Review of the existing maximum residue levels for fluxapyroxad according to Article 12 of Regulation (EC) No 396/2005

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Abstract

According to Article 12 of Regulation (EC) No 396/2005, EFSA has reviewed the maximum residue levels (MRLs) currently established at European level for the pesticide active substance fluxapyroxad. To assess the occurrence of fluxapyroxad residues in plants, processed commodities, rotational crops and livestock, EFSA considered the conclusions derived in the framework of Commission Regulation (EU) No 188/2011, the MRLs established by the Codex Alimentarius Commission as well as the import tolerances and European authorisations reported by Member States (including the supporting residues data). Based on the assessment of the available data, MRL proposals were derived and a consumer risk assessment was carried out. Although no apparent risk to consumers was identified, some information required by the regulatory framework was missing. Hence, the consumer risk assessment is considered indicative only and some MRL proposals derived by EFSA still require further consideration by risk managers.

Keywords: fluxapyroxad, BAS 700 F, MRL review, Regulation (EC) No 396/2005, consumer risk assessment, fungicide

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Summary

Fluxapyroxad was approved on 1 January 2013 by means of Commission Implementing Regulation (EU) No 589/2012 in the framework of Regulation (EC) No 1107/2009 as amended by Commission Implementing Regulations (EU) No 540/2011 and 541/2011.

As the active substance was approved after the entry into force of Regulation (EC) No 396/2005 on 2 September 2008, the European Food Safety Authority (EFSA) is required to provide a reasoned opinion on the review of the existing maximum residue levels (MRLs) for that active substance in compliance with Article 12(1) of the aforementioned regulation.

As the basis for the MRL review, on 15 June 2018, EFSA initiated the collection of data for this active substance. In a first step, Member States were invited to submit by 16 July 2018 their national Good Agricultural Practices (GAPs) in a standardised way, in the format of specific GAP forms, allowing the designated rapporteur Member State (RMS), France, to identify the critical GAPs in the format of a specific GAP overview file. Subsequently, Member States were requested to provide residue data supporting the critical GAPs, within a period of 1 month, by 19 October 2018. On the basis of all the data submitted by Member States and by the EU Reference Laboratories for Pesticides Residues (EURLs), EFSA asked the RMS to complete the Pesticide Residues Overview File (PROFile) and to prepare a supporting evaluation report. The PROFile and evaluation report, together with Pesticide Residues Intake Model (PRIMO) calculations and an updated GAP overview file were provided by the RMS to EFSA on 19 December 2018. Subsequently, EFSA performed the completeness check of these documents with the RMS. The outcome of this exercise including the clarifications provided by the RMS, if any, was compiled in the completeness check report.

Based on the information provided by the RMS, Member States and the EURLs, and taking into account the conclusions derived by EFSA in the framework of Commission Regulation (EU) No 188/2011 and the MRLs established by the Codex Alimentarius Commission, EFSA prepared in October 2019 a draft reasoned opinion, which was circulated to Member States for consultation via a written procedure. Comments received by 20 November 2019 were considered during the finalisation of this reasoned opinion. The following conclusions are derived.

The metabolism of fluxapyroxad in plant was investigated in primary and rotational crops. According to the results of the metabolism studies, the residue definition for enforcement and risk assessment can be proposed as fluxapyroxad. These residue definitions are also applicable to processed commodities. Fully validated analytical methods are available for the enforcement of the proposed residue definition in all four main plant matrices at the limit of quantification (LOQ) of 0.01 mg/kg. According to the EURLs, the LOQ of 0.01 mg/kg is achievable by using the QuEChERS method in routine analyses.

The available data on primary crops are considered sufficient to derive (tentative) MRL proposals as well as risk assessment values for all commodities under evaluation, except for garlic, onions and shallots where data were insufficient to derive MRLs.

MRLs and risk assessment values considering a worst-case scenario reflecting crop failure (PBI of 30 days) were also derived for rotational crops on a tentative basis. For garlic, onions and shallots, the (tentative) MRL and risk assessment values derived are based on the results of the rotational field trials on roots, since no residue trials on primary uses were available. For fruiting vegetables and pulses and oilseeds, the tentative MRLs are based on the primary uses only, since representative of these crop groups was not assessed in the rotational crop field studies.

Since the rotational crop field studies were underdosed compared to the total predicted environmental concentration in soil (PECsoil total) for the authorised uses in annual crops, the possible occurrence of residues of fluxapyroxad at levels higher than the derived (tentative) MRLs, following multiannual applications, cannot be excluded. Therefore, Member States granting an authorisation should request additional rotational crop field studies conducted with application rates that cover the plateau background concentrations for these crops. Pending the submission of these studies, Member States are recommended to implement appropriate mitigation measures in order to avoid exceedances of the derived MRLs.

Fluxapyroxad is authorised for use on crops that might be fed to livestock. Livestock dietary burden calculations were therefore performed for different groups of livestock according to OECD guidance. The dietary burdens calculated for all groups of livestock were found to exceed the trigger value of 0.1 mg/kg dry matter (DM). Behaviour of residues was therefore assessed in all commodities of animal origin.
The metabolism of fluxapyroxad residues in livestock was investigated in lactating goats and laying hens at dose rate covering the maximum dietary burdens calculated in this review. According to the results of these studies, the residue definitions were proposed for enforcement as fluxapyroxad only, and for risk assessment as sum of fluxapyroxad and metabolite M700F008, expressed as parent equivalent. An analytical method for the enforcement of the proposed residue definition at the LOQ of 0.01 mg/kg in all animal tissues and 0.001 mg/kg in milk and eggs is available. According to the EURLs screening data for commodities of animal origin show that fluxapyroxad can be monitored in meat with a screening detection limit (SDL) of 0.0025 mg/kg and in milk with an SDL of 0.005 mg/kg.

Livestock feeding studies on animal were used to derive (tentative) MRL and risk assessment values in milk, eggs and tissues of ruminants and poultry. Since extrapolation from ruminants to pigs is acceptable, results of the livestock feeding study on ruminants were relied upon to derive the (tentative) MRL and risk assessment values in pigs.

Chronic and acute consumer exposure resulting from the authorised uses reported in the framework of this review was calculated using revision 3 of the EFSA PRIMO. For those commodities where data were insufficient to derive an MRL, EFSA considered the existing EU MRL for an indicative calculation. The highest chronic exposure was calculated for Dutch toddler, representing 44% of the acceptable daily intake (ADI), and the highest acute exposure was calculated for celeries, representing 77% of the acute reference dose (ARfD).

Apart from the MRLs evaluated in the framework of this review, internationally recommended Codex MRLs (CXLs) have also been established for fluxapyroxad. Additional calculations of the consumer exposure, considering these CXLs were performed, the highest chronic exposure was calculated for Dutch toddler representing 55% of the ADI and the highest acute exposure was calculated for celeries, representing 77% of the ARfD.

Although uncertainties remain due to the data gaps identified, these indicative exposure calculations did not indicate a risk to consumer’s health.
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Background

Regulation (EC) No 396/2005\(^1\) (hereinafter referred to as 'the Regulation') establishes the rules governing the setting and the review of pesticide maximum residue levels (MRLs) at European level. Article 12(1) of that Regulation stipulates that the European Food Safety Authority (EFSA) shall provide, within 12 months from the date of the inclusion or non-inclusion of an active substance in Annex I to Directive 91/414/EEC\(^2\) a reasoned opinion on the review of the existing MRLs for that active substance.

As fluxapyroxad was approved on 1 January 2013 by means of Commission Implementing Regulation (EU) No 589/2012\(^3\) in the framework of Regulation (EC) No 1107/2009\(^4\) as amended by Commission Implementing Regulations (EU) No 540/2011\(^5\) and 541/2011\(^6\), EFSA initiated the review of all existing MRLs for that active substance.

By way of background information, in the framework of Commission Regulation (EU) No 188/2011\(^7\), Fluxapyroxad was evaluated by France, designated as rapporteur Member State (RMS). Subsequently, a peer review on the initial evaluation of the RMS was conducted by EFSA, leading to the conclusions as set out in the EFSA scientific output (EFSA, 2012).

According to the legal provisions, EFSA shall base its reasoned opinion in particular on the relevant assessment report prepared under Directive 91/414/EEC repealed by Regulation (EC) No 1107/2009. It should be noted, however, that, in the framework of Regulation (EC) No 1107/2009, only a few representative uses are evaluated, whereas MRLs set out in Regulation (EC) No 396/2005 should accommodate all uses authorised within the European Union (EU), and uses authorised in third countries that have a significant impact on international trade. The information included in the assessment report prepared under Regulation (EC) No 1107/2009 is therefore insufficient for the assessment of all existing MRLs for a given active substance.

To gain an overview of the pesticide residues data that have been considered for the setting of the existing MRLs, EFSA developed the Pesticide Residues Overview File (PROFile). The PROFile is an inventory of all pesticide residues data relevant to the risk assessment and MRL setting for a given active substance. This includes data on:

- the nature and magnitude of residues in primary crops;
- the nature and magnitude of residues in processed commodities;
- the nature and magnitude of residues in rotational crops;
- the nature and magnitude of residues in livestock commodities;
- the analytical methods for enforcement of the proposed MRLs.

As the basis for the MRL review, on 15 June 2018, EFSA initiated the collection of data for this active substance. In a first step, Member States were invited to submit by 16 July 2018 their Good Agricultural Practices (GAPs) that are authorised nationally, in a standardised way, in the format of specific GAP forms. In the framework of this consultation, 18 Member States provided feedback on their national authorisations of fluxapyroxad. Based on the GAP data submitted, the designated RMS France was asked to identify the critical GAPs to be further considered in the assessment, in the format of specific GAP overview file. Subsequently, in a second step, Member States were requested to provide residue data supporting the critical GAPs by 19 October 2018.

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1 Regulation (EC) No 396/2005 of the European Parliament and of the Council of 23 February 2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC. OJ L 70, 16.3.2005, p. 1–16.
2 Council Directive 91/414/EEC of 15 July 1991 concerning the placing of plant protection products on the market. OJ L 230, 19.8.1991, p. 1–32. Repealed by Regulation (EC) No 1107/2009.
3 Commission Implementing Regulation (EU) No 589/2012 of 4 July 2012 approving the active substance fluxapyroxad, in accordance with Regulation (EC) No 1107/2009 of the European Parliament and of the Council concerning the placing of plant protection products on the market, and amending the Annex to Commission Implementing Regulation (EU) No 540/2011. OJ L 175, 5.7.2012, p. 7–10.
4 Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC. OJ L 309, 24.11.2009, p. 1–50.
5 Commission Implementing Regulation (EU) No 540/2011 of 25 May 2011 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards the list of approved active substances. OJ L 153, 11.6.2011, p. 1–186.
6 Commission Implementing Regulation (EU) No 541/2011 of 1 June 2011 amending Implementing Regulation (EU) No 540/2011 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards the list of approved active substances. OJ L 153, 11.6.2011, p. 187–188.
7 Commission Regulation (EU) No 188/2011 of 25 February 2011 laying down detailed rules for the implementation of Council Directive 91/414/EEC as regards the procedure for the assessment of active substances which were not on the market 2 years after the date of notification of that Directive. OJ No L 53, 26.2.2011, p. 51–55.
On the basis of all the data submitted by Member States and the EU Reference Laboratories for Pesticides Residues (EURLs), EFSA asked France to complete the PROFile and to prepare a supporting evaluation report. The PROFile and the supporting evaluation report, together with the Pesticide Residues Intake Model (PRIMo) calculations and an updated GAP overview file, were submitted to EFSA on 19 December 2018. Subsequently, EFSA performed the completeness check of these documents with the RMS. The outcome of this exercise including the clarifications provided by the RMS, if any, was compiled in the completeness check report. During this completeness check, an additional PROFile was compiled to perform the calculation of MRLs in rotational crops.

Considering all the available information and taking into account the MRLs established by the Codex Alimentarius Commission (CAC) (i.e. codex maximum residue limit; CXLs), EFSA prepared in October 2019 a draft reasoned opinion, which was circulated to Member States for commenting via a written procedure. All comments received by 20 November 2019 were considered by EFSA during the finalisation of the reasoned opinion.

The evaluation report submitted by the RMS (France, 2018), taking into account also the information provided by Member States during the collection of data, and the EURLs report on analytical methods (EURLs, 2018) are considered as main supporting documents to this reasoned opinion and, thus, made publicly available.

In addition, further supporting documents to this reasoned opinion are the completeness check report (EFSA, 2019a) and the Member States consultation report (EFSA, 2019b). These reports are developed to address all issues raised in the course of the review, from the initial completeness check to the reasoned opinion. Furthermore, the exposure calculations for all crops reported in the framework of this review performed using the EFSA Pesticide Residues Intake Model (PRIMo) and the PROFiles as well as the GAP overview file listing all authorised uses and import tolerances are key supporting documents and made publicly available as background documents to this reasoned opinion. A screenshot of the report sheet of the PRIMo is presented in Appendix C.

Terms of Reference

According to Article 12 of Regulation (EC) No 396/2005, EFSA shall provide a reasoned opinion on:

- the inclusion of the active substance in Annex IV to the Regulation, when appropriate;
- the necessity of setting new MRLs for the active substance or deleting/modifying existing MRLs set out in Annex II or III of the Regulation;
- the inclusion of the recommended MRLs in Annex II or III to the Regulation;
- the setting of specific processing factors as referred to in Article 20(2) of the Regulation.

The active substance and its use pattern

Fluxapyroxad is the ISO common name for 3-(difluoromethyl)-1-methyl-N-(3',4',5'-trifluorobiphenyl-2-yl)pyrazole-4-carboxamide (IUPAC). The chemical structure of the active substance and its main metabolites are reported in Appendix F.

The EU MRLs for fluxapyroxad are established in Annexes IIIA of Regulation (EC) No 396/2005. Codex maximum residue limits (CXLs) for fluxapyroxad were also established by the Codex Alimentarius Commission (CAC). An overview of the MRL changes that occurred since the entry into force of the Regulation mentioned above is provided below (Table 1).

| Procedure              | Legal implementation | Remarks                      |
|------------------------|----------------------|------------------------------|
| MRL application        | Regulation (EC) No 2018/685 | In various crops (EFSA, 2017) |
|                        | Regulation (EC) No 2016/1902 | In various crops (EFSA, 2016a) |
|                        | Regulation (EC) No 2016/486  | Grapes and potatoes (EFSA, 2015b) |
|                        | Regulation (EC) No 978/2011 | In various commodities (EFSA, 2011) |
| Implementation of CAC | Regulation (EC) No 2017/626 | 47th CCPR (EFSA, 2015a) |
|                        | Regulation (EC) No 491/2014 | 45th CCPR (EFSA, 2013) |
For the purpose of this MRL review, all the uses of fluxapyroxad currently authorised within the EU and in third countries as submitted by the Member States during the GAP collection, have been reported by the RMS in the GAP overview file. The critical GAPs identified in the GAP overview file were then summarised in the PROFile and considered in the assessment. The details of the authorised critical GAPs for fluxapyroxad are given in Appendix A.

Assessment

EFSA has based its assessment on the following documents:

- the PROFile submitted by the RMS;
- the additional PROFile prepared by EFSA for the calculation of MRLs in rotational crops;
- the evaluation report accompanying the submitted PROFile (France, 2018);
- the draft assessment report (DAR) and its addenda prepared under Council Directive 91/414/EEC (United Kingdom, 2011a,b);
- the conclusion on the peer review of the pesticide risk assessment of the active substance fluxapyroxad (EFSA, 2012);
- the Joint Meeting on Pesticide residues (JMPR) Evaluation report (FAO, 2012, 2015);
- the previous reasoned opinions on fluxapyroxad (EFSA, 2011, 2015b, 2016a, 2017).

The assessment is performed in accordance with the legal provisions of the uniform principles for evaluation and authorisation of plant protection products as set out in Commission Regulation (EU) No 546/2011 and the currently applicable guidance documents relevant for the consumer risk assessment of pesticide residues (European Commission, 1997a–g, 2000, 2010a,b, 2017; OECD, 2011, 2013).

More detailed information on the available data and on the conclusions derived by EFSA can be retrieved from the list of end points reported in Appendix B.

1. Residues in plants

1.1. Nature of residues and methods of analysis in plants

1.1.1. Nature of residues in primary crops

The metabolism of fluxapyroxad was investigated following foliar applications in fruits, pulses and oilseeds and cereals (United Kingdom, 2011b) and assessed in the framework of the peer review (EFSA, 2012). An additional metabolism study on wheat following seed treatment was submitted in support of a previous MRL application (EFSA, 2015b). In all studies fluxapyroxad was radiolabelled in both the aniline and pyrazole rings of the molecule.

After foliar applications on tomatoes and wheat, fluxapyroxad was the major component of the radioactive residues, accounting for 54% total radioactive residue (TRR) up to more than 90% TRR and residue concentrations of 0.03 mg/kg in wheat grains and up to 0.16 mg/kg in tomato fruits (EFSA, 2012). Fluxapyroxad was more extensively metabolised in soyabean seeds, accounting for only 7% TRR up to 21% TRR, and two major metabolites were identified as M700F002 (33.5% TRR, pyrazole labelling) and M700F048 (20% TRR, aniline labelling). Minor metabolites were identified at very low levels, accounting for less than 2% of the TRR (EFSA, 2012).

After a seed treatment on wheat, fluxapyroxad was identified as the major component of the total residue, accounting for 58–79% of the TRR in forage, hay, straw and chaff and 17% of the TRR in grains (EFSA, 2015b). The metabolic pattern found in wheat after seed application was found comparable to the pathway observed in wheat after foliar application and comparable to the metabolism following foliar application in soyabean and tomato.

The metabolic pathway of fluxapyroxad was similar in fruits, pulses and oilseeds and cereals following foliar application, and in cereals after seed treatment.

The application of fluxapyroxad on witloofs is authorised for post-harvest treatment (dipping, drenching of roots, before forcing), for which no metabolism study was submitted. However, considering that the behaviour of fluxapyroxad is the same in three crop groups following foliar application and soil treatments (in rotational crops), it can be assumed that the metabolism following

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8 Commission Regulation (EU) No 546/2011 of 10 June 2011 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards uniform principles for evaluation and authorisation of plant protection products. OJ L 155, 11.6.2011, p. 127–175.
post-harvest treatment would also follow the same pathway. Therefore, no metabolism study following post-harvest treatment is required.

The application of fluxapyroxad on several root crops (e.g. potatoes) is in the form of soil treatment, for which no metabolism study was submitted. However, since the metabolism observed in rotational crops, following bare soil application, was similar to the primary crop metabolism (see Section 1.1.2), further metabolism studies in primary roots following soil treatment are not required and deemed covered by the metabolism studies in rotational crops.

1.1.2. Nature of residues in rotational crops

Fluxapyroxad is authorised on crops that may be grown in rotation. The field DT90 reported in the soil degradation studies evaluated in the framework of the peer review was higher than 1000 days (EFSA, 2012).

One confined rotational crop study with fluxapyroxad radiolabelled on the aniline and pyrazole rings of the molecule was available for this review (United Kingdom, 2011a; EFSA, 2012). Fluxapyroxad was applied once at a rate of 250 g a.s./ha onto bare soil. Spinach, white radish and spring wheat were planted at nominal plant back intervals (PBI) of 30, 120/149 and 365 days after treatment (DAT).

Residues in wheat straw were up to 2.2 mg/kg (pyrazole label) and 2.65 mg/kg (aniline label), in spinach up to 0.18 mg/kg and 0.1 mg/kg for the pyrazole and aniline labels, respectively, and in roots up to 0.015 mg/kg for both labels (United Kingdom, 2011a). Residues in wheat grain accounted for 0.043 mg/kg and 0.02 mg/kg for the pyrazole and aniline labels, respectively (United Kingdom, 2011a).

Fluxapyroxad was the major component in all matrices, while metabolite M700F002 was also present at relevant levels in all matrices. No specific compound for rotational crops was identified. The metabolism and distribution of fluxapyroxad in rotational crops are similar to the metabolic pathway observed in primary crops (EFSA, 2012).

1.1.3. Nature of residues in processed commodities

Studies investigating the nature of residues in processed commodities were assessed in the peer review (United Kingdom, 2011b; EFSA, 2012). Studies were conducted with radiolabelled fluxapyroxad on the ring simulating representative hydrolytic conditions for pasteurisation (20 min at 90°C, pH 4), boiling/brewing/baking (60 min at 100°C, pH 5) and sterilisation (20 min at 120°C, pH 6). Fluxapyroxad is stable to hydrolysis under standard conditions of pasteurisation, baking/brewing/boiling and sterilisation (EFSA, 2012).

1.1.4. Methods of analysis in plants

Adequately validated analytical methods, involving high-performance liquid chromatography with tandem mass spectrometry (HPLC-MS/MS) measurement, were submitted by the applicant, assessed during the peer review, and found being suitable for the control of fluxapyroxad residues in all major category crop groups (high water, high acid, high oil content and dry matrices) with a limit of quantification (LOQ) of 0.01 mg/kg (EFSA, 2012).

The EURLs informed EFSA that fluxapyroxad can be monitored in high water and high acid content commodities with an LOQ of 0.002 mg/kg and in dry and high oil content commodities with an LOQ of 0.005 mg/kg, and in honey with an LOQ of 0.005 mg/kg (EURLs, 2018).

Herbal infusions are classified as difficult matrices to analyse for which separate validation data would be required to demonstrate the applicability of the analytical methods. Since no analytical methods were provided for these matrices a data gap is set for these crops.

1.1.5. Stability of residues in plants

The storage stability of fluxapyroxad was investigated in the framework of the peer review (United Kingdom, 2011a,b, EFSA, 2012). Fluxapyroxad was found to be stable in all plant matrices for a period of 737 days when stored at –20°C (EFSA, 2012). Moreover, when stored at –20°C, metabolite M700F002 was stable for 824 days in all plant matrices, metabolite M700F048 for 733 days in high starch, high acid, high oil and high water content matrices and in wheat straw and metabolite M700F008 was stable 725 days in high starch matrices and in wheat straw, and up to 133 days in high oil and high water content matrices (EFSA, 2012). Fluxapyroxad was also found to be stable for 24 months at –20°C in processed products: apple juice, soybean refined oil, potato crisps, grape raisins and barley beer (United Kingdom, 2011b).
No specific study is available for the storage stability in herbal infusions and spices. However, as storage stability was investigated and demonstrated in the four main plant matrices, the most limiting storage stability conditions demonstrated for general matrices can be considered applicable to these specific matrices.

1.1.6. Proposed residue definitions

The metabolism of fluxapyroxad was similar in all crops following foliar application and seed treatment. Fluxapyroxad is the only toxicologically relevant compound to be considered in the consumer exposure. In the framework of the peer review, the residue definition for risk assessment was proposed as fluxapyroxad (EFSA, 2012). The same residue definition is proposed in the current review. The metabolism in rotational crops is similar to the metabolism observed in primary crops and the processing of fluxapyroxad is not expected to modify the nature of residues. For soil treatments, the metabolism in primary and rotational crops is depicted by the metabolism studies performed in the confined rotational crops on spinach, white radish and spring wheat.

As the parent compound was found to be a sufficient marker in fruits, pulses and oilseeds and cereals, the residue definition for enforcement is proposed as fluxapyroxad only.

An analytical method for the enforcement of the proposed residue definition at the LOQ of 0.01 mg/kg in all four main plant matrices is available (EFSA, 2012). According to the EURLs, this LOQ is achievable in all four main plant matrices (EURLs, 2018).

1.2. Magnitude of residues in plants

1.2.1. Magnitude of residues in primary crops

To assess the magnitude of fluxapyroxad residues resulting from the reported GAPs, EFSA considered all residue trials reported by the RMS in its evaluation report (France, 2018) as well as the residue trials evaluated in the framework of the peer review (United Kingdom, 2011a; EFSA, 2012) or in the framework of a previous MRL application (EFSA, 2011, 2015b, 2016a, 2017). All residue trial samples considered in this framework were stored in compliance with the conditions for which storage stability of residues was demonstrated. Decline of residues during storage of the trial samples is therefore not expected.

The number of residue trials and extrapolations were evaluated in accordance with the European guidelines on comparability, extrapolation, group tolerances and data requirements for setting MRLs (European Commission, 2017).

For garlic, onions, shallots, no residue trials were available; therefore, no MRL and risk assessment values can be derived, and the following data gaps were identified:

- Garlic, onions, shallots: eight residue trials compliant with the import tolerance GAP are required.

For all the other crops, available residue trials are sufficient to derive (tentative) MRL and risk assessment values, taking note of the following considerations:

- Apricots: although MRL and risk assessment values can be derived from the southern outdoor GAP, one additional trial on apricots compliant with the northern outdoor GAP, one additional trial compliant with the southern outdoor GAP and eight trials compliant with the import tolerance are still required.
- Peaches: although MRL and risk assessment values for peaches can be derived from the import tolerance GAP, three additional trials on peaches compliant with the southern outdoor GAP are still required.
- Carrots: although MRL and risk assessment values can be derived from northern outdoor GAP, eight trials compliant with the import tolerance are still required.
- Spring onions: although MRL and risk assessment values can be derived from southern outdoor GAP, eight trials compliant with the import tolerance are still required.
- Cauliflowers: although MRL and risk assessment values can be derived from northern outdoor GAP, eight trials compliant with the import tolerance are still required.
- Brussels sprouts: although MRL and risk assessment values can be derived from northern outdoor GAP, eight trials compliant with the southern outdoor GAP are still required.
• Lettuces: although MRL and risk assessment values can be derived from southern outdoor GAP, eight trials compliant with the import tolerance are still required.
• Peas (without pods): although MRL and risk assessment values can be derived from the import tolerance, eight trials compliant with the northern outdoor GAP are still required.

1.2.2. Magnitude of residues in rotational crops

1.2.2.1. Rotational crop field trials

Field rotational crop trials on cereals (wheat), root crops (carrots) and leafy crops (cauliﬂowers, broccoli and lettuces) were assessed in the framework of the peer review (United Kingdom, 2011a; EFSA, 2012).

The rotational crop field studies were conducted with bare soil previously treated at a rate of 250 g a.s./ha and at PBI 30, 120 and 365 DAT (United Kingdom, 2011a). Highest residue levels of fluxapyroxad were detected in carrots (0.08 mg/kg), lettuces (0.03 mg/kg) and cauliflowers/broccoli (0.06 mg/kg), 30 DAT (EFSA, 2012). In wheat grain residue level was below 0.01 mg/kg at all PBI, and in wheat straw the highest residue was below 0.01 mg/kg 30 DAT and found at 0.07 mg/kg and 0.08 mg/kg, 120 and 365 DAT, respectively. No significant levels of metabolites M700F002, M700F008 and M700F048 were detected in edible parts of crops at all PBIs, since metabolite residue levels were always below the LOQ (< 0.01-0.02 mg/kg) (EFSA, 2012, 2017). Regarding the concentration of fluxapyroxad in soil, immediately after application, the residues of fluxapyroxad ranged from 0.024 to 0.114 mg/kg (United Kingdom, 2011a). After a 30-day replant interval, ploughing and planting/sowing of the crops, the residue levels in soil were lower (0.016-0.077 mg/kg) (United Kingdom, 2011a).

Detailed information on the concentration of fluxapyroxad in the different soils tested were missing (only a range was given). Moreover, EFSA could not retrieve information on the residue level in soil for the 120 DAT and 365 DAT in the study.

1.2.2.2. Calculation of concentrations in soil following multiannual applications

In order to assess whether the available rotational crop field studies (and consequently the MRLs derived under Section 1.2.2.3. cover the plateau in soil expected after multiannual applications according to the most critical GAPs currently authorised, EFSA made a comparison between the soil concentration measured at 30 DAT in rotational crop field studies and the total predicted environmental concentration in soil (PECsoil total9) of fluxapyroxad resulting from the use of fluxapyroxad at the most critical GAPs (PEC plateau background) that can be rotated plus the maximal seasonal application rate with applications being made every year for 13 years. This comparison was made for the most critical GAP that can be rotated: potatoes (NEU, SEU); and for the less critical GAP that can be rotated: cucurbits (NEU, SEU).

Considering the NEU and SEU GAP for potatoes (1 × 240 g a.s./ha at BBCH 00), the PECsoil total resulting from applications being made every year for 13 years is 0.2488 mg/kg soil immediately after an application and 0.2312 mg/kg soil 28 days after.

Considering the NEU/SEU GAP for cucurbits (3 × 45 g a.s./ha; PHI 3 days) including 50% crop interception (22.5 g a.s./ha reaching soil), the PECsoil total resulting from applications being made every year for 13 years is 0.04 mg/kg soil immediately after an application and 0.033 mg/kg soil 28 days later.

Therefore, according to the soil concentrations measured in the rotational crop field study (0.016-0.077 mg/kg soil) and considering the PECsoil total as calculated above, the study was under dosed compared to the predicted accumulated soil residue with mixing over 20 cm following multiannual application for all the uses currently authorised on crops that can be rotated.

The range of GAPs modelled below for PECsoil total are deemed to cover the application rates in crops that can be rotated reported in this review. The crop rotational field studies are not covering the soil concentration range following multiannual applications for all the uses assessed above, i.e. PECsoil total calculated is higher than the soil concentrations analysed in the rotational crop field studies.

1.2.2.3. Calculation of MRLs in rotational crops

For the annual crops under consideration, EFSA performed a rough estimate whether a significant uptake of fluxapyroxad residues from the soil is expected and would contribute to the overall

9 Assuming a soil density of 1.5 g/cm², a soil depth of 20 cm and considering the DT values in soil (DFOP kinetics (DT50 of 378 days and DT90 > 1,000 days) k1 = 0.0321, k2 = 0.00069, g = 0.3502)).
fluxapyroxad residues in the crops under consideration. The assessment was based on the data from available rotational crop field studies (United Kingdom, 2011a).

The MRL review should be performed according to the old data requirements applicable at the time of the peer review. Nevertheless, as the EC guidance document on rotational crops (European Commission, 1997c) provides only limited guidance on how to derive MRLs for rotational crops, EFSA followed the methodology described by the recent OECD guidance on rotational crops (OECD, 2018) which is in principle fully applicable only with the new data requirements.

Residues from rotational uses were extrapolated from lettuces to all leafy vegetables, from cauliflowers/broccoli to brassicas, from carrots/turnips to root/tuber vegetables and also on a tentative basis from root/tuber vegetables to bulb vegetables, and finally from wheat grain and straw to cereals grain and straw. Residues resulting from the primary crop use were compared to the residue levels observed through soil uptake in the rotational field trials to the corresponding crop groups. For several crops (e.g. fruiting vegetables, pulses and oilseeds), it was not possible to compare the results of residues from primary uses with the residue in rotational crop field trials, since representatives of these crop groups were not used in the field rotational studies. Nevertheless, as the application on fruiting vegetables and oilseeds is done by foliar treatment close to the harvest (PHI 3–7 days), it is assumed that residues resulting from primary uses will be the main driver for the total residues in these crops. Although no trials on primary uses were available for some feed items (e.g. rice straw), these are not considered relevant when the feed item is authorised as import tolerance only. Therefore, no specific calculation was done for feed items authorised as import tolerances only.

Based on the rotational field studies and considering the worst-case scenario of crop failure (PBI of 30 days), highest residues were 0.08 mg/kg, 0.06 mg/kg, < 0.01 mg/kg and 0.41 mg/kg in root and tuber vegetables, leafy vegetables, cereals grain and straw, respectively.

In case the residues (highest residue (HR) values) in rotational crops were not higher than 25% compared to the highest residue observed in the respective crop from primary uses, the primary uses were considered to cover the residues from the combined sources. If the uptake of residues from rotational crops exceeded 25% of the residue from primary uses the HR in rotational crops was added to each value of the data set used for MRL calculation on the primary crop, in order to derive the combined MRLs and risk assessment values.

For turnip tops, it was not possible to conclude if rotational crops would lead to an increase in residue levels since residues in primary uses were missing. Therefore, the HR and supervised trials median residue (STMR) values from the rotational trials on carrot/radish tops were used to derive a tentative MRL for this crop. In addition, for garlic, onions and shallots (authorised uses as import tolerances only), there were also no residue trials for the primary uses; therefore, HR and STMR values from the rotational trials on carrot/radish roots were used to derive tentative MRL and risk assessment values for these crops. For roots and Brassica vegetables for which no authorised use was reported, HR and STMR values from the rotational trials were used to derive tentative MRLs and risk assessment values.

An overview of the derived tentative MRLs is reported in Appendix B.1.2.2.(c).

Since the rotational crop field studies were underdosed compared to the PECsoil total for the authorised uses assessed above, the possible occurrence of residues of fluxapyroxad at levels higher than the derived tentative MRLs, following multiannual applications, cannot be excluded. Therefore, Member States granting an authorisation should request additional rotational crop field studies conducted with application rates that cover the plateau background concentrations for these crops. Pending the submission of these studies, Member States are recommended to implement appropriate mitigation measures or to reconsider these uses in order to avoid exceedances of the derived MRLs.

1.2.3. Magnitude of residues in processed commodities

The effect of industrial processing and/or household preparation was assessed (EFSA, 2011, 2015b, 2016a, 2017, United Kingdom, 2011b). Additional studies on the effects of processing on the magnitude of fluxapyroxad residues during the processing of grapes, rice and sugar cane were submitted and assessed in support of an MRL application (EFSA, 2015b). Additional data in citrus peel and pulp, wheat grain and oats (grain, husk and dust) were assessed by the RMS in the framework of the current review (France, 2018).

An overview of all available processing studies is available in Appendix B.1.2.3. Robust processing factors (fully supported by data) could be derived for orange (dry pomace, juice), apple/pear (juice, sauce), plums (dried, jam), table grape (raisins), wine grapes (wet pomace, pasteurised juice, red wine), potato (flakes, chips/crisps, wet peel, peeled, boiled, microwaved boiled, fried, dried pulp),...
tomato (unpeeled and canned, paste, juice), melon (peeled), barley (brewing malt, beer, whole-meal flour), and wheat (whole-meal flour, whole-meal bread, white flour, white bread), while limited processing factors (not fully supported by data, since less than three independent studies were available) were derived for apple/pear (wet and dry pomace, canned), plums (dried, jam), peanuts (crude and refined oil, meal/press cake), sunflowers seeds (crude and refined oil, meal/press cake), rapeseeds (crude and refined oil, meal/press cake), rice (unpolished, unpolished and cooked, polished, polished and cooked, flour, bran), sugar beet (thick juice, raw sugar, white sugar, dry pulp, molasses, ensiled pulp) and sugar canes (raw sugar, refined sugar and molasses).

Further processing studies are not required as they are not expected to affect the outcome of the risk assessment. However, if more robust processing factors were to be required by risk managers for enforcement purposes, additional processing studies would be needed.

1.2.4. Proposed MRLs

The available data on primary crops are considered sufficient to derive MRL proposals as well as risk assessment values for all commodities under evaluation, except for herbal infusions and apricots where tentative MRLs are derived and for garlic, onions and shallots where data were insufficient to derive MRL.

Specific MRLs from rotational crops considering a worst-case scenario reflecting crop failure (PBI of 30 days) were also derived for potatoes, cauliflowers, Brussels sprouts and sugar beet roots on a tentative basis. For garlic, onions and shallots, tentative MRLs and risk assessment values are based on results of the rotational field trials on roots, since no residue trials on primary uses were available. For fruiting vegetables and pulses and oilseeds, the tentative MRLs are based on the primary uses only, since residues resulting from primary uses by foliar treatment close to the harvest, are expected to be the main driver for the total residues in these crops.

It is noted that the rotational crop field studies did not cover the predicted concentration in soil of fluxapyroxad resulting from multiannual applications according to all the uses reported in this review. Therefore, the MRL proposals as well as risk assessment values may not be sufficient to cover the potential residues levels in rotational crops following multiannual applications according to these authorised uses and are proposed on a tentative basis only.

