereals, winter according to surface water Step 4, PUF 0**

| $PEC_{sw}$ (µg/L) | Scenario | Step 4 | | | | |
|---|---|---|---|---|---|---|
| Nozzle reduction | Vegetative strip (m) | Edge of field | None | None | 10 | 20 |
| | No spray buffer (m) | | 10 | 20 | 10 | 20 |
| None | D1 ditch | 1.701 | 1.701 | 1.701 | | |
| 50 % | D1 ditch | | 1.701 | 1.701 | | |
| None | D1 stream | 1.071 | 1.071 | 1.071 | | |
| 50 % | D1 stream | | 1.071 | 1.071 | | |
| None | D2 ditch | 3.957 | 3.957 | 3.957 | | |
| 50 % | D2 ditch | | 3.957 | 3.957 | | |
| None | D2 stream | 2.490 | 2.490 | 2.490 | | |
| 50 % | D2 stream | | 2.490 | 2.490 | | |
| None | D3 ditch | 0.950 | 0.137 | 0.071 | | |
| 50 % | D3 ditch | | 0.068 | 0.035 | | |
| None | D4 pond | 0.219 | 0.217 | 0.216 | | |
| 50 % | D4 pond | | 0.215 | 0.214 | | |
| None | D4 stream | 0.793 | 0.259 | 0.259 | | |
| 50 % | D4 stream | | 0.259 | 0.259 | | |
| None | D5 pond | 0.097 | 0.092 | 0.092 | | |
| 50 % | D5 pond | | 0.092 | 0.092 | | |
| None | D5 stream | 0.762 | 0.151 | 0.148 | | |
| 50 % | D5 stream | | 0.148 | 0.148 | | |
| None | D6 ditch | 0.955 | 0.219 | 0.219 | | |
| 50 % | D6 ditch | | 0.219 | 0.219 | | |
| None | R1 pond | 0.134 | | | 0.058 | 0.031 |
| 50 % | R1 pond | | | | 0.052 | 0.027 |
| None | R1 stream | 1.279 | | | 0.581 | 0.304 |
| 50 % | R1 stream | | | | 0.581 | 0.304 |
| None | R3 stream | 1.362 | | | 0.622 | 0.326 |
| 50 % | R3 stream | | | | 0.622 | 0.326 |
| None | R4 stream | 1.298 | | | 0.586 | 0.306 |
| 50 % | R4 stream | | | | 0.586 | 0.306 |

**Table 8.9-21: Global maximum $PEC_{sw}$ values for azoxystrobin, following multiple applications (2 x 150 g a.s./ha) to cereals, winter according to surface water Step 4, PUF 0**

| $PEC_{sw}$ (µg/L) | Scenario | Step 4 | | | | |
|---|---|---|---|---|---|---|
| Nozzle reduction | Vegetative strip (m) / No spray buffer (m) | Edge of field | None / 10 | None / 20 | 10 / 10 | 20 / 20 |
| None | D1 ditch | 3.491 | 3.491 | 3.491 | | |
| 50 % | D1 ditch | | 3.491 | 3.491 | | |
| None | D1 stream | 2.190 | 2.190 | 2.190 | | |
| 50 % | D1 stream | | 2.190 | 2.190 | | |
| None | D2 ditch | 6.484 | 6.484 | 6.484 | | |
| 50 % | D2 ditch | | 6.484 | 6.484 | | |
| None | D2 stream | 4.081 | 4.081 | 4.081 | | |
| 50 % | D2 stream | | 4.081 | 4.081 | | |
| None | D3 ditch | 0.831 | 0.112 | 0.057 | | |
| 50 % | D3 ditch | | 0.056 | 0.028 | | |
| None | D4 pond | 0.563 | 0.559 | 0.557 | | |
| 50 % | D4 pond | | 0.555 | 0.554 | | |
| None | D4 stream | 0.711 | 0.585 | 0.585 | | |
| 50 % | D4 stream | | 0.585 | 0.585 | | |
| None | D5 pond | 0.198 | 0.198 | 0.198 | | |
| 50 % | D5 pond | | 0.198 | 0.198 | | |
| None | D5 stream | 0.729 | 0.307 | 0.307 | | |
| 50 % | D5 stream | | 0.307 | 0.307 | | |
| None | D6 ditch | 0.836 | 0.400 | 0.400 | | |
| 50 % | D6 ditch | | 0.400 | 0.400 | | |
| None | R1 pond | 0.278 | | | 0.120 | 0.064 |
| 50 % | R1 pond | | | | 0.109 | 0.056 |
| None | R1 stream | 1.633 | | | 0.743 | 0.389 |
| 50 % | R1 stream | | | | 0.743 | 0.389 |
| None | R3 stream | 3.128 | | | 1.428 | 0.749 |
| 50 % | R3 stream | | | | 1.428 | 0.749 |
| None | R4 stream | 1.603 | | | 0.730 | 0.382 |
| 50 % | R4 stream | | | | 0.730 | 0.382 |

**$PEC_{sw}$ of azoxystrobin - FOCUS Step 4 spring cereals**

**Table 8.9-22: Global maximum $PEC_{sw}$ values for azoxystrobin, following single application (1 x 150 g a.s./ha) to cereals, spring according to surface water Step 4**

| $PEC_{sw}$ (µg/L) | Scenario | Step 4 | | | | |
|---|---|---|---|---|---|---|
| Nozzle reduction | Vegetative strip (m) | Edge of field | None | None | 10 | 20 |
| | No spray buffer (m) | | 10 | 20 | 10 | 20 |
| None | D1 ditch | 2.429 | 2.429 | 2.429 | | |
| 50 % | D1 ditch | | 2.429 | 2.429 | | |
| None | D1 stream | 1.521 | 1.521 | 1.521 | | |
| 50 % | D1 stream | | 1.521 | 1.521 | | |
| None | D3 ditch | 0.951 | 0.137 | 0.071 | | |
| 50 % | D3 ditch | | 0.068 | 0.036 | | |
| None | D4 pond | 0.307 | 0.305 | 0.304 | | |
| 50 % | D4 pond | | 0.304 | 0.303 | | |
| None | D4 stream | 0.778 | 0.342 | 0.342 | | |
| 50 % | D4 stream | | 0.342 | 0.342 | | |
| None | D5 pond | 0.098 | 0.098 | 0.098 | | |
| 50 % | D5 pond | | 0.098 | 0.098 | | |
| None | D5 stream | 0.801 | 0.157 | 0.156 | | |
| 50 % | D5 stream | | 0.156 | | | |
| None | R4 stream | 1.769 | | | 0.798 | 0.417 |
| 50 % | R4 stream | | | | 0.798 | 0.417 |

**~~Table 8.9-23: Global maximum $PEC_{sw}$ values for azoxystrobin, following multiple applications (2 x 150 g a.s./ha) to cereals, spring according to surface water Step 4~~**

| ~~$PEC_{sw}$ (µg/L)~~ | ~~Scenario~~ | ~~Step 4~~ | | | | |
|---|---|---|---|---|---|---|
| ~~Nozzle reduction~~ | ~~Vegetative strip (m)~~ | ~~Edge of field~~ | ~~None~~ | ~~None~~ | ~~10~~ | ~~20~~ |
| | ~~No spray buffer (m)~~ | | ~~10~~ | ~~20~~ | ~~10~~ | ~~20~~ |
| ~~None~~ | ~~D1 ditch~~ | ~~4.183~~ | ~~4.183~~ | ~~4.183~~ | | |
| ~~50 %~~ | ~~D1 ditch~~ | | ~~4.183~~ | ~~4.183~~ | | |
| ~~None~~ | ~~D1 stream~~ | ~~2.617~~ | ~~2.617~~ | ~~2.617~~ | | |
| ~~50 %~~ | ~~D1 stream~~ | | ~~2.617~~ | ~~2.617~~ | | |
| ~~None~~ | ~~D3 ditch~~ | ~~0.832~~ | ~~0.112~~ | ~~0.057~~ | | |
| ~~50 %~~ | ~~D3 ditch~~ | | ~~0.056~~ | ~~0.029~~ | | |
| ~~None~~ | ~~D4 pond~~ | ~~0.689~~ | ~~0.685~~ | ~~0.683~~ | | |
| ~~50 %~~ | ~~D4 pond~~ | | ~~0.682~~ | ~~0.681~~ | | |
| ~~None~~ | ~~D4 stream~~ | ~~0.709~~ | ~~0.708~~ | ~~0.708~~ | | |
| ~~50 %~~ | ~~D4 stream~~ | | ~~0.708~~ | ~~0.708~~ | | |
| ~~None~~ | ~~D5 pond~~ | ~~0.194~~ | ~~0.194~~ | ~~0.194~~ | | |
| ~~50 %~~ | ~~D5 pond~~ | | ~~0.194~~ | ~~0.194~~ | | |
| ~~None~~ | ~~D5 stream~~ | ~~0.721~~ | ~~0.298~~ | ~~0.298~~ | | |
| ~~50 %~~ | ~~D5 stream~~ | | ~~0.298~~ | ~~0.298~~ | | |
| ~~None~~ | ~~R4 stream~~ | ~~3.027~~ | | | ~~1.361~~ | ~~0.710~~ |
| ~~50 %~~ | ~~R4 stream~~ | | | | ~~1.361~~ | ~~0.710~~ |

**Table 8.9-24: Global maximum $PEC_{sw}$ values for azoxystrobin, following single application (1 x 150 g a.s./ha) to cereals, spring according to surface water Step 4, PUF 0**

| $PEC_{sw}$ (µg/L) | Scenario | Step 4 | | | | |
|---|---|---|---|---|---|---|
| Nozzle reduction | Vegetative strip (m) | Edge of field | None | None | 10 | 20 |
| | No spray buffer (m) | | 10 | 20 | 10 | 20 |
| None | D1 ditch | 2.436 | 2.436 | 2.436 | | |
| 50 % | D1 ditch | | 2.436 | 2.436 | | |
| None | D1 stream | 1.526 | 1.526 | 1.526 | | |
| 50 % | D1 stream | | 1.526 | 1.526 | | |
| None | D3 ditch | 0.950 | 0.137 | 0.071 | | |
| 50 % | D3 ditch | | 0.068 | 0.035 | | |
| None | D4 pond | 0.311 | 0.309 | 0.308 | | |
| 50 % | D4 pond | | 0.307 | 0.307 | | |
| None | D4 stream | 0.778 | 0.346 | 0.346 | | |
| 50 % | D4 stream | | 0.346 | 0.346 | | |
| None | D5 pond | 0.099 | 0.099 | 0.099 | | |
| 50 % | D5 pond | | 0.099 | 0.099 | | |
| None | D5 stream | 0.801 | 0.157 | 0.157 | | |
| 50 % | D5 stream | | 0.157 | 0.157 | | |
| None | R4 stream | 1.770 | | | 0.799 | 0.417 |
| 50 % | R4 stream | | | | 0.799 | 0.417 |

**Table 8.9-25: Global maximum $PEC_{sw}$ values for azoxystrobin, following multiple applications (2 x 150 g a.s./ha) to cereals, spring according to surface water Step 4, PUF 0**

| $PEC_{sw}$ (µg/L) | Scenario | Step 4 | | | | |
|---|---|---|---|---|---|---|
| Nozzle reduction | Vegetative strip (m) | Edge of field | None | None | 10 | 20 |
| | No spray buffer (m) | | 10 | 20 | 10 | 20 |
| None | D1 ditch | 4.190 | 4.190 | 4.190 | | |
| 50 % | D1 ditch | | 4.190 | 4.190 | | |
| None | D1 stream | 2.621 | 2.621 | 2.621 | | |
| 50 % | D1 stream | | 2.621 | 2.621 | | |
| None | D3 ditch | 0.831 | 0.112 | 0.057 | | |
| 50 % | D3 ditch | | 0.056 | 0.028 | | |
| None | D4 pond | 0.695 | 0.691 | 0.689 | | |
| 50 % | D4 pond | | 0.688 | 0.687 | | |
| None | D4 stream | 0.714 | 0.714 | 0.714 | | |
| 50 % | D4 stream | | 0.714 | 0.714 | | |
| None | D5 pond | 0.196 | 0.196 | 0.196 | | |
| 50 % | D5 pond | | 0.196 | 0.196 | | |
| None | D5 stream | 0.721 | 0.302 | 0.302 | | |
| 50 % | D5 stream | | 0.302 | 0.302 | | |
| None | R4 stream | 1.771 | | | 0.799 | 0.417 |
| 50 % | R4 stream | | | | 0.799 | 0.417 |

## Metabolites of azoxystrobin FOCUS STEPS 1-2

**Table 8.9-26: FOCUS Step 1 and 2 $PEC_{sw}$ and $PEC_{sed}$ for the metabolites of azoxystrobin following single/twofold application of 150 g a.s. $ha^{-1}$ to winter cereals[a]**

| Scenario FOCUS | Season | Max $PEC_{sw}$ [µg $L^{-1}$] | Max $PEC_{sed}$ [µg $kg^{-1}$] |
|---|---|---|---|
| **R234886** | | | |
| Step 1 | - | 44.135<br>multiple | 134.334<br>multiple |
| Step 2 | | | |
| Northern Europe | Mar-May | 6.864<br>multiple | 20.887<br>multiple |
| Southern Europe | Mar-May | 13.323<br>multiple | 40.550<br>multiple |
| **R401553** | | | |
| Step 1 | - | 11.631<br>multiple | 16.545<br>multiple |
| Step 2 | | | |
| Northern Europe | Mar-May | 0.724<br>multiple | 1.024<br>multiple |
| Southern Europe | Mar-May | 1.347<br>multiple | 1.912<br>multiple |
| **R402173** | | | |
| Step 1 | - | 15.567<br>multiple | 25.377<br>multiple |
| Step 2 | | | |
| Northern Europe | Mar-May | 1.005<br>multiple | 1.638<br>multiple |
| Southern Europe | Mar-May | 1.964<br>multiple | 3.201<br>multiple |

[a] At Steps 1 and 2 only the crop winter cereals was considered, which covers the use in spring cereals and represents the worst-case in the context of a risk envelope approach

### 8.9.2.3 $PEC_{sw/sed}$ of the formulated product BAS 736 00 F

The maximum concentration in surface water for the formulation BAS 736 00 F from entry through spray drift following single application is provided for the application of 2 L product $ha^{-1}$. For the assessment, the FOCUS drift calculator which is implemented in FOCUS SWASH 5.3 was used and a static water body of 30 cm depth was assumed (i.e. FOCUS ditch).

**Table 8.9-27: Initial $PEC_{SW}$ for BAS 736 00 F following single application to cereals**

| Mitigation measures | Application rate of formulation [L $ha^{-1}$] | Formulation density [g $cm^{-3}$] | Application rate of formulation [g $ha^{-1}$] | Areic mean Deposition [%] | Formulation $PEC_{sw,max}$ [µg $L^{-1}$] |
|---|---|---|---|---|---|
| 1m D | 2 | 1.078 | 2156 | 1.93 | 13.852 |
| 5m D | 2 | 1.078 | 2156 | 0.52 | 3.754 |
| 10m D | 2 | 1.078 | 2156 | 0.28 | 1.991 |
| 20m D | 2 | 1.078 | 2156 | 0.14 | 1.035 |

D = Drift mitigation with no-spray buffer zones

## 8.10 Fate and behaviour in air (KCP 9.3, KCP 9.3.1)

**Review Comments:**
The data on atmospheric degradation and behaviour in air for fluxapyroxad and azoxystrobin provided by the Applicant are considered acceptable. The justification for non-assessment via volatilization is accepted. Both active substances are regarded as non-volatile and, consequently, exposure of adjacent surface waters and terrestrial ecosystems by fluxapyroxad and azoxystrobin due to volatilization with subsequent deposition is not expected.

### 8.10.1 Fluxapyroxad

The fate and behaviour in air of fluxapyroxad was evaluated during Annex I inclusion [*EFSA Journal 2012;10(1):2522*]. No additional studies have been performed.

**Table 8.10-1: Summary of atmospheric degradation and behaviour**

| Compound | Fluxapyroxad |
|---|---|
| Direct photolysis in air | Not studied - no data requested |
| Quantum yield of direct phototransformation | Not studied - no data requested |
| Photochemical oxidative degradation in air | $DT_{50}$ (h): 16.6, derived by the Atkinson model<br>OH (12h) concentration assumed = 1.5 x $10^6$ radicals $cm^{-3}$ |
| Volatilisation | Vapour pressure [Pa]: 2.7 x $10^{-9}$ (20 °C)<br>Henry's Law Constant [Pa $m^3$ $mol^{-1}$]: 3.028 x $10^{-7}$ |
| Metabolites | - |

The vapour pressure at 20°C of the active substance fluxapyroxad is <$10^{-5}$ Pa. Hence, the active substance fluxapyroxad is regarded as non-volatile. Therefore, exposure of adjacent surface waters and terrestrial ecosystems by the active substance fluxapyroxad due to volatilization with subsequent deposition should be considered.

### 8.10.2 Azoxystrobin

The fate and behaviour of azoxystrobin in air are considered to be data provided in support of the active substance. All relevant detailed experimental information has been submitted for EU review of azoxystrobin (*EFSA Journal 2010; 8(4): 1542*).

**Table 8.10-2: Summary of atmospheric degradation and behaviour**

| Compound | Azoxystrobin |
|---|---|
| Direct photolysis in air [a] | - |
| Quantum yield of direct phototransformation [a] | - |
| Photochemical oxidative degradation in air | $DT_{50}$ (h): 2.7 derived by the Atkinson model |
| Volatilisation | Vapour pressure [Pa]: 1.1 x $10^{-10}$ (at 20°C)<br>Henry's Law Constant [Pa $m^3$ $mol^{-1}$]: 7.3 x $10^{-9}$ (at 25°C) |
| Metabolites | - |

[a] data not currently available

The vapour pressure at 20 °C of the active substance azoxystrobin is < $10^{-5}$ Pa. Hence the active substance azoxystrobin is regarded as non-volatile. Therefore, exposure of adjacent surface waters and terrestrial ecosystems by the active substance azoxystrobin due to volatilization with subsequent deposition should not be considered.

# Appendix 1 Lists of data considered in support of the evaluation

## List of data submitted by the applicant and relied on

| Data point | Author(s) | Year | Title<br>Company Report No.<br>Source (where different from company)<br>GLP or GEP status<br>Published or not | Vertebrate study<br>Y/N | Owner |
|---|---|---|---|---|---|
| KCP 9.1.3/1 | Mendez Gutierrez A. | 2018 | Predicted environmental concentrations of BAS 700 F – Fluxapyroxad and its metabolites in soil, groundwater, surface water and sediment following application to cereals in Europe considering endpoints according to Focus<br>2018/1099939<br>Dr. Knoell Consult GmbH, Mannheim, Germany Fed.Rep.<br>no<br>Unpublished | No | BASF |
| KCP 9.1.3/2 | Udita Chatterjee | 2022 | Predicted environmental concentrations of BAS 9164 F – Azoxystrobin and its metabolites in soil, groundwater, surface water and sediment following application to cereals in Central Europe<br>2022/2047818<br>M/S Scientific Associates Chetana, West Bengal, India<br>no<br>Unpublished | No | BASF |
| KCP 9.2.4.1/1 | Mendez Gutierrez A. | 2018 | Predicted environmental concentrations of BAS 700 F – Fluxapyroxad and its metabolites in soil, groundwater, surface water and sediment following application to cereals in Europe considering endpoints according to Focus<br>2018/1099939<br>Dr. Knoell Consult GmbH, Mannheim, Germany Fed.Rep.<br>no<br>Unpublished | No | BASF |
| KCP 9.1.4.1/2 | Udita Chatterjee | 2022 | Predicted environmental concentrations of BAS 9164 F – Azoxystrobin and its metabolites in soil, groundwater, surface water and sediment following application to cereals in Central Europe<br>2022/2047818<br>M/S Scientific Associates Chetana, West Bengal, India<br>no<br>Unpublished | No | BASF |

| Data point | Author(s) | Year | Title<br>Company Report No.<br>Source (where different from company)<br>GLP or GEP status<br>Published or not | Vertebrate study<br>Y/N | Owner |
|---|---|---|---|---|---|
| KCP 9.2.5/1 | Mendez Gutierrez A. | 2018 | Predicted environmental concentrations of BAS 700 F – Fluxapyroxad and its metabolites in soil, groundwater, surface water and sediment following application to cereals in Europe considering endpoints according to Focus<br>2018/1099939<br>Dr. Knoell Consult GmbH, Mannheim, Germany Fed.Rep.<br>no<br>Unpublished | No | BASF |
| KCP 9.2.3/2 | Udita Chatterjee | 2022 | Predicted environmental concentrations of BAS 9164 F – Azoxystrobin and its metabolites in soil, groundwater, surface water and sediment following application to cereals in Central Europe<br>2022/2047818<br>M/S Scientific Associates Chetana, West Bengal, India<br>no<br>Unpublished | No | BASF |

**List of data submitted or referred to by the applicant and relied on, but already evaluated at EU peer review**

BAS 736 00 F is a new product, no product studies have been evaluated previously.

The following tables are to be completed by MS

**List of data submitted by the applicant and not relied on**

| Data point | Author(s) | Year | Title<br>Company Report No.<br>Source (where different from company)<br>GLP or GEP status<br>Published or not | Vertebrate study Y/N | Owner |
|---|---|---|---|---|---|
| KCP XX | Author | YYYY | Title<br>Company Report N<br>Source<br>GLP/non GLP/GEP/non GEP<br>Published/Unpublished | Y/N | Owner |
| | | | | | |

**List of data relied on not submitted by the applicant but necessary for evaluation**

| Data point | Author(s) | Year | Title<br>Company Report No.<br>Source (where different from company)<br>GLP or GEP status<br>Published or not | Vertebrate study Y/N | Owner |
|---|---|---|---|---|---|
| KCP XX | Author | YYYY | Title<br>Company Report N<br>Source<br>GLP/non GLP/GEP/non GEP<br>Published/Unpublished | Y/N | Owner |
| | | | | | |

# Appendix 2 Detailed evaluation of the new Annex II studies

Not applicable.

# Appendix 3 Additional information provided by the applicant (e.g. detailed modelling data)

**Table A 1: FOCUS Steps 3 $PEC_{sw}$ and $PEC_{sed}$ for azoxystrobin following single/twofold application of 150 g a.s. $ha^{-1}$ to winter cereals ($DT_{50}$ water = 1000 days, $DT_{50}$ sediment = 205 days)**

| Scenario FOCUS | Waterbody / Season | Max. $PEC_{sw}$ [µg $L^{-1}$] | Dominant entry route | 21 d – $PEC_{sw,twa}$ [µg $L^{-1}$] | Max. $PEC_{sed}$ [µg $kg^{-1}$] |
|---|---|---|---|---|---|
| **Step 3** | | | | | |
| D1 | Ditch | 3.474 multiple | Drainage | 3.088 multiple | 16.21 multiple |
| D1 | Stream | 2.180 multiple | Drainage | 1.917 multiple | 10.03 multiple |
| D2 | Ditch | 5.996 multiple | Drainage | 2.985 multiple | 16.90 multiple |
| D2 | Stream | 3.774 multiple | Drainage | 1.712 multiple | 10.07 multiple |
| D3 | Ditch | 0.951 single | Spray drift | 0.092 multiple | 0.544 multiple |
| D4 | Pond | 0.556 multiple | Drainage | 0.538 multiple | 3.415 multiple |
| D4 | Stream | 0.793 single | Spray drift | 0.344 multiple | 1.203 multiple |
| D5 | Pond | 0.197 multiple | Drainage | 0.192 multiple | 1.780 multiple |
| D5 | Stream | 0.762 single | Spray drift | 0.098 multiple | 0.390 multiple |
| D6 | Ditch | 0.955 single | Spray drift | 0.144 multiple | 0.937 multiple |
| R1 | Pond | 0.276 multiple | Runoff | 0.244 multiple | 1.579 multiple |
| R1 | Stream | 1.620 multiple | Runoff | 0.081 multiple | 1.755 multiple |
| R3 | Stream | 3.111 multiple | Runoff | 0.157 multiple | 2.175 multiple |
| R4 | Stream | 2.841 multiple | Runoff | 0.242 multiple | 1.607 multiple |

**Table A 2: FOCUS Steps 3 $PEC_{sw}$ and $PEC_{sed}$ for azoxystrobin following single/twofold application of 150 g a.s. $ha^{-1}$ to winter cereals ($DT_{50}$ water = 205 days, $DT_{50}$ sediment = 1000 days)**

| Scenario<br><br>FOCUS | Waterbody / Season | Max. $PEC_{sw}$ [µg $L^{-1}$] | Dominant entry route | 21 d – $PEC_{sw,twa}$ [µg $L^{-1}$] | Max. $PEC_{sed}$ [µg $kg^{-1}$] |
|---|---|---|---|---|---|
| **Step 3** | | | | | |
| D1 | Ditch | 3.474<br>multiple | Drainage | 3.088<br>multiple | 18.34<br>multiple |
| D1 | Stream | 2.180<br>multiple | Drainage | 1.917<br>multiple | 10.22<br>multiple |
| D2 | Ditch | 5.996<br>multiple | Drainage | 2.985<br>multiple | 18.76<br>multiple |
| D2 | Stream | 3.774<br>multiple | Drainage | 1.712<br>multiple | 11.19<br>multiple |
| D3 | Ditch | 0.951<br>single | Spray drift | 0.092<br>multiple | 0.547<br>multiple |
| D4 | Pond | 0.550<br>multiple | Drainage | 0.531<br>multiple | 3.438<br>multiple |
| D4 | Stream | 0.793<br>single | Spray drift | 0.344<br>multiple | 1.316<br>multiple |
| D5 | Pond | 0.196<br>multiple | Drainage | 0.190<br>multiple | 1.910<br>multiple |
| D5 | Stream | 0.762<br>single | Spray drift | 0.098<br>multiple | 0.391<br>multiple |
| D6 | Ditch | 0.955<br>single | Spray drift | 0.144<br>multiple | 0.948<br>multiple |
| R1 | Pond | 0.276<br>multiple | Runoff | 0.236<br>multiple | 1.574<br>multiple |
| R1 | Stream | 1.62<br>multiple | Runoff | 0.081<br>multiple | 1.767<br>multiple |
| R3 | Stream | 3.111<br>multiple | Runoff | 0.157<br>multiple | 2.177<br>multiple |
| R4 | Stream | 2.841<br>multiple | Runoff | 0.242<br>multiple | 1.612<br>multiple |

## Actual and time-weighted average $PEC_{sw}$ and $PEC_{sed}$

## Azoxystrobin ($DT_{50}$ water = 205 days, $DT_{50}$ sediment = 205 days)

### Step 1-2: winter and spring cereals

**Table A 3. FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter and spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 68.433 | - | 6.080 | - | 11.150 | - |
| 1 | 67.258 | 67.846 | 5.944 | 6.012 | 10.998 | 11.074 |
| 2 | 67.031 | 67.495 | 5.924 | 5.973 | 10.960 | 11.026 |
| 4 | 66.580 | 67.150 | 5.884 | 5.939 | 10.887 | 10.975 |
| 7 | 65.908 | 66.762 | 5.825 | 5.903 | 10.777 | 10.913 |
| 14 | 64.366 | 65.948 | 5.689 | 5.829 | 10.525 | 10.782 |
| 21 | 62.861 | 65.168 | 5.556 | 5.760 | 10.278 | 10.655 |
| 28 | 61.390 | 64.407 | 5.426 | 5.693 | 10.038 | 10.531 |
| 42 | 58.552 | 62.925 | 5.175 | 5.562 | 9.574 | 10.288 |
| 50 | 56.989 | 62.099 | 5.037 | 5.489 | 9.318 | 10.154 |
| 100 | 48.125 | 57.266 | 4.253 | 5.061 | 7.869 | 9.363 |

**Table A 4.** **FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter and spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 257.443 | - | 23.301 | - | 43.110 | - |
| 1 | 263.653 | 260.548 | 23.222 | 23.262 | 42.965 | 43.037 |
| 2 | 262.763 | 261.878 | 23.144 | 23.222 | 42.820 | 42.965 |
| 4 | 260.992 | 261.877 | 22.988 | 23.144 | 42.531 | 42.820 |
| 7 | 258.358 | 260.933 | 22.756 | 23.028 | 42.102 | 42.604 |
| 14 | 252.315 | 258.128 | 22.224 | 22.758 | 41.117 | 42.106 |
| 21 | 246.413 | 255.203 | 21.704 | 22.493 | 40.155 | 41.615 |
| 28 | 240.649 | 252.282 | 21.196 | 22.232 | 39.216 | 41.132 |
| 42 | 229.523 | 246.536 | 20.216 | 21.722 | 37.403 | 40.189 |
| 50 | 223.398 | 243.322 | 19.677 | 21.438 | 36.405 | 39.663 |
| 100 | 188.650 | 224.428 | 16.616 | 19.771 | 30.742 | 36.578 |

**Table A 5. FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter and spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 68.433 | - | 11.290 | - | 20.838 | - |
| 1 | 67.258 | 67.846 | 11.053 | 11.172 | 20.569 | 20.704 |
| 2 | 67.031 | 67.495 | 11.016 | 11.103 | 20.500 | 20.619 |
| 4 | 66.580 | 67.150 | 10.942 | 11.041 | 20.361 | 20.525 |
| 7 | 65.908 | 66.762 | 10.832 | 10.975 | 20.156 | 20.411 |
| 14 | 64.366 | 65.948 | 10.578 | 10.840 | 19.684 | 20.165 |
| 21 | 62.861 | 65.168 | 10.331 | 10.711 | 19.224 | 19.928 |
| 28 | 61.390 | 64.407 | 10.089 | 10.586 | 18.774 | 19.695 |
| 42 | 58.552 | 62.925 | 9.623 | 10.342 | 17.906 | 19.243 |
| 50 | 56.989 | 62.099 | 9.366 | 10.206 | 17.429 | 18.990 |
| 100 | 48.125 | 57.266 | 7.909 | 9.412 | 14.718 | 17.513 |

**Table A 6. FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sed}$ for Azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter and spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 257.443 | - | 43.330 | - | 80.630 | - |
| 1 | 263.653 | 260.548 | 43.183 | 43.256 | 80.358 | 80.494 |
| 2 | 262.763 | 261.878 | 43.038 | 43.183 | 80.087 | 80.359 |
| 4 | 260.992 | 261.877 | 42.747 | 43.038 | 79.547 | 80.088 |
| 7 | 258.358 | 260.933 | 42.316 | 42.821 | 78.744 | 79.684 |
| 14 | 252.315 | 258.128 | 41.326 | 42.320 | 76.903 | 78.752 |
| 21 | 246.413 | 255.203 | 40.360 | 41.827 | 75.104 | 77.835 |
| 28 | 240.649 | 252.282 | 39.416 | 41.342 | 73.347 | 76.931 |
| 42 | 229.523 | 246.536 | 37.593 | 40.394 | 69.956 | 75.167 |
| 50 | 223.398 | 243.322 | 36.590 | 39.865 | 68.089 | 74.183 |
| 100 | 188.650 | 224.428 | 30.899 | 36.765 | 57.498 | 68.414 |

## Azoxystrobin ($DT_{50}$ water = 1000 days, $DT_{50}$ sediment = 205 days)

## Step 3: winter cereals

**Table A 7. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D2 Stream.**

| Step 3 | D1 Ditch | | D1 Stream | | D2 Ditch | | D2 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 1.692 | - | 1.066 | - | 3.714 | - | 2.337 | - |
| 1 | 1.665 | 1.658 | 1.044 | 1.037 | 0.691 | 2.214 | 0.140 | 1.319 |
| 2 | 1.638 | 1.657 | 1.018 | 1.036 | 0.522 | 2.196 | 0.132 | 1.283 |
| 3 | 1.615 | 1.647 | 1.004 | 1.028 | 0.426 | 2.029 | 0.154 | 1.149 |
| 4 | 1.607 | 1.638 | 1.004 | 1.021 | 0.310 | 1.917 | 0.130 | 1.113 |
| 7 | 1.597 | 1.625 | 0.989 | 1.012 | 0.572 | 1.897 | 0.435 | 1.103 |
| 14 | 1.530 | 1.587 | 0.949 | 0.987 | 0.491 | 1.832 | 0.166 | 1.045 |
| 21 | 1.371 | 1.547 | 0.845 | 0.961 | 1.605 | 1.691 | 0.704 | 0.972 |
| 28 | 1.263 | 1.493 | 0.764 | 0.925 | 2.100 | 1.558 | 1.338 | 0.903 |
| 42 | 1.274 | 1.412 | 0.786 | 0.868 | 1.152 | 1.406 | 0.704 | 0.820 |
| 50 | 1.175 | 1.385 | 0.675 | 0.850 | 1.003 | 1.334 | 0.658 | 0.778 |
| 100 | 0.498 | 1.203 | 0.003 | 0.663 | 0.643 | 1.056 | 0.388 | 0.617 |

**Table A 8. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D3 Ditch to D5 Pond.**

| Step 3 | D3 Ditch | | D4 Pond | | D4 Stream | | D5 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 0.951 | - | 0.215 | - | 0.793 | - | 0.096 | - |
| 1 | 0.508 | 0.759 | 0.215 | 0.215 | < 0.001 | 0.194 | 0.095 | 0.095 |
| 2 | 0.092 | 0.507 | 0.215 | 0.215 | < 0.001 | 0.184 | 0.094 | 0.095 |
| 3 | 0.018 | 0.352 | 0.214 | 0.215 | < 0.001 | 0.173 | 0.093 | 0.094 |
| 4 | 0.007 | 0.267 | 0.212 | 0.215 | < 0.001 | 0.162 | 0.092 | 0.094 |
| 7 | 0.002 | 0.154 | 0.208 | 0.214 | < 0.001 | 0.148 | 0.090 | 0.092 |
| 14 | < 0.001 | 0.077 | 0.196 | 0.212 | < 0.001 | 0.135 | 0.086 | 0.090 |
| 21 | < 0.001 | 0.052 | 0.187 | 0.208 | < 0.001 | 0.129 | 0.082 | 0.089 |
| 28 | < 0.001 | 0.039 | 0.186 | 0.204 | < 0.001 | 0.123 | 0.080 | 0.088 |
| 42 | < 0.001 | 0.026 | 0.170 | 0.198 | < 0.001 | 0.091 | 0.075 | 0.086 |
| 50 | < 0.001 | 0.022 | 0.161 | 0.195 | < 0.001 | 0.082 | 0.072 | 0.084 |
| 100 | < 0.001 | 0.011 | 0.122 | 0.173 | < 0.001 | 0.049 | 0.059 | 0.081 |

**Table A 9. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D5 Stream to R1 Stream.**

| Step 3 | D5 Stream | | D6 Ditch | | R1 Pond | | R1 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 0.762 | - | 0.955 | - | 0.132 | - | 1.266 | - |
| 1 | 0.004 | 0.106 | 0.788 | 0.869 | 0.130 | 0.131 | 0.002 | 0.694 |
| 2 | 0.004 | 0.101 | 0.491 | 0.761 | 0.128 | 0.130 | < 0.001 | 0.348 |
| 3 | 0.003 | 0.093 | 0.203 | 0.619 | 0.127 | 0.129 | < 0.001 | 0.232 |
| 4 | 0.003 | 0.082 | 0.077 | 0.496 | 0.126 | 0.129 | 0.007 | 0.174 |
| 7 | 0.002 | 0.075 | 0.013 | 0.297 | 0.122 | 0.127 | 0.001 | 0.148 |
| 14 | 0.001 | 0.055 | 0.005 | 0.152 | 0.114 | 0.123 | 0.104 | 0.102 |
| 21 | 0.001 | 0.045 | 0.001 | 0.102 | 0.107 | 0.119 | < 0.001 | 0.081 |
| 28 | < 0.001 | 0.038 | 0.001 | 0.078 | 0.102 | 0.116 | < 0.001 | 0.066 |
| 42 | < 0.001 | 0.029 | 0.002 | 0.071 | 0.093 | 0.116 | < 0.001 | 0.047 |
| 50 | < 0.001 | 0.026 | 0.001 | 0.060 | 0.087 | 0.114 | < 0.001 | 0.043 |
| 100 | < 0.001 | 0.016 | < 0.001 | 0.031 | 0.061 | 0.101 | < 0.001 | 0.024 |

**Table A 10. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: R3 Stream to R4 Stream.**

| Step 3 | R3 Stream | | R4 Stream | |
|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 1.350 | - | 1.265 | - |
| 1 | 0.013 | 1.191 | 0.005 | 0.836 |
| 2 | 0.005 | 0.650 | 0.002 | 0.512 |
| 3 | 0.003 | 0.435 | 0.830 | 0.355 |
| 4 | 0.002 | 0.327 | 0.453 | 0.357 |
| 7 | < 0.001 | 0.188 | 0.001 | 0.273 |
| 14 | < 0.001 | 0.094 | < 0.001 | 0.154 |
| 21 | < 0.001 | 0.063 | < 0.001 | 0.103 |
| 28 | < 0.001 | 0.068 | < 0.001 | 0.077 |
| 42 | < 0.001 | 0.053 | < 0.001 | 0.051 |
| 50 | < 0.001 | 0.045 | < 0.001 | 0.043 |
| 100 | < 0.001 | 0.025 | 0.016 | 0.023 |

**Table A 11. FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D2 Stream.**

| Step 3 | D1 Ditch | | D1 Stream | | D2 Ditch | | D2 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 9.361 | - | 5.192 | - | 9.287 | - | 5.524 | - |
| 1 | 9.360 | 9.361 | 5.186 | 5.192 | 9.265 | 9.283 | 5.511 | 5.522 |
| 2 | 9.359 | 9.361 | 5.164 | 5.192 | 9.233 | 9.274 | 5.502 | 5.520 |
| 3 | 9.356 | 9.360 | 5.135 | 5.191 | 9.204 | 9.263 | 5.492 | 5.516 |
| 4 | 9.352 | 9.360 | 5.110 | 5.190 | 9.243 | 9.250 | 5.476 | 5.512 |
| 7 | < 0.001 | 9.358 | 4.745 | 5.182 | 9.193 | 9.242 | 5.432 | 5.504 |
| 14 | < 0.001 | 9.352 | 4.408 | 5.149 | 9.072 | 9.199 | 5.347 | 5.478 |
| 21 | < 0.001 | 9.344 | 4.743 | 5.087 | 9.013 | 9.177 | 5.258 | 5.464 |
| 28 | < 0.001 | 9.346 | 4.226 | 5.001 | 8.924 | 9.175 | < 0.001 | 5.448 |
| 42 | < 0.001 | 9.318 | 3.555 | 4.879 | 9.117 | 9.135 | < 0.001 | 5.434 |
| 50 | < 0.001 | 9.291 | 3.264 | 4.843 | 9.039 | 9.106 | < 0.001 | 5.430 |
| 100 | < 0.001 | 9.268 | 2.294 | 4.726 | 9.156 | 9.079 | < 0.001 | 5.401 |

**Table A 12. FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D3 Ditch to D5 Pond.**

| Step 3 | D3 Ditch | | D4 Pond | | D4 Stream | | D5 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 0.476 | - | 1.487 | - | 0.539 | - | 0.845 | - |
| 1 | 0.400 | 0.463 | < 0.001 | 1.487 | 0.537 | 0.539 | 0.845 | 0.845 |
| 2 | 0.319 | 0.434 | < 0.001 | 1.487 | 0.533 | 0.538 | 0.845 | 0.845 |
| 3 | 0.269 | 0.402 | < 0.001 | 1.487 | 0.526 | 0.538 | 0.845 | 0.845 |
| 4 | 0.236 | 0.373 | < 0.001 | 1.487 | 0.517 | 0.537 | 0.844 | 0.845 |
| 7 | 0.183 | 0.311 | < 0.001 | 1.486 | 0.483 | 0.531 | 0.844 | 0.845 |
| 14 | 0.133 | 0.237 | < 0.001 | 1.485 | 0.400 | 0.517 | 0.841 | 0.845 |
| 21 | 0.109 | 0.199 | < 0.001 | 1.483 | 0.363 | 0.496 | 0.838 | 0.844 |
| 28 | 0.095 | 0.175 | < 0.001 | 1.481 | 0.424 | 0.471 | 0.836 | 0.843 |
| 42 | 0.076 | 0.146 | < 0.001 | 1.473 | 0.372 | 0.448 | < 0.001 | 0.842 |
| 50 | 0.070 | 0.134 | < 0.001 | 1.468 | 0.342 | 0.440 | < 0.001 | 0.841 |
| 100 | 0.045 | 0.095 | < 0.001 | 1.399 | 0.237 | 0.378 | < 0.001 | 0.793 |

**Table A 13. FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D5 Stream to R1 Stream.**

| Step 3 | D5 Stream | | D6 Ditch | | R1 Pond | | R1 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 0.189 | - | 0.796 | - | 0.773 | - | 0.586 | - |
| 1 | 0.186 | 0.189 | 0.737 | 0.788 | 0.773 | 0.773 | 0.431 | 0.526 |
| 2 | 0.178 | 0.188 | 0.641 | 0.768 | 0.773 | 0.773 | 0.354 | 0.476 |
| 3 | 0.175 | 0.186 | 0.566 | 0.740 | 0.773 | 0.773 | 0.311 | 0.449 |
| 4 | 0.177 | 0.184 | 0.510 | 0.709 | 0.773 | 0.773 | 0.287 | 0.428 |
| 7 | 0.184 | 0.182 | 0.413 | 0.625 | 0.772 | 0.773 | 0.382 | 0.402 |
| 14 | 0.171 | 0.181 | 0.317 | 0.505 | 0.769 | 0.773 | 0.381 | 0.381 |
| 21 | 0.172 | 0.176 | 0.265 | 0.438 | 0.767 | 0.772 | 0.277 | 0.361 |
| 28 | 0.156 | 0.174 | 0.234 | 0.393 | 0.763 | 0.771 | 0.237 | 0.335 |
| 42 | 0.131 | 0.165 | 0.197 | 0.335 | 0.753 | 0.770 | 0.240 | 0.314 |
| 50 | 0.118 | 0.160 | 0.181 | 0.312 | 0.748 | 0.770 | 0.211 | 0.300 |
| 100 | 0.087 | 0.135 | 0.115 | 0.230 | 0.706 | 0.765 | 0.143 | 0.241 |

