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Modification of the existing maximum residue levels for mefentrifluconazole in various commodities

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Abstract

In accordance with Article 6 of Regulation (EC) No 396/2005, the applicant BASF Agro B.V. Arnhem (NL) Freienbach Branch submitted a request to the competent national authority in Austria to modify the existing maximum residue levels (MRLs) for the active substance mefentrifluconazole in various crops and swine liver and other swine products. The data submitted in support of the request were found to be sufficient to derive MRL proposals. Adequate analytical methods for enforcement are available to control the residues of mefentrifluconazole in the plant commodities under consideration and in animal matrices at the validated limit of quantification (LOQ) of 0.01 mg/kg. New data relevant to the data gaps on storage stability and feeding studies of triazole derivative metabolites (TDMs), that were identified during the peer review of confirmatory data of the TDMs, were submitted in support of the present MRL application. Based on the risk assessment results, EFSA concluded that the short-term and long-term intake of residues resulting from the use of mefentrifluconazole according to the reported agricultural practices is unlikely to present a risk to consumer health. EFSA noted a narrow safety margin with regard to acute exposure to mefentrifluconazole residues from the intake of spinaches if residues occur at the level of the proposed MRL. EFSA also performed an indicative risk assessment for the TDMs based on uses of mefentrifluconazole only. The estimated exposure for TDMs did not exceed the toxicological reference values.

Keywords: Mefentrifluconazole, various crops, livestock, honey, pesticide, MRL, consumer risk assessment

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Summary

In accordance with Article 6 of Regulation (EC) No 396/2005, BASF Agro B.V. Arnhem (NL) Freienbach Branch submitted an application to the competent national authority in Austria (evaluating Member State, EMS), to modify the existing maximum residue levels (MRLs) for the active substance mefentrifluconazole in various crops and swine liver and other swine products.

The application, alongside the dossier containing the supporting data in IUCLID format, was submitted through the European Food Safety Authority (EFSA) Central Submission System on 27 October 2021. The appointed EMS (Austria) assessed the dossier and declared its admissibility on 23 November 2021. Subsequently, following the implementation of EFSA's confidentiality decision, the non-confidential version of the dossier was published by EFSA and a public consultation launched on the dossier. The consultation aimed to consult stakeholders and the public on the scientific data, studies and other information part of, or supporting, the submitted application, in order to identify whether other relevant scientific data or studies are available. The consultation run from 15 July 2022 to 5 August 2022. No additional data nor comments were submitted in the framework of the consultation.

At the end of the commenting period, the EMS proceeded drafting the evaluation report, in accordance with Article 8 of Regulation (EC) No 396/2005, which was submitted to the European Commission and forwarded to EFSA on 11 August 2022. To accommodate for the intended uses of mefentrifluconazole, the EMS proposed to modify the existing MRLs for various crops and swine liver and swine 'other' products.

EFSA assessed the application and the evaluation report as required by Article 10 of the MRL regulation. EFSA identified data gaps and points which needed further clarification, which were requested from the EMS. On 22 March 2023, the applicant provided the requested information in an updated IUCLID dossier. The additional information was duly considered by the EMS who submitted a revised evaluation report to EFSA on 28 April 2023, which replaced the previously submitted evaluation report.

Based on the conclusions derived for mefentrifluconazole by EFSA in the framework of Regulation (EC) No 1107/2009, the data on triazole derivative metabolites (TDMs) evaluated under a previous MRL assessment, and the additional data provided by the EMS in the framework of this application, the following conclusions are derived.

The metabolism of mefentrifluconazole following foliar application was investigated in primary crops belonging to the categories of fruit, cereal/grass crops and pulses/oilseeds. The major residues identified were the parent compound mefentrifluconazole and triazole alanine (TA), triazole lactic acid (TLA), triazole acetic acid (TAA) and 1,2,4-triazole (1,2,4-T) (also known as TDMs). TDMs are common plant and soil metabolites for a number of active substances belonging to the class of triazole fungicides. The metabolic pathway in rotational crops was found to be similar to that in primary crops. Studies investigating the effect of processing on the nature of mefentrifluconazole and TDMs (hydrolysis studies) demonstrated that the compounds are stable.

Based on the metabolic pattern identified in metabolism studies, hydrolysis studies, the toxicological significance of metabolites, the residue definitions for plant products were proposed as 'mefentrifluconazole' for enforcement. For risk assessment separate residue definitions were set for mefentrifluconazole, TA, TLA, TAA and 1,2,4-T. These residue definitions are applicable to primary crops, rotational crops and processed products. EFSA concluded that for the crops assessed in this application, metabolism of mefentrifluconazole in primary and in rotational crops, and the possible degradation in processed products has been sufficiently addressed and that the previously derived residue definitions are applicable.

Sufficiently validated analytical methods are available to quantify residues in the commodities assessed in this application according to the enforcement residue definition. The methods enable quantification of residues at or above the limit of quantification (LOQ) 0.01 mg/kg in the commodities under consideration.

Mefentrifluconazole is stable for 24 months under frozen conditions in plants. In the framework of the present MRL application new information on the freezer storage stability of residues of 1,2,4-T (in high-oil, high-protein and high-acid content commodities), and of TAA, and TA (in high-acid content commodities) was submitted.

The available residue trials are sufficient to derive MRL proposals for all plant commodities under consideration, namely citrus fruits, hazelnuts, pistachios, strawberries, small fruits and berries, table olives and olives for oil production, kaki, crops belonging to the group of other root and tuber

vegetables except sugar beets, tomatoes, sweet peppers, aubergines, cucurbits with and without edible peel, flowering brassica, Brussel sprouts, cabbages, roman rocket, baby leaf crops, spinaches, herbs and edible flowers, peas and beans without pods, pulses, cardoons, celeries, Florence fennels, globe artichokes, rhubarbs, linseeds, soya beans, mustard seeds, gold of pleasure seeds, hops.

Mefentrifluconazole is persistent in soil and accumulation is expected due to multiannual uses. The occurrence of mefentrifluconazole residues in rotational crops was first investigated in the framework of the EU pesticides peer review. Since previous field studies did not cover plateau concentrations anticipated in soil from the critical uses, a new rotational crop study was submitted with the present MRL application. EFSA concluded that the new rotational crop field study is sufficiently representative to account for mefentrifluconazole residue soil uptake in rotational crops when primary crops are treated according to the intended use patterns over a course of multiple years. Mefentrifluconazole was below the LOQ of 0.01 mg/kg in all samples, except for leafy crops, mostly immature, where residues up to 0.032 mg/kg occurred. EFSA concluded that MRL proposals derived for leafy crops under the present assessment are covering residues that might arise in rotational leafy crops from multiannual uses of mefentrifluconazole. Regarding TDMs, comparable residues were determined in the new rotational study to those of the primary crops and to residues discussed in the peer review of TDMs. However, due to the lack of a comprehensive overview on all authorised uses of different triazole fungicides and expected soil concentrations of TDMs a final conclusion on the magnitude of TDMs in succeeding crops cannot be made.

Several processing factors (PF) are available from previous EFSA outputs. In addition, new data were submitted for processed strawberries, cucumbers, head cabbages, peas, olives, hops, oranges and tomatoes. For certain products, robust processing factors were calculated, either for mefentrifluconazole or TDMs.

As certain commodities under consideration and/or their by-products can be used as feed items, a potential carry-over of residues into food of animal origin was assessed. The calculated livestock dietary burden for mefentrifluconazole exceeded the trigger value of 0.004 mg/kg body weight per day for all animal species and the trigger value of 0.1 mg/kg dry matter (DM) for fish. Therefore, the possible occurrence of mefentrifluconazole residues in commodities of animal origin was investigated further. The nature of mefentrifluconazole residues in livestock has been investigated during the EU pesticides peer review and the residue definition for enforcement was proposed as 'mefentrifluconazole'. For livestock, except poultry and fish, separate residue definitions were proposed for mefentrifluconazole, TA, TLA, TAA and 1,2,4-T. For poultry the definition for risk assessment was proposed as 'Sum of mefentrifluconazole, metabolite M750F022 and fatty acid conjugates of M750F022, expressed as mefentrifluconazole', and separately for TA, TLA, TAA and 1,2,4-T. For fish the definition for risk assessment was set separately as mefentrifluconazole and 1,2,4-T (tentative).

Adequate analytical methods for enforcement are available to control the residues of compounds included in the residue definition for monitoring in animal matrices at or above the validated LOQ of 0.01 mg/kg. New storage stability tests with TA, TAA and TLA in tissues, milk and eggs were submitted.

Based on the estimated dietary burdens for parent mefentrifluconazole and the results of livestock feeding studies, existing MRLs in products of animal origin were confirmed and a higher MRL for swine liver and 'other' swine products was proposed. Regarding fish, significant residues (> 0.01 mg/kg) of mefentrifluconazole and TDMs are not expected in edible tissues.

Regarding TDMs, the trigger value of 0.004 mg/kg bw per day is exceeded for all animal species for all TDMs, with the exception of TAA in swine and 1,2,4-T in all animal species. In fish tissues TDM residues are not expected due to the low lipophilicity of the compounds. During the peer review of the TDMs feeding studies with TA and TAA were assessed. Under the present MRL application, two new feeding studies were submitted. Ruminants and poultry were fed with TLA and animal tissues, milk and eggs were analysed for TDMs. TDMs can occur in animal commodities both from the use of mefentrifluconazole as well as from TDM presence in animal feed. The risk assessment values for TDMs to be used in the consumer risk assessment were therefore derived as the sum of residues occurring from both of these sources for the calculated TDM dietary burdens from available feeding studies with mefentrifluconazole and TDMs.

Four semi-field tunnel trials conducted with buckwheat as surrogate crop were submitted by the applicant to examine whether residues might occur in honey due to the use of mefentrifluconazole on melliferous crops. Residues of mefentrifluconazole and TDMs were below the LOQ of 0.05 mg/kg in all honey samples.

Toxicological reference values (acute reference dose (ARfD) and acceptable daily intake (ADI)) were set for mefentrifluconazole in the framework of the EU pesticides peer review of the active substance. These reference values are also applicable to the metabolite M750F022 and its fatty acid conjugates. Toxicological reference values have been established also for each TDM.

The consumer risk assessment was performed with revision 3.1 of the EFSA Pesticide Residues Intake Model (PRIMo). Separate calculations were performed for mefentrifluconazole and the TDMs. The short-term exposure was conducted for the intended uses under assessment, whereas the long-term exposure took into account previously assessed uses of mefentrifluconazole. The short-term exposure to mefentrifluconazole residues did not exceed the ARfD for any of the commodities under consideration, with maximum acute exposure being 54% of the ARfD for spinaches. It is noted that if residues of mefentrifluconazole occur in spinaches at the derived MRL of 7 mg/kg, the dietary exposure of certain consumers may exceed the ARfD under certain conditions (i.e. consumption of a large portion of the product without washing/processing that would lead to a reduction of residues in the product, some commodity units contain more residues than the average in the lot due to inhomogeneous distribution). Therefore, risk managers should decide whether the safety margin of the risk assessment based on the highest residue (HR) is sufficient.

No long-term consumer intake concerns were identified for mefentrifluconazole for any of the diets included in the EFSA PRIMo, as the estimated maximum long-term dietary intake accounted for up to 15% of the ADI (Dutch toddler diet).

Regarding TDMs, no long-term or short-term consumer intake concerns were identified for any of the diets included in the EFSA PRIMo. However, the risk assessment for the TDMs is affected by uncertainties regarding the storage stability of 1,2,4-T and TA in plant commodities and is moreover considered indicative, since a comprehensive long-term risk assessment including all triazole fungicides and all authorised uses in all relevant crops cannot yet be performed.

EFSA concluded that the proposed uses of mefentrifluconazole on the crops under consideration and the residues of mefentrifluconazole and TDMs in plant and animal commodities is unlikely to result in a consumer exposure exceeding the toxicological reference values and therefore is unlikely to present a risk to consumer health. However, EFSA noted a narrow safety margin with regard to acute exposure to mefentrifluconazole residues from the intake of spinaches if residues occur at the level of the proposed MRL.

EFSA proposes to amend the existing MRLs as reported in the summary table below.

Full details of all endpoints and the consumer risk assessment can be found in Appendices B–D.

Code[a]	Commodity	Existing EU MRL (mg/kg)	Proposed EU MRL (mg/kg)	Comment/justification
Enforcement residue definition: Mefentrifluconazole[b]				
0110000	Citrus fruits	0.01*	0.5	The submitted data on oranges, lemons and mandarins are sufficient to derive a group MRL proposal for the intended SEU uses. Risk for consumers unlikely.
0120060	Hazelnuts	0.01*	0.01* (No change)	An MRL amendment is not required for the intended SEU use on hazelnuts. NEU use is not supported by data. Risk for consumers unlikely.
0120100	Pistachios	0.01*	0.05	The submitted data are sufficient to derive an MRL proposal for the intended SEU use. NEU use is not supported by data. Risk for consumers unlikely.
0152000	Strawberries	0.01*	0.8	The MRL proposal is derived from sufficient data supporting the intended outdoor NEU use. The indoor use is supported by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0154000	Other small fruits and berries	0.01*	2	The submitted data on currants are sufficient to derive a group MRL proposal for the intended NEU uses. The intended use in France southern zone is supported by residue trials form NEU zone. Risk for consumers unlikely.

Code[(a)]	Commodity	Existing EU MRL (mg/kg)	Proposed EU MRL (mg/kg)	Comment/justification
0161030	Table olives	0.01*	2	The submitted data on table olives are sufficient to derive an MRL proposal for the intended SEU use. Risk for consumers unlikely.
0161060	Kaki/Japanese persimmons	0.01*	0.2	The submitted data on pome fruits are sufficient to derive an MRL proposal for the intended SEU use. Risk for consumers unlikely.
0213000	Other root and tuber vegetables except sugar beets	0.01*	0.1	The submitted data on carrots are sufficient to derive a group MRL proposal for the intended NEU uses. The intended France southern use on beetroot is supported by data from the NEU. Risk for consumers unlikely.
0231010	Tomatoes	0.01*	0.4	The MRL proposal is derived from sufficient data supporting the intended indoor EU use on tomatoes. NEU/SEU uses are covered by this MRL. Risk for consumers unlikely.
0231020	Sweet peppers/bell peppers	0.01*	0.9	The submitted data on peppers are sufficient to derive an MRL proposal for the intended indoor use. Risk for consumers unlikely.
0231030	Aubergines/eggplants	0.01*	0.4	The MRL proposal is derived from sufficient data on tomatoes supporting the intended indoor EU use. NEU/SEU uses are covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0232000	Cucurbits with edible peel	0.01*	0.3	The group MRL proposal is derived from sufficient data on cucumbers and courgettes supporting the intended indoor EU uses. NEU/ SEU uses are covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0233000	Cucurbits with inedible peel	0.01*	0.3	The MRL proposal is derived from sufficient data on melons supporting the intended SEU use. The intended indoor use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0241000	Flowering brassica	0.01*	0.7	The MRL proposal is derived from sufficient data on cauliflowers and broccoli supporting the intended SEU use. The intended NEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0242010	Brussel sprouts	0.01*	0.4	The submitted data are sufficient to derive an MRL proposal for the intended NEU use. Risk for consumers unlikely.
0242020	Head cabbages	0.01*	0.04	The MRL proposal is derived from sufficient data supporting the intended SEU use. The intended NEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0251060	Roman rocket/rucola	0.01*	7	The submitted data on spinaches are sufficient to derive an MRL proposal for the intended SEU use. Risk for consumers unlikely.
0251080	Baby leaf crops (including brassica species)	0.01*	7	The submitted data on spinaches are sufficient to derive an MRL proposal for the SEU use. Risk for consumers unlikely.

Code[(a)]	Commodity	Existing EU MRL (mg/kg)	Proposed EU MRL (mg/kg)	Comment/justification
0252010	Spinaches	0.01*	7	The submitted data on spinaches are sufficient to derive an MRL proposal for the intended SEU use. Risk for consumers unlikely.
0256000	Herbs and edible flowers	0.01*	7	The submitted data on spinaches are sufficient to derive an MRL proposal for the intended SEU use. The intended France northern use is supported by data from the SEU. Risk for consumers unlikely.
0260020	Beans (without pods)	0.01*	0.04	The MRL proposal is derived from sufficient data supporting the intended NEU use. The intended SEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0260040	Peas (without pods)	0.01*	0.08	The MRL proposal is derived from sufficient data supporting the intended SEU use on peas. The intended NEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0270020	Cardoons	0.01*	3	The submitted data on celeries are sufficient to derive an MRL proposal for the intended SEU use. Risk for consumers unlikely.
0270030	Celeries	0.01*	3	The submitted data on celeries are sufficient to derive an MRL proposal for the intended SEU use. Risk for consumers unlikely.
0270040	Florence fennels	0.01*	3	The submitted data on celeries are sufficient to derive an MRL proposal for the intended SEU use. Risk for consumers unlikely.
0270050	Globe artichokes	0.01*	0.7	The submitted data on globe artichokes are sufficient to derive an MRL for the intended SEU use. Risk for consumers unlikely.
0270070	Rhubarbs	0.01*	3	The submitted data on celeries are sufficient to derive an MRL proposal for the SEU use. Risk for consumers unlikely.
0300010	Beans	0.01*	0.01* (No change)	An MRL amendment is not required for the intended NEU/SEU uses on beans. Risk for consumers unlikely.
0300020	Lentils	0.01*	0.15 or 0.2 Further risk management considerations required.	When pooling the SEU residue data on beans (residues < LOQ) and peas (residues < 0.01–0.13 mg/kg), an MRL of 0.15 mg/kg is calculated. Residue data extrapolation from a more critical SEU use on peas alone would result in an MRL of 0.2 mg/kg. Risk for consumers unlikely for both options.
0300030	Peas	0.01*	0.2	The MRL proposal is derived from sufficient data supporting the SEU use on peas. The NEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0300040	Lupins/lupini beans	0.01*	0.15 or 0.2 Further risk management considerations required.	When pooling the SEU residue data on beans (residues < LOQ) and peas (residues < 0.01–0.13 mg/kg), an MRL of 0.15 mg/kg is calculated. Residue data extrapolation from a more critical SEU use on peas alone would result in an MRL of 0.2 mg/kg. Risk for consumers unlikely for both options.

Code[(a)]	Commodity	Existing EU MRL (mg/kg)	Proposed EU MRL (mg/kg)	Comment/justification
0300990	Other pulses	0.01*	0.15 or 0.2 Further risk management considerations required.	When pooling the SEU residue data on beans (residues < LOQ) and peas (residues < 0.01–0.13 mg/kg), an MRL of 0.15 mg/kg is calculated. Residue data extrapolation from a more critical SEU use on peas alone would result in an MRL of 0.2 mg/kg. Risk for consumers unlikely for both options.
0401010	Linseeds	0.01*	0.08	The MRL proposal is derived from sufficient data on rapeseeds supporting the intended SEU use. The NEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0401030	Poppy seeds	0.01*	0.08	The MRL proposal is derived from sufficient data on rapeseeds supporting the intended SEU use. The NEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0401070	Soya beans	0.01*	0.01* (No change)	An MRL amendment is not required for the intended NEU use on soya. Risk for consumers unlikely.
0401080	Mustard seeds	0.01*	0.08	The MRL proposal is derived from sufficient data on rapeseeds supporting the intended SEU use. The NEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0401130	Gold of pleasure seeds	0.01*	0.08	The MRL proposal is derived from sufficient data on rapeseeds supporting the intended SEU use. The NEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0402010	Olives for oil production	0.01*	3	The submitted data on olives for oil production are sufficient to derive an MRL proposal for the intended SEU use. Risk for consumers unlikely.
0700000	Hops	0.05*	15	The submitted data on hops are sufficient to derive an MRL proposal for the intended NEU use. Risk for consumers unlikely.
1011030	Swine, liver	0.015	0.02	MRL proposal based on the updated livestock burden. Risk for consumers unlikely.
1011990	Swine, other	0.015	0.02	MRL proposal based on the updated livestock burden. Risk for consumers unlikely.