Tentative MRLs were also derived for feed crops (ex: cereal straw) in view of the future need to set MRLs in feed items.

2. Residues in livestock

Fluxapyroxad is authorised for use on crops that might be fed to livestock (e.g. cereals, sugar beets). Livestock dietary burden calculations were therefore performed for different groups of livestock according to OECD guidance (OECD, 2013), which has now also been agreed upon at European level. The input values for all relevant commodities are summarised in Appendix D. Since residues from rotational crop field studies could contribute to the dietary burden, combined residue from primary uses and from rotational crop field studies were combined and used as input values (see Appendix B.1.2.2.(c)). According to this calculation, the main contributors to the dietary burden are the residue in wheat straw and rye straw from primary uses and potato (processed) from the combined residues of primary uses and rotational crop field studies. The dietary burdens calculated for all groups of livestock were found to exceed the trigger value of 0.1 mg/kg dry matter (DM). Behaviour of residues was therefore assessed in all commodities of animal origin.

2.1. Nature of residues and methods of analysis in livestock

The metabolism of fluxapyroxad residues in livestock was investigated in lactating goats and laying hens (United Kingdom, 2011a) at dose rates covering the maximum dietary burdens calculated in this review (2.5–10N). These studies were assessed in the framework of the peer review (EFSA, 2012). In all studies, fluxapyroxad was radiolabelled in the aniline and/or pyrazole ring of the molecule.

The study on lactating goats fed for 8 consecutive days with 0.4 mg/kg body weight (bw) per day showed that fluxapyroxad was rapidly excreted, with more than 80% of the TRR recovered in urine and faeces. Parent was the main constituent, while another predominant component was metabolite M700F008 present at relevant levels in ruminant matrices (EFSA, 2012).

The study performed on laying hens fed for 12 consecutive days with 11.5 mg/kg feed (equivalent to 0.4 mg/kg bw per day) showed that fluxapyroxad was extensively degraded in livestock matrix (<
0.5% and 0.18% of the TRR in tissues and eggs, respectively). The parent and metabolite M700F008 were the main constituents of the residues in hens.

In livestock, parent compound and metabolite M700F008 were the main constituents of the residues in all matrices. All other identified metabolites were present at more than 10% TRR but at levels lower than 0.003 mg/kg. Therefore, the metabolism of fluxapyroxad in livestock is adequately elucidated, and fluxapyroxad and metabolite M700F008 are the most relevant components of the residues in livestock commodities (EFSA, 2012).

As the parent compound was found to be a sufficient marker in livestock commodities, the residue definition for enforcement is proposed as fluxapyroxad only.

An analytical method using HPLC-MS/MS and its independent laboratory validation (ILV) have been provided and fully validated for the determination of fluxapyroxad in foodstuff of animal origin with an LOQ of 0.01 mg/kg for liver, kidney, fat and muscle and an LOQ of 0.001 mg/kg for milk, eggs and cream (EFSA, 2012). Screening data generated by EURsLs for commodities of animal origin show that fluxapyroxad can be monitored in meat with a screening detection limit (SDL) of 0.0025 mg/kg and in milk with an SDL of 0.005 mg/kg (EURsLs, 2018).

In the framework of the peer review upon consideration of metabolism data and mammalian toxicology information, the residue for risk assessment was defined as sum of fluxapyroxad and metabolite M700F008, expressed as parent equivalent (EFSA, 2012). The same residue definition is proposed for the current review.

### 2.2. Magnitude of residues in livestock

In the framework of the peer review, feeding studies were performed with dairy cows and laying hens (United Kingdom, 2011a; EFSA, 2012).

Livestock feeding studies were carried out on dairy cows (parent and metabolite M700F002 co-dosed for 28 consecutive days at dose levels of 0.11, 0.21, 0.65 and 2.18 mg/kg bw per day and 0.004, 0.01, 0.03 mg/kg bw per day, respectively) and laying hens (parent and metabolite M700F002 co-dosed for 28 consecutive days at dose levels of 0.019, 0.038, 0.11 and 0.38 mg/kg bw per day and 0.0015, 0.003, 0.009 and 0.03 mg/kg bw per day, respectively) and assessed in the framework of the peer review (United Kingdom, 2011a; EFSA, 2012). Samples of meat, fat, liver, kidney, milk and eggs were taken from dosed animals and analysed for fluxapyroxad and metabolites M700F008 and M700F002.

Since MRLs in feed items (cereals, potatoes) that are the major contributors to the dietary burden are derived on a tentative basis, MRLs derived for livestock products are also proposed on a tentative basis. The study performed on dairy cows and laying hens was used to derive (tentative) MRL and risk assessment values in milk, eggs and tissues of ruminants/poultry. Since extrapolation from ruminants to pigs is acceptable, results of the livestock feeding study on ruminants were relied upon to derive the MRL and risk assessment values in pigs. All samples were stored at −20°C and analysed within 30 days, and therefore, specific storage stability studies are not deemed necessary (United Kingdom, 2011a).

In the feeding study on cattle, fluxapyroxad residues were found at up to 0.0374 mg/kg in whole milk, up to 0.217 mg/kg in meat, up to 0.171 mg/kg in fat, at up to 0.094 mg/kg in liver and up to 0.019 mg/kg in kidney (highest dose level). Metabolite M700F008 was found at up to 0.0017 mg/kg in whole milk, up to 0.0052 mg/kg in cream and up to 0.032 mg/kg in liver.

In tissues and milk from all the dosing groups, metabolite M700F002 was always below the LOQs of 0.01 and 0.001 mg/kg, respectively. In the feeding study on hens, fluxapyroxad residues were found at up to 0.031 mg/kg in eggs and at low amounts in fat from the highest dose group. In all other tissues analysed, parent was always below the LOQ of 0.01 mg/kg. Metabolite M700F008 was found at up to 0.0055 mg/kg in eggs, at the LOQ of 0.01 mg/kg in liver and at low amounts in fat and liver from the highest dose group.

### 3. Consumer risk assessment

In the framework of this review, only the uses of fluxapyroxad reported by the RMS in Appendix A were considered; however, the use of fluxapyroxad was previously also assessed by the JMPR (FAO, 2012, 2015). The CXLs, resulting from these assessments by JMPR and adopted by the CAC, are now international recommendations that need to be considered by European risk managers when establishing MRLs. To facilitate consideration of these CXLs by risk managers, the consumer exposure was calculated both with and without consideration of the existing CXLs.
3.1. Consumer risk assessment without consideration of the existing CXLs

Chronic and acute exposure calculations for all crops reported in the framework of this review were performed using revision 3 of the EFSA PRIMo (EFSA, 2018). Input values for the exposure calculations were derived in compliance with the decision tree reported in Appendix E. Hence, for those commodities where an (tentative) MRL could be derived by EFSA in the framework of this review, input values were derived according to the internationally agreed methodologies (FAO, 2009). For those commodities where data were insufficient to derive an MRL in Section 1, EFSA considered the existing EU MRL for an indicative calculation. A peeling factor (PF) was applied to melons, pumpkins and watermelons (PF = 0.38). In order to include the potential uptake of fluxapyroxad from residues in crops that may be grown in rotation, HR and STMR values derived based on the rotational field trials were also considered in the calculations when appropriate (see Section 1.2.2 and Appendix B.1.2.2.(c)). All input values included in the exposure calculations are summarised in Appendix D.

The exposure values calculated were compared with the toxicological reference values for fluxapyroxad derived by EFSA (2012). The highest chronic exposure was calculated for Dutch toddler, representing 44% of the acceptable daily intake (ADI), and the highest acute exposure was calculated for celeries, representing 77% of the acute reference dose (ARfD). Although uncertainties remain due to the data gaps identified in the previous sections, this indicative exposure calculation did not indicate a risk to consumer’s health.

3.2. Consumer risk assessment with consideration of the existing CXLs

To include the CXLs in the calculations of the consumer exposure, CXLs were compared with the EU MRL proposals in compliance with Appendix E and all data relevant to the consumer exposure assessment have been collected from JMPR evaluations. An overview of the input values used for this exposure calculation is also provided in Appendix D. It is noted that the residue definitions derived in the JMPR evaluation for plants differ from the residue definition proposed by EFSA in the current review. Furthermore, the EU has made a reservation on the adoption of several CXLs due to different methodologies on extrapolation, pooling and trials numbers. Consequently, the CXLs for the following commodities were not adopted and translated into the EU Regulation: apricots, strawberries, blackberries, dewberries, raspberries, blueberries, cranberries, currants, gooseberries, rose hips, mulberries, azaroles, elderberries, carrots, parsnips, garlic, onion, shallots, tomatoes, sweet peppers, aubergines (eggplants), okra/lady’s fingers, cucumbers, gherkins, melons, pumpkins, watermelons, broccoli, cauliflower, Brussels sprouts, head cabbage, Chinese cabbage, kale, kohlrabi, roman rocket/rucola, leaves and sprouts of Brassica sp. and celery. Therefore, the CXLs of the commodities listed above were not included in the consumer risk assessment.

Peeling factors were applied to oranges (PF = 0.16), melons, pumpkins and watermelons (PF = 0.38) and to bananas (PF = 0.26). A conversion factor (CF = 3) was applied to table/wine grapes.

Chronic and acute exposure calculations were also performed using revision 3 of the EFSA PRIMo and the exposure values calculated were compared with the toxicological reference values derived for fluxapyroxad. The highest chronic exposure was calculated for Dutch toddler representing 55% of the ADI and the highest acute exposure was calculated for celeries, representing 77% of the ARfD. Although (major) uncertainties remain due to the data gaps identified for a certain number of these CXLs, this indicative exposure calculation did not indicate a risk to consumers.

Conclusions

The metabolism of fluxapyroxad in plant was investigated in primary and rotational crops. According to the results of the metabolism studies, the residue definition for enforcement and risk assessment can be proposed as fluxapyroxad. These residue definitions are also applicable to processed commodities. Fully validated analytical methods are available for the enforcement of the proposed residue definition in all four main plant matrices at the LOQ of 0.01 mg/kg. According to the EURLs, the LOQ of 0.01 mg/kg is achievable by using the QuEChERS method in routine analyses.

The available data on primary crops are considered sufficient to derive (tentative) MRL proposals as well as risk assessment values for all commodities under evaluation, except for garlic, onions and shallots where data were insufficient to derive MRLs.
MRLs and risk assessment values considering a worst-case scenario reflecting crop failure (PBI of 30 days) were also derived for rotational crops on a tentative basis. For garlic, onions and shallots, the (tentative) MRL and risk assessment values derived are based on the results of the rotational field trials on roots, since no residue trials on primary uses were available. For fruiting vegetables and pulses and oilseeds, the tentative MRLs are based on the primary uses only, since representative of these crop groups were not assessed in the rotational crop field studies.

Since the rotational crop field studies were underdosed compared to the PEC_{soil} total for the authorised uses in annual crops, the possible occurrence of residues of fluxapyroxad at levels higher than the derived (tentative) MRLs, following multiannual applications, cannot be excluded. Therefore, Member States granting an authorisation should request additional rotational crop field studies conducted with application rates that cover the plateau background concentrations for these crops. Pending the submission of these studies, Member States are recommended to implement appropriate mitigation measures in order to avoid exceedances of the derived MRLs.

Fluxapyroxad is authorised for use on crops that might be fed to livestock. Livestock dietary burden calculations were therefore performed for different groups of livestock according to OECD guidance. The dietary burdens calculated for all groups of livestock were found to exceed the trigger value of 0.1 mg/kg DM. Behaviour of residues was therefore assessed in all commodities of animal origin.

The metabolism of fluxapyroxad residues in livestock was investigated in lactating goats and laying hens at dose rate covering the maximum dietary burdens calculated in this review. According to the results of these studies, the residue definitions were proposed for enforcement as fluxapyroxad only, and for risk assessment as sum of fluxapyroxad and metabolite M700F008, expressed as parent equivalent. An analytical method for the enforcement of the proposed residue definition at the LOQ of 0.01 mg/kg in all animal tissues and 0.001 mg/kg in milk and eggs is available. According to the EURs screening data for commodities of animal origin show that fluxapyroxad can be monitored in meat with an SDL of 0.0025 mg/kg and in milk with an SDL of 0.005 mg/kg.

Livestock feeding studies on animal were used to derive (tentative) MRL and risk assessment values in milk, eggs and tissues of ruminants and poultry. Since extrapolation from ruminants to pigs is acceptable, results of the livestock feeding study on ruminants were relied upon to derive the (tentative) MRL and risk assessment values in pigs.

Chronic and acute consumer exposure resulting from the authorised uses reported in the framework of this review was calculated using revision 3 of the EFSA PRIMo. For those commodities where data were insufficient to derive an MRL, EFSA considered the existing EU MRL for an indicative calculation. The highest chronic exposure was calculated for Dutch toddler, representing 44% of the ADI, and the highest acute exposure was calculated for celeries, representing 77% of the ARfD.

Apart from the MRLs evaluated in the framework of this review, internationally recommended CXLs have also been established for fluxapyroxad. Additional calculations of the consumer exposure, considering these CXLs were performed, the highest chronic exposure was calculated for Dutch toddler representing 55% of the ADI and the highest acute exposure was calculated for celeries, representing 77% of the ARfD.

Although uncertainties remain due to the data gaps identified in the previous sections, these indicative exposure calculations did not indicate a risk to consumer’s health.

Recommendations

MRL recommendations were derived in compliance with the decision tree reported in Appendix E of the reasoned opinion (see Table 2). All MRL values listed as ‘Recommended’ in the table are sufficiently supported by data and are therefore proposed for inclusion in Annex II to the Regulation. The remaining MRL values listed in the table are not recommended for inclusion in Annex II because they require further consideration by risk managers (see Table 2 footnotes for details). In particular some tentative MRLs need to be confirmed by the following data:

- Residue trials supporting GAPs on garlic, onions, shallots;
- A representative analytical method for herbal infusions from leaves and herbs and herbal infusions from roots.
- Rotational crop field studies investigating the magnitude of residues in rotational crops covering the plateau concentration expected when fluxapyroxad is used according to the GAPs assessed in this MRL review (data gap relevant for all crops that can be grown in rotation).
Pending the submission of the rotational crop field studies, Member States are recommended to implement proper mitigation measures or to reconsider these uses in order to avoid exceedances of the derived MRLs.

It is highlighted, however, that some of the MRLs derived result from a CXL or from a GAP in one climatic zone only, whereas other GAPs reported by the RMS were not fully supported by data. EFSA therefore identified the following data gaps which are not expected to impact on the validity of the MRLs derived but which might have an impact on national authorisations:

- Additional residue trials supporting GAPs on apricots, peaches, carrots, Spring onions, cauliflowers, Brussels sprouts, lettuces and peas (without pods).

If the above reported data gaps are not addressed in the future, Member States are recommended to withdraw or modify the relevant authorisations at national level.

### Table 2: Summary table

| Code number | Commodity       | Existing EU MRL (mg/kg) | Existing CXL (mg/kg) | Outcome of the review | Comment          |
|-------------|-----------------|-------------------------|----------------------|-----------------------|------------------|
| 110010      | Grapefruit      | 0.3                     | –                    | 0.4                   | Recommended      |
| 110020      | Oranges         | 0.3                     | 0.3                  | 0.3                   | Recommended      |
| 120010      | Almonds         | 0.04                    | 0.04                 | 0.04                  | Recommended      |
| 120020      | Brazil nuts     | 0.04                    | 0.04                 | 0.04                  | Recommended      |
| 120030      | Cashew nuts     | 0.04                    | 0.04                 | 0.04                  | Recommended      |
| 120040      | Chestnuts       | 0.04                    | 0.04                 | 0.04                  | Recommended      |
| 120050      | Coconuts        | 0.04                    | 0.04                 | 0.04                  | Recommended      |
| 120060      | Hazelnuts       | 0.04                    | 0.04                 | 0.04                  | Recommended      |
| 120070      | Macadamia       | 0.04                    | 0.04                 | 0.04                  | Recommended      |
| 120080      | Pecans          | 0.04                    | 0.04                 | 0.04                  | Recommended      |
| 120090      | Pine nuts       | 0.04                    | 0.04                 | 0.04                  | Recommended      |
| 120100      | Pistachios      | 0.04                    | 0.04                 | 0.04                  | Recommended      |
| 120110      | Walnuts         | 0.04                    | 0.04                 | 0.04                  | Recommended      |
| 130010      | Apples          | 0.9                     | 0.9                  | 0.9                   | Recommended      |
| 130020      | Pears           | 0.9                     | 0.9                  | 0.9                   | Recommended      |
| 130030      | Quinces         | 0.9                     | 0.9                  | 0.9                   | Recommended      |
| 130040      | Medlar          | 0.9                     | 0.9                  | 0.9                   | Recommended      |
| 130050      | Loquat          | 0.9                     | 0.9                  | 0.9                   | Recommended      |
| 140010      | Apricots        | 1                       | –                    | 0.15                  | Further recommendation needed |
| 140020      | Cherries        | 3                       | 3                    | 3                     | Recommended      |
| 140030      | Peaches         | 1.5                     | 1.5                  | 1.5                   | Recommended      |
| 140040      | Plums           | 1.5                     | 1.5                  | 1.5                   | Recommended      |
| 151010      | Table grapes    | 3                       | 3                    | 3                     | Recommended      |
| 151020      | Wine grapes     | 3                       | 3                    | 3                     | Recommended      |
| 152000      | Strawberries    | 4                       | –                    | 4                     | Recommended      |
| 154010      | Blueberries     | 7                       | –                    | 7                     | Recommended      |
| 163020      | Bananas         | 3                       | 3                    | 3                     | Recommended      |
| 163030      | Mangoes         | 0.5                     | –                    | 0.8                   | Recommended      |
| 211000      | Potatoes        | 0.1                     | 0.03                 | 0.3                   | Further consideration needed |
| 212010      | Cassava         | 0.1                     | –                    | 0.2                   | Further recommendation needed |
| 212020      | Sweet potatoes  | 0.1                     | –                    | 0.2                   | Further recommendation needed |
| 212030      | Yams            | 0.1                     | –                    | 0.2                   | Further recommendation needed |
| 212040      | Arrowroot       | 0.1                     | –                    | 0.2                   | Further recommendation needed |
| 213010      | Beetroot        | 0.3                     | –                    | 0.5                   | Further consideration needed |
| Code number | Commodity                  | Existing EU MRL (mg/kg) | Existing CXL (mg/kg) | MRL (mg/kg) | Comment                      |
|-------------|----------------------------|-------------------------|----------------------|-------------|------------------------------|
| 213020      | Carrots                    | 0.3                     | –                    | 0.5         | Further consideration needed\(^d\) |
| 213030      | Celereic                   | 0.3                     | –                    | 0.5         | Further consideration needed\(^d\) |
| 213040      | Horseradish                | 0.3                     | –                    | 0.5         | Further consideration needed\(^d\) |
| 213050      | Jerusalem artichokes       | 0.3                     | –                    | 0.5         | Further consideration needed\(^d\) |
| 213060      | Parsnips                   | 0.3                     | –                    | 0.5         | Further consideration needed\(^d\) |
| 213070      | Parsley root               | 0.3                     | –                    | 0.5         | Further consideration needed\(^d\) |
| 213080      | Radishes                   | 0.3                     | 0.2                  | 0.5         | Further consideration needed\(^d\) |
| 213090      | Salsify                    | 0.3                     | –                    | 0.5         | Further consideration needed\(^d\) |
| 213100      | Swedes                     | 0.3                     | –                    | 0.5         | Further consideration needed\(^d\) |
| 213110      | Turnips                    | 0.3                     | –                    | 0.5         | Further consideration needed\(^d\) |
| 220010      | Garlic                     | 0.1                     | –                    | 0.2         | Further consideration needed\(^d\) |
| 220020      | Onions                     | 0.1                     | –                    | 0.2         | Further consideration needed\(^d\) |
| 220030      | Shallots                   | 0.1                     | –                    | 0.2         | Further consideration needed\(^d\) |
| 220040      | Spring onions              | 0.6                     | –                    | 0.7         | Further consideration needed\(^d\) |
| 231010      | Tomatoes                   | 0.6                     | –                    | 0.3         | Further consideration needed\(^d\) |
| 231020      | Peppers                    | 0.6                     | –                    | 0.3         | Further consideration needed\(^d\) |
| 231030      | Aubergines (egg plants)    | 0.6                     | –                    | 0.3         | Further consideration needed\(^d\) |
| 232010      | Cucumbers                  | 0.2                     | –                    | 0.2         | Further consideration needed\(^d\) |
| 232020      | Gherkins                   | 0.2                     | –                    | 0.2         | Further consideration needed\(^d\) |
| 232030      | Courgettes                 | 0.2                     | –                    | 0.2         | Further consideration needed\(^d\) |
| 233010      | Melons                     | 0.15                    | –                    | 0.15        | Further consideration needed\(^d\) |
| 233020      | Pumpkins                   | 0.15                    | –                    | 0.15        | Further consideration needed\(^d\) |
| 233030      | Watermelons                | 0.15                    | –                    | 0.15        | Further consideration needed\(^d\) |
| 234000      | Sweet corn                 | 0.15                    | 0.15                 | 0.15        | Further consideration needed\(^d\) |
| 241010      | Broccoli                   | 2                       | –                    | 2           | Further consideration needed\(^d\) |
| 241020      | Cauliflower                | 0.15                    | –                    | 0.2         | Further consideration needed\(^d\) |
| 242010      | Brussels sprouts           | 0.3                     | –                    | 0.4         | Further consideration needed\(^d\) |
| 242020      | Head cabbage               | 0.4                     | –                    | 0.5         | Further consideration needed\(^d\) |
| 243010      | Chinese cabbage            | 4                       | –                    | 4           | Further consideration needed\(^d\) |
| 243020      | Kale                       | 0.07                    | –                    | 0.15        | Further consideration needed\(^d\) |
| 244000      | Kohlrabi                   | 0.07                    | –                    | 0.15        | Further consideration needed\(^d\) |
| 251010      | Lamb’s lettuce             | 4                       | –                    | 4           | Further consideration needed\(^d\) |
| 251020      | Lettuce                    | 4                       | 4                    | 4           | Further consideration needed\(^f\) |
| 251030      | Scarole (broad-leaf endive)| 4                       | –                    | 4           | Further consideration needed\(^d\) |
| 251040      | Cress                      | 4                       | –                    | 3           | Further consideration needed\(^d\) |
| 251050      | Land cress                 | 4                       | –                    | 3           | Further consideration needed\(^d\) |
| 251060      | Rocket, Rucola             | 4                       | –                    | 4           | Further consideration needed\(^d\) |
| 251070      | Red mustard                | 4                       | –                    | 3           | Further consideration needed\(^d\) |
| 251080      | Leaves and sprouts of Brassica spp. | 4                       | –                    | 3           | Further consideration needed\(^d\) |
| 252010      | Spinach                    | 3                       | –                    | 3           | Further consideration needed\(^d\) |
| 252020      | Purslane                   | 3                       | –                    | 3           | Further consideration needed\(^d\) |
| 252030      | Beet leaves (chard)        | 3                       | –                    | 3           | Further consideration needed\(^d\) |
| 255000      | Witloof                    | 6                       | –                    | 6           | Further consideration needed\(^d\) |
| 256010      | Chervil                    | 3                       | –                    | 3           | Further consideration needed\(^d\) |
| 256020      | Chives                     | 3                       | –                    | 3           | Further consideration needed\(^d\) |
| 256030      | Celery leaves              | 3                       | –                    | 3           | Further consideration needed\(^d\) |
| 256040      | Parsley                    | 3                       | –                    | 3           | Further consideration needed\(^d\) |
| Code number | Commodity | Existing EU MRL (mg/kg) | Existing CXL (mg/kg) | Outcome of the review | Comment |
|-------------|-----------|------------------------|---------------------|-----------------------|---------|
| 256050      | Sage      | 3                      | –                   | 3                     | Further consideration needed\((d)\) |
| 256060      | Rosemary  | 3                      | –                   | 3                     | Further consideration needed\((d)\) |
| 256070      | Thyme     | 3                      | –                   | 3                     | Further consideration needed\((d)\) |
| 256080      | Basil     | 3                      | –                   | 3                     | Further consideration needed\((d)\) |
| 256090      | Bay leaves (laurel) | 3 | – | 3 | Further consideration needed\((d)\) |
| 256100      | Tarragon  | 3                      | –                   | 3                     | Further consideration needed\((d)\) |
| 260010      | Beans (fresh, with pods) | 0.09 | 0.09 | 0.09 | Further consideration needed\((g)\) |
| 260030      | Peas (fresh, with pods) | 2 | 2 | 2 | Further consideration needed\((g)\) |
| 260040      | Carroons  | 9                      | –                   | 9                     | Further consideration needed\((d)\) |
| 270030      | Celery    | 9                      | –                   | 9                     | Further consideration needed\((d)\) |
| 270040      | Fennel    | 9                      | –                   | 9                     | Further consideration needed\((d)\) |
| 270050      | Globe artichokes | 0.3 | – | 0.5 | Further consideration needed\((d)\) |
| 270060      | Leek      | 0.6                    | –                   | 0.7                   | Further consideration needed\((d)\) |
| 300010      | Beans (dry) | 0.3 | 0.3 | 0.3 | Further consideration needed\((g)\) |
| 300020      | Lentils (dry) | 0.4 | 0.4 | 0.4 | Further consideration needed\((f)\) |
| 300030      | Peas (dry) | 0.4 | 0.4 | 0.4 | Further consideration needed\((f)\) |
| 300040      | Lupins (dry) | 0.3 | – | 0.2 | Further consideration needed\((d)\) |
| 401010      | Linseed   | 0.9                    | 0.8                 | 0.9                   | Further consideration needed\((f)\) |
| 401020      | Peanuts   | 0.01*                  | 0.01               | 0.01*                 | Further consideration needed\((f)\) |
| 401040      | Sesame seed | 0.9 | 0.8 | 0.9 | Further consideration needed\((f)\) |
| 401050      | Sunflower seed | 0.8 | 0.8 | 0.9 | Further consideration needed\((f)\) |
| 401060      | Rape seed | 0.9                    | 0.8                 | 0.9                   | Further consideration needed\((f)\) |
| 401070      | Soya bean | 0.15                   | 0.15               | 0.15                  | Further consideration needed\((f)\) |
| 401080      | Mustard seed | 0.9 | 0.8 | 0.9 | Further consideration needed\((f)\) |
| 401090      | Cotton seed | 0.3 | 0.3 | 0.3 | Further consideration needed\((h)\) |
| 401100      | Pumpkin seeds | 0.9 | 0.8 | 0.9 | Further consideration needed\((f)\) |
| 401110      | Safflower | 0.9                    | 0.8                 | 0.9                   | Further consideration needed\((f)\) |
| 401120      | Borage    | 0.9                    | 0.8                 | 0.9                   | Further consideration needed\((f)\) |
| 401130      | Gold of pleasure | 0.9 | 0.8 | 0.9 | Further consideration needed\((f)\) |
| 401140      | Hempseed  | 0.9                    | 0.8                 | 0.9                   | Further consideration needed\((f)\) |
| 401150      | Castor bean | 0.9 | 0.8 | 0.9 | Further consideration needed\((f)\) |
| 500010      | Barley grain | 2 | 2 | 3 | Further consideration needed\((f)\) |
| 500030      | Maize grain | 0.01* | 0.01* | 0.01* | Further consideration needed\((f)\) |
| 500050      | Oats grain | 2 | 2 | 3 | Further consideration needed\((f)\) |
| 500060      | Rice grain | 5 | 5 | 5 | Further consideration needed\((f)\) |
| 500070      | Rye grain | 0.4                    | 0.3                 | 0.4                   | Further consideration needed\((f)\) |
| 500080      | Sorghum grain | 0.7 | 0.7 | 0.8 | Further consideration needed\((f)\) |
| 500090      | Wheat grain | 0.4 | 0.3 | 0.4 | Further consideration needed\((f)\) |
| 632000      | Herbal infusions (dried, leaves) | 0.01* | – | 30 | Further recommendation needed\((d)\) |
| 633000      | Herbal infusions (dried, roots) | 2 | – | 2 | Further recommendation needed\((d)\) |
| 900010      | Sugar beet (root) | 0.15 | 0.15 | 0.4 | Further consideration needed\((f)\) |
| Code number | Commodity                     | Existing EU MRL (mg/kg) | Existing CXL (mg/kg) | MRL (mg/kg) | Outcome of the review | Comment |
|-------------|-------------------------------|-------------------------|---------------------|-------------|-----------------------|---------|
| 900020      | Sugar cane                   | 3                       | –                   | 3           | Further consideration needed (d) |
| 900030      | Chicory roots                 | 0.3                     | –                   | 0.3         | Further consideration needed (d) |
| 1011010     | Swine meat                    | 0.02                    | 0.015               | 0.015       | Further consideration needed (9) |
| 1011020     | Swine fat (free of lean meat) | 0.2                     | 0.2                 | 0.2         | Further consideration needed (9) |
|             |                               |                         |                     |             |                       |         |
| 1011030     | Swine liver                   | 0.1                     | 0.1                 | 0.1         | Further consideration needed (9) |
| 1011040     | Swine kidney                  | 0.1                     | 0.1                 | 0.1         | Further consideration needed (9) |
| 1012010     | Bovine meat                   | 0.02                    | 0.015               | 0.015       | Further consideration needed (9) |
| 1012020     | Bovine fat                    | 0.2                     | 0.2                 | 0.2         | Further consideration needed (9) |
| 1012030     | Bovine liver                  | 0.1                     | 0.1                 | 0.1         | Further consideration needed (9) |
| 1012040     | Bovine kidney                 | 0.1                     | 0.1                 | 0.1         | Further consideration needed (9) |
| 1013010     | Sheep meat                    | 0.02                    | 0.015               | 0.015       | Further consideration needed (9) |
| 1013020     | Sheep fat                     | 0.2                     | 0.2                 | 0.2         | Further consideration needed (9) |
| 1013030     | Sheep liver                   | 0.1                     | 0.1                 | 0.1         | Further consideration needed (9) |
| 1013040     | Sheep kidney                  | 0.1                     | 0.1                 | 0.1         | Further consideration needed (9) |
| 1014010     | Goat meat                     | 0.02                    | 0.015               | 0.015       | Further consideration needed (9) |
| 1014020     | Goat fat                      | 0.2                     | 0.2                 | 0.2         | Further consideration needed (9) |
| 1014030     | Goat liver                    | 0.1                     | 0.1                 | 0.1         | Further consideration needed (9) |
| 1014040     | Goat kidney                   | 0.1                     | 0.1                 | 0.1         | Further consideration needed (9) |
| 1015010     | Horse meat                    | 0.02                    | 0.015               | 0.015       | Further consideration needed (9) |
| 1015020     | Horse fat                     | 0.2                     | 0.2                 | 0.2         | Further consideration needed (9) |
| 1015030     | Horse liver                   | 0.1                     | 0.1                 | 0.1         | Further consideration needed (9) |
| 1015040     | Horse kidney                  | 0.1                     | 0.1                 | 0.1         | Further consideration needed (9) |
| 1016010     | Poultry meat                  | 0.02                    | 0.02                | 0.01*       | Further consideration needed (i) |
| 1016020     | Poultry fat                   | 0.05                    | 0.05                | 0.05        | Further consideration needed (9) |
| 1016030     | Poultry liver                 | 0.02                    | 0.02                | 0.02        | Further consideration needed (9) |
| 1020010     | Cattle milk                   | 0.02                    | 0.02                | 0.02        | Further consideration needed (9) |
| 1020020     | Sheep milk                    | 0.02                    | 0.02                | 0.02        | Further consideration needed (9) |
| 1020030     | Goat milk                     | 0.02                    | 0.02                | 0.02        | Further consideration needed (9) |
| 1020040     | Horse milk                    | 0.02                    | 0.02                | 0.02        | Further consideration needed (9) |
| 1030000     | Birds’ eggs                   | 0.02                    | 0.02                | 0.02        | Further consideration needed (9) |
|             | Other commodities of plant/animal origin | See Reg. 2018/685 | –                   | –           | Further consideration needed (j) |

MRL: maximum residue level; CXL: codex maximum residue limit.

*: Indicates that the MRL is set at the limit of quantification.

(F): The residue definition is fat soluble.

(a): MRL is derived from a GAP evaluated at EU level, which is fully supported by data and for which no risk to consumers is identified; no CXL is available (combination H-I in Appendix E).

(b): MRL is derived from the existing CXL, which is supported by data and for which no risk to consumers is identified; there are no relevant authorisations or import tolerances reported at EU level (combination A-VII in Appendix E).

(c): MRL is derived from the existing CXL, which is supported by data and for which no risk to consumers is identified; GAP evaluated at EU level, which is also fully supported by data, leads to a lower MRL (combination H-VII in Appendix E).

(d): Tentative MRL is derived from a GAP evaluated at EU level, which is not fully supported by data but for which no risk to consumers was identified (assuming the existing residue definition); no CXL is available (combination F-I in Appendix E).

(e): MRL is derived from a GAP evaluated at EU level, which is fully supported by data and for which no risk to consumers is identified; existing CXL is covered by the recommended MRL (combination H-III in Appendix E).

(f): Tentative MRL is derived from a GAP evaluated at EU level, which is not fully supported by data but for which no risk to consumers was identified (assuming the existing residue definition); existing CXL is covered by the tentative MRL (combination F-III in Appendix E).

(g): MRL is derived from the existing CXL, which is not sufficiently supported by data but for which no risk to consumers is identified (assuming the existing residue definition); GAP evaluated at EU level, which is also not fully supported by data, would lead to a lower tentative MRL (combination F-V in Appendix E).
(h): MRL is derived from the existing CXL, which is not sufficiently supported by data but for which no risk to consumers is identified (assuming the existing residue definition); there are no relevant authorisations or import tolerances reported at EU level (combination A-V in Appendix E).

(i): Tentative MRL is derived from a GAP evaluated at EU level, which is not fully supported by data but for which no risk to consumers was identified (assuming the existing residue definition); CXL is not compatible with EU residue definitions (combination F-II in Appendix E).

(j): There are no relevant authorisations or import tolerances reported at EU level; no CXL is available. Either a specific LOQ or the default MRL of 0.01 mg/kg may be considered (combination A-I in Appendix E).