~~**Table A 14. FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following single application of 1 x 150 g a.s. ha$^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: R3 Stream to R4 Stream.**~~

| Step 3 | R3 Stream | | R4 Stream | |
|---|---|---|---|---|
| Time [d] | Actual [µg kg$^{-1}$] | TWA [µg kg$^{-1}$] | Actual [µg kg$^{-1}$] | TWA [µg kg$^{-1}$] |
| 0 | 0.907 | - | 0.683 | - |
| 1 | 0.703 | 0.857 | 0.547 | 0.654 |
| 2 | 0.584 | 0.777 | 0.458 | 0.619 |
| 3 | 0.518 | 0.714 | 0.405 | 0.591 |
| 4 | 0.475 | 0.667 | 0.369 | 0.559 |
| 7 | 0.404 | 0.575 | 0.385 | 0.495 |
| 14 | 0.328 | 0.472 | 0.269 | 0.436 |
| 21 | 0.288 | 0.419 | 0.222 | 0.385 |
| 28 | 0.405 | 0.415 | 0.193 | 0.346 |
| 42 | 0.341 | 0.406 | 0.157 | 0.293 |
| 50 | 0.295 | 0.393 | 0.142 | 0.272 |
| 100 | 0.187 | 0.313 | 0.093 | 0.194 |

~~**Table A 15. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. ha$^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D2 Stream.**~~

| Step 3 | D1 Ditch | | D1 Stream | | D2 Ditch | | D2 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] |
| 0 | 3.474 | - | 2.180 | - | 5.996 | - | 3.774 | - |
| 1 | 3.442 | 3.432 | 2.152 | 2.145 | 1.224 | 3.922 | 0.284 | 2.313 |
| 2 | 3.400 | 3.430 | 2.113 | 2.142 | 0.944 | 3.845 | 0.265 | 2.223 |
| 3 | 3.363 | 3.415 | 2.090 | 2.129 | 0.790 | 3.521 | 0.330 | 2.013 |
| 4 | 3.343 | 3.400 | 2.082 | 2.118 | 0.599 | 3.340 | 0.264 | 1.963 |
| 7 | 3.286 | 3.368 | 2.029 | 2.095 | 1.092 | 3.298 | 0.826 | 1.919 |
| 14 | 2.957 | 3.219 | 1.832 | 2.001 | 0.982 | 3.216 | 0.368 | 1.844 |
| 21 | 2.597 | 3.088 | 1.597 | 1.917 | 2.729 | 2.985 | 1.230 | 1.712 |
| 28 | 2.379 | 2.987 | 1.435 | 1.843 | 3.867 | 2.755 | 2.414 | 1.591 |
| 42 | 2.378 | 2.924 | 1.465 | 1.808 | 2.032 | 2.523 | 1.239 | 1.469 |
| 50 | 2.192 | 2.847 | 1.256 | 1.757 | 1.806 | 2.410 | 1.202 | 1.404 |
| 100 | 0.927 | 2.446 | 0.006 | 1.368 | 1.222 | 1.949 | 0.733 | 1.140 |

**Table A 16. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D3 Ditch to D5 Pond.**

| Step 3 | D3 Ditch | | D4 Pond | | D4 Stream | | D5 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 0.831 | - | 0.556 | - | 0.711 | - | 0.197 | - |
| 1 | 0.468 | 0.672 | 0.555 | 0.556 | 0.001 | 0.460 | 0.197 | 0.197 |
| 2 | 0.096 | 0.460 | 0.554 | 0.556 | < 0.001 | 0.438 | 0.196 | 0.197 |
| 3 | 0.020 | 0.322 | 0.551 | 0.555 | < 0.001 | 0.422 | 0.195 | 0.197 |
| 4 | 0.007 | 0.244 | 0.548 | 0.555 | < 0.001 | 0.412 | 0.194 | 0.197 |
| 7 | 0.002 | 0.141 | 0.537 | 0.553 | < 0.001 | 0.395 | 0.190 | 0.196 |
| 14 | < 0.001 | 0.071 | 0.508 | 0.546 | < 0.001 | 0.351 | 0.190 | 0.194 |
| 21 | < 0.001 | 0.092 | 0.482 | 0.538 | < 0.001 | 0.344 | 0.181 | 0.192 |
| 28 | < 0.001 | 0.069 | 0.465 | 0.528 | < 0.001 | 0.319 | 0.172 | 0.191 |
| 42 | < 0.001 | 0.046 | 0.421 | 0.509 | < 0.001 | 0.237 | 0.157 | 0.186 |
| 50 | < 0.001 | 0.039 | 0.399 | 0.498 | < 0.001 | 0.210 | 0.149 | 0.182 |
| 100 | < 0.001 | 0.020 | 0.304 | 0.436 | < 0.001 | 0.121 | 0.156 | 0.171 |

**Table A 17. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D5 Stream to R1 Stream.**

| Step 3 | D5 Stream | | D6 Ditch | | R1 Pond | | R1 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 0.729 | - | 0.836 | - | 0.276 | - | 1.620 | - |
| 1 | 0.005 | 0.223 | 0.699 | 0.763 | 0.271 | 0.273 | 0.005 | 1.322 |
| 2 | 0.005 | 0.213 | 0.529 | 0.691 | 0.267 | 0.271 | 0.002 | 0.667 |
| 3 | 0.005 | 0.197 | 0.351 | 0.606 | 0.263 | 0.269 | 0.001 | 0.445 |
| 4 | 0.005 | 0.175 | 0.234 | 0.526 | 0.260 | 0.267 | < 0.001 | 0.335 |
| 7 | 0.004 | 0.161 | 0.102 | 0.366 | 0.251 | 0.262 | < 0.001 | 0.192 |
| 14 | < 0.001 | 0.121 | 0.023 | 0.209 | 0.233 | 0.252 | < 0.001 | 0.104 |
| 21 | < 0.001 | 0.098 | 0.009 | 0.144 | 0.218 | 0.244 | < 0.001 | 0.081 |
| 28 | < 0.001 | 0.084 | 0.005 | 0.133 | 0.212 | 0.237 | < 0.001 | 0.079 |
| 42 | < 0.001 | 0.065 | 0.002 | 0.116 | 0.207 | 0.226 | < 0.001 | 0.075 |
| 50 | < 0.001 | 0.058 | 0.002 | 0.099 | 0.192 | 0.222 | < 0.001 | 0.066 |
| 100 | < 0.001 | 0.037 | < 0.001 | 0.062 | 0.161 | 0.197 | < 0.001 | 0.044 |

**Table A 18. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: R3 Stream to R4 Stream.**

| Step 3 | R3 Stream | | R4 Stream | |
|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 3.111 | - | 2.841 | - |
| 1 | 0.030 | 2.745 | 0.013 | 1.877 |
| 2 | 0.011 | 1.498 | 0.004 | 1.239 |
| 3 | 0.006 | 1.003 | 1.994 | 0.860 |
| 4 | 0.004 | 0.754 | 1.110 | 0.826 |
| 7 | 0.002 | 0.432 | 0.003 | 0.639 |
| 14 | < 0.001 | 0.235 | < 0.001 | 0.363 |
| 21 | < 0.001 | 0.157 | < 0.001 | 0.242 |
| 28 | 0.002 | 0.159 | < 0.001 | 0.182 |
| 42 | < 0.001 | 0.123 | < 0.001 | 0.124 |
| 50 | < 0.001 | 0.109 | < 0.001 | 0.104 |
| 100 | < 0.001 | 0.056 | 0.038 | 0.054 |

**Table A 19. FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D2 Stream.**

| Step 3 | D1 Ditch | | D1 Stream | | D2 Ditch | | D2 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 16.210 | - | 10.030 | - | 16.900 | - | 10.070 | - |
| 1 | 16.180 | 16.210 | 10.030 | 10.030 | 16.880 | 16.890 | 10.050 | 10.070 |
| 2 | 16.180 | 16.200 | 10.020 | 10.030 | 16.840 | 16.890 | 10.030 | 10.060 |
| 3 | 16.180 | 16.200 | 9.999 | 10.030 | 16.800 | 16.870 | 10.010 | 10.050 |
| 4 | 16.190 | 16.190 | 9.947 | 10.030 | 16.760 | 16.860 | 9.981 | 10.050 |
| 7 | 16.190 | 16.190 | 9.707 | 10.020 | 16.610 | 16.840 | 9.899 | 10.030 |
| 14 | 16.170 | 16.190 | 8.136 | 9.966 | 16.320 | 16.750 | 9.740 | 9.980 |
| 21 | 16.110 | 16.180 | 9.111 | 9.868 | 16.050 | 16.720 | 9.577 | 9.950 |
| 28 | 15.990 | 16.170 | 7.950 | 9.746 | < 0.001 | 16.670 | < 0.001 | 9.919 |
| 42 | 15.430 | 16.120 | 7.047 | 9.568 | < 0.001 | 16.660 | < 0.001 | 9.882 |
| 50 | 15.640 | 16.080 | 6.459 | 9.448 | < 0.001 | 16.640 | < 0.001 | 9.871 |
| 100 | < 0.001 | 15.880 | 4.555 | 8.685 | < 0.001 | 16.520 | < 0.001 | 9.776 |

**Table A 20. FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D3 Ditch to D5 Pond.**

| Step 3 | D3 Ditch | | D4 Pond | | D4 Stream | | D5 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 0.544 | - | 3.425 | - | 1.305 | - | 1.780 | - |
| 1 | 0.475 | 0.533 | < 0.001 | 3.425 | 1.300 | 1.304 | 1.780 | 1.780 |
| 2 | 0.399 | 0.508 | < 0.001 | 3.425 | 1.287 | 1.303 | 1.780 | 1.780 |
| 3 | 0.349 | 0.478 | < 0.001 | 3.424 | 1.268 | 1.301 | 1.780 | 1.780 |
| 4 | 0.316 | 0.451 | < 0.001 | 3.424 | 1.247 | 1.298 | 1.780 | 1.780 |
| 7 | 0.259 | 0.390 | < 0.001 | 3.423 | 1.169 | 1.287 | 1.779 | 1.780 |
| 14 | 0.200 | 0.313 | < 0.001 | 3.419 | 0.986 | 1.256 | 1.777 | 1.780 |
| 21 | 0.169 | 0.272 | < 0.001 | 3.415 | 0.894 | 1.203 | < 0.001 | 1.779 |
| 28 | 0.149 | 0.262 | < 0.001 | 3.409 | 0.949 | 1.146 | < 0.001 | 1.779 |
| 42 | 0.123 | 0.233 | < 0.001 | 3.392 | 0.851 | 1.072 | < 0.001 | 1.775 |
| 50 | 0.112 | 0.218 | < 0.001 | 3.379 | 0.789 | 1.047 | < 0.001 | 1.771 |
| 100 | 0.073 | 0.161 | < 0.001 | 3.222 | 0.548 | 0.890 | < 0.001 | 1.645 |

**Table A 21. FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D5 Stream to R1 Stream.**

| Step 3 | D5 Stream | | D6 Ditch | | R1 Pond | | R1 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 0.390 | - | 0.937 | - | 1.579 | - | 1.755 | - |
| 1 | 0.383 | 0.389 | 0.915 | 0.934 | 1.579 | 1.579 | 1.465 | 1.654 |
| 2 | 0.370 | 0.387 | 0.875 | 0.927 | 1.579 | 1.579 | 1.316 | 1.544 |
| 3 | 0.365 | 0.385 | 0.834 | 0.916 | 1.579 | 1.579 | 1.230 | 1.464 |
| 4 | 0.372 | 0.384 | 0.798 | 0.902 | 1.579 | 1.579 | 1.173 | 1.405 |
| 7 | 0.384 | 0.381 | 0.706 | 0.859 | 1.578 | 1.579 | 1.065 | 1.287 |
| 14 | 0.359 | 0.378 | 0.561 | 0.765 | 1.574 | 1.579 | 0.928 | 1.144 |
| 21 | 0.358 | 0.368 | 0.477 | 0.692 | 1.572 | 1.578 | 0.840 | 1.059 |
| 28 | 0.327 | 0.362 | 0.421 | 0.637 | 1.567 | 1.577 | 0.878 | 1.030 |
| 42 | 0.282 | 0.346 | 0.349 | 0.557 | 1.552 | 1.575 | 0.867 | 0.963 |
| 50 | 0.258 | 0.336 | 0.319 | 0.527 | 1.543 | 1.574 | 0.736 | 0.937 |
| 100 | 0.200 | 0.292 | 0.196 | 0.432 | 1.457 | 1.559 | 0.558 | 0.789 |

**Table A 22. FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: R3 Stream to R4 Stream.**

| Step 3 | R3 Stream | | R4 Stream | |
|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 2.175 | - | 1.607 | - |
| 1 | 1.682 | 2.056 | 1.277 | 1.534 |
| 2 | 1.413 | 1.863 | 1.074 | 1.440 |
| 3 | 1.266 | 1.717 | 0.955 | 1.376 |
| 4 | 1.172 | 1.608 | 0.874 | 1.303 |
| 7 | 1.010 | 1.399 | 0.913 | 1.160 |
| 14 | 0.833 | 1.164 | 0.648 | 1.012 |
| 21 | 0.736 | 1.040 | 0.540 | 0.900 |
| 28 | 0.983 | 1.028 | 0.473 | 0.814 |
| 42 | 0.825 | 0.998 | 0.387 | 0.695 |
| 50 | 0.720 | 0.963 | 0.350 | 0.647 |
| 100 | 0.456 | 0.766 | 0.229 | 0.467 |

**Table A 23. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D2 Stream.**

| Step 3 | D1 Ditch | | D1 Stream | | D2 Ditch | | D2 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 1.701 | - | 1.071 | - | 3.957 | - | 2.490 | - |
| 1 | 1.673 | 1.666 | 1.049 | 1.042 | 0.739 | 2.373 | 0.146 | 1.413 |
| 2 | 1.646 | 1.665 | 1.023 | 1.041 | 0.557 | 2.353 | 0.138 | 1.374 |
| 3 | 1.623 | 1.656 | 1.010 | 1.033 | 0.453 | 2.173 | 0.163 | 1.231 |
| 4 | 1.615 | 1.646 | 1.009 | 1.027 | 0.327 | 2.053 | 0.136 | 1.192 |
| 7 | 1.606 | 1.634 | 0.994 | 1.018 | 0.624 | 2.031 | 0.478 | 1.181 |
| 14 | 1.538 | 1.595 | 0.954 | 0.992 | 0.540 | 1.966 | 0.181 | 1.120 |
| 21 | 1.379 | 1.555 | 0.849 | 0.966 | 1.732 | 1.813 | 0.765 | 1.043 |
| 28 | 1.270 | 1.501 | 0.768 | 0.930 | 2.254 | 1.670 | 1.433 | 0.968 |
| 42 | 1.282 | 1.420 | 0.790 | 0.873 | 1.232 | 1.509 | 0.753 | 0.879 |
| 50 | 1.182 | 1.392 | 0.679 | 0.854 | 1.074 | 1.431 | 0.705 | 0.835 |
| 100 | 0.501 | 1.210 | 0.003 | 0.667 | 0.690 | 1.134 | 0.417 | 0.663 |

**Table A 24. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D3 Ditch to D5 Pond.**

| **Step 3** | **D3 Ditch** | | **D4 Pond** | | **D4 Stream** | | **D5 Pond** | |
|---|---|---|---|---|---|---|---|---|
| **Time [d]** | Actual [µg L-1] | TWA [µg L-1] | Actual [µg L-1] | TWA [µg L-1] | Actual [µg L-1] | TWA [µg L-1] | Actual [µg L-1] | TWA [µg L-1] |
| 0 | 0.950 | - | 0.219 | - | 0.793 | - | 0.097 | - |
| 1 | 0.476 | 0.747 | 0.219 | 0.219 | < 0.001 | 0.197 | 0.095 | 0.096 |
| 2 | 0.075 | 0.486 | 0.218 | 0.219 | < 0.001 | 0.187 | 0.094 | 0.095 |
| 3 | 0.014 | 0.336 | 0.217 | 0.219 | < 0.001 | 0.176 | 0.093 | 0.095 |
| 4 | 0.006 | 0.254 | 0.216 | 0.219 | < 0.001 | 0.165 | 0.093 | 0.094 |
| 7 | 0.002 | 0.147 | 0.212 | 0.218 | < 0.001 | 0.151 | 0.090 | 0.093 |
| 14 | < 0.001 | 0.074 | 0.200 | 0.215 | < 0.001 | 0.137 | 0.086 | 0.091 |
| 21 | < 0.001 | 0.049 | 0.191 | 0.212 | < 0.001 | 0.131 | 0.083 | 0.090 |
| 28 | < 0.001 | 0.037 | 0.189 | 0.208 | < 0.001 | 0.125 | 0.080 | 0.089 |
| 42 | < 0.001 | 0.025 | 0.173 | 0.202 | < 0.001 | 0.093 | 0.075 | 0.087 |
| 50 | < 0.001 | 0.021 | 0.163 | 0.199 | < 0.001 | 0.084 | 0.073 | 0.085 |
| 100 | < 0.001 | 0.010 | 0.124 | 0.176 | < 0.001 | 0.050 | 0.059 | 0.082 |

**Table A 25. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D5 Stream to R1 Stream.**

| **Step 3** | **D5 Stream** | | **D6 Ditch** | | **R1 Pond** | | **R1 Stream** | |
|---|---|---|---|---|---|---|---|---|
| **Time [d]** | **Actual [µg $L^{-1}$]** | **TWA [µg $L^{-1}$]** | **Actual [µg $L^{-1}$]** | **TWA [µg $L^{-1}$]** | **Actual [µg $L^{-1}$]** | **TWA [µg $L^{-1}$]** | **Actual [µg $L^{-1}$]** | **TWA [µg $L^{-1}$]** |
| 0 | 0.762 | - | 0.955 | - | 0.134 | - | 1.279 | - |
| 1 | 0.004 | 0.108 | 0.788 | 0.869 | 0.132 | 0.133 | 0.002 | 0.701 |
| 2 | 0.004 | 0.102 | 0.491 | 0.761 | 0.130 | 0.132 | 0.001 | 0.351 |
| 3 | 0.003 | 0.094 | 0.203 | 0.619 | 0.129 | 0.131 | 0.001 | 0.235 |
| 4 | 0.003 | 0.083 | 0.077 | 0.496 | 0.128 | 0.131 | 0.007 | 0.176 |
| 7 | 0.003 | 0.076 | 0.013 | 0.297 | 0.124 | 0.129 | 0.001 | 0.149 |
| 14 | 0.001 | 0.056 | 0.005 | 0.152 | 0.116 | 0.124 | 0.106 | 0.103 |
| 21 | 0.001 | 0.045 | 0.001 | 0.102 | 0.109 | 0.120 | < 0.001 | 0.082 |
| 28 | < 0.001 | 0.039 | 0.001 | 0.078 | 0.103 | 0.117 | < 0.001 | 0.067 |
| 42 | < 0.001 | 0.030 | 0.002 | 0.071 | 0.094 | 0.117 | < 0.001 | 0.048 |
| 50 | < 0.001 | 0.027 | 0.001 | 0.061 | 0.088 | 0.116 | < 0.001 | 0.043 |
| 100 | < 0.001 | 0.016 | 0.000 | 0.031 | 0.062 | 0.102 | < 0.001 | 0.024 |

**Table A 26. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: R3 Stream to R4 Stream.**

| Step 3 | R3 Stream | | R4 Stream | |
|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 1.362 | - | 1.298 | - |
| 1 | 0.013 | 1.202 | 0.006 | 0.857 |
| 2 | 0.005 | 0.656 | 0.002 | 0.525 |
| 3 | 0.003 | 0.439 | 0.852 | 0.364 |
| 4 | 0.002 | 0.330 | 0.464 | 0.367 |
| 7 | 0.001 | 0.189 | 0.001 | 0.280 |
| 14 | < 0.001 | 0.095 | < 0.001 | 0.158 |
| 21 | < 0.001 | 0.063 | < 0.001 | 0.105 |
| 28 | 0.001 | 0.069 | < 0.001 | 0.079 |
| 42 | < 0.001 | 0.054 | < 0.001 | 0.053 |
| 50 | < 0.001 | 0.046 | < 0.001 | 0.044 |
| 100 | < 0.001 | 0.025 | 0.017 | 0.024 |

**Table A 27. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D2 Stream.**

| Step 3 | D1 Ditch | | D1 Stream | | D2 Ditch | | D2 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 3.491 | - | 2.190 | - | 6.484 | - | 4.081 | - |
| 1 | 3.458 | 3.448 | 2.162 | 2.155 | 1.321 | 4.273 | 0.301 | 2.519 |
| 2 | 3.416 | 3.447 | 2.123 | 2.152 | 1.016 | 4.187 | 0.280 | 2.420 |
| 3 | 3.379 | 3.431 | 2.100 | 2.139 | 0.848 | 3.833 | 0.354 | 2.194 |
| 4 | 3.359 | 3.416 | 2.092 | 2.128 | 0.640 | 3.638 | 0.278 | 2.138 |
| 7 | 3.301 | 3.384 | 2.038 | 2.104 | 1.194 | 3.589 | 0.907 | 2.089 |
| 14 | 2.972 | 3.234 | 1.842 | 2.010 | 1.081 | 3.503 | 0.403 | 2.008 |
| 21 | 2.610 | 3.104 | 1.606 | 1.926 | 2.972 | 3.251 | 1.343 | 1.864 |
| 28 | 2.392 | 3.002 | 1.442 | 1.852 | 4.219 | 3.000 | 2.632 | 1.732 |
| 42 | 2.392 | 2.938 | 1.474 | 1.817 | 2.209 | 2.747 | 1.347 | 1.599 |
| 50 | 2.205 | 2.861 | 1.263 | 1.765 | 1.964 | 2.624 | 1.308 | 1.528 |
| 100 | 0.933 | 2.460 | 0.006 | 1.375 | 1.326 | 2.119 | 0.796 | 1.240 |

**Table A 28. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D3 Ditch to D5 Pond.**

| Step 3 | D3 Ditch | | D4 Pond | | D4 Stream | | D5 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 0.831 | - | 0.563 | - | 0.711 | - | 0.198 | - |
| 1 | 0.435 | 0.660 | 0.563 | 0.563 | 0.001 | 0.466 | 0.198 | 0.198 |
| 2 | 0.077 | 0.438 | 0.561 | 0.563 | 0.001 | 0.444 | 0.197 | 0.198 |
| 3 | 0.015 | 0.304 | 0.559 | 0.563 | < 0.001 | 0.428 | 0.196 | 0.198 |
| 4 | 0.006 | 0.230 | 0.556 | 0.562 | < 0.001 | 0.418 | 0.195 | 0.198 |
| 7 | 0.002 | 0.133 | 0.545 | 0.561 | < 0.001 | 0.400 | 0.191 | 0.197 |
| 14 | 0.001 | 0.067 | 0.515 | 0.554 | < 0.001 | 0.356 | 0.191 | 0.195 |
| 21 | < 0.001 | 0.087 | 0.488 | 0.545 | < 0.001 | 0.349 | 0.181 | 0.193 |
| 28 | < 0.001 | 0.066 | 0.471 | 0.535 | < 0.001 | 0.323 | 0.172 | 0.192 |
| 42 | < 0.001 | 0.044 | 0.427 | 0.516 | < 0.001 | 0.240 | 0.158 | 0.187 |
| 50 | < 0.001 | 0.037 | 0.405 | 0.504 | < 0.001 | 0.213 | 0.149 | 0.183 |
| 100 | < 0.001 | 0.019 | 0.308 | 0.442 | < 0.001 | 0.123 | 0.157 | 0.171 |

**Table A 29. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D5 Stream to R1 Stream.**

| Step 3 | D5 Stream | | D6 Ditch | | R1 Pond | | R1 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 0.729 | - | 0.836 | - | 0.278 | - | 1.633 | - |
| 1 | 0.005 | 0.225 | 0.699 | 0.763 | 0.273 | 0.276 | 0.005 | 1.332 |
| 2 | 0.005 | 0.215 | 0.529 | 0.691 | 0.269 | 0.273 | 0.002 | 0.672 |
| 3 | 0.005 | 0.199 | 0.351 | 0.606 | 0.265 | 0.271 | 0.001 | 0.449 |
| 4 | 0.005 | 0.176 | 0.234 | 0.526 | 0.262 | 0.269 | 0.001 | 0.337 |
| 7 | 0.004 | 0.162 | 0.102 | 0.366 | 0.253 | 0.264 | < 0.001 | 0.193 |
| 14 | < 0.001 | 0.121 | 0.023 | 0.209 | 0.235 | 0.254 | < 0.001 | 0.104 |
| 21 | < 0.001 | 0.099 | 0.009 | 0.144 | 0.220 | 0.246 | < 0.001 | 0.082 |
| 28 | < 0.001 | 0.084 | 0.005 | 0.133 | 0.214 | 0.239 | < 0.001 | 0.080 |
| 42 | < 0.001 | 0.065 | 0.002 | 0.116 | 0.209 | 0.228 | 0.001 | 0.076 |
| 50 | < 0.001 | 0.058 | 0.002 | 0.099 | 0.194 | 0.224 | < 0.001 | 0.067 |
| 100 | < 0.001 | 0.037 | 0.001 | 0.062 | 0.165 | 0.200 | < 0.001 | 0.044 |

**Table A 30. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: R3 Stream to R4 Stream.**

| Step 3 | R3 Stream | | R4 Stream | |
|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 3.128 | - | 1.603 | - |
| 1 | 0.030 | 2.761 | 1.034 | 1.123 |
| 2 | 0.011 | 1.506 | 0.007 | 1.062 |
| 3 | 0.006 | 1.009 | 0.003 | 0.739 |
| 4 | 0.004 | 0.759 | 0.002 | 0.555 |
| 7 | 0.002 | 0.435 | 0.235 | 0.464 |
| 14 | 0.001 | 0.236 | < 0.001 | 0.284 |
| 21 | < 0.001 | 0.158 | < 0.001 | 0.189 |
| 28 | 0.002 | 0.160 | < 0.001 | 0.146 |
| 42 | 0.001 | 0.124 | < 0.001 | 0.097 |
| 50 | < 0.001 | 0.110 | < 0.001 | 0.082 |
| 100 | < 0.001 | 0.057 | 0.001 | 0.041 |

## Step 3: spring cereals

**Table A 31. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D4 Pond.**

| Step 3 | D1 Ditch | | D1 Stream | | D3 Ditch | | D4 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 2.429 | - | 1.521 | - | 0.951 | - | 0.307 | - |
| 1 | 2.408 | 2.398 | 1.505 | 1.498 | 0.519 | 0.762 | 0.307 | 0.307 |
| 2 | 2.372 | 2.396 | 1.475 | 1.496 | 0.099 | 0.514 | 0.306 | 0.307 |
| 3 | 2.345 | 2.384 | 1.457 | 1.487 | 0.019 | 0.358 | 0.305 | 0.307 |
| 4 | 2.338 | 2.373 | 1.461 | 1.479 | 0.007 | 0.272 | 0.303 | 0.307 |
| 7 | 2.299 | 2.354 | 1.421 | 1.464 | 0.002 | 0.157 | 0.297 | 0.306 |
| 14 | 2.088 | 2.255 | 1.295 | 1.402 | < 0.001 | 0.079 | 0.281 | 0.302 |
| 21 | 1.841 | 2.169 | 1.134 | 1.347 | < 0.001 | 0.053 | 0.267 | 0.298 |
| 28 | 1.695 | 2.082 | 1.022 | 1.286 | < 0.001 | 0.040 | 0.261 | 0.292 |
| 42 | 1.707 | 2.035 | 1.053 | 1.259 | < 0.001 | 0.026 | 0.238 | 0.283 |
| 50 | 1.585 | 1.987 | 0.938 | 1.227 | < 0.001 | 0.022 | 0.226 | 0.277 |
| 100 | 0.916 | 1.748 | 0.013 | 1.065 | < 0.001 | 0.011 | 0.171 | 0.245 |

Table A 32. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. ha$^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D4 Stream to R4 Stream.

| Step 3 | D4 Stream | | D5 Pond | | D5 Stream | | R4 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] |
| 0 | 0.778 | - | 0.098 | - | 0.801 | - | 1.769 | - |
| 1 | < 0.001 | 0.271 | 0.098 | 0.098 | 0.002 | 0.115 | 0.008 | 1.171 |
| 2 | < 0.001 | 0.260 | 0.098 | 0.098 | 0.002 | 0.109 | 0.002 | 1.097 |
| 3 | < 0.001 | 0.248 | 0.097 | 0.098 | 0.002 | 0.101 | 1.667 | 0.764 |
| 4 | < 0.001 | 0.235 | 0.097 | 0.098 | 0.002 | 0.089 | 1.053 | 0.591 |
| 7 | < 0.001 | 0.213 | 0.095 | 0.098 | 0.001 | 0.081 | 0.003 | 0.496 |
| 14 | < 0.001 | 0.187 | 0.095 | 0.097 | 0.002 | 0.060 | < 0.001 | 0.292 |
| 21 | < 0.001 | 0.191 | 0.090 | 0.096 | < 0.001 | 0.048 | < 0.001 | 0.197 |
| 28 | < 0.001 | 0.177 | 0.085 | 0.095 | 0.001 | 0.041 | < 0.001 | 0.151 |
| 42 | < 0.001 | 0.132 | 0.077 | 0.093 | < 0.001 | 0.031 | < 0.001 | 0.101 |
| 50 | < 0.001 | 0.117 | 0.073 | 0.091 | < 0.001 | 0.028 | < 0.001 | 0.085 |
| 100 | < 0.001 | 0.069 | 0.078 | 0.085 | < 0.001 | 0.017 | 0.046 | 0.042 |

Table A 33. FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following single application of 1 x 150 g a.s. ha$^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D4 Pond.

| Step 3 | D1 Ditch | | D1 Stream | | D3 Ditch | | D4 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg kg$^{-1}$] | TWA [µg kg$^{-1}$] | Actual [µg kg$^{-1}$] | TWA [µg kg$^{-1}$] | Actual [µg kg$^{-1}$] | TWA [µg kg$^{-1}$] | Actual [µg kg$^{-1}$] | TWA [µg kg$^{-1}$] |
| 0 | 13.980 | - | 7.779 | - | 0.481 | - | 2.034 | - |
| 1 | 13.950 | 13.970 | 7.779 | 7.779 | 0.403 | 0.469 | < 0.001 | 2.034 |
| 2 | 13.940 | 13.970 | 7.778 | 7.779 | 0.323 | 0.440 | < 0.001 | 2.034 |
| 3 | 13.940 | 13.970 | 7.777 | 7.779 | 0.273 | 0.408 | < 0.001 | 2.034 |
| 4 | 13.940 | 13.960 | 7.778 | 7.778 | 0.240 | 0.379 | < 0.001 | 2.034 |
| 7 | 13.940 | 13.950 | 7.775 | 7.778 | 0.186 | 0.316 | < 0.001 | 2.033 |
| 14 | 13.910 | 13.950 | 7.716 | 7.774 | 0.135 | 0.241 | < 0.001 | 2.032 |
| 21 | 13.840 | 13.940 | 7.563 | 7.766 | 0.111 | 0.203 | < 0.001 | 2.030 |
| 28 | 13.720 | 13.920 | 7.212 | 7.754 | 0.096 | 0.178 | < 0.001 | 2.027 |
| 42 | 13.240 | 13.880 | 6.912 | 7.709 | 0.078 | 0.148 | < 0.001 | 2.018 |
| 50 | 13.410 | 13.840 | 7.060 | 7.674 | 0.071 | 0.137 | < 0.001 | 2.011 |
| 100 | < 0.001 | 13.680 | < 0.001 | 7.396 | 0.045 | 0.097 | < 0.001 | 1.919 |

**Table A 34. FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D4 Stream to R4 Stream.**

| Step 3 | D4 Stream | | D5 Pond | | D5 Stream | | R4 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 0.758 | - | 0.897 | - | 0.203 | - | 1.437 | - |
| 1 | 0.756 | 0.758 | 0.897 | 0.897 | 0.199 | 0.203 | 1.146 | 1.364 |
| 2 | 0.749 | 0.757 | 0.897 | 0.897 | 0.191 | 0.201 | 0.965 | 1.270 |
| 3 | 0.739 | 0.756 | 0.897 | 0.897 | 0.186 | 0.199 | 0.860 | 1.198 |
| 4 | 0.727 | 0.755 | 0.896 | 0.897 | 0.188 | 0.197 | 0.789 | 1.138 |
| 7 | 0.681 | 0.748 | 0.895 | 0.897 | 0.195 | 0.194 | 0.854 | 1.032 |
| 14 | 0.572 | 0.732 | 0.892 | 0.897 | 0.182 | 0.193 | 0.609 | 0.902 |
| 21 | 0.521 | 0.703 | 0.889 | 0.896 | 0.182 | 0.188 | 0.511 | 0.795 |
| 28 | 0.579 | 0.671 | 0.886 | 0.895 | 0.164 | 0.184 | 0.450 | 0.727 |
| 42 | 0.516 | 0.631 | < 0.001 | 0.894 | 0.136 | 0.175 | 0.371 | 0.629 |
| 50 | 0.479 | 0.619 | < 0.001 | 0.892 | 0.123 | 0.169 | 0.336 | 0.589 |
| 100 | 0.338 | 0.535 | < 0.001 | 0.843 | 0.094 | 0.142 | 0.226 | 0.432 |

**Table A 35. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D4 Pond.**

| Step 3 | D1 Ditch | | D1 Stream | | D3 Ditch | | D4 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 4.183 | - | 2.617 | - | 0.832 | - | 0.689 | - |
| 1 | 4.157 | 4.143 | 2.595 | 2.588 | 0.471 | 0.674 | 0.689 | 0.689 |
| 2 | 4.106 | 4.142 | 2.553 | 2.585 | 0.097 | 0.461 | 0.687 | 0.689 |
| 3 | 4.065 | 4.125 | 2.525 | 2.571 | 0.020 | 0.323 | 0.684 | 0.689 |
| 4 | 4.047 | 4.107 | 2.521 | 2.558 | 0.008 | 0.245 | 0.680 | 0.688 |
| 7 | 3.953 | 4.068 | 2.440 | 2.529 | 0.002 | 0.142 | 0.667 | 0.686 |
| 14 | 3.478 | 3.861 | 2.155 | 2.399 | < 0.001 | 0.072 | 0.631 | 0.678 |
| 21 | 3.031 | 3.781 | 1.866 | 2.324 | < 0.001 | 0.093 | 0.599 | 0.668 |
| 28 | 2.782 | 3.805 | 1.674 | 2.348 | < 0.001 | 0.070 | 0.574 | 0.656 |
| 42 | 2.826 | 3.657 | 1.743 | 2.259 | < 0.001 | 0.047 | 0.520 | 0.631 |
| 50 | 2.620 | 3.531 | 1.549 | 2.179 | < 0.001 | 0.040 | 0.493 | 0.618 |
| 100 | 1.483 | 3.011 | 0.021 | 1.833 | < 0.001 | 0.020 | 0.374 | 0.541 |

**Table A 36. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D4 Stream to R4 Stream.**

| Step 3 | D4 Stream | | D5 Pond | | D5 Stream | | R4 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg L⁻¹] | TWA [µg L⁻¹] | Actual [µg L⁻¹] | TWA [µg L⁻¹] | Actual [µg L⁻¹] | TWA [µg L⁻¹] | Actual [µg L⁻¹] | TWA [µg L⁻¹] |
| 0 | 0.709 | - | 0.194 | - | 0.721 | - | 3.027 | - |
| 1 | < 0.001 | 0.582 | 0.194 | 0.194 | 0.004 | 0.222 | 0.012 | 1.730 |
| 2 | < 0.001 | 0.557 | 0.193 | 0.194 | 0.004 | 0.212 | 0.005 | 1.617 |
| 3 | < 0.001 | 0.532 | 0.192 | 0.194 | 0.004 | 0.196 | 0.003 | 1.081 |
| 4 | < 0.001 | 0.512 | 0.191 | 0.193 | 0.003 | 0.174 | 0.002 | 0.812 |
| 7 | < 0.001 | 0.476 | 0.187 | 0.193 | 0.003 | 0.160 | < 0.001 | 0.666 |
| 14 | < 0.001 | 0.434 | 0.187 | 0.191 | < 0.001 | 0.118 | < 0.001 | 0.488 |
| 21 | < 0.001 | 0.437 | 0.177 | 0.189 | < 0.001 | 0.096 | < 0.001 | 0.326 |
| 28 | < 0.001 | 0.396 | 0.168 | 0.188 | < 0.001 | 0.081 | < 0.001 | 0.248 |
| 42 | < 0.001 | 0.294 | 0.153 | 0.182 | < 0.001 | 0.062 | < 0.001 | 0.166 |
| 50 | < 0.001 | 0.260 | 0.144 | 0.179 | < 0.001 | 0.055 | < 0.001 | 0.139 |
| 100 | 0.002 | 0.150 | 0.153 | 0.161 | < 0.001 | 0.034 | < 0.001 | 0.070 |

**Table A 37. FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D4 Pond.**

| Step 3 | D1 Ditch | | D1 Stream | | D3 Ditch | | D4 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg kg⁻¹] | TWA [µg kg⁻¹] | Actual [µg kg⁻¹] | TWA [µg kg⁻¹] | Actual [µg kg⁻¹] | TWA [µg kg⁻¹] | Actual [µg kg⁻¹] | TWA [µg kg⁻¹] |
| 0 | 22.190 | - | 12.550 | - | 0.547 | - | 4.198 | - |
| 1 | 22.140 | 22.190 | 12.550 | 12.550 | 0.478 | 0.537 | < 0.001 | 4.198 |
| 2 | 22.110 | 22.180 | 12.550 | 12.550 | 0.402 | 0.511 | < 0.001 | 4.198 |
| 3 | 22.100 | 22.180 | 12.540 | 12.550 | 0.352 | 0.482 | < 0.001 | 4.197 |
| 4 | 22.100 | 22.180 | 12.520 | 12.550 | 0.319 | 0.454 | < 0.001 | 4.197 |
| 7 | 22.060 | 22.160 | 12.450 | 12.550 | 0.262 | 0.393 | < 0.001 | 4.196 |
| 14 | 21.950 | 22.130 | 12.440 | 12.520 | 0.202 | 0.316 | < 0.001 | 4.194 |
| 21 | 21.800 | 22.110 | 12.260 | 12.500 | 0.171 | 0.274 | < 0.001 | 4.190 |
| 28 | 21.590 | 22.080 | 11.100 | 12.480 | 0.150 | 0.265 | < 0.001 | 4.184 |
| 42 | 20.820 | 22.000 | 9.297 | 12.470 | 0.124 | 0.235 | < 0.001 | 4.166 |
| 50 | 21.010 | 21.940 | 8.620 | 12.440 | 0.113 | 0.221 | < 0.001 | 4.151 |
| 100 | < 0.001 | 21.540 | 6.072 | 11.940 | 0.074 | 0.163 | < 0.001 | 3.969 |

**~~Table A 38. FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D4 Stream to R4 Stream.~~**

| ~~Step 3~~ | ~~D4 Stream~~ | | ~~D5 Pond~~ | | ~~D5 Stream~~ | | ~~R4 Stream~~ | |
|---|---|---|---|---|---|---|---|---|
| ~~Time [d]~~ | ~~Actual [µg kg⁻¹]~~ | ~~TWA [µg kg⁻¹]~~ | ~~Actual [µg kg⁻¹]~~ | ~~TWA [µg kg⁻¹]~~ | ~~Actual [µg kg⁻¹]~~ | ~~TWA [µg kg⁻¹]~~ | ~~Actual [µg kg⁻¹]~~ | ~~TWA [µg kg⁻¹]~~ |
| ~~0~~ | ~~1.601~~ | ~~-~~ | ~~1.692~~ | ~~-~~ | ~~0.380~~ | ~~-~~ | ~~2.370~~ | ~~-~~ |
| ~~1~~ | ~~1.595~~ | ~~1.600~~ | ~~1.692~~ | ~~1.692~~ | ~~0.374~~ | ~~0.380~~ | ~~1.801~~ | ~~2.183~~ |
| ~~2~~ | ~~1.580~~ | ~~1.599~~ | ~~1.692~~ | ~~1.692~~ | ~~0.360~~ | ~~0.377~~ | ~~1.526~~ | ~~2.004~~ |
| ~~3~~ | ~~1.559~~ | ~~1.596~~ | ~~1.692~~ | ~~1.692~~ | ~~0.353~~ | ~~0.374~~ | ~~1.368~~ | ~~1.895~~ |
| ~~4~~ | ~~1.533~~ | ~~1.593~~ | ~~1.691~~ | ~~1.692~~ | ~~0.358~~ | ~~0.370~~ | ~~1.262~~ | ~~1.791~~ |
| ~~7~~ | ~~1.443~~ | ~~1.586~~ | ~~1.691~~ | ~~1.692~~ | ~~0.369~~ | ~~0.366~~ | ~~1.069~~ | ~~1.562~~ |
| ~~14~~ | ~~1.232~~ | ~~1.551~~ | ~~1.688~~ | ~~1.691~~ | ~~0.343~~ | ~~0.365~~ | ~~0.845~~ | ~~1.323~~ |
| ~~21~~ | ~~1.120~~ | ~~1.491~~ | ~~1.684~~ | ~~1.691~~ | ~~0.342~~ | ~~0.354~~ | ~~0.725~~ | ~~1.197~~ |
| ~~28~~ | ~~1.166~~ | ~~1.425~~ | ~~< 0.001~~ | ~~1.690~~ | ~~0.306~~ | ~~0.347~~ | ~~0.644~~ | ~~1.093~~ |
| ~~42~~ | ~~1.057~~ | ~~1.331~~ | ~~< 0.001~~ | ~~1.688~~ | ~~0.259~~ | ~~0.330~~ | ~~0.532~~ | ~~0.946~~ |
| ~~50~~ | ~~0.984~~ | ~~1.300~~ | ~~< 0.001~~ | ~~1.684~~ | ~~0.236~~ | ~~0.319~~ | ~~0.483~~ | ~~0.884~~ |
| ~~100~~ | ~~0.694~~ | ~~1.113~~ | ~~< 0.001~~ | ~~1.580~~ | ~~0.183~~ | ~~0.270~~ | ~~0.388~~ | ~~0.652~~ |

**Table A 39. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D4 Pond.**

| Step 3 | D1 Ditch | | D1 Stream | | D3 Ditch | | D4 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg L⁻¹] | TWA [µg L⁻¹] | Actual [µg L⁻¹] | TWA [µg L⁻¹] | Actual [µg L⁻¹] | TWA [µg L⁻¹] | Actual [µg L⁻¹] | TWA [µg L⁻¹] |
| 0 | 2.436 | - | 1.526 | - | 0.950 | - | 0.311 | - |
| 1 | 2.416 | 2.405 | 1.510 | 1.502 | 0.476 | 0.747 | 0.311 | 0.311 |
| 2 | 2.379 | 2.403 | 1.479 | 1.501 | 0.076 | 0.487 | 0.310 | 0.311 |
| 3 | 2.352 | 2.392 | 1.462 | 1.492 | 0.015 | 0.336 | 0.309 | 0.311 |
| 4 | 2.345 | 2.380 | 1.466 | 1.483 | 0.006 | 0.254 | 0.307 | 0.311 |
| 7 | 2.306 | 2.361 | 1.425 | 1.469 | 0.002 | 0.147 | 0.301 | 0.310 |
| 14 | 2.095 | 2.263 | 1.299 | 1.407 | 0.001 | 0.074 | 0.284 | 0.306 |
| 21 | 1.848 | 2.177 | 1.138 | 1.351 | 0.000 | 0.049 | 0.270 | 0.301 |
| 28 | 1.701 | 2.089 | 1.025 | 1.290 | 0.000 | 0.037 | 0.265 | 0.296 |
| 42 | 1.714 | 2.041 | 1.057 | 1.263 | 0.000 | 0.025 | 0.241 | 0.286 |
| 50 | 1.591 | 1.993 | 0.942 | 1.231 | 0.000 | 0.021 | 0.228 | 0.281 |
| 100 | 0.920 | 1.754 | 0.013 | 1.069 | 0.000 | 0.010 | 0.173 | 0.248 |