MRL: maximum residue level; NEU: northern Europe; SEU: southern Europe; GAP: Good Agricultural Practice.
*: Indicates that the MRL is set at the limit of analytical quantification (LOQ).
(a): Commodity code number according to Annex I of Regulation (EC) No 396/2005.
(b): It is noted that mefentrifluconazole according to the EU pesticides peer review (EFSA, 2018c) is classified as 'fat soluble', however, the footnote 'F' has not been inserted for the enforcement residue in the respective MRL legislation.

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Assessment

The European Food Safety Authority (EFSA) received an application to modify the existing maximum residue levels (MRLs) for mefentrifluconazole in various crops and swine liver. The detailed description of the intended uses of mefentrifluconazole, which are the basis for the current MRL application, is reported in Appendix A.

Mefentrifluconazole[1] is the ISO common name for (2*RS*)-2-[4-(4-chlorophenoxy)-2-(trifluoromethyl) phenyl]-1-(1*H*-1,2,4-triazol-1-yl)propan-2-ol (IUPAC). Mefentrifluconazole is a racemic mixture of two enantiomers. The chemical structures of the active substance and its main metabolites are reported in Appendix E.

Mefentrifluconazole was evaluated in the framework of Regulation (EC) No 1107/2009[2] with the United Kingdom designated as rapporteur Member State (RMS); the representative use assessed was a foliar spray for the control of *Septoria tritici* in cereals. The draft assessment report (DAR) prepared by the RMS has been peer reviewed by EFSA (EFSA, 2018c). EFSA's conclusion on the peer review of the pesticide risk assessment for mefentrifluconazole also addresses the assessment required from EFSA under Article 12 of Regulation (EC) No 396/2005. Mefentrifluconazole was approved[3] for the use as fungicide on 20 March 2019.

EU MRLs for mefentrifluconazole are established in Annex II of Regulation (EC) No 396/2005[4]. In accordance with Article 6 of Regulation (EC) No 396/2005 and following the provisions set by the 'Transparency Regulation' (EU) 2019/1381[5], the applicant BASF Agro B.V. Arnhem (NL) Freienbach Branch submitted on 27 October 2021 an application to the competent national authority in Austria (evaluating Member State, EMS), alongside the dossier containing the supporting data using the IUCLID format. The appointed EMS assessed the dossier and declared its admissibility on 23 November 2021. Subsequently, following the implementation of EFSA's confidentiality decision, the non-confidential version of the dossier was published by EFSA, and a public consultation launched on the dossier. The consultation aimed to consult stakeholders and the public on the scientific data, studies and other information part of, or supporting, the submitted application, in order to identify whether other relevant scientific data or studies are available. The consultation run from 15 July 2022 to 5 August 2022. No additional data nor comments were submitted in the framework of the consultation.

At the end of the commenting period, the EMS proceeded drafting the evaluation report, in accordance with Article 8 of Regulation (EC) No 396/2005, which was submitted to the European Commission and forwarded to EFSA on 11 August 2022. The EMS proposed to establish MRLs for the following plant commodities: citrus fruits, hazelnuts/cobnuts, pistachios, strawberries, blueberries, cranberries, currants, gooseberries, rose hips, mulberries, azaroles/Mediterranean medlars, table olives, kaki/Japanese persimmons, beetroots, carrots, celeriacs, horseradishes, Jerusalem artichokes, parsnips, parsley roots, radishes, salsifies, swedes, turnips, tomatoes, sweet peppers/bell peppers, aubergines/ eggplants, cucumbers, gherkins, courgettes, melons, pumpkins, watermelons, broccoli, cauliflowers, Brussel sprouts, head cabbages, Roman rocket/rucola, baby leaf crops, spinaches, chervil, chives, celery leaves, parsley, sage, rosemary, thyme, basil and edible flowers, laurel/bay leaves, tarragon, beans without pods, peas without pods, cardoons, celeries, Florence fennels, globe artichokes, rhubarbs, pulses (beans, lentils, peas, lupins), linseeds, poppy seeds, soya beans, mustard seeds, gold of pleasure seeds, olives for oil production, hops and for the following products of animal origin: swine liver and swine 'other products'.

[1] It should be noted that mefentrifluconazole and its metabolite M750F022 are identified as a pesticide active substance/ metabolite that meet the definition of per- and polyfluoroalkyl substances (PFAS) based on their chemical structures (https://echa.europa.eu/hot-topics/perfluoroalkyl-chemicals-pfas).

[2] 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.

[3] Commission Implementing Regulation (EU) 2019/337 of 27 February 2019 approving the active substance mefentrifluconazole 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. C/2019/1477.OJ L 60, 28.2.2019, p. 12–16.

[4] Regulation (EC) No 396/2005 of the 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.

[5] Regulation (EU) 2019/1381 of the European Parliament and of the Council of 20 June 2019 on the transparency and sustainability of the EU risk assessment in the food chain and amending Regulations (EC) No 178/2002, (EC) No 1829/2003, (EC) No 1831/2003, (EC) No 2065/2003, (EC) No 1935/2004, (EC) No 1331/2008, (EC) No 1107/2009, (EU) 2015/2283 and Directive 2001/18/EC, PE/41/2019/REV/1. OJ L 231, 6.9.2019, p. 1–28.

EFSA assessed the application and the evaluation report as required by Article 10 of the MRL regulation. EFSA identified data gaps and points which needed further clarification, which were requested from the EMS. On 22 March 2023, the applicant provided the requested information in an updated IUCLID dossier. The additional information was duly considered by the EMS who submitted a revised evaluation report to EFSA on 28 April 2023 (Austria, 2022), which replaced the previously submitted evaluation report.

EFSA based its assessment on the evaluation report submitted by the EMS (Austria, 2022), the DAR and its addendum (United Kingdom, 2018a,b), the Commission review report on mefentrifluconazole (European Commission, 2021a) as well as the conclusion on the peer review of the pesticide risk assessment of the active substance mefentrifluconazole (EFSA, 2018c) and on the peer review of the pesticide risk assessment for the triazole derivative metabolites (TDMs) in light of confirmatory data (TDMs confirmatory data) (EFSA, 2018b), as well as the conclusions from a previous EFSA opinion on mefentrifluconazole (EFSA, 2020).

For this application, the data requirements established in Regulation (EU) No 283/2013[6] and the guidance documents applicable at the date of submission of the IUCLID application are applicable (European Commission, 2010, 2022, 2020, 2021b,c; OECD, 2007a, 2007b, 2007c, 2007d, 2007e, 2007f, 2007g, 2007h, 2008a, b, 2009, 2011, 2013, 2016, 2018). The assessment is performed in accordance with the legal provisions of the Uniform Principles for the Evaluation and the Authorisation of Plant Protection Products adopted by Commission Regulation (EU) No 546/2011[7].

A selected list of end points of the studies assessed by EFSA in the framework of this MRL application including the end points of relevant studies assessed previously, are presented in Appendix B.

The evaluation report submitted by the EMS (Austria, 2022) and the exposure calculations using the EFSA Pesticide Residues Intake Model (PRIMo) are considered as supporting documents to this reasoned opinion and, thus, are made publicly available as background documents to this reasoned opinion.[8]

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 mefentrifluconazole in primary crops belonging to the category of fruit, cereal/grass crops and pulses/oilseeds has been investigated in the framework of the EU pesticides peer review (EFSA, 2018c). After foliar applications, parent mefentrifluconazole was the main residue, representing more than 60% of the total radioactive residues (TRR) in commodities tested, except in wheat grains and soybean seeds. In these commodities, the TDMs were formed in significantly higher amounts (77% TRR in wheat grain and 82% TRR in soya bean seed), with triazole alanine (TA) as the most abundant compound. A preferential metabolism or uptake of one of the two mefentrifluconazole enantiomers was not observed in plants.

The available plant metabolism studies sufficiently address primary crop metabolism for the crops under assessment.

1.1.2. Nature of residues in rotational crops

Mefentrifluconazole is intended to be used on several crops that can be grown in rotation with other crops. The metabolism of mefentrifluconazole in rotational crops has been investigated in leafy crops, root and tuber crops, and cereal during the EU pesticides peer review (EFSA, 2018c). Mefentrifluconazole and the TDMs were identified as relevant residues in rotational crops. Overall, the metabolic pathway in rotational crops was found to be similar to that in primary crops.

[6] Commission Regulation (EU) No 283/2013 of 1 March 2013 setting out the data requirements for active substances, 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. OJ L 93, 3.4.2013, p. 1–84.

[7] 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.

[8] Background documents to this reasoned opinion are published on OpenEFSA portal and are available at the following link: https://open.efsa.europa.eu/study-inventory/EFSA-Q-2021-00692

1.1.3. Nature of residues in processed commodities

The effect of processing on the nature of parent mefentrifluconazole was investigated in the framework of the EU pesticides peer review (EFSA, 2018c). The standard hydrolysis studies showed that the active substance is hydrolytically stable under processing conditions simulating pasteurisation, baking, brewing/boiling and sterilisation.

In the framework of the assessment of the EU peer review of TDMs, EFSA concluded that triazole alanine (TA), 1,2,4-triazole (1,2,4-T), triazole acetic acid (TAA) and triazole lactic acid (TLA) remain stable under the standard hydrolysis conditions (EFSA, 2018b).

1.1.4. Analytical methods for enforcement purposes in plant commodities

Analytical methods for the determination of mefentrifluconazole residues in plant products were assessed during the EU pesticides peer review (EFSA, 2018c). It was concluded that the Quick Easy Cheap Effective Rugged and Safe (QuEChERS) multi-residue method (L0295/01) using liquid chromatography with tandem mass spectrometry (LC–MS/MS) is sufficiently validated for the determination of mefentrifluconazole residues in all plant matrices at the limit of quantification (LOQ) of 0.01 mg/kg.

Under this MRL application validation data were provided for a new method for the determination of mefentrifluconazole residues in hops (green or dried cones) (method code L0076/09). Mefentrifluconazole was extracted with a mixture of methanol, water and hydrochloric acid (70/25/5, v/v/v) and analysed by LC–MS/MS at two mass transitions at the LOQ of 0.01 mg/kg.

An extraction efficiency study for the QuEChERS multi-residue method was submitted in the context of the EU pesticides peer review and was further assessed in the framework of the current application. Extraction efficiency was investigated by radio-cross-validation using the following radiolabelled sample material from the mefentrifluconazole metabolism studies: wheat forage (high-water content commodity), wheat straw (dry commodity), soybean (high-oil content commodity) and grape (high-acid content commodity) according to the requirements of the extraction efficiency Guidance (European Commission, 2022). Residue amounts extracted by the extraction procedures of the analytical method for enforcement were then compared to the residue amounts extracted in the metabolism studies. Comparable levels of incurred residues were extracted from wheat forage, soybean and grape (i.e. absolute amounts of extracted residues and %TRR differ by no more than 30% with the extraction procedures tested). The extraction procedure of the enforcement method did not achieve sufficient residue recoveries in wheat straw, relevant for dry commodities (i.e. below 30% of the efficiency of the method used in the metabolism study).

EFSA concludes that the extraction efficiency of enforcement method is sufficiently demonstrated in high-water, high-oil and high-acid content commodities. The extraction procedure of the enforcement method did not achieve sufficient residue recoveries in dry commodities (i.e. below 30% of the efficiency of the method used in the metabolism study). Therefore, extraction efficiency is not considered proven in pulses that belong to the group of dry commodities (European Commission, 2022, 2021d).

In addition, due to the lack of mefentrifluconazole radiolabelled material in hops, the extraction efficiency of the method for enforcement of mefentrifluconazole in hops could not be investigated according to the extraction efficiency Technical Guideline (European Commission, 2022). Further investigation on this matter would be required. Therefore, EFSA recommends reconsidering this point in the context of the peer review for the renewal of the approval of mefentrifluconazole.

1.1.5. Storage stability of residues in plants

The storage stability of mefentrifluconazole in plant commodities stored under frozen conditions was investigated in the framework of the EU pesticides peer review (EFSA, 2018c). The parent compound mefentrifluconazole was shown to be stable for at least 24 months when stored at −18°C in all plant commodity categories.

The storage stability data for the TDMs were summarised in the framework of the EU peer review of confirmatory data for TDMs (EFSA, 2018b). Storage stability data on the four TDMs (1,2,4-T, TA, TAA and TLA) were available in high-water, high-oil and high-starch content commodities stored under frozen conditions. It should be noted that 1,2,4-T and TA were not found to be stable in rapeseeds.

For high-protein content commodities, storage stability data were available for TA, TAA, TLA; for high-acid content commodities, storage stability data were available for TLA. EFSA notes that a data gap[9] was identified by the peer review of confirmatory data of the TDMs (EFSA, 2018b) relevant to the storage stability.

In the framework of the present MRL application new information on the stability of residues of 1,2,4-T, TAA and TA was submitted (Austria, 2022). 1,2,4-T was found to be stable in hazelnuts (high-oil content commodity) for a maximum of 12 months (residues decline afterwards), in dry beans (high-protein content commodity) for at least 48 months and in oranges (high-acid content commodity) for 42 months (a decline was observed at 48 months) when stored under frozen conditions. TA and TAA were found to be stable in oranges (high-acid content commodity) for at least 48 months when stored under frozen conditions. An overview of the available studies is presented in Appendix B.1.1.2.

1.1.6. Proposed residue definitions

Based on the metabolic pattern identified in metabolism studies, the results of hydrolysis studies, the toxicological significance of metabolites and the capabilities of enforcement analytical methods, the following residue definitions for enforcement and risk assessment were proposed in the EU pesticides peer review (EFSA, 2018c):

- Residue definition for enforcement: Mefentrifluconazole.
- Residue definition for risk assessment:

  1) Mefentrifluconazole.
  2) TA and TLA, since these compounds share the same toxicity.
  3) TAA.
  4) 1,2,4-triazole (1,2,4-T).

The residue definition for enforcement set in Regulation (EC) No 396/2005 is identical with the above-mentioned enforcement residue definition. For processed commodities and rotational crops, the same residue definitions were proposed. EFSA concludes that the above-mentioned residue definitions are appropriate for the current assessment.

1.2. Magnitude of residues in plants

1.2.1. Magnitude of residues in primary crops

In the framework of the current MRL application, the applicant submitted residue data on several crops. Most of the trials were performed as decline studies with some exceptions as mentioned below for each set of trials. Mefentrifluconazole was found to generally decline with time. Outdoor trials were performed during two growing seasons, while indoor trials were performed during a single season; trials were widespread within the respective zone (SEU, NEU or within the EU for indoor uses) reflecting variability in the cultivation technics and weather conditions of the area.

The residue data for mefentrifluconazole are valid regarding storage stability in the commodities assessed.

Samples were in most cases analysed for TDMs within 6–12 months. For this period TAA and TLA are shown to be stable under frozen conditions. Stability has been demonstrated for at least one representative of each of the five commodities categories (OECD, 2007g).

Considering the lack of stability of 1,2,4-T and TA in rapeseeds a general conclusion for all high-oil content commodities or across the five different commodity categories cannot be made but individual categories or commodities need to be considered. Therefore, residue data for 1,2,4-T and TA is affected by additional uncertainties in the following cases according to the OECD guidelines (OECD, 2007g).

- 1,2,4-T and TA are not stable in rapeseeds (EFSA, 2018b). Residue data via extrapolation cannot be validated for the uses on mustard seeds, linseeds, poppy seeds and Gold of Pleasure.
- Storage stability of TA in tree nuts (high-oil content commodity) should be further investigated (relevant for the uses in hazelnuts and pistachios).

[9] Storage stability data on 1,2,4-T, TA and TAA in high-acid content commodities, on 1,2,4-T in high-protein content commodities and on TLA in cereal straw and covering the maximum storage time interval of the residue samples of the residue trials in primary and rotational crops (EFSA, 2018b).

- Storage stability of 1,2,4-T and TA should be further investigated for olives and hops (high-oil content commodities).
- For samples collected from trials on globe artichokes (high-water content commodity) that were stored for more than 6 months storage stability of 1,2,4-T cannot be confirmed.
- Storage stability of 1,2,4-T and TA should be investigated in a second high-acid content commodity to conclude for the whole category (relevant for the use on strawberries, currants).
- Storage stability of 1,2,4-T and TA should be investigated in a second high-starch content commodity, as to conclude for the whole category (relevant for the use on carrots).

Samples were analysed for the parent compound and for the TDMs in line with the residue definition for risk assessment with an analytical method (L0076/09) sufficiently validated and fit for purpose (Austria, 2022). Residue amounts extracted by the extraction procedures (single extraction with methanol/water/2 N HCl, 70/25/5, v/v/v) of the analytical method for data generation purposes were cross-validated with those of the method used in metabolism studies with plants and found to be comparable (Austria, 2022). Therefore, extraction efficiency for mefentrifluconazole is sufficiently demonstrated in the commodities under consideration as indicated according to the requirements of the extraction efficiency Guidance (European Commission, 2022), with the exception of hops that do not belong to a specific matrix group (difficult matrix).

In control samples from untreated plots parent mefentrifluconazole was always below the LOQ of 0.01 mg/kg, however this was not always the case for TDMs. The presence of TDMs in untreated samples is a common issue, previously reported in trials with triazoles and can be justified due to the use of other authorised formulated products containing triazole fungicides and uptake from the soil. Therefore, all trials were accepted and considered for the present application. For the new residue trials, in the case where residues in samples collected from untreated plots were higher than those from the treated plots, these were considered for risk assessment to reflect a worst-case scenario.

The residue levels in the supervised residue trials submitted are reported for mefentrifluconazole and the TDMs in Appendix B.1.2.1.

- Citrus fruits

GAP (NEU and SEU, outdoor): foliar application: 2 × 0.150 kg a.s./ha, interval 10 days, PHI 14 days

In support of the intended uses the applicant submitted 16 SEU GAP compliant residue trials on oranges (eight), mandarins (seven) and lemons (one). Trials were conducted in 2019 and 2020 and were widely spread over different locations in SEU and were all designed as decline studies. At PHI 14 days peel and pulp of the fruits were analysed and mefentrifluconazole was below the LOQ of 0.01 mg/kg in the pulp. Data from different crops were combined to derive a group MRL and risk assessment values in line with the extrapolation Guidance (European Commission, 2020). The number of trials is sufficient to extrapolate residue data to crops belonging to the group of citrus fruits. Residue trials support the MRL proposal of 0.5 mg/kg for mefentrifluconazole.

- Hazelnuts, pistachios

GAP (NEU, SEU, outdoor): foliar application: 2 × 0.150 kg a.s./ha, interval 7 days, PHI 28 days

In support of the intended uses on hazelnuts and pistachios the applicant submitted 12 SEU GAP compliant residue trials (six on each crop). Trials were conducted in 2019 and 2020 were widely spread over different locations and were all designed as decline studies. In hazelnuts mefentrifluconazole was below the LOQ of 0.01 mg/kg. For pistachios a sufficient number of trials support the MRL proposal of 0.05 mg/kg.

The intended NEU use of mefentrifluconazole on hazelnuts and pistachios, which was reported only for Romania, is not supported by northern residue trials.

- Kaki/Japanese persimmon

GAP (SEU, outdoor): foliar application: 2 × 0.150 kg a.s./ha, interval 7 days, PHI 28 days

In support of the intended use on kaki the applicant submitted eight GAP compliant residue trials on apples (four) and pears (four). Trials were performed in different locations in SEU during growing seasons of 2016, 2017. These trials have been previously evaluated by EFSA and considered acceptable to support the SEU use (EFSA, 2020). Residue data from pome fruits were combined to derive MRL and risk assessment values since data sets belong to the same statistical population (Mann–Whitney U-test, 5%). A combination of apple and pear residue data to extrapolate

to kaki/Japanese persimmon is acceptable according to EU Guidelines (European Commission, 2020). Residue trials support the MRL proposal of 0.2 mg/kg for mefentrifluconazole.