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Abbreviations

a.i. active ingredient
a.s. active substance
ADI acceptable daily intake
ARfD acute reference dose
BBCH growth stages of mono- and dicotyledonous plants
bw body weight
CAC Codex Alimentarius Commission
CAS Chemical Abstract Service
CCPR Codex Committee on Pesticide Residues
CF conversion factor for enforcement residue definition to risk assessment residue definition
CXL codex maximum residue limit
DALA days after last application
DAR draft assessment report
DAT days after treatment
DB dietary burden
DM dry matter
DP dustable powder
DT90 period required for 90% dissipation (define method of estimation)
EC emulsifiable concentrate
eq residue expressed as a.s. equivalent
EURLs European Union Reference Laboratories for Pesticide Residues (former CRLs)
FAO Food and Agriculture Organization of the United Nations
GAP Good Agricultural Practice
GR granule
HPLC high-performance liquid chromatography
HPLC-MS high-performance liquid chromatography with mass spectrometry
HPLC-MS/MS high-performance liquid chromatography with tandem mass spectrometry
| Acronym | Description |
|---------|-------------|
| HR      | highest residue |
| IEDI    | international estimated daily intake |
| IESTI   | international estimated short-term intake |
| ILV     | independent laboratory validation |
| ISO     | International Organisation for Standardization |
| IUPAC   | International Union of Pure and Applied Chemistry |
| JMPR    | Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and the WHO Expert Group on Pesticide Residues (Joint Meeting on Pesticide Residues) |
| Koc     | organic carbon adsorption coefficient |
| LOQ     | limit of quantification |
| MRL     | maximum residue level |
| MS      | mass spectrometry detector |
| MS/MS   | tandem mass spectrometry detector |
| NEU     | northern European Union |
| OECD    | Organisation for Economic Co-operation and Development |
| PBI     | plant back interval |
| PF      | peeling factor |
| PF      | processing factor |
| PECsoil | predicted environmental concentration in soil |
| PHI     | preharvest interval |
| P_{ow}  | partition coefficient between n-octanol and water |
| ppm     | parts per million (10^{-6}) |
| PRIMO   | (EFSA) Pesticide Residues Intake Model |
| PROFILE | (EFSA) Pesticide Residues Overview File |
| QuEChERS | Quick, Easy, Cheap, Effective, Rugged, and Safe (analytical method) |
| RA      | risk assessment |
| RAC     | raw agricultural commodity |
| RD      | residue definition |
| RMS     | rapporteur Member State |
| SANCO   | Directorate-General for Health and Consumers |
| SC      | suspension concentrate |
| SEU     | southern European Union |
| SMILES  | simplified molecular-input line-entry system |
| SL      | soluble concentrate |
| STMR    | supervised trials median residue |
| TMDI    | theoretical maximum daily intake |
| TRR     | total radioactive residue |
| UV      | ultraviolet (detector) |
| WHO     | World Health Organization |
### Appendix A – Summary of authorised uses considered for the review of MRLs

#### A.1. Authorised outdoor uses in northern EU

| Crop and/or situation | MS or country | F or I | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days) | Remarks |
|-----------------------|---------------|--------|-----------------------------------|-------------|-------------|--------------------------------|------------|---------|
| Apples                | BE            | F      | Scab                              | Foliar      | 53 to 81    | 7                               | 102 g a.s./ha | 35      |
|                       |               |        |                                   | treatment   | 1 to 3      |                                 |            |         |
|                       |               |        |                                   | general     | 7           |                                 |            |         |
|                       |               |        |                                   |             |             |                                 |            |         |
| Pears                 | BE            | F      | Scab                              | Foliar      | 53 to 81    | 7                               | 102 g a.s./ha | 35      |
|                       |               |        |                                   | treatment   | 1 to 3      |                                 |            |         |
|                       |               |        |                                   | general     | 7           |                                 |            |         |
|                       |               |        |                                   |             |             |                                 |            |         |
| Quinces               | SL, NL, DE,   | F      | Venturia spp.                     | Foliar      | 53 to 81    | 7                               | 90 g a.s./ha | 35      |
|                       | CZ, FR        |        |                                   | treatment   | 1 to 3      |                                 |            |         |
|                       |               |        |                                   | spraying     | 7           |                                 |            |         |
|                       |               |        |                                   |             |             |                                 |            |         |
| Medlars               | SL, NL, DE,   | F      | Venturia spp.                     | Foliar      | 53 to 81    | 7                               | 90 g a.s./ha | 35      |
|                       | CZ, FR        |        |                                   | treatment   | 1 to 3      |                                 |            |         |
|                       |               |        |                                   | spraying     | 7           |                                 |            |         |
|                       |               |        |                                   |             |             |                                 |            |         |
| Loquats               | SL, NL, DE,   | F      | Venturia spp.                     | Foliar      | 53 to 81    | 7                               | 90 g a.s./ha | 35      |
|                       | CZ, FR        |        |                                   | treatment   | 1 to 3      |                                 |            |         |
|                       |               |        |                                   | spraying     | 7           |                                 |            |         |
|                       |               |        |                                   |             |             |                                 |            |         |
| Apricots              | SL            | F      |                                   | Foliar      | 55 to 85    | 10                              | 45 g a.s./ha | 21      |
|                       |               |        |                                   | treatment   | 1 to 3      |                                 |            |         |
|                       |               |        |                                   | spraying     | 10           |                                 |            |         |
|                       |               |        |                                   |             |             |                                 |            |         |
| Peaches               | SL, UK        | F      | Sphaerotheca pannosa              | Foliar      | 51 to 85    | 10                              | 45 g a.s./ha | 21      |
|                       |               |        |                                   | treatment   | 1 to 3      |                                 |            |         |
|                       |               |        |                                   | spraying     | 10           |                                 |            |         |
|                       |               |        |                                   |             |             |                                 |            |         |
| Table grapes          | SL, CZ        | F      | Erysiphe necator Uncinula necator | Foliar      | 11 to 83    | 10                              | 45 g a.s./ha | 35      |
|                       |               |        |                                   | treatment   | 1 to 3      |                                 |            |         |
|                       |               |        |                                   | spraying     | 10           |                                 |            |         |
|                       |               |        |                                   |             |             |                                 |            |         |
| Crop and/or situation | MS or country | F G or I(a) | Pests or group of pests controlled | Preparation Type(b) | Conc. a.s. | Method kind | Range of growth stages & season(c) | Number min–max | Interval between application (min) | Application rate per treatment a.s./hL | Water L/ha min–max | Rate and unit PHI (days)(d) | Remarks |
|-----------------------|---------------|------------|-----------------------------------|---------------------|-----------|------------|----------------------------------|----------------|-------------------------------|-----------------------------------------------|-------------------|--------------------------|---------|
| Wine grapes           | AT            | F          | SC 300 g/L                        | Foliar treatment – spraying | 11 to 83 | 1 to 3 | 10                            | –              | –                             | 72 g a.s./ha                  | 35                |                         |         |
| Strawberries          | AT, UK        | F          | SC 75 g/L                         | Foliar treatment – spraying | 60 to 89 | 3    | 7                              | –              | –                             | 45 g a.s./ha                  | 1                 |                         |         |
| Potatoes              | AT, NL, FR, UK, SL | F          | SC 300 g/L R. solani              | Soil treatment – general (see also comment field) | 0 to 0   | 1    | –                              | –              | –                             | 240 g a.s./ha                  | n.a.               | Same GAP for seed treatment in furrow for FR |         |
| Beetroot              | AT            | F          | SC 75 g/L                         | Foliar treatment – general | 12 to 49 | 2    | –                              | –              | –                             | 75 g a.s./ha                  | 7                 |                         |         |
| Carrots               | AT, FR        | F          | SC 75 g/L ‘Alternaria dauci, Alternaria radicina’ | Foliar treatment – spraying | 12 to 49 | 2    | 7                              | –              | –                             | 75 g a.s./ha                  | 7                 |                         |         |
| Celeriacs             | DE, AT, FR    | F          | SC 75 g/L Alternaria spp.         | Foliar treatment – broadcast spraying | 12 to 49 | 1 to 2 | 7                              | –              | –                             | 75 g a.s./ha                  | 7                 |                         |         |
| Horseradishes         | DE, AT        | F          | SC 75 g/L Alternaria spp.         | Foliar treatment – broadcast spraying | 12 to 49 | 2    | 7                              | –              | –                             | 75 g a.s./ha                  | 7                 |                         |         |
| Jerusalem artichokes  | AT            | F          | SC 75 g/L                         | Foliar treatment – general | 12 to 49 | 2    | –                              | –              | –                             | 75 g a.s./ha                  | 7                 |                         |         |
### Review of the existing MRLs for fluxapyroxad

| Crop and/or situation | MS or country | F or G group or pests controlled | Preparation Type(b) | Conc. a.s. | Method kind | Application Range of growth stages & season(c) | Number min–max | Interval between application (min) | Application rate per treatment a.s./ha L/ha | Rate and unit | PHI (days)(d) | Remarks |
|-----------------------|---------------|----------------------------------|---------------------|-----------|------------|---------------------------------------------|---------------|-----------------------------------|---------------------------------------------|-------------|-------------|---------|
| Parsnips              | AT            | F                                | SC                  | 75 g/L    | Foliar treatment – general                  | 12 to 49       | 2                                                | 75 g a.s./ha | 7           |          |         |
| Parsley roots         | DE            | F                                | SC                  | 75 g/L    | Foliar treatment – broadcast spraying       | 12 to 49       | 2                                                | 75 g a.s./ha | 7           |          |         |
| Radishes              | DE, AT        | F                                | SC                  | 75 g/L    | Foliar treatment – broadcast spraying       | 12 to 49       | 2                                                | 75 g a.s./ha | 7           |          |         |
| Salsifies             | DE, AT        | F                                | SC                  | 75 g/L    | Foliar treatment – broadcast spraying       | 12 to 49       | 2                                                | 75 g a.s./ha | 7           |          |         |
| Swedes                | DE, AT        | F                                | SC                  | 75 g/L    | Foliar treatment – broadcast spraying       | 12 to 49       | 2                                                | 75 g a.s./ha | 7           |          |         |
| Turnips               | DE, AT        | F                                | SC                  | 75 g/L    | Foliar treatment – broadcast spraying       | 12 to 49       | 2                                                | 75 g a.s./ha | 7           |          |         |
| Spring onions         | DE, AT, FR    | F                                | SC                  | 75 g/L    | Foliar treatment – broadcast spraying       | 49              | 1 to 2                                           | 75 g a.s./ha | 14          |          |         |
| Cucumbers             | AT, FR        | F                                | SC                  | 75 g/L    | Foliar treatment – broadcast spraying       | 14 to 89       | 3                                                | 75 g a.s./ha | 3           |          |         |
| Crop and/or situation | MS or country | F | G or I(a) | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days)(d) | Remarks |
|-----------------------|---------------|---|-----------|-----------------------------------|-------------|-------------|-------------------------------|--------------|---------|
|                       |               |   |           |                                   | Type(b)     | Conc. a.s.  | Method kind                    |              |         |
| Gherkins              | AT, FR        | F |           |                                   | SC          | 75 g/L     | Foliar treatment – broadcast spraying | 14 to 89 | 3       | 7          | –           | 45 g a.s./ha | 3   |
| Courgettes            | AT            | F |           |                                   | SC          | 75 g/L     | Foliar treatment – general       | 14 to 89 | 3       | –          | –           | 45 g a.s./ha | 3   |
| Melons                | AT            | F |           |                                   | SC          | 75 g/L     | Foliar treatment – general       | 14 to 89 | 3       | –          | –           | 45 g a.s./ha | 3   |
| Pumpkins              | AT            | F |           |                                   | SC          | 75 g/L     | Foliar treatment – general       | 14 to 89 | 3       | –          | –           | 45 g a.s./ha | 3   |
| Watermelons           | AT            | F |           |                                   | SC          | 75 g/L     | Foliar treatment – general       | 14 to 89 | 3       | –          | –           | 45 g a.s./ha | 3   |
| Broccoli              | AT, FR, UK    | F |           |                                   | SC          | 75 g/L     | Foliar treatment – broadcast spraying | 41 to 91 | 1 to 3 | 7          | –           | 75 g a.s./ha | 14  |
| Cauliflowers          | AT, FR, UK    | F |           |                                   | SC          | 75 g/L     | Foliar treatment – broadcast spraying | 41 to 91 | 1 to 3 | 7          | –           | 75 g a.s./ha | 14  |
| Brussels sprouts      | FR, UK        | F |           |                                   | SC          | 75 g/L     | Foliar treatment – broadcast spraying | 41 to 91 | 1 to 3 | 7          | –           | 75 g a.s./ha | 14  |
| Crop and/or situation | MS or country | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days) | Remarks |
|-----------------------|---------------|------------------------------------|-------------|-------------|-------------------------------|------------|---------|
| Head cabbages         | AT, FR, UK    | F                                  | SC          | 75 g/L      | Foliar treatment – broadcast spraying | 14        |         |
|                       |               |                                    |             | 41 to 91    | 1 to 3                        | 75 g a.s./ha |         |
|                       |               |                                    |             |             |                               |            |         |
| Lamb's lettuces       | DE, AT, FR    | F                                  | SC          | 75 g/L      | Foliar treatment – broadcast spraying | 14        |         |
|                       |               |                                    |             | 12 to 49    | 1                              | 150 g a.s./ha |         |
| Lettuces              | DE, AT, FR, UK| F                                  | SC          | 75 g/L      | Foliar treatment – broadcast spraying | 14        |         |
|                       |               |                                    |             | 12 to 49    | 1                              | 150 g a.s./ha |         |
| Escaroles             | DE, AT, FR    | F                                  | SC          | 75 g/L      | Foliar treatment – broadcast spraying | 14        |         |
|                       |               |                                    |             | 12 to 49    | 1                              | 150 g a.s./ha |         |
| Cresses               | AT            | F                                  | SC          | 75 g/L      | Foliar treatment – general      | 14        |         |
|                       |               |                                    |             | 12 to 49    | 1                              | 150 g a.s./ha |         |
| Land cresses          | AT            | F                                  | SC          | 75 g/L      | Foliar treatment – general      | 14        |         |
|                       |               |                                    |             | 12 to 49    | 1                              | 150 g a.s./ha |         |
| Roman rocket          | DE, AT, FR    | F                                  | SC          | 75 g/L      | Foliar treatment – broadcast spraying | 14        |         |
|                       |               |                                    |             | 12 to 49    | 1                              | 150 g a.s./ha |         |
| Red mustards          | AT            | F                                  | SC          | 75 g/L      | Foliar treatment – general      | 14        |         |
|                       |               |                                    |             | 12 to 49    | 1                              | 150 g a.s./ha |         |
| Crop and/or situation | MS or country | F G or I<sup>(a)</sup> | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days)<sup>(d)</sup> | Remarks |
|-----------------------|---------------|------------------------|-----------------------------------|-------------|----------------|-------------------------------|----------------|---------|
| Baby leaf crops       | DE, AT        | F                      | SC                                | 75 g/L      | Foliar treatment – general (see also comment field) | 1                | 150 g a.s./ha | 14 DE: BBCH 12–18 AT: BBCH 12–49 |
| Spinaches             | AT            | F                      | SC                                | 75 g/L      | Foliar treatment – general | 12 to 49         | 150 g a.s./ha | 14 |
| Purslanes             | AT            | F                      | SC                                | 75 g/L      | Foliar treatment – general | 12 to 49         | 150 g a.s./ha | 14 |
| Chards                | AT            | F                      | SC                                | 75 g/L      | Foliar treatment – general | 12 to 49         | 150 g a.s./ha | 14 |
| Chervil               | DE, AT        | F                      | SC                                | 75 g/L      | Foliar treatment – broadcast spraying | 12 to 49         | 150 g a.s./ha | 14 |
| Chives                | DE, AT        | F                      | SC                                | 75 g/L      | Foliar treatment – broadcast spraying | 12 to 49         | 150 g a.s./ha | 14 |
| Celery leaves         | DE            | F                      | SC                                | 75 g/L      | Foliar treatment – broadcast spraying | 12 to 49         | 150 g a.s./ha | 14 |
| Crop and/or situation | MS or country | F G or I(a) | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days)(d) | Remarks |
|-----------------------|---------------|------------|-----------------------------------|-------------|-------------|-------------------------------|---------------|---------|
| Parsley               | DE            | F          | SC 75 g/L                         | Foliar treatment – broadcast spraying | 12 to 49    | 150 g a.s./ha                 | 14            |         |
| Sage                  | DE, AT        | F          | SC 75 g/L                         | Foliar treatment – general            | 12 to 49    | 150 g a.s./ha                 | 14            |         |
| Rosemary              | DE, AT        | F          | SC 75 g/L                         | Foliar treatment – general            | 12 to 49    | 150 g a.s./ha                 | 14            |         |
| Thyme                 | DE, AT        | F          | SC 75 g/L                         | Foliar treatment – general            | 12 to 49    | 150 g a.s./ha                 | 14            |         |
| Basil                 | DE, AT        | F          | SC 75 g/L                         | Foliar treatment – general            | 12 to 49    | 150 g a.s./ha                 | 14            |         |
| Laurel                | DE, AT        | F          | SC 75 g/L                         | Foliar treatment – general            | 12 to 49    | 150 g a.s./ha                 | 14            |         |
| Tarragon              | DE, AT        | F          | SC 75 g/L                         | Foliar treatment – general            | 12 to 49    | 150 g a.s./ha                 | 14            |         |
| Crop and/or situation | MS or country | F or G or I(a) | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days)(d) | Remarks |
|-----------------------|---------------|----------------|-----------------------------------|-------------|-------------|------------------------------|--------------|---------|
| Peas (with pods)      | DE, AT        | F              | SC 75 g/L                         | Foliar treatment – general (see also comment field) | 1           | – – 150 g a.s./ha            | 7            | DE: BBCH 15-77 AT: BBCH 15-89 |
| Peas (without pods)   | AT, FR, UK    | F              | SC 75 g/L                         | Foliar treatment – broadcast spraying             | 89 1       | – – 150 g a.s./ha            | 7            |         |
| Globe artichokes      | FR            | F              | Powdery mildew (Leveillula taurica, Glovinomyces cichoracearum (=Erysiphe c.), Ascochyta | SC 75 g/L | Foliar treatment – broadcast spraying | 51 to 85 2 7 | – – 45 g a.s./ha | 7 |
| Leeks                 | DE, AT, FR    | F              | SC 75 g/L                         | Foliar treatment – broadcast spraying             | 1 to 2 7   | – – 75 g a.s./ha            | 14           |         |
| Barley                | PL            | F              | EC 62.5 g/L                       | Foliar treatment – general                         | 25 to 69 2 | – – 125 g a.s./ha           | 35           |         |
| Oat                   | LT, FI, NL, HU| F              | EC 62.5 g/L                       | Foliar treatment – broadcast spraying             | 25 to 69 2 | – – 125 g a.s./ha           | 35           |         |

Notes:
(a) MS, G, I: country group or region
(b) Type: EC, SC, etc.
(c) Range of growth stages & season
(d) PHI: Preharvest interval

Review of the existing MRLs for fluxapyroxad

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## Crop and/or situation | MS or country | F or G or I(a) | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days)(d) | Remarks
---|---|---|---|---|---|---|---|---
Rye | CZ, FI, HU, LT, NL, PL, SL | F | EC 62.5 g/L | Foliar treatment – broadcast spraying | 2 | – – | 125 g a.s./ha | 35
Wheat | CZ, FI, HU, LT, NL, PL, SL | F | EC 62.5 g/L | Foliar treatment – broadcast spraying | 2 | – – | 125 g a.s./ha | 35
Herbal infusions from leaves and herbs | DE | F | SC 75 g/L | Foliar treatment – broadcast spraying (see also comment field) | 12 to 49 | 1 | – – | 150 g a.s./ha | 14
Herbal infusions from roots | DE, AT | F | SC 75 g/L | Foliar treatment – broadcast spraying | 12 to 49 | 2 | – – | 75 g a.s./ha | 7
Chicory roots | FR | F | SC 75 g/L | Foliar treatment – broadcast spraying | 13 to 49 | 2 | 7 | – – | 75 g a.s./ha | 14

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(a): Outdoor or field use (F), greenhouse application (G) or indoor application (I).
(b): CropLife International Technical Monograph no 2, 6th Edition. Revised May 2008. Catalogue of pesticide.
(c): Growth stage range from first to last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including, where relevant, information on season at time of application.
(d): PHI – minimum preharvest interval.
## A.2. Authorised outdoor uses in southern EU

| Crop and/or situation | MS or country | F or G | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days) | Remarks |
|-----------------------|---------------|--------|-----------------------------------|-------------|------------|-------------------------------|-----------|--------|
| **Apples**            | PT, IT, EL, FR| F      | Scab of apple and powdery mildew, Podosphaera leucotricha, Venturia inaequalis, Venturia pirina, Staphylium vesicarium | SC 300 g/L | Foliar treatment – spraying | 53 to 81, 1 to 3, 7 | – | – |
| **Pears**             | PT, IT, EL, FR| F      | Scab of apple and powdery mildew, Podosphaera leucotricha, Venturia inaequalis, Venturia pirina, Staphylium vesicarium | SC 300 g/L | Foliar treatment – spraying | 53 to 81, 1 to 3, 7 | – | – |
| **Quinces**           | IT, FR        | F      | Podosphaera leucotricha, Venturia inaequalis, Venturia pirina, Staphylium vesicarium | SC 300 g/L | Foliar treatment – spraying | 53 to 81, 1 to 3, 7 | – | – |
| Crop and/or situation | MS or country | FG or T | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days)<sup>(d)</sup> | Remarks |
|-----------------------|--------------|---------|----------------------------------|-------------|------------|-------------------------------|--------------------------|---------|
| Medlars               | IT, FR       | F       | Podosphaera leucotricha Venturia inaequalis Venturia pirina Stemphylium vesicarium | SC 300 g/L Foliar treatment – spraying | 53 to 81 1 to 3 7 – – | 90 g a.s./ha | 35 |
| Loquats               | IT, FR       | F       | Podosphaera leucotricha Venturia inaequalis Venturia pirina Stemphylium vesicarium | SC 300 g/L Foliar treatment – spraying | 53 to 81 1 to 3 7 – – | 90 g a.s./ha | 35 |
| Apricots              | PT, IT, EL, BG, FR | F       | Powdery mildew Sphaerotheca pannosa Erysiphe necator | SC 300 g/L Foliar treatment – spraying | 51 to 85 1 to 3 10 – – | 45 g a.s./ha | 21 |
| Peaches               | PT, IT, EL, BG, FR | F       | Powdery mildew Sphaerotheca pannosa Erysiphe necator | SC 300 g/L Foliar treatment – spraying | 51 to 85 1 to 3 10 – – | 45 g a.s./ha | 21 |
| Table grapes          | IT, EL, BG   | F       | Erysiphe necator Uncinula necator | SC 300 g/L Foliar treatment – spraying | 11 to 83 1 to 3 10 – – | 45 g a.s./ha | 35 |
| Crop and/or situation | MS or country | F G or I \(^{(a)}\) | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days)\(^{(d)}\) | Remarks |
|-----------------------|--------------|--------------------|---------------------------------------|-------------|-----------------|-------------------------------|------------------|---------|
| **Wine grapes**       | IT, EL, BG   | F                  | Erysiphe necator Uncinula necator     | SC 300 g/L | Foliar treatment – spraying | 11 to 83 | 1 to 3 | 10 | – | – | 45 g a.s./ha | 35 |
| **Strawberries**      | FR, EL       | F                  | Sphaerotheca macularis               | SC 75 g/L | Foliar treatment – spraying | 60 to 89 | 1 to 3 | 7 | – | – | 45 | 1 |
| **Mangoes**           | FR           | F                  | Oidium mangiferae                    | SC 300 g/L | Foliar treatment – spraying | 51 to 83 | 1 to 3 | 10 | – | – | 45 g a.s./ha | 21 |
| **Potatoes**          | IT, FR       | F                  | Rhizoctonia solani                  | SC 300 g/L | Soil treatment – general (see also comment field) | 0 to 0 | 1 | – | – | 240 g a.s./ha | n.a. | Treatment of seeds potatoes in furrow |
| **Beetroots**         | IT, EL       | F                  | SC 75 g/L | Foliar treatment – broadcast spraying | 12 to 49 | 1 to 2 | – | – | 75 g a.s./ha | 7 |
| **Carrots**           | IT, FR, EL   | F                  | Alternaria dauci Alternaria radicina | SC 75 g/L | Foliar treatment – broadcast spraying | 12 to 49 | 2 | 7 | – | – | 75 g a.s./ha | 7 |
| **Celeriacs**         | IT, EL       | F                  | SC 75 g/L | Foliar treatment – broadcast spraying | 12 to 49 | 1 to 2 | – | – | 75 g a.s./ha | 7 |
| **Horseradishes**     | IT, EL       | F                  | SC 75 g/L | Foliar treatment – broadcast spraying | 12 to 49 | 1 to 2 | – | – | 75 g a.s./ha | 7 |
| Crop and/or situation | MS or country | F G or T(1) | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days)(d) | Remarks |
|-----------------------|---------------|-------------|-----------------------------------|-------------|-------------|-------------------------------|----------------|---------|
| Jerusalem artichokes  | IT, EL        | F           | SC 75 g/L Foliar treatment – broadcast spraying | 12 to 49   | 1 to 2      | –               | 75 g a.s./ha     | 7       |
| Parsnips              | IT, EL        | F           | SC 75 g/L Foliar treatment – broadcast spraying | 12 to 49   | 1 to 2      | –               | 75 g a.s./ha     | 7       |
| Parsley roots         | IT, EL        | F           | SC 75 g/L Foliar treatment – broadcast spraying | 12 to 49   | 1 to 2      | –               | 75 g a.s./ha     | 7       |
| Radishes              | IT, EL        | F           | SC 75 g/L Foliar treatment – broadcast spraying | 12 to 49   | 1 to 2      | –               | 75 g a.s./ha     | 7       |
| Salsifies             | IT, EL        | F           | SC 75 g/L Foliar treatment – broadcast spraying | 12 to 49   | 1 to 2      | –               | 75 g a.s./ha     | 7       |
| Swedes                | IT, EL        | F           | SC 75 g/L Foliar treatment – broadcast spraying | 12 to 49   | 1 to 2      | –               | 75 g a.s./ha     | 7       |
| Turnips               | IT, EL        | F           | SC 75 g/L Foliar treatment – broadcast spraying | 12 to 49   | 1 to 2      | –               | 75 g a.s./ha     | 7       |
| Spring onions         | FR            | F           | Purple blotch (Alternaria porri), Rust (Puccinia allii) SC 75 g/L Foliar treatment – broadcast spraying | 20 to 49   | 1 to 2      | 7               | 75 g a.s./ha     | 14      |
| Crop and/or situation | MS or country | FG or group of pests controlled | Preparation | Application | PHI (days) | Remarks |
|-----------------------|--------------|---------------------------------|-------------|-------------|------------|---------|
|                       |              |                                 | Type(b) Conc. a.s. Method kind | Range of growth stages & season(c) | Number min-max | Interval between application (min) | a.s./hL min-max | Water L/ha min-max | Rate and unit | |
| Tomatoes              | IT, FR, EL   | F                               | SC 75 g/L Foliar treatment – broadcast spraying | 14 to 89 | 1 to 2 | 7 | – | 75 g a.s./ha | 3 |
| Sweet peppers        | IT, EL       | F                               | SC 75 g/L Foliar treatment – general | 14 to 89 | 1 to 2 | 7 | – | 75 g a.s./ha | 3 |
| Aubergines            | IT, FR, EL   | F                               | SC 75 g/L Foliar treatment – general | 14 to 89 | 1 to 2 | 7 | – | 75 g a.s./ha | 3 |
| Cucumbers             | IT, FR, EL   | F                               | SC 75 g/L Foliar treatment – broadcast spraying | 14 to 89 | 3 | 7 | – | 45 g a.s./ha | 3 |
| Gherkins              | IT, FR, EL   | F                               | SC 75 g/L Foliar treatment – broadcast spraying | 14 to 89 | 3 | 7 | – | 45 g a.s./ha | 3 |
| Courgettes            | IT, FR, EL   | F                               | SC 75 g/L Foliar treatment – broadcast spraying | 14 to 89 | 3 | 7 | – | 45 g a.s./ha | 3 |
| Melons                | IT, FR, EL   | F                               | SC 75 g/L Foliar treatment – broadcast spraying | 14 to 89 | 3 | 7 | – | 45 g a.s./ha | 3 |
| Pumpkins              | IT, FR, EL   | F                               | SC 75 g/L Foliar treatment – broadcast spraying | 14 to 89 | 3 | 7 | – | 45 g a.s./ha | 3 |
| Crop and/or situation | MS or country | Pests or group of pests controlled | Preparation | Type | Conc. a.s. | Application | Application rate per treatment | PHI (days) | Remarks |
|-----------------------|---------------|------------------------------------|-------------|------|-----------|-------------|-----------------------------|-----------|---------|
| Watermelons           | IT, FR, EL    | F                                  | SC          | 75 g/L | Foliar treatment – broadcast spraying | 14 to 89 | 3 | 7 | – | – | 45 g a.s./ha | 3 |
| Broccoli              | IT, EL        | F                                  | SC          | 75 g/L | Foliar treatment – general | 41 to 48 | 1 to 3 | 7 | – | – | 75 g a.s./ha | 14 |
| Cauliflowers          | IT, EL        | F                                  | SC          | 75 g/L | Foliar treatment – general | 41 to 48 | 1 to 3 | 7 | – | – | 75 g a.s./ha | 14 |
| Brussels sprouts      | IT            | F                                  | SC          | 100 g/L | Foliar treatment – broadcast spraying | 1 to 3 | 7 | – | – | – | 75 g a.s./ha | 14 |
| Head cabbages         | IT, EL        | F                                  | SC          | 75 g/L | Foliar treatment – general | 41 to 48 | 1 to 3 | 7 | – | – | 75 g a.s./ha | 14 |
| Lamb’s lettuces       | EL            | F                                  | SC          | 75 g/L | Foliar treatment – general | 12 to 49 | 1 to 1 | – | – | – | 90 g a.s./ha | 14 |
| Lettuces              | IT, FR, EL    | F                                  | SC          | 75 g/L | Foliar treatment – broadcast spraying | 12 to 49 | 1 | – | – | – | 150 g a.s./ha | 14 |
| Escaroles             | IT, FR        | F                                  | SC          | 75 g/L | Foliar treatment – broadcast spraying | 12 to 49 | 1 | – | – | – | 150 g a.s./ha | 14 |
| Cresses               | EL            | F                                  | SC          | 75 g/L | Foliar treatment – general | 12 to 49 | 1 | – | – | – | 90 g a.s./ha | 14 |
### Table: Review of the existing MRLs for fluxapyroxad

| Crop and/or situation | MS or country | F or Group of Pests controlled | Preparation | Method kind | Range of growth stages & season | Number min–max | Interval between application (min) | Application rate per treatment | PHI (days) | Remarks |
|-----------------------|---------------|--------------------------------|-------------|-------------|-------------------------------|----------------|-----------------------------------|---------------------------------|------------|---------|
| Land cresses          | EL            | F                              | SCLESC      | Foliar      | 12 to 49                       | 1              | –                                 | 90 g a.s./ha                     | 14         |         |
| Roman rocket          | FR            | F                              | Sclerotinia sclerotiorum, Sclerotinia minor | Foliar      | 12 to 49                       | 1              | –                                 | 150 g a.s./ha                    | 14         |         |
| Red mustards          | EL            | F                              | SCLESC      | Foliar      | 12 to 49                       | 1              | –                                 | 90 g a.s./ha                     | 14         |         |
| Peas (with pods)      | IT, EL        | F                              | SC          | Foliar      | 12 to 49                       | 1              | –                                 | 150 g a.s./ha                    | 7          |         |
| Cardoons              | IT, EL        | F                              | SC          | Foliar      | 41 to 49                       | 1              | –                                 | 150 g a.s./ha                    | 7          |         |
| Celeries              | IT, FR, EL    | F                              | SC          | Foliar      | 41 to 49                       | 1              | –                                 | 150 g a.s./ha                    | 7          |         |
| Florence fennels      | IT, FR, EL    | F                              | SC          | Foliar      | 41 to 49                       | 1              | –                                 | 150 g a.s./ha                    | 7          |         |
| Globe artichokes      | IT, EL        | F                              | SC          | Foliar      | 51 to 85                       | 1 to 2         | –                                 | 45 g a.s./ha                     | 7          |         |
| Leeks                 | FR            | F                              | Foliar      | 20 to 49    | 1 to 2                         | 7              | –                                 | 75 g a.s./ha                     | 14         |         |
| Crop and/or situation | MS or country | F G or I<sup>(a)</sup> | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days)<sup>(d)</sup> | Remarks |
|----------------------|---------------|------------------------|-----------------------------------|-------------|-------------|------------------------------|----------------|---------|
| Rhubarbs             | FR, IT, EL    | F                      | SC 75 g/L Foliar treatment         | 41 to 49    | 1           | 150 g a.s./ha                 | 7              |         |
| Barley               | IT, ES        | F                      | EC 125 g a.s./ha                   | 1 to 2      | 21          | 125 g a.s./ha                 | 35             |         |
| Oat                  | IT, ES        | F                      | EC 112.5 g a.s./ha                 | 1 to 2      | 21          | 112.5 g a.s./ha               | 35             |         |
| Rye                  | IT, ES        | F                      | EC 112.5 g a.s./ha                 | 1 to 2      | 21          | 112.5 g a.s./ha               | 35             |         |
| Wheat                | IT, ES        | F                      | EC 125 g a.s./ha                   | 1 to 2      | 21          | 125 g a.s./ha                 | 35             |         |

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(a): Outdoor or field use (F), greenhouse application (G) or indoor application (I).

(b): CropLife International Technical Monograph no 2, 6th Edition. Revised May 2008. Catalogue of Pesticide.

(c): Growth stage range from first to last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including, where relevant, information on season at time of application.