**Table A 40.** **FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D4 Stream to R4 Stream.**

| Step 3 | D4 Stream | | D5 Pond | | D5 Stream | | R4 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 0.778 | - | 0.099 | - | 0.801 | - | 1.770 | - |
| 1 | 0.001 | 0.274 | 0.099 | 0.099 | 0.002 | 0.116 | 0.008 | 1.175 |
| 2 | 0.001 | 0.264 | 0.099 | 0.099 | 0.002 | 0.111 | 0.003 | 1.101 |
| 3 | 0.001 | 0.251 | 0.098 | 0.099 | 0.002 | 0.102 | 1.672 | 0.766 |
| 4 | 0.001 | 0.238 | 0.098 | 0.099 | 0.002 | 0.090 | 1.056 | 0.593 |
| 7 | 0.001 | 0.216 | 0.096 | 0.099 | 0.002 | 0.082 | 0.003 | 0.497 |
| 14 | < 0.001 | 0.190 | 0.096 | 0.098 | 0.002 | 0.060 | 0.001 | 0.293 |
| 21 | < 0.001 | 0.193 | 0.091 | 0.097 | 0.001 | 0.049 | < 0.001 | 0.198 |
| 28 | < 0.001 | 0.179 | 0.086 | 0.096 | 0.001 | 0.041 | < 0.001 | 0.151 |
| 42 | < 0.001 | 0.133 | 0.078 | 0.094 | < 0.001 | 0.032 | < 0.001 | 0.101 |
| 50 | < 0.001 | 0.119 | 0.074 | 0.092 | < 0.001 | 0.028 | < 0.001 | 0.085 |
| 100 | < 0.001 | 0.070 | 0.079 | 0.086 | < 0.001 | 0.017 | 0.048 | 0.042 |

**Table A 41.** **FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D4 Pond.**

| Step 3 | D1 Ditch | | D1 Stream | | D3 Ditch | | D4 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 4.190 | - | 2.621 | - | 0.831 | - | 0.695 | - |
| 1 | 4.164 | 4.150 | 2.599 | 2.592 | 0.442 | 0.662 | 0.694 | 0.695 |
| 2 | 4.112 | 4.148 | 2.557 | 2.589 | 0.080 | 0.442 | 0.692 | 0.695 |
| 3 | 4.071 | 4.131 | 2.529 | 2.575 | 0.016 | 0.307 | 0.689 | 0.694 |
| 4 | 4.053 | 4.114 | 2.525 | 2.562 | 0.006 | 0.233 | 0.686 | 0.694 |
| 7 | 3.959 | 4.074 | 2.443 | 2.532 | 0.002 | 0.134 | 0.672 | 0.692 |
| 14 | 3.484 | 3.867 | 2.159 | 2.402 | 0.001 | 0.068 | 0.637 | 0.684 |
| 21 | 3.035 | 3.785 | 1.868 | 2.326 | < 0.001 | 0.088 | 0.603 | 0.673 |
| 28 | 2.785 | 3.808 | 1.676 | 2.349 | < 0.001 | 0.066 | 0.579 | 0.661 |
| 42 | 2.832 | 3.661 | 1.747 | 2.261 | < 0.001 | 0.044 | 0.525 | 0.636 |
| 50 | 2.625 | 3.535 | 1.551 | 2.181 | < 0.001 | 0.037 | 0.497 | 0.623 |
| 100 | 1.484 | 3.015 | 0.021 | 1.836 | < 0.001 | 0.019 | 0.377 | 0.546 |

**Table A 42. FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D4 Stream to R4 Stream.**

| Step 3 | D4 Stream | | D5 Pond | | D5 Stream | | R4 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 0.714 | - | 0.196 | - | 0.721 | - | 1.771 | - |
| 1 | 0.399 | 0.587 | 0.196 | 0.196 | 0.004 | 0.224 | 0.008 | 1.175 |
| 2 | 0.686 | 0.562 | 0.195 | 0.196 | 0.004 | 0.214 | 0.002 | 1.101 |
| 3 | 0.477 | 0.537 | 0.194 | 0.196 | 0.004 | 0.198 | 1.672 | 0.766 |
| 4 | 0.377 | 0.516 | 0.193 | 0.195 | 0.004 | 0.176 | 1.056 | 0.593 |
| 7 | 0.367 | 0.480 | 0.189 | 0.195 | 0.003 | 0.162 | 0.003 | 0.497 |
| 14 | 0.514 | 0.437 | 0.189 | 0.193 | < 0.001 | 0.120 | 0.001 | 0.301 |
| 21 | 0.320 | 0.440 | 0.179 | 0.191 | < 0.001 | 0.097 | < 0.001 | 0.201 |
| 28 | 0.130 | 0.399 | 0.169 | 0.190 | < 0.001 | 0.082 | < 0.001 | 0.155 |
| 42 | 0.057 | 0.297 | 0.155 | 0.184 | < 0.001 | 0.063 | < 0.001 | 0.103 |
| 50 | 0.106 | 0.262 | 0.146 | 0.180 | < 0.001 | 0.056 | < 0.001 | 0.087 |
| 100 | 0.008 | 0.151 | 0.154 | 0.163 | < 0.001 | 0.034 | 0.439 | 0.043 |

## Step 4: winter cereals

**Table A 43. FOCUS Step 4 actual and time-weighted average $PEC_{sw}$ for Azoxystrobin following single application of 1 x 150 g a.s./ha to Cereals, winter. 10-20 m spray buffer and 0-20 m runoff buffer, no nozzle reduction.**

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D1 Ditch | 0 | 1.692 | - | 1.692 | - | | | | |
| | 1 | 1.665 | 1.658 | 1.665 | 1.658 | | | | |
| | 2 | 1.638 | 1.657 | 1.638 | 1.657 | | | | |
| | 3 | 1.615 | 1.647 | 1.615 | 1.647 | | | | |
| | 4 | 1.607 | 1.638 | 1.607 | 1.638 | | | | |
| | 7 | 1.597 | 1.625 | 1.597 | 1.625 | | | | |
| | 14 | 1.530 | 1.587 | 1.530 | 1.587 | | | | |
| | 21 | 1.371 | 1.547 | 1.371 | 1.547 | | | | |
| | 28 | 1.263 | 1.493 | 1.263 | 1.493 | | | | |
| | 42 | 1.274 | 1.412 | 1.274 | 1.412 | | | | |
| | 50 | 1.175 | 1.385 | 1.175 | 1.385 | | | | |
| | 100 | 0.498 | 1.203 | 0.498 | 1.203 | | | | |
| | | | | | | | | | |
| D1 Stream | 0 | 1.066 | - | 1.066 | - | | | | |
| | 1 | 1.044 | 1.037 | 1.044 | 1.037 | | | | |
| | 2 | 1.018 | 1.036 | 1.018 | 1.036 | | | | |
| | 3 | 1.004 | 1.028 | 1.004 | 1.028 | | | | |
| | 4 | 1.004 | 1.021 | 1.004 | 1.021 | | | | |
| | 7 | 0.989 | 1.012 | 0.989 | 1.012 | | | | |
| | 14 | 0.949 | 0.987 | 0.949 | 0.987 | | | | |
| | 21 | 0.845 | 0.961 | 0.845 | 0.961 | | | | |
| | 28 | 0.764 | 0.925 | 0.764 | 0.925 | | | | |
| | 42 | 0.786 | 0.868 | 0.786 | 0.868 | | | | |
| | 50 | 0.675 | 0.850 | 0.675 | 0.850 | | | | |
| | 100 | 0.003 | 0.663 | 0.003 | 0.663 | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D2 Ditch | 0 | 3.714 | - | 3.714 | - | | | | |
| | 1 | 0.691 | 2.214 | 0.691 | 2.214 | | | | |
| | 2 | 0.522 | 2.196 | 0.522 | 2.196 | | | | |
| | 3 | 0.426 | 2.029 | 0.425 | 2.029 | | | | |
| | 4 | 0.309 | 1.917 | 0.309 | 1.917 | | | | |
| | 7 | 0.571 | 1.897 | 0.571 | 1.897 | | | | |
| | 14 | 0.491 | 1.832 | 0.491 | 1.832 | | | | |
| | 21 | 1.605 | 1.691 | 1.605 | 1.691 | | | | |
| | 28 | 2.100 | 1.558 | 2.100 | 1.558 | | | | |
| | 42 | 1.152 | 1.406 | 1.152 | 1.406 | | | | |
| | 50 | 1.003 | 1.334 | 1.003 | 1.334 | | | | |
| | 100 | 0.643 | 1.056 | 0.643 | 1.056 | | | | |
| | | | | | | | | | |
| D2 Stream | 0 | 2.337 | - | 2.337 | - | | | | |
| | 1 | 0.140 | 1.319 | 0.140 | 1.319 | | | | |
| | 2 | 0.132 | 1.283 | 0.132 | 1.283 | | | | |
| | 3 | 0.154 | 1.149 | 0.154 | 1.149 | | | | |
| | 4 | 0.130 | 1.113 | 0.130 | 1.113 | | | | |
| | 7 | 0.435 | 1.103 | 0.435 | 1.103 | | | | |
| | 14 | 0.166 | 1.045 | 0.166 | 1.045 | | | | |
| | 21 | 0.704 | 0.972 | 0.704 | 0.972 | | | | |
| | 28 | 1.338 | 0.903 | 1.338 | 0.903 | | | | |
| | 42 | 0.704 | 0.820 | 0.704 | 0.820 | | | | |
| | 50 | 0.658 | 0.778 | 0.658 | 0.778 | | | | |
| | 100 | 0.388 | 0.617 | 0.388 | 0.617 | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D3 Ditch | 0 | 0.137 | - | 0.071 | - | | | | |
| | 1 | 0.073 | 0.109 | 0.038 | 0.057 | | | | |
| | 2 | 0.013 | 0.073 | 0.007 | 0.038 | | | | |
| | 3 | 0.003 | 0.050 | 0.001 | 0.026 | | | | |
| | 4 | 0.001 | 0.038 | < 0.001 | 0.020 | | | | |
| | 7 | < 0.001 | 0.022 | < 0.001 | 0.011 | | | | |
| | 14 | < 0.001 | 0.011 | < 0.001 | 0.006 | | | | |
| | 21 | < 0.001 | 0.007 | < 0.001 | 0.004 | | | | |
| | 28 | < 0.001 | 0.006 | < 0.001 | 0.003 | | | | |
| | 42 | < 0.001 | 0.004 | < 0.001 | 0.002 | | | | |
| | 50 | < 0.001 | 0.003 | < 0.001 | 0.002 | | | | |
| | 100 | < 0.001 | 0.002 | < 0.001 | < 0.001 | | | | |
| | | | | | | | | | |
| D4 Pond | 0 | 0.213 | - | 0.212 | - | | | | |
| | 1 | 0.213 | 0.213 | 0.211 | 0.212 | | | | |
| | 2 | 0.212 | 0.213 | 0.211 | 0.212 | | | | |
| | 3 | 0.211 | 0.213 | 0.210 | 0.211 | | | | |
| | 4 | 0.210 | 0.213 | 0.209 | 0.211 | | | | |
| | 7 | 0.206 | 0.212 | 0.204 | 0.211 | | | | |
| | 14 | 0.194 | 0.209 | 0.193 | 0.208 | | | | |
| | 21 | 0.185 | 0.206 | 0.184 | 0.205 | | | | |
| | 28 | 0.184 | 0.202 | 0.183 | 0.201 | | | | |
| | 42 | 0.168 | 0.196 | 0.167 | 0.195 | | | | |
| | 50 | 0.159 | 0.193 | 0.158 | 0.192 | | | | |
| | 100 | 0.121 | 0.171 | 0.120 | 0.170 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D4 Stream | 0 | 0.254 | - | 0.254 | - | | | | |
| | 1 | 0.109 | 0.194 | 0.109 | 0.194 | | | | |
| | 2 | 0.240 | 0.184 | 0.240 | 0.184 | | | | |
| | 3 | 0.135 | 0.173 | 0.135 | 0.173 | | | | |
| | 4 | 0.090 | 0.162 | 0.090 | 0.162 | | | | |
| | 7 | 0.084 | 0.148 | 0.084 | 0.148 | | | | |
| | 14 | 0.174 | 0.135 | 0.174 | 0.135 | | | | |
| | 21 | 0.120 | 0.129 | 0.120 | 0.129 | | | | |
| | 28 | 0.049 | 0.123 | 0.049 | 0.123 | | | | |
| | 42 | 0.016 | 0.091 | 0.016 | 0.091 | | | | |
| | 50 | 0.050 | 0.082 | 0.050 | 0.082 | | | | |
| | 100 | 0.003 | 0.049 | 0.003 | 0.049 | | | | |
| | | | | | | | | | |
| D5 Pond | 0 | 0.091 | - | 0.091 | - | | | | |
| | 1 | 0.091 | 0.091 | 0.091 | 0.091 | | | | |
| | 2 | 0.091 | 0.091 | 0.091 | 0.091 | | | | |
| | 3 | 0.090 | 0.091 | 0.090 | 0.091 | | | | |
| | 4 | 0.090 | 0.091 | 0.090 | 0.091 | | | | |
| | 7 | 0.088 | 0.090 | 0.088 | 0.090 | | | | |
| | 14 | 0.088 | 0.090 | 0.088 | 0.090 | | | | |
| | 21 | 0.083 | 0.089 | 0.083 | 0.089 | | | | |
| | 28 | 0.079 | 0.088 | 0.079 | 0.088 | | | | |
| | 42 | 0.072 | 0.086 | 0.072 | 0.086 | | | | |
| | 50 | 0.068 | 0.084 | 0.068 | 0.084 | | | | |
| | 100 | 0.067 | 0.078 | 0.062 | 0.077 | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D5 Stream | 0 | 0.151 | - | 0.146 | - | | | | |
| | 1 | 0.004 | 0.106 | 0.105 | 0.106 | | | | |
| | 2 | 0.004 | 0.101 | 0.060 | 0.101 | | | | |
| | 3 | 0.003 | 0.093 | 0.051 | 0.093 | | | | |
| | 4 | 0.003 | 0.082 | 0.090 | 0.082 | | | | |
| | 7 | 0.002 | 0.075 | 0.031 | 0.075 | | | | |
| | 14 | 0.001 | 0.055 | 0.032 | 0.055 | | | | |
| | 21 | 0.001 | 0.045 | 0.014 | 0.045 | | | | |
| | 28 | < 0.001 | 0.038 | 0.018 | 0.038 | | | | |
| | 42 | < 0.001 | 0.029 | 0.006 | 0.029 | | | | |
| | 50 | < 0.001 | 0.026 | 0.004 | 0.026 | | | | |
| | 100 | < 0.001 | 0.016 | < 0.001 | 0.016 | | | | |
| | | | | | | | | | |
| D6 Ditch | 0 | 0.215 | - | 0.215 | - | | | | |
| | 1 | 0.176 | 0.194 | 0.176 | 0.194 | | | | |
| | 2 | 0.159 | 0.180 | 0.159 | 0.180 | | | | |
| | 3 | 0.119 | 0.171 | 0.119 | 0.171 | | | | |
| | 4 | 0.091 | 0.160 | 0.091 | 0.160 | | | | |
| | 7 | 0.050 | 0.126 | 0.050 | 0.126 | | | | |
| | 14 | 0.006 | 0.096 | 0.006 | 0.096 | | | | |
| | 21 | 0.018 | 0.069 | 0.018 | 0.069 | | | | |
| | 28 | 0.056 | 0.053 | 0.056 | 0.053 | | | | |
| | 42 | 0.002 | 0.044 | 0.002 | 0.044 | | | | |
| | 50 | 0.001 | 0.037 | 0.001 | 0.037 | | | | |
| | 100 | 0.003 | 0.023 | 0.003 | 0.023 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| R1 Pond | 0 | | | | | 0.057 | - | 0.031 | - |
| | 1 | | | | | 0.057 | 0.057 | 0.030 | 0.030 |
| | 2 | | | | | 0.056 | 0.057 | 0.030 | 0.030 |
| | 3 | | | | | 0.055 | 0.056 | 0.029 | 0.030 |
| | 4 | | | | | 0.055 | 0.056 | 0.029 | 0.030 |
| | 7 | | | | | 0.053 | 0.055 | 0.028 | 0.029 |
| | 14 | | | | | 0.050 | 0.053 | 0.026 | 0.028 |
| | 21 | | | | | 0.046 | 0.052 | 0.025 | 0.027 |
| | 28 | | | | | 0.044 | 0.051 | 0.024 | 0.027 |
| | 42 | | | | | 0.040 | 0.051 | 0.021 | 0.027 |
| | 50 | | | | | 0.038 | 0.050 | 0.020 | 0.027 |
| | 100 | | | | | 0.027 | 0.044 | 0.014 | 0.024 |
| | | | | | | | | | |
| R1 Stream | 0 | | | | | 0.575 | - | 0.301 | - |
| | 1 | | | | | 0.001 | 0.315 | < 0.001 | 0.165 |
| | 2 | | | | | < 0.001 | 0.158 | < 0.001 | 0.083 |
| | 3 | | | | | < 0.001 | 0.106 | < 0.001 | 0.055 |
| | 4 | | | | | < 0.001 | 0.079 | < 0.001 | 0.041 |
| | 7 | | | | | < 0.001 | 0.067 | < 0.001 | 0.035 |
| | 14 | | | | | 0.003 | 0.046 | 0.002 | 0.024 |
| | 21 | | | | | < 0.001 | 0.036 | < 0.001 | 0.019 |
| | 28 | | | | | < 0.001 | 0.029 | < 0.001 | 0.015 |
| | 42 | | | | | < 0.001 | 0.021 | < 0.001 | 0.011 |
| | 50 | | | | | < 0.001 | 0.019 | < 0.001 | 0.010 |
| | 100 | | | | | < 0.001 | 0.010 | < 0.001 | 0.005 |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| R3 Stream | 0 | | | | | 0.616 | - | 0.323 | - |
| | 1 | | | | | 0.006 | 0.546 | 0.003 | 0.287 |
| | 2 | | | | | 0.002 | 0.299 | 0.001 | 0.157 |
| | 3 | | | | | 0.001 | 0.200 | < 0.001 | 0.105 |
| | 4 | | | | | < 0.001 | 0.151 | < 0.001 | 0.079 |
| | 7 | | | | | < 0.001 | 0.086 | < 0.001 | 0.045 |
| | 14 | | | | | < 0.001 | 0.043 | < 0.001 | 0.023 |
| | 21 | | | | | < 0.001 | 0.029 | < 0.001 | 0.015 |
| | 28 | | | | | < 0.001 | 0.031 | < 0.001 | 0.016 |
| | 42 | | | | | < 0.001 | 0.024 | < 0.001 | 0.013 |
| | 50 | | | | | < 0.001 | 0.020 | < 0.001 | 0.011 |
| | 100 | | | | | < 0.001 | 0.011 | < 0.001 | 0.006 |
| R4 Stream | 0 | | | | | 0.571 | - | 0.298 | - |
| | 1 | | | | | 0.002 | 0.376 | 0.001 | 0.197 |
| | 2 | | | | | < 0.001 | 0.234 | < 0.001 | 0.123 |
| | 3 | | | | | 0.378 | 0.162 | 0.198 | 0.085 |
| | 4 | | | | | 0.207 | 0.162 | 0.109 | 0.085 |
| | 7 | | | | | < 0.001 | 0.124 | < 0.001 | 0.065 |
| | 14 | | | | | < 0.001 | 0.070 | < 0.001 | 0.037 |
| | 21 | | | | | < 0.001 | 0.047 | < 0.001 | 0.024 |
| | 28 | | | | | < 0.001 | 0.035 | < 0.001 | 0.018 |
| | 42 | | | | | < 0.001 | 0.023 | < 0.001 | 0.012 |
| | 50 | | | | | < 0.001 | 0.020 | < 0.001 | 0.010 |
| | 100 | | | | | 0.007 | 0.010 | 0.004 | 0.005 |

**Table A 44 FOCUS Step 4 actual and time-weighted average $PEC_{sw}$ for Azoxystrobin following single application of 1 x 150 g a.s./ha to Cereals, winter. 10-20 m spray buffer and 0-20 m runoff buffer, 50 % nozzle reduction.**

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D1 Ditch | 0 | 1.692 | - | 1.692 | - | | | | |
| | 1 | 1.665 | 1.658 | 1.665 | 1.658 | | | | |
| | 2 | 1.638 | 1.657 | 1.638 | 1.657 | | | | |
| | 3 | 1.615 | 1.647 | 1.615 | 1.647 | | | | |
| | 4 | 1.607 | 1.638 | 1.607 | 1.638 | | | | |
| | 7 | 1.597 | 1.625 | 1.597 | 1.625 | | | | |
| | 14 | 1.530 | 1.587 | 1.530 | 1.587 | | | | |
| | 21 | 1.371 | 1.547 | 1.371 | 1.547 | | | | |
| | 28 | 1.263 | 1.493 | 1.263 | 1.493 | | | | |
| | 42 | 1.274 | 1.412 | 1.274 | 1.412 | | | | |
| | 50 | 1.175 | 1.385 | 1.175 | 1.385 | | | | |
| | 100 | 0.498 | 1.203 | 0.498 | 1.203 | | | | |
| | | | | | | | | | |
| D1 Stream | 0 | 1.066 | - | 1.066 | - | | | | |
| | 1 | 1.044 | 1.037 | 1.044 | 1.037 | | | | |
| | 2 | 1.018 | 1.036 | 1.018 | 1.036 | | | | |
| | 3 | 1.004 | 1.028 | 1.004 | 1.028 | | | | |
| | 4 | 1.004 | 1.021 | 1.004 | 1.021 | | | | |
| | 7 | 0.989 | 1.012 | 0.989 | 1.012 | | | | |
| | 14 | 0.949 | 0.987 | 0.949 | 0.987 | | | | |
| | 21 | 0.845 | 0.961 | 0.845 | 0.961 | | | | |
| | 28 | 0.764 | 0.925 | 0.764 | 0.925 | | | | |
| | 42 | 0.786 | 0.868 | 0.786 | 0.868 | | | | |
| | 50 | 0.675 | 0.850 | 0.675 | 0.850 | | | | |
| | 100 | 0.003 | 0.663 | 0.003 | 0.663 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D2 Ditch | 0 | 3.714 | - | 3.714 | - | | | | |
| | 1 | 0.691 | 2.214 | 0.691 | 2.214 | | | | |
| | 2 | 0.522 | 2.196 | 0.522 | 2.196 | | | | |
| | 3 | 0.425 | 2.029 | 0.425 | 2.029 | | | | |
| | 4 | 0.309 | 1.917 | 0.309 | 1.917 | | | | |
| | 7 | 0.571 | 1.897 | 0.571 | 1.897 | | | | |
| | 14 | 0.491 | 1.832 | 0.491 | 1.832 | | | | |
| | 21 | 1.605 | 1.691 | 1.605 | 1.691 | | | | |
| | 28 | 2.100 | 1.558 | 2.100 | 1.558 | | | | |
| | 42 | 1.152 | 1.406 | 1.152 | 1.406 | | | | |
| | 50 | 1.003 | 1.334 | 1.003 | 1.334 | | | | |
| | 100 | 0.643 | 1.056 | 0.643 | 1.056 | | | | |
| | | | | | | | | | |
| D2 Stream | 0 | 2.337 | - | 2.337 | - | | | | |
| | 1 | 0.140 | 1.319 | 0.140 | 1.319 | | | | |
| | 2 | 0.132 | 1.283 | 0.132 | 1.283 | | | | |
| | 3 | 0.154 | 1.149 | 0.154 | 1.149 | | | | |
| | 4 | 0.130 | 1.113 | 0.130 | 1.113 | | | | |
| | 7 | 0.435 | 1.103 | 0.435 | 1.103 | | | | |
| | 14 | 0.166 | 1.045 | 0.166 | 1.045 | | | | |
| | 21 | 0.704 | 0.972 | 0.704 | 0.972 | | | | |
| | 28 | 1.338 | 0.903 | 1.338 | 0.903 | | | | |
| | 42 | 0.704 | 0.820 | 0.704 | 0.820 | | | | |
| | 50 | 0.658 | 0.778 | 0.658 | 0.778 | | | | |
| | 100 | 0.388 | 0.617 | 0.388 | 0.617 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D3 Ditch | 0 | 0.068 | - | 0.036 | - | | | | |
| | 1 | 0.036 | 0.054 | 0.019 | 0.028 | | | | |
| | 2 | 0.006 | 0.036 | 0.003 | 0.019 | | | | |
| | 3 | 0.001 | 0.025 | < 0.001 | 0.013 | | | | |
| | 4 | < 0.001 | 0.019 | < 0.001 | 0.010 | | | | |
| | 7 | < 0.001 | 0.011 | < 0.001 | 0.006 | | | | |
| | 14 | < 0.001 | 0.006 | < 0.001 | 0.003 | | | | |
| | 21 | < 0.001 | 0.004 | < 0.001 | 0.002 | | | | |
| | 28 | < 0.001 | 0.003 | < 0.001 | 0.001 | | | | |
| | 42 | < 0.001 | 0.002 | < 0.001 | < 0.001 | | | | |
| | 50 | < 0.001 | 0.002 | < 0.001 | < 0.001 | | | | |
| | 100 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | | | | |
| | | | | | | | | | |
| D4 Pond | 0 | 0.211 | - | 0.210 | - | | | | |
| | 1 | 0.211 | 0.211 | 0.210 | 0.210 | | | | |
| | 2 | 0.210 | 0.211 | 0.210 | 0.210 | | | | |
| | 3 | 0.209 | 0.211 | 0.209 | 0.210 | | | | |
| | 4 | 0.208 | 0.211 | 0.208 | 0.210 | | | | |
| | 7 | 0.204 | 0.210 | 0.203 | 0.209 | | | | |
| | 14 | 0.192 | 0.207 | 0.192 | 0.207 | | | | |
| | 21 | 0.184 | 0.204 | 0.183 | 0.203 | | | | |
| | 28 | 0.183 | 0.200 | 0.182 | 0.200 | | | | |
| | 42 | 0.166 | 0.194 | 0.166 | 0.194 | | | | |
| | 50 | 0.158 | 0.191 | 0.157 | 0.191 | | | | |
| | 100 | 0.119 | 0.169 | 0.119 | 0.169 | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D4 Stream | 0 | 0.254 | - | 0.254 | - | | | | |
| | 1 | 0.109 | 0.194 | 0.109 | 0.194 | | | | |
| | 2 | 0.240 | 0.184 | 0.240 | 0.184 | | | | |
| | 3 | 0.135 | 0.173 | 0.135 | 0.173 | | | | |
| | 4 | 0.090 | 0.162 | 0.090 | 0.162 | | | | |
| | 7 | 0.084 | 0.148 | 0.084 | 0.148 | | | | |
| | 14 | 0.174 | 0.135 | 0.174 | 0.135 | | | | |
| | 21 | 0.120 | 0.129 | 0.120 | 0.129 | | | | |
| | 28 | 0.049 | 0.123 | 0.049 | 0.123 | | | | |
| | 42 | 0.016 | 0.091 | 0.016 | 0.091 | | | | |
| | 50 | 0.050 | 0.082 | 0.050 | 0.082 | | | | |
| | 100 | 0.003 | 0.049 | 0.003 | 0.049 | | | | |
| | | | | | | | | | |
| D5 Pond | 0 | 0.091 | - | 0.091 | - | | | | |
| | 1 | 0.091 | 0.091 | 0.091 | 0.091 | | | | |
| | 2 | 0.091 | 0.091 | 0.091 | 0.091 | | | | |
| | 3 | 0.090 | 0.091 | 0.090 | 0.091 | | | | |
| | 4 | 0.090 | 0.091 | 0.090 | 0.091 | | | | |
| | 7 | 0.088 | 0.090 | 0.088 | 0.090 | | | | |
| | 14 | 0.088 | 0.090 | 0.088 | 0.090 | | | | |
| | 21 | 0.083 | 0.089 | 0.083 | 0.089 | | | | |
| | 28 | 0.079 | 0.088 | 0.079 | 0.088 | | | | |
| | 42 | 0.072 | 0.086 | 0.072 | 0.086 | | | | |
| | 50 | 0.068 | 0.084 | 0.068 | 0.084 | | | | |
| | 100 | 0.059 | 0.076 | 0.057 | 0.075 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D5 Stream | 0 | 0.146 | - | 0.146 | - | | | | |
| | 1 | 0.105 | 0.106 | 0.105 | 0.106 | | | | |
| | 2 | 0.060 | 0.101 | 0.060 | 0.101 | | | | |
| | 3 | 0.051 | 0.093 | 0.051 | 0.093 | | | | |
| | 4 | 0.090 | 0.082 | 0.090 | 0.082 | | | | |
| | 7 | 0.031 | 0.075 | 0.031 | 0.075 | | | | |
| | 14 | 0.032 | 0.055 | 0.032 | 0.055 | | | | |
| | 21 | 0.014 | 0.045 | 0.014 | 0.045 | | | | |
| | 28 | 0.018 | 0.038 | 0.018 | 0.038 | | | | |
| | 42 | 0.006 | 0.029 | 0.006 | 0.029 | | | | |
| | 50 | 0.004 | 0.026 | 0.004 | 0.026 | | | | |
| | 100 | < 0.001 | 0.016 | < 0.001 | 0.016 | | | | |
| | | | | | | | | | |
| D6 Ditch | 0 | 0.215 | - | 0.215 | - | | | | |
| | 1 | 0.176 | 0.194 | 0.176 | 0.194 | | | | |
| | 2 | 0.159 | 0.180 | 0.159 | 0.180 | | | | |
| | 3 | 0.119 | 0.171 | 0.119 | 0.171 | | | | |
| | 4 | 0.091 | 0.160 | 0.091 | 0.160 | | | | |
| | 7 | 0.050 | 0.126 | 0.050 | 0.126 | | | | |
| | 14 | 0.006 | 0.096 | 0.006 | 0.096 | | | | |
| | 21 | 0.018 | 0.069 | 0.018 | 0.069 | | | | |
| | 28 | 0.056 | 0.053 | 0.056 | 0.053 | | | | |
| | 42 | 0.002 | 0.044 | 0.002 | 0.044 | | | | |
| | 50 | 0.001 | 0.037 | 0.001 | 0.037 | | | | |
| | 100 | 0.003 | 0.023 | 0.003 | 0.023 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| R1 Pond | 0 | | | | | 0.052 | - | 0.027 | - |
| | 1 | | | | | 0.051 | 0.051 | 0.026 | 0.027 |
| | 2 | | | | | 0.050 | 0.051 | 0.026 | 0.026 |
| | 3 | | | | | 0.050 | 0.051 | 0.026 | 0.026 |
| | 4 | | | | | 0.049 | 0.050 | 0.025 | 0.026 |
| | 7 | | | | | 0.048 | 0.050 | 0.025 | 0.026 |
| | 14 | | | | | 0.044 | 0.048 | 0.023 | 0.025 |
| | 21 | | | | | 0.042 | 0.046 | 0.022 | 0.024 |
| | 28 | | | | | 0.040 | 0.045 | 0.020 | 0.023 |
| | 42 | | | | | 0.036 | 0.045 | 0.019 | 0.023 |
| | 50 | | | | | 0.034 | 0.044 | 0.017 | 0.023 |
| | 100 | | | | | 0.024 | 0.039 | 0.013 | 0.020 |
| | | | | | | | | | |
| R1 Stream | 0 | | | | | 0.575 | - | 0.301 | - |
| | 1 | | | | | 0.001 | 0.315 | < 0.001 | 0.165 |
| | 2 | | | | | < 0.001 | 0.158 | < 0.001 | 0.083 |
| | 3 | | | | | < 0.001 | 0.106 | < 0.001 | 0.055 |
| | 4 | | | | | < 0.001 | 0.079 | < 0.001 | 0.041 |
| | 7 | | | | | < 0.001 | 0.067 | < 0.001 | 0.035 |
| | 14 | | | | | 0.003 | 0.046 | 0.002 | 0.024 |
| | 21 | | | | | < 0.001 | 0.036 | < 0.001 | 0.019 |
| | 28 | | | | | < 0.001 | 0.029 | < 0.001 | 0.015 |
| | 42 | | | | | < 0.001 | 0.021 | < 0.001 | 0.011 |
| | 50 | | | | | < 0.001 | 0.019 | < 0.001 | 0.010 |
| | 100 | | | | | < 0.001 | 0.010 | < 0.001 | 0.005 |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| R3 Stream | 0 | | | | | 0.616 | - | 0.323 | - |
| | 1 | | | | | 0.006 | 0.546 | 0.003 | 0.287 |
| | 2 | | | | | 0.002 | 0.299 | 0.001 | 0.157 |
| | 3 | | | | | 0.001 | 0.200 | < 0.001 | 0.105 |
| | 4 | | | | | < 0.001 | 0.151 | < 0.001 | 0.079 |
| | 7 | | | | | < 0.001 | 0.086 | < 0.001 | 0.045 |
| | 14 | | | | | < 0.001 | 0.043 | < 0.001 | 0.023 |
| | 21 | | | | | < 0.001 | 0.029 | < 0.001 | 0.015 |
| | 28 | | | | | < 0.001 | 0.031 | < 0.001 | 0.016 |
| | 42 | | | | | < 0.001 | 0.024 | < 0.001 | 0.013 |
| | 50 | | | | | < 0.001 | 0.020 | < 0.001 | 0.011 |
| | 100 | | | | | < 0.001 | 0.010 | < 0.001 | 0.005 |
| | | | | | | | | | |
| R4 Stream | 0 | | | | | 0.571 | - | 0.298 | - |
| | 1 | | | | | 0.002 | 0.376 | 0.001 | 0.197 |
| | 2 | | | | | < 0.001 | 0.234 | < 0.001 | 0.123 |
| | 3 | | | | | 0.378 | 0.162 | 0.198 | 0.085 |
| | 4 | | | | | 0.207 | 0.162 | 0.109 | 0.085 |
| | 7 | | | | | < 0.001 | 0.124 | < 0.001 | 0.065 |
| | 14 | | | | | < 0.001 | 0.070 | < 0.001 | 0.037 |
| | 21 | | | | | < 0.001 | 0.047 | < 0.001 | 0.024 |
| | 28 | | | | | < 0.001 | 0.035 | < 0.001 | 0.018 |
| | 42 | | | | | < 0.001 | 0.023 | < 0.001 | 0.012 |
| | 50 | | | | | < 0.001 | 0.020 | < 0.001 | 0.010 |
| | 100 | | | | | 0.007 | 0.010 | 0.004 | 0.005 |

**Table A 45 FOCUS Step 4 actual and time-weighted average $PEC_{sw}$ for Azoxystrobin following multiple application of 2 x 150 g a.s./ha to Cereals, winter. 10-20 m spray buffer and 0-20 m runoff buffer, no nozzle reduction.**

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D1 Ditch | 0 | 3.474 | - | 3.474 | - | | | | |
| | 1 | 3.442 | 3.432 | 3.442 | 3.432 | | | | |
| | 2 | 3.400 | 3.430 | 3.400 | 3.430 | | | | |
| | 3 | 3.363 | 3.415 | 3.363 | 3.415 | | | | |
| | 4 | 3.343 | 3.400 | 3.343 | 3.400 | | | | |
| | 7 | 3.286 | 3.368 | 3.286 | 3.368 | | | | |
| | 14 | 2.957 | 3.219 | 2.957 | 3.219 | | | | |
| | 21 | 2.597 | 3.088 | 2.597 | 3.088 | | | | |
| | 28 | 2.379 | 2.987 | 2.379 | 2.987 | | | | |
| | 42 | 2.378 | 2.924 | 2.378 | 2.924 | | | | |
| | 50 | 2.192 | 2.847 | 2.192 | 2.847 | | | | |
| | 100 | 0.927 | 2.446 | 0.927 | 2.446 | | | | |
| | | | | | | | | | |
| D1 Stream | 0 | 2.180 | - | 2.180 | - | | | | |
| | 1 | 2.152 | 2.145 | 2.152 | 2.145 | | | | |
| | 2 | 2.113 | 2.142 | 2.113 | 2.142 | | | | |
| | 3 | 2.090 | 2.129 | 2.090 | 2.129 | | | | |
| | 4 | 2.082 | 2.118 | 2.082 | 2.118 | | | | |
| | 7 | 2.029 | 2.095 | 2.029 | 2.095 | | | | |
| | 14 | 1.832 | 2.001 | 1.832 | 2.001 | | | | |
| | 21 | 1.597 | 1.917 | 1.597 | 1.917 | | | | |
| | 28 | 1.435 | 1.843 | 1.435 | 1.843 | | | | |
| | 42 | 1.465 | 1.808 | 1.465 | 1.808 | | | | |
| | 50 | 1.256 | 1.757 | 1.256 | 1.757 | | | | |
| | 100 | 0.006 | 1.368 | 0.006 | 1.368 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D2 Ditch | 0 | 5.996 | - | 5.996 | - | | | | |
| | 1 | 1.224 | 3.922 | 1.224 | 3.922 | | | | |
| | 2 | 0.944 | 3.845 | 0.944 | 3.845 | | | | |
| | 3 | 0.790 | 3.521 | 0.790 | 3.521 | | | | |
| | 4 | 0.599 | 3.340 | 0.599 | 3.340 | | | | |
| | 7 | 1.092 | 3.298 | 1.092 | 3.298 | | | | |
| | 14 | 0.982 | 3.216 | 0.982 | 3.216 | | | | |
| | 21 | 2.729 | 2.985 | 2.729 | 2.985 | | | | |
| | 28 | 3.867 | 2.755 | 3.867 | 2.755 | | | | |
| | 42 | 2.032 | 2.523 | 2.032 | 2.523 | | | | |
| | 50 | 1.805 | 2.410 | 1.805 | 2.410 | | | | |
| | 100 | 1.221 | 1.949 | 1.221 | 1.949 | | | | |
| | | | | | | | | | |
| D2 Stream | 0 | 3.774 | - | 3.774 | - | | | | |
| | 1 | 0.284 | 2.313 | 0.284 | 2.313 | | | | |
| | 2 | 0.265 | 2.223 | 0.265 | 2.223 | | | | |
| | 3 | 0.330 | 2.013 | 0.330 | 2.013 | | | | |
| | 4 | 0.264 | 1.963 | 0.264 | 1.963 | | | | |
| | 7 | 0.826 | 1.919 | 0.826 | 1.919 | | | | |
| | 14 | 0.368 | 1.844 | 0.368 | 1.844 | | | | |
| | 21 | 1.230 | 1.712 | 1.230 | 1.712 | | | | |
| | 28 | 2.414 | 1.591 | 2.414 | 1.591 | | | | |
| | 42 | 1.239 | 1.469 | 1.239 | 1.469 | | | | |
| | 50 | 1.202 | 1.404 | 1.202 | 1.404 | | | | |
| | 100 | 0.733 | 1.140 | 0.733 | 1.140 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D3 Ditch | 0 | 0.112 | - | 0.057 | - | | | | |
| | 1 | 0.063 | 0.090 | 0.032 | 0.046 | | | | |
| | 2 | 0.013 | 0.062 | 0.006 | 0.031 | | | | |
| | 3 | 0.003 | 0.043 | 0.001 | 0.022 | | | | |
| | 4 | 0.001 | 0.033 | < 0.001 | 0.017 | | | | |
| | 7 | < 0.001 | 0.019 | < 0.001 | 0.010 | | | | |
| | 14 | < 0.001 | 0.010 | < 0.001 | 0.005 | | | | |
| | 21 | < 0.001 | 0.012 | < 0.001 | 0.006 | | | | |
| | 28 | < 0.001 | 0.009 | < 0.001 | 0.005 | | | | |
| | 42 | < 0.001 | 0.006 | < 0.001 | 0.003 | | | | |
| | 50 | < 0.001 | 0.005 | < 0.001 | 0.003 | | | | |
| | 100 | < 0.001 | 0.003 | < 0.001 | 0.001 | | | | |
| | | | | | | | | | |
| D4 Pond | 0 | 0.551 | - | 0.549 | - | | | | |
| | 1 | 0.551 | 0.551 | 0.548 | 0.549 | | | | |
| | 2 | 0.549 | 0.551 | 0.547 | 0.549 | | | | |
| | 3 | 0.547 | 0.551 | 0.545 | 0.548 | | | | |
| | 4 | 0.544 | 0.550 | 0.542 | 0.548 | | | | |
| | 7 | 0.533 | 0.549 | 0.531 | 0.546 | | | | |
| | 14 | 0.504 | 0.542 | 0.502 | 0.539 | | | | |
| | 21 | 0.478 | 0.533 | 0.476 | 0.531 | | | | |
| | 28 | 0.461 | 0.524 | 0.459 | 0.521 | | | | |
| | 42 | 0.418 | 0.504 | 0.416 | 0.502 | | | | |
| | 50 | 0.396 | 0.494 | 0.394 | 0.492 | | | | |
| | 100 | 0.301 | 0.432 | 0.300 | 0.430 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D4 Stream | 0 | 0.578 | - | 0.578 | - | | | | |
| | 1 | 0.291 | 0.460 | 0.291 | 0.460 | | | | |
| | 2 | 0.555 | 0.438 | 0.555 | 0.438 | | | | |
| | 3 | 0.355 | 0.422 | 0.355 | 0.422 | | | | |
| | 4 | 0.262 | 0.412 | 0.262 | 0.412 | | | | |
| | 7 | 0.260 | 0.395 | 0.260 | 0.395 | | | | |
| | 14 | 0.438 | 0.351 | 0.438 | 0.351 | | | | |
| | 21 | 0.283 | 0.344 | 0.283 | 0.344 | | | | |
| | 28 | 0.113 | 0.319 | 0.113 | 0.319 | | | | |
| | 42 | 0.044 | 0.237 | 0.044 | 0.237 | | | | |
| | 50 | 0.092 | 0.210 | 0.092 | 0.210 | | | | |
| | 100 | 0.006 | 0.121 | 0.006 | 0.121 | | | | |
| | | | | | | | | | |
| D5 Pond | 0 | 0.197 | - | 0.197 | - | | | | |
| | 1 | 0.197 | 0.197 | 0.197 | 0.197 | | | | |
| | 2 | 0.196 | 0.197 | 0.196 | 0.197 | | | | |
| | 3 | 0.195 | 0.197 | 0.195 | 0.197 | | | | |
| | 4 | 0.194 | 0.197 | 0.194 | 0.197 | | | | |
| | 7 | 0.190 | 0.196 | 0.190 | 0.196 | | | | |
| | 14 | 0.190 | 0.194 | 0.190 | 0.194 | | | | |
| | 21 | 0.181 | 0.192 | 0.181 | 0.192 | | | | |
| | 28 | 0.172 | 0.191 | 0.172 | 0.191 | | | | |
| | 42 | 0.157 | 0.186 | 0.157 | 0.186 | | | | |
| | 50 | 0.149 | 0.182 | 0.149 | 0.182 | | | | |
| | 100 | 0.141 | 0.167 | 0.132 | 0.165 | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D5 Stream | 0 | 0.304 | - | 0.304 | - | | | | |
| | 1 | 0.221 | 0.223 | 0.221 | 0.223 | | | | |
| | 2 | 0.131 | 0.213 | 0.131 | 0.213 | | | | |
| | 3 | 0.112 | 0.197 | 0.112 | 0.197 | | | | |
| | 4 | 0.190 | 0.175 | 0.190 | 0.175 | | | | |
| | 7 | 0.073 | 0.161 | 0.073 | 0.161 | | | | |
| | 14 | 0.069 | 0.121 | 0.069 | 0.121 | | | | |
| | 21 | 0.033 | 0.098 | 0.033 | 0.098 | | | | |
| | 28 | 0.039 | 0.084 | 0.039 | 0.084 | | | | |
| | 42 | 0.016 | 0.065 | 0.016 | 0.065 | | | | |
| | 50 | 0.011 | 0.058 | 0.011 | 0.058 | | | | |
| | 100 | < 0.001 | 0.037 | < 0.001 | 0.037 | | | | |
| | | | | | | | | | |
| D6 Ditch | 0 | 0.394 | - | 0.394 | - | | | | |
| | 1 | 0.306 | 0.353 | 0.306 | 0.353 | | | | |
| | 2 | 0.274 | 0.327 | 0.274 | 0.327 | | | | |
| | 3 | 0.202 | 0.306 | 0.202 | 0.306 | | | | |
| | 4 | 0.154 | 0.284 | 0.154 | 0.284 | | | | |
| | 7 | 0.085 | 0.236 | 0.085 | 0.236 | | | | |
| | 14 | 0.011 | 0.185 | 0.011 | 0.185 | | | | |
| | 21 | 0.030 | 0.132 | 0.030 | 0.132 | | | | |
| | 28 | 0.102 | 0.102 | 0.102 | 0.102 | | | | |
| | 42 | 0.005 | 0.083 | 0.005 | 0.083 | | | | |
| | 50 | 0.002 | 0.071 | 0.002 | 0.071 | | | | |
| | 100 | 0.006 | 0.043 | 0.006 | 0.043 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| R1 Pond | 0 | | | | | 0.119 | - | 0.063 | - |
| | 1 | | | | | 0.117 | 0.118 | 0.062 | 0.063 |
| | 2 | | | | | 0.115 | 0.117 | 0.061 | 0.062 |
| | 3 | | | | | 0.114 | 0.116 | 0.060 | 0.062 |
| | 4 | | | | | 0.112 | 0.116 | 0.060 | 0.061 |
| | 7 | | | | | 0.108 | 0.113 | 0.058 | 0.060 |
| | 14 | | | | | 0.101 | 0.109 | 0.053 | 0.058 |
| | 21 | | | | | 0.094 | 0.105 | 0.050 | 0.056 |
| | 28 | | | | | 0.091 | 0.102 | 0.048 | 0.054 |
| | 42 | | | | | 0.088 | 0.097 | 0.047 | 0.052 |
| | 50 | | | | | 0.082 | 0.095 | 0.043 | 0.050 |
| | 100 | | | | | 0.069 | 0.085 | 0.036 | 0.045 |
| | | | | | | | | | |
| R1 Stream | 0 | | | | | 0.737 | - | 0.386 | - |
| | 1 | | | | | 0.002 | 0.603 | 0.001 | 0.316 |
| | 2 | | | | | < 0.001 | 0.304 | < 0.001 | 0.159 |
| | 3 | | | | | < 0.001 | 0.203 | < 0.001 | 0.106 |
| | 4 | | | | | < 0.001 | 0.152 | < 0.001 | 0.080 |
| | 7 | | | | | < 0.001 | 0.087 | < 0.001 | 0.046 |
| | 14 | | | | | < 0.001 | 0.046 | < 0.001 | 0.024 |
| | 21 | | | | | < 0.001 | 0.036 | < 0.001 | 0.019 |
| | 28 | | | | | < 0.001 | 0.035 | < 0.001 | 0.018 |
| | 42 | | | | | < 0.001 | 0.033 | < 0.001 | 0.017 |
| | 50 | | | | | < 0.001 | 0.029 | < 0.001 | 0.015 |
| | 100 | | | | | < 0.001 | 0.019 | < 0.001 | 0.010 |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| R3 Stream | 0 | | | | | 1.420 | - | 0.745 | - |
| | 1 | | | | | 0.013 | 1.260 | 0.007 | 0.662 |
| | 2 | | | | | 0.005 | 0.689 | 0.003 | 0.362 |
| | 3 | | | | | 0.003 | 0.462 | 0.002 | 0.243 |
| | 4 | | | | | 0.002 | 0.347 | 0.001 | 0.183 |
| | 7 | | | | | < 0.001 | 0.199 | < 0.001 | 0.105 |
| | 14 | | | | | < 0.001 | 0.103 | < 0.001 | 0.054 |
| | 21 | | | | | < 0.001 | 0.069 | < 0.001 | 0.036 |
| | 28 | | | | | 0.001 | 0.072 | < 0.001 | 0.038 |
| | 42 | | | | | < 0.001 | 0.056 | < 0.001 | 0.029 |
| | 50 | | | | | < 0.001 | 0.048 | < 0.001 | 0.025 |
| | 100 | | | | | < 0.001 | 0.024 | < 0.001 | 0.013 |
| | | | | | | | | | |
| R4 Stream | 0 | | | | | 1.282 | - | 0.669 | - |
| | 1 | | | | | 0.006 | 0.845 | 0.003 | 0.441 |
| | 2 | | | | | 0.002 | 0.566 | < 0.001 | 0.297 |
| | 3 | | | | | 0.908 | 0.393 | 0.476 | 0.206 |
| | 4 | | | | | 0.506 | 0.374 | 0.266 | 0.196 |
| | 7 | | | | | 0.001 | 0.290 | < 0.001 | 0.152 |
| | 14 | | | | | < 0.001 | 0.165 | < 0.001 | 0.086 |
| | 21 | | | | | < 0.001 | 0.110 | < 0.001 | 0.058 |
| | 28 | | | | | < 0.001 | 0.082 | < 0.001 | 0.043 |
| | 42 | | | | | < 0.001 | 0.055 | < 0.001 | 0.029 |
| | 50 | | | | | < 0.001 | 0.047 | < 0.001 | 0.024 |
| | 100 | | | | | 0.017 | 0.024 | 0.009 | 0.012 |