- Strawberries

GAP (NEU, outdoor): foliar application: 3 × 0.113 kg a.s./ha, interval 7 days, PHI 1 day
GAP (EU, indoor): foliar application: 3 × 0.113 kg a.s./ha, interval 7 days, PHI 1 day

In support of the intended uses on strawberries the applicant submitted nine outdoor NEU and 8 indoor GAP compliant residue trials. NEU trials were conducted in different locations during growing seasons of 2019 and 2020. Indoor trials performed in 2020 were widespread across the EU. All trials were designed as decline studies. In one outdoor trial interval between first and second treatments was 11 days instead of 7 days, however, this trial was considered for the calculation of the MRL as residues were within the same range as in the rest of the trials. Sufficient number of trials support the MRL for mefentrifluconazole of 0.8 mg/kg for the intended NEU use and of 0.6 mg/kg for the intended indoor use on strawberries.

- Other small fruits and berries: blueberries, cranberries, currants (red, black and white), gooseberries (green, red and yellow), rose hips, mulberries (black and white), azaroles/ Mediterranean medlars, elderberries.

GAP (NEU, SEU (FR), outdoor): foliar application: 3 × 0.113 kg a.s./ha, interval 7 days, PHI 1 day

In support of the intended NEU uses on small fruits and berries the applicant submitted six NEU GAP compliant residue trials on currants. Trials were performed during growing seasons 2019 and 2020 and were designed as decline studies. Number of trials is sufficient to extrapolate residue data to crops belonging to other small fruits and berries (European Commission, 2020). Residue trials support the MRL proposal of 2 mg/kg for mefentrifluconazole.

No trials were submitted in support of the intended SEU use. According to EU guidelines, berries belonging to the group of 'other small fruits and berries' can be grown in southern or northern zone in France and the residue data from one of these zones can be accepted for the use in the other zone (European Commission, 2020). Thus, EFSA concludes that NEU residue data can support also the SEU use of mefentrifluconazole on small fruits and berries in France.

- Other root and tuber vegetables except sugar beets: beetroots, carrots, celeriacs/turnip rooted celeries, horseradishes, Jerusalem artichokes, parsnips, parsley roots/Hamburg roots parsley, radishes, salsifies, swedes/rutabagas, turnips

GAP (NEU, SEU (beetroots only), outdoor): foliar application: 3 × 0.113 kg a.s./ha, interval 7 days, PHI 3 days

In support of the intended NEU uses the applicant submitted eight NEU GAP compliant residue trials on carrots. Trials were performed during growing seasons 2019 and 2020 were widely spread over different locations and were all designed as decline studies. Besides roots, carrot tops were also analysed for residues; the applicant provided these data for an extrapolation to turnip tops, as this commodity is a feed item to be considered in the livestock diet. Number of trials is sufficient to extrapolate carrot residue data to crops belonging to the group of other root and tuber vegetables except sugar beets (European Commission, 2020). Residue trials support the MRL proposal of 0.1 mg/kg for the intended NEU use of mefentrifluconazole on beetroots, carrots, celeriacs/turnip rooted celeries, horseradishes, Jerusalem artichokes, parsnips, parsley roots/Hamburg roots parsley, radishes, salsifies, swedes/rutabagas, turnips.

No trials were submitted in support of the intended SEU use of mefentrifluconazole on beetroots. According to EU Guidelines, beetroot is essentially cultivated in the NEU zone of France (European Commission, 2020), therefore the lack of SEU trials is not considered as a data gap. EFSA concludes that NEU data can support the intended use on beetroots in France.

- Tomatoes, aubergines/eggplants

GAP (NEU, SEU, outdoor): foliar application: 3 × 0.113 kg a.s./ha, interval 7 days, PHI 3 days
GAP (EU, indoor): foliar application: 3 × 0.113 kg a.s./ha, interval 7 days, PHI 3 days

In support of the intended uses on tomatoes and aubergines the applicant submitted eight NEU, eight SEU and eight indoor EU GAP compliant residue trials on tomatoes. Outdoor trials were conducted during growing seasons 2019 and 2020 in various MSs. Data from both zones were

combined in support of the intended outdoor uses to derive MRL and risk assessment values since data sets belong to the same statistical population (Mann–Whitney U-test, 5%). Indoor trials performed in 2019 were widespread in EU. All trials were designed as decline studies. Number of trials is sufficient to extrapolate residue data to aubergines (European Commission, 2020). Residue trials support the MRL proposals for mefentrifluconazole of 0.3 mg/kg for the intended outdoor uses and 0.4 mg/kg for the intended indoor use.

- Sweet peppers/bell peppers

GAP (EU, indoor): foliar application: 3 × 0.113 kg a.s./ha, interval 7 days, PHI 3 days

In support of the intended use the applicant submitted eight indoor GAP compliant residue trials on peppers. Trials were conducted during growing season 2019 and were designed as decline studies. Sufficient number of residue trials support the MRL proposal of 0.9 mg/kg for mefentrifluconazole in peppers.

- Cucurbits with edible peel: cucumbers, gherkins, courgettes

GAP (NEU, SEU, outdoor): foliar application: 3 × 0.113 kg a.s./ha, interval 7 days, PHI 3 days
GAP (EU, indoor): foliar application: 3 × 0.113 kg a.s./ha, interval 7 days, PHI 1 day

In support of the intended uses on cucurbits with edible peel the applicant submitted eight NEU, eight SEU and eight indoor EU GAP compliant residue trials on cucumbers and courgettes (four on cucumber and four on courgettes for each zone). Outdoor trials were conducted during growing seasons of 2019 and 2020 and were widely spread over different locations. Data from both zones belong to the same data population and were therefore combined. Merging of residue data on cucumbers and courgettes from NEU and SEU zones to derive MRL proposal and risk assessment values is acceptable according to the extrapolation Guidelines (European Commission, 2020). Indoor trials performed in 2019 were widespread in EU. All trials were designed as decline studies.

The applicant proposes to extrapolate residue data on cucumbers and courgettes to the whole group of cucurbits with edible peel. Such an extrapolation is supported by a sufficient number of trials and is acceptable according to the EU guidelines (European Commission, 2020). Residue trials support the MRL proposals for mefentrifluconazole of 0.1 mg/kg for the intended outdoor uses and 0.3 mg/kg for the intended indoor uses.

- Cucurbits with inedible peel.

GAP (SEU, outdoor): foliar application: 3 × 0.113 kg a.s./ha, interval 7 days, PHI 3 days
GAP (EU, indoor): foliar application: 3 × 0.113 kg a.s./ha, interval 7 days, PHI 3 days

In support of the intended uses on cucurbits with inedible peel the applicant submitted SEU (eight) and indoor EU (eight) GAP compliant residue trials on melons. Outdoor trials were conducted during growing seasons of 2019 and 2020 were widely spread over different locations. Indoor trials performed in 2019 were widespread in the EU. All trials were designed as decline studies. The residue data in pulp were provided only at the intended PHI interval of 3 days and no data are available for other PHI intervals. Mefentrifluconazole was below the LOQ of 0.01 mg/kg in the pulp. The applicant proposes to extrapolate residue data on melons to the whole group of cucurbits with inedible peel. Such an extrapolation is supported by a sufficient number of trials and is acceptable according to the EU guidelines (European Commission, 2020). Residue trials support the MRL proposals for mefentrifluconazole of 0.3 mg/kg for the outdoor uses and 0.2 mg/kg for the indoor uses.

- Flowering brassicas: broccoli, cauliflower

GAP (NEU, outdoor): foliar application, 3 × 0.113 kg a.s./ha, interval 7 days, PHI 14 days
GAP (SEU, outdoor): foliar application, 3 × 0.113 kg a.s./ha, interval 7 days, PHI 7 days

In support of the intended uses on flowering brassica the applicant submitted NEU (eight) and SEU (eight) GAP compliant residue trials on cauliflowers and broccoli (four on cauliflower and four on broccoli for each zone). Trials were conducted during growing seasons 2019 and 2020 and were widely spread over different locations. NEU trials were not designed as decline studies (samples taken immediately, 3, 7 and 14 days after the treatment). All SEU trials were designed as decline studies (samples taken immediately, 3, 7 and 14 days after the last treatment), indicating that residues decline over longer PHI of 14 days. NEU trials are acceptable since based on available data an increase of residues is not expected beyond a PHI of 7 days. Number of trials is sufficient to extrapolate residue

data to crops belonging to the group of flowering brassicas as proposed by the applicant (European Commission, 2020). Residue trials support the MRL proposals for mefentrifluconazole of 0.15 mg/kg derived from the NEU data 0.7 mg/kg based on the SEU data set.

- Head cabbages

GAP (NEU, outdoor): foliar application, 3 × 0.113 kg a.s./ha, interval 10 days, PHI 14 days
GAP (SEU, outdoor): foliar application, 3 × 0.113 kg a.s./ha, interval 10 days, PHI 7 days

In support of the intended uses on head cabbages the applicant submitted NEU (eight) and SEU (four) GAP compliant residue trials on head cabbages. Trials were conducted during growing seasons 2019 and 2020. NEU trials were not designed as decline studies (samples taken immediately, 3, 7 and 14 days after the treatment). All SEU trials were designed as decline studies (samples taken immediately, 3, 7 (corresponding to the intended pre-harvest interval, PHI) and 14 days after the treatment), indicating that residues generally decline over longer PHI of 14 days. NEU trials are acceptable since based on available data an increase of residues is not expected at PHIs longer than 7 days. Number of trials is sufficient in support of the proposed intended NEU and SEU GAPs (European Commission, 2020). Residue trials support the MRL proposals for mefentrifluconazole of 0.03 mg/kg for the intended NEU use and 0.04 mg/kg based on the SEU data set.

- Brussel sprouts

GAP (NEU, outdoor): foliar application: 3 × 0.113 kg a.s./ha, interval 10 days, PHI 14 days

In support of the intended use the applicant submitted four NEU GAP compliant residue trials on Brussel sprouts. Trials were conducted during growing seasons 2019 and 2020 and were designed as decline studies. Sufficient number of residue trials support the MRL proposal of 0.4 mg/kg for mefentrifluconazole in Brussel sprouts.

- Spinaches, roman rocket/rucola, baby leaf crops, herbs and edible flowers (chervil, chives, celery leaves, parsley, sage, rosemary, thyme, basil and edible flowers, laurel/bay leaves, tarragon)

GAP (SEU, outdoor): foliar application: 1 × 0.113 kg a.s./ha, PHI 3 days. The same use is intended on herbs and edible flowers in France, representing both NEU and SEU zones. According to the EU guidelines, herbs can be grown in southern or northern zone of France and in this case residue data can be accepted from south and/or north zone (European Commission, 2020).

In support of the intended uses the applicant submitted four SEU GAP compliant residue trials on spinaches. Trials were conducted during growing seasons 2019 and 2020 in different MSs and were designed as decline studies. The applicant proposes to extrapolate residue data from spinaches to roman rocket/rucola, baby leaf crops and herbs and edible flowers. Such an extrapolation is supported by a sufficient number of trials and is acceptable according to EU guidelines (European Commission, 2020). An MRL proposal of 7 mg/kg for mefentrifluconazole is supported for the above-mentioned commodities.

- Peas and beans (fresh without pods).
- Pulses: beans, lentils, peas, lupins/lupini beans.

GAP (NEU, SEU, outdoor): foliar application: 2 × 0.098 kg a.s./ha, BBCH 50–72, interval 10 days

In support of the intended uses the applicant submitted 16 residue trials on beans (eight NEU and eight SEU) and 23 on peas (12 NEU and 11 SEU). All trials were GAP compliant. Trials were conducted during growing seasons 2018 and 2019 and were widely spread over different locations.

These trials included three sampling points for the collection of different harvested commodities: first sampling at BBCH 72 analysing for residues in the whole plant, second sampling at BBCH 79 for green seeds (reflecting residues in legumes without pods) and the rest of the plant and third sampling at BBCH 89 for dry seeds (reflecting residues in pulses) and the rest of the plant. Considering the specific design of the trials, the decline of residues was not investigated in the commodities of relevance for the present assessment, i.e. fresh legumes without pods and pulses). The lack of decline trials was considered as minor deficiency since generally mefentrifluconazole tends to decline with time in most crops/commodities. It is noted that in two trials with peas only dried seeds were collected. Number of trials is sufficient to derive MRL proposals for all commodities under consideration.

For fresh beans and fresh peas without pods the EMS proposed to merge individual crop datasets from NEU and SEU trials. According to the extrapolation guidelines (European Commission, 2020) even

if datasets are statistically similar, MRL proposals derived for the individual data sets should fall into the same or a neighbouring MRL class. Since individual MRL proposals for fresh beans and peas without pods for NEU and SEU uses do not fall into the same or neighbouring MRL class, data from NEU and SEU uses on individual crops were not merged. Therefore, for fresh bean seeds (beans without pods) an MRL of 0.04 mg/kg is calculated for the NEU use and of 0.01 mg/kg (at the LOQ) for the SEU use. For fresh pea seeds (peas without pods) an MRL of 0.05 mg/kg is calculated for the intended NEU use and of 0.08 mg/kg for the intended SEU use.

Regarding pulses, the EMS proposed to merge all NEU and SEU residue data available on pulses (i.e. 39 trials on dry beans and dry peas) to derive a group MRL at the level of 0.15 mg/kg. As stated above, when MRL proposals do not fall into the same or a neighbouring MRL class, merging of data is not suggested. This is the case for pulses, where residues in dry beans were below the LOQ of 0.01 mg/kg in all NEU and SEU trials, while in peas the residues were higher and differed between the two EU zones. Therefore, individual MRLs for each commodity were calculated. For dry beans an MRL of 0.01 mg/kg (at the LOQ) is sufficient to cover the intended NEU and SEU uses. For dry peas an MRL of 0.04 mg/kg is calculated from the NEU dataset and of 0.2 mg/kg from the SEU dataset. For the rest of the pulses – lentils, lupins/lupini beans – for which a use is envisaged, two MRL proposals were derived for the consideration by risk managers: an MRL of 0.2 mg/kg as extrapolated from the SEU use on dry peas, or 0.15 mg/kg as derived from a combined SEU residue data set on beans and peas.

- Celeries, cardoons, Florence fennels, rhubarbs

GAP (SEU, outdoor): foliar application: 3 × 0.113 kg a.s./ha, interval 14 days, PHI 7 days

In support of the intended uses the applicant submitted four SEU GAP compliant residue trials on celeries. Trials were conducted during growing seasons 2019 and 2020 widespread over different locations and were designed as decline studies. Number of trials is sufficient to extrapolate residue data to cardoons, Florence fennels and rhubarbs (European Commission, 2020). An MRL proposal of 3 mg/kg for mefentrifluconazole is supported for the above-mentioned commodities.

- Globe artichokes

GAP (SEU, outdoor): foliar application: 3 × 0.113 kg a.s./ha, interval 7 days, PHI 3 days

In support of the intended use the applicant submitted four SEU GAP compliant residue trials on globe artichokes. Trials were conducted during growing seasons 2019 and 2020, widespread over different locations, and were designed as decline studies. Sufficient number of residue trials support the MRL proposal of 0.7 mg/kg for mefentrifluconazole in artichokes.

- Soya beans

GAP (NEU, outdoor): foliar application: 2 × 0.098 kg a.s./ha, interval 10 days, BBCH 50–65

In support of the intended use the applicant submitted eight NEU GAP compliant residue trials on soya. Trials were conducted during growing seasons 2018 and 2019. Mefentrifluconazole was not present in seeds at normal commercial harvest. Sampling and analysis were performed at BBCH 65 on the whole plant, at BBCH 79 on podded seeds and the rest of the plant and at BBCH 89 on soya beans and the rest of the plants. Decline on the residues soya beans was not examined. Since the formulated product was applied at an early growth stage, before formation of the edible part and since residues in seeds in all trials were below the LOQ of 0.01 mg/kg, additional investigations are not required. Sufficient number of residue trials support the MRL proposal of 0.01 mg/kg (at the LOQ) for mefentrifluconazole in soya beans.

- Mustard seeds, linseeds, poppy seeds, gold of pleasure seeds

GAP (NEU, SEU, outdoor): foliar application: 2 × 0.150 kg a.s./ha (max 0.230 g a.s./ha per season), interval 14 days, BBCH 13–75

In support of the intended uses on mustards, linseeds (flax), poppies and gold of pleasure, the applicant relies on 16 (eight NEU and eight SEU) residue trials performed on oilseed rape. Trials were previously evaluated by EFSA to derive an MRL of 0.06 mg/kg for rapeseeds (EFSA, 2020). EMS proposed to merge dataset from NEU and SEU to derive a group MRL. However, since the two individual MRLs derived for SEU use (0.08 mg/kg) and NEU use (0.02 mg/kg) belong to a different MRL rounding class, merging is not suggested according to EU guidelines (European Commission, 2020). EFSA notes that the above-mentioned extrapolation guidelines of 2020, where the

additional factor of the MRL classes was introduced in order to conclude on the applicability of residue data merging, was not applicable at the time of the first assessment of the trials on oilseed rape (EFSA, 2020). The applicant proposes to extrapolate residue data in rapeseed to mustard seed, linseeds, poppy seed and gold of pleasure. Such an extrapolation is acceptable and is supported by a sufficient number of trials (European Commission, 2020). An MRL of 0.02 mg/kg is derived for the intended NEU use and of 0.08 mg/kg for the intended SEU use on these oilseeds.

- Olives (table olives, olives for oil production)

GAP (SEU, outdoor): foliar application: 2 × 0.150 kg a.s./ha, interval 10 days, BBCH 15–85, PHI 21 days

In support of the intended use on olive trees the applicant submitted eight SEU residue trials on olives compliant with the intended GAP. Trials were conducted during growing seasons 2018 and 2019, widespread over different locations in SEU, and were designed as decline studies. Each trial consisted of three plots, two treated on different dates and one left untreated. Last application was performed in line with the PHI of the intended GAP, 20–21 days before harvest. With regards to the treated plots, one plot was harvested at the normal commercial stage for table olives (ca. BBCH 79–81) and other for olives for oil production (ca. BBCH 85–89). Sufficient number of residue trials support an MRL of 2 and 3 mg/kg for mefentrifluconazole in table olives and olives for oil production, respectively.

- Hops

GAP (NEU, SEU (France), outdoor): foliar application: 2 × 0.150 kg a.s./ha, interval 8 days, PHI 14 days

In support of the intended use on hops the applicant submitted four NEU GAP compliant residue trials. Trials were conducted during growing seasons 2019 and 2020. The intended use in France is supported by NEU trials as, according to the EU guidelines, hops are grown essentially in the northern zone of France (European Commission, 2020). Hops (green cones) were analysed for residues at different PHIs (ca. 0, 7, 14, 21 days) showing a decline in residues with time, while dried cones were analysed at PHI of 14 days. Sufficient number of residue trials support the MRL proposal of 15 mg/kg for mefentrifluconazole in hops, based on the residues determined in dried cones.

1.2.2. Magnitude of residues in rotational crops

Mefentrifluconazole exhibits high to very high persistence in soil (DT_{90} 616–> 1,000 days), and accumulation in soil following subsequent years of treatment is expected. 1,2,4-triazole was found to be a relevant soil metabolite of mefentrifluconazole occurring at levels of 0.5–5.1% of applied radioactivity (AR) (EFSA, 2018c). Several crops that are considered in the present application can be grown in rotation. Due to the high persistence in soil, plateau concentrations should be considered.