(d): PHI – minimum preharvest interval.
## A.3. Authorised indoor uses (and post-harvest uses) in EU

| Crop and/or situation | MS or country | F or G or T(a) | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days)(d) | Remarks |
|-----------------------|---------------|----------------|-------------------------------------|-------------|-------------|---------------------------------|--------------|---------|
|                       |               |                |                                     | Type(b) Conc. a.s. Method kind Range of growth stages & season(c) Number min–max Interval between application (min) a.s./hl min–max Water L/ha min–max Rate and unit |               |         |
| Strawberries          | AT, FR, UK    | I              | Sphaerotheca macularis SC 75 g/L    | Foliar treatment – spraying 60 to 89 1 to 3 7 – – 45 g a.s./ha | 1            |
| Tomatoes              | AT, FR, UK    | I              | Alternaria solani, Alternaria alternata SC 75 g/L | Foliar treatment – broadcast spraying 14 to 89 1 to 2 7 – – 75 g a.s./ha | 3            |
| Sweet peppers         | AT, FR, UK    | I              | Alternaria solani, Alternaria alternata SC 75 g/L | Foliar treatment – broadcast spraying 14 to 89 1 to 2 7 – – 75 g a.s./ha | 3            |
| Aubergines            | AT, FR        | I              | Alternaria solani SC 75 g/L         | Foliar treatment – broadcast spraying 14 to 89 1 to 2 7 – – 75 g a.s./ha | 3            |
| Cucumbers             | AT, FR, UK    | I              | SC 75 g/L                          | Foliar treatment – broadcast spraying 14 to 89 3 7 – – 45 g a.s./ha | 3            |
| Gherkins              | AT, FR        | I              | SC 75 g/L                          | Foliar treatment – broadcast spraying 14 to 89 3 7 – – 45 g a.s./ha | 3            |
| Courgettes            | AT, FR        | I              | SC 75 g/L                          | Foliar treatment – broadcast spraying 14 to 89 3 7 – – 45 g a.s./ha | 3            |
| Crop and/or situation | MS or country | F G or T | Pests or group of pests controlled | Preparation | Method | Application | Application rate per treatment | PHI (days) | Remarks |
|-----------------------|--------------|----------|-----------------------------------|-------------|--------|------------|--------------------------------|-----------|---------|
|                       |              |          |                                   |             |        |            |                                 |           |         |
| Melons                | FR           | I        | Powdery mildew (Erysiphe cichoracearum (=Golovinomyces c.), Sphaerotheca fuliginea (=Podosphaera xanthii), Leveillula taurica (=Oidiopsis taurica) Mycospharella melonis (=Didymella bryoniae) | SC          | 75 g/L | Foliar treatment – broadcast spraying | 45 g a.s./ha | 3       |
| Pumkins               | FR           | I        | Powdery mildew (Erysiphe cichoracearum (=Golovinomyces c.), Sphaerotheca fuliginea (=Podosphaera xanthii), Leveillula taurica (=Oidiopsis taurica) Mycospharella melonis (=Didymella bryoniae) | SC          | 75 g/L | Foliar treatment – broadcast spraying | 45 g a.s./ha | 3       |
| Crop and/or situation | MS or country | FG or T | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days) | Remarks |
|-----------------------|---------------|---------|------------------------------------|-------------|------------|-------------------------------|------------|---------|
|                       |               |         |                                    |             |            |                               |            |         |
| Watermelons          | FR            | I       | Powdery mildew (Erysiphe cichoracearum (=Golovinomyces c.), Sphaerotheca fuliginea (=Podosphaera xanthii), Leveillula taurica (=Oidiopsis taurica) Mycosphaerella melonis (=Didymella bryoniae) | SC 75 g/L | Foliar treatment – broadcast spraying | 14 to 89 | 1 to 3 | 7 | – | – | 45 g a.s./ha | 3 |
| Lamb’s lettuces      | FR            | I       | Sclerotinia sclerotiorum, Sclerotinia minor | SC 75 g/L | Foliar treatment – broadcast spraying | 12 to 49 | 1 to 2 | 7 | – | – | 90 g a.s./ha | 14 |
| Lettuces             | FR, UK        | I       | SC 75 g/L | Foliar treatment – broadcast spraying | 12 to 49 | 1 to 2 | 7 | – | – | 90 g a.s./ha | 14 |
| Escaroles             | FR            | I       | Sclerotinia sclerotiorum, Sclerotinia minor | SC 75 g/L | Foliar treatment – broadcast spraying | 12 to 49 | 1 to 2 | 7 | – | – | 90 g a.s./ha | 14 |
| Roman rocket         | FR            | I       | Sclerotinia sclerotiorum, Sclerotinia minor | SC 75 g/L | Foliar treatment – broadcast spraying | 12 to 49 | 1 to 2 | 7 | – | – | 90 g a.s./ha | 14 |
| Crop and/or situation | MS or country | Pests or group of pests controlled | Preparation Type(b) | Conc. a.s. | Method kind | Range of growth stages & season(c) | Number min–max | Interval between application (min) | a.s./ha L min–max | Rate and unit | PHI (days)(d) | Remarks |
|-----------------------|--------------|-------------------------------------|---------------------|-----------|------------|----------------------------------|----------------|-----------------------------------|-----------------|-------------|-------------|---------|
| Witloofs              | FR I         | Rust (Puccinia ichorii), Alternaria spp. | SC                  | 75 g/L    | Post-harvest – spraying          | 2                  | –                                 | 11250 g a.s./ha | 21          |             | 1st application (dipping/drenching) BBCH 49 after harvest, before storage: 0.25 L/ hL. 2nd application, shortly after preparation for forcing (Spraying): 15 mL/ m² |

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(b): CropLife International Technical Monograph no 2, 6th Edition. Revised May 2008. Catalogue of pesticide.
(c): Growth stage range from first to last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including, where relevant, information on season at time of application.
(d): PHI – minimum pre-harvest interval.
### A.5. Import tolerance

| Crop and/or situation | MS or country | F, G, or T<sup>(a)</sup> | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days)<sup>(b)</sup> | Remarks |
|-----------------------|---------------|---------------------------|-----------------------------------|-------------|-----------------|-------------------------------|----------------|---------|
|                       |               |                           |                                   |             |                 |                               |                |         |
| Grapefruits           | BR            | F                         |                                   | Foliar      | 3               |                               | 50 g a.s./ha  | 14      |
|                       |               |                           |                                   | treatment – spraying                |                |                               |                |         |
|                      |               |                           |                                   |              |                 |                               |                |         |
| Apples                | US            | F                         |                                   | EC          | 62.5 g/L        | 1 to 4                       | 100 g a.s./ha | 0       |
|                       |               |                           |                                    | Foliar      | 1 to 4          |                               |                |         |
|                       |               |                           |                                    | treatment – spraying                |                |                               |                |         |
| Pears                 | US            | F                         |                                   | EC          | 62.5 g/L        | 1 to 4                       | 100 g a.s./ha | 0       |
|                       |               |                           |                                    | Foliar      | 1 to 4          |                               |                |         |
|                       |               |                           |                                    | treatment – spraying                |                |                               |                |         |
| Quinces               | US            | F                         |                                   | EC          | 62.5 g/L        | 1 to 4                       | 100 g a.s./ha | 0       |
|                       |               |                           |                                    | Foliar      | 1 to 4          |                               |                |         |
|                       |               |                           |                                    | treatment – spraying                |                |                               |                |         |
| Medlars               | US            | F                         |                                   | EC          | 62.5 g/L        | 1 to 4                       | 100 g a.s./ha | 0       |
|                       |               |                           |                                    | Foliar      | 1 to 4          |                               |                |         |
|                       |               |                           |                                    | treatment – spraying                |                |                               |                |         |
| Loquats               | US            | F                         |                                   | EC          | 62.5 g/L        | 1 to 4                       | 100 g a.s./ha | 0       |
|                       |               |                           |                                    | Foliar      | 1 to 4          |                               |                |         |
|                       |               |                           |                                    | treatment – spraying                |                |                               |                |         |
| Apricots              | US            | F                         |                                   | EC          | 62.5 g/L        | 1 to 3                       | 125 g a.s./ha | 0       |
|                       |               |                           |                                    | Foliar      | 1 to 3          |                               |                |         |
|                       |               |                           |                                    | treatment – spraying                |                |                               |                |         |
| Cherries              | US            | F                         |                                   | EC          | 100 g/L         | 1 to 3                       | 125 g a.s./ha | 0       |
|                       |               |                           |                                    | Foliar      | 1 to 3          |                               |                |         |
|                       |               |                           |                                    | treatment – spraying                |                |                               |                |         |
| Peaches               | US            | F                         |                                   | EC          | 62.5 g/L        | 1 to 3                       | 124 g a.s./ha | 0       |
|                       |               |                           |                                    | Foliar      | 1 to 3          |                               |                |         |
|                       |               |                           |                                    | treatment – spraying                |                |                               |                |         |
| Crop and/or situation | MS or country | F or G or T | Pests or group of pests controlled | Preparation | Application | PHI (days)(d) | Remarks |
|-----------------------|--------------|-------------|------------------------------------|-------------|-------------|---------------|---------|
|                       |              |             |                                    | Type(b)     | Conc. a.s.  | Range of growth stages & season(c) | Number min–max | Interval between application (min) | Application rate per treatment | Rate and unit |          |
| Plums                 | US           | F           |                                    | EC          | 62.5 g/L   | Foliar treatment – spraying          | 1 to 3           | 7                        | –              | 124 g a.s./ha | 0         |
| Strawberries          | US           | F           |                                    | EC          | 100 g/L    | Foliar treatment – spraying          | 1 to 3           | 7                        | –              | 200 g a.s./ha | 0         |
| Blueberries           | US           | F           |                                    | EC          | 100 g/L    | Foliar treatment – spraying          | 1 to 3           | 7                        | –              | 200 g a.s./ha | 0         |
| Mangoes               | BR           | F           |                                    | SC          | 200 g/L    | Foliar treatment – spraying          | 4                | –                        | –              | 67 g a.s./ha | 7         |
| Potatoes              | US           | F           |                                    | EC          | 62.5 g/L   | Foliar treatment – spraying          | 1 to 2           | 7                        | –              | 100 g a.s./ha | 7         |
| Carrots               | US           | F           |                                    | Soil treatment – general (see also comment field) | 0           | 1                              | –               | –                        | 250 g a.s./ha | n.a.      |
| Garlic                | US           | F           |                                    | EC          | 62.5 g/L   | Soil treatment – general (see also comment field) | 0           | 1                              | –               | 250 g a.s./ha | n.a.      |
| Onions                | US           | F           |                                    | EC          | 62.5 g/L   | Soil treatment – general             | 0           | 1                              | –               | 250 g a.s./ha | n.a.      |
| Crop and/or situation | MS or country | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days) | Remarks |
|-----------------------|--------------|-----------------------------------|-------------|-------------|-------------------------------|-----------|---------|
| Shallots              | US           | F                                 | EC          | Soil treatment – general | 0 1 – – | 250 g a.s./ha | n.a.     |
| Spring onions        | US           | F                                 | EC          | Soil treatment – general | 0 1 – – | 250 g a.s./ha | n.a.     |
| Cucumbers            | US           | F                                 | EC          | Foliar treatment – spraying (see also comment field) | 3 7 – – | 100 g a.s./ha | 0 Not more than 2 sequential applications |
| Gherkins             | US           | F                                 | EC          | Foliar treatment – spraying | 3 7 – – | 100 g a.s./ha | 0        |
| Courgettes           | US           | F                                 | EC          | Foliar treatment – spraying | 3 7 – – | 100 g a.s./ha | 0        |
| Melons               | BR           | F                                 | SC          | Foliar treatment – spraying | 4 – – | 58 g a.s./ha | 7        |
| Pumpkins             | BR           | F                                 | SC          | Foliar treatment – spraying | 4 – – | 58 g a.s./ha | 7        |
| Watermelons          | BR           | F                                 | SC          | Foliar treatment – spraying | 4 – – | 58 g a.s./ha | 7        |
| Sweet corn           | US           | F                                 | EC          | Foliar treatment – general | 1 to 2 – – | 50 g a.s./ha | 7        |
| Crop and/or situation | MS or country | FGTI(a) | Pests or group of pests controlled | Preparation | Method kind | Range of growth stages & season(b) | Number min-max | Interval between application (min) | Application rate per treatment a.s./ha | Rate and unit | PHI (days)(a) | Remarks |
|-----------------------|---------------|---------|-----------------------------------|-------------|------------|------------------------------------|---------------|----------------------------------|------------------------------------------|-------------|-------------|---------|
| Broccoli              | US            | F       |                                   | EC          | Foliar     | 100 g/L                            | 3             | 7                                |                                          | 100 g a.s./ha | 3           |         |
| Cauliflowers          | US            | F       |                                   | EC          | Foliar     | 100 g/L                            | 0             | 1                                |                                          | 250 g a.s./ha | n.a.        |         |
| Chinese cabbages      | US            | F       |                                   | EC          | Foliar     | 100 g/L                            | 3             | 7                                |                                          | 100 g a.s./ha | 3           |         |
| Lettuces              | US            | F       |                                   | EC          | Foliar     | 100 g/L                            | 0             | 1                                |                                          | 250 g a.s./ha | n.a.        |         |
| Beans (with pods)     | US            | F       |                                   | EC          | Foliar     | 62.5 g/L                           | 1 to 2        | 7                                |                                          | 100 g a.s./ha | 7           |         |
| Beans (without pods)  | US            | F       |                                   | EC          | Foliar     | 62.5 g/L                           | 1 to 2        | 7                                |                                          | 100 g a.s./ha | 7           |         |
| Peas (with pods)      | US            | F       |                                   | EC          | Foliar     | 62.5 g/L                           | 1 to 2        | 7                                |                                          | 100 g a.s./ha | 7           |         |
| Peas (without pods)   | US            | F       |                                   | EC          | Foliar     | 62.5 g/L                           | 1 to 2        | 7                                |                                          | 100 g a.s./ha | 7           |         |
| Cardoons              | US            | F       |                                   | EC          | Foliar     | 100 g/L                            | 3             | 7                                |                                          | 200 g a.s./ha | 1           |         |
| Crop and/or situation | MS or country | FG or T(a) | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days)(b) | Remarks |
|-----------------------|--------------|------------|----------------------------------|-------------|------------|-------------------------------|---------------|---------|
| **Celeries** | US | F | | EC | 100 g/L | Foliar treatment – broadcast spraying (see also comment field) | 3 | 7 | – | – | 200 g a.s./ha | 1 | Not more than 2 sequential applications |
| **Florence fennels** | US | F | | EC | 100 g/L | Foliar treatment – broadcast spraying (see also comment field) | 3 | 7 | – | – | 200 g a.s./ha | 1 | Not more than 2 sequential applications |
| **Rhubarbs** | US | F | | EC | 100 g/L | Foliar treatment – broadcast spraying | 3 | 7 | – | – | 200 g a.s./ha | 1 |
| **Beans (dry)** | US | F | | EC | | Foliar treatment – broadcast spraying | 1 to 2 | 7 | – | – | 200 g a.s./ha | 21 |
| **Lentils (dry)** | US | F | | EC | | Foliar treatment – broadcast spraying | 1 to 2 | 7 | – | – | 100 g a.s./ha | 21 |
| **Peas (dry)** | US | F | | EC | | Foliar treatment – broadcast spraying | 1 to 2 | 7 | – | – | 100 g a.s./ha | 21 |
| Crop and/or situation | MS or country | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days) | Remarks |
|-----------------------|---------------|-----------------------------------|-------------|-------------|--------------------------------|-----------|---------|
| Lupins (dry)          | US            | F                                 | EC          | Foliar treatment – broadcast spraying | 1 to 2 | 7 | – | – | 200 g a.s./ha | 21 |
| Linseeds              | US            | F                                 | EC          | Foliar treatment – general | 1 to 2 | 7 | – | – | 100 g a.s./ha | 21 |
| Peanuts               | US            | F                                 | EC          | Foliar treatment – general | 1 to 3 | 14 | – | – | 100 g a.s./ha | 7 |
| Poppy seeds           | US            | F                                 | EC          | Foliar treatment – general | 1 to 2 | 7 | – | – | 100 g a.s./ha | 21 |
| Sesame seeds          | US            | F                                 | EC          | Foliar treatment – general | 1 to 2 | 7 | – | – | 100 g a.s./ha | 21 |
| Sunflower seeds       | US            | F                                 | EC          | Foliar treatment – general | 1 to 2 | 7 | – | – | 100 g a.s./ha | 21 |
| Rapeseeds             | US            | F                                 | EC          | Foliar treatment – general | 1 to 2 | 7 | – | – | 100 g a.s./ha | 21 |
| Soyabeans             | US            | F                                 | EC          | Foliar treatment – general | 1 to 2 | 7 | – | – | 100 g a.s./ha | 21 |
| Mustard seeds         | US            | F                                 | EC          | Foliar treatment – general | 1 to 2 | 7 | – | – | 100 g a.s./ha | 21 |
| Pumpkin seeds         | US            | F                                 | EC          | Foliar treatment – general | 1 to 2 | 7 | – | – | 100 g a.s./ha | 21 |
| Crop and/or situation | MS or country | Pest(s) controlled | Preparation | Application | Application rate per treatment | PHI (days) | Remarks |
|-----------------------|--------------|--------------------|-------------|-------------|--------------------------------|------------|---------|
| Safflower seeds       | US F         | EC                 | Foliar treatment – general | 1 to 2 | 7 | 100 g a.s./ha | 21 |
| Borage seeds          | US F         | EC                 | Foliar treatment – general | 1 to 2 | 7 | 100 g a.s./ha | 21 |
| Gold of pleasure seeds | US F     | EC                 | Foliar treatment – general | 1 to 2 | 7 | 100 g a.s./ha | 21 |
| Hemp seeds            | US F         | EC                 | Foliar treatment – general | 1 to 2 | 7 | 100 g a.s./ha | 21 |
| Castor beans          | US F         | EC                 | Foliar treatment – general | 1 to 2 | 7 | 100 g a.s./ha | 21 |
| Barley                | US F         | EC                 | Foliar treatment – broadcast spraying | 2 | – | 100 g a.s./ha | 21 |
| Maize                 | US F         | EC                 | Foliar treatment – general | 1 to 2 | – | 50 g a.s./ha | 21 |
| Oat                   | US F         | EC                 | Foliar treatment – broadcast spraying | 2 | – | 100 g a.s./ha | 21 |
| Rice                  | US F         | SC                 | Foliar treatment – broadcast spraying | 2 | 7 | 150 g a.s./ha | 28 |
| Crop and/or situation | MS or country | Pests or group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days) | Remarks |
|-----------------------|--------------|-----------------------------------|-------------|-------------|-------------------------------|------------|---------|
| Rye                   | US           | F                                 | EC          | 100 g/L     | Foliar treatment – broadcast spraying | 2          | –       | 100 g a.s./ha | 21       |
| Sorghum               | US           | F                                 | EC          | 100 g/L     | Foliar treatment – broadcast spraying | 2          | –       | 100 g a.s./ha | 21       |
| Wheat                 | US           | F                                 | EC          | 100 g/L     | Foliar treatment – broadcast spraying | 2          | –       | 100 g a.s./ha | 21       |
| Sugar beets           | US           | F                                 | EC          | 100 g/L     | Foliar treatment – broadcast spraying | 3          | 14      | 100 g a.s./ha | 7        |
| Sugar canes           | US           | F                                 | EC          | 100 g/L     | Foliar treatment – broadcast spraying | 2          | 14      | 125 g a.s./ha | 14       |

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(c): Growth stage range from first to last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including, where relevant, information on season at time of application.
(d): PHI – minimum preharvest interval.
### Appendix B – List of end points

#### B.1. Residues in plants

#### B.1.1. Nature of residues and methods of analysis in plants

#### B.1.1.1. Metabolism studies, methods of analysis and residue definitions in plants

| Primary crops (available studies) | Crop groups | Crops | Applications | Sampling | Comment/source |
|-----------------------------------|-------------|-------|--------------|----------|----------------|
| Fruit crops                       | Tomato      | Foliar | 3 × 100 g a.s./ha, interval days | 7 DALA   | Radiolabelled fluxapyroxad: aniline and pyrazole rings (United Kingdom, 2011b; EFSA, 2012) |
| Cereals/grass                     | Wheat       | Foliar | 2 × 125 g a.s./ha, BBCH 30-35, 69 | 36 DAT, 4, 34-35 DALA | Radiolabelled fluxapyroxad: aniline and pyrazole rings (United Kingdom, 2011b; EFSA, 2012) |
|                                  |             | Seed treatment, 75 g a.s/100 kg (equivalent to 135 g a.s./ha) | 93, 112, 161 DAT | Radiolabelled fluxapyroxad: aniline and pyrazole rings (EFSA, 2015b) |
| Pulses/oilseeds                  | Soyabean    | Foliar | 3 × 60 g a.s./ha, BBCH 16-17, 51-59, 71-75 | 0 DAT, 34 DALA | Radiolabelled fluxapyroxad: aniline and pyrazole rings (United Kingdom, 2011b; EFSA, 2012) |

| Rotational crops (available studies) | Crop groups | Crop(s) | Application(s) | PBI (DAT) | Comment/source |
|--------------------------------------|-------------|---------|----------------|-----------|----------------|
| Root/tuber crops                     | White radish | Bare soil, 1 × 250 g a.s./ha | 30, 120/149, 365 | Rotational crops studies are used as surrogate for depicting the metabolism following soil treatment in roots and leafy vegetables. Studies with radiolabelled fluxapyroxad: aniline and pyrazole rings (United Kingdom, 2011a; EFSA, 2012) |
| Leafy crops                          | Spinach     | Bare soil, 1 × 250 g a.s./ha | 30, 120/149, 365 | |
| Cereal (small grain)                 | Wheat       | Bare soil, 1 × 250 g a.s./ha | 30, 120/149, 365 | |

| Processed commodities (hydrolysis study) | Conditions | Stable? | Comment/source |
|------------------------------------------|------------|---------|----------------|
|                                          | Pasteurisation (20 min, 90°C, pH 4) | Yes | United Kingdom (2011b), EFSA (2012) |
|                                          | Baking, brewing and boiling (60 min, 100°C, pH 5) | Yes | United Kingdom (2011b), EFSA (2012) |
|                                          | Sterilisation (20 min, 120°C, pH 6) | Yes | United Kingdom (2011b), EFSA (2012) |
| Question                                                                 | Answer                  | Notes                                                                 |
|------------------------------------------------------------------------|-------------------------|----------------------------------------------------------------------|
| Can a general residue definition be proposed for primary crops?         | Yes                     | For foliar applications.                                              |
| Rotational crop and primary crop metabolism similar?                    | Yes                     | For soil treatment (based on the confined rotational studies).        |
| Residue pattern in processed commodities similar to residue pattern in raw commodities? | Yes                     |                                                                       |
| Plant residue definition for monitoring (RD-Mo)                         | Fluxapyroxad            |                                                                       |
| Plant residue definition for risk assessment (RD-RA)                    | Fluxapyroxad            |                                                                       |
| Methods of analysis for monitoring of residues (analytical technique, matrix groups, LOQs) | Matrices with high water content, high oil content, high acid content and dry matrices (EFSA, 2012):  
  • HPLC–MS/MS, LOQ 0.01 mg/kg  
  • Confirmatory method available.  
  • ILV available  
   - The EURLs reported that fluxapyroxad can be monitored in all four main plant matrices with at least an LOQ of 0.01 mg/kg (EURLs, 2018)  
  - Herbal infusions (from leaves and rots):  
    • No method available (data gap) |

a.s.: active ingredient; DAT: days after treatment; DALA: days after last application; PBI: plant-back interval; HPLC–MS/MS: high-performance liquid chromatography with tandem mass spectrometry; LOQ: limit of quantification; ILV: independent laboratory validation.
### Stability of residues in plants

| Plant products (available studies) | Category            | Commodity                              | T (°C) | Stability period | Compounds covered     | Comment/source               |
|-----------------------------------|----------------------|----------------------------------------|--------|------------------|------------------------|-----------------------------|
|                                   |                      |                                        |        | Value Unit       |                        |                             |
| High water content                |                      | Apples, tomato, potato, Triticale (whole plant) | −20    | 24 Months        | Fluxapyroxad, M700F002 | United Kingdom (2011a), EFSA (2012) |
|                                   |                      | Apples, tomato, potato, Triticale (whole plant) | −20    | 24 Months        | M700F048               | United Kingdom (2011b), EFSA (2012) |
|                                   |                      | Apples, tomato, potato, Triticale (whole plant) | −20    | 4 Months         | M700F008               | United Kingdom (2011a), EFSA (2012) |
| High oil content                  |                      | Avocado, soyabean seed                 | −20    | 24 Months        | Fluxapyroxad, M700F002 | United Kingdom (2011a), EFSA (2012) |
|                                   |                      | Avocado, soyabean seed                 | −20    | 24 Months        | M700F048               | United Kingdom (2011b), EFSA (2012) |
|                                   |                      | Avocado, soyabean seed                 | −20    | 4 Months         | M700F008               | United Kingdom (2011a), EFSA (2012) |
| High protein content              |                      | Dried peas                             | −20    | 24 Months        | Fluxapyroxad, M700F002 | United Kingdom (2011a), EFSA (2012) |
| High starch content               |                      | Wheat grain                            | −20    | 24 Months        | Fluxapyroxad, M700F002 | United Kingdom (2011a), EFSA (2012) |
|                                   |                      | Wheat grain                            | −20    | 24 Months        | M700F008, M700F048     | United Kingdom (2011b), EFSA (2012) |
| High acid content                 |                      | Lemons, grapes                         | −20    | 24 Months        | Fluxapyroxad, M700F002 | United Kingdom (2011a), EFSA (2012) |
|                                   |                      | Lemons, grapes                         | −20    | 24 Months        | M700F048               | United Kingdom (2011b), EFSA (2012) |
| Processed products                |                      | Apple (juice), soybean (refined oil), potato (crisps), grape (raisins), barley (beer) | −20    | 24 Months        | M700F048               | United Kingdom (2011b)         |
| Others                            |                      | Wheat straw                            | −20    | 24 Months        | Fluxapyroxad, M700F002 | United Kingdom (2011a), EFSA (2012) |
|                                   |                      | Wheat straw                            | −20    | 24 Months        | M700F008 and M700F048 | United Kingdom (2011b), EFSA (2012) |
### B.1.2. Magnitude of residues in plants

#### B.1.2.1. Summary of residues data from the supervised residue trials – Primary crops

| Commodity                      | Region/Indoor(a) | Residue levels observed in the supervised residue trials (mg/kg) | Comments/source                                                                 | Calculated MRL (mg/kg) | HR(b) (mg/kg) | STMR(c) (mg/kg) |
|--------------------------------|------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------|--------------|----------------|
| Grapefruits                    | Import (BR)      | 0.03; 0.04; 0.05; 0.06; 0.06; 0.07; 0.14; 0.14; 0.16; 0.16; 0.17 | Trials on oranges compliant with GAP (EFSA, 2017). Extrapolation to grapefruits was proposed (EFSA, 2017) | 0.4                    | 0.17         | 0.07           |
|                                |                  |                                                                 | MRL<sub>OECD</sub> = 0.31                                                    |                        |              |                |
| Apples, Pears, Quinces, Medlars, Loquats/Japanese medlars | NEU              | 0.013; 0.017; 0.027; 0.029; 0.0295; 0.050; 0.0505; 0.14 | Trials on apples compliant with GAP (France, 2018). Extrapolation to all pome fruits is applicable | 0.2                    | 0.14         | 0.03           |
|                                | SEU              | 0.012; 0.024; 0.028; 0.031; 0.0465; 0.050; 0.067; 0.10 | Trials on apples compliant with GAP (France, 2018). Extrapolation to all pome fruits is applicable | 0.2                    | 0.1          | 0.04           |
|                                | Import (US)      | 0.08; 0.14; 0.15; 0.16; 0.18; 0.21; 0.21; 0.21; 0.23; 0.23; 0.24; 0.25; 0.26; 0.28; 0.29; 0.30; 0.31; 0.34; 0.35; 0.36; 0.37; 0.38; 0.45; 0.47 | Combined data set of trials on apples (14) and pears (10) compliant with GAP (EFSA, 2011). Extrapolation to all pome fruits is applicable | 0.8                    | 0.47         | 0.26           |
| Apricots                        | NEU              | 0.018; 0.025; 0.031; 0.046; 0.048 | Combined data set of trials on apricots (1) and peaches (4) compliant with GAP (EFSA, 2011). Extrapolation to apricots is applicable | 0.1 (tentative)<sup>(d)</sup> | 0.05         | 0.03           |
|                                | SEU              | < 0.01; 0.018; 0.021; 0.026; 0.032; 0.042; 0.047; 0.084 | Combined data set of trials on apricots (3) and peaches (5) compliant with GAP (EFSA, 2011). Extrapolation to apricots is applicable | 0.15 (tentative)<sup>(d)</sup> | 0.08         | 0.03           |
|                                | Import (US)      | – | No residue trials are available | – | – | – |
| Cherries (sweet)                | Import (US)      | 0.25; 0.31; 0.53; 0.55; 0.56; 0.82; 1.10; 1.86 | Trials on cherries (sweet and sour) compliant with GAP (EFSA, 2016a) | 3                      | 1.86         | 0.56           |
|                                |                  |                                                                 | MRL<sub>OECD</sub> = 2.85 |                        |              |                |
| Peaches                         | NEU              | 0.018; 0.025; 0.031; 0.046; 0.048 | Combined data set of trials on apricots (1) and peaches (4) compliant with GAP (EFSA, 2011). Extrapolation to apricots is applicable | 0.1                    | 0.05         | 0.03           |