**Table A 46 FOCUS Step 4 actual and time-weighted average PECsw for Azoxystrobin following multiple application of 2 x 150 g a.s./ha to Cereals, winter. 10-20 m spray buffer and 0-20 m runoff buffer, 50 % nozzle reduction.**

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D1 Ditch | 0 | 3.474 | - | 3.474 | - | | | | |
| | 1 | 3.442 | 3.432 | 3.442 | 3.432 | | | | |
| | 2 | 3.400 | 3.430 | 3.400 | 3.430 | | | | |
| | 3 | 3.363 | 3.415 | 3.363 | 3.415 | | | | |
| | 4 | 3.343 | 3.400 | 3.343 | 3.400 | | | | |
| | 7 | 3.286 | 3.368 | 3.286 | 3.368 | | | | |
| | 14 | 2.957 | 3.219 | 2.957 | 3.219 | | | | |
| | 21 | 2.597 | 3.088 | 2.597 | 3.088 | | | | |
| | 28 | 2.379 | 2.987 | 2.379 | 2.987 | | | | |
| | 42 | 2.378 | 2.924 | 2.378 | 2.924 | | | | |
| | 50 | 2.192 | 2.847 | 2.192 | 2.847 | | | | |
| | 100 | 0.927 | 2.446 | 0.927 | 2.446 | | | | |
| | | | | | | | | | |
| D1 Stream | 0 | 2.180 | - | 2.180 | - | | | | |
| | 1 | 2.152 | 2.145 | 2.152 | 2.145 | | | | |
| | 2 | 2.113 | 2.142 | 2.113 | 2.142 | | | | |
| | 3 | 2.090 | 2.129 | 2.090 | 2.129 | | | | |
| | 4 | 2.082 | 2.118 | 2.082 | 2.118 | | | | |
| | 7 | 2.029 | 2.095 | 2.029 | 2.095 | | | | |
| | 14 | 1.832 | 2.001 | 1.832 | 2.001 | | | | |
| | 21 | 1.597 | 1.917 | 1.597 | 1.917 | | | | |
| | 28 | 1.435 | 1.843 | 1.435 | 1.843 | | | | |
| | 42 | 1.465 | 1.808 | 1.465 | 1.808 | | | | |
| | 50 | 1.256 | 1.757 | 1.256 | 1.757 | | | | |
| | 100 | 0.006 | 1.368 | 0.006 | 1.368 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D2 Ditch | 0 | 5.996 | - | 5.996 | - | | | | |
| | 1 | 1.224 | 3.922 | 1.223 | 3.922 | | | | |
| | 2 | 0.944 | 3.845 | 0.944 | 3.845 | | | | |
| | 3 | 0.790 | 3.521 | 0.790 | 3.521 | | | | |
| | 4 | 0.599 | 3.340 | 0.599 | 3.340 | | | | |
| | 7 | 1.092 | 3.298 | 1.092 | 3.298 | | | | |
| | 14 | 0.982 | 3.216 | 0.982 | 3.216 | | | | |
| | 21 | 2.729 | 2.985 | 2.729 | 2.985 | | | | |
| | 28 | 3.867 | 2.755 | 3.867 | 2.755 | | | | |
| | 42 | 2.032 | 2.523 | 2.032 | 2.523 | | | | |
| | 50 | 1.805 | 2.410 | 1.805 | 2.410 | | | | |
| | 100 | 1.221 | 1.949 | 1.221 | 1.949 | | | | |
| | | | | | | | | | |
| D2 Stream | 0 | 3.774 | - | 3.774 | - | | | | |
| | 1 | 0.284 | 2.313 | 0.284 | 2.313 | | | | |
| | 2 | 0.265 | 2.223 | 0.265 | 2.223 | | | | |
| | 3 | 0.330 | 2.013 | 0.330 | 2.013 | | | | |
| | 4 | 0.264 | 1.963 | 0.264 | 1.963 | | | | |
| | 7 | 0.826 | 1.919 | 0.826 | 1.919 | | | | |
| | 14 | 0.368 | 1.844 | 0.368 | 1.844 | | | | |
| | 21 | 1.230 | 1.712 | 1.230 | 1.712 | | | | |
| | 28 | 2.414 | 1.591 | 2.414 | 1.591 | | | | |
| | 42 | 1.239 | 1.469 | 1.239 | 1.469 | | | | |
| | 50 | 1.202 | 1.404 | 1.202 | 1.404 | | | | |
| | 100 | 0.733 | 1.140 | 0.733 | 1.140 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D3 Ditch | 0 | 0.056 | - | 0.029 | - | | | | |
| | 1 | 0.031 | 0.045 | 0.016 | 0.023 | | | | |
| | 2 | 0.006 | 0.031 | 0.003 | 0.016 | | | | |
| | 3 | 0.001 | 0.021 | < 0.001 | 0.011 | | | | |
| | 4 | < 0.001 | 0.016 | < 0.001 | 0.008 | | | | |
| | 7 | < 0.001 | 0.009 | < 0.001 | 0.005 | | | | |
| | 14 | < 0.001 | 0.005 | < 0.001 | 0.002 | | | | |
| | 21 | < 0.001 | 0.006 | < 0.001 | 0.003 | | | | |
| | 28 | < 0.001 | 0.005 | < 0.001 | 0.002 | | | | |
| | 42 | < 0.001 | 0.003 | < 0.001 | 0.002 | | | | |
| | 50 | < 0.001 | 0.003 | < 0.001 | 0.001 | | | | |
| | 100 | < 0.001 | 0.001 | < 0.001 | < 0.001 | | | | |
| | | | | | | | | | |
| D4 Pond | 0 | 0.548 | - | 0.547 | - | | | | |
| | 1 | 0.547 | 0.548 | 0.546 | 0.547 | | | | |
| | 2 | 0.546 | 0.548 | 0.545 | 0.546 | | | | |
| | 3 | 0.544 | 0.547 | 0.542 | 0.546 | | | | |
| | 4 | 0.541 | 0.547 | 0.539 | 0.546 | | | | |
| | 7 | 0.530 | 0.545 | 0.528 | 0.544 | | | | |
| | 14 | 0.501 | 0.538 | 0.500 | 0.537 | | | | |
| | 21 | 0.475 | 0.530 | 0.474 | 0.529 | | | | |
| | 28 | 0.458 | 0.520 | 0.457 | 0.519 | | | | |
| | 42 | 0.415 | 0.501 | 0.415 | 0.500 | | | | |
| | 50 | 0.394 | 0.491 | 0.393 | 0.489 | | | | |
| | 100 | 0.299 | 0.430 | 0.298 | 0.429 | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D4 Stream | 0 | 0.578 | - | 0.578 | - | | | | |
| | 1 | 0.291 | 0.460 | 0.291 | 0.460 | | | | |
| | 2 | 0.555 | 0.438 | 0.555 | 0.438 | | | | |
| | 3 | 0.355 | 0.422 | 0.355 | 0.422 | | | | |
| | 4 | 0.262 | 0.412 | 0.262 | 0.412 | | | | |
| | 7 | 0.260 | 0.395 | 0.260 | 0.395 | | | | |
| | 14 | 0.438 | 0.351 | 0.438 | 0.351 | | | | |
| | 21 | 0.283 | 0.344 | 0.283 | 0.344 | | | | |
| | 28 | 0.113 | 0.319 | 0.113 | 0.319 | | | | |
| | 42 | 0.044 | 0.237 | 0.044 | 0.237 | | | | |
| | 50 | 0.092 | 0.210 | 0.092 | 0.210 | | | | |
| | 100 | 0.006 | 0.121 | 0.006 | 0.121 | | | | |
| | | | | | | | | | |
| D5 Pond | 0 | 0.197 | - | 0.197 | - | | | | |
| | 1 | 0.197 | 0.197 | 0.197 | 0.197 | | | | |
| | 2 | 0.196 | 0.197 | 0.196 | 0.197 | | | | |
| | 3 | 0.195 | 0.197 | 0.195 | 0.197 | | | | |
| | 4 | 0.194 | 0.197 | 0.194 | 0.197 | | | | |
| | 7 | 0.190 | 0.196 | 0.190 | 0.196 | | | | |
| | 14 | 0.190 | 0.194 | 0.190 | 0.194 | | | | |
| | 21 | 0.181 | 0.192 | 0.181 | 0.192 | | | | |
| | 28 | 0.172 | 0.191 | 0.172 | 0.191 | | | | |
| | 42 | 0.157 | 0.186 | 0.157 | 0.186 | | | | |
| | 50 | 0.149 | 0.182 | 0.149 | 0.182 | | | | |
| | 100 | 0.128 | 0.164 | 0.124 | 0.163 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D5 Stream | 0 | 0.304 | - | 0.304 | - | | | | |
| | 1 | 0.221 | 0.223 | 0.221 | 0.223 | | | | |
| | 2 | 0.131 | 0.213 | 0.131 | 0.213 | | | | |
| | 3 | 0.112 | 0.197 | 0.112 | 0.197 | | | | |
| | 4 | 0.190 | 0.175 | 0.190 | 0.175 | | | | |
| | 7 | 0.073 | 0.161 | 0.073 | 0.161 | | | | |
| | 14 | 0.069 | 0.121 | 0.069 | 0.121 | | | | |
| | 21 | 0.033 | 0.098 | 0.033 | 0.098 | | | | |
| | 28 | 0.039 | 0.084 | 0.039 | 0.084 | | | | |
| | 42 | 0.016 | 0.065 | 0.016 | 0.065 | | | | |
| | 50 | 0.011 | 0.058 | 0.011 | 0.058 | | | | |
| | 100 | < 0.001 | 0.037 | < 0.001 | 0.037 | | | | |
| | | | | | | | | | |
| D6 Ditch | 0 | 0.394 | - | 0.394 | - | | | | |
| | 1 | 0.306 | 0.353 | 0.306 | 0.353 | | | | |
| | 2 | 0.274 | 0.327 | 0.274 | 0.327 | | | | |
| | 3 | 0.202 | 0.306 | 0.202 | 0.306 | | | | |
| | 4 | 0.154 | 0.284 | 0.154 | 0.284 | | | | |
| | 7 | 0.085 | 0.236 | 0.085 | 0.236 | | | | |
| | 14 | 0.011 | 0.185 | 0.011 | 0.185 | | | | |
| | 21 | 0.030 | 0.132 | 0.030 | 0.132 | | | | |
| | 28 | 0.102 | 0.102 | 0.102 | 0.102 | | | | |
| | 42 | 0.005 | 0.083 | 0.005 | 0.083 | | | | |
| | 50 | 0.002 | 0.071 | 0.002 | 0.071 | | | | |
| | 100 | 0.006 | 0.043 | 0.006 | 0.043 | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| R1 Pond | 0 | | | | | 0.108 | - | 0.056 | - |
| | 1 | | | | | 0.106 | 0.107 | 0.055 | 0.055 |
| | 2 | | | | | 0.104 | 0.106 | 0.054 | 0.055 |
| | 3 | | | | | 0.102 | 0.105 | 0.053 | 0.054 |
| | 4 | | | | | 0.101 | 0.104 | 0.052 | 0.054 |
| | 7 | | | | | 0.097 | 0.102 | 0.050 | 0.053 |
| | 14 | | | | | 0.090 | 0.098 | 0.047 | 0.051 |
| | 21 | | | | | 0.084 | 0.095 | 0.044 | 0.049 |
| | 28 | | | | | 0.082 | 0.092 | 0.042 | 0.048 |
| | 42 | | | | | 0.080 | 0.088 | 0.041 | 0.045 |
| | 50 | | | | | 0.075 | 0.086 | 0.038 | 0.044 |
| | 100 | | | | | 0.064 | 0.077 | 0.033 | 0.040 |
| | | | | | | | | | |
| R1 Stream | 0 | | | | | 0.737 | - | 0.386 | - |
| | 1 | | | | | 0.002 | 0.603 | 0.001 | 0.316 |
| | 2 | | | | | < 0.001 | 0.304 | < 0.001 | 0.159 |
| | 3 | | | | | < 0.001 | 0.203 | < 0.001 | 0.106 |
| | 4 | | | | | < 0.001 | 0.152 | < 0.001 | 0.080 |
| | 7 | | | | | < 0.001 | 0.087 | < 0.001 | 0.046 |
| | 14 | | | | | < 0.001 | 0.046 | < 0.001 | 0.024 |
| | 21 | | | | | < 0.001 | 0.036 | < 0.001 | 0.019 |
| | 28 | | | | | < 0.001 | 0.035 | < 0.001 | 0.018 |
| | 42 | | | | | < 0.001 | 0.033 | < 0.001 | 0.017 |
| | 50 | | | | | < 0.001 | 0.029 | < 0.001 | 0.015 |
| | 100 | | | | | < 0.001 | 0.019 | < 0.001 | 0.010 |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| R3 Stream | 0 | | | | | 1.420 | - | 0.745 | - |
| | 1 | | | | | 0.013 | 1.260 | 0.007 | 0.662 |
| | 2 | | | | | 0.005 | 0.689 | 0.003 | 0.362 |
| | 3 | | | | | 0.003 | 0.462 | 0.002 | 0.243 |
| | 4 | | | | | 0.002 | 0.347 | 0.001 | 0.183 |
| | 7 | | | | | < 0.001 | 0.199 | < 0.001 | 0.105 |
| | 14 | | | | | < 0.001 | 0.101 | < 0.001 | 0.053 |
| | 21 | | | | | < 0.001 | 0.068 | < 0.001 | 0.036 |
| | 28 | | | | | 0.001 | 0.072 | < 0.001 | 0.038 |
| | 42 | | | | | < 0.001 | 0.056 | < 0.001 | 0.029 |
| | 50 | | | | | < 0.001 | 0.047 | < 0.001 | 0.025 |
| | 100 | | | | | < 0.001 | 0.024 | < 0.001 | 0.013 |
| | | | | | | | | | |
| R4 Stream | 0 | | | | | 1.282 | - | 0.669 | - |
| | 1 | | | | | 0.006 | 0.845 | 0.003 | 0.441 |
| | 2 | | | | | 0.002 | 0.566 | < 0.001 | 0.297 |
| | 3 | | | | | 0.908 | 0.393 | 0.476 | 0.206 |
| | 4 | | | | | 0.506 | 0.374 | 0.266 | 0.196 |
| | 7 | | | | | 0.001 | 0.290 | < 0.001 | 0.152 |
| | 14 | | | | | < 0.001 | 0.165 | < 0.001 | 0.086 |
| | 21 | | | | | < 0.001 | 0.110 | < 0.001 | 0.058 |
| | 28 | | | | | < 0.001 | 0.082 | < 0.001 | 0.043 |
| | 42 | | | | | < 0.001 | 0.055 | < 0.001 | 0.029 |
| | 50 | | | | | < 0.001 | 0.046 | < 0.001 | 0.024 |
| | 100 | | | | | 0.017 | 0.024 | 0.009 | 0.012 |

**Table A 47 FOCUS Step 4 actual and time-weighted average $PEC_{sw}$ for Azoxystrobin following single application of 1 x 150 g a.s./ha to Cereals, winter. 10-20 m spray buffer and 0-20 m runoff buffer, no nozzle reduction**

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D1 Ditch | 0 | | | | | 1.701 | - | 1.701 | - |
| | 1 | | | | | 1.673 | 1.666 | 1.673 | 1.666 |
| | 2 | | | | | 1.646 | 1.665 | 1.646 | 1.665 |
| | 3 | | | | | 1.623 | 1.656 | 1.623 | 1.656 |
| | 4 | | | | | 1.615 | 1.646 | 1.615 | 1.646 |
| | 7 | | | | | 1.606 | 1.634 | 1.606 | 1.634 |
| | 14 | | | | | 1.538 | 1.595 | 1.538 | 1.595 |
| | 21 | | | | | 1.379 | 1.555 | 1.379 | 1.555 |
| | 28 | | | | | 1.270 | 1.501 | 1.270 | 1.501 |
| | 42 | | | | | 1.282 | 1.420 | 1.282 | 1.420 |
| | 50 | | | | | 1.182 | 1.392 | 1.182 | 1.392 |
| | 100 | | | | | 0.501 | 1.210 | 0.501 | 1.210 |
| | | | | | | | | | |
| D1 Stream | 0 | | | | | 1.071 | - | 1.071 | - |
| | 1 | | | | | 1.049 | 1.042 | 1.049 | 1.042 |
| | 2 | | | | | 1.023 | 1.041 | 1.023 | 1.041 |
| | 3 | | | | | 1.010 | 1.033 | 1.010 | 1.033 |
| | 4 | | | | | 1.009 | 1.027 | 1.009 | 1.027 |
| | 7 | | | | | 0.994 | 1.018 | 0.994 | 1.018 |
| | 14 | | | | | 0.954 | 0.992 | 0.954 | 0.992 |
| | 21 | | | | | 0.849 | 0.966 | 0.849 | 0.966 |
| | 28 | | | | | 0.768 | 0.930 | 0.768 | 0.930 |
| | 42 | | | | | 0.790 | 0.873 | 0.790 | 0.873 |
| | 50 | | | | | 0.679 | 0.854 | 0.679 | 0.854 |
| | 100 | | | | | 0.003 | 0.667 | 0.003 | 0.667 |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D2 Ditch | 0 | | | | | 3.957 | - | 3.957 | - |
| | 1 | | | | | 0.739 | 2.373 | 0.739 | 2.373 |
| | 2 | | | | | 0.557 | 2.353 | 0.557 | 2.353 |
| | 3 | | | | | 0.453 | 2.173 | 0.453 | 2.173 |
| | 4 | | | | | 0.327 | 2.053 | 0.327 | 2.053 |
| | 7 | | | | | 0.624 | 2.031 | 0.624 | 2.031 |
| | 14 | | | | | 0.540 | 1.966 | 0.540 | 1.966 |
| | 21 | | | | | 1.732 | 1.813 | 1.732 | 1.813 |
| | 28 | | | | | 2.254 | 1.670 | 2.254 | 1.670 |
| | 42 | | | | | 1.232 | 1.509 | 1.232 | 1.509 |
| | 50 | | | | | 1.074 | 1.431 | 1.074 | 1.431 |
| | 100 | | | | | 0.690 | 1.134 | 0.690 | 1.134 |
| | | | | | | | | | |
| D2 Stream | 0 | | | | | 2.490 | - | 2.490 | - |
| | 1 | | | | | 0.146 | 1.413 | 0.146 | 1.413 |
| | 2 | | | | | 0.138 | 1.374 | 0.138 | 1.374 |
| | 3 | | | | | 0.163 | 1.231 | 0.163 | 1.231 |
| | 4 | | | | | 0.136 | 1.192 | 0.136 | 1.192 |
| | 7 | | | | | 0.478 | 1.181 | 0.478 | 1.181 |
| | 14 | | | | | 0.181 | 1.120 | 0.181 | 1.120 |
| | 21 | | | | | 0.765 | 1.043 | 0.765 | 1.043 |
| | 28 | | | | | 1.433 | 0.968 | 1.433 | 0.968 |
| | 42 | | | | | 0.753 | 0.879 | 0.753 | 0.879 |
| | 50 | | | | | 0.705 | 0.835 | 0.705 | 0.835 |
| | 100 | | | | | 0.417 | 0.663 | 0.417 | 0.663 |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **None** | | **None** | | **None** | | **None** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D3 Ditch | 0 | | | | | 0.137 | - | 0.071 | - |
| | 1 | | | | | 0.068 | 0.107 | 0.035 | 0.056 |
| | 2 | | | | | 0.011 | 0.070 | 0.005 | 0.036 |
| | 3 | | | | | 0.002 | 0.048 | 0.001 | 0.025 |
| | 4 | | | | | 0.001 | 0.036 | < 0.001 | 0.019 |
| | 7 | | | | | < 0.001 | 0.021 | < 0.001 | 0.011 |
| | 14 | | | | | < 0.001 | 0.011 | < 0.001 | 0.005 |
| | 21 | | | | | < 0.001 | 0.007 | < 0.001 | 0.004 |
| | 28 | | | | | < 0.001 | 0.005 | < 0.001 | 0.003 |
| | 42 | | | | | < 0.001 | 0.004 | < 0.001 | 0.002 |
| | 50 | | | | | < 0.001 | 0.003 | < 0.001 | 0.002 |
| | 100 | | | | | < 0.001 | 0.001 | < 0.001 | 0.001 |
| | | | | | | | | | |
| D4 Pond | 0 | | | | | 0.217 | - | 0.216 | - |
| | 1 | | | | | 0.217 | 0.217 | 0.215 | 0.215 |
| | 2 | | | | | 0.216 | 0.217 | 0.215 | 0.215 |
| | 3 | | | | | 0.215 | 0.217 | 0.214 | 0.215 |
| | 4 | | | | | 0.214 | 0.216 | 0.213 | 0.215 |
| | 7 | | | | | 0.209 | 0.216 | 0.208 | 0.215 |
| | 14 | | | | | 0.198 | 0.213 | 0.196 | 0.212 |
| | 21 | | | | | 0.189 | 0.210 | 0.188 | 0.208 |
| | 28 | | | | | 0.187 | 0.206 | 0.186 | 0.205 |
| | 42 | | | | | 0.171 | 0.200 | 0.170 | 0.199 |
| | 50 | | | | | 0.162 | 0.196 | 0.161 | 0.195 |
| | 100 | | | | | 0.123 | 0.174 | 0.122 | 0.173 |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D4 Stream | 0 | | | | | 0.259 | - | 0.259 | - |
| | 1 | | | | | 0.111 | 0.197 | 0.111 | 0.197 |
| | 2 | | | | | 0.244 | 0.187 | 0.244 | 0.187 |
| | 3 | | | | | 0.137 | 0.176 | 0.137 | 0.176 |
| | 4 | | | | | 0.091 | 0.165 | 0.091 | 0.165 |
| | 7 | | | | | 0.085 | 0.151 | 0.085 | 0.151 |
| | 14 | | | | | 0.177 | 0.137 | 0.177 | 0.137 |
| | 21 | | | | | 0.122 | 0.131 | 0.122 | 0.131 |
| | 28 | | | | | 0.050 | 0.125 | 0.050 | 0.125 |
| | 42 | | | | | 0.016 | 0.093 | 0.016 | 0.093 |
| | 50 | | | | | 0.051 | 0.084 | 0.051 | 0.084 |
| | 100 | | | | | 0.003 | 0.050 | 0.003 | 0.050 |
| | | | | | | | | | |
| D5 Pond | 0 | | | | | 0.092 | - | 0.092 | - |
| | 1 | | | | | 0.092 | 0.092 | 0.092 | 0.092 |
| | 2 | | | | | 0.092 | 0.092 | 0.092 | 0.092 |
| | 3 | | | | | 0.091 | 0.092 | 0.091 | 0.092 |
| | 4 | | | | | 0.091 | 0.092 | 0.091 | 0.092 |
| | 7 | | | | | 0.089 | 0.092 | 0.089 | 0.092 |
| | 14 | | | | | 0.089 | 0.091 | 0.089 | 0.091 |
| | 21 | | | | | 0.084 | 0.090 | 0.084 | 0.090 |
| | 28 | | | | | 0.080 | 0.089 | 0.080 | 0.089 |
| | 42 | | | | | 0.073 | 0.087 | 0.073 | 0.087 |
| | 50 | | | | | 0.069 | 0.085 | 0.069 | 0.085 |
| | 100 | | | | | 0.067 | 0.079 | 0.063 | 0.078 |
| | | | | | | | | | |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **None** | | **None** | | **None** | | **None** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D5 Stream | 0 | | | | | 0.151 | - | 0.148 | - |
| | 1 | | | | | 0.004 | 0.108 | 0.106 | 0.108 |
| | 2 | | | | | 0.004 | 0.102 | 0.061 | 0.102 |
| | 3 | | | | | 0.003 | 0.094 | 0.051 | 0.094 |
| | 4 | | | | | 0.003 | 0.083 | 0.091 | 0.083 |
| | 7 | | | | | 0.003 | 0.076 | 0.032 | 0.076 |
| | 14 | | | | | 0.001 | 0.056 | 0.032 | 0.056 |
| | 21 | | | | | 0.001 | 0.045 | 0.014 | 0.045 |
| | 28 | | | | | < 0.001 | 0.039 | 0.018 | 0.039 |
| | 42 | | | | | < 0.001 | 0.030 | 0.006 | 0.030 |
| | 50 | | | | | < 0.001 | 0.027 | 0.004 | 0.027 |
| | 100 | | | | | < 0.001 | 0.016 | < 0.001 | 0.016 |
| | | | | | | | | | |
| D6 Ditch | 0 | | | | | 0.219 | - | 0.219 | - |
| | 1 | | | | | 0.179 | 0.197 | 0.179 | 0.197 |
| | 2 | | | | | 0.162 | 0.184 | 0.162 | 0.184 |
| | 3 | | | | | 0.121 | 0.174 | 0.121 | 0.174 |
| | 4 | | | | | 0.093 | 0.163 | 0.093 | 0.163 |
| | 7 | | | | | 0.051 | 0.128 | 0.051 | 0.128 |
| | 14 | | | | | 0.006 | 0.098 | 0.006 | 0.098 |
| | 21 | | | | | 0.018 | 0.070 | 0.018 | 0.070 |
| | 28 | | | | | 0.058 | 0.054 | 0.058 | 0.054 |
| | 42 | | | | | 0.002 | 0.045 | 0.002 | 0.045 |
| | 50 | | | | | 0.001 | 0.038 | 0.001 | 0.038 |
| | 100 | | | | | 0.003 | 0.023 | 0.003 | 0.023 |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| R1 Pond | 0 | | | | | 0.058 | 0.000 | 0.031 | 0.000 |
| | 1 | | | | | 0.057 | 0.058 | 0.031 | 0.031 |
| | 2 | | | | | 0.057 | 0.057 | 0.030 | 0.031 |
| | 3 | | | | | 0.056 | 0.057 | 0.030 | 0.030 |
| | 4 | | | | | 0.055 | 0.057 | 0.030 | 0.030 |
| | 7 | | | | | 0.054 | 0.056 | 0.029 | 0.030 |
| | 14 | | | | | 0.050 | 0.054 | 0.027 | 0.029 |
| | 21 | | | | | 0.047 | 0.052 | 0.025 | 0.028 |
| | 28 | | | | | 0.045 | 0.051 | 0.024 | 0.028 |
| | 42 | | | | | 0.041 | 0.051 | 0.022 | 0.028 |
| | 50 | | | | | 0.038 | 0.051 | 0.020 | 0.027 |
| | 100 | | | | | 0.028 | 0.045 | 0.015 | 0.024 |
| | | | | | | | | | |
| R1 Stream | 0 | | | | | 0.581 | - | 0.304 | - |
| | 1 | | | | | 0.001 | 0.319 | 0.001 | 0.167 |
| | 2 | | | | | 0.001 | 0.160 | < 0.001 | 0.084 |
| | 3 | | | | | < 0.001 | 0.107 | < 0.001 | 0.056 |
| | 4 | | | | | < 0.001 | 0.080 | < 0.001 | 0.042 |
| | 7 | | | | | 0.001 | 0.068 | < 0.001 | 0.035 |
| | 14 | | | | | 0.004 | 0.047 | 0.002 | 0.024 |
| | 21 | | | | | < 0.001 | 0.036 | < 0.001 | 0.019 |
| | 28 | | | | | < 0.001 | 0.030 | < 0.001 | 0.015 |
| | 42 | | | | | < 0.001 | 0.021 | < 0.001 | 0.011 |
| | 50 | | | | | < 0.001 | 0.019 | < 0.001 | 0.010 |
| | 100 | | | | | < 0.001 | 0.010 | < 0.001 | 0.005 |
| | | | | | | | | | |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **None** | | **None** | | **None** | | **None** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| R3 Stream | 0 | | | | | 0.622 | 0.000 | 0.326 | 0.000 |
| | 1 | | | | | 0.006 | 0.551 | 0.003 | 0.290 |
| | 2 | | | | | 0.002 | 0.302 | 0.001 | 0.159 |
| | 3 | | | | | 0.001 | 0.202 | 0.001 | 0.106 |
| | 4 | | | | | 0.001 | 0.152 | 0.000 | 0.080 |
| | 7 | | | | | 0.000 | 0.087 | 0.000 | 0.046 |
| | 14 | | | | | 0.000 | 0.044 | 0.000 | 0.023 |
| | 21 | | | | | 0.000 | 0.029 | 0.000 | 0.015 |
| | 28 | | | | | 0.000 | 0.032 | 0.000 | 0.017 |
| | 42 | | | | | 0.000 | 0.025 | 0.000 | 0.013 |
| | 50 | | | | | 0.000 | 0.021 | 0.000 | 0.011 |
| | 100 | | | | | 0.000 | 0.011 | 0.000 | 0.006 |
| | | | | | | | | | |
| R4 Stream | 0 | | | | | 0.586 | 0.000 | 0.306 | 0.000 |
| | 1 | | | | | 0.002 | 0.386 | 0.001 | 0.202 |
| | 2 | | | | | 0.001 | 0.240 | 0.000 | 0.126 |
| | 3 | | | | | 0.388 | 0.167 | 0.203 | 0.087 |
| | 4 | | | | | 0.212 | 0.166 | 0.111 | 0.087 |
| | 7 | | | | | 0.001 | 0.127 | 0.000 | 0.066 |
| | 14 | | | | | 0.000 | 0.072 | 0.000 | 0.038 |
| | 21 | | | | | 0.000 | 0.048 | 0.000 | 0.025 |
| | 28 | | | | | 0.000 | 0.036 | 0.000 | 0.019 |
| | 42 | | | | | 0.000 | 0.024 | 0.000 | 0.013 |
| | 50 | | | | | 0.000 | 0.020 | 0.000 | 0.011 |
| | 100 | | | | | 0.008 | 0.011 | 0.004 | 0.006 |

**Table A 48 FOCUS Step 4 actual and time-weighted average $PEC_{sw}$ for Azoxystrobin following single application of 1 x 150 g a.s./ha to Cereals, winter. 10-20 m spray buffer and 0-20 m runoff buffer, 50 % nozzle reduction.**