During the EU pesticides peer review (EFSA, 2018c) rotational crop residues trials in wheat, radish, carrot, cauliflower, broccoli, lettuces and spinaches in NEU and SEU at a dose level (soil treatment 300 g a.s./ha, corresponding to 0.1 mg/kg_{soil} (assuming depth of soil 20 cm, density of soil 1.5 g/cm^3)) which covered the expected plateau concentration of mefentrifluconazole in soil from the representative uses were considered. Quantifiable residues of mefentrifluconazole (above the LOQ of 0.01 mg/kg) were not found. Residues of TDMs, except 1,2,4 -triazole, were observed in rotational crops. In the framework of a subsequent MRL application (EFSA, 2020) the same trials did not cover the maximum plateau concentration of mefentrifluconazole in soil deriving from a new more critical use (oilseed rape 2 × 150 g a.s./ha, starting from BBCH 13 with interval of 2 weeks; PEC_{soil} = 0.230 mg/kg; 0.44 N-the maximum plateau concentration after multiple years of application rate).

Under the present MRL application a new rotational crop study investigating residues in succeeding crops was submitted (Austria, 2022). Trials were performed in Germany, the Netherlands, Italy and Spain. Mefentrifluconazole was applied to bare soil at 800 g a.s./ha. After soil aging for 30 days, crops representative to different crop groups were planted (carrot or radish representative for root and tuber vegetables, cauliflowers for brassica vegetables, spinaches or lettuces for leafy vegetables, cucumber or zucchini for fruiting vegetables, peas/beans fresh and dry for legume vegetables). The application rate of 800 g a.s./ha corresponds to a soil residue concentration of 0.27 mg/kg_{soil} (assuming depth of soil 20 cm and density of soil 1.5 g/cm^3). All commodities were sampled once at maturity. In addition, certain commodities were sampled at an additional earlier stage: for spinaches/lettuces at BBCH 41 (immature leaves) and BBCH 49 (mature leaves); for peas/beans at BBCH 79 (green seeds), 89 (dry

seeds). Samples were analysed for parent mefentrifluconazole and TDMs with a validated method (the same as for primary crops). The storage period of samples until analyses was within the period for which stability of residues has been demonstrated.

Mefentrifluconazole was below the LOQ of 0.01 mg/kg in all samples, except for leafy crops, mostly when immature crops were harvested, in spinaches (one sample at BBCH 49 at 0.012 mg/kg and two samples at the immature stage of BBCH 41 at 0.013 and 0.032 mg/kg) and lettuces (one sample at the immature growth stage of BBCH 41 at 0.016 mg/kg).

With regards to TDMs, 1,2,4-T was not found in succeeding crops. However, residues of TA, TAA, TLA occurred above the LOQ in samples from both treated and untreated plots. TAA was found in two trials in dry peas (0.013 and 0.016 mg/kg). TLA was found in lettuces, spinaches and dry peas/beans (0.011–0.066 mg/kg). TA occurred in all samples collected from treated plots and ranged from 0.015 to 1.9 mg/kg, in many cases significantly higher compared to the background level observed in untreated plots.

Furthermore, soil samples (0–20 cm) from each treated plot, taken at the time of planting the rotational crops, were analysed for mefentrifluconazole and 1,2,4-T. In soil samples mefentrifluconazole ranged from 0.078–0.3 mg/kg (i.e. comparable to calculated soil concentration of 0.27 mg/kg from the nominal soil treatment of 800 g a.s./ha), while 1,2,4-T was always below the LOQ.

When considering the intended uses that were submitted within the present MRL application, the most critical use in primary crops in terms of the plateau concentrations of mefentrifluconazole in soil was identified to be the use on cabbages. A soil plateau concentration of 0.284 mg/ kg_{soil}[10] was calculated. EFSA concludes that the new rotational crop field study is sufficiently representative to account for mefentrifluconazole residue soil uptake in rotational crops when primary crops are treated according to the intended use patterns over a course of multiple years.

Residues that might arise in leafy crops under consideration (namely spinaches, rucola, baby leaf crops and herbs) from multiannual use of mefentrifluconazole on primary crops according to the most critical use pattern, are covered by the proposed MRL at 7 mg/kg in these commodities (i.e. the highest residue (HR) from primary crop use is more than 25% higher compared to the HR from the field study in spinaches/lettuces) (OECD, 2018).

With regards to the TDM residues found in the new rotational crop field study, these are comparable to residues for other triazoles assessed during the EU peer review of confirmatory data for TDMs (EFSA, 2018b), and also comparable to residues found in commodities from crops treated as primary crops. Taking into account multiple applications of different triazole pesticides per crop or per season, the EU peer review of TDMs concluded that the possible uptake of TDMs in crops via soil previously treated with triazole pesticides cannot be excluded and TDM residues in rotational crops have to be considered in the risk assessment (EFSA, 2018b). However, due to the lack of a comprehensive overview on all authorised uses of the different triazole fungicides and expected soil concentration for TDMs, a reliable estimation of the TDM residues expected in rotational crops grown in soil containing residues of TDMs at the soil plateau concentration cannot currently be performed.

1.2.3. Magnitude of residues in processed commodities

Several processing studies have been assessed in the framework of the pesticides peer review of mefentrifluconazole (EFSA, 2018c) and a previous EFSA assessment (EFSA, 2020), where several PFs were derived.

Under this MRL application, new processing studies were submitted on strawberries, cucumbers, head cabbages, peas, olives, hops, oranges and tomatoes (Austria, 2022). Samples were analysed for mefentrifluconazole and TDMs with analytical methods sufficiently validated and fit for purpose (Austria, 2022). The residue data for mefentrifluconazole are valid regarding storage stability in the crops assessed. Since no decline of residues during frozen storage was observed in commodities belonging to all five commodity categories (see Section 1.1.5), specific data on the storage stability of residues in processed commodities are not required (OECD, 2008b).

In many cases TDMs were below the LOQ in the raw agricultural commodities (RACs), hence a PF could not be calculated. Processing studies demonstrated that a concentration would occur for mefentrifluconazole residues in olive oil and processing by-products, in orange dried pomace, in orange oil, in sundried tomatoes and in tomatoes' wet pomace. In addition, from the available supervised

[10] Cabbages, foliar spray, 3 × 113 g a.s./ha, 1st treatment at BBCH 12 (crop interception 25%); 2nd and 3rd treatment after BBCH 20 (crop interception 40%); one rotation per year; Seasonal effective application rate A_{eff} = 220.4 g a.s./ha (corresponds to 0.07345 mg/kg soil). PEC plateau after multiannual use = 853 g a.s./ha (corresponding to 0.284 mg/kg soil).

residue field trials peeling factors were derived for citrus fruits and cucurbits with inedible peel. Processing factors are presented in Table B.1.2.3.

In the case where PF was calculated from a limited dataset, these can only be considered as indicative. Additional data on the processing of other commodities are not required.

1.2.4. Proposed MRLs

The available data are considered sufficient to derive MRL proposals as well as risk assessment values for the commodities under evaluation (see Appendix B.1.2.1).

In Section 3 EFSA assessed whether residues on these crops resulting from the intended uses are likely to pose a consumer health risk.

2. Residues in livestock

Certain commodities under assessment and/or their by-products can be fed to livesto ck and fish. Therefore, the potential transfer of residues in products of animal origin was investigated. For livestock, the dietary burden calculations were based on the OECD feed tables (OECD, 2013). For fish, the maximum reasonably balanced diet (MRBD) approach was used (European Commission, 2021b). The input values for the relevant feed commodities are summarised in Appendix D.1 (livestock) and D.2 (fish). The results of the dietary burden calculation are presented in Appendix B.2.

Livestock dietary burden for mefentrifluconazole and each TDM was calculated based on previously assessed uses with mefentrifluconazole. EFSA updated the livestock dietary burden calculations from the previous EFSA output (EFSA, 2020) with residue data from the new intended uses, including new processing factors for orange dry pulp, and soya beans meal and soya beans hulls.

For parent mefentrifluconazole, the updated dietary burden was only slightly higher than calculated in the previous assessment and exceeded the trigger value of 0.004 mg/kg bw per day for all livestock species. The main contributing commodities were barley, wheat straw and sugar beet tops. Therefore, additional investigations on the presence of residues in products of animal origin are required.

For TDMs, only residues of the metabolites that come from the use of mefentrifluconazole were included in calculations, while TDMs formed from the use of other triazole fungicides were not considered. Previous dietary burden calculations for TDMs (EFSA, 2020) were updated with residue data from the present application. For TA, TLA and TAA the revised dietary burden exceeded the trigger value of 0.004 mg/kg bw per day for all livestock animal species, with the exception of TAA in swine diet. For 1,2,4-T livestock dietary burden is not triggering further investigations and thus residues in livestock products are not expected.

Regarding fish, since mefentrifluconazole is fat soluble, dietary burden for different species was calculated using the Fraunhofer dietary burden calculator by the EMS (Austria, 2022). For rainbow trout, common carp and Atlantic salmon a dietary burden of 0.116, 0.101 and 0.140 mg/kg DM, respectively, was estimated. Threshold value of 0.1 mg/kg DM is exceeded for all three species, and additional investigation would in principle required. TDMs exhibit negative values of the n-octanol–water partition coefficient logarithm (log P_{ow} −0.62 to −0.71 for 1,2,4-T; −3.4 to −4.5 for TA; −1.47 to −2.22 for TAA; −1.69 to −2.04 for TLA) (Austria, 2022) showing low lipophilicity, thus, accumulation in fish tissues is expected to be negligible and additional investigations are not required for those metabolites (European Commission, 2021c).

2.1. Nature of residues and methods of analysis in livestock

The metabolism of mefentrifluconazole after repeated oral administration has been investigated in hens, goats and trout in the framework of the EU pesticides peer review (EFSA, 2018c). Parent mefentrifluconazole was the predominant residue in goat and trout edible commodities and the metabolite M750F022 (with its fatty acid conjugates) in poultry. In animal species examined, beside mefentrifluconazole, significant amounts of only 1,2,4-T were observed. Chiral analysis of mefentrifluconazole revealed a significant change of the ratio in most goat matrices (70–80% R-enantiomer in cream, muscle, liver, kidney, fat) but in the faeces the racemate was maintained. Such a change was not observed in poultry and was not analysed for in fish.

For commodities of animal origin, the following residue definitions for enforcement and risk assessment were proposed in the EU pesticides peer review (EFSA, 2018c):

- Residue definition for enforcement: Mefentrifluconazole
- Residue definition for risk assessment for animals, except poultry and fish:

- Mefentrifluconazole
- TA and TLA, since these compounds share the same toxicity
- TAA
- 1,2,4-T

- Residue definition for risk assessment for poultry:
  - Sum of mefentrifluconazole, metabolite M750F022 and fatty acid conjugates of M750F022, expressed as parent
  - TA and TLA, since these compounds share the same toxicity
  - TAA
  - 1,2,4-T
- Residue definition for risk assessment for fish:
  - Mefentrifluconazole
  - 1,2,4-triazole

    In future TA, TAA and TLA, (of which metabolism in fish is currently unknown), may also need to be included in the RD-RA as demonstrated appropriate for other animals i.e. ruminant and poultry (EFSA, 2018c).

The residue definition for enforcement set in Regulation (EC) No 396/2005 is identical with the above-mentioned residue definition.

Mefentrifluconazole can be monitored in livestock matrices by LC–MS/MS at the LOQ of 0.01 mg/kg (EFSA, 2018c).

2.2. Magnitude of residues in livestock

Storage stability tests were evaluated in the framework of the EU pesticides peer review (EFSA, 2018c). Mefentrifluconazole and its metabolite M750F022 were found to be stable for 5.9 months in muscle, liver, kidney, milk and eggs when stored under frozen conditions. In addition, 1,2,4-T is stable for 12 months in muscle, liver, kidney, eggs and for 18 months in milk (EFSA, 2018b, c). For the storage stability of TA, TAA and TLA in animal matrices a data gap[11] was identified during the peer review of the TDMs (EFSA, 2018b) and confirmed during the peer review of mefentrifluconazole (EFSA, 2018c).

A new storage stability study was submitted with the present MRL application for TDMs. Stability of TA, TAA and TLA was demonstrated in bovine muscle, fat, milk and cream, in pig kidney, and in poultry kidney and eggs for a minimum of 6 months at $\leq -20^{\circ}C$.

Mefentrifluconazole.

Feeding studies with **mefentrifluconazole** in ruminants and poultry were assessed in the framework of the EU pesticides peer review (United Kingdom, 2018b). The metabolic pathway in ruminants was comparable to that in rats, so the results of the ruminant feeding study may be extrapolated to pigs and other domestic animals (OECD, 2007e).

In the feeding studies with mefentrifluconazole in ruminants and poultry samples were analysed for mefentrifluconazole and TDMs (EFSA, 2018c). More details on the presence of TDMs in animal products are given below for both studies.

In ruminants' milk from treated animals, 1,2,4-T was the only compound of the TDM group found at levels significantly different from untreated controls (residues in untreated controls at ca. 0.01–0.02 mg/kg), with residues reaching a plateau level in milk at day 10. In the depuration study 1,2,4-T declined rapidly 10 days after the last dose to the background level. TAA and TLA were below the LOQ in milk. Residues of TA, if present in quantifiable amounts, were comparable to levels of corresponding untreated control samples of milk. In tissues, TDM residues were present above the LOQ in the case of 1,2,4-T and TA, with 1,2,4-T as the predominant component. For both these compounds, residues were also found in untreated control samples. Background levels of TDMs in untreated samples were assumed to originate from ingestion of residues present in feedstuff, although no analysis of the feedstuff has been undertaken to confirm this. TAA and TLA were below the LOQ in tissues. In the

[11] Sufficient storage stability data to demonstrate integrity of residues of TA, TAA, TLA in the relevant poultry and ruminant matrices during the sample storage in the feeding studies with mefentrifluconazole (EFSA, 2018c).

samples of the depuration group residues declined rapidly to levels near the LOQ after a depuration of 14 days for 1,2,4-T and of 3 days for TA (United Kingdom, 2018b).

In the feeding study with poultry only metabolite 1,2,4-T was found in eggs, reaching a plateau after 5 days. Residues of 1,2,4-T were found only in muscle, liver and skin. Residues of TA were observed only in muscle and liver but were always at the same level for all dose groups including the control group, suggesting that this is a background level coming from ingestion of TA residues present in feedstuff, although no analysis of the feedstuff has been undertaken to confirm this. TAA and TLA were below the LOQ in all poultry matrices (tissues and eggs). Upon withdrawal, 1,2,4-T residues rapidly declined in tissues to levels below the LOQ (in muscle and liver, latest after 7 days, in fat latest after 2 days). TA in liver and muscle remained at the levels of the control samples (United Kingdom, 2018b).

Based on the updated dietary burden calculations and the results of the feeding studies with mefentrifluconazole, EFSA concluded that an increase of the existing MRLs for, mefentrifluconazole in swine liver is required to cover the updated dietary burden (see Appendix B.2.2). EMS also proposed to raise existing MRL in swine 'other products' based on the residues expected in liver.

Triazole derivative metabolites

Residues of TDMs in animal commodities can occur both from the intake of mefentrifluconazole (through metabolisation) as well as from the intake of feed containing residues of TDMs. Each TDM present in an animal feed item can give rise to different combinations of TDMs in products of animal origin. EFSA estimated individual TDM residues that are expected in livestock products as the sum of levels formed from mefentrifluconazole (according to mefentrifluconazole feeding studies) and levels formed from other TDMs (from the feeding studies with TDMs, see below).

It is noted that for the present application and TDM residue levels that might occur in products of animal origin, EFSA considered only mefentrifluconazole uses, those previously assessed and new intended uses. Therefore, the contribution of TDMs from other sources was not taken into consideration and the estimations of residue levels for TDMs are indicative, due to the lack of a comprehensive database of all authorised triazole fungicide uses.

During the peer review of the TDMs (EFSA, 2018a) poultry and ruminants feeding studies were conducted respectively with TA and TAA and samples were analysed for TA, TAA, 1,2,4-T and TLA residues.

The poultry feeding study conducted with TA showed that TA remained predominant in all matrices and a slight metabolisation to 1,2,4-T in whole eggs, liver and muscle at the highest dosing level was noted. When the animals were fed with TAA, this compound was detected in eggs, fat and liver with residues of TA in liver only at all dosing levels.

From the ruminant feeding study conducted with TA, TA remained predominant in all tissues but with a significant metabolisation into 1,2,4-T in milk and to a minor extent into 1,2,4-T and TAA in tissues. TLA was identified in fat only, but its detection was rather attributed to a contamination as the respective levels were independent from the dosing levels. When ruminants were fed with TAA, this metabolite was only detected at the highest dose level in whole milk and in all tissues, whilst TA was identified in liver, muscle and kidney at all the dosing levels. 1,2,4-T and TLA compounds were never detected ($<$ 0.01 mg/kg), however the level of 0.01 mg/kg was considered as residue for risk assessment. Animal tissues, milk and eggs samples were analysed within 30 days of sampling.

Two new feeding studies conducted with TLA were submitted in the framework of the present MRL application. It is noted that a data gap[12] was identified during the peer review of the TDMs (EFSA, 2018b) and the peer review of mefentrifluconazole (EFSA, 2018c). In both studies, animal tissues, milk and eggs were analysed for TDMs with a validated analytical method (L0263/01 and L0263/02; extraction with methanol/water (4/1, v/v) and analysis with LC–MS/MS). Integrity of samples was confirmed with available storage stability data (Austria, 2022). For both feeding studies extraction of TDM residues was performed with methanol/water (80/20, v/v). EFSA assessed the extractability of the method. In the metabolism study with mefentrifluconazole radiolabelled in the triazole ring, he only present TDM was 1,2,4-T and was extracted sufficiently with methanol and water from the following matrices: muscle, liver, kidney, fat, eggs. For milk, acetonitrile was used to extract residues radiolabelled on the triazole ring, where again only 1,2,4-T was present. Thus, extraction

[12] Poultry and ruminant feeding studies conducted with TLA or, alternatively, metabolism studies performed in accordance with the current recommendations as a surrogate to these feeding studies to determine the magnitude of TLA residues in products of animal origin (EFSA, 2018b,c).

efficiency is demonstrated for the method used to analyse all relevant livestock matrices, except for milk. For other TDMs information is not available to conclude on the extractability of the method. Further investigation on this matter would be required. Therefore, EFSA recommends reconsidering this point in the context of the peer review for the renewal of the approval of mefentrifluconazole.

For the poultry study, laying hens were dosed with TLA at nominal doses of 0.60, 1.8 and 6.0 mg/kg feed (0.05, 0.15, 0.50 mg/kg bw (ca. 1x, 3x, 10x the dose levels compared to the anticipated dietary burden, respectively)) over a period of 39 days. Eggs, liver, muscle, skin with fat and abdominal fat were analysed for residues of TLA, 1,2,4-T, TA and TAA with an LOQ of 0.01 mg/kg for all analytes. Concerning eggs, TLA was found at a range of < 0.01 to 0.012 mg/kg on days 24 and 35, and 1,2,4-T up to 0.031 mg/kg in the highest dose group (10x). Residues of 1,2,4-T (at or below the LOQ on days 32 and 35) were found in the 3x dosing level group. For these compounds plateau was reached after around 28 days. TA and TAA were below the LOQ in all egg samples from all dose groups. On day 27 egg yolk and white from the highest dose group were analysed for TDMs. TLA and TA were found in egg yolk only, while 1,2,4-T was found in both matrices. TAA was absent from both matrices. In tissues, TLA was predominant in samples from the 3x and 10x dose groups, while 1,2,4-T occurred only in the highest dose group. TA residues were found in liver in comparable amounts at all dose levels including the control group, indicating the existence of TA in feed items. TAA was below the LOQ of 0.01 mg/kg. Analyses of samples from the depuration group showed a quick elimination of all TDMs in all poultry matrices.