Note: (a) Indoor, (b) HR, (c) STMR, (d) Tentative.
| Commodity | Region/indoor<sup>(a)</sup> | Residue levels observed in the supervised residue trials (mg/kg) | Comments/source | Calculated MRL<sup>(b)</sup> (mg/kg) | HR<sup>(b)</sup> (mg/kg) | STMR<sup>(c)</sup> (mg/kg) |
|-----------|----------------------------|---------------------------------------------------------------|-----------------|---------------------------------|-----------------|-----------------|
| SEU       | < 0.01; 0.018; 0.021; 0.026; 0.032; 0.042; 0.047; 0.084 | Combined data set of trials on apricots (3) and peaches (5) compliant with GAP (EFSA, 2011). Extrapolation to apricots is applicable. MRL<sub>OECD</sub> = 0.13 | 0.15 (tentative)<sup>(d)</sup> | 0.08 | 0.03 |
| Import (US) | 0.28; 0.30; 0.32; 0.33; 0.34; 0.43; 0.45; 0.55; 0.55; 0.58; 0.59; 0.63 | Trials on peaches compliant with GAP (EFSA, 2011). Since all trials are on peaches, extrapolation to apricots is not possible. MRL<sub>OECD</sub> = 1.34 | 1.5 | 0.63 | 0.44 |
| SEU | 0.23; 0.24; 0.27; 0.37; 0.38; 0.49; 0.55; 0.56; 0.64; 0.95 | Trials on plums compliant with GAP (EFSA, 2011) MRL<sub>OECD</sub> = 1.40 | 1.5 | 0.95 | 0.44 |
| Table grapes | 0.067; 0.083; 0.087; 0.13; 0.053; 0.060; 0.060; 0.068; 0.098; 0.113; 0.113; 0.203 | Combined data set of four trials compliant with GAP (first four values) and eight trials on table/wine grapes scaled using the proportionality approach with a scaling factor of 0.75 (EFSA, 2015b; France, 2018) MRL<sub>OECD</sub> = 0.28 | 0.3 | 0.20 | 0.09 |
| SEU | 0.03; 0.03; 0.03; 0.04; 0.06; 0.07; 0.11; 0.15; 0.20; 0.26 | Trials on table and wine grapes compliant with GAP (EFSA, 2015b) MRL<sub>OECD</sub> = 0.42 | 0.5 | 0.26 | 0.07 |
| Wine grapes | 0.083; 0.15; 0.15; 0.27; 0.08; 0.10; 0.10; 0.11; 0.16; 0.18; 0.18; 0.32 | Combined data set of four trials compliant with GAP (first four values) and eight trials on table/wine grapes scaled using the proportionality approach with a scaling factor of 1.2 (EFSA, 2015b; France, 2018) MRL<sub>OECD</sub> = 0.47 | 0.5 | 0.32 | 0.15 |
| SEU | 0.03; 0.03; 0.03; 0.04; 0.06; 0.07; 0.11; 0.15; 0.20; 0.26 | Trials compliant with GAP (EFSA, 2015b) MRL<sub>OECD</sub> = 0.42 | 0.5 | 0.26 | 0.07 |
| Strawberries | 0.037; 0.038; 0.040; 0.066; 0.071; 0.130; 0.130; 0.300 | Trials on strawberries compliant with GAP (France, 2018) MRL<sub>OECD</sub> = 0.46 | 0.5 | 0.3 | 0.07 |
| SEU | 0.011; 0.090; 0.110; 0.110; 0.120; 0.150; 0.160; 0.190 | Trials on strawberries compliant with GAP (France, 2018) MRL<sub>OECD</sub> = 0.32 | 0.4 | 0.19 | 0.12 |
| EU | < 0.01; < 0.01; 0.042; 0.091; 0.12; 0.13; 0.13; 0.21 | Trials on strawberries compliant with GAP (France, 2018) MRL<sub>OECD</sub> = 0.37 | 0.4 | 0.21 | 0.11 |
| Import (US) | 0.21; 0.26; 0.76; 0.76; 0.87; 0.97; 1.01; 2.34 | Trials on strawberries compliant with GAP (EFSA, 2016a) MRL<sub>OECD</sub> = 3.52 | 4 | 2.34 | 0.82 |
| Commodity                                      | Region/ indoor | Residue levels observed in the supervised residue trials (mg/kg) | Comments/source                                                                 | Calculated MRL (mg/kg) | HR<sub>(b)</sub> (mg/kg) | STMR<sup>(c)</sup> (mg/kg) |
|-----------------------------------------------|---------------|------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------|--------------------------|-----------------------------|
| Blueberries Import (US)                       |               | 1.27; 1.71; 2.39; 2.42; 3.77                                      | Trials on blueberries compliant with GAP (EFSA, 2016a). MRLOECD = 6.94          | 7                      | 3.77                     | 2.39                        |
| Mangoes SEU                                   |               | 0.01; 0.020; 0.021; 0.029                                        | Trials on mangoes compliant with GAP (France, 2018)                             | 0.06                   | 0.03                     | 0.02                        |
| Import (BR)                                   |               | 0.13; 0.16; 0.20; 0.37                                            | Trials on mangoes compliant with GAP (EFSA, 2016a). RMS reported that the tolerance established in the exporting country is 0.5 mg/kg (France, 2018) MRLOECD = 0.65 | 0.8                    | 0.37                     | 0.18                        |
| Potatoes NEU                                   |               | < 0.01; < 0.01; < 0.01; 0.01; 0.02; 0.04; 0.04                    | Trials on potatoes compliant with GAP (France, 2018)                             | 0.08                   | 0.04                     | 0.01                        |
| Import (US)                                   |               | 21 × < 0.01                                                     | Trials on potatoes compliant with GAP (EFSA, 2011) MRLOECD = 0.01               | 0.01*                  | 0.01                     | 0.01                        |
| Carrots, Beetroots, Celeriacs/turnip rooted celeries, Jerusalem artichokes, Parsnips, Parsley roots/ Hamburg roots parsley, Radishes, Salsifies, Swedes/ rutabagas, Turnips | NEU           | 0.03; 0.03; 0.03; 0.03; 0.04; 0.04; 0.06; 0.10; 0.13; 0.18       | Trials on carrots compliant with GAP (EFSA, 2017). Extrapolation to the whole group of root and tuber vegetables (except sugar beet) is applicable MRLOECD = 0.28 | 0.3                    | 0.18                     | 0.04                        |
| SEU                                           |               | < 0.01; < 0.02; < 0.03; 0.03; 0.04; 0.04; 0.05; 0.08              | Trials on carrots compliant with GAP (EFSA, 2017). Extrapolation to the whole group of root and tuber vegetables (except sugar beet) is applicable MRLOECD = 0.12 | 0.15                   | 0.08                     | 0.04                        |
| Import (US)                                   |               | –                                                               | No residue trials are available. GAP authorised for carrots only                | –                      | –                        | –                           |
| Garlic                                        | Import (US)   | –                                                               | No residue trials are available.                                               | –                      | –                        | –                           |
| Onions                                         | Import (US)   | –                                                               | No residue trials are available.                                               | –                      | –                        | –                           |
| Shallots                                       | Import (US)   | –                                                               | No residue trials are available.                                               | –                      | –                        | –                           |
| Spring onions/green onions and Welsh onions    | NEU           | < 0.01; 0.02; 0.06; 0.09; 0.10; 0.12; 0.17; 0.22               | Trials on leeks compliant with GAP (EFSA, 2017). Extrapolation to Spring onions is applicable MRLOECD = 0.39 | 0.4                    | 0.22                     | 0.10                        |
| SEU                                           |               | 0.07; 0.08; 0.14; 0.18; 0.19; 0.23; 0.26; 0.42                | Trials on leeks compliant with GAP (EFSA, 2017). Extrapolation to Spring onions is applicable MRLOECD = 0.65 | 0.7                    | 0.42                     | 0.19                        |
| Import (US)                                   |               | –                                                               | No residue trials are available.                                               | –                      | –                        | –                           |
| Commodity                  | Region/indoor | Residue levels observed in the supervised residue trials (mg/kg)                                                                 | Comments/source                                                                                                                                                    | Calculated MRL (mg/kg) | HR<sup>(b)</sup> (mg/kg) | STMR<sup>(c)</sup> (mg/kg) |
|---------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------|---------------------------|
| Tomatoes, Aubergines      | SEU           | < 0.010; 0.018; 0.028; 0.030; 0.049; 0.051; 0.061; 0.150                                                                                                                      | Trials on tomatoes compliant with GAP (France, 2018). Extrapolation to aubergines is applicable MRL<sub>OECD</sub> = 0.23                                                                                       | 0.3                    | 0.15                     | 0.04                      |
|                           | EU            | 0.038; 0.046; 0.047; 0.053; 0.063; 0.078; 0.086; 0.1                                                                                                                                  | Trials on tomatoes compliant with GAP (France, 2018). Extrapolation to aubergines is applicable MRL<sub>OECD</sub> = 0.19                                                                                       | 0.2                    | 0.1                      | 0.06                      |
| Sweet peppers/bell peppers| SEU           | < 0.01; 0.017; 0.028; 0.037; 0.050; 0.100; 0.110                                                                                                                                  | Trials compliant with GAP (France, 2018) MRL<sub>OECD</sub> = 0.20                                                                                                       | 0.2                    | 0.11                     | 0.03                      |
|                           | EU            | 0.029; 0.029; 0.064; 0.069; 0.072; 0.088; 0.093; 0.15                                                                                                                                | Trials compliant with GAP (France, 2018) MRL<sub>OECD</sub> = 0.23                                                                                                       | 0.3                    | 0.15                     | 0.07                      |
| Cucumbers, Gherkins, Courgettes | NEU        | < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; 0.022; 0.058; 0.095                                                                                                                            | Combined data set of trials on cucumber (4) and courgette (4) compliant with GAP (France, 2018). Extrapolation to gherkins and courgettes is applicable MRL<sub>OECD</sub> = 0.16                                               | 0.2                    | 0.10                     | 0.01                      |
|                           | SEU           | < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; 0.012; 0.013; 0.015                                                                                                                            | Combined data set of trials on cucumber (4) and courgette (4) compliant with GAP (France, 2018). Extrapolation to gherkins and courgettes is applicable MRL<sub>OECD</sub> = 0.02                                               | 0.03                   | 0.02                     | 0.01                      |
|                           | EU            | < 0.01; 0.012; 0.014; 0.014; 0.019; 0.022; 0.028; 0.064                                                                                                                              | Combined data set of trials on cucumber (4) and courgette (4) compliant with GAP (France, 2018). Extrapolation to gherkins and courgettes is applicable MRL<sub>OECD</sub> = 0.09                                               | 0.1                    | 0.06                     | 0.017                     |
| Import (US)               |               | Mo (scaled): 0.01; 0.04; 0.08; 0.08; 0.02; 0.03; 0.05; 0.05; 0.07; 0.11                                                                                                           | Combined data set of trials on cucumber (4) and courgette (6) scaled using the proportionality approach with a scaling factor of 0.5 (EFSA, 2016a). Extrapolation to gherkins and courgettes is applicable MRL<sub>OECD</sub> = 0.18                           | 0.2                    | 0.11                     | 0.05                      |
| Melons, Pumpkins, Watermelons | NEU        | < 0.01; 0.014; 0.021; 0.026; 0.030; 0.032; 0.036                                                                                                                                | Trials on melons compliant with GAP (France, 2018). Extrapolation to watermelons and pumpkins is applicable MRL<sub>OECD</sub> = 0.07                                                                     | 0.07                   | 0.04                     | 0.024                     |
|                           | SEU           | < 0.01; 0.019; 0.021; 0.023; 0.024; 0.028; 0.034; 0.036                                                                                                                               | Trials on melons compliant with GAP (France, 2018). Extrapolation to watermelons and pumpkins is applicable MRL<sub>OECD</sub> = 0.07                                                                     | 0.07                   | 0.04                     | 0.024                     |
| Commodity          | Region/ indoor(a) | Residue levels observed in the supervised residue trials (mg/kg) | Comments/source                                                                 | Calculated MRL (mg/kg) | HR(b) (mg/kg) | STMR(c) (mg/kg) |
|--------------------|-------------------|---------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------|--------------|----------------|
| EU                 |                   | < 0.01; 0.010; 0.013; 0.023; 0.026; 0.036; 0.039; 0.040; 0.055 | Trials on melons compliant with GAP (France, 2018). Extrapolation to watermelons and pumpkins is applicable MRL<sub>OECD</sub> = 0.09 | 0.09                   | 0.06         | 0.03          |
| Import (BR)        |                   | 0.02; 0.03; 0.04; 0.05; < 0.01; 0.05; 0.06; 0.07             | Combined data set of trials on melons (4) and watermelons (4) compliant with GAP (EFSA, 2016a). Extrapolation to pumpkins is applicable MRL<sub>OECD</sub> = 0.12 | 0.15                   | 0.07         | 0.045         |
| Sweet corn         | Import (US)       | < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; 0.09   | Trials compliant with GAP (EFSA, 2011) MRL<sub>OECD</sub> = 0.13                  | 0.15                   | 0.09         | 0.01          |
| Broccoli           | NEU               | < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; 0.09   | Combined data set of trials on cauliflower (4) and broccoli (4) compliant with GAP (EFSA, 2017) MRL<sub>OECD</sub> = 0.12 | 0.15                   | 0.08         | 0.01          |
|                    | SEU               | < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01 | Combined data set of trials on cauliflower (4) and broccoli (4) compliant with GAP (EFSA, 2017) MRL<sub>OECD</sub> = 0.08 | 0.08                   | 0.05         | 0.01          |
|                    | Import (US)       | Scaled: 0.08; 0.10; 0.16; 0.28; 0.31; 0.34; 1.27            | Trials on broccoli were scaled using the proportionality approach using a scaling factor of 0.5 to 1.0 (EFSA, 2016a) MRL<sub>OECD</sub> = 2.01 | 2                      | 1.27         | 0.28          |
| Cauliflowers       | NEU               | < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; 0.02   | Combined data set of trials on cauliflower (4) and broccoli (4) compliant with GAP (EFSA, 2017) MRL<sub>OECD</sub> = 0.12 | 0.15                   | 0.08         | 0.01          |
|                    | SEU               | < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01 | Combined data set of trials on cauliflower (4) and broccoli (4) compliant with GAP (EFSA, 2017) MRL<sub>OECD</sub> = 0.08 | 0.08                   | 0.05         | 0.01          |
|                    | Import (US)       | –                                                             | No residue trials available                                                      | –                      | –            | –             |
| Brussels sprouts   | NEU               | 0.02; 0.04; 0.06; 0.14                                       | Trials on Brussels sprouts compliant with GAP (EFSA, 2017) MRL<sub>OECD</sub> = 0.28 | 0.4                    | 0.14         | 0.05          |
|                    | SEU               | –                                                             | No residue trials available                                                      | –                      | –            | –             |
| Commodity                          | Region/indoor | Residue levels observed in the supervised residue trials (mg/kg) | Comments/source                                                                 | Calculated MRL (mg/kg) | HR<sub>(b)</sub> (mg/kg) | STMR<sub>(c)</sub> (mg/kg) |
|-----------------------------------|---------------|----------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------|--------------------------|--------------------------|
| Head cabbages                     | NEU           | < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; 0.01; 0.012; 0.27          | Trials on head cabbages compliant with GAP (EFSA, 2017) MRL<sub>OECD</sub> = 0.41 | 0.5                    | 0.27                     | 0.01                     |
|                                   | SEU           | < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; 0.01; 0.02; 0.03         | Trials on head cabbages compliant with GAP (EFSA, 2017) MRL<sub>OECD</sub> = 0.04 | 0.05                   | 0.03                     | 0.01                     |
| Chinese cabbages/pe-tsai          | Import (US)   | 0.475; 0.565; 0.895; 1.7; 1.9                                 | Trials on mustard greens (Chinese cabbages) compliant with GAP (EFSA, 2016a) MRL<sub>OECD</sub> = 3.73 | 4                      | 1.9                      | 0.90                     |
| Lettuces, Escaroles/broad-leaved endives, Roman rocket/rucola | NEU           | 0.01; (0.01); 0.03; 0.05; 0.06; 0.18; 0.87; 1.44               | Trials on open leaf variety except one trial (0.01; in brackets) compliant with GAP (EFSA, 2017). Extrapolation to escaroles and Roman rocket is applicable MRL<sub>OECD</sub> = 2.47 | 3                      | 1.44                     | 0.06                     |
|                                   | SEU           | < 0.01; < 0.01; 0.05; 0.07; 0.16; 0.76; 1.58; 1.80             | Trials on lettuce (open leaf variety) compliant with GAP (EFSA, 2017). GAP authorised for lettuces, escaroles and Roman rocket. Extrapolation to escaroles and Roman rocket is applicable MRL<sub>OECD</sub> = 3.53 | 4                      | 1.8                      | 0.12                     |
|                                   | EU            | < 0.01; < 0.01; 0.07; 0.23; 0.26; 0.58; 1.30; 1.80             | Trials on lettuce (open leaf variety) compliant with GAP (EFSA, 2017). Extrapolation to escaroles and Roman rocket is applicable MRL<sub>OECD</sub> = 3.20 | 4                      | 1.8                      | 0.25                     |
| Import (US)                       |               | No residue trials available. GAP authorised for lettuces only |                                                                                | –                      | –                        | –                        |
| Lamb's lettuces/corn salads        | NEU           | 0.01; (0.01); 0.03; 0.05; 0.06; 0.18; 0.87; 1.44               | Trials on open leaf variety except one trial (0.01; in brackets) compliant with GAP (EFSA, 2017). Extrapolation to lamb's lettuce is applicable MRL<sub>OECD</sub> = 2.47 | 3                      | 1.44                     | 0.06                     |
|                                   | SEU           | < 0.01; 0.011; 0.032; 0.042; 0.083; 0.31; 0.73; 0.79         | Trials on lettuces (open leaf variety) compliant with GAP (France, 2018). Extrapolation to lamb's lettuce is applicable MRL<sub>OECD</sub> = 1.57 | 2                      | 0.79                     | 0.06<sup>(i)</sup>       |
|                                   | EU            | < 0.01; < 0.01; 0.07; 0.23; 0.26; 0.58; 1.30; 1.80            | Trials on lettuce (open leaf variety) compliant with GAP (EFSA, 2017). Extrapolation to lamb's lettuce is applicable MRL<sub>OECD</sub> = 3.20 | 4                      | 1.8                      | 0.25                     |
| Commodity | Region/indoor(a) | Residue levels observed in the supervised residue trials (mg/kg) | Comments/source | Calculated MRL (mg/kg) | HR(b) (mg/kg) | STMR(c) (mg/kg) |
|-----------|------------------|---------------------------------------------------------------|-----------------|------------------------|---------------|----------------|
| Cresses, Land cresses, Red mustards | NEU | 0.01; (0.01); 0.03; 0.05; 0.06; 0.18; 0.87; 1.44 | Trials on open leaf variety except one trial (0.01; in brackets) compliant with GAP (EFSA, 2017). Extrapolation to cresses, land cresses and red mustards is applicable MRL<sub>OECD</sub> = 2.47 | | 3 | 1.44 | 0.06 |
| | SEU | < 0.01; 0.011; 0.032; 0.042; 0.083; 0.31; 0.73; 0.79 | Trials on lettuces (open leaf variety) compliant with GAP (France, 2018). Extrapolation to cresses, land cresses and red mustards is applicable MRL<sub>OECD</sub> = 1.57 | | 2 | 0.79 | 0.06 |
| Baby leaf crops (including brassica species), Spinaches, Purslanes, Chards/beet leaves, Chervil, Chives, Celery leaves, Parsley, Sage, Rosemary, Thyme, Basil and edible flowers, Laurel/bay leave, Tarragon | NEU | 0.01; (0.01); 0.03; 0.05; 0.06; 0.18; 0.87; 1.44 | Trials on open leaf variety except one trial (0.01; in brackets) compliant with GAP (EFSA, 2017). Extrapolation to baby leaf crops (including brassica species), spinach and similar leaves and herbs is applicable MRL<sub>OECD</sub> = 2.47 | | 3 | 1.44 | 0.06 |
| Witloofs/Belgian endives | EU | 1.40; 1.50; 2.40; 2.50 | Trials compliant with GAP (EFSA, 2017) MRL<sub>OECD</sub> = 5.85 | | 6 | 2.5 | 1.95 |
| Peas (with pods), Beans (with pods) | NEU | 0.067; 0.086; 0.12; 0.12; 0.24; 0.26; 0.33; 0.47 | Trials on fresh peas with pods compliant with GAP (France, 2018). GAP not authorised for beans (with pods) MRL<sub>OECD</sub> = 0.77 | | 0.8 | 0.47 | 0.18 |
| | SEU | 0.078; 0.08; 0.08; 0.11; 0.11; 0.12; 0.13; 0.28 | Trials on fresh peas with pods compliant with GAP (France, 2018). GAP not authorised for beans (with pods) MRL<sub>OECD</sub> = 0.39 | | 0.4 | 0.28 | 0.11 |
| Import (US) | | | | | | | |
| Commodity | Region/ indoor<sup>(a)</sup> | Residue levels observed in the supervised residue trials (mg/kg) | Comments/source | Calculated MRL (mg/kg) | HR<sup>(b)</sup> (mg/kg) | STMR<sup>(c)</sup> (mg/kg) |
|-----------|-----------------------------|---------------------------------------------------------------|-----------------|-----------------------|--------------------------|--------------------------|
| Peas (without pods), Beans (without pods) | NEU | – | No residue trials available. GAP authorised for peas (without pods) only | – | – | – |
| | Import (US) | < 0.01; 0.02; 0.03; 0.03; 0.03; 0.03; 0.04 | Trials on fresh peas without pods compliant with GAP (EFSA, 2011). Extrapolation to beans without pods is applicable MRL<sub>OECD</sub> = 0.08 | 0.08 | 0.04 | 0.03 |
| Celeries, Cardoons, Florence fennels, Rhubarbs | SEU | 0.14; 0.23; 0.25; 0.60; 1.33; 2.95; 3.63; 3.64; 3.83 | Trials on celeries compliant with GAP (EFSA, 2016a). Extrapolations to cardoons, Florence fennels and rhubarbs are applicable MRL<sub>OECD</sub> = 8.39 | 9 | 3.83 | 1.33 |
| | Import (US) | 1.30; 1.45; 1.50; 1.85; 2.65; 5.15 | Trials on celeries compliant with GAP (EFSA, 2016a). Extrapolations to cardoons, Florence fennels and rhubarbs are applicable MRL<sub>OECD</sub> = 8.20 | 9 | 5.15 | 1.68 |
| Globe artichokes | NEU | 0.06; 0.06; 0.06; 0.19 | Trials on globe artichokes compliant with GAP (EFSA, 2017) MRL<sub>OECD</sub> = 0.35 | 0.5 | 0.19 | 0.06 |
| | SEU | 0.07; 0.07; 0.09; 0.14 | Trials on globe artichokes compliant with GAP (EFSA, 2017) MRL<sub>OECD</sub> = 0.28 | 0.3 | 0.14 | 0.08 |
| Leeks | NEU | < 0.01; 0.02; 0.06; 0.09; 0.10; 0.12; 0.17; 0.22 | Trials on leeks compliant with GAP (EFSA, 2017). Extrapolation to Spring onions is applicable MRL<sub>OECD</sub> = 0.39 | 0.4 | 0.22 | 0.10 |
| | SEU | 0.07; 0.08; 0.14; 0.18; 0.19; 0.23; 0.26; 0.42 | Trials on leeks compliant with GAP (EFSA, 2017). Extrapolation to Spring onions is applicable MRL<sub>OECD</sub> = 0.65 | 0.7 | 0.42 | 0.19 |
| Beans (dry), Lupins/lupini beans (dry) | Import (US) | < 0.01; < 0.01; < 0.01; < 0.01; 0.01; 0.01; 0.02; 0.03; 0.05; 0.06; 0.14 | Trials on dry beans compliant with GAP (EFSA, 2011). Extrapolation to Lupins/lupini beans (dry) is applicable MRL<sub>OECD</sub> = 0.19 | 0.2 | 0.14 | 0.01 |
| Lentils (dry), Peas (dry) | Import (US) | 0.01; 0.01; 0.02; 0.02; 0.04; 0.10; 0.12; 0.15; 0.20 | Trials on dry peas compliant with GAP (EFSA, 2011). Extrapolation to lentils (dry) is applicable MRL<sub>OECD</sub> = 0.36 | 0.4 | 0.2 | 0.04 |
| Commodity                                      | Region/ indoor\(^{(a)}\) | Residue levels observed in the supervised residue trials (mg/kg) | Comments/source                                                                 | Calculated MRL (mg/kg) | HR\(^{(b)}\) (mg/kg) | STMR\(^{(c)}\) (mg/kg) |
|------------------------------------------------|---------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------|-----------------------|-------------------------|
| Linseeds, Poppy seeds, Sesame seeds, Sunflower seeds, Rapeseeds/canola seeds, Mustard seeds, Pumpkin seeds, Safflower seeds, Borage seeds, Gold of pleasure seeds, Hemp seeds, Castor beans | Import (US)               | 0.01; 0.02; 0.02; 0.02; 0.02; 0.02; 0.04; 0.05; 0.05; 0.06; 0.06; 0.09; 0.09; 0.11; 0.12; 0.12; 0.15; 0.18; 0.19; 0.24; 0.24; 0.27; 0.81 | Combined data set of trials on rapeseeds (16) and sunflower seeds (8). Extrapolation to linseeds, poppy seeds, sesame seeds, sunflower seeds, rapeseeds/canola seeds, mustard seeds, pumpkin seeds, safflower seeds, borage seeds, gold of pleasure seeds, hemp seeds and castor beans is applicable (EFSA, 2011). MRL\(_{OECD}\) = 0.81 | 0.9                     | 0.81                  | 0.09                    |
| Peanuts/groundnuts                             | Import (US)               | 12 × < 0.01                                                    | Trials on peanuts compliant with GAP (EFSA, 2011). MRL\(_{OECD}\) = 0.01      | 0.01*                   | 0.01                  | 0.01                    |
| Soyabeans                                      | Import (US)               | < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; < 0.01; 0.04; 0.04; 0.13 | Trials on soyabeans compliant with GAP (EFSA, 2011). MRL\(_{OECD}\) = 0.15 | 0.15                   | 0.13                  | 0.01                    |
| Barley grains, Oat grains                       | NEU                       | 0.08; 0.08; 0.099; 0.11; 0.11; 0.13; 0.17; 0.19; 0.20; 0.21; 0.23; 0.24; 0.36; 0.38; 0.38 | Trials on barley compliant with GAP (EFSA, 2012; France, 2018). Extrapolation to oat grains is applicable. MRL\(_{OECD}\) = 0.62 | 0.7                    | 0.38                  | 0.19                    |
|                                               | SEU                       | 0.02; 0.08; 0.09; 0.10; 0.13; 0.13; 0.14; 0.15; 0.16; 0.23; 0.24; 0.29; 0.36; 0.38; 0.39; 0.41; 0.58; 0.60 | Trials on barley compliant with GAP (EFSA, 2012; France, 2018). Extrapolation to oat grains is applicable. MRL\(_{OECD}\) = 0.91 | 1                      | 0.6                   | 0.17                    |
|                                               | Import (US)               | < 0.01; 0.41; 0.42; 0.42; 0.52; 0.54; 0.54; 0.55; 0.82; 0.88; 1.09; 1.65 | Trials on barley compliant with GAP (EFSA, 2011). Extrapolation to oat grains is applicable. MRL\(_{OECD}\) = 2.32 | 3                      | 1.65                  | 0.54                    |
| Barley straw, Oat straw                        | NEU                       | 0.47; 0.62; 0.64; 0.70; 0.74; 0.99; 1.30; 1.50; 1.54; 1.71; 1.79; 2.10; 2.37; 2.39; 2.45; 3.55 | Trials on barley straw compliant with GAP (France, 2018). Extrapolation to oat straw is applicable. MRL\(_{OECD}\) = 5.01 | 5 (tentative)\(^{(f)}\) | 3.55                  | 1.52                    |
|                                               | SEU                       | 0.11; 0.22; 0.45; 0.49; 0.76; 0.91; 0.96; 0.96; 1.24; 1.29; 2.2; 2.2; 2.68; 2.83; 2.89; 2.90; 2.95 | Trials on barley straw compliant with GAP (France, 2018). Extrapolation to oat straw is applicable. MRL\(_{OECD}\) = 5.70 | 6 (tentative)\(^{(f)}\) | 2.95                  | 1.24                    |
| Commodity | Region/indoor(a) | Residue levels observed in the supervised residue trials (mg/kg) | Comments/source | Calculated MRL (mg/kg) | HR(b) (mg/kg) | STMR(c) (mg/kg) |
|-----------|------------------|--------------------------------------------------------------|-----------------|------------------------|-------------|--------------|
| Maize/corn grains | Import (US) | – | Not relevant for import tolerances. | – | – | – |
| Maize/corn stover | Import (US) | 15 × < 0.01 | Trials on maize compliant with GAP (EFSA, 2011) MRL_{OECD} = 0.01 | 0.01* | 0.01 | 0.01 |
| Rice grains | Import (US) | 0.26; 0.34; 0.37; 0.47; 0.59; 0.60; 0.61; 0.81; 0.92; 0.92; 0.94; 1.08; 1.16; 1.22; 1.67; 3.73 | Trials on rice compliant with GAP (EFSA, 2016a) MRL_{OECD} = 4.27 | 5 | 3.73 | 0.87 |
| Rice straw | Import (US) | – | Not relevant for import tolerances | – | – | – |
| Sorghum grains | Import (US) | 0.13; 0.15; 0.17; 0.17; 0.19; 0.21; 0.30; 0.41; 0.43 | Trials on sorghum compliant with GAP (EFSA, 2011) MRL_{OECD} = 0.72 | 0.8 | 0.43 | 0.19 |
| Sorghum stover | Import (US) | – | Not relevant for import tolerances | – | – | – |
| Wheat grains, Rye grains | NEU | 0.016; 0.019; 0.02; 0.02; 0.03; 0.03; 0.03; 0.04; 0.04; 0.05; 0.06; 0.07 | Trials on wheat compliant with GAP (EFSA, 2012; France, 2018). Extrapolation to rye grains is applicable MRL_{OECD} = 0.11 | 0.15 | 0.07 | 0.03 |
| | SEU | < 0.01; < 0.01; < 0.01; 0.01; 0.01; 0.01; 0.01; 0.02; 0.02; 0.03; 0.03; 0.04; 0.06; 0.0 | | 0.15 | 0.09 | 0.02 |
| | Import (US) | 0.05; 0.05; 0.07; 0.08; 0.11; 0.12; 0.12; 0.17; 0.19; 0.21 | Extrapolated from – Trials on wheat compliant with GAP (EFSA, 2011). Extrapolation to rye grain is applicable MRL_{OECD} = 0.35 | 0.4 | 0.21 | 0.12 |
| Wheat straw, rye straw | NEU | 0.41; 0.44; 0.52; 0.95; 1.0; 1.02; 1.04; 1.1; 1.17; 1.53; 1.56; 1.80; 2.78; 3.92; 4.58; 6.05 | Trials on wheat straw compliant with GAP (EFSA, 2011; France, 2018). Extrapolation to rye straw is applicable MRL_{OECD} = 8.41 | 9 (tentative) | 6.05 | 1.14 |
| | SEU | 0.11; 0.38; 0.46; 0.55; 0.63; 0.64; 0.71; 0.75; 1.0; 1.19; 1.76; 2.23; 2.58; 2.67; 5.83; 5.85 | Trials on wheat straw compliant with GAP (EFSA, 2011; France, 2018). Extrapolation to rye straw is applicable MRL_{OECD} = 8.89 | 9 (tentative) | 5.85 | 0.88 |
| | Import (US) | – | Not relevant for import tolerances | – | – | – |
| Herbal infusions from leaves and herbs | NEU | 0.1; 0.1; 0.3; 0.5; 0.6; 1.8; 8.7; 14.4 | Extrapolation from trials on lettuces (open leaf varieties) to which a dehydration factor (10×) was applied MRL_{OECD} = 8.89 | 30 (tentative) | 14.4 | 0.55 |
## Commodity Region/indoor\(^{\text{(a)}}\) Residue levels observed in the supervised residue trials (mg/kg) Comments/source Calculated MRL (mg/kg) HR\(^{\text{(b)}}\) (mg/kg) STMR\(^{\text{(c)}}\) (mg/kg)

| Commodity                    | Region/indoor\(^{\text{(a)}}\) | Residue levels observed in the supervised residue trials (mg/kg) | Comments/source                                                                 | Calculated MRL (mg/kg) | HR\(^{\text{(b)}}\) (mg/kg) | STMR\(^{\text{(c)}}\) (mg/kg) |
|------------------------------|----------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------|-------------------------------|-------------------------------|
| Herbal infusions from roots  | NEU                              | 0.24; 0.24; 0.24; 0.24; 0.32; 0.32; 0.48; 0.8; 1.04; 1.04        | Extrapolation from trials on carrots to which a dehydration factor (8 ×) was applied MRL\(_{\text{OECD}}\) = 1.84 | 2 (tentative)\(^{\text{(e)}}\) | 1.04                          | 0.32                          |
| Sugar beet roots             | Import (US)                      | 0.01; 0.01; 0.03; 0.03; 0.03; 0.04; 0.04; 0.05; 0.06; 0.06; 0.07 | Trials on sugar beet roots compliant with GAP (EFSA, 2011) MRLOECD = 0.12 | 0.15                   | 0.07                          | 0.04                          |
| Sugar beet tops              | Import (US)                      | –                                                               | Not relevant for import tolerances                                            |                        | –                             | –                             |
| Sugar canes                  | Import (US)                      | 0.05; 0.06; 0.26; 0.56; 1.34                                      | Trials on sugar canes compliant with GAP (EFSA, 2016a) MRLOECD = 2.60       | 3                      | 1.34                          | 0.26                          |
| Chicory roots                | NEU                              | 0.05; 0.06; 0.06; 0.06; 0.08; 0.10; 0.11; 0.21                   | Trials on chicory roots compliant with GAP (EFSA, 2017) MRLOECD = 0.30       | 0.3                    | 0.21                          | 0.07                          |
| Turnip tops                  | NEU                              | –                                                               | No residue trials available                                                   |                        | –                             | –                             |
|                             | SEU                              | –                                                               | No residue trials available                                                   |                        | –                             | –                             |

GAP: Good Agricultural Practice; OECD: Organisation for Economic Co-operation and Development; MRL: maximum residue level; Mo: residue levels expressed according to the monitoring residue definition; RA: residue levels expressed according to risk assessment residue definition.

*: Indicates that the MRL is proposed at the limit of quantification.

(a): NEU: Outdoor trials conducted in northern Europe, SEU: Outdoor trials conducted in southern Europe, Indoor: indoor EU trials or Country code: if non-EU trials.

(b): Highest residue. The highest residue for risk assessment (RA) refers to the whole commodity and not to the edible portion.

(c): Supervised trials median residue. The median residue for risk assessment (RA) refers to the whole commodity and not to the edible portion.

(d): MRL is tentative because residue trials are missing.

(e): MRL is tentative because analytical methods are missing.

(f): A tentative MRL is derived for feed crops, in view of the future need to set MRLs in feed items.
B.1.2.2. Residues in rotational crops

(a) Overall summary

Residues in rotational and succeeding crops expected based on confined rotational crop study?

Yes

Study performed with 250 g a.s./ha (1N rate when compared to annual/seasonal rate for the most critical GAP). Residues present at relevant levels in wheat straw (2.65 mg/kg), spinach (0.18 mg/kg) and wheat grain (0.043 mg/kg).

Residues in rotational and succeeding crops expected based on field rotational crop study?

Yes

Study performed with bare soil application of 250 g a.s./ha. Highest residue levels of fluxapyroxad were detected in carrots (0.08 mg/kg), lettuce (0.03 mg/kg) and cauliflowers/broccoli (0.06 mg/kg), 30 DAT (EFSA, 2012). Metabolites M700F002, M700F008 and M700F048 were always below the LOQ (EFSA, 2012, 2017).

(b) Summary of residues data from the rotational crop residue trials

| Commodity                  | Region/indoor | PBI (days) | Residue levels observed in the supervised residue trials (mg/kg) | Comments/source | Calculated MRL (mg/kg) | HR (mg/kg) | STMR (mg/kg) |
|----------------------------|---------------|------------|-----------------------------------------------------------------|-----------------|------------------------|------------|--------------|
| Carrot/Radish roots        | NEU/SEU       | 30         | < 0.01; 0.02; 0.04; 0.08                                        | Rotational crops field trials conducted at a dose rate of application not covering the max PEC_{soil} for parent (United Kingdom, 2011a) | 0.2(e)     | 0.08         | 0.03         |
|                            |               | 120        | < 0.01; 0.02; 0.03                                              |                 |                        |            |              |
|                            |               | 365        | < 0.01; 0.02; 0.02                                              |                 |                        |            |              |
| Carrot/Radish tops         | NEU/SEU       | 30         | < 0.01; 0.03; 0.03; 0.07                                        | Rotational crops field trials conducted at a dose rate of application not covering the max PEC_{soil} for parent (United Kingdom, 2011a) | 0.2(e)     | 0.07         | 0.03         |
|                            |               | 120        | < 0.01; 0.02; 0.02                                              |                 |                        |            |              |
|                            |               | 365        | < 0.01; 0.02; 0.02                                              |                 |                        |            |              |
| Cauliflower/Broccoli (whole plant) | NEU/SEU | 30         | < 0.01; < 0.01; 0.01; 0.06                                       | Rotational crops field trials conducted at a dose rate of application not covering the max PEC_{soil} for parent (United Kingdom, 2011a) | 0.15(e)    | 0.06         | 0.01         |
|                            |               | 120        | < 0.01; < 0.01; 0.02                                            |                 |                        |            |              |
|                            |               | 365        | < 0.01; 0.02                                                   |                 |                        |            |              |
| Cauliflower/Broccoli (inflorescence) | NEU/SEU | 30         | < 0.01; < 0.01; < 0.01; < 0.01                                  | Rotational crops field trials conducted at a dose rate of application not covering the max PEC_{soil} for parent (United Kingdom, 2011a) | 0.01 (e)  | < 0.01       | < 0.01       |
|                            |               | 120        | < 0.01; < 0.01; < 0.01                                          |                 |                        |            |              |
|                            |               | 365        | < 0.01; < 0.01                                                 |                 |                        |            |              |
| Lettuce (whole plant without roots) | NEU/SEU | 30         | < 0.01; < 0.01; < 0.01; 0.02; 0.03                             | Rotational crops field trials conducted at a dose rate of application not covering the max PEC_{soil} for parent (United Kingdom, 2011a) | 0.06(e)    | 0.03         | < 0.01       |
|                            |               | 120        | < 0.01; < 0.01; < 0.01; 0.01                                    |                 |                        |            |              |
|                            |               | 365        | 0.01; 0.02                                                     |                 |                        |            |              |

GAP: good agricultural practice; DAT: day after treatment; LOQ: limit of quantification; a.s.: active substance.
### Summary of residues data from the combined primary uses and rotational crops

| Commodity                  | Region/indoor<sup>(a)</sup> | PBI (days)<sup>(b)</sup> | Residue levels observed in the supervised residue trials (mg/kg) | Comments/source                                                                 | Calculated MRL (mg/kg) | HR<sup>(c)</sup> (mg/kg) | STMR<sup>(d)</sup> (mg/kg) |
|----------------------------|-----------------------------|-------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------|--------------------------|--------------------------|
| Wheat grain                | NEU/SEU                     | 30                      | < 0.01; < 0.01; < 0.01; < 0.01                                   | Rotational crops field trials conducted at a dose rate of application not covering the max PECsoil for parent (United Kingdom, 2011a) | 0.01<sup>(e)</sup>       | < 0.01                   | < 0.01                   |
|                            |                             | 120                     | < 0.01; < 0.01                                               |                                                                                 |                        |                          |                          |
|                            |                             | 365                     | < 0.01; < 0.01                                               |                                                                                 |                        |                          |                          |
| Wheat straw                | NEU/SEU                     | 30                      | 0.04; 0.17; 0.33; 0.41                                        | Rotational crops field trials conducted at a dose rate of application not covering the max PECsoil for parent (United Kingdom, 2011a) | 1.5<sup>(e)</sup>       | 0.41                     | 0.25                     |
|                            |                             | 120                     | 0.03; 0.04; 0.07                                             |                                                                                 |                        |                          |                          |
|                            |                             | 365                     | 0.04; 0.05; 0.08                                             |                                                                                 |                        |                          |                          |
| Fruiting vegetables        | NEU/SEU                     | 30                      | –                                                              | Possible uptake from the soil is expected to be negligible compared to the primary treatment by foliar application close to the harvest. However, this should be confirmed by rotational crop field studies with fruiting vegetables conducted at a dose rate of application covering the max PECsoil for parent | –                      | –                        | –                        |
|                            |                             | 120                     | –                                                              |                                                                                 |                        |                          |                          |
|                            |                             | 365                     | –                                                              |                                                                                 |                        |                          |                          |
| Pulses and oilseeds        | NEU/SEU                     | 30                      | –                                                              | Possible uptake from the soil is expected to be negligible compared to the primary treatment by foliar application close to the harvest. However, this should be confirmed by rotational crop field studies with pulses and oilseeds conducted at a dose rate of application covering the max PECsoil for parent | –                      | –                        | –                        |
|                            |                             | 120                     | –                                                              |                                                                                 |                        |                          |                          |
|                            |                             | 365                     | –                                                              |                                                                                 |                        |                          |                          |

PEC<sub>soil</sub>: predicted environmental concentration in soil.

*: Indicates that the MRL is proposed at the limit of quantification.

(a): NEU: Outdoor trials conducted in northern Europe, SEU: Outdoor trials conducted in southern Europe, Country code: if non-EU trials.

(b): Plant back interval: the interval (days, months, years) between the final application of a pesticide product to a primary crop and the planting of a rotational crop.

(c): Highest residue. The highest residue for risk assessment (RA) refers to the whole commodity and not to the edible portion.

(d): Supervised trials median residue. The median residue for risk assessment (RA) refers to the whole commodity and not to the edible portion.

(e): MRL proposal based on a PBI of 30 days.
| Commodity                                                                 | Primary crops | Rotational crops | HRRotation > 25% | Combined assessment |
|--------------------------------------------------------------------------|---------------|------------------|------------------|--------------------|
|                                                                          | STMR          | HR               | Calculated MRL   | STMR               | HR               | Calculated MRL |
|                                                                          | (mg/kg)       | (mg/kg)          | (mg/kg)          | (mg/kg)            | (mg/kg)          | (mg/kg)        |
| Carrots, Beetroots, Celeriacs/turnip rooted celeries, Horseradishes,     | 0.04          | 0.18             | 0.3              | 0.03               | 0.08             | 0.12           | 0.26           | 0.5 (tentative) |
| Jerusalem artichokes, Parsnips, Parsley roots/ Hamburg roots parsley,    |               |                  |                  |                    |                  |                |                |                |
| Radishes, Salsifies, Swedes/rutabaga, Turnips                            |               |                  |                  |                    |                  |                |                |                |
| Garlic                                                                  | n.c.          | n.c.             | n.c.             |                    |                  |                |                |                |
| Onions                                                                  | n.c.          | n.c.             | n.c.             |                    |                  |                |                |                |
| Shallots                                                                | n.c.          | n.c.             | n.c.             |                    |                  |                |                |                |
| Broccoli                                                                | 1.27          | 0.28             | 2                | 0.01               | 0.06             | N              | 1.27           | 0.28           | 2 (tentative) |
| Cauliflower                                                             | 0.01          | 0.08             | 0.15             | 0.01               | 0.06             | Y              | 0.07           | 0.14           | 0.2 (tentative) |
| Brussels sprouts                                                        | 0.05          | 0.14             | 0.4              | 0.01               | 0.06             | Y              | 0.11           | 0.2            | 0.4 (tentative) |
| Head cabbages                                                          | 0.01          | 0.27             | 0.5              | 0.01               | 0.06             | N              | 0.01           | 0.27           | 0.5 (tentative) |
| Chinese cabbages/pe-tsai                                               | 0.90          | 1.9              | 4                | 0.01               | 0.06             | N              | 0.90           | 1.9            | 4 (tentative) |
| Kale                                                                    | n.r.          | n.r.             | n.r.             | 0.01               | 0.06             | Y              | 0.01           | 0.06           | 0.15 (tentative) |
| Kohlrabies                                                              | n.r.          | n.r.             | n.r.             | 0.01               | 0.06             | Y              | 0.01           | 0.06           | 0.15 (tentative) |
| Lettuces, Lamb’s lettuces/corn salads, Escaroles/broad-leaved endives,  | 0.25          | 1.8              | 4                | < 0.01             | 0.03             | N              | 0.25           | 1.8            | 4 (tentative) |
| Roman rocket/rucola                                                     |               |                  |                  |                    |                  |                |                |                |                |
| Cresses and other sprouts and shoots, Land cresses, Red mustards, Baby  | 0.06          | 1.44             | 3                | < 0.01             | 0.03             | N              | 0.06           | 1.44           | 3 (tentative) |
| leaf crops (including brassica species), Spinaches, Purslanes, Chards/   |               |                  |                  |                    |                  |                |                |                |                |
| beets leaves, Chervil, Chives, Celery leaves, Parsley, Sage, Rosemary,  |               |                  |                  |                    |                  |                |                |                |                |
| Thyme, Basil and edible flowers, Laurel/bay leave, Tarragon             |               |                  |                  |                    |                  |                |                |                |                |
| Commodity                                                   | Primary crops | Rotational crops | HRrotation > 25% | Combined assessment |
|-------------------------------------------------------------|---------------|------------------|------------------|--------------------|
|                                                             | STMR (mg/kg)  | HR (mg/kg)       | HR MRL (mg/kg)   | STMR (mg/kg)       |
| Witloofs/Belgian endives                                    | 1.95          | 2.5              | 6                | 0.01               |
|                                                             |               |                  |                  |                    |
| Celeries, cardoons, Florence fennels, rhubarbs              | 1.68          | 5.15             | 9                | 0.01               |
| Globe artichokes                                            | 0.09          | 0.22             | 0.4              | 0.01               |
| Leeks                                                       | 0.19          | 0.42             | 0.7              | 0.01               |
| Spring onions                                              | 0.19          | 0.42             | 0.7              | 0.01               |
| Barley, oat (grain)                                        | 0.54          | 1.65             | 3                | 0.01               |
| Maize (grain)                                               | 0.01          | 0.01             | 0.01*            | 0.01               |
| Rice (grain)                                                | 0.87          | 3.73             | 5                | 0.01               |
| Sorghum (grain)                                             | 0.19          | 0.43             | 0.8              | 0.01               |
| Wheat, rye (grain)                                         | 0.12          | 0.21             | 0.4              | 0.01               |
| Herbal infusion from leaves and herbs                       | 0.55          | 14.4             | 30               | 0.01               |
| Herbal infusion from roots                                  | 0.32          | 1.04             | 2                | 0.03               |
| Sugar beet roots                                            | 0.04          | 0.07             | 0.15             | 0.03               |
| Sugar canes                                                 | 0.26          | 1.34             | 3                | 0.03               |
| Chicory roots                                               | 0.07          | 0.21             | 0.3              | 0.03               |
| Barley, oat (straw)                                         | 1.52          | 3.55             | 6                | 0.25               |
| Wheat, rye straw                                            | 1.14          | 6.05             | 9                | 0.25               |
| Turnip (top)                                                | n.c.          | n.c.             | n.c.             | 0.03               |

STMR: supervised trials median residue; HR: highest residue; MRL: maximum residue level; n.c.: not conclusive as residues trials on primary crops are not available; n.r.: not relevant as primary uses are not authorised on these crops.