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **50** | | **50** | | **50** | | **50** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D1 Ditch | 0 | | | | | 1.701 | 0.000 | 1.701 | 0.000 |
| | 1 | | | | | 1.673 | 1.666 | 1.673 | 1.666 |
| | 2 | | | | | 1.646 | 1.665 | 1.646 | 1.665 |
| | 3 | | | | | 1.623 | 1.656 | 1.623 | 1.656 |
| | 4 | | | | | 1.615 | 1.646 | 1.615 | 1.646 |
| | 7 | | | | | 1.606 | 1.634 | 1.606 | 1.634 |
| | 14 | | | | | 1.538 | 1.595 | 1.538 | 1.595 |
| | 21 | | | | | 1.379 | 1.555 | 1.379 | 1.555 |
| | 28 | | | | | 1.270 | 1.501 | 1.270 | 1.501 |
| | 42 | | | | | 1.282 | 1.420 | 1.282 | 1.420 |
| | 50 | | | | | 1.182 | 1.392 | 1.182 | 1.392 |
| | 100 | | | | | 0.501 | 1.210 | 0.501 | 1.210 |
| | | | | | | | | | |
| D1 Stream | 0 | | | | | 1.071 | 0.000 | 1.071 | 0.000 |
| | 1 | | | | | 1.049 | 1.042 | 1.049 | 1.042 |
| | 2 | | | | | 1.023 | 1.041 | 1.023 | 1.041 |
| | 3 | | | | | 1.010 | 1.033 | 1.010 | 1.033 |
| | 4 | | | | | 1.009 | 1.027 | 1.009 | 1.027 |
| | 7 | | | | | 0.994 | 1.018 | 0.994 | 1.018 |
| | 14 | | | | | 0.954 | 0.992 | 0.954 | 0.992 |
| | 21 | | | | | 0.849 | 0.966 | 0.849 | 0.966 |
| | 28 | | | | | 0.768 | 0.930 | 0.768 | 0.930 |
| | 42 | | | | | 0.790 | 0.873 | 0.790 | 0.873 |
| | 50 | | | | | 0.679 | 0.854 | 0.679 | 0.854 |
| | 100 | | | | | 0.003 | 0.667 | 0.003 | 0.667 |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **50** | | **50** | | **50** | | **50** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D2 Ditch | 0 | | | | | 3.957 | 0.000 | 3.957 | 0.000 |
| | 1 | | | | | 0.739 | 2.373 | 0.739 | 2.373 |
| | 2 | | | | | 0.557 | 2.353 | 0.557 | 2.353 |
| | 3 | | | | | 0.453 | 2.173 | 0.453 | 2.173 |
| | 4 | | | | | 0.327 | 2.053 | 0.327 | 2.053 |
| | 7 | | | | | 0.624 | 2.031 | 0.624 | 2.031 |
| | 14 | | | | | 0.540 | 1.966 | 0.540 | 1.966 |
| | 21 | | | | | 1.732 | 1.813 | 1.732 | 1.813 |
| | 28 | | | | | 2.254 | 1.670 | 2.254 | 1.670 |
| | 42 | | | | | 1.232 | 1.509 | 1.232 | 1.509 |
| | 50 | | | | | 1.074 | 1.431 | 1.074 | 1.431 |
| | 100 | | | | | 0.690 | 1.134 | 0.690 | 1.134 |
| | | | | | | | | | |
| D2 Stream | 0 | | | | | 2.490 | 0.000 | 2.490 | 0.000 |
| | 1 | | | | | 0.146 | 1.413 | 0.146 | 1.413 |
| | 2 | | | | | 0.138 | 1.374 | 0.138 | 1.374 |
| | 3 | | | | | 0.163 | 1.231 | 0.163 | 1.231 |
| | 4 | | | | | 0.136 | 1.192 | 0.136 | 1.192 |
| | 7 | | | | | 0.478 | 1.181 | 0.478 | 1.181 |
| | 14 | | | | | 0.181 | 1.120 | 0.181 | 1.120 |
| | 21 | | | | | 0.765 | 1.043 | 0.765 | 1.043 |
| | 28 | | | | | 1.433 | 0.968 | 1.433 | 0.968 |
| | 42 | | | | | 0.753 | 0.879 | 0.753 | 0.879 |
| | 50 | | | | | 0.705 | 0.835 | 0.705 | 0.835 |
| | 100 | | | | | 0.417 | 0.663 | 0.417 | 0.663 |
| | | | | | | | | | |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **50** | | **50** | | **50** | | **50** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D3 Ditch | 0 | | | | | 0.068 | 0.000 | 0.035 | 0.000 |
| | 1 | | | | | 0.034 | 0.054 | 0.018 | 0.028 |
| | 2 | | | | | 0.005 | 0.035 | 0.003 | 0.018 |
| | 3 | | | | | 0.001 | 0.024 | 0.001 | 0.012 |
| | 4 | | | | | < 0.001 | 0.018 | < 0.001 | 0.009 |
| | 7 | | | | | < 0.001 | 0.010 | < 0.001 | 0.005 |
| | 14 | | | | | < 0.001 | 0.005 | < 0.001 | 0.003 |
| | 21 | | | | | < 0.001 | 0.004 | < 0.001 | 0.002 |
| | 28 | | | | | < 0.001 | 0.003 | < 0.001 | 0.001 |
| | 42 | | | | | < 0.001 | 0.002 | < 0.001 | 0.001 |
| | 50 | | | | | < 0.001 | 0.001 | < 0.001 | 0.001 |
| | 100 | | | | | < 0.001 | 0.001 | < 0.001 | 0.000 |
| | | | | | | | | | |
| D4 Pond | 0 | | | | | 0.215 | 0.000 | 0.214 | 0.000 |
| | 1 | | | | | 0.215 | 0.215 | 0.214 | 0.214 |
| | 2 | | | | | 0.214 | 0.215 | 0.213 | 0.214 |
| | 3 | | | | | 0.213 | 0.215 | 0.213 | 0.214 |
| | 4 | | | | | 0.212 | 0.215 | 0.211 | 0.214 |
| | 7 | | | | | 0.208 | 0.214 | 0.207 | 0.213 |
| | 14 | | | | | 0.196 | 0.211 | 0.195 | 0.211 |
| | 21 | | | | | 0.187 | 0.208 | 0.186 | 0.207 |
| | 28 | | | | | 0.186 | 0.204 | 0.185 | 0.203 |
| | 42 | | | | | 0.169 | 0.198 | 0.169 | 0.197 |
| | 50 | | | | | 0.160 | 0.195 | 0.160 | 0.194 |
| | 100 | | | | | 0.122 | 0.172 | 0.121 | 0.172 |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **50** | | **50** | | **50** | | **50** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D4 Stream | 0 | | | | | 0.259 | 0.000 | 0.259 | 0.000 |
| | 1 | | | | | 0.111 | 0.197 | 0.111 | 0.197 |
| | 2 | | | | | 0.244 | 0.187 | 0.244 | 0.187 |
| | 3 | | | | | 0.137 | 0.176 | 0.137 | 0.176 |
| | 4 | | | | | 0.091 | 0.165 | 0.091 | 0.165 |
| | 7 | | | | | 0.085 | 0.151 | 0.085 | 0.151 |
| | 14 | | | | | 0.177 | 0.137 | 0.177 | 0.137 |
| | 21 | | | | | 0.122 | 0.131 | 0.122 | 0.131 |
| | 28 | | | | | 0.050 | 0.125 | 0.050 | 0.125 |
| | 42 | | | | | 0.016 | 0.093 | 0.016 | 0.093 |
| | 50 | | | | | 0.051 | 0.084 | 0.051 | 0.084 |
| | 100 | | | | | 0.003 | 0.050 | 0.003 | 0.050 |
| | | | | | | | | | |
| D5 Pond | 0 | | | | | 0.092 | 0.000 | 0.092 | 0.000 |
| | 1 | | | | | 0.092 | 0.092 | 0.092 | 0.092 |
| | 2 | | | | | 0.092 | 0.092 | 0.092 | 0.092 |
| | 3 | | | | | 0.091 | 0.092 | 0.091 | 0.092 |
| | 4 | | | | | 0.091 | 0.092 | 0.091 | 0.092 |
| | 7 | | | | | 0.089 | 0.092 | 0.089 | 0.092 |
| | 14 | | | | | 0.089 | 0.091 | 0.089 | 0.091 |
| | 21 | | | | | 0.084 | 0.090 | 0.084 | 0.090 |
| | 28 | | | | | 0.080 | 0.089 | 0.080 | 0.089 |
| | 42 | | | | | 0.073 | 0.087 | 0.073 | 0.087 |
| | 50 | | | | | 0.069 | 0.085 | 0.069 | 0.085 |
| | 100 | | | | | 0.060 | 0.077 | 0.058 | 0.076 |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **50** | | **50** | | **50** | | **50** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D5 Stream | 0 | | | | | 0.148 | 0.000 | 0.148 | 0.000 |
| | 1 | | | | | 0.106 | 0.108 | 0.106 | 0.108 |
| | 2 | | | | | 0.061 | 0.102 | 0.061 | 0.102 |
| | 3 | | | | | 0.051 | 0.094 | 0.051 | 0.094 |
| | 4 | | | | | 0.091 | 0.083 | 0.091 | 0.083 |
| | 7 | | | | | 0.032 | 0.076 | 0.032 | 0.076 |
| | 14 | | | | | 0.032 | 0.056 | 0.032 | 0.056 |
| | 21 | | | | | 0.014 | 0.045 | 0.014 | 0.045 |
| | 28 | | | | | 0.018 | 0.039 | 0.018 | 0.039 |
| | 42 | | | | | 0.006 | 0.030 | 0.006 | 0.030 |
| | 50 | | | | | 0.004 | 0.027 | 0.004 | 0.027 |
| | 100 | | | | | < 0.001 | 0.016 | < 0.001 | 0.016 |
| | | | | | | | | | |
| D6 Ditch | 0 | | | | | 0.219 | 0.000 | 0.219 | 0.000 |
| | 1 | | | | | 0.179 | 0.197 | 0.179 | 0.197 |
| | 2 | | | | | 0.162 | 0.184 | 0.162 | 0.184 |
| | 3 | | | | | 0.121 | 0.174 | 0.121 | 0.174 |
| | 4 | | | | | 0.093 | 0.163 | 0.093 | 0.163 |
| | 7 | | | | | 0.051 | 0.128 | 0.051 | 0.128 |
| | 14 | | | | | 0.006 | 0.098 | 0.006 | 0.098 |
| | 21 | | | | | 0.018 | 0.070 | 0.018 | 0.070 |
| | 28 | | | | | 0.058 | 0.054 | 0.058 | 0.054 |
| | 42 | | | | | 0.002 | 0.045 | 0.002 | 0.045 |
| | 50 | | | | | 0.001 | 0.038 | 0.001 | 0.038 |
| | 100 | | | | | 0.003 | 0.023 | 0.003 | 0.023 |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **50** | | **50** | | **50** | | **50** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| R1 Pond | 0 | | | | | 0.052 | 0.000 | 0.027 | 0.000 |
| | 1 | | | | | 0.052 | 0.052 | 0.027 | 0.027 |
| | 2 | | | | | 0.051 | 0.052 | 0.026 | 0.027 |
| | 3 | | | | | 0.050 | 0.051 | 0.026 | 0.027 |
| | 4 | | | | | 0.050 | 0.051 | 0.026 | 0.026 |
| | 7 | | | | | 0.048 | 0.050 | 0.025 | 0.026 |
| | 14 | | | | | 0.045 | 0.049 | 0.023 | 0.025 |
| | 21 | | | | | 0.042 | 0.047 | 0.022 | 0.024 |
| | 28 | | | | | 0.040 | 0.046 | 0.021 | 0.024 |
| | 42 | | | | | 0.037 | 0.045 | 0.019 | 0.024 |
| | 50 | | | | | 0.034 | 0.045 | 0.018 | 0.023 |
| | 100 | | | | | 0.025 | 0.040 | 0.013 | 0.021 |
| | | | | | | | | | |
| R1 Stream | 0 | | | | | 0.581 | 0.000 | 0.304 | 0.000 |
| | 1 | | | | | 0.001 | 0.319 | 0.001 | 0.167 |
| | 2 | | | | | 0.001 | 0.160 | 0.000 | 0.084 |
| | 3 | | | | | < 0.001 | 0.107 | 0.000 | 0.056 |
| | 4 | | | | | < 0.001 | 0.080 | 0.000 | 0.042 |
| | 7 | | | | | 0.001 | 0.068 | 0.000 | 0.035 |
| | 14 | | | | | 0.004 | 0.047 | 0.002 | 0.024 |
| | 21 | | | | | < 0.001 | 0.036 | 0.000 | 0.019 |
| | 28 | | | | | < 0.001 | 0.030 | 0.000 | 0.015 |
| | 42 | | | | | < 0.001 | 0.021 | 0.000 | 0.011 |
| | 50 | | | | | < 0.001 | 0.019 | 0.000 | 0.010 |
| | 100 | | | | | < 0.001 | 0.010 | 0.000 | 0.005 |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| R3 Stream | 0 | | | | | 0.622 | 0.000 | 0.326 | 0.000 |
| | 1 | | | | | 0.006 | 0.551 | 0.003 | 0.290 |
| | 2 | | | | | 0.002 | 0.302 | 0.001 | 0.159 |
| | 3 | | | | | 0.001 | 0.202 | 0.001 | 0.106 |
| | 4 | | | | | 0.001 | 0.152 | 0.000 | 0.080 |
| | 7 | | | | | < 0.001 | 0.087 | 0.000 | 0.046 |
| | 14 | | | | | < 0.001 | 0.044 | 0.000 | 0.023 |
| | 21 | | | | | < 0.001 | 0.029 | 0.000 | 0.015 |
| | 28 | | | | | < 0.001 | 0.032 | 0.000 | 0.017 |
| | 42 | | | | | < 0.001 | 0.025 | 0.000 | 0.013 |
| | 50 | | | | | < 0.001 | 0.021 | 0.000 | 0.011 |
| | 100 | | | | | < 0.001 | 0.011 | 0.000 | 0.006 |
| | | | | | | | | | |
| R4 Stream | 0 | | | | | 0.586 | 0.000 | 0.306 | 0.000 |
| | 1 | | | | | 0.002 | 0.386 | 0.001 | 0.202 |
| | 2 | | | | | 0.001 | 0.240 | 0.000 | 0.126 |
| | 3 | | | | | 0.388 | 0.167 | 0.203 | 0.087 |
| | 4 | | | | | 0.212 | 0.166 | 0.111 | 0.087 |
| | 7 | | | | | 0.001 | 0.127 | 0.000 | 0.066 |
| | 14 | | | | | < 0.001 | 0.072 | 0.000 | 0.038 |
| | 21 | | | | | < 0.001 | 0.048 | 0.000 | 0.025 |
| | 28 | | | | | < 0.001 | 0.036 | 0.000 | 0.019 |
| | 42 | | | | | < 0.001 | 0.024 | 0.000 | 0.013 |
| | 50 | | | | | < 0.001 | 0.020 | 0.000 | 0.011 |
| | 100 | | | | | 0.008 | 0.010 | 0.004 | 0.005 |

**Table A 49 FOCUS Step 4 actual and time-weighted average $PEC_{sw}$ for Azoxystrobin following multiple application of 2 x 150 g a.s./ha to Cereals, winter. 10-20 m spray buffer and 0-20 m runoff buffer, no nozzle reduction.**

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D1 Ditch | 0 | | | | | 3.491 | - | 3.491 | - |
| | 1 | | | | | 3.458 | 3.448 | 3.458 | 3.448 |
| | 2 | | | | | 3.416 | 3.447 | 3.416 | 3.447 |
| | 3 | | | | | 3.379 | 3.431 | 3.379 | 3.431 |
| | 4 | | | | | 3.359 | 3.416 | 3.359 | 3.416 |
| | 7 | | | | | 3.301 | 3.384 | 3.301 | 3.384 |
| | 14 | | | | | 2.972 | 3.234 | 2.972 | 3.234 |
| | 21 | | | | | 2.610 | 3.104 | 2.610 | 3.104 |
| | 28 | | | | | 2.392 | 3.002 | 2.392 | 3.002 |
| | 42 | | | | | 2.392 | 2.938 | 2.392 | 2.938 |
| | 50 | | | | | 2.205 | 2.861 | 2.205 | 2.861 |
| | 100 | | | | | 0.933 | 2.460 | 0.933 | 2.460 |
| | | | | | | | | | |
| D1 Stream | 0 | | | | | 2.190 | - | 2.190 | - |
| | 1 | | | | | 2.162 | 2.155 | 2.162 | 2.155 |
| | 2 | | | | | 2.123 | 2.152 | 2.123 | 2.152 |
| | 3 | | | | | 2.100 | 2.139 | 2.100 | 2.139 |
| | 4 | | | | | 2.092 | 2.128 | 2.092 | 2.128 |
| | 7 | | | | | 2.038 | 2.104 | 2.038 | 2.104 |
| | 14 | | | | | 1.842 | 2.010 | 1.842 | 2.010 |
| | 21 | | | | | 1.606 | 1.926 | 1.606 | 1.926 |
| | 28 | | | | | 1.442 | 1.852 | 1.442 | 1.852 |
| | 42 | | | | | 1.474 | 1.817 | 1.474 | 1.817 |
| | 50 | | | | | 1.263 | 1.765 | 1.263 | 1.765 |
| | 100 | | | | | 0.006 | 1.375 | 0.006 | 1.375 |
| | | | | | | | | | |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **None** | | **None** | | **None** | | **None** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D2 Ditch | 0 | | | | | 6.484 | - | 6.484 | - |
| | 1 | | | | | 1.321 | 4.273 | 1.321 | 4.273 |
| | 2 | | | | | 1.015 | 4.187 | 1.015 | 4.187 |
| | 3 | | | | | 0.848 | 3.833 | 0.848 | 3.833 |
| | 4 | | | | | 0.639 | 3.638 | 0.639 | 3.638 |
| | 7 | | | | | 1.194 | 3.589 | 1.194 | 3.589 |
| | 14 | | | | | 1.080 | 3.503 | 1.080 | 3.503 |
| | 21 | | | | | 2.972 | 3.251 | 2.972 | 3.251 |
| | 28 | | | | | 4.219 | 2.999 | 4.219 | 2.999 |
| | 42 | | | | | 2.208 | 2.747 | 2.208 | 2.747 |
| | 50 | | | | | 1.963 | 2.624 | 1.963 | 2.624 |
| | 100 | | | | | 1.325 | 2.119 | 1.325 | 2.119 |
| | | | | | | | | | |
| D2 Stream | 0 | | | | | 4.081 | - | 4.081 | - |
| | 1 | | | | | 0.301 | 2.519 | 0.301 | 2.519 |
| | 2 | | | | | 0.280 | 2.420 | 0.280 | 2.420 |
| | 3 | | | | | 0.354 | 2.194 | 0.354 | 2.194 |
| | 4 | | | | | 0.278 | 2.138 | 0.278 | 2.138 |
| | 7 | | | | | 0.907 | 2.089 | 0.907 | 2.089 |
| | 14 | | | | | 0.403 | 2.008 | 0.403 | 2.008 |
| | 21 | | | | | 1.343 | 1.864 | 1.343 | 1.864 |
| | 28 | | | | | 2.632 | 1.732 | 2.632 | 1.732 |
| | 42 | | | | | 1.347 | 1.599 | 1.347 | 1.599 |
| | 50 | | | | | 1.308 | 1.528 | 1.308 | 1.528 |
| | 100 | | | | | 0.796 | 1.240 | 0.796 | 1.240 |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D3 Ditch | 0 | | | | | 0.112 | - | 0.057 | - |
| | 1 | | | | | 0.058 | 0.089 | 0.030 | 0.045 |
| | 2 | | | | | 0.010 | 0.059 | 0.005 | 0.030 |
| | 3 | | | | | 0.002 | 0.041 | 0.001 | 0.021 |
| | 4 | | | | | 0.001 | 0.031 | < 0.001 | 0.016 |
| | 7 | | | | | < 0.001 | 0.018 | < 0.001 | 0.009 |
| | 14 | | | | | < 0.001 | 0.009 | < 0.001 | 0.005 |
| | 21 | | | | | < 0.001 | 0.012 | < 0.001 | 0.006 |
| | 28 | | | | | < 0.001 | 0.009 | < 0.001 | 0.004 |
| | 42 | | | | | < 0.001 | 0.006 | < 0.001 | 0.003 |
| | 50 | | | | | < 0.001 | 0.005 | < 0.001 | 0.003 |
| | 100 | | | | | < 0.001 | 0.002 | < 0.001 | 0.001 |
| | | | | | | | | | |
| D4 Pond | 0 | | | | | 0.559 | - | 0.557 | - |
| | 1 | | | | | 0.558 | 0.559 | 0.556 | 0.556 |
| | 2 | | | | | 0.557 | 0.559 | 0.554 | 0.556 |
| | 3 | | | | | 0.554 | 0.558 | 0.552 | 0.556 |
| | 4 | | | | | 0.552 | 0.558 | 0.549 | 0.556 |
| | 7 | | | | | 0.540 | 0.556 | 0.538 | 0.554 |
| | 14 | | | | | 0.511 | 0.549 | 0.509 | 0.547 |
| | 21 | | | | | 0.484 | 0.541 | 0.482 | 0.538 |
| | 28 | | | | | 0.467 | 0.531 | 0.466 | 0.528 |
| | 42 | | | | | 0.424 | 0.511 | 0.422 | 0.509 |
| | 50 | | | | | 0.402 | 0.500 | 0.400 | 0.498 |
| | 100 | | | | | 0.305 | 0.438 | 0.304 | 0.436 |
| | | | | | | | | | |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **None** | | **None** | | **None** | | **None** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D4 Stream | 0 | | | | | 0.585 | - | 0.585 | - |
| | 1 | | | | | 0.295 | 0.466 | 0.295 | 0.466 |
| | 2 | | | | | 0.562 | 0.444 | 0.562 | 0.444 |
| | 3 | | | | | 0.360 | 0.428 | 0.360 | 0.428 |
| | 4 | | | | | 0.266 | 0.418 | 0.266 | 0.418 |
| | 7 | | | | | 0.264 | 0.400 | 0.264 | 0.400 |
| | 14 | | | | | 0.444 | 0.356 | 0.444 | 0.356 |
| | 21 | | | | | 0.287 | 0.349 | 0.287 | 0.349 |
| | 28 | | | | | 0.114 | 0.323 | 0.114 | 0.323 |
| | 42 | | | | | 0.045 | 0.240 | 0.045 | 0.240 |
| | 50 | | | | | 0.093 | 0.213 | 0.093 | 0.213 |
| | 100 | | | | | 0.006 | 0.123 | 0.006 | 0.123 |
| | | | | | | | | | |
| D5 Pond | 0 | | | | | 0.198 | - | 0.198 | - |
| | 1 | | | | | 0.198 | 0.198 | 0.198 | 0.198 |
| | 2 | | | | | 0.197 | 0.198 | 0.197 | 0.198 |
| | 3 | | | | | 0.196 | 0.198 | 0.196 | 0.198 |
| | 4 | | | | | 0.195 | 0.198 | 0.195 | 0.198 |
| | 7 | | | | | 0.191 | 0.197 | 0.191 | 0.197 |
| | 14 | | | | | 0.191 | 0.195 | 0.191 | 0.195 |
| | 21 | | | | | 0.181 | 0.193 | 0.181 | 0.193 |
| | 28 | | | | | 0.172 | 0.192 | 0.172 | 0.192 |
| | 42 | | | | | 0.158 | 0.187 | 0.158 | 0.187 |
| | 50 | | | | | 0.149 | 0.183 | 0.149 | 0.183 |
| | 100 | | | | | 0.141 | 0.167 | 0.132 | 0.165 |
| | | | | | | | | | |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **None** | | **None** | | **None** | | **None** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D5 Stream | 0 | | | | | 0.307 | - | 0.307 | - |
| | 1 | | | | | 0.223 | 0.225 | 0.223 | 0.225 |
| | 2 | | | | | 0.131 | 0.215 | 0.131 | 0.215 |
| | 3 | | | | | 0.113 | 0.199 | 0.113 | 0.199 |
| | 4 | | | | | 0.192 | 0.176 | 0.192 | 0.176 |
| | 7 | | | | | 0.074 | 0.162 | 0.074 | 0.162 |
| | 14 | | | | | 0.069 | 0.121 | 0.069 | 0.121 |
| | 21 | | | | | 0.033 | 0.099 | 0.033 | 0.099 |
| | 28 | | | | | 0.038 | 0.084 | 0.038 | 0.084 |
| | 42 | | | | | 0.016 | 0.065 | 0.016 | 0.065 |
| | 50 | | | | | 0.010 | 0.058 | 0.010 | 0.058 |
| | 100 | | | | | < 0.001 | 0.036 | < 0.001 | 0.036 |
| | | | | | | | | | |
| D6 Ditch | 0 | | | | | 0.400 | - | 0.400 | - |
| | 1 | | | | | 0.311 | 0.359 | 0.311 | 0.359 |
| | 2 | | | | | 0.278 | 0.332 | 0.278 | 0.332 |
| | 3 | | | | | 0.206 | 0.311 | 0.206 | 0.311 |
| | 4 | | | | | 0.157 | 0.288 | 0.157 | 0.288 |
| | 7 | | | | | 0.086 | 0.240 | 0.086 | 0.240 |
| | 14 | | | | | 0.011 | 0.188 | 0.011 | 0.188 |
| | 21 | | | | | 0.030 | 0.134 | 0.030 | 0.134 |
| | 28 | | | | | 0.104 | 0.104 | 0.104 | 0.104 |
| | 42 | | | | | 0.005 | 0.085 | 0.005 | 0.085 |
| | 50 | | | | | 0.002 | 0.072 | 0.002 | 0.072 |
| | 100 | | | | | 0.006 | 0.044 | 0.006 | 0.044 |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **None** | | **None** | | **None** | | **None** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| R1 Pond | 0 | | | | | 0.120 | - | 0.064 | - |
| | 1 | | | | | 0.118 | 0.119 | 0.063 | 0.063 |
| | 2 | | | | | 0.116 | 0.118 | 0.062 | 0.063 |
| | 3 | | | | | 0.115 | 0.117 | 0.061 | 0.062 |
| | 4 | | | | | 0.113 | 0.116 | 0.060 | 0.062 |
| | 7 | | | | | 0.109 | 0.114 | 0.058 | 0.061 |
| | 14 | | | | | 0.101 | 0.110 | 0.054 | 0.058 |
| | 21 | | | | | 0.095 | 0.106 | 0.050 | 0.056 |
| | 28 | | | | | 0.092 | 0.103 | 0.049 | 0.055 |
| | 42 | | | | | 0.089 | 0.098 | 0.047 | 0.052 |
| | 50 | | | | | 0.083 | 0.096 | 0.044 | 0.051 |
| | 100 | | | | | 0.071 | 0.086 | 0.037 | 0.045 |
| | | | | | | | | | |
| R1 Stream | 0 | | | | | 0.743 | - | 0.389 | - |
| | 1 | | | | | 0.002 | 0.608 | 0.001 | 0.319 |
| | 2 | | | | | 0.001 | 0.306 | 0.001 | 0.161 |
| | 3 | | | | | 0.001 | 0.205 | < 0.001 | 0.107 |
| | 4 | | | | | < 0.001 | 0.154 | < 0.001 | 0.081 |
| | 7 | | | | | < 0.001 | 0.088 | < 0.001 | 0.046 |
| | 14 | | | | | < 0.001 | 0.047 | < 0.001 | 0.024 |
| | 21 | | | | | < 0.001 | 0.036 | < 0.001 | 0.019 |
| | 28 | | | | | < 0.001 | 0.035 | < 0.001 | 0.018 |
| | 42 | | | | | < 0.001 | 0.033 | < 0.001 | 0.017 |
| | 50 | | | | | < 0.001 | 0.029 | < 0.001 | 0.015 |
| | 100 | | | | | < 0.001 | 0.019 | < 0.001 | 0.010 |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **None** | | **None** | | **None** | | **None** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| R3 Stream | 0 | | | | | 1.428 | - | 0.749 | - |
| | 1 | | | | | 0.013 | 1.267 | 0.007 | 0.666 |
| | 2 | | | | | 0.005 | 0.693 | 0.003 | 0.365 |
| | 3 | | | | | 0.003 | 0.464 | 0.002 | 0.244 |
| | 4 | | | | | 0.002 | 0.349 | 0.001 | 0.184 |
| | 7 | | | | | 0.001 | 0.200 | < 0.001 | 0.105 |
| | 14 | | | | | < 0.001 | 0.103 | < 0.001 | 0.054 |
| | 21 | | | | | < 0.001 | 0.069 | < 0.001 | 0.036 |
| | 28 | | | | | 0.001 | 0.073 | 0.001 | 0.038 |
| | 42 | | | | | < 0.001 | 0.057 | < 0.001 | 0.030 |
| | 50 | | | | | < 0.001 | 0.048 | < 0.001 | 0.025 |
| | 100 | | | | | < 0.001 | 0.025 | < 0.001 | 0.013 |
| | | | | | | | | | |
| R4 Stream | 0 | | | | | 0.730 | - | 0.382 | - |
| | 1 | | | | | 0.472 | 0.513 | 0.247 | 0.269 |
| | 2 | | | | | 0.003 | 0.485 | 0.002 | 0.254 |
| | 3 | | | | | 0.002 | 0.338 | 0.001 | 0.177 |
| | 4 | | | | | 0.001 | 0.254 | 0.001 | 0.133 |
| | 7 | | | | | 0.107 | 0.211 | 0.056 | 0.111 |
| | 14 | | | | | < 0.001 | 0.127 | < 0.001 | 0.066 |
| | 21 | | | | | < 0.001 | 0.085 | < 0.001 | 0.044 |
| | 28 | | | | | < 0.001 | 0.064 | < 0.001 | 0.034 |
| | 42 | | | | | < 0.001 | 0.043 | < 0.001 | 0.022 |
| | 50 | | | | | < 0.001 | 0.036 | < 0.001 | 0.019 |
| | 100 | | | | | < 0.001 | 0.018 | < 0.001 | 0.009 |

**Table A 50 FOCUS Step 4 actual and time-weighted average $PEC_{sw}$ for Azoxystrobin following multiple application of 2 x 150 g a.s./ha to Cereals, winter. 10-20 m spray buffer and 0-20 m runoff buffer, 50 % nozzle reduction.**

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D1 Ditch | 0 | | | | | 3.491 | - | 3.491 | - |
| | 1 | | | | | 3.458 | 3.448 | 3.458 | 3.448 |
| | 2 | | | | | 3.416 | 3.447 | 3.416 | 3.447 |
| | 3 | | | | | 3.379 | 3.431 | 3.379 | 3.431 |
| | 4 | | | | | 3.359 | 3.416 | 3.359 | 3.416 |
| | 7 | | | | | 3.301 | 3.384 | 3.301 | 3.384 |
| | 14 | | | | | 2.972 | 3.234 | 2.972 | 3.234 |
| | 21 | | | | | 2.610 | 3.104 | 2.610 | 3.104 |
| | 28 | | | | | 2.392 | 3.002 | 2.392 | 3.002 |
| | 42 | | | | | 2.392 | 2.938 | 2.392 | 2.938 |
| | 50 | | | | | 2.205 | 2.861 | 2.205 | 2.861 |
| | 100 | | | | | 0.933 | 2.460 | 0.933 | 2.460 |
| | | | | | | | | | |
| D1 Stream | 0 | | | | | 2.190 | - | 2.190 | - |
| | 1 | | | | | 2.162 | 2.155 | 2.162 | 2.155 |
| | 2 | | | | | 2.123 | 2.152 | 2.123 | 2.152 |
| | 3 | | | | | 2.100 | 2.139 | 2.100 | 2.139 |
| | 4 | | | | | 2.092 | 2.128 | 2.092 | 2.128 |
| | 7 | | | | | 2.038 | 2.104 | 2.038 | 2.104 |
| | 14 | | | | | 1.842 | 2.010 | 1.842 | 2.010 |
| | 21 | | | | | 1.606 | 1.926 | 1.606 | 1.926 |
| | 28 | | | | | 1.442 | 1.852 | 1.442 | 1.852 |
| | 42 | | | | | 1.474 | 1.817 | 1.474 | 1.817 |
| | 50 | | | | | 1.263 | 1.765 | 1.263 | 1.765 |
| | 100 | | | | | 0.006 | 1.375 | 0.006 | 1.375 |
| | | | | | | | | | |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **50** | | **50** | | **50** | | **50** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D2 Ditch | 0 | | | | | 6.484 | - | 6.484 | - |
| | 1 | | | | | 1.321 | 4.273 | 1.321 | 4.273 |
| | 2 | | | | | 1.015 | 4.187 | 1.015 | 4.187 |
| | 3 | | | | | 0.848 | 3.833 | 0.848 | 3.833 |
| | 4 | | | | | 0.639 | 3.638 | 0.639 | 3.638 |
| | 7 | | | | | 1.194 | 3.589 | 1.194 | 3.589 |
| | 14 | | | | | 1.080 | 3.503 | 1.080 | 3.503 |
| | 21 | | | | | 2.972 | 3.251 | 2.972 | 3.251 |
| | 28 | | | | | 4.219 | 2.999 | 4.219 | 2.999 |
| | 42 | | | | | 2.208 | 2.747 | 2.208 | 2.747 |
| | 50 | | | | | 1.963 | 2.624 | 1.963 | 2.624 |
| | 100 | | | | | 1.325 | 2.119 | 1.325 | 2.119 |
| | | | | | | | | | |
| D2 Stream | 0 | | | | | 4.081 | - | 4.081 | - |
| | 1 | | | | | 0.301 | 2.519 | 0.301 | 2.519 |
| | 2 | | | | | 0.280 | 2.420 | 0.280 | 2.420 |
| | 3 | | | | | 0.354 | 2.194 | 0.354 | 2.194 |
| | 4 | | | | | 0.278 | 2.138 | 0.278 | 2.138 |
| | 7 | | | | | 0.907 | 2.089 | 0.907 | 2.089 |
| | 14 | | | | | 0.403 | 2.008 | 0.403 | 2.008 |
| | 21 | | | | | 1.343 | 1.864 | 1.343 | 1.864 |
| | 28 | | | | | 2.632 | 1.732 | 2.632 | 1.732 |
| | 42 | | | | | 1.347 | 1.599 | 1.347 | 1.599 |
| | 50 | | | | | 1.308 | 1.528 | 1.308 | 1.528 |
| | 100 | | | | | 0.796 | 1.240 | 0.796 | 1.240 |
| | | | | | | | | | |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **50** | | **50** | | **50** | | **50** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D3 Ditch | 0 | | | | | 0.056 | - | 0.028 | - |
| | 1 | | | | | 0.029 | 0.044 | 0.015 | 0.023 |
| | 2 | | | | | 0.005 | 0.029 | 0.003 | 0.015 |
| | 3 | | | | | 0.001 | 0.020 | 0.001 | 0.010 |
| | 4 | | | | | < 0.001 | 0.015 | < 0.001 | 0.008 |
| | 7 | | | | | < 0.001 | 0.009 | < 0.001 | 0.005 |
| | 14 | | | | | < 0.001 | 0.005 | < 0.001 | 0.002 |
| | 21 | | | | | < 0.001 | 0.006 | < 0.001 | 0.003 |
| | 28 | | | | | < 0.001 | 0.004 | < 0.001 | 0.002 |
| | 42 | | | | | < 0.001 | 0.003 | < 0.001 | 0.002 |
| | 50 | | | | | < 0.001 | 0.002 | < 0.001 | 0.001 |
| | 100 | | | | | < 0.001 | 0.001 | < 0.001 | 0.001 |
| | | | | | | | | | |
| D4 Pond | 0 | | | | | 0.555 | - | 0.554 | - |
| | 1 | | | | | 0.555 | 0.555 | 0.554 | 0.554 |
| | 2 | | | | | 0.553 | 0.555 | 0.552 | 0.554 |
| | 3 | | | | | 0.551 | 0.555 | 0.550 | 0.554 |
| | 4 | | | | | 0.548 | 0.555 | 0.547 | 0.553 |
| | 7 | | | | | 0.537 | 0.553 | 0.536 | 0.552 |
| | 14 | | | | | 0.508 | 0.546 | 0.507 | 0.545 |
| | 21 | | | | | 0.481 | 0.537 | 0.480 | 0.536 |
| | 28 | | | | | 0.465 | 0.527 | 0.464 | 0.526 |
| | 42 | | | | | 0.421 | 0.508 | 0.420 | 0.507 |
| | 50 | | | | | 0.399 | 0.497 | 0.398 | 0.496 |
| | 100 | | | | | 0.303 | 0.435 | 0.302 | 0.434 |
| | | | | | | | | | |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **50** | | **50** | | **50** | | **50** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D4 Stream | 0 | | | | | 0.585 | - | 0.585 | - |
| | 1 | | | | | 0.295 | 0.466 | 0.295 | 0.466 |
| | 2 | | | | | 0.562 | 0.444 | 0.562 | 0.444 |
| | 3 | | | | | 0.360 | 0.428 | 0.360 | 0.428 |
| | 4 | | | | | 0.266 | 0.418 | 0.266 | 0.418 |
| | 7 | | | | | 0.264 | 0.400 | 0.264 | 0.400 |
| | 14 | | | | | 0.444 | 0.356 | 0.444 | 0.356 |
| | 21 | | | | | 0.287 | 0.349 | 0.287 | 0.349 |
| | 28 | | | | | 0.114 | 0.323 | 0.114 | 0.323 |
| | 42 | | | | | 0.045 | 0.240 | 0.045 | 0.240 |
| | 50 | | | | | 0.093 | 0.213 | 0.093 | 0.213 |
| | 100 | | | | | 0.006 | 0.123 | 0.006 | 0.123 |
| | | | | | | | | | |
| D5 Pond | 0 | | | | | 0.198 | - | 0.198 | - |
| | 1 | | | | | 0.198 | 0.198 | 0.198 | 0.198 |
| | 2 | | | | | 0.197 | 0.198 | 0.197 | 0.198 |
| | 3 | | | | | 0.196 | 0.198 | 0.196 | 0.198 |
| | 4 | | | | | 0.195 | 0.198 | 0.195 | 0.198 |
| | 7 | | | | | 0.191 | 0.197 | 0.191 | 0.197 |
| | 14 | | | | | 0.191 | 0.195 | 0.191 | 0.195 |
| | 21 | | | | | 0.181 | 0.193 | 0.181 | 0.193 |
| | 28 | | | | | 0.172 | 0.192 | 0.172 | 0.192 |
| | 42 | | | | | 0.158 | 0.187 | 0.158 | 0.187 |
| | 50 | | | | | 0.149 | 0.183 | 0.149 | 0.183 |
| | 100 | | | | | 0.128 | 0.164 | 0.124 | 0.163 |
| | | | | | | | | | |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **50** | | **50** | | **50** | | **50** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D5 Stream | 0 | | | | | 0.307 | - | 0.307 | - |
| | 1 | | | | | 0.223 | 0.225 | 0.223 | 0.225 |
| | 2 | | | | | 0.131 | 0.215 | 0.131 | 0.215 |
| | 3 | | | | | 0.113 | 0.199 | 0.113 | 0.199 |
| | 4 | | | | | 0.192 | 0.176 | 0.192 | 0.176 |
| | 7 | | | | | 0.074 | 0.162 | 0.074 | 0.162 |
| | 14 | | | | | 0.069 | 0.121 | 0.069 | 0.121 |
| | 21 | | | | | 0.033 | 0.099 | 0.033 | 0.099 |
| | 28 | | | | | 0.038 | 0.084 | 0.038 | 0.084 |
| | 42 | | | | | 0.016 | 0.065 | 0.016 | 0.065 |
| | 50 | | | | | 0.010 | 0.058 | 0.010 | 0.058 |
| | 100 | | | | | 0.000 | 0.036 | 0.000 | 0.036 |
| | | | | | | | | | |
| D6 Ditch | 0 | | | | | - | 0.000 | 0.400 | - |
| | 1 | | | | | 0.311 | 0.359 | 0.311 | 0.359 |
| | 2 | | | | | 0.278 | 0.332 | 0.278 | 0.332 |
| | 3 | | | | | 0.206 | 0.311 | 0.206 | 0.311 |
| | 4 | | | | | 0.157 | 0.288 | 0.157 | 0.288 |
| | 7 | | | | | 0.086 | 0.240 | 0.086 | 0.240 |
| | 14 | | | | | 0.011 | 0.188 | 0.011 | 0.188 |
| | 21 | | | | | 0.030 | 0.134 | 0.030 | 0.134 |
| | 28 | | | | | 0.104 | 0.104 | 0.104 | 0.104 |
| | 42 | | | | | 0.005 | 0.085 | 0.005 | 0.085 |
| | 50 | | | | | 0.002 | 0.072 | 0.002 | 0.072 |
| | 100 | | | | | 0.006 | 0.044 | 0.006 | 0.044 |
| | | | | | | | | | |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **50** | | **50** | | **50** | | **50** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| R1 Pond | 0 | | | | | 0.109 | - | 0.056 | - |
| | 1 | | | | | 0.106 | 0.108 | 0.055 | 0.056 |
| | 2 | | | | | 0.105 | 0.107 | 0.054 | 0.055 |
| | 3 | | | | | 0.103 | 0.106 | 0.053 | 0.055 |
| | 4 | | | | | 0.102 | 0.105 | 0.053 | 0.054 |
| | 7 | | | | | 0.098 | 0.103 | 0.051 | 0.053 |
| | 14 | | | | | 0.091 | 0.099 | 0.047 | 0.051 |
| | 21 | | | | | 0.085 | 0.095 | 0.044 | 0.049 |
| | 28 | | | | | 0.083 | 0.093 | 0.043 | 0.048 |
| | 42 | | | | | 0.081 | 0.088 | 0.042 | 0.046 |
| | 50 | | | | | 0.076 | 0.087 | 0.039 | 0.045 |
| | 100 | | | | | 0.066 | 0.078 | 0.034 | 0.040 |
| | | | | | | | | | |
| R1 Stream | 0 | | | | | 0.743 | - | 0.389 | - |
| | 1 | | | | | 0.002 | 0.608 | 0.001 | 0.319 |
| | 2 | | | | | 0.001 | 0.306 | 0.001 | 0.161 |
| | 3 | | | | | 0.001 | 0.205 | <0.001 | 0.107 |
| | 4 | | | | | <0.001 | 0.154 | <0.001 | 0.081 |
| | 7 | | | | | <0.001 | 0.088 | <0.001 | 0.046 |
| | 14 | | | | | <0.001 | 0.047 | <0.001 | 0.024 |
| | 21 | | | | | <0.001 | 0.036 | <0.001 | 0.019 |
| | 28 | | | | | <0.001 | 0.035 | <0.001 | 0.018 |
| | 42 | | | | | <0.001 | 0.033 | <0.001 | 0.017 |
| | 50 | | | | | <0.001 | 0.029 | <0.001 | 0.015 |
| | 100 | | | | | <0.001 | 0.019 | <0.001 | 0.010 |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **50** | | **50** | | **50** | | **50** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| R3 Stream | 0 | | | | | 1.428 | - | 0.749 | - |
| | 1 | | | | | 0.013 | 1.267 | 0.007 | 0.666 |
| | 2 | | | | | 0.005 | 0.693 | 0.003 | 0.365 |
| | 3 | | | | | 0.003 | 0.464 | 0.002 | 0.244 |
| | 4 | | | | | 0.002 | 0.349 | 0.001 | 0.184 |
| | 7 | | | | | 0.001 | 0.200 | <0.001 | 0.105 |
| | 14 | | | | | <0.001 | 0.102 | <0.001 | 0.053 |
| | 21 | | | | | <0.001 | 0.068 | <0.001 | 0.036 |
| | 28 | | | | | 0.001 | 0.073 | 0.001 | 0.038 |
| | 42 | | | | | <0.001 | 0.057 | <0.001 | 0.030 |
| | 50 | | | | | <0.001 | 0.048 | <0.001 | 0.025 |
| | 100 | | | | | <0.001 | 0.025 | <0.001 | 0.013 |
| | | | | | | | | | |
| R4 Stream | 0 | | | | | 0.730 | - | 0.382 | - |
| | 1 | | | | | 0.472 | 0.513 | 0.247 | 0.269 |
| | 2 | | | | | 0.003 | 0.485 | 0.002 | 0.254 |
| | 3 | | | | | 0.002 | 0.338 | 0.001 | 0.177 |
| | 4 | | | | | 0.001 | 0.254 | 0.001 | 0.133 |
| | 7 | | | | | 0.107 | 0.211 | 0.056 | 0.111 |
| | 14 | | | | | <0.001 | 0.126 | <0.001 | 0.066 |
| | 21 | | | | | <0.001 | 0.084 | <0.001 | 0.044 |
| | 28 | | | | | <0.001 | 0.063 | <0.001 | 0.033 |
| | 42 | | | | | <0.001 | 0.042 | <0.001 | 0.022 |
| | 50 | | | | | <0.001 | 0.036 | <0.001 | 0.019 |
| | 100 | | | | | <0.001 | 0.018 | <0.001 | 0.009 |

## Step 4: spring cereals

**Table A 51 FOCUS Step 4 actual and time-weighted average $PEC_{sw}$ for Azoxystrobin following single application of 1 x 150 g a.s./ha to Cereals, spring. 10-20 m spray buffer and 0-20 m runoff buffer, no nozzle reduction.**