For the ruminant study, lactating cows were dosed with TLA at nominal doses of 0.92, 4.6 and 29.4 mg/kg feed (corresponding to 0.035 [0.23 N the calculated DB for cattle], 0.174 [1.2 N], 1.06 mg/kg bw [7 N]) over a period of 28 days. Milk, cream, skimmed milk and tissues (i.e. muscle, liver, kidney, perirenal fat, subcutaneous fat, mesenterial fat) were analysed for residues of TLA and the other triazole derived metabolites (1,2,4-T, TA and TAA). The LOQ was 0.01 mg/kg for all analytes. TLA and TAA were not present in milk. 1,2,4-T was found in the lowest dose group after day 3, reaching a plateau between days 17 and 28 with a mean residue of 0.017 mg/kg. At higher dose groups 1,2,4-T was found in samples even from day 1. TA was found in milk sampled from the highest dose group only after day 14. Regarding tissues and specifically muscle, only TA and 1,2,4-T were determined above the LOQ even at the lowest dose group, at the level of 0.0112 and 0.014 mg/kg respectively. TLA and TAA were found in kidney in the highest dose group, but not in liver. In liver and kidney, TA and 1,2,4-T were determined above the LOQ in all dose groups. TLA was found in one sample of mesenterial fat in the 1.2 N group, and in most fat samples in the 7 N dose group. TA and 1,2,4-T were present in fat samples in the lowest dose group and higher. It is noted that TA was found in control samples of muscle, liver and kidney (0.012, 0.029 and 0.012 mg/kg) at ca. 50% of the residues found in the same tissues in the lowest dose group, implying the presence of the metabolite in the feed items. From depuration trials at 6, 13 and 20 days, TDMs seem to quickly decrease to levels below the LOQ in all tissues and milk, 13 days after the last dose. TA is still present in all tissues even 20 days after the last dose, probably due to background levels of the feed. Nevertheless, since feed was not analysed for residues, origin of background levels of TDMs in control samples cannot be confirmed.

A study to demonstrate an extraction efficiency of analytical enforcement method was submitted in the context of the peer review and was assessed in the current application. Extraction efficiency of the analytical method for enforcement of mefentrifluconazole in animal matrices (L0272/01) was investigated using radiolabelled sample material from the mefentrifluconazole metabolism studies in laying hens and lactating goats (radio-cross-validation). Residue amounts extracted by the extraction procedures of the analytical method for enforcement were then compared to the residue amounts extracted in the metabolism studies. Comparable levels of incurred residues were extracted from meat, fat, kidney, milk and egg yolk (TRR was negligible in egg albumen and residues were not further extracted) (i.e. absolute amounts of extracted residues and %TRR differ by no more than 30% with the extraction procedures tested), therefore extraction efficiency is sufficiently demonstrated in these commodities (European Commission, 2022). The enforcement method did not achieve sufficient residue recoveries in poultry liver (i.e. below 30% of the efficiency of the method used in the metabolism studies). Further investigation on this matter would be required. Therefore, EFSA recommends reconsidering this point in the context of the peer review for the renewal of the approval of mefentrifluconazole.

The risk assessment values derived for TDMs for the calculated livestock dietary burdens on the basis of mefentrifluconazole and TDM feeding studies are summarised in Appendix B.2.2.3.

Regarding fish, no feeding studies are available. Considering the representative aquaculture species, the estimated/calculated feed intake (up to 0.132 mg/kg DM) was well below the dose administered in the fish metabolism study (i.e. up to 5.82 mg/kg DM) for which residues of mefentrifluconazole were 0.022 mg/kg (74% TRR) in fillet, 0.027 mg/kg (72% TRR) in fillet skin, 0.204 mg/kg (58% TRR) in liver after feeding for 10 days with the C-ring radiolabelled mefentrifluconazole. Regarding TDMs, only 1,2,4-T residues were found at 0.033 mg/kg (62% TRR) in fillet, 0.031 mg/kg (58% TRR) in fillet skin and 0.039 (17% TRR) mg/kg in liver when fish were fed with the T-ring radiolabelled mefentrifluconazole. EMS proposed to scale down residues found in rainbow trout (fillet, fillet with skin and liver) in the metabolism study assessed during the pesticides peer review (EFSA, 2018c) to estimate residues in fish for the calculated dietary burden. Scaled results indicate that significant residues of mefentrifluconazole or TDMs above 0.01 mg/kg will not occur in fish tissues.

Calculated risk assessment values (HR and STMR) for the products of animal origin (besides fish), that were based on the update livestock dietary burdens and all available feeding studies with TLA, TA and TAA (EFSA, 2018c; Austria, 2022), are presented in Appendix B.2.2.

In Section 4, EFSA assessed whether the residues of mefentrifluconazole expected in products of animal origin are likely to pose a consumer health risk. Moreover, EFSA calculated an indicative exposure to TDMs based on mefentrifluconazole uses only.

3. Residues in honey

3.1. Nature of residues in honey

Some crops under consideration are classified as melliferous crops according to Technical guidelines on the magnitude of residues in honey (European Commission, 2018) and can be treated with the active substance during flowering. Thus, the potential carry- over of mefentrifluconazole and TDM residues from treated plants to honey has to be further assessed.

Honey is produced by bees from sugary secretions of plants (floral nectar mainly) through regurgitation, enzymatic conversion and water evaporation and followed by storage in the bee hives for a certain time period.

In the absence of specific metabolism studies with honey bees, studies investigating the nature of residues in primary crops and rotational crops and studies investigating the degradation during pasteurisation should be considered to determine the nature of residues in honey (European Commission, 2018). It is likely that the nature of residues in pollen and nectar collected from primary and rotational crops, as well as in honey (resulting from the residues in floral nectar), is the same as in primary and rotational crops.

Considering that sufficient data investigating the metabolic profile in primary and rotational crops and the degradation of the active substance under standard hydrolysis conditions are available, no further information is required for the current application according to the guidelines. However, it would be desirable to further investigate whether enzymatic processes involved in the production of honey occurring in the bee gut or during the storage in the beehive have an impact on the nature of residues in honey.

3.1.1. Analytical methods for enforcement in honey

No method for enforcement of mefentrifluconazole residues in honey was submitted in the context of the current application (Austria, 2022). This is not needed considering that an increase of the existing MRL for mefentrifluconazole in honey, which is currently set at the LOQ of 0.05 mg/kg, is not proposed.

3.1.2. Storage stability of residues in honey

The storage stability of residues of mefentrifluconazole and TDMs in honey samples stored under frozen conditions was investigated in the current MRL application (Austria, 2022). In addition, the storage stability of residues of mefentrifluconazole was also investigated in pollen samples stored under frozen conditions. It was demonstrated that residues of mefentrifluconazole were stable for at least 24 months when stored at −18°C in honey and in pollen; residues of TDMs were stable for at least 9 months when stored at −18°C in honey.

3.1.3. Proposed residue definitions

In the absence of specific metabolism studies on honey, the studies investigating the nature of residues in primary and rotational crops and studies investigating the degradation of the active substance during pasteurisation are considered to derive the residue definitions for honey; the same residue definitions as mentioned for plant commodities are therefore proposed.

3.2. Magnitude of residues in honey

In the context of the current MRL application, the Applicant submitted four independent semi-field tunnel trials conducted with buckwheat as a surrogate crop, to determine the magnitude of the residues of mefentrifluconazole and its triazole metabolites 1,2,4-T, TA, TAA and TLA in honey.

The trials were performed in Germany (three) and Spain (one) in 2021. Each trial consisted of two plots, one treated and one untreated. Buckwheat was treated twice with foliar applications at BBCH 62–65 (during flowering) at a nominal rate of 150 g a.s./ha per application with an interval of 7 days. The residue trials are compliant with the critical GAPs concerning application rate and timing identified in the current application (i.e. for mustard seeds and linseeds [BBCH 13–75], hazelnuts, citrus fruits [BBCH 31–85] and persimmon [BBCH 55–85]). Tunnels were set on the treated and untreated plots and a beehive was introduced in each tunnel. Honey was sampled 8–13 days after last application. Residues were measured in mature or dried honey (water content below 20%). Honey samples were above 20 g.

According to the assessment of the EMS, the methods used are sufficiently validated for the quantification of residues of mefentrifluconazole and the TDMs and are fit for purpose (Austria, 2022). The honey samples of these residue trials were stored under conditions for which the integrity of the samples has been demonstrated. Information on extraction efficiency of the analytical method used for data generation from honey samples is not available. However, since the existing guidance document on the extraction efficiency (European Commission, 2022) cannot be applied for the honey matrix and since no other guidance on how to investigate extraction efficiency in honey is available, the lack of evidence of extraction efficiency is not considered to be a major data gap for the present assessment.

No quantifiable residues of mefentrifluconazole and its TDMs were found in honey samples collected from both untreated and treated plots. Based on the available trials, a modification of the existing MRL for mefentrifluconazole in honey, which is set at the LOQ of 0.05 mg/kg, is not needed. From the intended uses on melliferous crops significant residues in honey are not anticipated.

4. Consumer risk assessment

The consumer risk assessment was performed with revision 3.1 of the EFSA PRIMo (EFSA, 2018a, 2019). This exposure assessment model contains the relevant European food consumption data for different sub-groups of the EU population and allows acute and chronic exposure assessment to be performed according to the internationally agreed methodology (FAO, 2016).

Separate consumer risk assessments were conducted for the parent mefentrifluconazole and the TDMs. EFSA notes that a comprehensive risk assessment, considering all crops in which TDMs might be present from the uses of all pesticides belonging to the class of triazole fungicides has been performed in the framework of the pesticide risk assessment for the TDMs in light of confirmatory data (EFSA, 2018b). An update of this assessment could not be performed in the framework of this opinion, lacking most recent residue data on the occurrence TDMs from the use of other triazole fungicides. Thus, in the present assessment an indicative exposure was calculated for TDMs related to the proposed uses of mefentrifluconazole in the crops under consideration and resulting residues in animal commodities.

The toxicological reference values for mefentrifluconazole (ADI of 0.035 mg/kg bw per day; ARfD of 0.15 mg/kg bw) used in the risk assessment were derived in the framework of the EU pesticides peer review of the active substance (European Commission, 2021a). The toxicological reference values of parent mefentrifluconazole are also applicable to the metabolite M750F022 and its fatty acid conjugates (EFSA, 2018c). Toxicological reference values have been established for each triazole derivative metabolites during the EU peer review of confirmatory data for TDMs (EFSA, 2018b). The reference values for TDMs have been formally taken note by the European Commission (European Commission, 2021a).

- Consumer risk assessment for mefentrifluconazole

The **acute** consumer exposure was calculated considering the intended uses and the residues expected to occur in products of animal origin due to all mefentrifluconazole uses known to EFSA. The calculations were based on the HR or the median residues (STMR) (for bulked commodities) as derived

from supervised residue trials on the crops under consideration or feeding studies (for swine liver and other swine products). For citrus fruits and cucurbits with inedible peel, residues in the pulp were used as input values. CFs for risk assessment were applied to poultry tissues and eggs to consider the contribution of residues of the metabolite M750F022 and its fatty acid conjugates. The short-term exposure did not exceed the ARfD for any of the commodities under consideration, with maximum acute exposure being 54% for spinaches.

EFSA notes that, although according to the internationally agreed methodology for acute risk assessment which is based on HR in the supervised field trials no acute consumer intake concerns were identified, for the intended use on spinaches the safety margin for acute exposure is narrow. If spinaches contain residues at the derived new MRL of 7 mg/kg, an exceedance of the ARfD cannot be excluded as the calculated acute exposure accounts for 105% of the ARfD for children.

The long-term (**chronic**) dietary exposure was calculated based on previous EFSA outputs (EFSA, 2018c, 2020) that was now updated with new residue data from the intended uses on crops, and residues that might be found in products of animal origin due to mefentrifluconazole uses on the basis of a updated livestock dietary burden. Other plant commodities, for which a use is not known to EFSA, were not considered for this chronic exposure assessment. For citrus fruits and cucurbits with inedible peel, residues in the pulp were used as input values. CFs for risk assessment were applied to poultry tissues and eggs to consider the contribution of residues of the metabolite M750F022 and its fatty acid conjugates. No long-term consumer intake concerns were identified for any of the diets included in the EFSA PRIMo, as the estimated maximum long-term dietary intake accounted for up to 15% of the ADI (Dutch toddler diet). More details can be found in Appendix B.5.

- Consumer risk assessment for TDMs

TDMs may be produced by several pesticides belonging to the class of triazole fungicides. In the lack of a comprehensive EU database on TDMs, for this MRL application residues that might arise only from the uses of mefentrifluconazole were taken into consideration. For products of animal origin, the aggregated residue data for TDMs were used for calculation (for details see Section 2.2 and Appendix B.2.2). Therefore, acute and chronic consumer risk assessment presented hereafter is considered indicative. Results are also affected by uncertainties regarding the storage stability of 1,2,4-T and TA in plant commodities.

The **acute** consumer exposure was performed considering the intended uses of mefentrifluconazole and the residues expected in products of animal origin, due to mefentrifluconazole uses. The calculations were based on the HR or the median residues (STMR) (for bulked commodities) as derived from the residue data submitted (for plant commodities) or from livestock feeding studies (for animal commodities). For citrus fruits and cucurbits with inedible peel, residues in the pulp were used as input values. The short-term exposure did not exceed the respective ARfD for any of the commodities under consideration. The maximum acute exposure was calculated for TA residues in pistachios at 75% of the ARfD and for 1,2,4-T in cow milk at 7% of the ARfD. Acute exposure from TAA and TLA residues in commodities under assessment was insignificant, below 1% of the ARfD.

For the **long-term** (chronic) dietary exposure calculation the STMR values for TDMs from previous EFSA outputs (EFSA, 2018c, 2020) were included in the calculation and updated with residue data from the intended uses of the present MRL application. For citrus fruits and cucurbits with inedible peel, residues in the pulp were used as input values. The contribution of commodities where no GAP has been reported to EFSA were not included in the calculation. No chronic intake concerns were identified. Chronic exposure for Dutch toddler accounted for up to 2% of the ADI for TA, up to 0.3% of the ADI for TAA, up to 0.8% of the ADI for TLA and for up to 19% of the ADI for 1,2,4-T. EFSA notes that this exposure does not take into consideration the contribution of TDMs from sources other than mefentrifluconazole. A comprehensive cumulative risk assessment for TDM residues covering all triazole fungicides should be performed once a complete database of residues for all authorised EU uses and import tolerances is available.

EFSA concluded that the short-term and the long-term intake of mefentrifluconazole residues and TDMs resulting from the intended uses of mefentrifluconazole on the crops under consideration is unlikely to present a risk to consumer health. It is noted that the consumer risk assessment for the TDMs is indicative, since a comprehensive database for all authorised uses on triazole fungicides is not yet available.

The summary of the input values used in the exposure calculations is provided in Appendix D.3. The results of the calculations are summarised in Appendix B.3.

For further details on the exposure calculations, a screenshot of the Report sheet of the PRIMo is presented in Appendix C.

5. Conclusion and Recommendations

The data submitted in support of this MRL application were found to be sufficient to derive MRL proposals for all plant commodities under consideration (for details see Appendix B.5). The updated livestock dietary burden indicated that the existing MRLs for mefentrifluconazole would need to be raised for swine liver and other products of swine.

EFSA concluded that the proposed uses of mefentrifluconazole will not result in a consumer exposure exceeding the toxicological reference values and therefore is unlikely to pose a risk to consumers' health. However, EFSA noted a narrow safety margin related to acute exposure from the intake of spinaches. Hence, if residues of mefentrifluconazole occur in spinaches at the derived MRL value of 7 mg/kg, the dietary exposure of certain consumers may exceed the ARfD under certain conditions (e.g. consumption of a large portion of the product without washing or processing which would lead to a reduction of the residues in the product). Risk managers should decide whether the safety margin of the exposure assessment based on the HR is sufficient, considering that in reality residues in individual units/lot consumed may occur at or above the proposed MRL might occur.

In the present assessment an indicative exposure was calculated for TDMs related to the proposed uses of mefentrifluconazole in the crops under consideration and resulting residues in animal commodities, which is affected by uncertainties regarding the storage stability of certain metabolites in plant commodities. No risk for consumers was identified. The risk assessment for the TDMs is indicative, since a comprehensive long-term risk assessment including all triazole fungicides and all authorised uses in all relevant crops cannot yet be performed.

The MRL recommendations are summarised in Appendix B.5.

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Abbreviations

a.s.	active substance
ADI	acceptable daily intake
AR	applied radioactivity
ARfD	acute reference dose
BBCH	growth stages of mono- and dicotyledonous plants
bw	body weight
CAC	Codex Alimentarius Commission
CF	conversion factor for enforcement to risk assessment residue definition
CXL	Codex maximum residue limit
DALA	days after last application
DAR	draft assessment report
DAT	days after treatment
DM	dry matter
DT_{90}	period required for 90% dissipation (define method of estimation)
EDI	estimated daily intake
EMS	evaluating Member State
eq	residue expressed as a.s. equivalent
FAO	Food and Agriculture Organization of the United Nations
GAP	Good Agricultural Practice
GC–MS	gas chromatography with mass spectrometry
GS	growth stage
HPLC	high performance liquid chromatography
HPLC–MS/MS	high performance liquid chromatography with tandem mass spectrometry
HR	highest residue
IEDI	international estimated daily intake
IESTI	international estimated short-term intake
ILV	independent laboratory validation
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC–MS/MS	liquid chromatography with tandem mass spectrometry detector
LOQ	limit of quantification
MRL	maximum residue level
NEU	northern Europe
OECD	Organisation for Economic Co-operation and Development
PBI	plant back interval
PF	processing factor
PHI	pre-harvest interval
P_{ow}	partition coefficient between n-octanol and water
PRIMo	(EFSA) Pesticide Residues Intake Model
QuEChERS	Quick, Easy, Cheap, Effective, Rugged, and Safe (analytical method)
RA	risk assessment
RAC	raw agricultural commodity
RD	residue definition
RMS	rapporteur Member State
SC	suspension concentrate
SEU	southern Europe
STMR	supervised trials median residue
TRR	total radioactive residue
WHO	World Health Organization

Appendix A – Summary of intended GAPs triggering the amendment of existing EU MRLs

Crop and/or situation (incl. EPPO code)	NEU, SEU, MS or country	F G or I[a]	Pests or group of pests controlled	Formulation		Application				Application rate per treatment				PHI (days)[d]	Remarks
				Type[b]	Conc. a.s. (g/L)	Method kind	Range of growth stages & season[c]	Number min–max	Interval between application (days) min–max	kg a.s./hL min–max	Water (L/ha) min–max	Rate min–max	Unit		
Critical outdoor GAPs for Northern and Central Europe															
Carrots (DAUCS)	1) DK, SE, FI, LT, LV, EE 2) PL, CZ, DE, NL, AT, BE, HU, RO, SI	F	*1) Alternaria dauci* (ALTEDA) *Alternaria radicina* (ALTERA) *Erysiphe heraclei* (ERYSHE) *2) Alternaria dauci* (ALTEDA) *Alternaria radicina* (ALTERA) *Erysiphe heraclei* (ERYSHE) *Stemphyllium sp.* (STEMPS)	SC	75	Foliar treatment – broadcast spraying	BBCH 12–49	1–3	7–21	0.011–0.057	200–1,000	0.113	kg a.s./ha	3	
Head cabbages (3HCAC), Pointed head cabbages (BRSOL), Red cabbages (BRSOR), Savoy cabbages (BRSOS), White cabbages (BRSOH)	DK, SE, FI, LT, LV, EE PL, CZ, DE, NL, AT, BE, HU, RO, SI	F	*Alternaria sp.* (ALTESP) *Neopseudocercosporella brassicae* (MYCOBR) *Erysiphe sp.* (ERYSSP)	SC	75	Foliar treatment – broadcast spraying	BBCH 12–49	1–3	10	0.011–0.057	200–1,000	0.113	kg a.s./ha	14	
Strawberries (FRAAN)	DK, SE, FI, LT, LV, EE, PL, CZ, DE, NL, AT, BE, HU, RO, SI, PL	F	*Podosphaera aphanis* (PODOAP) *Podosphaera sp.* (PODOSP) *Leveillula sp.* (LEVESP) *Leveillula sp.* (LEVESP)	SC	75	Foliar treatment – broadcast spraying	BBCH 14–89	1–3	7	0.011–0.057	200–1,000	0.113	kg a.s./ha	1	