*: Indicates that the MRL is set at the limit of quantification (LOQ).
(a): Based on rotational crop field trials in carrots/radishes. Applied to bulb vegetables on a tentative basis.
(b): Based on rotational crop field trials in cauliflowers/broccoli.
(c): Based on rotational crop field trials in lettuces.
(d): Based on rotational crop field trials in wheat grain.
(e): Based on rotational crop field trials in wheat straw.
(f): MRL is tentative since MRL values may not be sufficient to cover the potential residue levels in rotational crops following multiannual applications.
(g): MRL is tentative as additional trials are required to support the primary crop use.
(h): MRL is tentative in the view of future setting of MRLs for feed items.
(i): MRL is tentative because analytical methods are missing.
(j): No authorised uses on primary crops were reported for these crops.
(k): MRL is tentative, as derived from a data set where the HR from rotational studies was added to each residue value from primary crop uses.
## B.1.2.3. Processing factors

| Processed commodity                  | Number of valid studies<sup>a</sup> | Processing Factor (PF)                                                                 | Comment/source                                                                 |
|--------------------------------------|------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
|                                      |                                    | Individual values                                                                 | Median PF                                                                         |
| Grapefruits, juice                   | 4                                  | `< 0.03; < 0.04; < 0.05; < 0.06`                                                      | < 0.05 Results from studies on oranges (EFSA, 2017)                             |
| Grapefruits, dry pomace              | 4                                  | 0.04; 0.08; 0.11; 0.12                                                             | 0.10 Results from studies on oranges (EFSA, 2017)                               |
| Apples, Pears, juice                 | 4                                  | 0.19; 0.20; 0.23; 0.24                                                             | 0.22 Results from studies on apples (France, 2018)                              |
| Apples, Pears, dry pomace            | 2                                  | 6.40; 7.41                                                                         | 6.91 Tentative<sup>b</sup> (France, 2018)                                       |
| Apples, Pears, wet pomace            | 2                                  | 4.50; 4.69                                                                         | 4.60 Tentative<sup>b</sup> (France, 2018)                                       |
| Apples, sauce                        | 4                                  | 0.19; 0.24; 0.28; 0.40                                                             | 0.26 France, 2018                                                               |
| Pears, canned                        | 2                                  | 0.15; 0.28                                                                         | 0.22 Tentative<sup>b</sup> Results from studies on apples (France, 2018)        |
| Plums, dried (prunes)                | 2                                  | 2.22; 3.0                                                                          | 2.80 Tentative<sup>b</sup> (EFSA, 2011)                                         |
| Plums, jam                           | 2                                  | 0.29; 0.48                                                                         | 0.41 Tentative<sup>b</sup> (EFSA, 2011)                                         |
| Table grapes, dried (raisins)        | 4                                  | 1.98; 2.80; 2.93; 5.81                                                             | 2.86 EFSA (2015b)                                                              |
| Wine grapes, juice                   | 4                                  | 0.22; 0.27; 0.42; 0.46                                                             | 0.34 EFSA (2015b)                                                              |
| Wine grapes, wet pomace              | 4                                  | 4.0; 4.8; 5.7; 7.21                                                                | 5.25 EFSA (2015b)                                                              |
| Wine grapes, red wine (unheated)     | 4                                  | 0.19; 0.21; 0.22; 0.24                                                             | 0.22 EFSA (2015b)                                                              |
| Potatoes, unpeeled and boiled        | 3                                  | n.r.                                                                               | < 0.67 EFSA (2011)                                                             |
| Potatoes, unpeeled and microwaved    | 3                                  | n.r.                                                                               | < 0.67 EFSA (2011)                                                             |
| Potatoes, fried                      | 3                                  | n.r.                                                                               | < 0.67 EFSA (2011)                                                             |
| Potatoes, crisps                     | 3                                  | n.r.                                                                               | < 0.67 EFSA (2011)                                                             |
| Potatoes, granules or flakes         | 3                                  | n.r.                                                                               | < 0.67 EFSA (2011)                                                             |
| Potatoes, process waste (wet peel)   | 3                                  | n.r.                                                                               | 5.00 EFSA (2011)                                                              |
| Potatoes, dry pulp                   | 3                                  | n.r.                                                                               | 8.00 EFSA (2011)                                                              |
| Tomatoes, unpeeled and canned        | 4                                  | n.r.                                                                               | 0.22 EFSA (2011)                                                              |
| Tomatoes, paste                      | 4                                  | n.r.                                                                               | 0.71 EFSA (2011)                                                              |
| Tomatoes, juice                      | 4                                  | n.r.                                                                               | 0.19 EFSA (2011)                                                              |
| Melons, peeled                       | 21                                 | From 0.18 to 0.77                                                                  | 0.38 France (2018)                                                            |
| Peanuts, crude oil                   | 2                                  | n.r.                                                                               | 0.35 Tentative<sup>b</sup> (EFSA, 2011)                                         |
| Processed commodity                  | Number of valid studies (a) | Processing Factor (PF) | Comment/source |
|-------------------------------------|----------------------------|------------------------|----------------|
|                                     |                            | Individual values | Median PF      |                |
| Peanuts, refined oil                | 2                          | n.r.                  | 0.24           | Tentative(b) (EFSA, 2011) |
| Peanuts, meal/press cake            | 2                          | n.r.                  | < 0.12         | Tentative(b) (EFSA, 2011) |
| Sunflower seeds, crude oil          | 2                          | n.r.                  | 0.23           | Tentative(b) (EFSA, 2011) |
| Sunflower seeds, refined oil        | 2                          | n.r.                  | 0.10           | Tentative(b) (EFSA, 2011) |
| Sunflower seeds, meal/press cake    | 2                          | n.r.                  | 0.14           | Tentative(b) (EFSA, 2011) |
| Rapeseeds, crude oil                | 2                          | n.r.                  | 0.81           | Tentative(b) (EFSA, 2011) |
| Rapeseeds, refined oil              | 2                          | n.r.                  | 0.28           | Tentative(b) (EFSA, 2011) |
| Rapeseeds, meal/press cake          | 2                          | n.r.                  | 0.44           | Tentative(b) (EFSA, 2011) |
| Barley, brewing malt               | 4                          | n.r.                  | 0.01           | EFSA (2011)     |
| Barley, beer                        | 4                          | n.r.                  | 0.02           | EFSA (2011)     |
| Barley, whole-meal flour            | 4                          | n.r.                  | 0.23           | EFSA (2011)     |
| Rice, unpolished                    | 2                          | 0.05; 0.20            | 0.10           | Tentative(b) (EFSA, 2016a) |
| Rice, unpolished and cooked         | 2                          | 0.16; 0.59            | 0.40           | Tentative(b) (EFSA, 2016a) |
| Rice, polished                      | 2                          | 0.01; 0.07            | 0.04           | Tentative(b) (EFSA, 2016a) |
| Rice, polished and cooked           | 2                          | 0.10; 0.46            | 0.30           | Tentative(b) (EFSA, 2016a) |
| Rice, flour                         | 2                          | 0.01; 0.08            | 0.05           | Tentative(b) (EFSA, 2016a) |
| Rice, bran                          | 2                          | 0.91; 0.94            | 0.90           | Tentative(b) (EFSA, 2016a) |
| Wheat, whole-meal flour             | 12                         | 1.02; 0.83; 0.86; 1.46; 1.05; 1.0; 0.92; 0.73; 0.87; 0.85; 1.82; 1.13 | 0.94 | France (2018) |
| Wheat, whole-meal bread             | 12                         | 0.73; 0.56; 0.59; 1.02; 0.73; 0.70; 0.58; 0.50; 0.58; 0.58; 1.23; 0.81 | 0.66 | France (2018) |
| Wheat, white flour                  | 12                         | 0.20; 0.17; 0.16; 0.55; 0.23; 0.09; 0.17; 0.10; 0.14; 0.15; 0.64; 0.42 | 0.17 | France (2018) |
| Wheat, white bread                  | 12                         | 0.15; 0.15; 0.11; 0.38; 0.14; 0.09; 0.13; 0.10; 0.10; 0.45; 0.26 | 0.13 | France (2018) |
| Sugar beets, thick juice            | 2                          | n.r.                  | 0.75           | Tentative(b) (EFSA, 2011) |
| Sugar beets, raw sugar              | 2                          | n.r.                  | 0.99           | Tentative(b) (EFSA, 2011) |
| Sugar beets, white sugar            | 2                          | n.r.                  | 0.17           | Tentative(b) (EFSA, 2011) |
| Sugar beets, dry pulp               | 2                          | n.r.                  | 1.74           | Tentative(b) (EFSA, 2011) |
| Sugar beets, molasses               | 1                          | 0.80                  | 0.80           | Tentative(b) (EFSA, 2011) |
### B.2. Residues in livestock

| Relevant groups (subgroups) | Dietary burden expressed in mg/kg bw per day | mg/kg DM | Most critical subgroup(a) | Most critical commodity(b) | Trigger exceeded (Y/N) |
|---------------------------|---------------------------------------------|----------|--------------------------|----------------------------|------------------------|
|                           | Median | Maximum | Median | Maximum                     |                         |                       |
| Cattle (all diets)        | 0.08   | 0.12    | 2.37   | 3.92                       | Cattle (dairy)           | Rye, straw             | Y                      |
| Cattle (dairy only)       | 0.08   | 0.12    | 2.00   | 3.20                       | Cattle (dairy)           | Rye, straw             | Y                      |
| Sheep (all diets)         | 0.09   | 0.19    | 2.52   | 4.77                       | Sheep (lamb)             | Rye, straw             | Y                      |
| Sheep (ewe only)          | 0.08   | 0.16    | 2.52   | 4.77                       | Sheep (ram/ewe)          | Rye, straw             | Y                      |
| Swine (all diets)         | 0.03   | 0.05    | 1.48   | 2.15                       | Swine (breeding)         | Potato, process waste  | Y                      |
| Poultry (all diets)       | 0.06   | 0.11    | 0.87   | 1.57                       | Poultry (layer)          | Wheat, straw           | Y                      |
| Poultry (layer only)      | 0.06   | 0.11    | 0.87   | 1.57                       | Poultry (layer)          | Wheat, straw           | Y                      |

DM: dry matter.

(a): When one group of livestock includes several subgroups (e.g. poultry 'all' including broiler, layer and turkey), the result of the most critical subgroup is identified from the maximum dietary burdens expressed as 'mg/kg bw per day'.

(b): The most critical commodity is the major contributor identified from the maximum dietary burden expressed as 'mg/kg bw per day'.

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**PF:** Processing factor (= residue level in processed commodity expressed according to RD-Mo / residue level in raw commodity expressed according to RD-Mo); n.r.: not reported.

(a): Studies with residues in the RAC at or close to the LOQ were disregarded (unless concentration may occur).

(b): A tentative PF is derived based on a limited data set (less than three independent studies available).
B.2.1. Nature of residues and methods of analysis in livestock

B.2.1.1. Metabolism studies, methods of analysis and residue definitions in livestock

| Livestock (available studies) | Animal          | Dose (mg/kg bw/d) | Duration (days) | Comment/source                                              |
|------------------------------|-----------------|-------------------|-----------------|------------------------------------------------------------|
| Laying hen                   | 0.4             | 12                | Radiolabelled fluxapyroxad: aniline and/or pyrazole rings (United Kingdom, 2011a; EFSA, 2012) |
| Lactating ruminants          | 0.4             | 8                 | Radiolabelled fluxapyroxad: aniline and/or pyrazole rings (United Kingdom, 2011a; EFSA, 2012) |
Time needed to reach a plateau concentration in milk and eggs (days)

|          | Milk: 5–7 | Rapid depletion of the total radioactivity 1-day post dosing (EFSA, 2012) |
|----------|-----------|-------------------------------------------------------------------------|
|          | Eggs: 10–12| From metabolism study (EFSA, 2012)                                      |

Metabolism in rat and ruminant similar

Can a general residue definition be proposed for animals?

Yes

Animal residue definition for monitoring (RD-Mo)

Animal residue definition for risk assessment (RD-RA)

Fluxapyroxad

Log Pow at pH 7 = 3.13
Feeding studies indicate the highest residue level in ruminant fat (0.024 mg/kg)

Fat soluble residues

Methods of analysis for monitoring of residues (analytical technique, matrix groups, LOQs)

Liver, kidney, fat and muscle (EFSA, 2012):
- HPLC–MS/MS, LOQ 0.01 mg/kg for fluxapyroxad
- Confirmatory method available
- ILV available

Milk, skimmed milk, cream and eggs (EFSA, 2012):
- HPLC–MS/MS, LOQ 0.001 mg/kg for fluxapyroxad
- Confirmatory method available
- ILV available

The EURLs reported that fluxapyroxad can be monitored in meat with an SDL of 0.0025 mg/kg and in milk with an SDL of 0.005 mg/kg (EURLs, 2018)

bw: body weight; Pow: partition coefficient between n-octanol and water; HPLC–MS/MS: high-performance liquid chromatography with tandem mass spectrometry; LOQ: limit of quantification; SDL: screening detection limit; ILV: independent laboratory validation.

B.2.1.2. Stability of residues in livestock

Not available and not required since samples in livestock feeding studies were analysed within 30 days.
### B.2.2. Magnitude of residues in livestock

#### B.2.2.1. Summary of the residue data from livestock feeding studies

| Animal commodity | Residues at the closest feeding level (mg/kg) | Estimated value at 1N  | MRL proposal (mg/kg) | CF<sup>(c)</sup> |
|-------------------|-----------------------------------------------|-------------------------|----------------------|------------------|
|                   | Mean | Highest | STMR<sub>Mo</sub><sup>(a)</sup> (mg/kg) | HR<sub>Mo</sub><sup>(b)</sup> (mg/kg) |                   |
| **Cattle (all)**  |      |         |                                      |                    |                  |
| Muscle            | < 0.01 | < 0.01 | 0.01 | 0.01 | 0.01* (tentative) | 2 |
| Fat               | 0.013 | 0.013 | 0.01 | 0.01 | 0.15 (tentative)  | 2 |
| Liver             | < 0.01 | < 0.01 | 0.01 | 0.01 | 0.01* (tentative) | 2 |
| Kidney            | < 0.01 | < 0.01 | 0.01 | 0.01 | 0.01* (tentative) | 2 |
| **Cattle (dairy only)** |      |         |                                      |                    |                  |
| Milk<sup>(e)</sup> | 0.001 | n.a.   | 0.001 | 0.001 | 0.001* (tentative) | 2 |
| **Sheep (all)**   |      |         |                                      |                    |                  |
| Muscle            | < 0.01 | < 0.01 | 0.01 | 0.01 | 0.01* (tentative) | 2 |
| Fat               | 0.019 | 0.019 | 0.011 | 0.017 | 0.02 (tentative)  | 2 |
| Liver             | 0.013 | 0.013 | 0.01 | 0.013 | 0.015 (tentative) | 3 |
| Kidney            | < 0.01 | < 0.01 | 0.01 | 0.01 | 0.01* (tentative) | 2 |
| **Sheep (ewe only)**<sup>(f)</sup> |      |         |                                      |                    |                  |
| Milk<sup>(e)</sup> | 0.001 | n.a.   | 0.001 | 0.001 | 0.001* (tentative) | 2 |
| **Swine (all)**   |      |         |                                      |                    |                  |
| Muscle            | < 0.01 | < 0.01 | 0.01 | 0.01 | 0.01* (tentative) | 2 |
| Fat               | 0.011 | 0.011 | 0.01 | 0.01 | 0.01 (tentative)  | 2 |
| Liver             | < 0.01 | < 0.01 | 0.01 | 0.01 | 0.01* (tentative) | 2 |
| Kidney            | < 0.01 | < 0.01 | 0.01 | 0.01 | 0.01* (tentative) | 2 |
| **Poultry (all)** |      |         |                                      |                    |                  |
| Muscle            | < 0.01 | < 0.01 | 0.01 | 0.01 | 0.01* (tentative) | 2 |
| Fat               | < 0.01 | < 0.01 | 0.01 | 0.011 | 0.015 (tentative) | 2 |
| Liver             | < 0.01 | < 0.01 | 0.01 | 0.01 | 0.01* (tentative) | 2 |
| **Poultry (layer only)**<sup>(g)</sup> |      |         |                                      |                    |                  |
| Eggs<sup>(g)</sup> | 0.0017 | 0.0028 | 0.001 | 0.003 | 0.003 (tentative) | 4 |

b.w.: body weight.

*: Indicates that the MRL is proposed at the limit of quantification.

(a): Median residues expressed according to the residue definition for monitoring, recalculated at the 1N rate for the median dietary burden.

(b): Highest residues expressed according to the residue definition for monitoring, recalculated at the 1N rate for the maximum dietary burden.

(c): Conversion factor to recalculate residues according to the residue definition for monitoring to the residue definition for risk assessment.

(d): Closest feeding level and N dose rate related to the maximum dietary burden.

(e): For milk, mean was derived from samplings performed from day 5 to day 28 (daily mean of 3 cows).

(f): Since extrapolation from cattle to other ruminants and swine is acceptable, results of the livestock feeding study on ruminants were relied upon to derive the MRL and risk assessment values in sheep and swine.

(g): For eggs, mean residues were derived from samplings performed from day 13 to day 27 (daily mean of 10 laying hens).
### B.3. Consumer risk assessment

#### B.3.1. Consumer risk assessment without consideration of the existing CXLs

| ARfD | 0.25 mg/kg bw (EFSA, 2012) |
|------|---------------------------|
| Highest IESTI, according to EFSA PRIMo (rev.3) | Celeries: 77% of ARfD |
| NESTI (% ARfD) | Not assessed in this review. |

**Assumptions made for the calculations**

The calculation is based on the highest residue levels expected in raw agricultural commodities, except for melons, pumpkins and watermelons, which were derived using a processing factor (peeling factor = 0.38). For roots/tuber vegetables and sugar beet roots, the highest residue from the combined primary uses and rotational crop residue trials was used. For garlic, onions, shallots, cauliflowers and Brussels sprouts, the highest residue from the rotational crop field trials performed on roots was used.

The contributions of commodities where no GAP was reported in the framework of the MRL review were not included in the calculation.

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**ADI**

| TMDI according to EFSA PRIMo | 0.02 mg/kg bw per day (EFSA, 2012) |
|-----------------------------|------------------------------------|
| NTMDI, according to (to be specified) | Not assessed in this review |
| Highest IEDI, according to EFSA PRIMo (rev.3) | 44% ADI (NL toddler) |
| NEDI (% ADI) | Not assessed in this review |

**Assumptions made for the calculations**

The calculation is based on the median residue levels derived for raw agricultural commodities except for melons, pumpkins and watermelons, where the processing factor (peeling factor = 0.38) was also applied.

For roots/tuber vegetables and sugar beet roots, the median residue from the combined primary uses and rotational crop residue trials was used. For garlic, onion, shallots, cauliflower and Brussels sprouts, the median residue from the rotational crop field trials performed on roots was used.

The contributions of commodities where no GAP was reported in the framework of the MRL review were not included in the calculation.

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**Consumer exposure assessment through drinking water resulting from groundwater metabolite(s) according to SANCO/221/2000 rev.10 Final (25/02/2003)**

| Metabolite(s) | Not assessed in this review |
|---------------|-----------------------------|
| ADI (mg/kg bw per day) | Not assessed in this review |
| Intake of groundwater metabolites (% ADI) | Not assessed in this review |
B.3.2. Consumer risk assessment with consideration of the existing CXLs

**ARfD**
- Highest IESTI, according to EFSA PRIMo (rev.3)
- NESTI (% ARfD)

Assumptions made for the calculations
- For those commodities having a CXL higher than the EU MRL proposal, highest residue levels applied in the EU scenario were replaced by the highest residue levels derived by JMPR
- A conversion factor of 3 was applied to table/wine grapes. Peeling factors were applied to oranges (0.16), bananas (0.23) and to melons, pumpkins and watermelons (0.38)
- Considering that CXLs for meat were expressed on a fat basis, EFSA re-calculated the corresponding highest residue levels for meat

**ADI**
- TMDI according to EFSA PRIMo
- NTMDI, according to (to be specified)
- Highest IEDI, according to EFSA PRIMo (rev.3)
- NEDI (% ADI)

Assumptions made for the calculations
- For those commodities having a CXL higher than the EU MRL proposal, median residue levels applied in the EU scenario were replaced by the median residue levels derived by JMPR
- A conversion factor of 3 was applied to table/wine grapes. Peeling factors were applied to oranges (0.16), bananas (0.23) and to melons, pumpkins and watermelons (0.38)
- Considering that CXLs for meat were expressed on a fat basis, EFSA re-calculated the corresponding median residue levels for meat

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**B.4. Proposed MRLs**

| Code number | Commodity    | Existing EU MRL (mg/kg) | Existing CXL (mg/kg) | Outcome of the review       | Comment  |
|-------------|--------------|-------------------------|----------------------|----------------------------|----------|
| 110010      | Grapefruit   | 0.3                     | –                    | 0.4                        | Recommended\(^{(a)}\) |
| 110020      | Oranges      | 0.3                     | 0.3                  | 0.3                        | Recommended\(^{(a)}\) |
| 120010      | Almonds      | 0.04                    | 0.04                 | 0.04                       | Recommended\(^{(a)}\) |
| 120020      | Brazil nuts  | 0.04                    | 0.04                 | 0.04                       | Recommended\(^{(a)}\) |
| 120030      | Cashew nuts  | 0.04                    | 0.04                 | 0.04                       | Recommended\(^{(a)}\) |

**Enforcement residue definition:** fluxapyroxad\(^{(a)}\)

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ARfD: acute reference dose; bw: body weight; NESTI: national estimated short-term intake; PRIMo: (EFSA) Pesticide Residues Intake Model; CXL: Codex maximum residue limit; JMPR: Joint Meeting on Pesticide Residues; IESTI: international estimated short-term intake.

ADI: acceptable daily intake; bw: body weight; NEDI: national estimated daily intake; PRIMo: (EFSA) Pesticide Residues Intake Model; CXL: Codex maximum residue limit; JMPR: Joint Meeting on Pesticide Residues; TMDI: theoretical maximum daily intake; NTMDI: national theoretical maximum daily intake.
| Code number | Commodity       | Existing EU MRL (mg/kg) | Existing CXL (mg/kg) | MRL (mg/kg) | Outcome of the review            | Comment |
|-------------|-----------------|-------------------------|----------------------|-------------|----------------------------------|---------|
| 120040      | Chestnuts       | 0.04                    | 0.04                 | 0.04        | Recommended(b)                   |         |
| 120050      | Coconuts        | 0.04                    | 0.04                 | 0.04        | Recommended(b)                   |         |
| 120060      | Hazelnuts       | 0.04                    | 0.04                 | 0.04        | Recommended(b)                   |         |
| 120070      | Macadamia       | 0.04                    | 0.04                 | 0.04        | Recommended(b)                   |         |
| 120080      | Pecans          | 0.04                    | 0.04                 | 0.04        | Recommended(b)                   |         |
| 120090      | Pine nuts       | 0.04                    | 0.04                 | 0.04        | Recommended(b)                   |         |
| 120100      | Pistachios      | 0.04                    | 0.04                 | 0.04        | Recommended(b)                   |         |
| 120110      | Walnuts         | 0.04                    | 0.04                 | 0.04        | Recommended(b)                   |         |
| 130010      | Apples          | 0.9                     | 0.9                  | 0.9         | Recommended(c)                   |         |
| 130020      | Pears           | 0.9                     | 0.9                  | 0.9         | Recommended(c)                   |         |
| 130030      | Quinces         | 0.9                     | 0.9                  | 0.9         | Recommended(c)                   |         |
| 130040      | Medlar          | 0.9                     | 0.9                  | 0.9         | Recommended(c)                   |         |
| 130050      | Loquat          | 0.9                     | 0.9                  | 0.9         | Recommended(c)                   |         |
| 140010      | Apricots        | 1                       | –                    | 0.15        | Further recommendation needed(d) |         |
| 140020      | Cherries        | 3                       | 3                    | 3           | Recommended(e)                   |         |
| 140030      | Peaches         | 1.5                     | 1.5                  | 1.5         | Recommended(e)                   |         |
| 140040      | Plums           | 1.5                     | 1.5                  | 1.5         | Recommended(e)                   |         |
| 151010      | Table grapes    | 3                       | 3                    | 3           | Recommended(c)                   |         |
| 151020      | Wine grapes     | 3                       | 3                    | 3           | Recommended(c)                   |         |
| 152000      | Strawberries    | 4                       | –                    | 4           | Recommended(g)                   |         |
| 154010      | Blueberries     | 7                       | –                    | 7           | Recommended(g)                   |         |
| 163020      | Bananas         | 3                       | 3                    | 3           | Recommended(b)                   |         |
| 163030      | Mangoes         | 0.5                     | –                    | 0.8         | Recommended(b)                   |         |
| 211000      | Potatoes        | 0.1                     | 0.03                 | 0.3         | Further consideration needed(f)  |         |
| 212010      | Cassava         | 0.1                     | –                    | 0.2         | Further recommendation needed(g) |         |
| 212020      | Sweet potatoes  | 0.1                     | –                    | 0.2         | Further recommendation needed(g) |         |
| 212030      | Yams            | 0.1                     | –                    | 0.2         | Further recommendation needed(g) |         |
| 212040      | Arrowroot       | 0.1                     | –                    | 0.2         | Further recommendation needed(g) |         |
| 213010      | Beetroot        | 0.3                     | –                    | 0.5         | Further consideration needed(g)  |         |
| 213020      | Carrots         | 0.3                     | –                    | 0.5         | Further consideration needed(g)  |         |
| 213030      | Celeriac        | 0.3                     | –                    | 0.5         | Further consideration needed(g)  |         |
| 213040      | Horseradish     | 0.3                     | –                    | 0.5         | Further consideration needed(g)  |         |
| 213050      | Jerusalem artichokes | 0.3                   | –                  | 0.5         | Further consideration needed(g)  |         |
| 213060      | Parsnips        | 0.3                     | –                    | 0.5         | Further consideration needed(g)  |         |
| 213070      | Parsley root    | 0.3                     | –                    | 0.5         | Further consideration needed(g)  |         |
| 213080      | Radishes        | 0.3                     | 0.2                  | 0.5         | Further consideration needed(f)  |         |
| 213090      | Salsify         | 0.3                     | –                    | 0.5         | Further consideration needed(g)  |         |
| 213100      | Swedes          | 0.3                     | –                    | 0.5         | Further consideration needed(g)  |         |
| 213110      | Turnips         | 0.3                     | –                    | 0.5         | Further consideration needed(g)  |         |
| 220010      | Garlic          | 0.1                     | –                    | 0.2         | Further consideration needed(g)  |         |
| 220020      | Onions          | 0.1                     | –                    | 0.2         | Further consideration needed(g)  |         |
| 220030      | Shallots        | 0.1                     | –                    | 0.2         | Further consideration needed(g)  |         |
| 220040      | Spring onions   | 0.6                     | –                    | 0.7         | Further consideration needed(g)  |         |
| 231010      | Tomatoes        | 0.6                     | –                    | 0.3         | Further consideration needed(g)  |         |
| 231020      | Peppers         | 0.6                     | –                    | 0.3         | Further consideration needed(g)  |         |
| 231030      | Aubergines (egg plants) | 0.6                  | –                  | 0.3         | Further consideration needed(g)  |         |
| 232010      | Cucumbers       | 0.2                     | –                    | 0.2         | Further consideration needed(g)  |         |
| Code number | Commodity | Existing EU MRL (mg/kg) | Existing CXL (mg/kg) | Outcome of the review MRL (mg/kg) | Comment |
|-------------|-----------|------------------------|---------------------|----------------------------------|---------|
| 232020      | Gherkins  | 0.2                    | –                   | 0.2                              | Further consideration needed (g) |
| 232030      | Courgettes| 0.2                    | –                   | 0.2                              | Further consideration needed (g) |
| 233010      | Melons    | 0.15                   | –                   | 0.15                             | Further consideration needed (g) |
| 233020      | Pumpkins  | 0.15                   | –                   | 0.15                             | Further consideration needed (g) |
| 233030      | Watermelons| 0.15                   | –                   | 0.15                             | Further consideration needed (g) |
| 234000      | Sweet corn| 0.15                   | 0.15                | 0.15                             | Further consideration needed (f) |
| 241010      | Broccoli  | 2                      | –                   | 2                                | Further consideration needed (g) |
| 241020      | Cauliflower| 0.15                   | –                   | 0.2                              | Further consideration needed (g) |
| 242010      | Brussels sprouts| 0.3                   | –                   | 0.4                              | Further consideration needed (g) |
| 242020      | Head cabbage| 0.4                    | –                   | 0.5                              | Further consideration needed (g) |
| 243010      | Chinese cabbage| 4                     | –                   | 4                                | Further consideration needed (g) |
| 243020      | Kale      | 0.07                   | –                   | 0.15                             | Further consideration needed (g) |
| 244000      | Kohlrabi  | 0.07                   | –                   | 0.15                             | Further consideration needed (g) |
| 251010      | Lamb's lettuce| 4                     | –                   | 4                                | Further consideration needed (g) |
| 251020      | Lettuce   | 4                      | 4                   | 4                                | Further consideration needed (f) |
| 251030      | Scarole (broad-leaf endive)| 4                   | –                   | 4                                | Further consideration needed (g) |
| 251040      | Cress     | 4                      | –                   | 3                                | Further consideration needed (g) |
| 251050      | Land cress| 4                      | –                   | 3                                | Further consideration needed (g) |
| 251060      | Rocket, Rucola| 4                     | –                   | 4                                | Further consideration needed (g) |
| 251070      | Red mustard| 4                     | –                   | 3                                | Further consideration needed (g) |
| 251080      | Leaves and sprouts of Brassica spp| 4                   | –                   | 3                                | Further consideration needed (g) |
| 252010      | Spinach   | 3                      | –                   | 3                                | Further consideration needed (g) |
| 252020      | Purslane  | 3                      | –                   | 3                                | Further consideration needed (g) |
| 252030      | Beet leaves (chard)| 3                   | –                   | 3                                | Further consideration needed (g) |
| 255000      | Witloof   | 6                      | –                   | 6                                | Further consideration needed (g) |
| 256010      | Chervil   | 3                      | –                   | 3                                | Further consideration needed (g) |
| 256020      | Chives    | 3                      | –                   | 3                                | Further consideration needed (g) |
| 256030      | Celery leaves| 3                     | –                   | 3                                | Further consideration needed (g) |
| 256040      | Parsley   | 3                      | –                   | 3                                | Further consideration needed (g) |
| 256050      | Sage      | 3                      | –                   | 3                                | Further consideration needed (g) |
| 256060      | Rosemary  | 3                      | –                   | 3                                | Further consideration needed (g) |
| 256070      | Thyme     | 3                      | –                   | 3                                | Further consideration needed (g) |
| 256080      | Basil     | 3                      | –                   | 3                                | Further consideration needed (g) |
| 256090      | Bay leaves (laurel)| 3                   | –                   | 3                                | Further consideration needed (g) |
| 256100      | Tarragon  | 3                      | –                   | 3                                | Further consideration needed (g) |
| 260010      | Beans (fresh, with pods)| 2                    | 2                   | 2                                | Further consideration needed (g) |
| 260020      | Beans (fresh, without pods)| 0.09                | 0.09                | 0.09                             | Further consideration needed (g) |
| 260030      | Peas (fresh, with pods)| 2                    | 2                   | 2                                | Further consideration needed (g) |
| 260040      | Peas (fresh, without pods)| 0.09                | 0.09                | 0.09                             | Further consideration needed (g) |
| Code number | Commodity | Existing EU MRL (mg/kg) | Existing CXL (mg/kg) | Outcome of the review MRL (mg/kg) | Comment |
|-------------|-----------|------------------------|---------------------|-----------------------------------|---------|
| 270020      | Cardoons  | 9                      | –                   | 9                                 | Further consideration needed(d) |
| 270030      | Celery    | 9                      | –                   | 9                                 | Further consideration needed(d) |
| 270040      | Fennel    | 9                      | –                   | 9                                 | Further consideration needed(d) |
| 270050      | Globe artichokes | 0.3             | –                   | 0.5                               | Further consideration needed(d) |
| 270060      | Leek      | 0.6                    | –                   | 0.7                               | Further consideration needed(d) |
| 270070      | Rhubarb   | 9                      | –                   | 9                                 | Further consideration needed(d) |
| 300010      | Beans (dry) | 0.3                 | 0.3                 | 0.3                               | Further consideration needed(g) |
| 300020      | Lentils (dry) | 0.4               | 0.4                 | 0.4                               | Further consideration needed(f) |
| 300030      | Peas (dry) | 0.4                    | 0.4                 | 0.4                               | Further consideration needed(f) |
| 300040      | Lupins (dry) | 0.3                 | –                   | 0.2                               | Further recommendation needed(d) |
| 401010      | Linseed   | 0.9                    | 0.8                 | 0.9                               | Further consideration needed(f) |
| 401020      | Peanuts   | 0.01*                  | 0.01                | 0.01*                             | Further consideration needed(f) |
| 401030      | Poppy seed | 0.9                   | 0.8                 | 0.9                               | Further consideration needed(f) |
| 401040      | Sesame seed | 0.9                 | 0.8                 | 0.9                               | Further consideration needed(f) |
| 401050      | Sunflower seed | 0.8               | 0.8                 | 0.9                               | Further consideration needed(f) |
| 401060      | Rape seed | 0.9                    | 0.8                 | 0.9                               | Further consideration needed(f) |
| 401070      | Soya bean | 0.15                   | 0.15                | 0.15                              | Further consideration needed(f) |
| 401080      | Mustard seed | 0.9                | 0.8                 | 0.9                               | Further consideration needed(f) |
| 401090      | Cotton seed | 0.3                  | 0.3                 | 0.3                               | Further consideration needed(h) |
| 401100      | Pumpkin seeds | 0.9                | 0.8                 | 0.9                               | Further consideration needed(f) |
| 401110      | Safflower | 0.9                    | 0.8                 | 0.9                               | Further consideration needed(f) |
| 401120      | Borage    | 0.9                    | 0.8                 | 0.9                               | Further consideration needed(f) |
| 401130      | Gold of pleasure | 0.9              | 0.8                 | 0.9                               | Further consideration needed(f) |
| 401140      | Hempseed  | 0.9                    | 0.8                 | 0.9                               | Further consideration needed(f) |
| 401150      | Castor bean | 0.9                 | 0.8                 | 0.9                               | Further consideration needed(f) |
| 500010      | Barley grain | 2                  | 2                   | 3                                 | Further consideration needed(f) |
| 500030      | Maize grain | 0.01*               | 0.01*               | 0.01*                             | Further consideration needed(f) |
| 500050      | Oats grain | 2                      | 2                   | 3                                 | Further consideration needed(f) |
| 500060      | Rice grain | 5                      | 5                   | 5                                 | Further consideration needed(f) |
| 500070      | Rye grain | 0.4                    | 0.3                 | 0.4                               | Further consideration needed(f) |
| 500080      | Sorghum grain | 0.7               | 0.7                 | 0.8                               | Further consideration needed(f) |
| 500090      | Wheat grain | 0.4                 | 0.3                 | 0.4                               | Further consideration needed(f) |
| 632000      | Herbal infusions (dried, leaves) | 0.01*       | –                   | 30                                | Further recommendation needed(d) |
| 633000      | Herbal infusions (dried, roots) | 2              | –                   | 2                                 | Further recommendation needed(d) |
| 900010      | Sugar beet (root) | 0.15             | 0.15                | 0.4                               | Further consideration needed(f) |
| 900020      | Sugar cane | 3                      | –                   | 3                                 | Further consideration needed(d) |
| 900030      | Chicory roots | 0.3                 | –                   | 0.3                               | Further consideration needed(d) |
| 1011010     | Swine meat | 0.02                   | 0.015               | 0.015                             | Further consideration needed(g) |
| 1011020     | Swine fat (free of lean meat) | 0.2            | 0.2                 | 0.2                               | Further consideration needed(g) |
| 1011030     | Swine liver | 0.1                   | 0.1                 | 0.1                               | Further consideration needed(g) |
| 1011040     | Swine kidney | 0.1                 | 0.1                 | 0.1                               | Further consideration needed(g) |
| 1012010     | Bovine meat | 0.02                  | 0.015               | 0.015                             | Further consideration needed(g) |
| Code number | Commodity          | Existing EU MRL (mg/kg) | Existing CXL (mg/kg) | Outcome of the review |
|-------------|--------------------|-------------------------|----------------------|-----------------------|
| 1012020     | Bovine fat         | 0.2                     | 0.2                  | Further consideration needed (g) |
| 1012030     | Bovine liver       | 0.1                     | 0.1                  | Further consideration needed (g) |
| 1012040     | Bovine kidney      | 0.1                     | 0.1                  | Further consideration needed (g) |
| 1013010     | Sheep meat         | 0.02                    | 0.015                | Further consideration needed (g) |
| 1013020     | Sheep fat          | 0.2                     | 0.2                  | Further consideration needed (g) |
| 1013030     | Sheep liver        | 0.1                     | 0.1                  | Further consideration needed (g) |
| 1013040     | Sheep kidney       | 0.1                     | 0.1                  | Further consideration needed (g) |
| 1014010     | Goat meat          | 0.02                    | 0.015                | Further consideration needed (g) |
| 1014020     | Goat fat           | 0.2                     | 0.2                  | Further consideration needed (g) |
| 1014030     | Goat liver         | 0.1                     | 0.1                  | Further consideration needed (g) |
| 1015010     | Horse meat         | 0.02                    | 0.015                | Further consideration needed (g) |
| 1015020     | Horse fat          | 0.2                     | 0.2                  | Further consideration needed (g) |
| 1015030     | Horse liver        | 0.1                     | 0.1                  | Further consideration needed (g) |
| 1015040     | Horse kidney       | 0.1                     | 0.1                  | Further consideration needed (g) |
| 1016010     | Poultry meat       | 0.02                    | 0.02                 | Further consideration needed (g) |
| 1016020     | Poultry fat        | 0.05                    | 0.05                 | Further consideration needed (g) |
| 1016030     | Poultry liver      | 0.02                    | 0.02                 | Further consideration needed (g) |
| 1020010     | Cattle milk        | 0.02                    | 0.02                 | Further consideration needed (g) |
| 1020020     | Sheep milk         | 0.02                    | 0.02                 | Further consideration needed (g) |
| 1020030     | Goat milk          | 0.02                    | 0.02                 | Further consideration needed (g) |
| 1020040     | Horse milk         | 0.02                    | 0.02                 | Further consideration needed (g) |
| 1030000     | Birds’ eggs        | 0.02                    | 0.02                 | Further consideration needed (g) |
| –           | Other commodities  | See Reg. 2018/685        | –                   | Further consideration needed (g) |