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D1 Ditch | 0 | 2.429 | - | 2.429 | - | | | | |
| | 1 | 2.408 | 2.398 | 2.408 | 2.398 | | | | |
| | 2 | 2.372 | 2.396 | 2.372 | 2.396 | | | | |
| | 3 | 2.345 | 2.384 | 2.345 | 2.384 | | | | |
| | 4 | 2.338 | 2.373 | 2.338 | 2.373 | | | | |
| | 7 | 2.299 | 2.354 | 2.299 | 2.354 | | | | |
| | 14 | 2.088 | 2.255 | 2.088 | 2.255 | | | | |
| | 21 | 1.841 | 2.169 | 1.841 | 2.169 | | | | |
| | 28 | 1.695 | 2.082 | 1.695 | 2.082 | | | | |
| | 42 | 1.707 | 2.035 | 1.707 | 2.035 | | | | |
| | 50 | 1.585 | 1.987 | 1.585 | 1.987 | | | | |
| | 100 | 0.916 | 1.748 | 0.916 | 1.748 | | | | |
| | | | | | | | | | |
| D1 Stream | 0 | 1.521 | - | 1.521 | - | | | | |
| | 1 | 1.505 | 1.498 | 1.505 | 1.498 | | | | |
| | 2 | 1.475 | 1.496 | 1.475 | 1.496 | | | | |
| | 3 | 1.457 | 1.487 | 1.457 | 1.487 | | | | |
| | 4 | 1.461 | 1.479 | 1.461 | 1.479 | | | | |
| | 7 | 1.421 | 1.464 | 1.421 | 1.464 | | | | |
| | 14 | 1.295 | 1.402 | 1.295 | 1.402 | | | | |
| | 21 | 1.134 | 1.347 | 1.134 | 1.347 | | | | |
| | 28 | 1.022 | 1.286 | 1.022 | 1.286 | | | | |
| | 42 | 1.053 | 1.259 | 1.053 | 1.259 | | | | |
| | 50 | 0.938 | 1.227 | 0.938 | 1.227 | | | | |
| | 100 | 0.013 | 1.065 | 0.013 | 1.065 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D3 Ditch | 0 | 0.137 | - | 0.071 | - | | | | |
| | 1 | 0.074 | 0.110 | 0.038 | 0.057 | | | | |
| | 2 | 0.014 | 0.074 | 0.007 | 0.038 | | | | |
| | 3 | 0.003 | 0.051 | 0.001 | 0.027 | | | | |
| | 4 | 0.001 | 0.039 | < 0.001 | 0.020 | | | | |
| | 7 | < 0.001 | 0.022 | < 0.001 | 0.012 | | | | |
| | 14 | < 0.001 | 0.011 | < 0.001 | 0.006 | | | | |
| | 21 | < 0.001 | 0.008 | < 0.001 | 0.004 | | | | |
| | 28 | < 0.001 | 0.006 | < 0.001 | 0.003 | | | | |
| | 42 | < 0.001 | 0.004 | < 0.001 | 0.002 | | | | |
| | 50 | < 0.001 | 0.003 | < 0.001 | 0.002 | | | | |
| | 100 | < 0.001 | 0.002 | < 0.001 | < 0.001 | | | | |
| | | | | | | | | | |
| D4 Pond | 0 | 0.305 | - | 0.304 | - | | | | |
| | 1 | 0.305 | 0.305 | 0.304 | 0.304 | | | | |
| | 2 | 0.304 | 0.305 | 0.303 | 0.304 | | | | |
| | 3 | 0.303 | 0.305 | 0.302 | 0.304 | | | | |
| | 4 | 0.301 | 0.305 | 0.300 | 0.304 | | | | |
| | 7 | 0.295 | 0.304 | 0.294 | 0.303 | | | | |
| | 14 | 0.279 | 0.300 | 0.278 | 0.299 | | | | |
| | 21 | 0.265 | 0.296 | 0.264 | 0.295 | | | | |
| | 28 | 0.260 | 0.290 | 0.259 | 0.289 | | | | |
| | 42 | 0.236 | 0.281 | 0.236 | 0.280 | | | | |
| | 50 | 0.224 | 0.275 | 0.223 | 0.274 | | | | |
| | 100 | 0.170 | 0.243 | 0.169 | 0.242 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D4 Stream | 0 | 0.342 | - | 0.342 | - | | | | |
| | 1 | 0.172 | 0.271 | 0.172 | 0.271 | | | | |
| | 2 | 0.325 | 0.260 | 0.325 | 0.260 | | | | |
| | 3 | 0.208 | 0.248 | 0.208 | 0.248 | | | | |
| | 4 | 0.154 | 0.235 | 0.154 | 0.235 | | | | |
| | 7 | 0.145 | 0.213 | 0.145 | 0.213 | | | | |
| | 14 | 0.234 | 0.187 | 0.234 | 0.187 | | | | |
| | 21 | 0.157 | 0.191 | 0.157 | 0.191 | | | | |
| | 28 | 0.063 | 0.177 | 0.063 | 0.177 | | | | |
| | 42 | 0.024 | 0.132 | 0.024 | 0.132 | | | | |
| | 50 | 0.061 | 0.117 | 0.061 | 0.117 | | | | |
| | 100 | 0.004 | 0.069 | 0.004 | 0.069 | | | | |
| | | | | | | | | | |
| D5 Pond | 0 | 0.098 | - | 0.098 | - | | | | |
| | 1 | 0.098 | 0.098 | 0.098 | 0.098 | | | | |
| | 2 | 0.098 | 0.098 | 0.098 | 0.098 | | | | |
| | 3 | 0.097 | 0.098 | 0.097 | 0.098 | | | | |
| | 4 | 0.097 | 0.098 | 0.097 | 0.098 | | | | |
| | 7 | 0.095 | 0.098 | 0.095 | 0.098 | | | | |
| | 14 | 0.095 | 0.097 | 0.095 | 0.097 | | | | |
| | 21 | 0.090 | 0.096 | 0.090 | 0.096 | | | | |
| | 28 | 0.085 | 0.095 | 0.085 | 0.095 | | | | |
| | 42 | 0.077 | 0.093 | 0.077 | 0.093 | | | | |
| | 50 | 0.073 | 0.091 | 0.073 | 0.091 | | | | |
| | 100 | 0.069 | 0.083 | 0.065 | 0.082 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D5 Stream | 0 | 0.157 | - | 0.156 | - | | | | |
| | 1 | 0.002 | 0.115 | 0.112 | 0.115 | | | | |
| | 2 | 0.002 | 0.109 | 0.065 | 0.109 | | | | |
| | 3 | 0.002 | 0.101 | 0.059 | 0.101 | | | | |
| | 4 | 0.002 | 0.089 | 0.097 | 0.089 | | | | |
| | 7 | 0.001 | 0.081 | 0.034 | 0.081 | | | | |
| | 14 | 0.002 | 0.060 | 0.033 | 0.060 | | | | |
| | 21 | < 0.001 | 0.048 | 0.015 | 0.048 | | | | |
| | 28 | 0.001 | 0.041 | 0.018 | 0.041 | | | | |
| | 42 | < 0.001 | 0.031 | 0.006 | 0.031 | | | | |
| | 50 | < 0.001 | 0.028 | 0.003 | 0.028 | | | | |
| | 100 | < 0.001 | 0.017 | 0.001 | 0.017 | | | | |
| | | | | | | | | | |
| R4 Stream | 0 | | | | | 0.798 | - | 0.417 | - |
| | 1 | | | | | 0.003 | 0.535 | 0.002 | 0.281 |
| | 2 | | | | | 0.001 | 0.501 | < 0.001 | 0.263 |
| | 3 | | | | | 0.759 | 0.349 | 0.398 | 0.183 |
| | 4 | | | | | 0.480 | 0.268 | 0.252 | 0.140 |
| | 7 | | | | | 0.001 | 0.226 | < 0.001 | 0.118 |
| | 14 | | | | | < 0.001 | 0.133 | < 0.001 | 0.069 |
| | 21 | | | | | < 0.001 | 0.089 | < 0.001 | 0.046 |
| | 28 | | | | | < 0.001 | 0.067 | < 0.001 | 0.035 |
| | 42 | | | | | < 0.001 | 0.045 | < 0.001 | 0.024 |
| | 50 | | | | | < 0.001 | 0.038 | < 0.001 | 0.020 |
| | 100 | | | | | 0.021 | 0.019 | 0.011 | 0.010 |

**Table A 52 FOCUS Step 4 actual and time-weighted average $PEC_{sw}$ for Azoxystrobin following single application of 1 x 150 g a.s./ha to Cereals, spring. 10-20 m spray buffer and 0-20 m runoff buffer, 50 % nozzle reduction.**

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D1 Ditch | 0 | 2.429 | - | 2.429 | - | | | | |
| | 1 | 2.408 | 2.398 | 2.408 | 2.398 | | | | |
| | 2 | 2.372 | 2.396 | 2.372 | 2.396 | | | | |
| | 3 | 2.345 | 2.384 | 2.345 | 2.384 | | | | |
| | 4 | 2.338 | 2.373 | 2.338 | 2.373 | | | | |
| | 7 | 2.299 | 2.354 | 2.299 | 2.354 | | | | |
| | 14 | 2.088 | 2.255 | 2.088 | 2.255 | | | | |
| | 21 | 1.841 | 2.169 | 1.841 | 2.169 | | | | |
| | 28 | 1.695 | 2.082 | 1.695 | 2.082 | | | | |
| | 42 | 1.707 | 2.035 | 1.707 | 2.035 | | | | |
| | 50 | 1.585 | 1.987 | 1.585 | 1.987 | | | | |
| | 100 | 0.916 | 1.748 | 0.916 | 1.748 | | | | |
| | | | | | | | | | |
| D1 Stream | 0 | 1.521 | - | 1.521 | - | | | | |
| | 1 | 1.505 | 1.498 | 1.505 | 1.498 | | | | |
| | 2 | 1.475 | 1.496 | 1.475 | 1.496 | | | | |
| | 3 | 1.457 | 1.487 | 1.457 | 1.487 | | | | |
| | 4 | 1.461 | 1.479 | 1.461 | 1.479 | | | | |
| | 7 | 1.421 | 1.464 | 1.421 | 1.464 | | | | |
| | 14 | 1.295 | 1.402 | 1.295 | 1.402 | | | | |
| | 21 | 1.134 | 1.347 | 1.134 | 1.347 | | | | |
| | 28 | 1.022 | 1.286 | 1.022 | 1.286 | | | | |
| | 42 | 1.053 | 1.259 | 1.053 | 1.259 | | | | |
| | 50 | 0.938 | 1.227 | 0.938 | 1.227 | | | | |
| | 100 | 0.013 | 1.065 | 0.013 | 1.065 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D3 Ditch | 0 | 0.068 | - | 0.036 | - | | | | |
| | 1 | 0.037 | 0.055 | 0.019 | 0.028 | | | | |
| | 2 | 0.007 | 0.037 | 0.004 | 0.019 | | | | |
| | 3 | 0.001 | 0.026 | < 0.001 | 0.013 | | | | |
| | 4 | < 0.001 | 0.019 | < 0.001 | 0.010 | | | | |
| | 7 | < 0.001 | 0.011 | < 0.001 | 0.006 | | | | |
| | 14 | < 0.001 | 0.006 | < 0.001 | 0.003 | | | | |
| | 21 | < 0.001 | 0.004 | < 0.001 | 0.002 | | | | |
| | 28 | < 0.001 | 0.003 | < 0.001 | 0.001 | | | | |
| | 42 | < 0.001 | 0.002 | < 0.001 | < 0.001 | | | | |
| | 50 | < 0.001 | 0.002 | < 0.001 | < 0.001 | | | | |
| | 100 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | | | | |
| | | | | | | | | | |
| D4 Pond | 0 | 0.304 | - | 0.303 | - | | | | |
| | 1 | 0.303 | 0.304 | 0.303 | 0.303 | | | | |
| | 2 | 0.302 | 0.303 | 0.302 | 0.303 | | | | |
| | 3 | 0.301 | 0.303 | 0.301 | 0.303 | | | | |
| | 4 | 0.300 | 0.303 | 0.299 | 0.303 | | | | |
| | 7 | 0.293 | 0.302 | 0.293 | 0.302 | | | | |
| | 14 | 0.277 | 0.298 | 0.277 | 0.298 | | | | |
| | 21 | 0.263 | 0.294 | 0.263 | 0.293 | | | | |
| | 28 | 0.258 | 0.289 | 0.258 | 0.288 | | | | |
| | 42 | 0.235 | 0.279 | 0.235 | 0.278 | | | | |
| | 50 | 0.223 | 0.274 | 0.222 | 0.273 | | | | |
| | 100 | 0.169 | 0.242 | 0.168 | 0.241 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D4 Stream | 0 | 0.342 | - | 0.342 | - | | | | |
| | 1 | 0.172 | 0.271 | 0.172 | 0.271 | | | | |
| | 2 | 0.325 | 0.260 | 0.325 | 0.260 | | | | |
| | 3 | 0.208 | 0.248 | 0.208 | 0.248 | | | | |
| | 4 | 0.154 | 0.235 | 0.154 | 0.235 | | | | |
| | 7 | 0.145 | 0.213 | 0.145 | 0.213 | | | | |
| | 14 | 0.234 | 0.187 | 0.234 | 0.187 | | | | |
| | 21 | 0.157 | 0.191 | 0.157 | 0.191 | | | | |
| | 28 | 0.063 | 0.177 | 0.063 | 0.177 | | | | |
| | 42 | 0.024 | 0.132 | 0.024 | 0.132 | | | | |
| | 50 | 0.061 | 0.117 | 0.061 | 0.117 | | | | |
| | 100 | 0.004 | 0.069 | 0.004 | 0.069 | | | | |
| | | | | | | | | | |
| D5 Pond | 0 | 0.098 | - | 0.098 | - | | | | |
| | 1 | 0.098 | 0.098 | 0.098 | 0.098 | | | | |
| | 2 | 0.098 | 0.098 | 0.098 | 0.098 | | | | |
| | 3 | 0.097 | 0.098 | 0.097 | 0.098 | | | | |
| | 4 | 0.097 | 0.098 | 0.097 | 0.098 | | | | |
| | 7 | 0.095 | 0.098 | 0.095 | 0.098 | | | | |
| | 14 | 0.095 | 0.097 | 0.095 | 0.097 | | | | |
| | 21 | 0.090 | 0.096 | 0.090 | 0.096 | | | | |
| | 28 | 0.085 | 0.095 | 0.085 | 0.095 | | | | |
| | 42 | 0.077 | 0.093 | 0.077 | 0.093 | | | | |
| | 50 | 0.073 | 0.091 | 0.073 | 0.091 | | | | |
| | 100 | 0.062 | 0.081 | 0.060 | 0.080 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D5 Stream | 0 | 0.156 | - | 0.156 | - | | | | |
| | 1 | 0.112 | 0.115 | 0.112 | 0.115 | | | | |
| | 2 | 0.065 | 0.109 | 0.065 | 0.109 | | | | |
| | 3 | 0.059 | 0.101 | 0.059 | 0.101 | | | | |
| | 4 | 0.097 | 0.089 | 0.097 | 0.089 | | | | |
| | 7 | 0.034 | 0.081 | 0.034 | 0.081 | | | | |
| | 14 | 0.033 | 0.060 | 0.033 | 0.060 | | | | |
| | 21 | 0.015 | 0.048 | 0.015 | 0.048 | | | | |
| | 28 | 0.018 | 0.041 | 0.018 | 0.041 | | | | |
| | 42 | 0.006 | 0.031 | 0.006 | 0.031 | | | | |
| | 50 | 0.003 | 0.028 | 0.003 | 0.028 | | | | |
| | 100 | 0.001 | 0.017 | 0.001 | 0.017 | | | | |
| | | | | | | | | | |
| R4 Stream | 0 | | | | | 0.798 | - | 0.417 | - |
| | 1 | | | | | 0.003 | 0.535 | 0.002 | 0.281 |
| | 2 | | | | | 0.001 | 0.501 | < 0.001 | 0.263 |
| | 3 | | | | | 0.759 | 0.349 | 0.398 | 0.183 |
| | 4 | | | | | 0.480 | 0.268 | 0.252 | 0.140 |
| | 7 | | | | | 0.001 | 0.226 | < 0.001 | 0.118 |
| | 14 | | | | | < 0.001 | 0.133 | < 0.001 | 0.069 |
| | 21 | | | | | < 0.001 | 0.089 | < 0.001 | 0.046 |
| | 28 | | | | | < 0.001 | 0.067 | < 0.001 | 0.035 |
| | 42 | | | | | < 0.001 | 0.045 | < 0.001 | 0.023 |
| | 50 | | | | | < 0.001 | 0.037 | < 0.001 | 0.020 |
| | 100 | | | | | 0.021 | 0.019 | 0.011 | 0.010 |

**Table A 53 FOCUS Step 4 actual and time-weighted average $PEC_{sw}$ for Azoxystrobin following multiple application of 2 x 150 g a.s./ha to Cereals, spring. 10-20 m spray buffer and 0-20 m runoff buffer, no nozzle reduction.**

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D1 Ditch | 0 | 4.183 | - | 4.183 | - | | | | |
| | 1 | 4.157 | 4.143 | 4.157 | 4.143 | | | | |
| | 2 | 4.106 | 4.142 | 4.106 | 4.142 | | | | |
| | 3 | 4.065 | 4.125 | 4.065 | 4.125 | | | | |
| | 4 | 4.047 | 4.107 | 4.047 | 4.107 | | | | |
| | 7 | 3.953 | 4.068 | 3.953 | 4.068 | | | | |
| | 14 | 3.478 | 3.861 | 3.478 | 3.861 | | | | |
| | 21 | 3.031 | 3.781 | 3.031 | 3.781 | | | | |
| | 28 | 2.782 | 3.805 | 2.782 | 3.805 | | | | |
| | 42 | 2.826 | 3.657 | 2.826 | 3.657 | | | | |
| | 50 | 2.620 | 3.531 | 2.620 | 3.531 | | | | |
| | 100 | 1.483 | 3.011 | 1.483 | 3.011 | | | | |
| | | | | | | | | | |
| D1 Stream | 0 | 2.617 | - | 2.617 | - | | | | |
| | 1 | 2.595 | 2.588 | 2.595 | 2.588 | | | | |
| | 2 | 2.553 | 2.585 | 2.553 | 2.585 | | | | |
| | 3 | 2.525 | 2.571 | 2.525 | 2.571 | | | | |
| | 4 | 2.521 | 2.558 | 2.521 | 2.558 | | | | |
| | 7 | 2.440 | 2.529 | 2.440 | 2.529 | | | | |
| | 14 | 2.155 | 2.399 | 2.155 | 2.399 | | | | |
| | 21 | 1.866 | 2.324 | 1.866 | 2.324 | | | | |
| | 28 | 1.674 | 2.348 | 1.674 | 2.348 | | | | |
| | 42 | 1.743 | 2.259 | 1.743 | 2.259 | | | | |
| | 50 | 1.549 | 2.179 | 1.549 | 2.179 | | | | |
| | 100 | 0.021 | 1.833 | 0.021 | 1.833 | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D3 Ditch | 0 | 0.112 | - | 0.057 | - | | | | |
| | 1 | 0.063 | 0.090 | 0.032 | 0.046 | | | | |
| | 2 | 0.013 | 0.062 | 0.006 | 0.031 | | | | |
| | 3 | 0.003 | 0.043 | 0.001 | 0.022 | | | | |
| | 4 | 0.001 | 0.033 | < 0.001 | 0.017 | | | | |
| | 7 | < 0.001 | 0.019 | < 0.001 | 0.010 | | | | |
| | 14 | < 0.001 | 0.010 | < 0.001 | 0.005 | | | | |
| | 21 | < 0.001 | 0.013 | < 0.001 | 0.006 | | | | |
| | 28 | < 0.001 | 0.009 | < 0.001 | 0.005 | | | | |
| | 42 | < 0.001 | 0.006 | < 0.001 | 0.003 | | | | |
| | 50 | < 0.001 | 0.005 | < 0.001 | 0.003 | | | | |
| | 100 | < 0.001 | 0.003 | < 0.001 | 0.001 | | | | |
| | | | | | | | | | |
| D4 Pond | 0 | 0.685 | - | 0.683 | - | | | | |
| | 1 | 0.684 | 0.685 | 0.682 | 0.683 | | | | |
| | 2 | 0.682 | 0.685 | 0.680 | 0.683 | | | | |
| | 3 | 0.679 | 0.685 | 0.677 | 0.683 | | | | |
| | 4 | 0.675 | 0.684 | 0.673 | 0.682 | | | | |
| | 7 | 0.661 | 0.682 | 0.659 | 0.680 | | | | |
| | 14 | 0.626 | 0.674 | 0.624 | 0.672 | | | | |
| | 21 | 0.594 | 0.664 | 0.592 | 0.662 | | | | |
| | 28 | 0.570 | 0.652 | 0.568 | 0.650 | | | | |
| | 42 | 0.517 | 0.628 | 0.515 | 0.626 | | | | |
| | 50 | 0.490 | 0.614 | 0.488 | 0.612 | | | | |
| | 100 | 0.371 | 0.538 | 0.370 | 0.536 | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D4 Stream | 0 | 0.708 | - | 0.708 | - | | | | |
| | 1 | 0.396 | 0.582 | 0.396 | 0.582 | | | | |
| | 2 | 0.680 | 0.557 | 0.680 | 0.557 | | | | |
| | 3 | 0.473 | 0.532 | 0.473 | 0.532 | | | | |
| | 4 | 0.374 | 0.512 | 0.374 | 0.512 | | | | |
| | 7 | 0.364 | 0.476 | 0.364 | 0.476 | | | | |
| | 14 | 0.510 | 0.434 | 0.510 | 0.434 | | | | |
| | 21 | 0.318 | 0.437 | 0.318 | 0.437 | | | | |
| | 28 | 0.129 | 0.396 | 0.129 | 0.396 | | | | |
| | 42 | 0.057 | 0.294 | 0.057 | 0.294 | | | | |
| | 50 | 0.105 | 0.260 | 0.105 | 0.260 | | | | |
| | 100 | 0.008 | 0.150 | 0.008 | 0.150 | | | | |
| | | | | | | | | | |
| D5 Pond | 0 | 0.194 | - | 0.194 | - | | | | |
| | 1 | 0.194 | 0.194 | 0.194 | 0.194 | | | | |
| | 2 | 0.193 | 0.194 | 0.193 | 0.194 | | | | |
| | 3 | 0.192 | 0.194 | 0.192 | 0.194 | | | | |
| | 4 | 0.191 | 0.193 | 0.191 | 0.193 | | | | |
| | 7 | 0.187 | 0.193 | 0.187 | 0.193 | | | | |
| | 14 | 0.187 | 0.191 | 0.187 | 0.191 | | | | |
| | 21 | 0.177 | 0.189 | 0.177 | 0.189 | | | | |
| | 28 | 0.168 | 0.188 | 0.168 | 0.188 | | | | |
| | 42 | 0.153 | 0.182 | 0.153 | 0.182 | | | | |
| | 50 | 0.144 | 0.179 | 0.144 | 0.179 | | | | |
| | 100 | 0.136 | 0.159 | 0.127 | 0.158 | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D5 Stream | 0 | 0.298 | - | 0.298 | - | | | | |
| | 1 | 0.218 | 0.222 | 0.218 | 0.222 | | | | |
| | 2 | 0.129 | 0.212 | 0.129 | 0.212 | | | | |
| | 3 | 0.118 | 0.196 | 0.118 | 0.196 | | | | |
| | 4 | 0.189 | 0.174 | 0.189 | 0.174 | | | | |
| | 7 | 0.071 | 0.160 | 0.071 | 0.160 | | | | |
| | 14 | 0.066 | 0.118 | 0.066 | 0.118 | | | | |
| | 21 | 0.030 | 0.096 | 0.030 | 0.096 | | | | |
| | 28 | 0.035 | 0.081 | 0.035 | 0.081 | | | | |
| | 42 | 0.013 | 0.062 | 0.013 | 0.062 | | | | |
| | 50 | 0.008 | 0.055 | 0.008 | 0.055 | | | | |
| | 100 | 0.003 | 0.034 | 0.003 | 0.034 | | | | |
| | | | | | | | | | |
| R4 Stream | 0 | | | | | 1.361 | - | 0.710 | - |
| | 1 | | | | | 0.004 | 0.780 | 0.002 | 0.407 |
| | 2 | | | | | 0.002 | 0.727 | 0.001 | 0.379 |
| | 3 | | | | | 0.001 | 0.486 | < 0.001 | 0.253 |
| | 4 | | | | | < 0.001 | 0.365 | < 0.001 | 0.190 |
| | 7 | | | | | < 0.001 | 0.297 | < 0.001 | 0.155 |
| | 14 | | | | | < 0.001 | 0.219 | < 0.001 | 0.114 |
| | 21 | | | | | < 0.001 | 0.146 | < 0.001 | 0.076 |
| | 28 | | | | | < 0.001 | 0.110 | < 0.001 | 0.058 |
| | 42 | | | | | < 0.001 | 0.074 | < 0.001 | 0.038 |
| | 50 | | | | | < 0.001 | 0.062 | < 0.001 | 0.032 |
| | 100 | | | | | < 0.001 | 0.031 | < 0.001 | 0.016 |

**Table A 54 FOCUS Step 4 actual and time-weighted average $PEC_{sw}$ for Azoxystrobin following multiple application of 2 x 150 g a.s./ha to Cereals, spring. 10-20 m spray buffer and 0-20 m runoff buffer, 50 % nozzle reduction.**

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D1 Ditch | 0 | 4.183 | - | 4.183 | - | | | | |
| | 1 | 4.157 | 4.143 | 4.157 | 4.143 | | | | |
| | 2 | 4.106 | 4.142 | 4.106 | 4.142 | | | | |
| | 3 | 4.065 | 4.125 | 4.065 | 4.125 | | | | |
| | 4 | 4.047 | 4.107 | 4.047 | 4.107 | | | | |
| | 7 | 3.953 | 4.068 | 3.953 | 4.068 | | | | |
| | 14 | 3.478 | 3.861 | 3.478 | 3.861 | | | | |
| | 21 | 3.031 | 3.781 | 3.031 | 3.781 | | | | |
| | 28 | 2.782 | 3.805 | 2.782 | 3.805 | | | | |
| | 42 | 2.826 | 3.657 | 2.826 | 3.657 | | | | |
| | 50 | 2.620 | 3.531 | 2.620 | 3.531 | | | | |
| | 100 | 1.483 | 3.011 | 1.483 | 3.011 | | | | |
| | | | | | | | | | |
| D1 Stream | 0 | 2.617 | - | 2.617 | - | | | | |
| | 1 | 2.595 | 2.588 | 2.595 | 2.588 | | | | |
| | 2 | 2.553 | 2.585 | 2.553 | 2.585 | | | | |
| | 3 | 2.525 | 2.571 | 2.525 | 2.571 | | | | |
| | 4 | 2.521 | 2.558 | 2.521 | 2.558 | | | | |
| | 7 | 2.440 | 2.529 | 2.440 | 2.529 | | | | |
| | 14 | 2.155 | 2.399 | 2.155 | 2.399 | | | | |
| | 21 | 1.866 | 2.324 | 1.866 | 2.324 | | | | |
| | 28 | 1.674 | 2.348 | 1.674 | 2.348 | | | | |
| | 42 | 1.743 | 2.259 | 1.743 | 2.259 | | | | |
| | 50 | 1.549 | 2.179 | 1.549 | 2.179 | | | | |
| | 100 | 0.021 | 1.833 | 0.021 | 1.833 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D3 Ditch | 0 | 0.056 | - | 0.029 | - | | | | |
| | 1 | 0.031 | 0.045 | 0.016 | 0.023 | | | | |
| | 2 | 0.006 | 0.031 | 0.003 | 0.016 | | | | |
| | 3 | 0.001 | 0.022 | < 0.001 | 0.011 | | | | |
| | 4 | < 0.001 | 0.016 | < 0.001 | 0.008 | | | | |
| | 7 | < 0.001 | 0.010 | < 0.001 | 0.005 | | | | |
| | 14 | < 0.001 | 0.005 | < 0.001 | 0.002 | | | | |
| | 21 | < 0.001 | 0.006 | < 0.001 | 0.003 | | | | |
| | 28 | < 0.001 | 0.005 | < 0.001 | 0.002 | | | | |
| | 42 | < 0.001 | 0.003 | < 0.001 | 0.002 | | | | |
| | 50 | < 0.001 | 0.003 | < 0.001 | 0.001 | | | | |
| | 100 | < 0.001 | 0.001 | < 0.001 | < 0.001 | | | | |
| | | | | | | | | | |
| D4 Pond | 0 | 0.682 | - | 0.681 | - | | | | |
| | 1 | 0.681 | 0.682 | 0.680 | 0.681 | | | | |
| | 2 | 0.679 | 0.682 | 0.678 | 0.681 | | | | |
| | 3 | 0.676 | 0.682 | 0.675 | 0.681 | | | | |
| | 4 | 0.672 | 0.681 | 0.671 | 0.680 | | | | |
| | 7 | 0.658 | 0.679 | 0.657 | 0.678 | | | | |
| | 14 | 0.623 | 0.671 | 0.623 | 0.670 | | | | |
| | 21 | 0.591 | 0.661 | 0.590 | 0.660 | | | | |
| | 28 | 0.568 | 0.649 | 0.567 | 0.648 | | | | |
| | 42 | 0.514 | 0.625 | 0.513 | 0.624 | | | | |
| | 50 | 0.487 | 0.611 | 0.487 | 0.610 | | | | |
| | 100 | 0.369 | 0.535 | 0.369 | 0.534 | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D4 Stream | 0 | 0.708 | - | 0.708 | - | | | | |
| | 1 | 0.396 | 0.582 | 0.396 | 0.582 | | | | |
| | 2 | 0.680 | 0.557 | 0.680 | 0.557 | | | | |
| | 3 | 0.473 | 0.532 | 0.473 | 0.532 | | | | |
| | 4 | 0.374 | 0.512 | 0.374 | 0.512 | | | | |
| | 7 | 0.364 | 0.476 | 0.364 | 0.476 | | | | |
| | 14 | 0.510 | 0.434 | 0.510 | 0.434 | | | | |
| | 21 | 0.318 | 0.437 | 0.318 | 0.437 | | | | |
| | 28 | 0.129 | 0.396 | 0.129 | 0.396 | | | | |
| | 42 | 0.057 | 0.294 | 0.057 | 0.294 | | | | |
| | 50 | 0.105 | 0.260 | 0.105 | 0.260 | | | | |
| | 100 | 0.008 | 0.150 | 0.008 | 0.150 | | | | |
| | | | | | | | | | |
| D5 Pond | 0 | 0.194 | - | 0.194 | - | | | | |
| | 1 | 0.194 | 0.194 | 0.194 | 0.194 | | | | |
| | 2 | 0.193 | 0.194 | 0.193 | 0.194 | | | | |
| | 3 | 0.192 | 0.194 | 0.192 | 0.194 | | | | |
| | 4 | 0.191 | 0.193 | 0.191 | 0.193 | | | | |
| | 7 | 0.187 | 0.193 | 0.187 | 0.193 | | | | |
| | 14 | 0.187 | 0.191 | 0.187 | 0.191 | | | | |
| | 21 | 0.177 | 0.189 | 0.177 | 0.189 | | | | |
| | 28 | 0.168 | 0.188 | 0.168 | 0.188 | | | | |
| | 42 | 0.153 | 0.182 | 0.153 | 0.182 | | | | |
| | 50 | 0.144 | 0.179 | 0.144 | 0.179 | | | | |
| | 100 | 0.123 | 0.158 | 0.118 | 0.157 | | | | |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D5 Stream | 0 | 0.298 | - | 0.298 | - | | | | |
| | 1 | 0.218 | 0.222 | 0.218 | 0.222 | | | | |
| | 2 | 0.129 | 0.212 | 0.129 | 0.212 | | | | |
| | 3 | 0.118 | 0.196 | 0.118 | 0.196 | | | | |
| | 4 | 0.189 | 0.174 | 0.189 | 0.174 | | | | |
| | 7 | 0.071 | 0.160 | 0.071 | 0.160 | | | | |
| | 14 | 0.066 | 0.118 | 0.066 | 0.118 | | | | |
| | 21 | 0.030 | 0.096 | 0.030 | 0.096 | | | | |
| | 28 | 0.035 | 0.081 | 0.035 | 0.081 | | | | |
| | 42 | 0.013 | 0.062 | 0.013 | 0.062 | | | | |
| | 50 | 0.008 | 0.055 | 0.008 | 0.055 | | | | |
| | 100 | 0.003 | 0.034 | 0.003 | 0.034 | | | | |
| | | | | | | | | | |
| R4 Stream | 0 | | | | | 1.361 | - | 0.710 | - |
| | 1 | | | | | 0.004 | 0.780 | 0.002 | 0.407 |
| | 2 | | | | | 0.002 | 0.727 | 0.001 | 0.379 |
| | 3 | | | | | 0.001 | 0.486 | < 0.001 | 0.253 |
| | 4 | | | | | < 0.001 | 0.365 | < 0.001 | 0.190 |
| | 7 | | | | | < 0.001 | 0.296 | < 0.001 | 0.155 |
| | 14 | | | | | < 0.001 | 0.218 | < 0.001 | 0.114 |
| | 21 | | | | | < 0.001 | 0.145 | < 0.001 | 0.076 |
| | 28 | | | | | < 0.001 | 0.109 | < 0.001 | 0.057 |
| | 42 | | | | | < 0.001 | 0.073 | < 0.001 | 0.038 |
| | 50 | | | | | < 0.001 | 0.061 | < 0.001 | 0.032 |
| | 100 | | | | | < 0.001 | 0.031 | < 0.001 | 0.016 |

**Table A 55 FOCUS Step 4 actual and time-weighted average $PEC_{sw}$ for Azoxystrobin following single application of 1 x 150 g a.s./ha to Cereals, spring. 10-20 m spray buffer and 0-20 m runoff buffer, no nozzle reduction.**

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D1 Ditch | 0 | | | | | 2.436 | - | 2.436 | - |
| | 1 | | | | | 2.416 | 2.405 | 2.416 | 2.405 |
| | 2 | | | | | 2.379 | 2.403 | 2.379 | 2.403 |
| | 3 | | | | | 2.352 | 2.392 | 2.352 | 2.392 |
| | 4 | | | | | 2.345 | 2.380 | 2.345 | 2.380 |
| | 7 | | | | | 2.306 | 2.361 | 2.306 | 2.361 |
| | 14 | | | | | 2.095 | 2.263 | 2.095 | 2.263 |
| | 21 | | | | | 1.848 | 2.177 | 1.848 | 2.177 |
| | 28 | | | | | 1.701 | 2.089 | 1.701 | 2.089 |
| | 42 | | | | | 1.714 | 2.041 | 1.714 | 2.041 |
| | 50 | | | | | 1.591 | 1.993 | 1.591 | 1.993 |
| | 100 | | | | | 0.920 | 1.754 | 0.920 | 1.754 |
| | | | | | | | | | |
| D1 Stream | 0 | | | | | 1.526 | - | 1.526 | - |
| | 1 | | | | | 1.510 | 1.502 | 1.510 | 1.502 |
| | 2 | | | | | 1.479 | 1.501 | 1.479 | 1.501 |
| | 3 | | | | | 1.462 | 1.492 | 1.462 | 1.492 |
| | 4 | | | | | 1.466 | 1.483 | 1.466 | 1.483 |
| | 7 | | | | | 1.425 | 1.469 | 1.425 | 1.469 |
| | 14 | | | | | 1.299 | 1.407 | 1.299 | 1.407 |
| | 21 | | | | | 1.138 | 1.351 | 1.138 | 1.351 |
| | 28 | | | | | 1.025 | 1.290 | 1.025 | 1.290 |
| | 42 | | | | | 1.057 | 1.263 | 1.057 | 1.263 |
| | 50 | | | | | 0.942 | 1.231 | 0.942 | 1.231 |
| | 100 | | | | | 0.013 | 1.069 | 0.013 | 1.069 |
| | | | | | | | | | |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **None** | | **None** | | **None** | | **None** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D3 Ditch | 0 | | | | | 0.137 | - | 0.071 | - |
| | 1 | | | | | 0.068 | 0.107 | 0.035 | 0.056 |
| | 2 | | | | | 0.011 | 0.070 | 0.005 | 0.036 |
| | 3 | | | | | 0.002 | 0.048 | 0.001 | 0.025 |
| | 4 | | | | | 0.001 | 0.036 | <0.001 | 0.019 |
| | 7 | | | | | <0.001 | 0.021 | <0.001 | 0.011 |
| | 14 | | | | | <0.001 | 0.011 | <0.001 | 0.005 |
| | 21 | | | | | <0.001 | 0.007 | <0.001 | 0.004 |
| | 28 | | | | | <0.001 | 0.005 | <0.001 | 0.003 |
| | 42 | | | | | <0.001 | 0.004 | <0.001 | 0.002 |
| | 50 | | | | | <0.001 | 0.003 | <0.001 | 0.002 |
| | 100 | | | | | <0.001 | 0.001 | <0.001 | 0.001 |
| | | | | | | | | | |
| D4 Pond | 0 | | | | | 0.309 | - | 0.308 | - |
| | 1 | | | | | 0.309 | 0.309 | 0.308 | 0.308 |
| | 2 | | | | | 0.308 | 0.309 | 0.307 | 0.308 |
| | 3 | | | | | 0.307 | 0.309 | 0.306 | 0.308 |
| | 4 | | | | | 0.305 | 0.309 | 0.304 | 0.307 |
| | 7 | | | | | 0.299 | 0.308 | 0.298 | 0.307 |
| | 14 | | | | | 0.282 | 0.304 | 0.281 | 0.303 |
| | 21 | | | | | 0.268 | 0.299 | 0.267 | 0.298 |
| | 28 | | | | | 0.263 | 0.294 | 0.262 | 0.293 |
| | 42 | | | | | 0.239 | 0.284 | 0.238 | 0.283 |
| | 50 | | | | | 0.227 | 0.279 | 0.226 | 0.278 |
| | 100 | | | | | 0.172 | 0.246 | 0.171 | 0.245 |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D4 Stream | 0 | | | | | 0.346 | - | 0.346 | - |
| | 1 | | | | | 0.174 | 0.274 | 0.174 | 0.274 |
| | 2 | | | | | 0.329 | 0.264 | 0.329 | 0.264 |
| | 3 | | | | | 0.210 | 0.251 | 0.210 | 0.251 |
| | 4 | | | | | 0.156 | 0.238 | 0.156 | 0.238 |
| | 7 | | | | | 0.146 | 0.216 | 0.146 | 0.216 |
| | 14 | | | | | 0.236 | 0.190 | 0.236 | 0.190 |
| | 21 | | | | | 0.159 | 0.193 | 0.159 | 0.193 |
| | 28 | | | | | 0.064 | 0.179 | 0.064 | 0.179 |
| | 42 | | | | | 0.024 | 0.133 | 0.024 | 0.133 |
| | 50 | | | | | 0.062 | 0.119 | 0.062 | 0.119 |
| | 100 | | | | | 0.004 | 0.070 | 0.004 | 0.070 |
| | | | | | | | | | |
| D5 Pond | 0 | | | | | 0.099 | - | 0.099 | - |
| | 1 | | | | | 0.099 | 0.099 | 0.099 | 0.099 |
| | 2 | | | | | 0.099 | 0.099 | 0.099 | 0.099 |
| | 3 | | | | | 0.098 | 0.099 | 0.098 | 0.099 |
| | 4 | | | | | 0.098 | 0.099 | 0.098 | 0.099 |
| | 7 | | | | | 0.096 | 0.099 | 0.096 | 0.099 |
| | 14 | | | | | 0.096 | 0.098 | 0.096 | 0.098 |
| | 21 | | | | | 0.091 | 0.097 | 0.091 | 0.097 |
| | 28 | | | | | 0.086 | 0.096 | 0.086 | 0.096 |
| | 42 | | | | | 0.078 | 0.094 | 0.078 | 0.094 |
| | 50 | | | | | 0.074 | 0.092 | 0.074 | 0.092 |
| | 100 | | | | | 0.070 | 0.084 | 0.065 | 0.082 |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **None** | | **None** | | **None** | | **None** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D5 Stream | 0 | | | | | 0.157 | - | 0.157 | - |
| | 1 | | | | | 0.113 | 0.116 | 0.113 | 0.116 |
| | 2 | | | | | 0.065 | 0.111 | 0.065 | 0.111 |
| | 3 | | | | | 0.059 | 0.102 | 0.059 | 0.102 |
| | 4 | | | | | 0.098 | 0.090 | 0.098 | 0.090 |
| | 7 | | | | | 0.034 | 0.082 | 0.034 | 0.082 |
| | 14 | | | | | 0.034 | 0.060 | 0.034 | 0.060 |
| | 21 | | | | | 0.015 | 0.049 | 0.015 | 0.049 |
| | 28 | | | | | 0.018 | 0.041 | 0.018 | 0.041 |
| | 42 | | | | | 0.006 | 0.032 | 0.006 | 0.032 |
| | 50 | | | | | 0.003 | 0.028 | 0.003 | 0.028 |
| | 100 | | | | | 0.001 | 0.017 | 0.001 | 0.017 |
| | | | | | | | | | |
| R4 Stream | 0 | | | | | 0.799 | - | 0.417 | - |
| | 1 | | | | | 0.003 | 0.536 | 0.002 | 0.281 |
| | 2 | | | | | 0.001 | 0.503 | 0.001 | 0.264 |
| | 3 | | | | | 0.761 | 0.350 | 0.399 | 0.184 |
| | 4 | | | | | 0.482 | 0.269 | 0.253 | 0.141 |
| | 7 | | | | | 0.001 | 0.226 | 0.001 | 0.118 |
| | 14 | | | | | <0.001 | 0.133 | <0.001 | 0.070 |
| | 21 | | | | | <0.001 | 0.089 | <0.001 | 0.047 |
| | 28 | | | | | <0.001 | 0.068 | <0.001 | 0.035 |
| | 42 | | | | | <0.001 | 0.045 | <0.001 | 0.024 |
| | 50 | | | | | <0.001 | 0.038 | <0.001 | 0.020 |
| | 100 | | | | | 0.022 | 0.019 | 0.012 | 0.010 |

**Table A 56** FOCUS Step 4 actual and time-weighted average $PEC_{sw}$ for Azoxystrobin following single application of 1 x 150 g a.s./ha to Cereals, spring. 10-20 m spray buffer and 0-20 m runoff buffer, 50 % nozzle reduction.