Crop and/or situation (incl. EPPO code)	NEU, SEU, MS or country	F G or I[a]	Pests or group of pests controlled	Formulation		Application				Application rate per treatment				PHI (days)[d]	Remarks
				Type[b]	Conc. a.s. (g/L)	Method kind	Range of growth stages & season[c]	Number min–max	Interval between application (days) min–max	kg a.s./hL min–max	Water (L/ha) min–max	Rate min–max	Unit		
Tomato (LYPES); Eggplant (SOLME)	DK, SE, FI, LT, LV, EE, PL, CZ, DE, NL, AT, BE, HU, RO, SI	F	*Alternaria sp*. (ALTERSP) *Leveillula sp*. (LEVESP) *Oidium neolycopersici* (OIDINL)	SC	75	Foliar treatment – broadcast spraying	BBCH 14–89	1–3	7	0.011–0.028	400–1,000	0.113	kg a.s./ha	3	
Root vegetable plants (NNNVW) Tuberous plants (NNNZK) – root and tuber vegetables except sugar beet: Beetroot (BEAVD); Celeriac (APUGR); Turnip-rooted celery (APUGR); Horseradish (ARWLA); Jerusalem artichoke (HELTU); Parsnips (PAVSA); Radishes (RAPSR); Salsify (TROPS); Swedes (BRSNA, BRSNN); Turnips (BRSRR)	DK, SE, FI, LT, LV, EE, PL, CZ, DE, NL, AT, BE, IE, HU, RO, SI, SK	F	*Cercospora sp*. (CERCSP) *Alternaria sp*. (ALTESP) *Erysiphe sp*. (ERYSP) *Leveillula sp*. (LEVESP) *Ramularia sp. (*RAMUSP)	SC	75	Foliar treatment – broadcast spraying	BBCH 12–49	1–3	7	0.057	200–1,000	0.113	kg a.s./ha	3	
Brussels sprouts (BRSOF)	DK, SE, FI, LT, LV, EE, PL, CZ, DE, NL, AT, BE, HU, RO, SI	F	*Alternaria sp*. (ALTESP) *Neopseudocercosporella brassicae* (MYCOBR) *Erysiphe sp*. (ERYSSP)	SC	75	Foliar treatment – broadcast spraying	BBCH 12–49	1–3	10	0.011–0.057	200–1,000	0.113	kg a.s./ha	14	

Crop and/or situation (incl. EPPO code)	NEU, SEU, MS or country	F G or I[a]	Pests or group of pests controlled	Formulation		Application				Application rate per treatment				PHI (days)[d]	Remarks
				Type[b]	Conc. a.s. (g/L)	Method kind	Range of growth stages & season[c]	Number min–max	Interval between application (days) min–max	kg a.s./hL min–max	Water (L/ha) min–max	Rate min–max	Unit		
Broccoli (BRSOK); Cauliflower (BRSOB)	DK, SE, FI, LT, LV, EE, PL, CZ, DE, NL, AT, BE, HU, RO, SI	F	*Alternaria sp*. (ALTESP) *Neopseudocercosporella brassicae* (MYCOBR) *Erysiphe sp*. (ERYSSP)	SC	75	Foliar treatment – broadcast spraying	BBCH 12–49	1–3	7	0.011–0.057	200–1,000	0.113	kg a.s./ha	14	
Blueberries (VACMY), *Vaccinium angustifolium* (VACAN), *Vaccinium corymbosum* (VACCO), *Vaccinium formosum* (VACCO), *Vaccinium virgatum* (VACVG); Cranberries *Vaccinium macrocarpon* (VACMA); Currants (black, red and white) *Ribes nigrum* (RIBNI) Fruits with stems (currants) *Ribes rubrum* (RIBRU); Gooseberries (green, red and yellow) *Ribes uva-crispa* (RIBUC);	DK, SE, FI, LT, LV, EE, CZ, DE, NL, PL, RO, SI, BE, AT	F	*Powdery Mildew* (OIDISP)	SC	75	Foliar treatment – broadcast spraying	BBCH 19–89	1–3	7	0.011–0.057	200–1,000	0.113	kg a.s./ha	1	

Crop and/or situation (incl. EPPO code)	NEU, SEU, MS or country	F G or I[a]	Pests or group of pests controlled	Formulation		Application				Application rate per treatment				PHI (days)[d]	Remarks
				Type[b]	Conc. a.s. (g/L)	Method kind	Range of growth stages & season[c]	Number min–max	Interval between application (days) min–max	kg a.s./hL min–max	Water (L/ha) min–max	Rate min–max	Unit		
Rose hips *Rosa canina* (ROSCN) *Rosa majalis* (ROSMJ) *Rosa rugosa* (ROSRG); Mulberries (black and white) *Morus alba* (MORAL) *Morus nigra* (MORNI); Azarole/ Mediterranean medlars *Crataegus azarolus* (CSCAZ); Elderberries *Sambucus nigra* (SAMNI)															
White mustard *Sinapis alba* (SINAL), Brown mustard *Brassica juncea* (BRSJU), Black mustard *Brassica nigra* (BRSNI); Common flax *Linum usitatissimum* (LIUUT); Opium poppy *Papaver somniferum* (PAPSO); Gold of Pleasure	AT, BE, DE, PL, NL, IE, DK, SE, FI, LT, EE, LV, HU, CZ, RO, SK, SI	F	*Sclerotinia sclerotiorum* (SCLESC) *Alternaria spp*. (ALTESP)	SC	75	Foliar treatment – broadcast spraying	BBCH 13–75	1–2	14	0.150	100–400	0.150 (max 0.263/ season)	kg a.s./ ha	F	BBCH 13–18 max 0.75–1.5 L fp/ha; BBCH 31–55 max 0.75–1.5 L fp/ha; BBCH 57–75 max 1.0–2.0 L fp/ha F is defined by latest application timing.

Crop and/or situation (incl. EPPO code)	NEU, SEU, MS or country	F G or I[a]	Pests or group of pests controlled	Formulation		Application				Application rate per treatment				PHI (days)[d]	Remarks
				Type[b]	Conc. a.s. (g/L)	Method kind	Range of growth stages & season[c]	Number min–max	Interval between application (days) min–max	kg a.s./hL min–max	Water (L/ha) min–max	Rate min–max	Unit		
Camelina sativa (CMASA)															
Beans (without pods) *Phaseolus vulgaris* (VICFX)	DE FR	F	*Uromyces viciae-fabae* (UROMVF) *Ascochyta sp.* (ASCOSP) *Botryotinia fuckeliana* (BOTRCI) *Botrytis fabae* (BOTRFA)	SC	75	Foliar treatment – broadcast spraying	BBCH 50–72	1–2	10	0.025–0.098	100–400	0.098	kg a.s./ha	F	F is defined by latest application timing.
Peas (without pods) *Pisum sativum* (PIBSA)	DE	F	*Uromyces pisi* (UROMPS) *Ascochyta sp.* (ASCOSP) *Botryotinia fuckeliana* (BOTRCI)	SC	75	Foliar treatment – broadcast spraying	BBCH 50–72	1–2	10	0.025–0.098	100–400	0.098	kg a.s./ha	F	F is defined by latest application timing.
Soybean (GLXMA)	HU, RO, SK	F	*Peronospora manshurica* (PEROMA) *Sclerotinia sclerotiorum* (SCLESC) *Septoria glycines* (SEPTGL)	SC	75	Foliar treatment – broadcast spraying	BBCH 50–65	1–2	10	0.015–0.098	100–400	0.06–0.098	kg a.s./ha	F	F is defined by latest application timing.
Pulses Beans *Phaseolus vulgaris* (PHSVX); Lentils *Lens culinaris*; syn: *Lens esculenta* (LENCU); Peas *Pisum sativum*; Lupins/lupini beans (LUPSS), *Lupinus albus subsp. Albus* (LUPAL),	DE	F	*Ascochyta sp.* (ASCOSP)	SC	75	Foliar treatment – broadcast spraying	BBCH 50–72	1–2	10	0.025–0.098	100–400	0.098	kg a.s./ha	F	F is defined by latest application timing.

Crop and/or situation (incl. EPPO code)	NEU, SEU, MS or country	F G or I[a]	Pests or group of pests controlled	Formulation		Application				Application rate per treatment				PHI (days)[d]	Remarks
				Type[b]	Conc. a.s. (g/L)	Method kind	Range of growth stages & season[c]	Number min–max	Interval between application (days) min–max	kg a.s./hL min–max	Water (L/ha) min–max	Rate min–max	Unit		
Lubpinus angustifolius (LUPAN), *Lupinus luteus* (LUPLU), *Lupinus mutabilis* (LUPMU)															
Cucurbitaceae with edible peel Cucumber/ Gherkin (CUMSA), Zucchini (CUUPG)	PL, CZ, DE, NL, AT, BE, HU, RO, SI	F	*Erysiphe cichoracearum*/ *Golovinomyces cichoracearum* (ERYSCI) *Sphaerotheca fuliginea*/ *Podosphaera xanthii* (SPHRFU/PODOXA) *Stagonosporopsis cucurbitaceearum* (DIDYBR) *Alternaria sp*. (ALTESP)	SC	75	Foliar treatment – broadcast spraying	BBCH 14–89	1–3	7	0.011–0.028	400–1,000	0.113	kg a.s./ha	3	
Hops (HUMLU)	DE, CZ, AT, BE, LU, PL, SI	F	*Podosphaera macularis* (SPHRMA)	SC	75	Foliar treatment – broadcast spraying	BBCH 55–85	1–2	8–10	0.005–0.007	2,200–3,300	0.150	kg a.s./ha	14	
Pistachio (PIAVE)	RO	F	*Botryosphaeria dothidea* (BOTSDO)	SC	75	Foliar treatment – broadcast spraying	BBCH 19–79	1–2	7	0.008–0.1	150–2,000	0.15	kg a.s./ha	28	
Hazelnuts (CYLAV)	RO	F	*Grey necrosis disease complex* (ALTESP+ FUSASP+ COLLSP+ CLADSP) *Sphaceloma coryli* (SPHACO) *Monilia spp*. (MONISP) *Phyllactinia corylea* (PHYLGU)	SC	75	Foliar treatment – broadcast spraying	BBCH 19–79	1–2	7	0.008–0.1	150–2,000	0.15	kg a.s./ha	28	

Crop and/or situation (incl. EPPO code)	NEU, SEU, MS or country	F G or I[a]	Pests or group of pests controlled	Formulation		Application				Application rate per treatment				PHI (days)[d]	Remarks
				Type[b]	Conc. a.s. (g/L)	Method kind	Range of growth stages & season[c]	Number min–max	Interval between application (days) min–max	kg a.s./hL min–max	Water (L/ha) min–max	Rate min–max	Unit		
Critical outdoor GAPs for Southern Europe															
Beans (without pods) *Phaseolus vulgaris* (VICFX)	FR, IT, ES, GR	F	*Uromyces viciae-fabae* (UROMVF) *Ascochyta sp.* (ASCOSP) *Botryotinia fuckeliana* (BOTRCI)	SC	75	Foliar treatment – broadcast spraying	BBCH 50–72	1–2	10	0.025–0.098	100–400	0.098	kg a.s./ha	F	F is defined by latest application timing.
Peas (without pods) *Pisum sativum* (PIBSA)	FR, IT, ES, GR	F	*Uromyces pisi* (UROMPS) *Ascochyta sp.* (ASCOSP) *Botryotinia fuckeliana* (BOTRCI)	SC	75	Foliar treatment – broadcast spraying	BBCH 50–72	1–2	10	0.025–0.098	100–400	0.098	kg a.s./ha	F	F is defined by latest application timing.
Cucurbitaceae with edible peel Cucumber/ Gherkin (CUMSA); Zucchini (CUUPG)	FR, GR, IT, ES, PT, CY, BG, HR	F	*Erysiphe cichoracearum/ Golovinomyces cichoracearum* (ERYSCI) *Sphaerotheca fuliginea/ Podosphaera xanthii* (SPHRFU/PODOXA), *Stagonosporopsis cucurbitaceearum* (DIDYBR) *Alternaria sp.* (ALTESP)	SC	75	Foliar treatment – broadcast spraying	BBCH 14–89	1–3	7	0.011–0.028	400–1,000	0.113	kg a.s./ha	3	
Cucurbits with inedible peel Melons *Cucumis melo*; *Cucumis melo subsp. melo var. cantaloupensis* (CUMME, CUMMC); Pumpkins *Cucurbita maxima* (CUUMA);	FR, GR, IT, ES, PT, CY, BG, HR	F	*Erysiphe cichoracearum/ Golovinomyces cichoracearum* (ERYSCI) *Sphaerotheca fuliginea/ Podosphaera xanthii* (SPHRFU/ PODOXA), *Stagonosporopsis cucurbitaceearum* (DIDYBR)	SC	75	Foliar treatment – broadcast spraying	BBCH 14–89	1–3	7	0.011–0.028	400–1,000	0.113	kg a.s./ha	3	

Crop and/or situation (incl. EPPO code)	NEU, SEU, MS or country	F G or I[a]	Pests or group of pests controlled	Formulation		Application				Application rate per treatment				PHI (days)[d]	Remarks
				Type[b]	Conc. a.s. (g/L)	Method kind	Range of growth stages & season[c]	Number min–max	Interval between application (days) min–max	kg a.s./hL min–max	Water (L/ha) min–max	Rate min–max	Unit		
Watermelons *Citrullus vulgaris*; syn. *Citrullus lanatus* (CITLA)															
Tomato (LYPES); Eggplant (SOLME)	FR, GR, IT, ES, PT, CY	F	*Alternaria sp*. (ALTERSP) *Leveillula sp*. (LEVESP) *Oidium neolycopersici* (OIDINL)	SC	75	Foliar treatment – broadcast spraying	BBCH 14–89	1–3	7	0.011–0.028	400–1,000	0.113	kg a.s./ha	3	
Olives, table and oil production (OLVEU)	1) IT, GR, ES, FR, PT, CY, MT 2) GR	F	1) *Spilocea oleagina* (CYCLOL) 2) *Colletotrichum acutatum* (COLLAC)	SC	75	Foliar treatment – broadcast spraying	BBCH 15–85	1–2	10	0.01–0.015	1,000–1,500	0.150	kg a.s./ha	21	
Citrus crops: Limes (*Citrus aurantiifolia* (CIDAF)); Lemons (*Citrus limon* (CIDLI)); Grapefruits (*Citrus paradisi* (CIDPA)); Mandarins (*Citrus reticulata* (CIDRE)); Oranges (*Citrus sinensis* (CIDSI))	IT, GR, ES, FR, PT, CY, MT	F	*Alternaria spp*. (ALTESP) *Mycosphaerella citri* (MYCOCI)	SC	75	Foliar treatment – broadcast spraying	BBCH 31–85	1–2	10	0.005–0.01	1,500–3,000	0.150	kg a.s./ha	14	
Pulses: Beans *Phaseolus vulgaris* (PHSVX); Lentils *Lens culinaris*; syn: *Lens esculenta* (LENCU); Peas *Pisum sativum*; Lupins/lupini beans (LUPSS) *Lupinus albus subsp. Albus* (LUPAL),	FR, IT, ES, GR	F	*Ascochyta sp*. (ASCOSP)	SC	75	Foliar treatment – broadcast spraying	BBCH 50–72	1–2	10	0.025–0.098	100–400	0.098	kg a.s./ha	F	F is defined by latest application timing.

Crop and/or situation (incl. EPPO code)	NEU, SEU, MS or country	F G or I[a]	Pests or group of pests controlled	Formulation		Application				Application rate per treatment				PHI (days)[d]	Remarks
				Type[b]	Conc. a.s. (g/L)	Method kind	Range of growth stages & season[c]	Number min–max	Interval between application (days) min–max	kg a.s./hL min–max	Water (L/ha) min–max	Rate min–max	Unit		
Lubpinus angustifolius (LUPAN), *Lupinus luteus* (LUPLU), *Lupinus mutabilis* (LUPMU)															
Head cabbages (3HCAC) Pointed head cabbages (BRSOL) Red cabbages (BRSOR) Savoy cabbages (BRSOS) White cabbages (BRSOH)	FR, IT, ES, PT, BG, HR	F	*Alternaria sp*. (ALTESP) *Neopseudocercosporella brassicae* (MYCOBR) *Erysiphe sp*. (ERYSSP)	SC	75	Foliar treatment – broadcast spraying	BBCH 12–49	1–3	10	0.011–0.057	200–1,000	0.113	kg a.s./ha	7	
Globe artichoke (CYUSC)	GR, IT, ES, PT, CY, BG, HR	F	*Erysiphe cichoracearum/ Golovinomyces cichoracearum* (ERYSCI) *Leveillula sp*. (LEVESP) *Alternaria sp*. (ALTESP)	SC	75	Foliar treatment – broadcast spraying	BBCH 15–59	1–3	7	0.011–0.057	200–1,000	0.113	kg a.s./ha	3	
Celery (APUGD); Florence fennel (FOEVU); Cardoon (CYUCA); Rhubarb (RHERH)	FR, GR, IT, ES, PT, CY, BG, HR	F	*Septoria sp*. (SEPTSP) *Alternaria sp*. (ALTESP) *Ramularia sp*. (RAMUSP) *Eryisphe sp*. (ERYSSP)	SC	75	Foliar treatment – broadcast spraying	BBCH 21–49	1–3	14	0.014–0.023	500–800	0.113	kg a.s./ha	7	
Spinaches (SPQOL); Aromatic herbs and edible flowers: Chervil (ANRCE); Chives – Leaves and buds (ALLSC); Celery leaves (APUGS);	GR, IT, ES, PT, CY, BG, HR	F	*Cladosporium sp*. (CLADSP) *Colletotrichum sp*. (COLLSP) *Cercospora sp*. (CERCSP) *Stemphyllium sp*. (STEMSP)	SC	75	Foliar treatment – broadcast spraying	BBCH 10–49	1	n.a.	0.014–0.057	200–800	0.113	kg a.s./ha	3	

Crop and/or situation (incl. EPPO code)	NEU, SEU, MS or country	F G or I[a]	Pests or group of pests controlled	Formulation		Application				Application rate per treatment				PHI (days)[d]	Remarks
				Type[b]	Conc. a.s. (g/L)	Method kind	Range of growth stages & season[c]	Number min–max	Interval between application (days) min–max	kg a.s./hL min–max	Water (L/ha) min–max	Rate min–max	Unit		
Parsley (PARCR); Sage (SALOF); Rosemary (RMSOF); Thyme (THYVU); Basil and edible flowers (OCIBA); Laurel/bay leaves (LURNO); Tarragon (ARTDR)															
Baby leaf crops	GR, IT, ES, PT, CY, BG, HR	F	*Cladosporium sp.* (CLADSP) *Colletotrichum sp.* (COLLSP) *Cercospora sp.* (CERCSP) *Stemphyllium sp.* (STEMSP)	SC	75	Foliar treatment – broadcast spraying	BBCH 10–19	1	n.a.	0.014–0.057	200–800	0.113	kg a.s./ha	3	
Cauliflower (BRSOB)	IT, ES, PT, BG, HR	F	*Alternaria sp.* (ALTESP) *Neopseudocercosporella brassicae* (MYCOBR) *Erysiphe sp.* (ERYSSP)	SC	75	Foliar treatment – broadcast spraying	BBCH 12–49	1–3	7	0.011–0.057	200–1,000	0.113	kg a.s./ha	7	
Broccoli (BRSOK)	GR, IT, ES, PT, CY, BG, HR	F	*Alternaria sp.* (ALTESP) *Neopseudocercosporella brassicae* (MYCOBR) *Erysiphe sp.* (ERYSSP)	SC	75	Foliar treatment – broadcast spraying	BBCH 12–49	1–3	7	0.011–0.057	200–1,000	0.113	kg a.s./ha	7	
Hops (HUMLU)	FR	F	*Podosphaera macularis* (SPHRMA)	SC	75	Foliar treatment – broadcast spraying	BBCH 55–85	1–2	8	0.005–0.007	2,200–3,300	0.150	kg a.s./ha	14	
Persimmon (DOSKA)	ES, IT, GR	F	*Mycosphaerella nawae* (MYCONA)	SC	75	Foliar treatment – broadcast spraying	BBCH 55–85	1–2	7	0.008–0.1	150–2,000	0.150	kg a.s./ha	28	