MRL: maximum residue level; CXL: codex maximum residue limit.

*: Indicates that the MRL is set at the limit of quantification.

(F): The residue definition is fat soluble.

(a): MRL is derived from a GAP evaluated at EU level, which is fully supported by data and for which no risk to consumers is identified; no CXL is available (combination H-I in Appendix E).

(b): MRL is derived from the existing CXL, which is supported by data and for which no risk to consumers is identified; there are no relevant authorisations or import tolerances reported at EU level (combination A-VII in Appendix E).

(c): MRL is derived from the existing CXL, which is supported by data and for which no risk to consumers is identified; GAP evaluated at EU level, which is also fully supported by data, leads to a lower MRL (combination H-VII in Appendix E).

(d): Tentative MRL is derived from a GAP evaluated at EU level, which is not fully supported by data but for which no risk to consumers is identified; GAP evaluated at EU level, which is also fully supported by data, leads to a lower MRL (combination F-I in Appendix E).

(e): MRL is derived from a GAP evaluated at EU level, which is fully supported by data and for which no risk to consumers is identified; existing CXL is covered by the recommended MRL (combination H-III in Appendix E).

(f): Tentative MRL is derived from a GAP evaluated at EU level, which is not fully supported by data but for which no risk to consumers was identified (assuming the existing residue definition); existing CXL is covered by the tentative MRL (combination F-III in Appendix E).

(g): MRL is derived from the existing CXL, which is not sufficiently supported by data but for which no risk to consumers is identified (assuming the existing residue definition); GAP evaluated at EU level, which is also not fully supported by data, would lead to a lower tentative MRL (combination F-V in Appendix E).

(h): MRL is derived from the existing CXL, which is not sufficiently supported by data but for which no risk to consumers is identified (assuming the existing residue definition); there are no relevant authorisations or import tolerances reported at EU level (combination A-V in Appendix E).

(i): Tentative MRL is derived from a GAP evaluated at EU level, which is not fully supported by data but for which no risk to consumers was identified (assuming the existing residue definition); CXL is not compatible with EU residue definitions (combination F-II in Appendix E).

(j): There are no relevant authorisations or import tolerances reported at EU level; no CXL is available. Either a specific LOQ or the default MRL of 0.01 mg/kg may be considered (combination A-I in Appendix E).
Appendix C – Pesticide Residue Intake Model (PRIMo)

PRIMo (EU1)

LOQs (mg/kg) range from: 0.001 to: 0.01

ADI (mg/kg bw per day): 0.02

ARfD (mg/kg bw): 0.25

Source of ADI: EFSA

Source of ARfD: EFSA

EFSA PRIMo revision 3.0; 2017/12/11

Year of evaluation: 2012

No of diets exceeding the ADI: ---

Calculated exposure (% of ADI) MS Diet

| Commodity/group of commodities | Exposure resulting from | Calculated exposure (% of ADI) MS Diet |
|--------------------------------|------------------------|--------------------------------------|
|                                | MS Diet                |                                      |
|                                | Highest contributor to |                                      |
|                                | 2nd contributor to     |                                      |
|                                | 3rd contributor to     |                                      |
|                                | MS Diet (in % of ADI)  |                                      |
|                                | Commodity/group of     |                                      |
|                                | commodities            |                                      |
|                                | 1st contributor to     |                                      |
|                                | 3rd contributor to     |                                      |
|                                | MS diet (in % of ADI)  |                                      |
|                                | Commodity/group of     |                                      |
|                                | commodities            |                                      |

Fluxapyroxad (F)

Chronic risk assessment: JMPR methodology (IEDI/TMDI)

Conclusion:

LT adult

UK vegetarian

UK adult

Rice

Wheat

Sugar beet roots

Barley

Rye

Apples

Pears

Plums

Wine grapes

Fluxapyroxad (F)

Toxicological reference values

Normal mode

Commodity/group of commodities

Input values

Details - acute risk assessment/children

Details - acute risk assessment/adults

Details - chronic risk assessment

Supplementary results - chronic risk assessment

Details - chronic risk assessment

The estimated long-term dietary intake (TMDI/IEDI/EDII) was below the ADI. The long-term intake of residues of fluxapyroxad (F) is unlikely to present a public health concern.

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EFSA Journal 2020;18(1):5984
The acute risk assessment is based on the ARfD.
The calculation is based on the large portion of the most critical consumer group.

### Unprocessed commodities

#### Results for children

| Highest % of ARfD/ADI | Commodities               | MRL/input for RA (mg/kg) | Exposure (µg/kg bw) | Highest % of ARfD/ADI | Commodities               | MRL/input for RA (mg/kg) | Exposure (µg/kg bw) |
|------------------------|---------------------------|--------------------------|---------------------|------------------------|---------------------------|--------------------------|---------------------|
| 77%                    | Celeries                  | 9/5.15                   | 193                 | 38%                    | Florence fennel           | 9/5.15                   | 96                  |
| 77%                    | Rhubarbs                  | 9/5.15                   | 192                 | 33%                    | Celeries                  | 9/5.15                   | 82                  |
| 40%                    | Witloofs/Belgian endives  | 6/2.5                    | 99                  | 21%                    | Cardoons                  | 9/5.15                   | 53                  |
| 33%                    | Florence fennel           | 9/5.15                   | 84                  | 19%                    | Chinese cabbages/po-tai   | 4/1.9                    | 48                  |
| 29%                    | Escarol/broad-leaved      | 4/1.8                    | 72                  | 19%                    | Rhubarbs                  | 9/5.15                   | 48                  |
| 27%                    | Lettuces                  | 4/1.8                    | 69                  | 16%                    | Witloofs/Belgian endives  | 6/2.5                    | 46                  |
| 26%                    | Pears                     | 0.8/0.47                 | 65                  | 15%                    | Escarol/broad-leaved      | 4/1.8                    | 36                  |
| 24%                    | Chinese cabbages/po-tai   | 4/1.9                    | 61                  | 14%                    | Blueberries               | 7/3.77                   | 34                  |
| 24%                    | Peaches                   | 1.5/0.63                 | 60                  | 12%                    | Broccoli                  | 2/1.27                   | 30                  |
| 21%                    | Broccoli                  | 2/1.27                   | 53                  | 9%                     | Lettuces                  | 4/1.8                    | 22                  |
| 20%                    | Apples                    | 0.8/0.47                 | 51                  | 9%                     | Strawberries              | 4/2.34                   | 22                  |
| 16%                    | Plums                     | 1.5/0.95                 | 40                  | 8%                     | Plums                     | 1.5/0.95                 | 19                  |
| 15%                    | Strawberries              | 4/2.34                   | 38                  | 7%                     | Cherries (seed)           | 3/1.86                   | 19                  |
| 13%                    | Spinaches                 | 3/1.44                   | 33                  | 7%                     | Chards/best leaves        | 3/1.44                   | 18                  |
| 12%                    | Mangos                    | 0.8/0.47                 | 29                  | 6%                     | Pears                     | 0.8/0.47                 | 14                  |

#### Results for adults

| Highest % of ARfD/ADI | Commodities                   | MRL/input for RA (mg/kg) | Exposure (µg/kg bw) | Highest % of ARfD/ADI | Commodities                   | MRL/input for RA (mg/kg) | Exposure (µg/kg bw) |
|------------------------|-------------------------------|--------------------------|---------------------|------------------------|-------------------------------|--------------------------|---------------------|
| 93%                    | Florence fennel/boiled       | 9/5.15                   | 233                 | 70%                    | Celeries/boiled             | 9/5.15                   | 174                 |
| 92%                    | Rhubarbs/boiled              | 9/5.15                   | 229                 | 40%                    | Florence fennel/boiled      | 9/5.15                   | 100                 |
| 49%                    | Witloofs/boiled              | 6/2.5                    | 123                 | 30%                    | Rhubarbs/boiled             | 9/5.15                   | 75                  |
| 46%                    | Escarol/broad-leaved end     | 4/1.8                    | 119                 | 25%                    | Cardoons/boiled             | 9/5.15                   | 63                  |
| 40%                    | Broccoli/boiled              | 2/1.27                   | 100                 | 18%                    | Witloofs/boiled             | 6/2.5                    | 46                  |
| 19%                    | Spinaches/fruzan             | 3/1.44                   | 47                  | 15%                    | Escarol/broad-leaved        | 4/1.8                    | 37                  |
| 18%                    | Chards/best leaves/boiled    | 3/1.44                   | 45                  | 12%                    | Broccoli/boiled             | 2/1.27                   | 31                  |
| 12%                    | Leaks/boiled                 | 0.7/0.42                 | 29                  | 7%                     | Chards/best leaves/boiled   | 3/1.44                   | 18                  |
| 7%                     | Head cabbages/boiled         | 0.5/0.27                 | 17                  | 5%                     | Spinaches/boiled            | 3/1.44                   | 12                  |
| 5%                     | Sugar beets (roo)/sugar      | 0.41/0.44                | 13                  | 3%                     | Peaches/canned              | 1.5/0.63                 | 8.5                 |
| 5%                     | Parsnips/boiled              | 0.5/0.26                 | 13                  | 3%                     | Leaks/boiled                | 0.7/0.42                 | 7.3                 |
| 5%                     | Peaches/canned              | 1.5/0.63                 | 13                  | 2%                     | Purslane/soiled             | 3/1.44                   | 5.9                 |
| 5%                     | Blueberries/processed (not t) | 7/3.77                  | 13                  | 2%                     | Cauliflowers/boiled         | 0.2/0.14                 | 5.8                 |
| 5%                     | Beetrots/boiled              | 0.5/0.26                 | 12                  | 2%                     | Beetrots/boiled             | 0.5/0.26                 | 5.8                 |
| 4%                     | Potatoes/soiled              | 0.30/0.12                | 11                  | 2%                     | Sugar beets (roo)/sugar      | 0.41/0.44                | 5.3                 |

### Processed commodities

#### Results for children

| Highest % of ARfD/ADI | Processed commodities | MRL/input for RA (mg/kg) | Exposure (µg/kg bw) | Highest % of ARfD/ADI | Processed commodities | MRL/input for RA (mg/kg) | Exposure (µg/kg bw) |
|------------------------|-----------------------|--------------------------|---------------------|------------------------|-----------------------|--------------------------|---------------------|
| 93%                    | Florence fennel/boiled | 9/5.15                   | 233                 | 70%                    | Celeries/boiled       | 9/5.15                   | 174                 |
| 92%                    | Rhubarbs/boiled       | 9/5.15                   | 229                 | 40%                    | Florence fennel/boiled | 9/5.15                   | 100                 |
| 49%                    | Witloofs/boiled       | 6/2.5                    | 123                 | 30%                    | Rhubarbs/sauce/puree   | 9/5.15                   | 75                  |
| 48%                    | Escarol/broad-leaved  | 4/1.8                    | 119                 | 25%                    | Cardoons/boiled       | 9/5.15                   | 63                  |
| 40%                    | Broccoli/boiled       | 2/1.27                   | 100                 | 18%                    | Witloofs/boiled       | 6/2.5                    | 46                  |
| 19%                    | Spinaches/fruzan      | 3/1.44                   | 47                  | 15%                    | Escarol/broad-leaved   | 4/1.8                    | 37                  |
| 18%                    | Chards/best leaves/boiled | 3/1.44              | 45                  | 12%                    | Broccoli/boiled       | 2/1.27                   | 31                  |
| 12%                    | Leaks/boiled          | 0.7/0.42                 | 29                  | 7%                     | Chards/best leaves/boiled | 3/1.44                 | 18                  |
| 7%                     | Head cabbages/boiled  | 0.5/0.27                 | 17                  | 5%                     | Spinaches/boiled       | 3/1.44                   | 12                  |
| 5%                     | Sugar beets (roo)/sugar | 0.41/0.44                | 13                  | 3%                     | Peaches/canned        | 1.5/0.63                 | 8.5                 |
| 5%                     | Parsnips/boiled       | 0.5/0.26                 | 13                  | 3%                     | Leaks/boiled           | 0.7/0.42                 | 7.3                 |
| 5%                     | Peaches/canned       | 1.5/0.63                 | 13                  | 2%                     | Purslane/soiled        | 3/1.44                   | 5.9                 |
| 5%                     | Blueberries/processed | 7/3.77                   | 13                  | 2%                     | Cauliflowers/boiled    | 0.2/0.14                 | 5.8                 |
| 5%                     | Beetrots/boiled       | 0.5/0.26                 | 12                  | 2%                     | Beetrots/boiled       | 0.5/0.26                 | 5.8                 |
| 4%                     | Potatoes/soiled       | 0.30/0.12                | 11                  | 2%                     | Sugar beets (roo)/sugar | 0.41/0.44                | 5.3                 |

### Conclusion:

No exceedance of the toxicological reference value was identified for any unprocessed commodity. A short term intake of residues of fluxapyroxad (F) is unlikely to For processed commodities, no exceedance of the ARfD/ADI was identified.
### Fluxapyroxad (F)

**Toxicological reference values**

| LOQs (mg/kg) | ADI (mg/kg bw per day) | ARfD (mg/kg bw) |
|-------------|------------------------|-----------------|
| range from: 0.01 to: 0.01 | 0.02 | 0.25 |

**Source of ADI:** EFSA  
**Source of ARfD:** EFSA  
**EFSA PRIMo revision 3.0; 2017/12/11**  
**Year of evaluation:** 2012  
**No of diets exceeding the ADI:** ---

### Calculated exposure (% of ADI)

| Commodity/group of commodities | MRLs set at the LOQ (in % of ADI) | commodities not under assessment (in % of ADI) |
|-------------------------------|-----------------------------------|-----------------------------------------------|
| Banana                        | 55% 10.96                         | 15% 6% 4%                                     |
| Wheat                         | 37% 7.49                          | 17% 3% 2%                                     |
| Table grapes                  | 31% 6.16                          | 8% 5% 2%                                      |
| Table grapes                  | 26% 5.10                          | 7% 4% 2%                                      |
| Celery                        | 24% 4.81                          | 3% 2% 2%                                      |
| Sugar canes                   | 23% 4.59                          | 3% 2% 2%                                      |
| Sugar canes                   | 22% 4.37                          | 2% 2% 2%                                      |
| Wheat                         | 21% 4.14                          | 3% 2% 2%                                      |
| Barley                        | 20% 4.03                          | 2% 2% 2%                                      |
| Sugar beet roots              | 20% 4.00                          | 2% 2% 2%                                      |
| Wine grapes                   | 19% 3.72                          | 2% 2% 3%                                      |
| Wheat                         | 17% 3.43                          | 3% 3% 2%                                      |
| Apples                        | 16% 3.25                          | 4% 3% 2%                                      |
| Wine grapes                   | 13% 2.83                          | 4% 3% 2%                                      |
| Rice                          | 11% 2.52                          | 5% 3% 1%                                      |
| Wheat                         | 10% 2.22                          | 5% 3% 1%                                      |
| Barley                        | 9% 1.87                           | 5% 3% 0.8%                                     |
| Wheat                         | 8% 1.52                           | 5% 3% 0.8%                                     |
| Barley                        | 6% 1.19                           | 5% 3% 0.6%                                     |
| Barley                        | 4% 0.87                           | 5% 3% 0.6%                                     |

### Exposure resulting from

| Commodity/group of commodities | MRLs set at the LOQ (in % of ADI) | commodities not under assessment (in % of ADI) |
|-------------------------------|-----------------------------------|-----------------------------------------------|
| Banana                        | 55% 10.96                         | 15% 6% 4%                                     |
| Wheat                         | 37% 7.49                          | 17% 3% 2%                                     |
| Table grapes                  | 31% 6.16                          | 8% 5% 2%                                      |
| Table grapes                  | 26% 5.10                          | 7% 4% 2%                                      |
| Celery                        | 24% 4.81                          | 3% 2% 2%                                      |
| Sugar canes                   | 23% 4.59                          | 3% 2% 2%                                      |
| Sugar canes                   | 22% 4.37                          | 2% 2% 2%                                      |
| Wheat                         | 21% 4.14                          | 3% 2% 2%                                      |
| Barley                        | 20% 4.03                          | 2% 2% 2%                                      |
| Sugar beet roots              | 20% 4.00                          | 2% 2% 2%                                      |
| Wine grapes                   | 19% 3.72                          | 2% 2% 3%                                      |
| Wheat                         | 17% 3.43                          | 3% 3% 2%                                      |
| Apples                        | 16% 3.25                          | 4% 3% 2%                                      |
| Wine grapes                   | 13% 2.83                          | 4% 3% 2%                                      |
| Rice                          | 11% 2.52                          | 5% 3% 1%                                      |
| Wheat                         | 10% 2.22                          | 5% 3% 1%                                      |
| Barley                        | 9% 1.87                           | 5% 3% 0.8%                                     |
| Wheat                         | 8% 1.52                           | 5% 3% 0.8%                                     |
| Barley                        | 6% 1.19                           | 5% 3% 0.6%                                     |
| Barley                        | 4% 0.87                           | 5% 3% 0.6%                                     |

### Conclusion:

The estimated long-term dietary intake (TMDI/NEDI/IEDI) was below the ADI. The long-term intake of residues of fluxapyroxad (F) is unlikely to present a public health concern.

**Details - chronic risk assessment/children**

| Commodity/group of commodities | MRLs set at the LOQ (in % of ADI) | commodities not under assessment (in % of ADI) |
|-------------------------------|-----------------------------------|-----------------------------------------------|
| Banana                        | 55% 10.96                         | 15% 6% 4%                                     |
| Wheat                         | 37% 7.49                          | 17% 3% 2%                                     |
| Table grapes                  | 31% 6.16                          | 8% 5% 2%                                      |
| Table grapes                  | 26% 5.10                          | 7% 4% 2%                                      |
| Celery                        | 24% 4.81                          | 3% 2% 2%                                      |
| Sugar canes                   | 23% 4.59                          | 3% 2% 2%                                      |
| Sugar canes                   | 22% 4.37                          | 2% 2% 2%                                      |
| Wheat                         | 21% 4.14                          | 3% 2% 2%                                      |
| Barley                        | 20% 4.03                          | 2% 2% 2%                                      |
| Sugar beet roots              | 20% 4.00                          | 2% 2% 2%                                      |
| Wine grapes                   | 19% 3.72                          | 2% 2% 3%                                      |
| Wheat                         | 17% 3.43                          | 3% 3% 2%                                      |
| Apples                        | 16% 3.25                          | 4% 3% 2%                                      |
| Wine grapes                   | 13% 2.83                          | 4% 3% 2%                                      |
| Rice                          | 11% 2.52                          | 5% 3% 1%                                      |
| Wheat                         | 10% 2.22                          | 5% 3% 1%                                      |
| Barley                        | 9% 1.87                           | 5% 3% 0.8%                                     |
| Wheat                         | 8% 1.52                           | 5% 3% 0.8%                                     |
| Barley                        | 6% 1.19                           | 5% 3% 0.6%                                     |
| Barley                        | 4% 0.87                           | 5% 3% 0.6%                                     |

### Summary

- **PRIMo (CXL1)**
- **Input values**
- **Supplementary results**
- **Details - acute risk assessment/children**
- **Details - acute risk assessment/adults**
- **Conclusion:** The estimated long-term dietary intake (TMDI/NEDI/IEDI) was below the ADI. The long-term intake of residues of fluxapyroxad (F) is unlikely to present a public health concern.
The acute risk assessment is based on the ARfD. The calculation is based on the large portion of the most critical consumer group.

| Highest % of ARfD/ADI | Commodities | MRL/input for RA (mg/kg) | Exposure (µg/kg bw) | Highest % of ARfD/ADI | Commodities | MRL/input for RA (mg/kg) | Exposure (µg/kg bw) |
|------------------------|-------------|---------------------------|---------------------|------------------------|-------------|---------------------------|---------------------|
| 77% Celeries           | 9/5.15      | 193                       | 38% Florence fennels | 9/5.15                 | 96          |
| 77% Rhubarbs           | 9/5.15      | 192                       | 33% Calabrese        | 9/5.15                 | 82          |
| 62% Bananas            | 3/1.6       | 155                       | 21% Cardoons         | 9/5.15                 | 53          |
| 41% Table grapes       | 3/1.4       | 102                       | 19% Chinese cabbages/pe-tsai | 4/1.9 | 48          |
| 40% Witloofs/Belgian endives | 6/2.5 | 99                       | 19% Rhubarbs         | 9/5.15                 | 48          |
| 33% Florence fennels   | 9/5.15      | 84                        | 19% Table grapes     | 3/1.4                  | 47          |
| 29% Escaroles/broad-leaved endives | 4/1.8 | 72                       | 18% Witloofs/Belgian endives | 6/2.5 | 46          |
| 27% Lecces             | 4/1.8       | 69                        | 15% Escaroles/broad-leaved endives | 4/1.8 | 36          |
| 26% Pears              | 0.9/0.47    | 65                        | 14% Blueberries      | 7/3.77                 | 34          |
| 24% Chinese cabbages/pe-tsai | 4/1.9 | 61                        | 14% Bananas          | 3/1.6                  | 34          |
| 24% Peaches            | 1.5/0.63    | 60                        | 13% Wine grapes      | 3/1.4                  | 33          |
| 21% Broccoli           | 2/1.27      | 53                        | 12% Broccoli         | 1/2.7                  | 30          |
| 20% Apples             | 0.9/0.47    | 51                        | 9% Lecces            | 4/1.8                  | 22          |
| 16% Pums               | 1.5/0.95    | 40                        | 9% Strawberries      | 4/2.34                 | 22          |
| 15% Strawberries       | 4/2.34      | 38                        | 8% Pums              | 1.5/0.95               | 19          |

Conclusion:
No exceedance of the toxicological reference value was identified for any unprocessed commodity. A short term intake of residues of fluapyroxad (F) is unlikely to For processed commodities, no exceedance of the ARfD/ADI was identified.
### Appendix D – Input values for the exposure calculations

#### D.1. Livestock dietary burden calculation

| Feed commodity                  | Median dietary burden | Maximum dietary burden |
|---------------------------------|-----------------------|------------------------|
|                                 | Input value (mg/kg)   | Comment                | Input value (mg/kg)   | Comment                |
| **Risk assessment residue definition:** fluxapyroxad |
| Grapefruits, dried pulp         | 0.01                  | STMR × F (0.1)         | 0.01                  | STMR × F (0.1)         |
| Apple, pomace, wet              | 1.17                  | STMR × PF (4.6)        | 1.17                  | STMR × PF (4.6)        |
| Potato, culls                   | 0.09                  | STMR<sup>(a)</sup> (tentative) | 0.12                  | HR<sup>(a)</sup> (tentative) |
| Potato, process waste           | 0.45                  | STMR × PF (5)<sup>(a)</sup> (tentative) | 0.45                  | STMR × PF (5)<sup>(a)</sup> (tentative) |
| Potato, dried pulp              | 0.72                  | STMR × PF (8)<sup>(a)</sup> (tentative) | 0.72                  | STMR × PF (8)<sup>(a)</sup> (tentative) |
| Carrot, culls                   | 0.12                  | STMR<sup>(a)</sup> (tentative) | 0.26                  | HR<sup>(a)</sup> (tentative) |
| Swede, roots                    | 0.12                  | STMR<sup>(a)</sup> (tentative) | 0.26                  | HR<sup>(a)</sup> (tentative) |
| Turnip, roots                   | 0.12                  | STMR<sup>(a)</sup> (tentative) | 0.26                  | HR<sup>(a)</sup> (tentative) |
| Cassava, roots                  | 0.03                  | STMR<sup>(a)</sup> (tentative) | 0.08                  | HR<sup>(a)</sup> (tentative) |
| Cabbage, heads, leaves          | 0.01                  | STMR<sup>(a)</sup> (tentative) | 0.27                  | HR<sup>(a)</sup> (tentative) |
| Bean, seed (dry)                | 0.01                  | STMR (tentative)       | 0.01                  | STMR (tentative)       |
| Cowpea, seed                    | 0.01                  | STMR (tentative)       | 0.01                  | STMR (tentative)       |
| Pea (Field pea), seed (dry)     | 0.04                  | STMR (tentative)       | 0.04                  | STMR (tentative)       |
| Lupin, seed                     | 0.01                  | STMR (tentative)       | 0.01                  | STMR (tentative)       |
| Lupin seed, meal                | 0.01                  | STMR × default PF (1.1)<sup>(b)</sup> (tentative) | 0.01                  | STMR × default PF (1.1)<sup>(b)</sup> (tentative) |
| Flaxseed/Linseed, meal          | 0.18                  | STMR × default PF (2)<sup>(b)</sup> (tentative) | 0.18                  | STMR × default PF (2)<sup>(b)</sup> (tentative) |
| Peanut, meal                    | 0.00                  | STMR × PF (0.12) (tentative) | 0.00                  | STMR × PF (0.12) (tentative) |
| Sunflower, meal                 | 0.01                  | STMR × PF (0.14) (tentative) | 0.01                  | STMR × PF (0.14) (tentative) |
| Canola (Rape seed), meal        | 0.04                  | STMR × PF (0.44) (tentative) | 0.04                  | STMR × PF (0.44) (tentative) |
| Rape, meal                      | 0.04                  | STMR × PF (0.44) (tentative) | 0.04                  | STMR × PF (0.44) (tentative) |
| Soybean, seed                   | 0.01                  | STMR (tentative)       | 0.01                  | STMR (tentative)       |
| Soybean, meal                   | 0.01                  | STMR × default PF (1.3)<sup>(b)</sup> (tentative) | 0.01                  | STMR × default PF (1.3)<sup>(b)</sup> (tentative) |
| Soybean, hulls                   | 0.13                  | STMR × default PF (13)<sup>(b)</sup> (tentative) | 0.13                  | STMR × default PF (13)<sup>(b)</sup> (tentative) |
| Safflower, meal                 | 0.18                  | STMR × default PF (2)<sup>(b)</sup> (tentative) | 0.18                  | STMR × default PF (2)<sup>(b)</sup> (tentative) |
| Barley, grain                    | 0.54                  | STMR (tentative)       | 0.54                  | STMR (tentative)       |
| Brewer’s grain, dried           | 1.78                  | STMR × default PF (3.3)<sup>(b)</sup> (tentative) | 1.78                  | STMR × default PF (3.3)<sup>(b)</sup> (tentative) |
| Corn, field (Maize), grain      | 0.01                  | STMR (tentative)       | 0.01                  | STMR (tentative)       |
| Corn, pop, grain                | 0.01                  | STMR (tentative)       | 0.01                  | STMR (tentative)       |
| Corn, field, milled by-products | 0.01                  | STMR<sup>(a)</sup> (tentative) | 0.01                  | STMR<sup>(a)</sup> (tentative) |
| Feed commodity                      | Median dietary burden                  | Maximum dietary burden                  |
|------------------------------------|---------------------------------------|---------------------------------------|
|                                    | Input value (mg/kg) | Comment                                  | Input value (mg/kg) | Comment                                  |
| Corn, field, hominy meal           | 0.01 STMR (a)         | (tentative)                              | 0.01 STMR (a)       | (tentative)                              |
| Corn, field, distiller’s grain (dry)| 0.01 STMR (a)         | (tentative)                              | 0.01 STMR (a)       | (tentative)                              |
| Corn, field, gluten feed           | 0.01 STMR (a)         | (tentative)                              | 0.01 STMR (a)       | (tentative)                              |
| Oat, grain                         | 0.54 STMR              | (tentative)                              | 0.54 STMR           | (tentative)                              |
| Rice, bran/pollard                 | 0.78 STMR × PF (0.9)   | (tentative)                              | 0.78 STMR × PF (0.9)| (tentative)                              |
| Rye, grain                         | 0.12 STMR              | (tentative)                              | 0.12 STMR           | (tentative)                              |
| Sorghum, grain                     | 0.19 STMR              | (tentative)                              | 0.19 STMR           | (tentative)                              |
| Triticale, grain                   | 0.12 STMR              | (tentative)                              | 0.12 STMR           | (tentative)                              |
| Wheat, grain                       | 0.12 STMR              | (tentative)                              | 0.12 STMR           | (tentative)                              |
| Wheat, distiller’s grain (dry)     | 0.38 STMR × default PF (3.3)         | (tentative)                              | 0.38 STMR × default PF (3.3)| (tentative) |
| Wheat gluten, meal                 | 0.21 STMR × default PF (1.8)         | (tentative)                              | 0.21 STMR × default PF (1.8)| (tentative) |
| Wheat, milled by-products          | 0.81 STMR × default PF (7)           | (tentative)                              | 0.81 STMR × default PF (7)| (tentative) |
| Beet, sugar, dried pulp            | 0.21 STMR (c) × PF (1.74)           | (tentative)                              | 0.21 STMR (c) × PF (1.74) | (tentative) |
| Beet, sugar, ensiled pulp          | 0.04 STMR (c) × PF (0.37)           | (tentative)                              | 0.04 STMR (c) × PF (0.37) | (tentative) |
| Beet, sugar, molasses              | 0.10 STMR (c) × PF (0.8)            | (tentative)                              | 0.10 STMR (c) × PF (0.8) | (tentative) |
| Sugarcane, molasses                | 0.01 STMR (c) × PF (0.04)           | (tentative)                              | 0.01 STMR (c) × PF (0.04) | (tentative) |
| Barley, straw                      | 1.52 STMR              | (tentative)                              | 3.55 HR             | (tentative)                              |
| Oat, straw                         | 1.52 STMR              | (tentative)                              | 3.55 HR             | (tentative)                              |
| Rye, straw                         | 1.14 STMR              | (tentative)                              | 6.05 HR             | (tentative)                              |
| Triticale, straw                   | 1.14 STMR              | (tentative)                              | 6.05 HR             | (tentative)                              |
| Wheat, straw                       | 1.14 STMR              | (tentative)                              | 6.05 HR             | (tentative)                              |
| Turnip, tops (leaves)              | 0.03 STMR              | (tentative)                              | 0.07 HR             | (tentative)                              |

STMR: supervised trials median residue; HR: highest residue; PF: processing factor.

*: Indicates that the input value is proposed at the limit of quantification.

(a): For corn, no default processing factor was applied because residues are expected to be below the LOQ. Concentration of residues in this commodity is therefore not expected.

(b): In the absence of processing factors supported by data, a default processing factor was included in the calculation to consider the potential concentration of residues in these commodities.

(c): Combined residues from primary uses and rotational crop field studies.