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D1 Ditch | 0 | | | | | 2.436 | - | 2.436 | - |
| | 1 | | | | | 2.416 | 2.405 | 2.416 | 2.405 |
| | 2 | | | | | 2.379 | 2.403 | 2.379 | 2.403 |
| | 3 | | | | | 2.352 | 2.392 | 2.352 | 2.392 |
| | 4 | | | | | 2.345 | 2.380 | 2.345 | 2.380 |
| | 7 | | | | | 2.306 | 2.361 | 2.306 | 2.361 |
| | 14 | | | | | 2.095 | 2.263 | 2.095 | 2.263 |
| | 21 | | | | | 1.848 | 2.177 | 1.848 | 2.177 |
| | 28 | | | | | 1.701 | 2.089 | 1.701 | 2.089 |
| | 42 | | | | | 1.714 | 2.041 | 1.714 | 2.041 |
| | 50 | | | | | 1.591 | 1.993 | 1.591 | 1.993 |
| | 100 | | | | | 0.920 | 1.754 | 0.920 | 1.754 |
| | | | | | | | | | |
| D1 Stream | 0 | | | | | 1.526 | - | 1.526 | - |
| | 1 | | | | | 1.510 | 1.502 | 1.510 | 1.502 |
| | 2 | | | | | 1.479 | 1.501 | 1.479 | 1.501 |
| | 3 | | | | | 1.462 | 1.492 | 1.462 | 1.492 |
| | 4 | | | | | 1.466 | 1.483 | 1.466 | 1.483 |
| | 7 | | | | | 1.425 | 1.469 | 1.425 | 1.469 |
| | 14 | | | | | 1.299 | 1.407 | 1.299 | 1.407 |
| | 21 | | | | | 1.138 | 1.351 | 1.138 | 1.351 |
| | 28 | | | | | 1.025 | 1.290 | 1.025 | 1.290 |
| | 42 | | | | | 1.057 | 1.263 | 1.057 | 1.263 |
| | 50 | | | | | 0.942 | 1.231 | 0.942 | 1.231 |
| | 100 | | | | | 0.013 | 1.069 | 0.013 | 1.069 |
| | | | | | | | | | |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **50** | | **50** | | **50** | | **50** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D3 Ditch | 0 | | | | | 0.068 | - | 0.035 | - |
| | 1 | | | | | 0.034 | 0.054 | 0.018 | 0.028 |
| | 2 | | | | | 0.005 | 0.035 | 0.003 | 0.018 |
| | 3 | | | | | 0.001 | 0.024 | 0.001 | 0.012 |
| | 4 | | | | | <0.001 | 0.018 | <0.001 | 0.009 |
| | 7 | | | | | <0.001 | 0.011 | <0.001 | 0.005 |
| | 14 | | | | | <0.001 | 0.005 | <0.001 | 0.003 |
| | 21 | | | | | <0.001 | 0.004 | <0.001 | 0.002 |
| | 28 | | | | | <0.001 | 0.003 | <0.001 | 0.001 |
| | 42 | | | | | <0.001 | 0.002 | <0.001 | 0.001 |
| | 50 | | | | | <0.001 | 0.001 | <0.001 | 0.001 |
| | 100 | | | | | <0.001 | 0.001 | <0.001 | 0.000 |
| | | | | | | | | | |
| D4 Pond | 0 | | | | | 0.307 | - | 0.307 | - |
| | 1 | | | | | 0.307 | 0.307 | 0.306 | 0.307 |
| | 2 | | | | | 0.306 | 0.307 | 0.306 | 0.307 |
| | 3 | | | | | 0.305 | 0.307 | 0.304 | 0.306 |
| | 4 | | | | | 0.303 | 0.307 | 0.303 | 0.306 |
| | 7 | | | | | 0.297 | 0.306 | 0.297 | 0.305 |
| | 14 | | | | | 0.281 | 0.302 | 0.280 | 0.302 |
| | 21 | | | | | 0.266 | 0.298 | 0.266 | 0.297 |
| | 28 | | | | | 0.261 | 0.292 | 0.261 | 0.292 |
| | 42 | | | | | 0.238 | 0.282 | 0.238 | 0.282 |
| | 50 | | | | | 0.226 | 0.277 | 0.225 | 0.277 |
| | 100 | | | | | 0.171 | 0.245 | 0.170 | 0.244 |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D4 Stream | 0 | | | | | 0.346 | - | 0.346 | - |
| | 1 | | | | | 0.174 | 0.274 | 0.174 | 0.274 |
| | 2 | | | | | 0.329 | 0.264 | 0.329 | 0.264 |
| | 3 | | | | | 0.210 | 0.251 | 0.210 | 0.251 |
| | 4 | | | | | 0.156 | 0.238 | 0.156 | 0.238 |
| | 7 | | | | | 0.146 | 0.216 | 0.146 | 0.216 |
| | 14 | | | | | 0.236 | 0.190 | 0.236 | 0.190 |
| | 21 | | | | | 0.159 | 0.193 | 0.159 | 0.193 |
| | 28 | | | | | 0.064 | 0.179 | 0.064 | 0.179 |
| | 42 | | | | | 0.024 | 0.133 | 0.024 | 0.133 |
| | 50 | | | | | 0.062 | 0.119 | 0.062 | 0.119 |
| | 100 | | | | | 0.004 | 0.070 | 0.004 | 0.070 |
| | | | | | | | | | |
| D5 Pond | 0 | | | | | 0.099 | - | 0.099 | - |
| | 1 | | | | | 0.099 | 0.099 | 0.099 | 0.099 |
| | 2 | | | | | 0.099 | 0.099 | 0.099 | 0.099 |
| | 3 | | | | | 0.098 | 0.099 | 0.098 | 0.099 |
| | 4 | | | | | 0.098 | 0.099 | 0.098 | 0.099 |
| | 7 | | | | | 0.096 | 0.099 | 0.096 | 0.099 |
| | 14 | | | | | 0.096 | 0.098 | 0.096 | 0.098 |
| | 21 | | | | | 0.091 | 0.097 | 0.091 | 0.097 |
| | 28 | | | | | 0.086 | 0.096 | 0.086 | 0.096 |
| | 42 | | | | | 0.078 | 0.094 | 0.078 | 0.094 |
| | 50 | | | | | 0.074 | 0.092 | 0.074 | 0.092 |
| | 100 | | | | | 0.063 | 0.082 | 0.060 | 0.081 |
| | | | | | | | | | |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **50** | | **50** | | **50** | | **50** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D5 Stream | 0 | | | | | 0.157 | - | 0.157 | - |
| | 1 | | | | | 0.113 | 0.116 | 0.113 | 0.116 |
| | 2 | | | | | 0.065 | 0.111 | 0.065 | 0.111 |
| | 3 | | | | | 0.059 | 0.102 | 0.059 | 0.102 |
| | 4 | | | | | 0.098 | 0.090 | 0.098 | 0.090 |
| | 7 | | | | | 0.034 | 0.082 | 0.034 | 0.082 |
| | 14 | | | | | 0.034 | 0.060 | 0.034 | 0.060 |
| | 21 | | | | | 0.015 | 0.049 | 0.015 | 0.049 |
| | 28 | | | | | 0.018 | 0.041 | 0.018 | 0.041 |
| | 42 | | | | | 0.006 | 0.032 | 0.006 | 0.032 |
| | 50 | | | | | 0.003 | 0.028 | 0.003 | 0.028 |
| | 100 | | | | | 0.001 | 0.017 | 0.001 | 0.017 |
| | | | | | | | | | |
| R4 Stream | 0 | | | | | 0.799 | - | 0.417 | - |
| | 1 | | | | | 0.003 | 0.536 | 0.002 | 0.281 |
| | 2 | | | | | 0.001 | 0.503 | 0.001 | 0.264 |
| | 3 | | | | | 0.761 | 0.350 | 0.399 | 0.184 |
| | 4 | | | | | 0.482 | 0.269 | 0.253 | 0.141 |
| | 7 | | | | | 0.001 | 0.226 | 0.001 | 0.118 |
| | 14 | | | | | <0.001 | 0.133 | <0.001 | 0.070 |
| | 21 | | | | | <0.001 | 0.089 | <0.001 | 0.047 |
| | 28 | | | | | <0.001 | 0.067 | <0.001 | 0.035 |
| | 42 | | | | | <0.001 | 0.045 | <0.001 | 0.023 |
| | 50 | | | | | <0.001 | 0.038 | <0.001 | 0.020 |
| | 100 | | | | | 0.022 | 0.019 | 0.012 | 0.010 |

**Table A 57 FOCUS Step 4 actual and time-weighted average $PEC_{sw}$ for Azoxystrobin following multiple application of 2 x 150 g a.s./ha to Cereals, spring. 10-20 m spray buffer and 0-20 m runoff buffer, no nozzle reduction.**

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D1 Ditch | 0 | | | | | 4.190 | - | 4.190 | - |
| | 1 | | | | | 4.164 | 4.150 | 4.164 | 4.150 |
| | 2 | | | | | 4.112 | 4.148 | 4.112 | 4.148 |
| | 3 | | | | | 4.071 | 4.131 | 4.071 | 4.131 |
| | 4 | | | | | 4.053 | 4.114 | 4.053 | 4.114 |
| | 7 | | | | | 3.959 | 4.074 | 3.959 | 4.074 |
| | 14 | | | | | 3.484 | 3.867 | 3.484 | 3.867 |
| | 21 | | | | | 3.035 | 3.785 | 3.035 | 3.785 |
| | 28 | | | | | 2.785 | 3.808 | 2.785 | 3.808 |
| | 42 | | | | | 2.832 | 3.661 | 2.832 | 3.661 |
| | 50 | | | | | 2.625 | 3.535 | 2.625 | 3.535 |
| | 100 | | | | | 1.484 | 3.015 | 1.484 | 3.015 |
| | | | | | | | | | |
| D1 Stream | 0 | | | | | 2.621 | - | 2.621 | - |
| | 1 | | | | | 2.599 | 2.592 | 2.599 | 2.592 |
| | 2 | | | | | 2.557 | 2.589 | 2.557 | 2.589 |
| | 3 | | | | | 2.529 | 2.575 | 2.529 | 2.575 |
| | 4 | | | | | 2.525 | 2.562 | 2.525 | 2.562 |
| | 7 | | | | | 2.443 | 2.532 | 2.443 | 2.532 |
| | 14 | | | | | 2.159 | 2.402 | 2.159 | 2.402 |
| | 21 | | | | | 1.868 | 2.326 | 1.868 | 2.326 |
| | 28 | | | | | 1.676 | 2.349 | 1.676 | 2.349 |
| | 42 | | | | | 1.747 | 2.261 | 1.747 | 2.261 |
| | 50 | | | | | 1.551 | 2.181 | 1.551 | 2.181 |
| | 100 | | | | | 0.021 | 1.836 | 0.021 | 1.836 |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | None | | None | | None | | None | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D3 Ditch | 0 | | | | | 0.112 | - | 0.057 | - |
| | 1 | | | | | 0.059 | 0.089 | 0.030 | 0.045 |
| | 2 | | | | | 0.010 | 0.059 | 0.005 | 0.030 |
| | 3 | | | | | 0.002 | 0.041 | 0.001 | 0.021 |
| | 4 | | | | | 0.001 | 0.031 | 0.000 | 0.016 |
| | 7 | | | | | <0.001 | 0.018 | <0.001 | 0.009 |
| | 14 | | | | | <0.001 | 0.009 | <0.001 | 0.005 |
| | 21 | | | | | <0.001 | 0.012 | <0.001 | 0.006 |
| | 28 | | | | | <0.001 | 0.009 | <0.001 | 0.005 |
| | 42 | | | | | <0.001 | 0.006 | <0.001 | 0.003 |
| | 50 | | | | | <0.001 | 0.005 | <0.001 | 0.003 |
| | 100 | | | | | <0.001 | 0.003 | <0.001 | 0.001 |
| | | | | | | | | | |
| D4 Pond | 0 | | | | | 0.691 | - | 0.689 | - |
| | 1 | | | | | 0.690 | 0.691 | 0.688 | 0.689 |
| | 2 | | | | | 0.688 | 0.691 | 0.685 | 0.689 |
| | 3 | | | | | 0.685 | 0.690 | 0.682 | 0.688 |
| | 4 | | | | | 0.682 | 0.690 | 0.679 | 0.688 |
| | 7 | | | | | 0.668 | 0.688 | 0.665 | 0.686 |
| | 14 | | | | | 0.633 | 0.680 | 0.629 | 0.678 |
| | 21 | | | | | 0.600 | 0.669 | 0.597 | 0.667 |
| | 28 | | | | | 0.576 | 0.657 | 0.573 | 0.655 |
| | 42 | | | | | 0.522 | 0.633 | 0.519 | 0.631 |
| | 50 | | | | | 0.494 | 0.619 | 0.492 | 0.617 |
| | 100 | | | | | 0.375 | 0.542 | 0.373 | 0.540 |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **None** | | **None** | | **None** | | **None** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D4 Stream | 0 | | | | | 0.714 | - | 0.714 | - |
| | 1 | | | | | 0.399 | 0.587 | 0.399 | 0.587 |
| | 2 | | | | | 0.686 | 0.562 | 0.686 | 0.562 |
| | 3 | | | | | 0.477 | 0.537 | 0.477 | 0.537 |
| | 4 | | | | | 0.377 | 0.516 | 0.377 | 0.516 |
| | 7 | | | | | 0.367 | 0.480 | 0.367 | 0.480 |
| | 14 | | | | | 0.514 | 0.437 | 0.514 | 0.437 |
| | 21 | | | | | 0.320 | 0.440 | 0.320 | 0.440 |
| | 28 | | | | | 0.130 | 0.399 | 0.130 | 0.399 |
| | 42 | | | | | 0.057 | 0.297 | 0.057 | 0.297 |
| | 50 | | | | | 0.106 | 0.262 | 0.106 | 0.262 |
| | 100 | | | | | 0.008 | 0.151 | 0.008 | 0.151 |
| | | | | | | | | | |
| D5 Pond | 0 | | | | | 0.196 | - | 0.196 | - |
| | 1 | | | | | 0.196 | 0.196 | 0.196 | 0.196 |
| | 2 | | | | | 0.195 | 0.196 | 0.195 | 0.196 |
| | 3 | | | | | 0.194 | 0.196 | 0.194 | 0.196 |
| | 4 | | | | | 0.193 | 0.195 | 0.193 | 0.195 |
| | 7 | | | | | 0.189 | 0.195 | 0.189 | 0.195 |
| | 14 | | | | | 0.189 | 0.193 | 0.189 | 0.193 |
| | 21 | | | | | 0.179 | 0.191 | 0.179 | 0.191 |
| | 28 | | | | | 0.169 | 0.190 | 0.169 | 0.190 |
| | 42 | | | | | 0.155 | 0.184 | 0.155 | 0.184 |
| | 50 | | | | | 0.146 | 0.180 | 0.146 | 0.180 |
| | 100 | | | | | 0.137 | 0.161 | 0.128 | 0.160 |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **None** | | **None** | | **None** | | **None** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D5 Stream | 0 | | | | | 0.302 | - | 0.302 | - |
| | 1 | | | | | 0.220 | 0.224 | 0.220 | 0.224 |
| | 2 | | | | | 0.131 | 0.214 | 0.131 | 0.214 |
| | 3 | | | | | 0.119 | 0.198 | 0.119 | 0.198 |
| | 4 | | | | | 0.191 | 0.176 | 0.191 | 0.176 |
| | 7 | | | | | 0.072 | 0.162 | 0.072 | 0.162 |
| | 14 | | | | | 0.066 | 0.120 | 0.066 | 0.120 |
| | 21 | | | | | 0.030 | 0.097 | 0.030 | 0.097 |
| | 28 | | | | | 0.035 | 0.082 | 0.035 | 0.082 |
| | 42 | | | | | 0.013 | 0.063 | 0.013 | 0.063 |
| | 50 | | | | | 0.008 | 0.056 | 0.008 | 0.056 |
| | 100 | | | | | 0.003 | 0.034 | 0.003 | 0.034 |
| | | | | | | | | | |
| R4 Stream | 0 | | | | | 0.799 | - | 0.417 | - |
| | 1 | | | | | 0.003 | 0.536 | 0.002 | 0.281 |
| | 2 | | | | | 0.001 | 0.503 | 0.001 | 0.264 |
| | 3 | | | | | 0.761 | 0.350 | 0.399 | 0.184 |
| | 4 | | | | | 0.482 | 0.269 | 0.253 | 0.141 |
| | 7 | | | | | 0.001 | 0.226 | 0.001 | 0.118 |
| | 14 | | | | | <0.001 | 0.135 | <0.001 | 0.070 |
| | 21 | | | | | <0.001 | 0.090 | <0.001 | 0.047 |
| | 28 | | | | | <0.001 | 0.068 | <0.001 | 0.036 |
| | 42 | | | | | <0.001 | 0.045 | <0.001 | 0.024 |
| | 50 | | | | | <0.001 | 0.038 | <0.001 | 0.020 |
| | 100 | | | | | 0.200 | 0.019 | 0.105 | 0.010 |

**Table A 58 FOCUS Step 4 actual and time-weighted average $PEC_{sw}$ for Azoxystrobin following multiple application of 2 x 150 g a.s./ha to Cereals, spring. 10-20 m spray buffer and 0-20 m runoff buffer, 50 % nozzle reduction.**

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **50** | | **50** | | **50** | | **50** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D1 Ditch | 0 | | | | | 4.190 | - | 4.190 | - |
| | 1 | | | | | 4.164 | 4.150 | 4.164 | 4.150 |
| | 2 | | | | | 4.112 | 4.148 | 4.112 | 4.148 |
| | 3 | | | | | 4.071 | 4.131 | 4.071 | 4.131 |
| | 4 | | | | | 4.053 | 4.114 | 4.053 | 4.114 |
| | 7 | | | | | 3.959 | 4.074 | 3.959 | 4.074 |
| | 14 | | | | | 3.484 | 3.867 | 3.484 | 3.867 |
| | 21 | | | | | 3.035 | 3.785 | 3.035 | 3.785 |
| | 28 | | | | | 2.785 | 3.808 | 2.785 | 3.808 |
| | 42 | | | | | 2.832 | 3.661 | 2.832 | 3.661 |
| | 50 | | | | | 2.625 | 3.535 | 2.625 | 3.535 |
| | 100 | | | | | 1.484 | 3.015 | 1.484 | 3.015 |
| | | | | | | | | | |
| D1 Stream | 0 | | | | | 2.621 | - | 2.621 | - |
| | 1 | | | | | 2.599 | 2.592 | 2.599 | 2.592 |
| | 2 | | | | | 2.557 | 2.589 | 2.557 | 2.589 |
| | 3 | | | | | 2.529 | 2.575 | 2.529 | 2.575 |
| | 4 | | | | | 2.525 | 2.562 | 2.525 | 2.562 |
| | 7 | | | | | 2.443 | 2.532 | 2.443 | 2.532 |
| | 14 | | | | | 2.159 | 2.402 | 2.159 | 2.402 |
| | 21 | | | | | 1.868 | 2.326 | 1.868 | 2.326 |
| | 28 | | | | | 1.676 | 2.349 | 1.676 | 2.349 |
| | 42 | | | | | 1.747 | 2.261 | 1.747 | 2.261 |
| | 50 | | | | | 1.551 | 2.181 | 1.551 | 2.181 |
| | 100 | | | | | 0.021 | 1.836 | 0.021 | 1.836 |
| | | | | | | | | | |

| **Vegetative strip (m)** | | **None** | | **None** | | **10** | | **20** | |
|---|---|---|---|---|---|---|---|---|---|
| **No-spray buffer (m)** | | **10** | | **20** | | **10** | | **20** | |
| **Nozzle reduction (%)** | | **50** | | **50** | | **50** | | **50** | |
| **Scenario** | **Time (d)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** | **Actual (µg/L)** | **TWA (µg/L)** |
| D3 Ditch | 0 | | | | | 0.056 | - | 0.028 | - |
| | 1 | | | | | 0.030 | 0.045 | 0.015 | 0.023 |
| | 2 | | | | | 0.005 | 0.030 | 0.003 | 0.015 |
| | 3 | | | | | 0.001 | 0.021 | 0.001 | 0.010 |
| | 4 | | | | | <0.001 | 0.016 | <0.001 | 0.008 |
| | 7 | | | | | <0.001 | 0.009 | <0.001 | 0.005 |
| | 14 | | | | | <0.001 | 0.005 | <0.001 | 0.002 |
| | 21 | | | | | <0.001 | 0.006 | <0.001 | 0.003 |
| | 28 | | | | | <0.001 | 0.004 | <0.001 | 0.002 |
| | 42 | | | | | <0.001 | 0.003 | <0.001 | 0.002 |
| | 50 | | | | | <0.001 | 0.003 | <0.001 | 0.001 |
| | 100 | | | | | <0.001 | 0.001 | <0.001 | 0.001 |
| | | | | | | | | | |
| D4 Pond | 0 | | | | | 0.688 | - | 0.687 | - |
| | 1 | | | | | 0.687 | 0.688 | 0.686 | 0.687 |
| | 2 | | | | | 0.684 | 0.688 | 0.683 | 0.686 |
| | 3 | | | | | 0.681 | 0.687 | 0.680 | 0.686 |
| | 4 | | | | | 0.678 | 0.687 | 0.677 | 0.686 |
| | 7 | | | | | 0.664 | 0.685 | 0.663 | 0.683 |
| | 14 | | | | | 0.629 | 0.677 | 0.628 | 0.675 |
| | 21 | | | | | 0.596 | 0.666 | 0.595 | 0.665 |
| | 28 | | | | | 0.572 | 0.654 | 0.571 | 0.653 |
| | 42 | | | | | 0.518 | 0.630 | 0.517 | 0.629 |
| | 50 | | | | | 0.491 | 0.616 | 0.490 | 0.615 |
| | 100 | | | | | 0.372 | 0.540 | 0.372 | 0.539 |
| | | | | | | | | | |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D4 Stream | 0 | | | | | 0.714 | - | 0.714 | - |
| | 1 | | | | | 0.399 | 0.587 | 0.399 | 0.587 |
| | 2 | | | | | 0.686 | 0.562 | 0.686 | 0.562 |
| | 3 | | | | | 0.477 | 0.537 | 0.477 | 0.537 |
| | 4 | | | | | 0.377 | 0.516 | 0.377 | 0.516 |
| | 7 | | | | | 0.367 | 0.480 | 0.367 | 0.480 |
| | 14 | | | | | 0.514 | 0.437 | 0.514 | 0.437 |
| | 21 | | | | | 0.320 | 0.440 | 0.320 | 0.440 |
| | 28 | | | | | 0.130 | 0.399 | 0.130 | 0.399 |
| | 42 | | | | | 0.057 | 0.297 | 0.057 | 0.297 |
| | 50 | | | | | 0.106 | 0.262 | 0.106 | 0.262 |
| | 100 | | | | | 0.008 | 0.151 | 0.008 | 0.151 |
| | | | | | | | | | |
| D5 Pond | 0 | | | | | 0.196 | - | 0.196 | - |
| | 1 | | | | | 0.196 | 0.196 | 0.196 | 0.196 |
| | 2 | | | | | 0.195 | 0.196 | 0.195 | 0.196 |
| | 3 | | | | | 0.194 | 0.196 | 0.194 | 0.196 |
| | 4 | | | | | 0.193 | 0.195 | 0.193 | 0.195 |
| | 7 | | | | | 0.189 | 0.195 | 0.189 | 0.195 |
| | 14 | | | | | 0.189 | 0.193 | 0.189 | 0.193 |
| | 21 | | | | | 0.179 | 0.191 | 0.179 | 0.191 |
| | 28 | | | | | 0.169 | 0.190 | 0.169 | 0.190 |
| | 42 | | | | | 0.155 | 0.184 | 0.155 | 0.184 |
| | 50 | | | | | 0.146 | 0.180 | 0.146 | 0.180 |
| | 100 | | | | | 0.124 | 0.160 | 0.119 | 0.159 |

| Vegetative strip (m) | | None | | None | | 10 | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| No-spray buffer (m) | | 10 | | 20 | | 10 | | 20 | |
| Nozzle reduction (%) | | 50 | | 50 | | 50 | | 50 | |
| Scenario | Time (d) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) | Actual (µg/L) | TWA (µg/L) |
| D5 Stream | 0 | | | | | 0.302 | - | 0.302 | - |
| | 1 | | | | | 0.220 | 0.224 | 0.220 | 0.224 |
| | 2 | | | | | 0.131 | 0.214 | 0.131 | 0.214 |
| | 3 | | | | | 0.119 | 0.198 | 0.119 | 0.198 |
| | 4 | | | | | 0.191 | 0.176 | 0.191 | 0.176 |
| | 7 | | | | | 0.072 | 0.162 | 0.072 | 0.162 |
| | 14 | | | | | 0.066 | 0.120 | 0.066 | 0.120 |
| | 21 | | | | | 0.030 | 0.097 | 0.030 | 0.097 |
| | 28 | | | | | 0.035 | 0.082 | 0.035 | 0.082 |
| | 42 | | | | | 0.013 | 0.063 | 0.013 | 0.063 |
| | 50 | | | | | 0.008 | 0.056 | 0.008 | 0.056 |
| | 100 | | | | | 0.003 | 0.034 | 0.003 | 0.034 |
| | | | | | | | | | |
| R4 Stream | 0 | | | | | 0.799 | - | 0.417 | - |
| | 1 | | | | | 0.003 | 0.536 | 0.002 | 0.281 |
| | 2 | | | | | 0.001 | 0.503 | 0.001 | 0.264 |
| | 3 | | | | | 0.761 | 0.350 | 0.399 | 0.184 |
| | 4 | | | | | 0.482 | 0.269 | 0.253 | 0.141 |
| | 7 | | | | | 0.001 | 0.226 | 0.001 | 0.118 |
| | 14 | | | | | <0.001 | 0.134 | <0.001 | 0.070 |
| | 21 | | | | | <0.001 | 0.089 | <0.001 | 0.047 |
| | 28 | | | | | <0.001 | 0.067 | <0.001 | 0.035 |
| | 42 | | | | | <0.001 | 0.045 | <0.001 | 0.024 |
| | 50 | | | | | <0.001 | 0.038 | <0.001 | 0.020 |
| | 100 | | | | | 0.200 | 0.019 | 0.105 | 0.010 |

## Azoxystrobin ($DT_{50}$ water = 205 days, $DT_{50}$ sediment = 1000 days)

### Step 3: winter cereals

**Table A 59 FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D2 Stream.**

| Step 3 | D1 Ditch | | D1 Stream | | D2 Ditch | | D2 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 1.692 | - | 1.066 | - | 3.714 | - | 2.337 | - |
| 1 | 1.665 | 1.658 | 1.044 | 1.037 | 0.691 | 2.214 | 0.140 | 1.319 |
| 2 | 1.637 | 1.657 | 1.018 | 1.036 | 0.522 | 2.196 | 0.132 | 1.283 |
| 3 | 1.615 | 1.647 | 1.004 | 1.028 | 0.426 | 2.028 | 0.154 | 1.149 |
| 4 | 1.606 | 1.638 | 1.004 | 1.021 | 0.310 | 1.916 | 0.130 | 1.113 |
| 7 | 1.597 | 1.625 | 0.989 | 1.012 | 0.572 | 1.897 | 0.435 | 1.103 |
| 14 | 1.529 | 1.586 | 0.949 | 0.987 | 0.491 | 1.831 | 0.166 | 1.045 |
| 21 | 1.371 | 1.547 | 0.845 | 0.961 | 1.604 | 1.690 | 0.704 | 0.972 |
| 28 | 1.263 | 1.493 | 0.764 | 0.925 | 2.100 | 1.557 | 1.338 | 0.903 |
| 42 | 1.274 | 1.412 | 0.786 | 0.868 | 1.152 | 1.406 | 0.704 | 0.820 |
| 50 | 1.174 | 1.384 | 0.675 | 0.850 | 1.003 | 1.333 | 0.658 | 0.778 |
| 100 | 0.495 | 1.202 | 0.003 | 0.663 | 0.644 | 1.056 | 0.388 | 0.617 |

**Table A 60** **FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D3 Ditch to D5 Pond.**

| Step 3 | D3 Ditch | | D4 Pond | | D4 Stream | | D5 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 0.951 | - | 0.213 | - | 0.793 | - | 0.093 | - |
| 1 | 0.507 | 0.758 | 0.212 | 0.213 | < 0.001 | 0.194 | 0.092 | 0.093 |
| 2 | 0.092 | 0.506 | 0.212 | 0.213 | < 0.001 | 0.184 | 0.091 | 0.092 |
| 3 | 0.018 | 0.352 | 0.211 | 0.212 | < 0.001 | 0.173 | 0.090 | 0.091 |
| 4 | 0.007 | 0.266 | 0.210 | 0.212 | < 0.001 | 0.162 | 0.089 | 0.091 |
| 7 | 0.002 | 0.154 | 0.205 | 0.212 | < 0.001 | 0.148 | 0.087 | 0.090 |
| 14 | < 0.001 | 0.077 | 0.193 | 0.209 | < 0.001 | 0.135 | 0.082 | 0.089 |
| 21 | < 0.001 | 0.052 | 0.184 | 0.205 | < 0.001 | 0.129 | 0.079 | 0.088 |
| 28 | < 0.001 | 0.039 | 0.182 | 0.202 | < 0.001 | 0.123 | 0.076 | 0.087 |
| 42 | < 0.001 | 0.026 | 0.165 | 0.195 | < 0.001 | 0.091 | 0.070 | 0.085 |
| 50 | < 0.001 | 0.022 | 0.156 | 0.192 | < 0.001 | 0.082 | 0.067 | 0.083 |
| 100 | < 0.001 | 0.011 | 0.116 | 0.169 | < 0.001 | 0.049 | 0.051 | 0.079 |

**Table A 61** **FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D5 Stream to R1 Stream.**

| Step 3 | D5 Stream | | D6 Ditch | | R1 Pond | | R1 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 0.762 | - | 0.955 | - | 0.128 | - | 1.266 | - |
| 1 | 0.004 | 0.106 | 0.787 | 0.869 | 0.126 | 0.127 | 0.002 | 0.694 |
| 2 | 0.004 | 0.101 | 0.490 | 0.761 | 0.124 | 0.126 | < 0.001 | 0.348 |
| 3 | 0.003 | 0.093 | 0.202 | 0.618 | 0.122 | 0.125 | < 0.001 | 0.232 |
| 4 | 0.003 | 0.082 | 0.076 | 0.495 | 0.121 | 0.124 | 0.007 | 0.174 |
| 7 | 0.002 | 0.075 | 0.013 | 0.297 | 0.117 | 0.122 | 0.001 | 0.148 |
| 14 | 0.001 | 0.055 | 0.005 | 0.152 | 0.108 | 0.117 | 0.104 | 0.102 |
| 21 | 0.001 | 0.045 | 0.001 | 0.102 | 0.100 | 0.113 | < 0.001 | 0.081 |
| 28 | < 0.001 | 0.038 | 0.001 | 0.078 | 0.094 | 0.113 | < 0.001 | 0.066 |
| 42 | < 0.001 | 0.029 | 0.002 | 0.071 | 0.084 | 0.112 | < 0.001 | 0.047 |
| 50 | < 0.001 | 0.026 | 0.001 | 0.060 | 0.077 | 0.110 | < 0.001 | 0.043 |
| 100 | < 0.001 | 0.016 | < 0.001 | 0.031 | 0.052 | 0.095 | < 0.001 | 0.024 |

**Table A 62** **FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: R3 Stream to R4 Stream.**

| Step 3 | R3 Stream | | R4 Stream | |
|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 1.350 | - | 1.265 | - |
| 1 | 0.013 | 1.191 | 0.005 | 0.836 |
| 2 | 0.005 | 0.650 | 0.002 | 0.512 |
| 3 | 0.003 | 0.435 | 0.830 | 0.355 |
| 4 | 0.002 | 0.327 | 0.453 | 0.357 |
| 7 | < 0.001 | 0.188 | 0.001 | 0.273 |
| 14 | < 0.001 | 0.094 | < 0.001 | 0.154 |
| 21 | < 0.001 | 0.063 | < 0.001 | 0.103 |
| 28 | < 0.001 | 0.068 | < 0.001 | 0.077 |
| 42 | < 0.001 | 0.053 | < 0.001 | 0.051 |
| 50 | < 0.001 | 0.045 | < 0.001 | 0.043 |
| 100 | < 0.001 | 0.025 | 0.016 | 0.023 |

**Table A 63** **FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D2 Stream.**

| Step 3 | D1 Ditch | | D1 Stream | | D2 Ditch | | D2 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 10.650 | - | 5.528 | - | 10.210 | - | 6.135 | - |
| 1 | 10.650 | 10.650 | < 0.001 | 5.525 | 10.200 | 10.210 | 6.125 | 6.134 |
| 2 | 10.650 | 10.650 | < 0.001 | 5.525 | 10.180 | 10.200 | 6.120 | 6.131 |
| 3 | 10.640 | 10.650 | < 0.001 | 5.524 | 10.170 | 10.200 | 6.112 | 6.128 |
| 4 | < 0.001 | 10.650 | < 0.001 | 5.524 | 10.150 | 10.190 | 6.099 | 6.125 |
| 7 | < 0.001 | 10.650 | < 0.001 | 5.522 | 10.090 | 10.180 | 6.065 | 6.116 |
| 14 | < 0.001 | 10.630 | < 0.001 | 5.495 | 9.972 | 10.140 | 6.001 | 6.094 |
| 21 | < 0.001 | 10.620 | < 0.001 | 5.476 | 9.861 | 10.110 | 5.932 | 6.070 |
| 28 | < 0.001 | 10.610 | < 0.001 | 5.458 | < 0.001 | 10.090 | < 0.001 | 6.057 |
| 42 | < 0.001 | 10.570 | < 0.001 | 5.388 | < 0.001 | 10.060 | < 0.001 | 6.023 |
| 50 | < 0.001 | 10.530 | < 0.001 | 5.345 | < 0.001 | 10.050 | < 0.001 | 6.020 |
| 100 | < 0.001 | 10.470 | < 0.001 | 5.264 | < 0.001 | 9.960 | < 0.001 | 5.959 |

**Table A 64** **FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D3 Ditch to D5 Pond.**

| Step 3 | D3 Ditch | | D4 Pond | | D4 Stream | | D5 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 0.476 | - | 1.495 | - | 0.544 | - | 0.905 | - |
| 1 | 0.400 | 0.463 | < 0.001 | 1.495 | 0.542 | 0.544 | 0.905 | 0.905 |
| 2 | 0.320 | 0.435 | < 0.001 | 1.495 | 0.538 | 0.543 | 0.905 | 0.905 |
| 3 | 0.270 | 0.403 | < 0.001 | 1.495 | 0.531 | 0.542 | 0.905 | 0.905 |
| 4 | 0.238 | 0.374 | < 0.001 | 1.495 | 0.522 | 0.541 | 0.905 | 0.905 |
| 7 | 0.186 | 0.312 | < 0.001 | 1.494 | 0.489 | 0.536 | 0.905 | 0.905 |
| 14 | 0.136 | 0.239 | < 0.001 | 1.492 | 0.407 | 0.521 | 0.904 | 0.905 |
| 21 | 0.113 | 0.202 | < 0.001 | 1.490 | 0.370 | 0.501 | < 0.001 | 0.905 |
| 28 | 0.099 | 0.178 | < 0.001 | 1.487 | 0.432 | 0.476 | < 0.001 | 0.905 |
| 42 | 0.083 | 0.149 | < 0.001 | 1.478 | 0.381 | 0.454 | < 0.001 | 0.903 |
| 50 | 0.076 | 0.138 | < 0.001 | 1.472 | 0.352 | 0.446 | < 0.001 | 0.901 |
| 100 | 0.055 | 0.102 | < 0.001 | 1.401 | 0.252 | 0.386 | < 0.001 | 0.846 |

**Table A 65** **FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D5 Stream to R1 Stream.**

| Step 3 | D5 Stream | | D6 Ditch | | R1 Pond | | R1 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 0.190 | - | 0.799 | - | 0.778 | - | 0.587 | - |
| 1 | 0.186 | 0.189 | 0.740 | 0.791 | 0.778 | 0.778 | 0.433 | 0.527 |
| 2 | 0.179 | 0.188 | 0.645 | 0.771 | 0.778 | 0.778 | 0.356 | 0.480 |
| 3 | 0.175 | 0.186 | 0.570 | 0.743 | 0.778 | 0.778 | 0.313 | 0.453 |
| 4 | 0.178 | 0.186 | 0.515 | 0.712 | 0.778 | 0.778 | 0.289 | 0.432 |
| 7 | 0.185 | 0.183 | 0.418 | 0.629 | 0.777 | 0.778 | 0.385 | 0.406 |
| 14 | 0.173 | 0.182 | 0.324 | 0.510 | 0.775 | 0.778 | 0.386 | 0.384 |
| 21 | 0.174 | 0.177 | 0.274 | 0.444 | 0.772 | 0.777 | 0.284 | 0.365 |
| 28 | 0.158 | 0.175 | 0.245 | 0.400 | 0.768 | 0.777 | 0.247 | 0.340 |
| 42 | 0.134 | 0.167 | 0.211 | 0.344 | 0.759 | 0.775 | 0.253 | 0.321 |
| 50 | 0.122 | 0.162 | 0.197 | 0.322 | 0.753 | 0.775 | 0.227 | 0.308 |
| 100 | 0.093 | 0.138 | 0.144 | 0.257 | 0.711 | 0.769 | 0.171 | 0.256 |

**Table A 66** **FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: R3 Stream to R4 Stream.**

| Step 3 | R3 Stream | | R4 Stream | |
|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 0.908 | - | 0.685 | - |
| 1 | 0.705 | 0.858 | 0.550 | 0.657 |
| 2 | 0.586 | 0.778 | 0.462 | 0.621 |
| 3 | 0.520 | 0.716 | 0.409 | 0.594 |
| 4 | 0.478 | 0.669 | 0.373 | 0.562 |
| 7 | 0.408 | 0.577 | 0.390 | 0.499 |
| 14 | 0.335 | 0.476 | 0.277 | 0.439 |
| 21 | 0.298 | 0.423 | 0.232 | 0.389 |
| 28 | 0.417 | 0.421 | 0.206 | 0.352 |
| 42 | 0.359 | 0.415 | 0.173 | 0.301 |
| 50 | 0.317 | 0.403 | 0.160 | 0.281 |
| 100 | 0.228 | 0.334 | 0.121 | 0.210 |

**Table A 67** **FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D2 Stream.**

| Step 3 | D1 Ditch | | D1 Stream | | D2 Ditch | | D2 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 3.474 | - | 2.180 | - | 5.996 | - | 3.774 | - |
| 1 | 3.442 | 3.432 | 2.152 | 2.145 | 1.223 | 3.921 | 0.284 | 2.313 |
| 2 | 3.399 | 3.430 | 2.113 | 2.142 | 0.944 | 3.844 | 0.265 | 2.223 |
| 3 | 3.362 | 3.415 | 2.090 | 2.129 | 0.790 | 3.520 | 0.330 | 2.013 |
| 4 | 3.343 | 3.399 | 2.082 | 2.118 | 0.599 | 3.339 | 0.264 | 1.963 |
| 7 | 3.285 | 3.367 | 2.029 | 2.095 | 1.092 | 3.297 | 0.826 | 1.919 |
| 14 | 2.956 | 3.218 | 1.832 | 2.001 | 0.982 | 3.215 | 0.368 | 1.844 |
| 21 | 2.596 | 3.088 | 1.597 | 1.917 | 2.728 | 2.984 | 1.230 | 1.712 |
| 28 | 2.378 | 2.986 | 1.435 | 1.843 | 3.867 | 2.755 | 2.414 | 1.591 |
| 42 | 2.377 | 2.923 | 1.465 | 1.808 | 2.031 | 2.523 | 1.239 | 1.469 |
| 50 | 2.190 | 2.846 | 1.256 | 1.757 | 1.805 | 2.410 | 1.202 | 1.404 |
| 100 | 0.921 | 2.445 | 0.006 | 1.368 | 1.222 | 1.949 | 0.733 | 1.140 |

**Table A 68** **FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D3 Ditch to D5 Pond.**

| Step 3 | D3 Ditch | | D4 Pond | | D4 Stream | | D5 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 0.831 | - | 0.550 | - | 0.711 | - | 0.196 | - |
| 1 | 0.468 | 0.672 | 0.549 | 0.550 | 0.001 | 0.460 | 0.195 | 0.196 |
| 2 | 0.096 | 0.459 | 0.547 | 0.550 | < 0.001 | 0.438 | 0.195 | 0.195 |
| 3 | 0.019 | 0.321 | 0.545 | 0.549 | < 0.001 | 0.422 | 0.194 | 0.195 |
| 4 | 0.007 | 0.244 | 0.542 | 0.549 | < 0.001 | 0.412 | 0.192 | 0.195 |
| 7 | 0.002 | 0.141 | 0.530 | 0.547 | < 0.001 | 0.395 | 0.188 | 0.194 |
| 14 | < 0.001 | 0.071 | 0.500 | 0.540 | < 0.001 | 0.351 | 0.188 | 0.192 |
| 21 | < 0.001 | 0.092 | 0.473 | 0.531 | < 0.001 | 0.344 | 0.178 | 0.190 |
| 28 | < 0.001 | 0.069 | 0.455 | 0.521 | < 0.001 | 0.319 | 0.168 | 0.189 |
| 42 | < 0.001 | 0.046 | 0.410 | 0.501 | < 0.001 | 0.237 | 0.152 | 0.183 |
| 50 | < 0.001 | 0.039 | 0.388 | 0.490 | < 0.001 | 0.210 | 0.144 | 0.179 |
| 100 | < 0.001 | 0.020 | 0.289 | 0.426 | < 0.001 | 0.121 | 0.147 | 0.166 |

**Table A 69** **FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D5 Stream to R1 Stream.**

| Step 3 | D5 Stream | | D6 Ditch | | R1 Pond | | R1 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 0.729 | - | 0.836 | - | 0.272 | - | 1.620 | - |
| 1 | 0.005 | 0.223 | 0.698 | 0.762 | 0.266 | 0.269 | 0.005 | 1.322 |
| 2 | 0.005 | 0.213 | 0.528 | 0.690 | 0.262 | 0.266 | 0.002 | 0.667 |
| 3 | 0.005 | 0.197 | 0.350 | 0.605 | 0.258 | 0.264 | 0.001 | 0.445 |
| 4 | 0.005 | 0.175 | 0.233 | 0.525 | 0.254 | 0.262 | < 0.001 | 0.334 |
| 7 | 0.004 | 0.161 | 0.102 | 0.365 | 0.244 | 0.257 | < 0.001 | 0.192 |
| 14 | < 0.001 | 0.121 | 0.023 | 0.208 | 0.224 | 0.246 | < 0.001 | 0.104 |
| 21 | < 0.001 | 0.098 | 0.009 | 0.144 | 0.207 | 0.236 | < 0.001 | 0.081 |
| 28 | < 0.001 | 0.084 | 0.005 | 0.132 | 0.199 | 0.228 | < 0.001 | 0.079 |
| 42 | < 0.001 | 0.065 | 0.003 | 0.116 | 0.191 | 0.215 | < 0.001 | 0.075 |
| 50 | < 0.001 | 0.058 | 0.002 | 0.099 | 0.175 | 0.210 | < 0.001 | 0.066 |
| 100 | < 0.001 | 0.037 | < 0.001 | 0.062 | 0.142 | 0.182 | < 0.001 | 0.044 |

**Table A 70** **FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: R3 Stream to R4 Stream.**

| Step 3 | R3 Stream | | R4 Stream | |
|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 3.111 | - | 2.841 | - |
| 1 | 0.030 | 2.745 | 0.013 | 1.877 |
| 2 | 0.011 | 1.498 | 0.004 | 1.239 |
| 3 | 0.006 | 1.003 | 1.993 | 0.860 |
| 4 | 0.004 | 0.754 | 1.110 | 0.826 |
| 7 | 0.002 | 0.432 | 0.003 | 0.639 |
| 14 | < 0.001 | 0.235 | < 0.001 | 0.363 |
| 21 | < 0.001 | 0.157 | < 0.001 | 0.242 |
| 28 | 0.002 | 0.159 | < 0.001 | 0.182 |
| 42 | < 0.001 | 0.123 | < 0.001 | 0.124 |
| 50 | < 0.001 | 0.109 | < 0.001 | 0.104 |
| 100 | < 0.001 | 0.057 | 0.038 | 0.054 |

**Table A 71** **FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D2 Stream.**

| Step 3 | D1 Ditch | | D1 Stream | | D2 Ditch | | D2 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 18.340 | - | 10.220 | - | 18.760 | - | 11.190 | - |
| 1 | 18.320 | 18.340 | 10.220 | 10.220 | 18.750 | 18.750 | 11.170 | 11.180 |
| 2 | 18.320 | 18.340 | 10.210 | 10.220 | 18.710 | 18.750 | 11.160 | 11.180 |
| 3 | 18.320 | 18.340 | 10.190 | 10.220 | 18.680 | 18.740 | 11.140 | 11.170 |
| 4 | 18.330 | 18.340 | 10.130 | 10.220 | 18.650 | 18.720 | 11.120 | 11.170 |
| 7 | 18.340 | 18.340 | 9.878 | 10.210 | 18.530 | 18.700 | 11.050 | 11.150 |
| 14 | 18.330 | 18.330 | 8.346 | 10.150 | 18.300 | 18.620 | 10.930 | 11.110 |
| 21 | 18.280 | 18.330 | 9.393 | 10.050 | 18.090 | 18.560 | 10.810 | 11.060 |
| 28 | 18.180 | 18.320 | 8.231 | 9.916 | < 0.001 | 18.520 | < 0.001 | 11.030 |
| 42 | 17.660 | 18.270 | 7.407 | 9.723 | < 0.001 | 18.440 | < 0.001 | 10.970 |
| 50 | 17.890 | 18.240 | 6.870 | 9.597 | < 0.001 | 18.420 | < 0.001 | 10.950 |
| 100 | < 0.001 | 18.100 | 5.282 | 9.103 | < 0.001 | 18.220 | < 0.001 | 10.820 |