Crop and/or situation (incl. EPPO code)	NEU, SEU, MS or country	F G or I[a]	Pests or group of pests controlled	Formulation		Application				Application rate per treatment				PHI (days)[d]	Remarks
				Type[b]	Conc. a.s. (g/L)	Method kind	Range of growth stages & season[c]	Number min–max	Interval between application (days) min–max	kg a.s./hL min–max	Water (L/ha) min–max	Rate min–max	Unit		
Blueberries (VACMY) *Vaccinium angustifolium* (VACAN), *Vaccinium corymbosum* (VACCO), *Vaccinium formosum* (VACCO), *Vaccinium virgatum* (VACVG); Cranberries *Vaccinium macrocarpon* (VACMA); Currants (black, red and white) *Ribes nigrum* (RIBNI); Fruits with stems *Ribes rubrum* (RIBRU); Gooseberries (green, red and yellow) *Ribes uva-crispa* (RIBUC); Rose hips *Rosa canina* (ROSCN) *Rosa majalis* (ROSMJ) *Rosa rugosa* (ROSRG); Mulberries (black and white) *Morus alba* (MORAL)	FR	F	*Powdery Mildew* (OIDISP)	SC	75	Foliar treatment – broadcast spraying	BBCH 19–89	1–3	7	0.011–0.057	200–1,000	0.113	kg a.s./ha	1	

Crop and/or situation (incl. EPPO code)	NEU, SEU, MS or country	F G or I[a]	Pests or group of pests controlled	Formulation		Application				Application rate per treatment				PHI (days)[d]	Remarks
				Type[b]	Conc. a.s. (g/L)	Method kind	Range of growth stages & season[c]	Number min–max	Interval between application (days) min–max	kg a.s./hL min–max	Water (L/ha) min–max	Rate min–max	Unit		
Morus nigra (MORNI); Azarole/ Mediterranean medlars *Crataegus azarolus* (CSCAZ); Elderberries *Sambucus nigra* (SAMNI)															
Pistachios (PIAVE)	BG, HR, FR, GR, IT, ES, PT	F	*Botryosphaeria dothidea* (BOTSDO)	SC	75	Foliar treatment – broadcast spraying	BBCH 19–79	1–2	7	0.008–0.1	150–2,000	0.15	kg a.s./ha	28	
Hazelnuts (CYLAV)	BG, HR, FR, GR, IT, ES, PT	F	*Grey necrosis disease complex* (ALTESP+ FUSASP+ COLLSP+ CLADSP) *Sphaceloma coryli* (SPHACO) *Monilia spp*. (MONISP) *Phyllactinia corylea* (PHYLGU)	SC	75	Foliar treatment – broadcast spraying	BBCH 19–79	1–2	7	0.008–0.1	150–2,000	0.15	kg a.s./ha	28	
Beetroots (BEAVD)	FR	F	*Cercospora beticola* (CERCBE) *Erysiphe betae* (ERYSBE)	SC	75	Foliar treatment – broadcast spraying	BBCH 12–49	1–3	7	0.011–0.057	200–1,000	0.113	kg a.s./ha	28	
White mustard *Sinapis alba* (SINAL), Brown mustard *Brassica juncea* (BRSJU), Black mustard *Brassica nigra* (BRSNI);	FR, BG, HR	F	*Sclerotinia sclerotiorum* (SCLESC) *Alternaria spp*. (ALTESP)	SC	75	Foliar treatment – broadcast spraying	BBCH 13–75	1–2	14	0.150	100–400	0.150 (max 0.263/ season)	kg a.s./ha	F	BBCH 13–18 max 1.5 L fp/ ha BBCH 31–55 max 1.5 L fp/ ha

Crop and/or situation (incl. EPPO code)	NEU, SEU, MS or country	F G or I[a]	Pests or group of pests controlled	Formulation		Application				Application rate per treatment				PHI (days)[d]	Remarks
				Type[b]	Conc. a.s. (g/L)	Method kind	Range of growth stages & season[c]	Number min–max	Interval between application (days) min–max	kg a.s./hL min–max	Water (L/ha) min–max	Rate min–max	Unit		
Common flax *Linum usitatissimum* (LIUUT); Opium poppy *Papaver somniferum* (PAPSO); Gold of Pleasure *Camelina sativa* (CMASA)															BBCH 57–75 max 2.0 L fp/ha F is defined by latest application timing.
Rucola (ERUVE)	GR, IT, ES, PT, CY, BG, HR	F	*Alternaria sp*. (ALTESP)	SC	75	Foliar treatment – broadcast spraying	BBCH 10–49	1	n.a.	0.014–0.057	200–800	0.113	kg a.s./ha	3	
Aromatic herbs and edible flowers: Chervil (ANRCE); Chives – Leaves and buds (ALLSC); Celery leaves (APUGS); Parsley (PARCR); Sage (SALOF); Rosemary (RMSOF); Thyme (THYVU); Basil and edible flowers (OCIBA); Laurel/bay leaves (LURNO); Tarragon (ARTDR)	FR	F	*Cladosporium sp*. (CLADSP) *Colletotrichum sp*. (COLLSP) *Cercospora sp*. (CERCSP) *Stemphyllium sp*. (STEMSP)	SC	75	Foliar treatment – broadcast spraying	BBCH 10–49	1	n.a.	0.014–0.057	200–800	0.113	kg a.s./ha	3	
Critical indoor GAPs for Europe															
Pepper (CPSAN)	DK, SE, FI, LT, LV, EE, PL, CZ, DE, NL, AT, BE, HU,	G	*Alternaria sp*. (ALTESP) *Leveillula sp*. (LEVESP)	SC	75	Foliar treatment – broadcast spraying	BBCH 14–89	1–3	7	0.008–0.028	400–1,500	0.113	kg a.s./ha	3	

Crop and/or situation (incl. EPPO code)	NEU, SEU, MS or country	F G or I[a]	Pests or group of pests controlled	Formulation		Application				Application rate per treatment				PHI (days)[d]	Remarks
				Type[b]	Conc. a.s. (g/L)	Method kind	Range of growth stages & season[c]	Number min–max	Interval between application (days) min–max	kg a.s./hL min–max	Water (L/ha) min–max	Rate min–max	Unit		
	RO, SI, SK, FR, GR, IT, ES, PT, CY, BG, HR														
Strawberries (FRAAN)	FR, GR, IT, ES, PT, CY, BG, HR	walk in tun-nel (pro-tec-ted)	*Podosphaera aphanis* (PODOAP) *Podosphaera sp.* (PODOSP) *Leveillula sp.* (LEVESP)	SC	75	Foliar treatment – broadcast spraying	BBCH 14–89	1–3	7	0.006–0.057	200–2,000	0.113	kg a.s./ha	1	
Tomato (LYPES); Eggplant (SOLME)	DK, SE, FI, LT, LV, EE, PL, CZ, DE, NL, AT, BE, HU, RO, SI, SK, FR, GR, IT, ES, PT, CY, BG, HR	G	*Alternaria sp.* (ALTESP) *Leveillula sp.* (LEVESP) *Oidium neolycopersici* (OIDINL)	SC	75	Foliar treatment – broadcast spraying	BBCH 14–89	1–3	7	0.008–0.028	400–1,500	0.113	kg a.s./ha	3	
Cucurbitaceae with edible peel: Cucumber/Gherkin (CUMSA); Zucchini (CUUPG)	NL, GR, IT, ES, PT, CY	G	*Erysiphe cichoracearum*/ *Golovinomyces cichoracearum* (ERYSCI) *Sphaerotheca fuliginea*/ *Podosphaera xanthii* (SPHRFU/PODOXA), *Stagonosporopsis cucurbitacearum* (DIDYBR) *Alternaria sp.* (ALTESP)	SC	75	Foliar treatment – broadcast spraying	BBCH 14–89	1–3	7	0.008–0.028	400–1,500	0.113	kg a.s./ha	1	

Crop and/or situation (incl. EPPO code)	NEU, SEU, MS or country	F G or I[a]	Pests or group of pests controlled	Formulation		Application				Application rate per treatment				PHI (days)[d]	Remarks
				Type[b]	Conc. a.s. (g/L)	Method kind	Range of growth stages & season[c]	Number min–max	Interval between application (days) min–max	kg a.s./hL min–max	Water (L/ha) min–max	Rate min–max	Unit		
Cucurbits with inedible peel: Melons *Cucumis melo*; *Cucumis melo subsp. melo var. cantaloupensis* (CUMME, CUMMC); Pumpkins *Cucurbita maxima* (CUUMA); Watermelons *Citrullus vulgaris*; syn. *Citrullus lanatus* (CITLA)	DK, SE, FI, LT, LV, EE, PL, CZ, DE, NL, AT, BE, HU, RO, SI, SK, FR, GR, IT, ES, PT, CY, BG, HR	G	*Erysiphe cichoracearum*/ *Golovinomyces cichoracearum* (ERYSCI) *Sphaerotheca fuliginea*/ *Podosphaera xanthii* (SPHRFU/PODOXA), *Stagonosporopsis cucurbitacearum* (DIDYBR)	SC	75	Foliar treatment – broadcast spraying	BBCH 14–89	1–3	7	0.008–0.028	400–1,500	0.113	kg a.s./ha	3	

MRL: maximum residue level; GAP: Good Agricultural Practice; NEU: northern European Union; SEU: southern European Union; MS: Member State; a.s.: active substance; SC: suspension concentrate; fp: formulated product.

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

(b): CropLife International Technical Monograph no 2, 7th Edition. Revised March 2017. Catalogue of pesticide formulation types and international coding system.

(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.

Appendix B – List of end points

B.1. Residues in plants

B.1.1. Nature of residues and analytical methods for enforcement purposes in plant commodities

B.1.1.1. Metabolism studies, analytical methods and residue definitions in plants

Primary crops (available studies)	**Crop groups**	**Crops**	**Applications**	**Sampling (DALA)**	**Comment/Source**
	Fruit crops	Grape	Foliar, 3 × 150 g a.s./ha (10-day interval)	12	Radiolabelled active substance: Chlorophenyl-U-^{14}C/ Chlorophenyl-1-^{13}C- MFZ and triazole-3(5)-^{14}C/Triazole-3 (5)-^{13}C-MFZ (EFSA, 2018c)
	Cereal/grass crops	Wheat	Foliar, 2 × 150 g a.s./ha (at BBCH 49, 69; 21-day-interval)	35	
	Pulses/ oilseeds	Soybean	Foliar, 3 × 125 g a.s./ha (at BBCH 60, 72, 77; 18-day interval)	47/48	
Rotational crops (available studies)	**Crop groups**	**Crops**	**Application**	**PBI (DAT)**	**Comment/Source**
	Root/tuber crops	White radish	Bare soil, 300 g a.s./ha	30, 120, 365	Radiolabelled active substance: Chlorophenyl-U-^{14}C/ Chlorophenyl-1-^{13}C- MFZ and triazole-3(5)-^{14}C/Triazole-3 (5)-^{13}C-MFZ (EFSA, 2018c)
	Leafy crops	Spinaches	Bare soil, 300 g a.s./ha	30, 120, 365	
	Cereal (small grain)	Wheat	Bare soil, 300 g a.s./ha	30, 120, 365	
Processed commodities (hydrolysis study)	**Conditions**		**Compound**	**Stable?**	**Comment/Source**
	Pasteurisation (20 min, 90°C, pH 4)		MFZ, 1,2,4-T, TA, TAA, TLA	Yes	Radiolabelled active substance: Chlorophenyl-^{14}C MFZ and triazole-^{14}C MFZ; triazole-^{14}C 1,2,4-T, TA, TAA, TLA (EFSA, 2018b,c)
	Baking, brewing and boiling (60 min, 100°C, pH 5)		MFZ, 1,2,4-T, TA, TAA, TLA	Yes	
	Sterilisation (20 min, 120°C, pH 6)		MFZ, 1,2,4-T, TA, TAA, TLA	Yes	

Can a general residue definition be proposed for primary crops?	Yes	EFSA (2018c)
Rotational crop and primary crop metabolism similar?	Yes	Mefentrifluconazole and TDMs, no other components identified (EFSA, 2018c)
Residue pattern in processed commodities similar to residue pattern in raw commodities?	Yes	Residues not susceptible to degradation under standard processing conditions (EFSA, 2018c)
Plant residue definition for monitoring (RD-Mo)	Mefentrifluconazole	

Plant residue definition for risk assessment (RD-RA)	1) Mefentrifluconazole 2) TA and TLA, since these compounds share the same toxicity 3) TAA 4) 1,2,4-T
Methods of analysis for monitoring of residues (analytical technique, crop groups, LOQs)	Matrices with high water content, high oil content, high acid content and starch content, high protein content: LC–MS/MS, LOQ 0.01 mg/kg (EFSA, 2018c) Hops: LC–MS/MS, LOQ 0.01 mg/kg, ILV (Austria, 2022)

DALA: days after last application; PBI: plant-back interval; DAT: days after treatment; MFZ: mefentrifluconazole (BAS 750F); 1,2,4-T: 1,2,4-triazole; TA: triazole alanine; TAA: triazole acetic acid; TLA: triazole lactic acid; LC–MS/MS: liquid chromatography with tandem mass spectrometry; LOQ: limit of quantification.

B.1.1.2. Storage stability of residues in plants

Plant products (available studies)	**Category**	**Commodity**	**T (°C)**	**Stability period (months)**					**Comment/ Source**
				MFZ	**1,2,4-T**	**TA**	**TAA**	**TLA**	
	High-water content	Tomatoes	≤ – 18	24	6	53	53	–	EFSA (2018b,c)
		Apples	≤ – 18	24	6	12	12	–	EFSA (2018b,c)
		Lettuce	≤ – 18	–	–	–	–	48	EFSA (2018b,c)
		Mustard greens	≤ – 18	–	6	53	53	–	EFSA (2018b,c)
		Radish tops	≤ – 18	–	12	26	12	–	EFSA (2018b,c)
		Wheat forage	≤ – 18	24	4	53	53	–	EFSA (2018b,c)
	High-oil content	Soybeans	≤ – 18	24	12	26	26	48	EFSA (2018b,c)
		Rapeseeds	≤ – 18	24	Not stable	Not stable	53	48	EFSA (2018b,c)
		Hazelnuts	≤ – 18	–	12	–	–	–	Austria (2022)
	High-protein content	Dried peas, dried beans	≤ – 18	24	–	15	25	48	EFSA (2018b,c)
		Dried beans	≤ – 18	–	48	–	–	–	Austria (2022)
	High-starch content	Wheat grain, Barley grain	≤ – 18	24	12	26	26	48	EFSA (2018b,c)
		Potatoes	≤ – 18	24	–	–	–	–	EFSA (2018b,c)
	High-acid content	Grapes	≤ – 18	24	–	–	–	–	EFSA (2018b,c)
		Lemons, oranges	≤ – 18	24	–	–	–	48	EFSA (2018b,c)
		Oranges	≤ – 18	–	42	48	48	–	Austria (2022)
	Others	Wheat straw	≤ – 18	24	12	53	40	–	EFSA (2018b,c)

MFZ: mefentrifluconazole; 1,2,4-T: 1,2,4-triazole; TA: triazole alanine; TAA: triazole acetic acid; TLA: triazole lactic acid.

B.1.2. Magnitude of residues in plants

B.1.2.1. Summary of residues data from the supervised residue trials

- Mefentrifluconazole

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)	CF[d]
Residue definition for enforcement and risk assessment: Mefentrifluconazole							
Citrus fruits	SEU	0.043; 0.048; 0.059; 0.065; 0.076; 0.12; 0.12; 0.14; 0.15; 0.16; 0.17; 0.18; *0.22*; 0.23; 0.29; 0.32 (Pulp: 16 × < 0.01)	Combined data set (U-test, 5%) of trials on oranges (8; underlined values), lemons (1; values in italics) and mandarins (7) compliant with SEU GAP. Extrapolation to the group of citrus fruits possible.	**0.5**	0.32 (Pulp: 0.01)	0.145 (Pulp: 0.01)	n/a
Hazelnuts	SEU	6 × < 0.01	Residue trials on hazelnuts compliant with the intended GAP.	**0.01***	0.01	0.01	n/a
	NEU	No residue data submitted.					
Pistachios	SEU	< 0.01; 0.015; 0.016; 2 × 0.018; 0.024	Residue trials on pistachios compliant with the intended GAP.	**0.05**	0.024	0.017	n/a
	NEU	No residues data submitted.					
Kaki/Japanese persimmons	SEU	0.02; 0.026; 0.047; 0.063; 0.081; 0.088; 0.1; 0.11	Combined data set (U-test, 5%) of trials on pome fruits (4 apples and 4 pears) compliant with SEU GAP. Extrapolation to kaki/ persimmon possible.	**0.2**	0.11	0.072	n/a
Strawberries	NEU	0.068; 0.11; 0.12; 0.14; 0.19; 0.24; 0.25; 0.29; 0.49	Residue trials on strawberries compliant with the intended GAP.	**0.8**	0.49	0.19	n/a
	Indoor	0.089; 0.13; 0.14; 0.15; 0.16; 0.20; 0.23; 0.33	Residue trials on strawberries compliant with the intended GAP.	0.6	0.33	0.155	n/a

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)	CF[d]
Other small fruits and berries: blueberries, cranberries, currants (red, black and white), gooseberries (green, red and yellow), rose hips, mulberries (black and white), azaroles/ Mediterranean medlars, elderberries	NEU	0.36; 0.42; 0.50; 0.71; 0.72; 0.84	Residue trials on currants compliant with the intended GAP. Extrapolation to other small fruits and berries is possible.	**2**	0.84	0.605	n/a
	SEU (France)	No residue trials submitted. According to EU guidelines, berries belonging to the group of 'other small fruits and berries' can be grown in southern or northern zone in France and the residue data from one of these zones can be accepted for the use in the other zone (European Commission, 2020). Thus, NEU residue data can support also the SEU use of mefentrifluconazole on small fruits and berries in France.					
Other root and tuber vegetables except sugar beets: beetroots, carrots, celeriacs/turnip rooted celeries, horseradishes, Jerusalem artichokes, parsnips, parsley roots/ Hamburg roots parsley, radishes, salsifies, swedes/rutabagas, turnips	NEU	Roots: < 0.01; 0.01; 0.011; 0.013; 0.020; 0.038; 0.044; 0.055	Residue trials on carrots compliant with the GAP. Extrapolation to commodities belonging to the crop group of 'other root and tuber vegetables except sugar beets' is possible.	Roots: **0.1**	Roots: 0.055	Roots: 0.017	n/a
		Tops: 2 × 1.5; 3.9; 4.4; 5.2; 5.3; 5.6; 6.1		Tops: n.r.	Tops: 6.1	Roots: 4.8	n/a
Beetroots	SEU (France)	No residue trials submitted. No trials were submitted in support of the intended SEU use of mefentrifluconazole on beetroots. According to EU Guidelines, beetroot is essentially cultivated in the NEU zone of France (European Commission, 2020), therefore NEU data can support the intended SEU use on beetroots in France.					
Tomatoes, aubergines	NEU	0.013; 0.017; 0.051; 0.069; 0.093; 0.094; 0.096; 0.13	Combined data set (U-test, 5%) of trials on tomatoes (8 NEU, 8 SEU) compliant with GAP. Extrapolation to aubergines is possible.	0.3	0.13	0.06	n/a
	SEU	0.025; 0.026; 0.046; 0.053; 0.067; 0.076; 0.098; 0.12					
	Indoor	0.020; 0.069; 0.078; 0.10; 0.13; 0.15; 0.16; 0.19	Residue trials on tomatoes compliant with the GAP. Extrapolation to aubergines is possible.	**0.4**	0.19	0.115	n/a
Peppers	Indoor	0.088; 0.12; 0.19; 2 × 0.21; 0.28; 0.45; 0.53	Residue trials on peppers compliant with the GAP.	**0.9**	0.53	0.21	n/a