(d): Residues from rotational crop field studies on potatoes.
D.2. Consumer risk assessment without consideration of the existing CXLs

| Commodity                        | Chronic risk assessment | Acute risk assessment |
|----------------------------------|-------------------------|-----------------------|
|                                  | Input value (mg/kg)     | Comment               | Input value (mg/kg)     | Comment               |
|                                  |                         |                       |                         |                       |
| **Risk assessment residue definition 1:** fluxapyroxad |
| **Grapefruits**                  | 0.07 STMR               | 0.17 HR               |
| **Apples**                       | 0.26 STMR               | 0.47 HR               |
| **Pears**                        | 0.26 STMR               | 0.47 HR               |
| **Quinces**                      | 0.26 STMR               | 0.47 HR               |
| **Medlars**                      | 0.26 STMR               | 0.47 HR               |
| **Loquats/Japanese medlars**     | 0.26 STMR               | 0.47 HR               |
| **Apricots**                     | 0.03 STMR (tentative)   | 0.08 HR (tentative)   |
| **Cherries (sweet)**             | 0.56 STMR               | 1.86 HR               |
| **Peaches**                      | 0.44 STMR               | 0.63 HR               |
| **Plums**                        | 0.44 STMR               | 0.95 HR               |
| **Table grapes**                 | 0.09 STMR               | 0.26 HR               |
| **Wine grapes**                  | 0.15 STMR               | 0.32 HR               |
| **Strawberries**                 | 0.82 STMR               | 2.34 HR               |
| **Blueberries**                  | 2.39 STMR               | 3.77 HR               |
| **Mangoes**                      | 0.18 STMR               | 0.37 HR               |
| **Potatoes**                     | 0.09 STMR<sup>(a)</sup> (tentative) | 0.12 HR<sup>(a)</sup> (tentative) |
| **Cassava roots/manioc**         | 0.03 STMR<sup>(b)</sup> (tentative) | 0.08 HR<sup>(b)</sup> (tentative) |
| **Sweet potatoes**               | 0.03 STMR<sup>(b)</sup> (tentative) | 0.08 HR<sup>(b)</sup> (tentative) |
| **Yams**                         | 0.03 STMR<sup>(b)</sup> (tentative) | 0.08 HR<sup>(b)</sup> (tentative) |
| **Arrowroots**                   | 0.03 STMR<sup>(b)</sup> (tentative) | 0.08 HR<sup>(b)</sup> (tentative) |
| **Beetroots**                    | 0.12 STMR<sup>(a)</sup> (tentative) | 0.26 HR<sup>(a)</sup> (tentative) |
| **Carrots**                      | 0.12 STMR<sup>(a)</sup> (tentative) | 0.26 HR<sup>(a)</sup> (tentative) |
| **Celeriacs/turnip rooted celeries** | 0.12 STMR<sup>(a)</sup> (tentative) | 0.26 HR<sup>(a)</sup> (tentative) |
| **Horseradishes**                | 0.12 STMR<sup>(a)</sup> (tentative) | 0.26 HR<sup>(a)</sup> (tentative) |
| **Jerusalem artichokes**         | 0.12 STMR<sup>(a)</sup> (tentative) | 0.26 HR<sup>(a)</sup> (tentative) |
| **Parsnips**                     | 0.12 STMR<sup>(a)</sup> (tentative) | 0.26 HR<sup>(a)</sup> (tentative) |
| **Parsley roots/Hamburg roots parsley** | 0.12 STMR<sup>(a)</sup> (tentative) | 0.26 HR<sup>(a)</sup> (tentative) |
| **Radishes**                     | 0.12 STMR<sup>(a)</sup> (tentative) | 0.26 HR<sup>(a)</sup> (tentative) |
| **Salsifies**                    | 0.12 STMR<sup>(a)</sup> (tentative) | 0.26 HR<sup>(a)</sup> (tentative) |
| **Swedes/rutabagas**            | 0.12 STMR<sup>(a)</sup> (tentative) | 0.26 HR<sup>(a)</sup> (tentative) |
| **Turnips**                      | 0.12 STMR<sup>(a)</sup> (tentative) | 0.26 HR<sup>(a)</sup> (tentative) |
| **Garlic**                       | 0.03 STMR<sup>(c)</sup> (tentative) | 0.08 HR<sup>(c)</sup> (tentative) |
| **Onions**                       | 0.03 STMR<sup>(c)</sup> (tentative) | 0.08 HR<sup>(c)</sup> (tentative) |
| **Shallots**                     | 0.03 STMR<sup>(c)</sup> (tentative) | 0.08 HR<sup>(c)</sup> (tentative) |
| **Spring onions/green onions and Welsh onions** | 0.19 STMR (tentative) | 0.42 HR (tentative) |
| **Tomatoes**                     | 0.06 STMR (tentative)   | 0.15 HR (tentative)   |
| **Sweet peppers/bell peppers**  | 0.07 STMR (tentative)   | 0.15 HR (tentative)   |
| **Aubergines/eggplants**         | 0.06 STMR (tentative)   | 0.15 HR (tentative)   |
| **Cucumbers**                    | 0.05 STMR (tentative)   | 0.11 HR (tentative)   |
| Commodity                  | Chronic risk assessment | Acute risk assessment |
|---------------------------|-------------------------|-----------------------|
|                           | Input value (mg/kg)     | Comment               | Input value (mg/kg) | Comment               |
| Gherkins                  | 0.05 STMR (tentative)   |                       | 0.11 HR (tentative) |
| Courgettes                | 0.05 STMR (tentative)   |                       | 0.11 HR (tentative) |
| Melons                    | 0.02 STMR × PF (0.38) (tentative) |                  | 0.03 HR × PF (0.38) (tentative) |
| Pumpkins                  | 0.02 STMR × PF (0.38) (tentative) |                  | 0.03 HR × PF (0.38) (tentative) |
| Watermelons               | 0.02 STMR × PF (0.38) (tentative) |                  | 0.03 HR × PF (0.38) (tentative) |
| Sweet corn                | 0.01 STMR (tentative)   |                       | 0.09 HR (tentative) |
| Broccoli                  | 0.28 STMR (tentative)   |                       | 1.27 HR (tentative) |
| Cauliflowers              | 0.07 STMR(c) (tentative) |                  | 0.14 HR(c) (tentative) |
| Brussels sprouts          | 0.11 STMR(c) (tentative) |                  | 0.20 HR(c) (tentative) |
| Head cabbages             | 0.01 STMR (tentative)   |                       | 0.27 HR (tentative) |
| Chinese cabbages/pe-tsai  | 0.90 STMR (tentative)   |                       | 1.90 HR (tentative) |
| Kale                      | 0.01 STMR(b) (tentative) |                  | 0.06 HR(b) (tentative) |
| Kohlrabies                | 0.01 STMR(b) (tentative) |                  | 0.06 HR(b) (tentative) |
| Lamb's lettuces/corn salads | 0.25 STMR (tentative)   |                       | 1.80 HR (tentative) |
| Lettuces                  | 0.25 STMR (tentative)   |                       | 1.80 HR (tentative) |
| Escaroles/broad-leaved endives | 0.25 STMR (tentative) |                  | 1.80 HR (tentative) |
| Cresses and other sprouts and shoots | 0.06 STMR (tentative) |                  | 1.44 HR (tentative) |
| Land cresses              | 0.06 STMR (tentative)   |                       | 1.44 HR (tentative) |
| Roman rocket/rucola       | 0.25 STMR (tentative)   |                       | 1.80 HR (tentative) |
| Red mustards              | 0.06 STMR (tentative)   |                       | 1.44 HR (tentative) |
| Baby leaf crops (including brassica species) | 0.06 STMR (tentative) |                  | 1.44 HR (tentative) |
| Spinaches                 | 0.06 STMR (tentative)   |                       | 1.44 HR (tentative) |
| Purslanes                 | 0.06 STMR (tentative)   |                       | 1.44 HR (tentative) |
| Chards/beet leaves        | 0.06 STMR (tentative)   |                       | 1.44 HR (tentative) |
| Witloofs/Belgian endives  | 1.95 STMR (tentative)   |                       | 2.50 HR (tentative) |
| Chervil                   | 0.06 STMR (tentative)   |                       | 1.44 HR (tentative) |
| Chives                    | 0.06 STMR (tentative)   |                       | 1.44 HR (tentative) |
| Celery leaves             | 0.06 STMR (tentative)   |                       | 1.44 HR (tentative) |
| Parsley                   | 0.06 STMR (tentative)   |                       | 1.44 HR (tentative) |
| Sage                      | 0.06 STMR (tentative)   |                       | 1.44 HR (tentative) |
| Rosemary                  | 0.06 STMR (tentative)   |                       | 1.44 HR (tentative) |
| Thyme                     | 0.06 STMR (tentative)   |                       | 1.44 HR (tentative) |
| Basil and edible flowers  | 0.06 STMR (tentative)   |                       | 1.44 HR (tentative) |
| Laurel/bay leave          | 0.06 STMR (tentative)   |                       | 1.44 HR (tentative) |
| Tarragon                  | 0.06 STMR (tentative)   |                       | 1.44 HR (tentative) |
| Beans (with pods)         | 0.58 STMR (tentative)   |                       | 0.78 HR (tentative) |
| Beans (without pods)      | 0.03 STMR (tentative)   |                       | 0.04 HR (tentative) |
| Peas (with pods)          | 0.58 STMR (tentative)   |                       | 0.78 HR (tentative) |
| Peas (without pods)       | 0.03 STMR (tentative)   |                       | 0.04 HR (tentative) |
| Cardoons                  | 1.68 STMR (tentative)   |                       | 5.15 HR (tentative) |
| Celeries                  | 1.68 STMR (tentative)   |                       | 5.15 HR (tentative) |
| Commodity                                | Chronic risk assessment | Acute risk assessment |
|------------------------------------------|-------------------------|-----------------------|
|                                          | Input value (mg/kg)     | Comment               | Input value (mg/kg) | Comment |
| **Commodity**                            | **Comment**             | **Comment**           |
| **Florence fennels**                     | 1.68 STMR (tentative)   | 5.15 HR (tentative)   |
| **Globe artichokes**                     | 0.08 STMR (tentative)   | 0.19 HR (tentative)   |
| **Leeks**                                | 0.19 STMR (tentative)   | 0.42 HR (tentative)   |
| **Rhubarbs**                             | 1.68 STMR (tentative)   | 5.15 HR (tentative)   |
| **Beans (dry)**                          | 0.01 STMR (tentative)   | 0.14 HR (tentative)   |
| **Lentils (dry)**                        | 0.04 STMR (tentative)   | 0.20 HR (tentative)   |
| **Peas (dry)**                           | 0.04 STMR (tentative)   | 0.20 HR (tentative)   |
| **Lupins/lupini beans (dry)**            | 0.01 STMR (tentative)   | 0.14 HR (tentative)   |
| **Linseeds**                             | 0.09 STMR (tentative)   | 0.81 HR (tentative)   |
| **Peanuts/groundnuts**                   | 0.01* STMR (tentative)  | 0.01* HR (tentative)  |
| **Poppy seeds**                          | 0.09 STMR (tentative)   | 0.81 HR (tentative)   |
| **Sesame seeds**                         | 0.09 STMR (tentative)   | 0.81 HR (tentative)   |
| **Sunflower seeds**                      | 0.09 STMR (tentative)   | 0.81 HR (tentative)   |
| **Rapeseeds/canola seeds**               | 0.09 STMR (tentative)   | 0.81 HR (tentative)   |
| **Soyabeans**                            | 0.01 STMR (tentative)   | 0.13 HR (tentative)   |
| **Mustard seeds**                        | 0.09 STMR (tentative)   | 0.81 HR (tentative)   |
| **Pumpkin seeds**                        | 0.09 STMR (tentative)   | 0.81 HR (tentative)   |
| **Safflower seeds**                      | 0.09 STMR (tentative)   | 0.81 HR (tentative)   |
| **Borage seeds**                         | 0.09 STMR (tentative)   | 0.81 HR (tentative)   |
| **Gold of pleasure seeds**               | 0.09 STMR (tentative)   | 0.81 HR (tentative)   |
| **Hemp seeds**                           | 0.09 STMR (tentative)   | 0.81 HR (tentative)   |
| **Castor beans**                         | 0.09 STMR (tentative)   | 0.81 HR (tentative)   |
| **Barley grains**                        | 0.54 STMR (tentative)   | 1.65 HR (tentative)   |
| **Maize/corn grains**                    | 0.01* STMR (tentative)  | 0.01* HR (tentative)  |
| **Oat grains**                           | 0.54 STMR (tentative)   | 1.65 HR (tentative)   |
| **Rice grains**                          | 0.87 STMR (tentative)   | 3.73 HR (tentative)   |
| **Rye grains**                           | 0.12 STMR (tentative)   | 0.21 HR (tentative)   |
| **Sorghum grains**                       | 0.19 STMR (tentative)   | 0.43 HR (tentative)   |
| **Wheat grains**                         | 0.12 STMR (tentative)   | 0.21 HR (tentative)   |
| **Herbal infusions from leaves and herbs**| 0.55 STMR (tentative)   | 14.4 HR (tentative)   |
| **Herbal infusions from roots**          | 0.32 STMR (tentative)   | 1.04 HR (tentative)   |
| **Sugar beet roots**                     | 0.12 STMR (a) (tentative)| 0.15 HR (a) (tentative) |
| **Sugar canes**                          | 0.26 STMR (tentative)   | 1.34 HR (tentative)   |
| **Chicory roots**                        | 0.07 STMR (tentative)   | 0.21 HR (tentative)   |

**Risk assessment residue definition 2:** sum of fluxapyroxad and metabolite M700F008, expressed as parent equivalent.
### Commodity Input value (mg/kg) Comment | Input value (mg/kg) Comment
--- | ---
Sheep muscle | 0.02 STMR × CF (tentative) | 0.02 HR × CF (tentative)
Sheep fat tissue | 0.02 STMR × CF (tentative) | 0.03 HR × CF (tentative)
Sheep liver | 0.04 STMR × CF (tentative) | 0.05 HR × CF (tentative)
Sheep kidney | 0.02 STMR × CF (tentative) | 0.02 HR × CF (tentative)
Goat muscle | 0.02 STMR × CF (tentative) | 0.02 HR × CF (tentative)
Goat fat tissue | 0.02 STMR × CF (tentative) | 0.03 HR × CF (tentative)
Goat liver | 0.04 STMR × CF (tentative) | 0.05 HR × CF (tentative)
Goat kidney | 0.02 STMR × CF (tentative) | 0.02 HR × CF (tentative)
Equine muscle | 0.02 STMR × CF (tentative) | 0.02 HR × CF (tentative)
Equine fat tissue | 0.02 STMR × CF (tentative) | 0.03 HR × CF (tentative)
Equine liver | 0.03 STMR × CF (tentative) | 0.03 HR × CF (tentative)
Equine kidney | 0.02 STMR × CF (tentative) | 0.02 HR × CF (tentative)
Poultry muscle | 0.02 STMR × CF (tentative) | 0.02 HR × CF (tentative)
Poultry fat tissue | 0.02 STMR × CF (tentative) | 0.02 HR × CF (tentative)
Poultry liver | 0.02 STMR × CF (tentative) | 0.02 HR × CF (tentative)
Cattle milk | 0.002 STMR × CF (tentative) | 0.002 HR × CF (tentative)
Sheep milk | 0.002 STMR × CF (tentative) | 0.002 HR × CF (tentative)
Goat milk | 0.002 STMR × CF (tentative) | 0.002 HR × CF (tentative)
Horse milk | 0.002 STMR × CF (tentative) | 0.002 HR × CF (tentative)
Birds eggs | 0.004 STMR × CF (tentative) | 0.012 HR × CF (tentative)

*: Indicates that the input value is proposed at the limit of quantification.
(a): STMR and HR derived from the combined residues in primary uses and residues in rotational crop field studies.
(b): STMR and HR derived from residues in rotational crop field studies; no authorised uses on primary crops.
(c): STMR and HR derived from residues in rotational crop field studies; no residues trials in primary uses available.

### D.3. Consumer risk assessment with consideration of the existing CXLs

**Risk assessment residue definition 1: fluxapyroxad**

| Commodity       | Input value (mg/kg) | Comment       | Input value (mg/kg) | Comment       |
|-----------------|---------------------|---------------|---------------------|---------------|
| Grapefruits     | 0.07                | STMR          | 0.17                | HR            |
| Oranges         | 0.01                | STMR × CXL    | 0.03                | HR × CXL PF   |
| Almonds         | 0.01                | STMR × CXL    | 0.03                | HR × CXL      |
| Brazil nuts     | 0.01                | STMR × CXL    | 0.03                | HR × CXL      |
| Cashew nuts     | 0.01                | STMR × CXL    | 0.03                | HR × CXL      |
| Chestnuts       | 0.01                | STMR × CXL    | 0.03                | HR × CXL      |
| Coconuts        | 0.01                | STMR × CXL    | 0.03                | HR × CXL      |
| Hazelnuts       | 0.01                | STMR × CXL    | 0.03                | HR × CXL      |
| Macadamia       | 0.01                | STMR × CXL    | 0.03                | HR × CXL      |
| Pecans          | 0.01                | STMR × CXL    | 0.03                | HR × CXL      |
| Pine nuts       | 0.01                | STMR × CXL    | 0.03                | HR × CXL      |
| Pistachios      | 0.01                | STMR × CXL    | 0.03                | HR × CXL      |
| Walnuts         | 0.01                | STMR × CXL    | 0.03                | HR × CXL      |
| Apples          | 0.28                | STMR × CXL    | 0.47                | HR × CXL      |
| Pears           | 0.28                | STMR × CXL    | 0.47                | HR × CXL      |
| Quinces         | 0.28                | STMR × CXL    | 0.47                | HR × CXL      |
| Commodity                          | Chronic risk assessment | Acute risk assessment |
|-----------------------------------|-------------------------|-----------------------|
|                                   | Input value (mg/kg)     | Comment               | Input value (mg/kg)     | Comment               |
| Medlars                           | 0.28 STMR (CXL)         | 0.47 HR (CXL)         |
| Loquats/Japanese medlars          | 0.28 STMR (CXL)         | 0.47 HR (CXL)         |
| Apricots                          | 0.03 STMR (tentative)   | 0.08 HR (tentative)   |
| Cherries (sweet)                  | 0.56 STMR               | 1.86 HR               |
| Peaches                           | 0.44 STMR               | 0.63 HR               |
| Plums                             | 0.44 STMR               | 0.95 HR               |
| Table grapes                      | 1.41 STMR (CXL) × CF    | 4.20 HR (CXL) × CF    |
| Wine grapes                       | 1.41 STMR (CXL) × CF    | 4.20 HR (CXL) × CF    |
| Strawberries                      | 0.82 STMR               | 2.34 HR               |
| Blueberries                       | 2.39 STMR               | 3.77 HR               |
| Bananas                           | 0.04 STMR (CXL) × PF    | 0.42 HR (CXL) × PF    |
| Mangoes                           | 0.18 STMR(a)            | 0.37 HR(a)            |
| Potatoes                          | 0.09 STMR(b) (tentative)| 0.12 HR(b) (tentative)|
| Cassava roots/maniaic             | 0.03 STMR(b) (tentative)| 0.08 HR(b) (tentative)|
| Sweet potatoes                    | 0.03 STMR(b) (tentative)| 0.08 HR(b) (tentative)|
| Yams                              | 0.03 STMR(b) (tentative)| 0.08 HR(b) (tentative)|
| Arrowroots                        | 0.03 STMR(b) (tentative)| 0.08 HR(b) (tentative)|
| Beetroots                         | 0.12 STMR (tentative)   | 0.26 HR (tentative)   |
| Carrots                           | 0.12 STMR (tentative)   | 0.26 HR (tentative)   |
| Celeriacs/turip rooted celeries   | 0.12 STMR (tentative)   | 0.26 HR (tentative)   |
| Horseradishes                     | 0.12 STMR (tentative)   | 0.26 HR (tentative)   |
| Jerusalem artichokes              | 0.12 STMR (tentative)   | 0.26 HR (tentative)   |
| Parsnips                          | 0.12 STMR (tentative)   | 0.26 HR (tentative)   |
| Parsley roots/Hamburg roots parsley | 0.12 STMR (tentative)   | 0.26 HR (tentative)   |
| Radishes                          | 0.12 STMR (tentative)   | 0.26 HR (tentative)   |
| Salsifies                         | 0.12 STMR (tentative)   | 0.26 HR (tentative)   |
| Swedes/rutabagas                  | 0.12 STMR (tentative)   | 0.26 HR (tentative)   |
| Turnips                           | 0.12 STMR (tentative)   | 0.26 HR (tentative)   |
| Garlic                            | 0.03 STMR(c) (tentative)| 0.08 HR(c) (tentative)|
| Onions                            | 0.03 STMR(c) (tentative)| 0.08 HR(c) (tentative)|
| Shallots                          | 0.03 STMR(c) (tentative)| 0.08 HR(c) (tentative)|
| Spring onions/green onions and Welsh onions | 0.19 STMR (tentative) | 0.42 HR (tentative)   |
| Tomatoes                          | 0.06 STMR (tentative)   | 0.15 HR (tentative)   |
| Sweet peppers/bell peppers        | 0.07 STMR (tentative)   | 0.15 HR (tentative)   |
| Aubergines/eggplants              | 0.06 STMR (tentative)   | 0.15 HR (tentative)   |
| Okra, lady's fingers              | 0.07 STMR (tentative)   | 0.44 HR (tentative)   |
| Cucumbers                         | 0.05 STMR (tentative)   | 0.11 HR (tentative)   |
| Gherkins                          | 0.05 STMR (tentative)   | 0.11 HR (tentative)   |
| Courgettes                        | 0.05 STMR (tentative)   | 0.11 HR (tentative)   |
| Melons                            | 0.02 STMR × PF (tentative)| 0.03 HR × PF (tentative)|
| Commodity                          | Chronic risk assessment | Acute risk assessment |
|-----------------------------------|-------------------------|-----------------------|
|                                  | Input value (mg/kg)     | Comment               | Input value (mg/kg) | Comment               |
| Pumpkins                         | 0.02 STMR × PF (tentative) | 0.03 HR × PF (tentative) |
| Watermelons                      | 0.02 STMR × PF (tentative) | 0.03 HR × PF (tentative) |
| Sweet corn                       | 0.01 STMR (tentative)   | 0.09 HR (tentative)   |
| Broccoli                         | 0.28 STMR (tentative)   | 1.27 HR (tentative)   |
| Cauliflower                      | 0.07 STMR (tentative)   | 0.14 HR (tentative)   |
| Brussels sprouts                 | 0.11 STMR (tentative)   | 0.20 HR (tentative)   |
| Head cabbages                    | 0.01 STMR (tentative)   | 0.27 HR (tentative)   |
| Chinese cabbages/pe-tsai         | 0.90 STMR (tentative)   | 1.90 HR (tentative)   |
| Kales                            | 0.01 STMR(b) (tentative) | 0.06 HR(b) (tentative) |
| Kohlrabies                       | 0.01 STMR(b) (tentative) | 0.06 HR(b) (tentative) |
| Lamb’s lettuces/corn salads      | 0.25 STMR (tentative)   | 1.80 HR (tentative)   |
| Lettuces                         | 0.25 STMR (tentative)   | 1.80 HR (tentative)   |
| Escaroles/broad-leaved endives   | 0.25 STMR (tentative)   | 1.80 HR (tentative)   |
| Cresses and other sprouts and shoots | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Land cresses                     | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Roman rocket/rucola              | 0.25 STMR (tentative)   | 1.80 HR (tentative)   |
| Red mustards                     | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Baby leaf crops (including brassica species) | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Spinaches                        | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Purslaneas                       | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Chards/beet leaves               | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Witloofs/Belgian endives         | 1.95 STMR (tentative)   | 2.50 HR (tentative)   |
| Chervil                          | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Chives                           | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Celery leaves                    | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Parsley                          | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Sage                             | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Rosemary                         | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Thyme                            | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Basil and edible flowers         | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Laurel/bay leave                 | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Tarragon                         | 0.06 STMR (tentative)   | 1.44 HR (tentative)   |
| Beans (with pods)                | 0.65 STMR (CXL) (tentative) | 0.74 HR (CXL) (tentative) |
| Beans (without pods)             | 0.03 STMR (CXL) (tentative) | 0.04 HR (CXL) (tentative) |
| Peas (with pods)                 | 0.65 STMR (CXL) (tentative) | 0.74 HR (CXL) (tentative) |
| Peas (without pods)              | 0.03 STMR (CXL) (tentative) | 0.04 HR (CXL) (tentative) |
| Cardoons                         | 1.68 SMTR (tentative)   | 5.15 HR (tentative)   |
| Celeries                         | 1.68 STMR (tentative)   | 5.15 HR (tentative)   |
| Florence fennels                 | 1.68 STMR (tentative)   | 5.15 HR (tentative)   |
| Globe artichokes                 | 0.08 STMR (tentative)   | 0.19 HR (tentative)   |
| Commodity                          | Chronic risk assessment | Acute risk assessment |
|-----------------------------------|-------------------------|-----------------------|
|                                   | Input value (mg/kg)     | Comment               |
| Leeks                             | 0.19                    | STMR (tentative)      |
| Rhubarbs                          | 1.68                    | STMR (tentative)      |
| Beans (dry)                       | 0.04                    | STMR (tentative)      |
| Lentils (dry)                     | 0.04                    | STMR (tentative)      |
| Peas (dry)                        | 0.04                    | STMR (tentative)      |
| Lupins/lupini beans (dry)         | 0.01                    | STMR (tentative)      |
| Linseeds                          | 0.09                    | STMR (tentative)      |
| Peanuts/groundnuts                | 0.01*                   | STMR (tentative)      |
| Poppy seeds                       | 0.09                    | STMR (tentative)      |
| Sesame seeds                      | 0.09                    | STMR (tentative)      |
| Sunflower seeds                   | 0.09                    | STMR (tentative)      |
| Rapeseeds/canola seeds            | 0.09                    | STMR (tentative)      |
| Soyabeanse                        | 0.01                    | STMR (tentative)      |
| Mustard seeds                     | 0.09                    | STMR (tentative)      |
| Cotton seed                       | 0.30                    | CXL (tentative)       |
| Pumpkin seeds                     | 0.09                    | STMR (tentative)      |
| Safflower seeds                   | 0.09                    | STMR (tentative)      |
| Borage seeds                      | 0.09                    | STMR (tentative)      |
| Gold of pleasure seeds            | 0.09                    | STMR (tentative)      |
| Hemp seeds                        | 0.09                    | STMR (tentative)      |
| Castor beans                      | 0.09                    | STMR (tentative)      |
| Barley grains                     | 0.54                    | STMR (tentative)      |
| Maize/corn grains                 | 0.01                    | STMR (tentative)      |
| Oat grains                        | 0.54                    | STMR (tentative)      |
| Rice grains                       | 0.87                    | STMR (tentative)      |
| Rye grains                        | 0.12                    | STMR (tentative)      |
| Sorghum grains                    | 0.19                    | STMR (tentative)      |
| Wheat grains                      | 0.12                    | STMR (tentative)      |
| Herbal infusions from leaves and  | 0.55                    | STMR (tentative)      |
| herbs                             |                         | 14.40 | HR (tentative) |
| Herbal infusions from roots       | 0.32                    | STMR (tentative)      |
| Sugar beet roots                  | 0.12                    | STMR (tentative)      |
| Sugar canes                       | 0.26                    | STMR (tentative)      |
| Chicory roots                     | 0.07                    | STMR (tentative)      |
| Bovine muscle                     | 0.03                    | STMR (CXL) × CF (tentative) |
| Bovine fat tissue                 | 0.05                    | STMR (CXL) × CF (tentative) |
| Bovine liver                      | 0.08                    | STMR (CXL) × CF (tentative) |
| Bovine kidney                     | 0.08                    | STMR (CXL) × CF (tentative) |

Risk assessment residue definition 2: sum of fluxapyroxad and metabolite M700F008, expressed as parent equivalent.

Swine muscle 0.03  STMR (CXL) × CF (tentative) | 0.06  HR (CXL) × CF (tentative)
Swine fat tissue 0.05  STMR (CXL) × CF (tentative) | 0.18  HR (CXL) × CF (tentative)
Swine liver 0.08  STMR (CXL) × CF (tentative) | 0.31  HR (CXL) × CF (tentative)
Swine kidney 0.08  STMR (CXL) × CF (tentative) | 0.31  HR (CXL) × CF (tentative)
Bovine muscle 0.03  STMR (CXL) × CF (tentative) | 0.06  HR (CXL) × CF (tentative)
Bovine fat tissue 0.05  STMR (CXL) × CF (tentative) | 0.18  HR (CXL) × CF (tentative)
Bovine liver 0.08  STMR (CXL) × CF (tentative) | 0.31  HR (CXL) × CF (tentative)
Bovine kidney 0.08  STMR (CXL) × CF (tentative) | 0.31  HR (CXL) × CF (tentative)
| Commodity          | Chronic risk assessment | Acute risk assessment |
|--------------------|-------------------------|-----------------------|
|                    | Input value (mg/kg)     | Comment               | Input value (mg/kg) | Comment               |
| Sheep muscle       | 0.03                    | STMR (CXL) × CF (tentative) | 0.06               | HR (CXL) × CF (tentative) |
| Sheep fat tissue   | 0.05                    | STMR (CXL) × CF (tentative) | 0.18               | HR (CXL) × CF (tentative) |
| Sheep liver        | 0.08                    | STMR (CXL) × CF (tentative) | 0.31               | HR (CXL) × CF (tentative) |
| Sheep kidney       | 0.08                    | STMR (CXL) × CF (tentative) | 0.31               | HR (CXL) × CF (tentative) |
| Goat muscle        | 0.03                    | STMR (CXL) × CF (tentative) | 0.06               | HR (CXL) × CF (tentative) |
| Goat fat tissue    | 0.05                    | STMR (CXL) × CF (tentative) | 0.18               | HR (CXL) × CF (tentative) |
| Goat liver         | 0.08                    | STMR (CXL) × CF (tentative) | 0.31               | HR (CXL) × CF (tentative) |
| Goat kidney        | 0.08                    | STMR (CXL) × CF (tentative) | 0.31               | HR (CXL) × CF (tentative) |
| Equine muscle      | 0.03                    | STMR (CXL) × CF (tentative) | 0.06               | HR (CXL) × CF (tentative) |
| Equine fat tissue  | 0.05                    | STMR (CXL) × CF (tentative) | 0.18               | HR (CXL) × CF (tentative) |
| Equine liver       | 0.08                    | STMR (CXL) × CF (tentative) | 0.31               | HR (CXL) × CF (tentative) |
| Equine kidney      | 0.08                    | STMR (CXL) × CF (tentative) | 0.31               | HR (CXL) × CF (tentative) |
| Poultry muscle     | 0.02                    | STMR × CF (tentative)  | 0.02               | HR × CF (tentative)    |
| Poultry fat tissue | 0.02                    | STMR (CXL) × CF (tentative) | 0.05               | HR (CXL) × CF (tentative) |
| Poultry liver      | 0.02                    | STMR (CXL) × CF (tentative) | 0.03               | HR (CXL) × CF (tentative) |
| Cattle milk        | 0.004                   | STMR (CXL) × CF (tentative) | 0.02               | HR (CXL) × CF (tentative) |
| Sheep milk         | 0.004                   | STMR (CXL) × CF (tentative) | 0.02               | HR (CXL) × CF (tentative) |
| Goat milk          | 0.004                   | STMR (CXL) × CF (tentative) | 0.02               | HR (CXL) × CF (tentative) |
| Horse milk         | 0.004                   | STMR (CXL) × CF (tentative) | 0.02               | HR (CXL) × CF (tentative) |
| Birds eggs         | 0.006                   | STMR (CXL) × CF (tentative) | 0.02               | HR (CXL) × CF (tentative) |

STMR: supervised trial median residue; HR: high residue.

*: Indicates that the input value is proposed at the limit of quantification.
(a): STMR and HR derived from the combined residues in primary uses and residues in rotational crop field studies.
(b): STMR and HR derived from residues in rotational crop field studies; no authorised uses in primary crops.
(c): STMR and HR derived from residues in rotational crop field studies; no residues trials in primary uses available.
Appendix E – Decision tree for deriving MRL recommendations

Evaluation of the GAPs and available residues data at EU level

Consumer risk assessment for GAPs evaluated at EU level – EU scenarios

Recommendations resulting from EU authorisations and import tolerances
Comparison of the EU recommendation with the existing CXL

- CXL available?
  - Yes:
    - RD comparable?
      - Yes:
        - CXL higher?
          - Yes: Maintain current CXL or EU recommendation; CXL is recommended; EU recommendation is covered as well.
          - No: Maintain current CXL or EU recommendation; higher CXL is not safe for consumer.
      - No: Maintain EU recommendation indicating that no CXL is available.
  - No: RD comparable?
    - Yes: Maintain EU recommendation indicating CXL is not compatible.
    - No: CXL higher?
      - Yes: Maintain current CXL or EU recommendation; higher CXL is not safe for consumer.
      - No: Maintain EU recommendation indicating that CXL is covered.

Consumer risk assessment with consideration of the existing CXL

- CXL supported by data?
  - Yes: Risk identified?
    - Yes: CXL is included in the RA, input values for the RA remain unchanged.
    - No: Risk identified?
      - Yes: CXL is included in the RA, input values for the RA remain unchanged.
      - No: Input values for the RA remain unchanged.
  - No: Input values for the RA remain unchanged.

Recommendations with consideration of the existing CXL

- EU recommendation indicating that no CXL is available.
- EU recommendation indicating CXL is not compatible.
- EU recommendation indicating that CXL is covered.
- EU recommendation; higher CXL is not safe for consumer.
- EU recommendation; higher CXL is not safe for consumer.
- EU recommendation; higher CXL is not safe for consumer.
- CXL is recommended; EU recommendation is covered as well.
### Appendix F – Used compound codes

| Code/trivial name(a) | IUPAC name/SMILES notation/InChiKey(b) | Structural formula(c) |
|---------------------|---------------------------------------|-----------------------|
| **Fluxapyroxad**    | 3-(difluoromethyl)-1-methyl-N-(3’,4’,5’-trifluoro[1,1’-biphenyl]-2-y1)-1H-pyrazole-4-carboxamide  
FC(F)c1nn(C)cc1C(-O)Nc1cccccc1c1cc(F)c(F)c(F)c1  
SXSGXWCSHSVGBP-UHFFFAOYSA-N | ![Fluxapyroxad structural formula](image1) |
| **M700F002**        | 3-(difluoromethyl)-1H-pyrazole-4-carboxylic acid  
OC(-O)c1c[NH]nc1C(F)F  
IGQNDARULCASRN-UHFFFAOYSA-N | ![M700F002 structural formula](image2) |
| **M700F008**        | 3-(difluoromethyl)-N-(3’,4’,5’-trifluorobiphenyl-2-yl)-1H-pyrazole-4-carboxamide  
O=C(Nc1cccccc1c1cc(F)c(F)c1)c1c[NH]nc1C(F)F  
SYGSBKQBCWBROS-UHFFFAOYSA-N | ![M700F008 structural formula](image3) |
| **M700F048**        | 3-(difluoromethyl)-1-(b-D-glucopyranosyoxy)-N-(3’,4’,5’-trifluorobiphenyl-2-yl)-1H-pyrazole-4-carboxamide  
Fc1ccc(cc(F)c1F)c1cccccc1N(C(-O)c1cn(nc1C(F)F)O[C@@H]1O  
[C@@H](CO)[C@@H](O)[C@@H](O)[C@@H]1O  
KBDSMYNDPGODLU-AUJACXKFSA-N | ![M700F048 structural formula](image4) |

**SMILES**: simplified molecular-input line-entry system.

(a): The metabolite name in bold is the name used in the conclusion.
(b): ACD/Name 2015 ACD/Labs 2015 Release (File version N20E41, Build 75170, 19 Dec 2014).
(c): ACD/ChemSketch 2015 ACD/Labs 2015 Release (File version C10H41, Build 75059, 17 Dec 2014).