**Table A 72** **FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D3 Ditch to D5 Pond.**

| Step 3 | D3 Ditch | | D4 Pond | | D4 Stream | | D5 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 0.547 | - | 3.438 | - | 1.316 | - | 1.910 | - |
| 1 | 0.478 | 0.536 | < 0.001 | 3.437 | 1.311 | 1.315 | < 0.001 | 1.910 |
| 2 | 0.402 | 0.511 | < 0.001 | 3.437 | 1.298 | 1.314 | < 0.001 | 1.910 |
| 3 | 0.353 | 0.482 | < 0.001 | 3.436 | 1.281 | 1.312 | < 0.001 | 1.909 |
| 4 | 0.321 | 0.454 | < 0.001 | 3.436 | 1.259 | 1.309 | < 0.001 | 1.909 |
| 7 | 0.265 | 0.393 | < 0.001 | 3.434 | 1.182 | 1.297 | < 0.001 | 1.909 |
| 14 | 0.207 | 0.318 | < 0.001 | 3.430 | 1.002 | 1.266 | < 0.001 | 1.907 |
| 21 | 0.177 | 0.277 | < 0.001 | 3.424 | 0.911 | 1.215 | < 0.001 | 1.905 |
| 28 | 0.159 | 0.265 | < 0.001 | 3.417 | 0.968 | 1.158 | < 0.001 | 1.903 |
| 42 | 0.135 | 0.238 | < 0.001 | 3.397 | 0.873 | 1.086 | < 0.001 | 1.894 |
| 50 | 0.125 | 0.224 | < 0.001 | 3.383 | 0.813 | 1.062 | < 0.001 | 1.887 |
| 100 | 0.092 | 0.171 | < 0.001 | 3.222 | 0.581 | 0.909 | < 0.001 | 1.746 |

**Table A 73** **FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: D5 Stream to R1 Stream.**

| Step 3 | D5 Stream | | D6 Ditch | | R1 Pond | | R1 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 0.391 | - | 0.948 | - | 1.574 | - | 1.767 | - |
| 1 | 0.384 | 0.390 | 0.925 | 0.945 | 1.574 | 1.574 | 1.479 | 1.667 |
| 2 | 0.371 | 0.389 | 0.885 | 0.938 | 1.574 | 1.574 | 1.332 | 1.557 |
| 3 | 0.367 | 0.388 | 0.845 | 0.927 | 1.574 | 1.574 | 1.248 | 1.478 |
| 4 | 0.373 | 0.387 | 0.810 | 0.914 | 1.573 | 1.574 | 1.191 | 1.419 |
| 7 | 0.386 | 0.383 | 0.720 | 0.871 | 1.573 | 1.574 | 1.088 | 1.304 |
| 14 | 0.362 | 0.380 | 0.580 | 0.779 | 1.569 | 1.573 | 0.962 | 1.166 |
| 21 | 0.362 | 0.370 | 0.501 | 0.709 | 1.565 | 1.573 | 0.884 | 1.086 |
| 28 | 0.332 | 0.365 | 0.450 | 0.655 | 1.558 | 1.572 | 0.931 | 1.063 |
| 42 | 0.289 | 0.350 | 0.386 | 0.579 | 1.544 | 1.570 | 0.937 | 1.005 |
| 50 | 0.266 | 0.340 | 0.360 | 0.548 | 1.534 | 1.568 | 0.815 | 0.984 |
| 100 | 0.215 | 0.299 | 0.264 | 0.477 | 1.455 | 1.552 | 0.668 | 0.862 |

**Table A 74 FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter cereals at BBCH-stage 30-69. Scenarios: R3 Stream to R4 Stream.**

| Step 3 | R3 Stream | | R4 Stream | |
|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 2.177 | - | 1.612 | - |
| 1 | 1.685 | 2.058 | 1.283 | 1.539 |
| 2 | 1.417 | 1.866 | 1.081 | 1.445 |
| 3 | 1.272 | 1.721 | 0.963 | 1.381 |
| 4 | 1.179 | 1.612 | 0.883 | 1.308 |
| 7 | 1.019 | 1.404 | 0.924 | 1.167 |
| 14 | 0.849 | 1.173 | 0.665 | 1.019 |
| 21 | 0.759 | 1.052 | 0.563 | 0.910 |
| 28 | 1.013 | 1.043 | 0.501 | 0.827 |
| 42 | 0.869 | 1.020 | 0.425 | 0.714 |
| 50 | 0.774 | 0.989 | 0.394 | 0.668 |
| 100 | 0.558 | 0.819 | 0.299 | 0.506 |

## Step 3: spring cereals

**Table A 75 FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D4 Pond.**

| Step 3 | D1 Ditch | | D1 Stream | | D3 Ditch | | D4 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 2.429 | - | 1.521 | - | 0.951 | - | 0.304 | - |
| 1 | 2.408 | 2.398 | 1.505 | 1.498 | 0.518 | 0.762 | 0.304 | 0.304 |
| 2 | 2.371 | 2.396 | 1.475 | 1.496 | 0.099 | 0.513 | 0.303 | 0.304 |
| 3 | 2.344 | 2.384 | 1.457 | 1.487 | 0.019 | 0.358 | 0.301 | 0.304 |
| 4 | 2.337 | 2.373 | 1.461 | 1.479 | 0.007 | 0.271 | 0.300 | 0.304 |
| 7 | 2.299 | 2.353 | 1.421 | 1.464 | 0.002 | 0.157 | 0.293 | 0.303 |
| 14 | 2.087 | 2.255 | 1.295 | 1.402 | < 0.001 | 0.079 | 0.276 | 0.299 |
| 21 | 1.841 | 2.169 | 1.134 | 1.347 | < 0.001 | 0.053 | 0.261 | 0.294 |
| 28 | 1.695 | 2.082 | 1.022 | 1.286 | < 0.001 | 0.040 | 0.256 | 0.289 |
| 42 | 1.706 | 2.034 | 1.053 | 1.259 | < 0.001 | 0.026 | 0.232 | 0.278 |
| 50 | 1.584 | 1.987 | 0.938 | 1.227 | < 0.001 | 0.022 | 0.219 | 0.273 |
| 100 | 0.913 | 1.748 | 0.014 | 1.065 | < 0.001 | 0.011 | 0.163 | 0.239 |

**Table A 76** **FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D4 Stream to R4 Stream.**

| Step 3 | D4 Stream | | D5 Pond | | D5 Stream | | R4 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 0.778 | - | 0.098 | - | 0.801 | - | 1.769 | - |
| 1 | < 0.001 | 0.271 | 0.098 | 0.098 | 0.002 | 0.115 | 0.008 | 1.171 |
| 2 | < 0.001 | 0.260 | 0.097 | 0.098 | 0.002 | 0.109 | 0.003 | 1.097 |
| 3 | < 0.001 | 0.248 | 0.097 | 0.098 | 0.002 | 0.101 | 1.667 | 0.764 |
| 4 | < 0.001 | 0.235 | 0.096 | 0.097 | 0.002 | 0.089 | 1.053 | 0.591 |
| 7 | < 0.001 | 0.213 | 0.094 | 0.097 | 0.001 | 0.081 | 0.003 | 0.496 |
| 14 | < 0.001 | 0.187 | 0.094 | 0.096 | 0.002 | 0.060 | < 0.001 | 0.292 |
| 21 | < 0.001 | 0.191 | 0.088 | 0.095 | < 0.001 | 0.048 | < 0.001 | 0.197 |
| 28 | < 0.001 | 0.177 | 0.083 | 0.094 | 0.001 | 0.041 | < 0.001 | 0.151 |
| 42 | < 0.001 | 0.132 | 0.075 | 0.091 | < 0.001 | 0.031 | < 0.001 | 0.101 |
| 50 | < 0.001 | 0.117 | 0.070 | 0.089 | < 0.001 | 0.028 | < 0.001 | 0.085 |
| 100 | < 0.001 | 0.069 | 0.074 | 0.083 | < 0.001 | 0.017 | 0.046 | 0.042 |

**Table A 77** **FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D4 Pond.**

| Step 3 | D1 Ditch | | D1 Stream | | D3 Ditch | | D4 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 15.620 | - | 8.634 | - | 0.481 | - | 2.051 | - |
| 1 | 15.590 | 15.610 | 8.632 | 8.633 | 0.404 | 0.469 | < 0.001 | 2.050 |
| 2 | 15.590 | 15.610 | 8.629 | 8.633 | 0.324 | 0.441 | < 0.001 | 2.050 |
| 3 | 15.590 | 15.600 | 8.625 | 8.633 | 0.274 | 0.409 | < 0.001 | 2.050 |
| 4 | 15.590 | 15.600 | 8.619 | 8.632 | 0.242 | 0.380 | < 0.001 | 2.050 |
| 7 | 15.600 | 15.600 | 8.592 | 8.631 | 0.189 | 0.317 | < 0.001 | 2.049 |
| 14 | 15.580 | 15.600 | 8.461 | 8.626 | 0.138 | 0.243 | < 0.001 | 2.047 |
| 21 | 15.520 | 15.590 | 8.202 | 8.617 | 0.115 | 0.205 | < 0.001 | 2.044 |
| 28 | 15.430 | 15.580 | 7.463 | 8.605 | 0.101 | 0.181 | < 0.001 | 2.040 |
| 42 | 14.980 | 15.540 | 7.958 | 8.559 | 0.084 | 0.152 | < 0.001 | 2.030 |
| 50 | 15.160 | 15.500 | 8.134 | 8.523 | 0.078 | 0.141 | < 0.001 | 2.022 |
| 100 | < 0.001 | 15.400 | < 0.001 | 8.286 | 0.056 | 0.103 | < 0.001 | 1.928 |

**Table A 78** **FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following single application of 1 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D4 Stream to R4 Stream.**

| Step 3 | D4 Stream | | D5 Pond | | D5 Stream | | R4 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 0.769 | - | 0.962 | - | 0.204 | - | 1.441 | - |
| 1 | 0.766 | 0.768 | 0.962 | 0.962 | 0.200 | 0.203 | 1.150 | 1.367 |
| 2 | 0.759 | 0.768 | 0.962 | 0.962 | 0.191 | 0.202 | 0.970 | 1.274 |
| 3 | 0.749 | 0.767 | 0.962 | 0.962 | 0.187 | 0.200 | 0.866 | 1.201 |
| 4 | 0.737 | 0.765 | 0.962 | 0.962 | 0.189 | 0.197 | 0.796 | 1.142 |
| 7 | 0.692 | 0.758 | 0.962 | 0.962 | 0.196 | 0.195 | 0.863 | 1.037 |
| 14 | 0.584 | 0.742 | 0.961 | 0.962 | 0.183 | 0.194 | 0.623 | 0.909 |
| 21 | 0.534 | 0.713 | 0.960 | 0.962 | 0.184 | 0.189 | 0.532 | 0.806 |
| 28 | 0.594 | 0.681 | < 0.001 | 0.961 | 0.166 | 0.186 | 0.476 | 0.738 |
| 42 | 0.533 | 0.643 | < 0.001 | 0.960 | 0.139 | 0.177 | 0.407 | 0.646 |
| 50 | 0.497 | 0.632 | < 0.001 | 0.958 | 0.127 | 0.171 | 0.378 | 0.608 |
| 100 | 0.361 | 0.549 | < 0.001 | 0.901 | 0.101 | 0.146 | 0.292 | 0.469 |

**Table A 79** **FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D4 Pond.**

| Step 3 | D1 Ditch | | D1 Stream | | D3 Ditch | | D4 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 4.183 | - | 2.617 | - | 0.832 | - | 0.682 | - |
| 1 | 4.157 | 4.143 | 2.595 | 2.588 | 0.470 | 0.673 | 0.681 | 0.682 |
| 2 | 4.105 | 4.141 | 2.553 | 2.585 | 0.097 | 0.461 | 0.679 | 0.682 |
| 3 | 4.065 | 4.124 | 2.525 | 2.571 | 0.020 | 0.323 | 0.676 | 0.682 |
| 4 | 4.046 | 4.107 | 2.521 | 2.558 | 0.008 | 0.245 | 0.672 | 0.681 |
| 7 | 3.953 | 4.067 | 2.440 | 2.528 | 0.002 | 0.142 | 0.658 | 0.679 |
| 14 | 3.478 | 3.860 | 2.155 | 2.399 | < 0.001 | 0.072 | 0.622 | 0.671 |
| 21 | 3.030 | 3.780 | 1.866 | 2.324 | < 0.001 | 0.093 | 0.587 | 0.660 |
| 28 | 2.781 | 3.804 | 1.674 | 2.347 | < 0.001 | 0.070 | 0.563 | 0.648 |
| 42 | 2.826 | 3.656 | 1.743 | 2.259 | < 0.001 | 0.047 | 0.507 | 0.622 |
| 50 | 2.618 | 3.530 | 1.548 | 2.179 | < 0.001 | 0.039 | 0.479 | 0.608 |
| 100 | 1.477 | 3.010 | 0.021 | 1.833 | < 0.001 | 0.020 | 0.356 | 0.529 |

**Table A 80** **FOCUS Step 3 actual and time-weighted average $PEC_{sw}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D4 Stream to R4 Stream.**

| Step 3 | D4 Stream | | D5 Pond | | D5 Stream | | R4 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 0.709 | - | 0.192 | - | 0.721 | - | 3.027 | - |
| 1 | < 0.001 | 0.582 | 0.192 | 0.192 | 0.004 | 0.222 | 0.012 | 1.730 |
| 2 | < 0.001 | 0.557 | 0.191 | 0.192 | 0.004 | 0.212 | 0.005 | 1.617 |
| 3 | < 0.001 | 0.532 | 0.190 | 0.192 | 0.004 | 0.196 | 0.003 | 1.081 |
| 4 | < 0.001 | 0.512 | 0.189 | 0.192 | 0.003 | 0.174 | 0.002 | 0.812 |
| 7 | < 0.001 | 0.476 | 0.185 | 0.191 | 0.003 | 0.160 | < 0.001 | 0.666 |
| 14 | < 0.001 | 0.434 | 0.184 | 0.189 | < 0.001 | 0.118 | < 0.001 | 0.488 |
| 21 | < 0.001 | 0.437 | 0.173 | 0.187 | < 0.001 | 0.096 | < 0.001 | 0.326 |
| 28 | < 0.001 | 0.396 | 0.164 | 0.186 | < 0.001 | 0.081 | < 0.001 | 0.248 |
| 42 | < 0.001 | 0.294 | 0.148 | 0.180 | < 0.001 | 0.062 | < 0.001 | 0.166 |
| 50 | < 0.001 | 0.260 | 0.139 | 0.176 | < 0.001 | 0.055 | < 0.001 | 0.139 |
| 100 | 0.002 | 0.150 | 0.144 | 0.157 | < 0.001 | 0.034 | < 0.001 | 0.070 |

**Table A 81** **FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D1 Ditch to D4 Pond.**

| Step 3 | D1 Ditch | | D1 Stream | | D3 Ditch | | D4 Pond | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 24.960 | - | 13.710 | - | 0.550 | - | 4.228 | - |
| 1 | 24.910 | 24.960 | 13.710 | 13.710 | 0.482 | 0.540 | < 0.001 | 4.228 |
| 2 | 24.890 | 24.960 | 13.700 | 13.710 | 0.406 | 0.514 | < 0.001 | 4.228 |
| 3 | 24.890 | 24.950 | 13.700 | 13.710 | 0.356 | 0.485 | < 0.001 | 4.227 |
| 4 | 24.880 | 24.950 | 13.690 | 13.710 | 0.324 | 0.458 | < 0.001 | 4.227 |
| 7 | 24.860 | 24.930 | 13.690 | 13.700 | 0.267 | 0.397 | < 0.001 | 4.225 |
| 14 | 24.770 | 24.910 | 13.590 | 13.700 | 0.209 | 0.321 | < 0.001 | 4.221 |
| 21 | 24.640 | 24.880 | 13.380 | 13.690 | 0.179 | 0.280 | < 0.001 | 4.215 |
| 28 | 24.450 | 24.860 | 12.980 | 13.670 | 0.160 | 0.268 | < 0.001 | 4.208 |
| 42 | 23.730 | 24.780 | 12.260 | 13.610 | 0.136 | 0.240 | < 0.001 | 4.187 |
| 50 | 23.950 | 24.730 | 12.570 | 13.560 | 0.127 | 0.227 | < 0.001 | 4.171 |
| 100 | < 0.001 | 24.410 | < 0.001 | 13.110 | 0.093 | 0.173 | < 0.001 | 3.984 |

**Table A 82 FOCUS Step 3 actual and time-weighted average $PEC_{sed}$ for azoxystrobin following multiple application of 2 x 150 g a.s. $ha^{-1}$ to spring cereals at BBCH-stage 30-69. Scenarios: D4 Stream to R4 Stream.**

| Step 3 | D4 Stream | | D5 Pond | | D5 Stream | | R4 Stream | |
|---|---|---|---|---|---|---|---|---|
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 1.624 | - | 1.816 | - | 0.381 | - | 2.379 | - |
| 1 | 1.618 | 1.623 | < 0.001 | 1.816 | 0.375 | 0.381 | 1.812 | 2.193 |
| 2 | 1.603 | 1.622 | < 0.001 | 1.816 | 0.361 | 0.378 | 1.538 | 2.013 |
| 3 | 1.582 | 1.620 | < 0.001 | 1.816 | 0.354 | 0.375 | 1.381 | 1.905 |
| 4 | 1.557 | 1.617 | < 0.001 | 1.816 | 0.360 | 0.372 | 1.276 | 1.801 |
| 7 | 1.468 | 1.609 | < 0.001 | 1.815 | 0.372 | 0.368 | 1.087 | 1.574 |
| 14 | 1.260 | 1.574 | < 0.001 | 1.815 | 0.345 | 0.366 | 0.874 | 1.333 |
| 21 | 1.151 | 1.514 | < 0.001 | 1.814 | 0.346 | 0.356 | 0.762 | 1.211 |
| 28 | 1.198 | 1.450 | < 0.001 | 1.812 | 0.311 | 0.350 | 0.689 | 1.112 |
| 42 | 1.093 | 1.358 | < 0.001 | 1.806 | 0.265 | 0.333 | 0.592 | 0.973 |
| 50 | 1.022 | 1.327 | < 0.001 | 1.800 | 0.243 | 0.323 | 0.552 | 0.915 |
| 100 | 0.743 | 1.146 | < 0.001 | 1.680 | 0.197 | 0.277 | 0.491 | 0.709 |

**R234886, acidic conditions ($K_{,foc}$ = 177 mL g$^{-1}$)**

**Table A 83** **FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sw}$ for R234886 (acidic) following single application of 1 x 150 g a.s. ha$^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] |
| 0 | 37.110 | - | 3.049 | - | 5.889 | - |
| 1 | 36.993 | 37.051 | 3.033 | 3.041 | 5.872 | 5.881 |
| 2 | 36.967 | 37.016 | 3.031 | 3.037 | 5.868 | 5.875 |
| 4 | 36.916 | 36.978 | 3.027 | 3.033 | 5.860 | 5.870 |
| 7 | 36.839 | 36.935 | 3.021 | 3.029 | 5.848 | 5.863 |
| 14 | 36.661 | 36.842 | 3.006 | 3.021 | 5.819 | 5.848 |
| 21 | 36.483 | 36.752 | 2.992 | 3.014 | 5.791 | 5.834 |
| 28 | 36.307 | 36.663 | 2.977 | 3.006 | 5.763 | 5.820 |
| 42 | 35.956 | 36.486 | 2.948 | 2.992 | 5.708 | 5.792 |
| 50 | 35.757 | 36.385 | 2.932 | 2.984 | 5.676 | 5.776 |
| 100 | 34.539 | 35.765 | 2.832 | 2.933 | 5.483 | 5.677 |

**Table A 84** **FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sed}$ for R234886 (acidic) following single application of 1 x 150 g a.s. $ha^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg kg$^{-1}$] | TWA [µg kg$^{-1}$] | Actual [µg kg$^{-1}$] | TWA [µg kg$^{-1}$] | Actual [µg kg$^{-1}$] | TWA [µg kg$^{-1}$] |
| 0 | 64.832 | - | 5.369 | - | 10.394 | - |
| 1 | 65.477 | 65.154 | 5.365 | 5.367 | 10.386 | 10.390 |
| 2 | 65.431 | 65.304 | 5.361 | 5.365 | 10.379 | 10.386 |
| 4 | 65.341 | 65.345 | 5.354 | 5.361 | 10.365 | 10.379 |
| 7 | 65.205 | 65.314 | 5.343 | 5.356 | 10.343 | 10.369 |
| 14 | 64.889 | 65.180 | 5.317 | 5.343 | 10.293 | 10.343 |
| 21 | 64.575 | 65.031 | 5.291 | 5.330 | 10.244 | 10.318 |
| 28 | 64.263 | 64.878 | 5.266 | 5.317 | 10.194 | 10.293 |
| 42 | 63.642 | 64.569 | 5.215 | 5.291 | 10.095 | 10.244 |
| 50 | 63.290 | 64.393 | 5.186 | 5.277 | 10.040 | 10.216 |
| 100 | 61.134 | 63.299 | 5.009 | 5.187 | 9.698 | 10.042 |

**Table A 85** **FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sw}$ for R234886 (acidic) following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] |
| 0 | 37.110 | - | 5.755 | - | 11.145 | - |
| 1 | 36.993 | 37.051 | 5.728 | 5.742 | 11.115 | 11.130 |
| 2 | 36.967 | 37.016 | 5.724 | 5.734 | 11.107 | 11.120 |
| 4 | 36.916 | 36.978 | 5.716 | 5.727 | 11.091 | 11.110 |
| 7 | 36.839 | 36.935 | 5.704 | 5.720 | 11.068 | 11.097 |
| 14 | 36.661 | 36.842 | 5.677 | 5.705 | 11.015 | 11.069 |
| 21 | 36.483 | 36.752 | 5.649 | 5.691 | 10.961 | 11.042 |
| 28 | 36.307 | 36.663 | 5.622 | 5.677 | 10.908 | 11.015 |
| 42 | 35.956 | 36.486 | 5.568 | 5.650 | 10.803 | 10.962 |
| 50 | 35.757 | 36.385 | 5.537 | 5.634 | 10.743 | 10.932 |
| 100 | 34.539 | 35.765 | 5.348 | 5.538 | 10.377 | 10.746 |

**Table A 86 FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sed}$ for R234886 (acidic) following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 64.832 | - | 10.139 | - | 19.673 | - |
| 1 | 65.477 | 65.154 | 10.132 | 10.135 | 19.659 | 19.666 |
| 2 | 65.431 | 65.304 | 10.125 | 10.132 | 19.645 | 19.659 |
| 4 | 65.341 | 65.345 | 10.111 | 10.125 | 19.618 | 19.645 |
| 7 | 65.205 | 65.314 | 10.090 | 10.114 | 19.577 | 19.625 |
| 14 | 64.889 | 65.180 | 10.041 | 10.090 | 19.483 | 19.577 |
| 21 | 64.575 | 65.031 | 9.992 | 10.065 | 19.388 | 19.530 |
| 28 | 64.263 | 64.878 | 9.944 | 10.041 | 19.295 | 19.483 |
| 42 | 63.642 | 64.569 | 9.848 | 9.993 | 19.108 | 19.389 |
| 50 | 63.290 | 64.393 | 9.793 | 9.965 | 19.003 | 19.336 |
| 100 | 61.134 | 63.299 | 9.460 | 9.795 | 18.355 | 19.006 |

**R234886, alkaline conditions ($K_{,foc}$ = 34.8 mL $g^{-1}$)**

**Table A 87 FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sw}$ for R234886 (alkaline) following single application of 1 x 150 g a.s. $ha^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 43.747 | - | 3.493 | - | 6.753 | - |
| 1 | 43.695 | 43.721 | 3.487 | 3.490 | 6.745 | 6.749 |
| 2 | 43.665 | 43.701 | 3.485 | 3.488 | 6.740 | 6.746 |
| 4 | 43.605 | 43.668 | 3.480 | 3.485 | 6.731 | 6.741 |
| 7 | 43.514 | 43.621 | 3.473 | 3.481 | 6.717 | 6.733 |
| 14 | 43.303 | 43.515 | 3.456 | 3.473 | 6.684 | 6.717 |
| 21 | 43.094 | 43.409 | 3.439 | 3.464 | 6.652 | 6.701 |
| 28 | 42.885 | 43.304 | 3.423 | 3.456 | 6.620 | 6.685 |
| 42 | 42.471 | 43.095 | 3.390 | 3.439 | 6.556 | 6.652 |
| 50 | 42.236 | 42.977 | 3.371 | 3.430 | 6.520 | 6.634 |
| 100 | 40.797 | 42.245 | 3.256 | 3.371 | 6.298 | 6.521 |

**Table A 88** **FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sed}$ for R234886 (alkaline) following single application of 1 x 150 g a.s. $ha^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 15.056 | - | 1.214 | - | 2.347 | - |
| 1 | 15.206 | 15.131 | 1.213 | 1.213 | 2.346 | 2.346 |
| 2 | 15.195 | 15.166 | 1.212 | 1.213 | 2.344 | 2.346 |
| 4 | 15.174 | 15.175 | 1.210 | 1.212 | 2.341 | 2.344 |
| 7 | 15.143 | 15.168 | 1.208 | 1.211 | 2.336 | 2.342 |
| 14 | 15.070 | 15.137 | 1.202 | 1.208 | 2.325 | 2.336 |
| 21 | 14.997 | 15.103 | 1.196 | 1.205 | 2.313 | 2.330 |
| 28 | 14.924 | 15.067 | 1.190 | 1.202 | 2.302 | 2.325 |
| 42 | 14.780 | 14.995 | 1.179 | 1.196 | 2.280 | 2.313 |
| 50 | 14.698 | 14.954 | 1.172 | 1.193 | 2.267 | 2.307 |
| 100 | 14.198 | 14.700 | 1.132 | 1.172 | 2.190 | 2.268 |

**Table A 89** **FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sw}$ for R234886 (alkaline) following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 43.747 | - | 6.321 | - | 12.232 | - |
| 1 | 43.695 | 43.721 | 6.311 | 6.316 | 12.218 | 12.225 |
| 2 | 43.665 | 43.701 | 6.306 | 6.312 | 12.209 | 12.219 |
| 4 | 43.605 | 43.668 | 6.298 | 6.307 | 12.192 | 12.210 |
| 7 | 43.514 | 43.621 | 6.285 | 6.300 | 12.167 | 12.197 |
| 14 | 43.303 | 43.515 | 6.254 | 6.285 | 12.108 | 12.167 |
| 21 | 43.094 | 43.409 | 6.224 | 6.270 | 12.049 | 12.138 |
| 28 | 42.885 | 43.304 | 6.194 | 6.254 | 11.991 | 12.108 |
| 42 | 42.471 | 43.095 | 6.134 | 6.224 | 11.875 | 12.050 |
| 50 | 42.236 | 42.977 | 6.100 | 6.207 | 11.810 | 12.017 |
| 100 | 40.797 | 42.245 | 5.892 | 6.101 | 11.407 | 11.812 |

**Table A 90** **FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sed}$ for R234886 (alkaline) following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 15.056 | - | 2.196 | - | 4.252 | - |
| 1 | 15.206 | 15.131 | 2.195 | 2.195 | 4.249 | 4.250 |
| 2 | 15.195 | 15.166 | 2.193 | 2.195 | 4.246 | 4.249 |
| 4 | 15.174 | 15.175 | 2.190 | 2.193 | 4.240 | 4.246 |
| 7 | 15.143 | 15.168 | 2.186 | 2.191 | 4.231 | 4.241 |
| 14 | 15.070 | 15.137 | 2.175 | 2.186 | 4.211 | 4.231 |
| 21 | 14.997 | 15.103 | 2.164 | 2.180 | 4.190 | 4.221 |
| 28 | 14.924 | 15.067 | 2.154 | 2.175 | 4.170 | 4.211 |
| 42 | 14.780 | 14.995 | 2.133 | 2.165 | 4.130 | 4.191 |
| 50 | 14.698 | 14.954 | 2.121 | 2.159 | 4.107 | 4.179 |
| 100 | 14.198 | 14.700 | 2.049 | 2.122 | 3.967 | 4.108 |

## R401553

**Table A 91** **FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sw}$ for R401553 following single application of 1 x 150 g a.s. $ha^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 11.626 | - | 0.411 | - | 0.765 | - |
| 1 | 11.597 | 11.612 | 0.408 | 0.409 | 0.761 | 0.763 |
| 2 | 11.589 | 11.603 | 0.407 | 0.408 | 0.760 | 0.762 |
| 4 | 11.573 | 11.592 | 0.407 | 0.408 | 0.759 | 0.761 |
| 7 | 11.549 | 11.579 | 0.406 | 0.407 | 0.758 | 0.760 |
| 14 | 11.493 | 11.550 | 0.404 | 0.406 | 0.754 | 0.758 |
| 21 | 11.438 | 11.522 | 0.402 | 0.405 | 0.750 | 0.756 |
| 28 | 11.382 | 11.494 | 0.400 | 0.404 | 0.747 | 0.754 |
| 42 | 11.272 | 11.438 | 0.396 | 0.402 | 0.740 | 0.751 |
| 50 | 11.210 | 11.407 | 0.394 | 0.401 | 0.736 | 0.748 |
| 100 | 10.828 | 11.212 | 0.381 | 0.394 | 0.711 | 0.736 |

**Table A 92** **FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sed}$ for R401553 following single application of 1 x 150 g a.s. ha$^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg kg$^{-1}$] | TWA [µg kg$^{-1}$] | Actual [µg kg$^{-1}$] | TWA [µg kg$^{-1}$] | Actual [µg kg$^{-1}$] | TWA [µg kg$^{-1}$] |
| 0 | 16.440 | - | 0.583 | - | 1.088 | - |
| 1 | 16.584 | 16.512 | 0.583 | 0.583 | 1.087 | 1.088 |
| 2 | 16.573 | 16.545 | 0.582 | 0.583 | 1.087 | 1.087 |
| 4 | 16.550 | 16.553 | 0.581 | 0.582 | 1.085 | 1.087 |
| 7 | 16.515 | 16.544 | 0.580 | 0.582 | 1.083 | 1.086 |
| 14 | 16.435 | 16.510 | 0.577 | 0.580 | 1.078 | 1.083 |
| 21 | 16.356 | 16.472 | 0.575 | 0.579 | 1.072 | 1.080 |
| 28 | 16.277 | 16.433 | 0.572 | 0.577 | 1.067 | 1.078 |
| 42 | 16.119 | 16.355 | 0.566 | 0.575 | 1.057 | 1.072 |
| 50 | 16.030 | 16.310 | 0.563 | 0.573 | 1.051 | 1.070 |
| 100 | 15.484 | 16.033 | 0.544 | 0.563 | 1.015 | 1.051 |

**Table A 93** **FOCUS Step 1 and 2 actual and time-weighted average PECsw for R401553 following multiple application of 2 x 150 g a.s. ha$^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] |
| 0 | 11.626 | - | 0.724 | - | 1.347 | - |
| 1 | 11.597 | 11.612 | 0.718 | 0.721 | 1.340 | 1.344 |
| 2 | 11.589 | 11.603 | 0.718 | 0.719 | 1.340 | 1.342 |
| 4 | 11.573 | 11.592 | 0.717 | 0.718 | 1.338 | 1.340 |
| 7 | 11.549 | 11.579 | 0.715 | 0.717 | 1.335 | 1.339 |
| 14 | 11.493 | 11.550 | 0.712 | 0.715 | 1.328 | 1.335 |
| 21 | 11.438 | 11.522 | 0.708 | 0.713 | 1.322 | 1.332 |
| 28 | 11.382 | 11.494 | 0.705 | 0.712 | 1.316 | 1.329 |
| 42 | 11.272 | 11.438 | 0.698 | 0.708 | 1.303 | 1.322 |
| 50 | 11.210 | 11.407 | 0.694 | 0.706 | 1.296 | 1.318 |
| 100 | 10.828 | 11.212 | 0.670 | 0.694 | 1.252 | 1.296 |

**Table A 94** **FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sed}$ for R401553 following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 16.440 | - | 1.027 | - | 1.917 | - |
| 1 | 16.584 | 16.512 | 1.026 | 1.026 | 1.916 | 1.916 |
| 2 | 16.573 | 16.545 | 1.025 | 1.026 | 1.914 | 1.916 |
| 4 | 16.550 | 16.553 | 1.024 | 1.025 | 1.912 | 1.914 |
| 7 | 16.515 | 16.544 | 1.022 | 1.024 | 1.908 | 1.912 |
| 14 | 16.435 | 16.510 | 1.017 | 1.022 | 1.898 | 1.908 |
| 21 | 16.356 | 16.472 | 1.012 | 1.019 | 1.889 | 1.903 |
| 28 | 16.277 | 16.433 | 1.007 | 1.017 | 1.880 | 1.898 |
| 42 | 16.119 | 16.355 | 0.997 | 1.012 | 1.862 | 1.889 |
| 50 | 16.030 | 16.310 | 0.992 | 1.009 | 1.852 | 1.884 |
| 100 | 15.484 | 16.033 | 0.958 | 0.992 | 1.788 | 1.852 |

**R402173, worst-case for water ($K_{,foc}$ = 25 mL g$^{-1}$)**

**Table A 95** **FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sw}$ for R402173 following single application of 1 x 150 g a.s. ha$^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] | Actual [µg L$^{-1}$] | TWA [µg L$^{-1}$] |
| 0 | 15.567 | - | 0.778 | - | 1.529 | - |
| 1 | 15.554 | 15.560 | 0.777 | 0.777 | 1.527 | 1.528 |
| 2 | 15.543 | 15.554 | 0.776 | 0.777 | 1.526 | 1.527 |
| 4 | 15.522 | 15.543 | 0.775 | 0.776 | 1.524 | 1.526 |
| 7 | 15.489 | 15.527 | 0.774 | 0.776 | 1.521 | 1.525 |
| 14 | 15.414 | 15.490 | 0.770 | 0.774 | 1.514 | 1.521 |
| 21 | 15.340 | 15.452 | 0.766 | 0.772 | 1.506 | 1.517 |
| 28 | 15.266 | 15.415 | 0.763 | 0.770 | 1.499 | 1.514 |
| 42 | 15.118 | 15.340 | 0.755 | 0.766 | 1.485 | 1.506 |
| 50 | 15.035 | 15.298 | 0.751 | 0.764 | 1.476 | 1.502 |
| 100 | 14.522 | 15.038 | 0.725 | 0.751 | 1.426 | 1.477 |

**Table A 96** **FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sed}$ for R402173 following single application of 1 x 150 g a.s. $ha^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 3.878 | - | 0.194 | - | 0.382 | - |
| 1 | 3.889 | 3.883 | 0.194 | 0.194 | 0.382 | 0.382 |
| 2 | 3.886 | 3.885 | 0.194 | 0.194 | 0.381 | 0.382 |
| 4 | 3.880 | 3.884 | 0.194 | 0.194 | 0.381 | 0.381 |
| 7 | 3.872 | 3.881 | 0.193 | 0.194 | 0.380 | 0.381 |
| 14 | 3.854 | 3.872 | 0.192 | 0.193 | 0.378 | 0.380 |
| 21 | 3.835 | 3.863 | 0.191 | 0.193 | 0.376 | 0.379 |
| 28 | 3.816 | 3.853 | 0.191 | 0.192 | 0.375 | 0.378 |
| 42 | 3.780 | 3.835 | 0.189 | 0.191 | 0.371 | 0.376 |
| 50 | 3.759 | 3.824 | 0.188 | 0.191 | 0.369 | 0.375 |
| 100 | 3.631 | 3.759 | 0.181 | 0.188 | 0.356 | 0.369 |

**Table A 97** **FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sw}$ for R402173 following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 15.567 | - | 1.005 | - | 1.964 | - |
| 1 | 15.554 | 15.560 | 1.004 | 1.005 | 1.962 | 1.963 |
| 2 | 15.543 | 15.554 | 1.003 | 1.004 | 1.960 | 1.962 |
| 4 | 15.522 | 15.543 | 1.002 | 1.003 | 1.958 | 1.960 |
| 7 | 15.489 | 15.527 | 1.000 | 1.002 | 1.954 | 1.958 |
| 14 | 15.414 | 15.490 | 0.995 | 1.000 | 1.944 | 1.954 |
| 21 | 15.340 | 15.452 | 0.990 | 0.998 | 1.935 | 1.949 |
| 28 | 15.266 | 15.415 | 0.985 | 0.995 | 1.925 | 1.944 |
| 42 | 15.118 | 15.340 | 0.976 | 0.990 | 1.907 | 1.935 |
| 50 | 15.035 | 15.298 | 0.971 | 0.988 | 1.896 | 1.929 |
| 100 | 14.522 | 15.038 | 0.937 | 0.971 | 1.832 | 1.897 |

**Table A 98** **FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sed}$ for R402173 following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 3.878 | - | 0.251 | - | 0.490 | - |
| 1 | 3.889 | 3.883 | 0.251 | 0.251 | 0.490 | 0.490 |
| 2 | 3.886 | 3.885 | 0.251 | 0.251 | 0.490 | 0.490 |
| 4 | 3.880 | 3.884 | 0.250 | 0.251 | 0.489 | 0.490 |
| 7 | 3.872 | 3.881 | 0.250 | 0.250 | 0.488 | 0.489 |
| 14 | 3.854 | 3.872 | 0.249 | 0.250 | 0.486 | 0.488 |
| 21 | 3.835 | 3.863 | 0.247 | 0.249 | 0.483 | 0.487 |
| 28 | 3.816 | 3.853 | 0.246 | 0.249 | 0.481 | 0.486 |
| 42 | 3.780 | 3.835 | 0.244 | 0.247 | 0.476 | 0.483 |
| 50 | 3.759 | 3.824 | 0.243 | 0.247 | 0.474 | 0.482 |
| 100 | 3.631 | 3.759 | 0.234 | 0.243 | 0.458 | 0.474 |

**R402173, worst-case for sediment ($K_{,foc}$ = 200 mL $g^{-1}$)**

**Table A 99 FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sw}$ for R402173 following single application of 1 x 150 g a.s. $ha^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 12.709 | - | 0.636 | - | 1.249 | - |
| 1 | 12.689 | 12.699 | 0.634 | 0.635 | 1.246 | 1.247 |
| 2 | 12.680 | 12.692 | 0.633 | 0.634 | 1.245 | 1.246 |
| 4 | 12.662 | 12.681 | 0.632 | 0.634 | 1.243 | 1.245 |
| 7 | 12.636 | 12.668 | 0.631 | 0.633 | 1.241 | 1.244 |
| 14 | 12.575 | 12.637 | 0.628 | 0.631 | 1.235 | 1.241 |
| 21 | 12.514 | 12.606 | 0.625 | 0.630 | 1.229 | 1.238 |
| 28 | 12.454 | 12.575 | 0.622 | 0.628 | 1.223 | 1.235 |
| 42 | 12.333 | 12.515 | 0.616 | 0.625 | 1.211 | 1.229 |
| 50 | 12.265 | 12.480 | 0.613 | 0.623 | 1.204 | 1.226 |
| 100 | 11.847 | 12.268 | 0.592 | 0.613 | 1.163 | 1.205 |

**Table A 100** **FOCUS Step 1 and 2 actual and time-weighted average PECsed for R402173 following single application of 1 x 150 g a.s. $ha^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 25.309 | - | 1.268 | - | 2.492 | - |
| 1 | 25.377 | 25.343 | 1.267 | 1.267 | 2.490 | 2.491 |
| 2 | 25.360 | 25.356 | 1.266 | 1.267 | 2.489 | 2.490 |
| 4 | 25.325 | 25.349 | 1.264 | 1.266 | 2.485 | 2.489 |
| 7 | 25.272 | 25.327 | 1.261 | 1.264 | 2.480 | 2.486 |
| 14 | 25.150 | 25.269 | 1.255 | 1.261 | 2.468 | 2.480 |
| 21 | 25.028 | 25.209 | 1.249 | 1.258 | 2.456 | 2.474 |
| 28 | 24.907 | 25.149 | 1.243 | 1.255 | 2.444 | 2.468 |
| 42 | 24.666 | 25.028 | 1.231 | 1.249 | 2.421 | 2.456 |
| 50 | 24.530 | 24.959 | 1.224 | 1.246 | 2.407 | 2.449 |
| 100 | 23.694 | 24.535 | 1.183 | 1.225 | 2.325 | 2.408 |

**Table A 101** **FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sw}$ for R402173 following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] | Actual [µg $L^{-1}$] | TWA [µg $L^{-1}$] |
| 0 | 12.709 | - | 0.823 | - | 1.604 | - |
| 1 | 12.689 | 12.699 | 0.819 | 0.821 | 1.600 | 1.602 |
| 2 | 12.680 | 12.692 | 0.819 | 0.820 | 1.599 | 1.601 |
| 4 | 12.662 | 12.681 | 0.817 | 0.819 | 1.597 | 1.600 |
| 7 | 12.636 | 12.668 | 0.816 | 0.818 | 1.594 | 1.598 |
| 14 | 12.575 | 12.637 | 0.812 | 0.816 | 1.586 | 1.594 |
| 21 | 12.514 | 12.606 | 0.808 | 0.814 | 1.578 | 1.590 |
| 28 | 12.454 | 12.575 | 0.804 | 0.812 | 1.571 | 1.586 |
| 42 | 12.333 | 12.515 | 0.796 | 0.808 | 1.556 | 1.578 |
| 50 | 12.265 | 12.480 | 0.792 | 0.806 | 1.547 | 1.574 |
| 100 | 11.847 | 12.268 | 0.765 | 0.792 | 1.494 | 1.547 |

**Table A 102 FOCUS Step 1 and 2 actual and time-weighted average $PEC_{sed}$ for R402173 following multiple application of 2 x 150 g a.s. $ha^{-1}$ to winter or spring cereals at BBCH-stage 30-69 (average interception)**

| | Step 1 | | Step 2 | | | |
|---|---|---|---|---|---|---|
| Region | | | North Europe | | South Europe | |
| Season | | | Mar. - May | | Mar. - May | |
| Time [d] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] | Actual [µg $kg^{-1}$] | TWA [µg $kg^{-1}$] |
| 0 | 25.309 | - | 1.638 | - | 3.201 | - |
| 1 | 25.377 | 25.343 | 1.637 | 1.638 | 3.198 | 3.200 |
| 2 | 25.360 | 25.356 | 1.636 | 1.637 | 3.196 | 3.198 |
| 4 | 25.325 | 25.349 | 1.634 | 1.636 | 3.192 | 3.196 |
| 7 | 25.272 | 25.327 | 1.630 | 1.634 | 3.185 | 3.193 |
| 14 | 25.150 | 25.269 | 1.622 | 1.630 | 3.170 | 3.185 |
| 21 | 25.028 | 25.209 | 1.615 | 1.626 | 3.154 | 3.177 |
| 28 | 24.907 | 25.149 | 1.607 | 1.622 | 3.139 | 3.170 |
| 42 | 24.666 | 25.028 | 1.591 | 1.615 | 3.109 | 3.155 |
| 50 | 24.530 | 24.959 | 1.582 | 1.610 | 3.092 | 3.146 |
| 100 | 23.694 | 24.535 | 1.529 | 1.583 | 2.986 | 3.092 |