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)	CF[d]
Cucurbits with edible peel: cucumbers, gherkins, courgettes	NEU	2 × < 0.01; 0.011; 0.012; 0.013; 0.017; 0.038; 0.063	Combined data set (U-test, 5%) of trials on cucumber (underlined values) and courgettes (8 NEU, 8 SEU) compliant with GAP. Extrapolation to commodities belonging to the crop group 'cucurbits with edible peel' is possible.	0.1	0.063	0.012	n/a
	SEU	2 × < 0.01; 2 × < 0.01; 0.011; 0.018; 0.038; 0.058					n/a
	Indoor	0.023; 0.040; 0.044; 0.048; 0.049; 0.058; 0.059; 0.18	Residue trials on cucumber (underlined values) and courgettes compliant with GAP. Extrapolation to commodities belonging to the crop group 'cucurbits with edible peel' is possible.	**0.3**	0.18	0.049	n/a
Cucurbits with inedible peel: melons, pumpkins, watermelons	SEU	0.016, 0.040, 0.049, 0.055, 0.085, 3 × 0.110 (Pulp: 8 × < 0.01)	Residue trials on melons compliant with GAP. Extrapolation commodities belonging to the group 'cucurbits with inedible peel' is possible.	**0.3**	0.11 (Pulp: 0.01)	0.07 (Pulp: 0.01)	n/a
	Indoor	0.023, 0.026, 0.035, 0.036, 0.061, 0.069, 0.088, 0.089 (Pulp: 8 × < 0.01)	Residue trials on melons compliant with GAP. Extrapolation commodities belonging to the group 'cucurbits with inedible peel' is possible.	0.2	0.089	0.049	n/a
Flowering brassica: cauliflower, broccoli	NEU	4 × < 0.01; 0.023; 0.025; 0.046; 0.078	Residue trials on cauliflowers (underlined values) and broccoli compliant with GAP. Extrapolation to whole subgroup of flowering brassica is possible.	0.15	0.08	0.02	n/a

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)	CF[d]
	SEU	3 × < 0.01; 0.02; 0.033; 0.038; 0.12; 0.46	Residue trials on cauliflowers (underlined values) and broccoli compliant with GAP. Extrapolation to whole subgroup of flowering brassica is possible.	**0.7**	0.46	0.03	n/a
Head cabbages	NEU	6 × < 0.01; 0.014; 0.019	Residue trials on head cabbages compliant with GAP.	0.03	0.019	0.01	n/a
	SEU	< 0.01; 0.011; 0.014; 0.016	Residue trials on head cabbages compliant with GAP.	**0.04**	0.016	0.01	n/a
Brussel sprouts	NEU	0.023; 0.025; 0.11; 0.14	Residue trials on Brussel sprouts compliant with the GAP.	**0.4**	0.14	0.068	n/a
Spinaches, roman rocket/rucola, baby leaf crops, herbs and edible flowers	SEU	0.83; 2.4; 2.5; 3.6	Residue trials on spinaches compliant with GAP. Extrapolation to roman rocket/ rucola, baby leaf crops, herbs and edible flowers is possible.	**7**	3.6	2.45	n/a
Beans (fresh without pods)	NEU	6 × < 0.01; 0.016; 0.025	Residue trials on beans compliant with GAP.	**0.04**	0.025	0.01	n/a
	SEU	8 × < 0.01	Residue trials on beans compliant with GAP.	0.01*	0.01	0.01	n/a
Peas (fresh without pods)	NEU	10 × < 0.01; 0.013; 0.038	Residue trials on peas compliant with GAP.	0.05	0.039	0.01	n/a
	SEU	7 × < 0.01; 0.015; 0.059	Residue trials on peas compliant with GAP.	**0.08**	0.059	0.01	n/a
Beans, dry	NEU	8 × < 0.01	Residue trials on beans compliant with GAP.	**0.01***	0.01	0.01	n/a
	SEU	8 × < 0.01					
Peas, dry	NEU	8 × < 0.01; 0.012; 0.013; 0.018; 0.029	Residue trials on peas compliant with GAP.	0.04	0.029	0.01	n/a
	SEU	6 × < 0.01; 0.013; 0.026; 0.042; 0.066; 0.13	Residue trials on peas compliant with GAP.	**0.2**	0.13	0.01	n/a

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)	CF[d]
Pulses (other than peas and beans): lentils, lupins/lupini beans	NEU	16 × < 0.01; 0.012; 0.013; 0.018; 0.029	Residue trials on beans and peas compliant with the intended NEU and SEU GAPs. Data merged for each EU zone to derive an MRL for pulses other than beans and pea: lentils, lupins/lupini beans, others.	0.03	0.029	0.01	n/a
	SEU	14 × < 0.01; 0.013; 0.026; 0.042; 0.066; 0.13		**0.15**	0.13	0.01	n/a
Celeries, cardoons, Florence fennels, rhubarbs	SEU	0.25; 0.45; 0.75; 1.51	Residue trials on celeries compliant with the intended GAP. Extrapolation to cardoons, Florence fennels, rhubarbs is possible.	**3**	1.51	0.6	n/a
Globe artichokes	SEU	0.13; 0.23; 0.27; 0.31	Residue trials on artichokes compliant with the intended GAP.	**0.7**	0.31	0.25	n/a
Soya beans	NEU	8 × < 0.01	Residue trials on soya compliant with the intended GAP.	**0.01***	0.01	0.01	n/a
Mustard seeds, linseeds, poppy seeds, Gold of Pleasure seeds	NEU	7 × < 0.01, 0.015	Residue trials on oilseed rape compliant with the intended GAP. Trials previously assessed for an MRL application (EFSA, 2020). Extrapolation to minor oilseeds is possible.	0.02	0.015	0.01	n/a
	SEU	5 × < 0.01, 0.022, 0.032, 0.051	Residue trials on oilseed rape compliant with the GAP. Trials previously assessed for an MRL application (EFSA, 2020). Extrapolation to minor oilseeds is possible.	**0.08**	0.051	0.01	n/a
Olives, table	SEU	0.30; 0.34; 0.44; 0.48; 0.57; 2 × 0.77; 0.88	Residue trials on olive trees for table olives production compliant with the intended GAP.	**2**	0.88	0.525	n/a
Olives, oil productions	SEU	0.20; 0.23; 0.32; 0.33; 0.38; 0.60; 1.2; 1.4	Residue trials on olive trees to be harvested for olives for oil	**3**	1.4	0.355	n/a

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)	CF[d]
			production compliant with the intended GAP.				
Hops	NEU	3.2; 4.3; 4.7; 5.0	Residue trials on hops compliant with the intended GAP. Values correspond to residues found in the dried cones.	**15**	5	4.5	n/a

MRL: maximum residue level; GAP: Good Agricultural Practice; Mo: monitoring; RA: risk assessment.
*: 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.
(b): Highest residue. The highest residue for risk assessment refers to the whole commodity and not to the edible portion.
(c): Supervised trials median residue. The median residue for risk assessment refers to the whole commodity and not to the edible portion.
(d): Conversion factor to recalculate residues according to the residue definition for monitoring to the residue definition for risk assessment.

- Triazole Derivatives Metabolites (TDMs)

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)	CF[d]
Residue definition for risk assessment: Triazole alanine (TA)							
Citrus fruits	SEU	7 × < 0.01; 5 × < 0.01; < *0.01*; 0.014; 0.016; 0.017 (Pulp: 14 × < 0.01; 0.014; 0.015)	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.017 (Pulp: 0.015)	0.01 (Pulp: 0.01)	n/a
Hazelnuts	SEU	0.094; **0.1**; **0.14**; **0.16**; 0.27; 1	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	1	0.15	n/a
	NEU	No residue data submitted.					
Pistachios	SEU	0.58; 0.86; 1.1; **1.2**; 28; 39	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	39	1.15	n/a
	NEU	No residue data submitted.					

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)	CF[d]
Kaki/Japanese persimmons	SEU	0.013; 0.024; 0.03; 0.064; 0.074; 0.12; **0.13**; 0.41	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.41	0.069	n/a
Strawberries	NEU	3 × < 0.01; 0.012; 0.017; 0.018; 0.019; 0.02; 0.044		n/a	0.044	0.017	n/a
	Indoor	4 × < 0.01; 0.016; 0.017; 0.03; **0.05**	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.05	0.013	n/a
Other small fruits and berries: blueberries, cranberries, currants (red, black and white), gooseberries (green, red and yellow), rose hips, mulberries (black and white), azaroles/ Mediterranean medlars, elderberries	NEU	2 × < 0.01; 0.011; 0.027; 0.084; 0.19	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.19	0.019	n/a
	SEU (France)	No residue trials submitted. According to EU guidelines, berries belonging to the group of 'other small fruits and berries' can be grown in southern or northern zone in France and the residue data from one of these zones can be accepted for the use in the other zone (European Commission, 2020). Thus, NEU residue data can support also the SEU use of mefentrifluconazole on small fruits and berries in France.					
Other root and tuber vegetables except sugar beets: beetroots, carrots, celeriacs/turnip rooted celeries, horseradishes, Jerusalem artichokes, parsnips, parsley roots/ Hamburg roots parsley, radishes, salsifies, swedes/rutabagas, turnips	NEU	Roots: 3 × < 0.01; 0.023; 0.029; 0.037; 2 × 0.14	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	Roots: n/a	Roots: 0.14	Roots: 0.026	n/a
		Tops: 5 × < 0.01; 0.016; **0.044**; 0.068		Tops: n/a	Tops: 0.068	Tops: 0.01	n/a

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)	CF[d]
Beetroots	SEU (France)	No residue trials submitted. No trials were submitted in support of the intended SEU use of mefentrifluconazole on beetroots. According to EU Guidelines, beetroot is essentially cultivated in the NEU zone of France (European Commission, 2020), therefore NEU data can support the intended SEU use on beetroots in France.					
Tomatoes, aubergines	NEU	4 × < 0.01; **0.012**; 0.014; **0.017**; **0.022**	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.022	0.014	n/a
	SEU	3 × < 0.01; **0.012**; **0.016**; **0.033**; 0.056; 0.057	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.057	0.011	
	Indoor	5 × < 0.01; **0.019**; **0.021**; 0.025	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.025	0.01	n/a
Peppers	Indoor	2 × < 0.01; 0.011; 0.013; 0.016; 0.019; 0.022; 0.042	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.042	0.015	n/a
Cucurbits with edible peel: cucumbers, gherkins, courgettes	NEU	0.017; 0.036; 0.068; 0.11; 0.21; 0.23; 0.26; 0.27	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.47	0.11	n/a
	SEU	0.025; 0.03; 0.036; 0.073; 0.11; 0.11; 0.24; 0.47					
	Indoor	0.018; 0.027; 0.03; 0.034; 0.045; 0.079; 0.091; 0.18	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.18	0.04	n/a
Cucurbits with inedible peel: melons, pumpkins, watermelons	SEU	0.016; 0.025; 0.027; 0.033; 0.034; **0.053**; 0.17; 0.25	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.25	0.034	n/a
	Indoor	0.016; 0.023; 0.032; 0.033; 0.038; 0.052; 0.1; 0.15	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.15	0.036	n/a

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)	CF[d]
Flowering brassica: cauliflower, broccoli	NEU	< 0.01; 0.02; 0.043; 0.047; 0.055; 0.22; **0.27**; 0.28	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.31	0.038	n/a
	SEU	0.01; 0.013; 0.019; 0.026; 0.029; 0.032; 0.045; 0.31	See Table B.1.2.1 for mefentrifluconazole.				
Head cabbages	NEU	0.022; **0.022**; **0.026**; 0.027; 0.03; 0.03; 0.12; 0.13	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.13	0.029	n/a
	SEU	0.077; 0.1; **0.15**; 0.28	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.28	0.125	n/a
Brussel sprouts	NEU	0.03; **0.04**; 0.04; 0.15	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.15	0.04	n/a
Spinaches, roman rocket/rucola, baby leaf crops, herbs and edible flowers	SEU	2 × < 0.01; **0.051**; **0.068**	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.068	0.031	n/a
Beans (fresh without pods)	NEU	0.016; 0.062; 0.065; 0.11; 0.15; 0.18; 0.22; **0.39**	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.49	0.135	n/a
	SEU	0.06; 2 × 0.11; 0.12; 0.20; **0.24**; 0.25; **0.49**					
Beans, dry	NEU	0.021; 0.047; 0.068; **0.13**; **0.17**; 0.18; 0.20; **0.50**	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.5	0.15	n/a

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)	CF[d]
	SEU	0.053; 0.071; 0.088; 0.12; 0.17; **0.18**; 0.27; 0.45	Residue values highlighted in bold when higher in samples from untreated plots.				
Peas (fresh without pods)	NEU	0.12; 0.13; 0.16; 0.29; 0.30; **0.32**; 2 × 0.39; 0.41; 0.42; 0.43; **0.58**	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.58	0.355	n/a
	SEU	2 × 0.16; 0.20; 0.25; 0.27; 0.32; 0.42; **0.79**; 1.6	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	1.6	0.27	n/a
Peas, dry	NEU	0.083; 0.099; 0.20; **0.26**; **0.29**; 0.31; 0.36; 0.51; 0.55; 0.61; 0.65; 0.96	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.96	0.355	n/a
	SEU	0.081; 0.12; 2 × 0.15; 0.18; 2 × 0.20; 0.32; 0.33; **1.4**; 2.7	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	2.7	0.2	n/a
Pulses (other than peas and beans): lentils, lupins/lupini beans	NEU	0.021; 0.047; 0.068; 0.083; 0.099; 0.13; 0.17; 0.18; 2 × 0.20; 0.26; 0.29; 0.31; 0.36; 0.50; 0.51; 0.55; 0.61; 0.65; 0.96	See Table B.1.2.1 for mefentrifluconazole.	n/a	2.7	0.2	n/a
	SEU	0.053; 0.071; 0.081; 0.088; 2 × 0.12; 2x 0.15; 0.17; 0.18; 0.18; 2 × 0.20; 0.27; 0.32; 0.33; 0.45; 1.4; 2.7					
Celeries, cardoons, Florence fennels, rhubarbs	SEU	< 0.01; 0.014; 0.021; 0.033	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.033	0.018	n/a

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)	CF[d]
Globe artichoke	SEU	0.02; 0.031; 0.045; 0.063	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.063	0.038	n/a
Soya beans	NEU	0.013; 0.023; 0.025; 0.045; 0.055; 0.064; 0.066; 0.11	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.11	0.05	n/a
Mustard seeds, linseeds, poppy seeds, Gold of Pleasure	NEU	0.13; 0.17; **0.2**; **0.27**; 0.34; 0.51; **1.1**; 1.2	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	1.2	0.305	n/a
	SEU	**0.074**; **0.17**; **0.18**; **0.19**; 0.2; **0.22**; **0.25**; 0.4		n/a	0.4	0.195	n/a
Olives, table	SEU	0.25; 0.42; 0.44; **2** × **0.6**; 0.61; 0.77; **0.87**	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.87	0.60	n/a
Olives, oil productions	SEU	**0.43**; **0.53**; **0.58**; **0.63**; 0.64; **0.74**; **0.77**; **0.8**	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.80	0.635	n/a
Hops	NEU	0.092; **0.32**; **0.59**; 0.75	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.75	0.455	n/a
Residue definition for risk assessment: Triazole lactic acid (TLA)							
Citrus fruits	SEU	8 × < 0.01; 6 × < 0.01; < *0.01*; 0.012 (Pulp: 16 × < 0.01)	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.12 (Pulp: 0.01)	0.01 (Pulp: 0.01)	n/a
Hazelnuts	SEU	2 × 0.03; **0.068**; 0.086; 0.15; 0.25	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.25	0.077	n/a
	NEU	No residues data submitted.					

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)	CF[d]
Pistachios	SEU	0.039; 0.044; 0.14; 0.091; 1.6; 2.4	See Table B.1.2.1 for mefentrifluconazole.	n/a	2.4	0.116	n/a
	NEU	No residues data submitted.					
Kaki/Japanese persimmons	SEU	5 × < 0.01, 2 × 0.013, **0.038**	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.038	0.01	n/a
Strawberries	NEU	8 × < 0.01; 0.013	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.013	0.01	n/a
	Indoor	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Other small fruits and berries: blueberries, cranberries, currants (red, black and white), gooseberries (green, red and yellow), rose hips, mulberries (black and white), azaroles/ Mediterranean medlars, elderberries	NEU	2 × < 0.01; 0.019; 0.053; 0.12; **0.36**	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.36	0.036	n/a
	SEU (France)	No residue trials submitted. According to EU guidelines, berries belonging to the group of 'other small fruits and berries' can be grown in southern or northern zone in France and the residue data from one of these zones can be accepted for the use in the other zone (European Commission, 2020). Thus, NEU residue data can support also the SEU use of mefentrifluconazole on small fruits and berries in France.					
Other root and tuber vegetables except sugar beets: beetroots, carrots, celeriacs/turnip rooted celeries, horseradishes, Jerusalem artichokes, parsnips, parsley roots/ Hamburg roots parsley, radishes, salsifies, swedes/rutabagas, turnips	NEU	Roots: 6 × < 0.01; **0.048**; 0.053 Tops: 0.015; 0.021; 0.027; 0.065; 0.077; **0.079**; 0.16; 0.28	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	Roots: n/a Tops: n/a	Roots: 0.053 Tops: 0.28	Roots: 0.01 Tops: 0.071	n/a n/a

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)	CF[d]
Beetroot	SEU (France)	No residue trials submitted. No trials were submitted in support of the intended SEU use of mefentrifluconazole on beetroots. According to EU Guidelines, beetroot is essentially cultivated in the NEU zone of France (European Commission, 2020), therefore NEU data can support the intended SEU use on beetroots in France.					
Tomatoes, aubergines	NEU	8 × < 0.01		n/a	0.01	0.01	n/a
	SEU	6 × < 0.01; 0.021; **0.037**	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.037	0.01	n/a
	Indoor	6 × < 0.01; 0.011; 0.016	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.016	0.01	n/a
Peppers	Indoor	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Cucurbits with edible peel: cucumbers, gherkins, courgettes	NEU	4 × < 0.01; 3 × < 0.01; 0.033	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.033	0.01	n/a
	SEU	4 × < 0.01; 3 × < 0.01; 0.029	See Table B.1.2.1 for mefentrifluconazole.				
	Indoor	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Cucurbits with inedible peel: melons, pumpkins, watermelons	SEU	6 × < 0.01; 0.027; 0.05 (Pulp: 6 × < 0.01; 0.02; 0.024)	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.05 (Pulp: 0.024)	0.01 (Pulp: 0.01)	n/a
	Indoor	6 × < 0.01; 0.015; 0.022 (Pulp: 6 × < 0.01; 2 × 0.011)	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.022 (Pulp: 0.011)	0.01 (Pulp: 0.01)	n/a
Flowering brassica: cauliflower, broccoli	NEU	4 × < 0.01; 4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	4 × < 0.01; 4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.				
Head cabbages	NEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.				
Brussel sprouts	NEU	4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a

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)	CF[d]
Spinaches, roman rocket/rucola, baby leaf crops, herbs and edible flowers	SEU	2 × < 0.01; **0.054**; **0.071**	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.071	0.031	n/a
Beans (fresh without pods)	NEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	8 × < 0.01					
Beans, dry	NEU	7 × < 0.01; **0.027**	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.027	0.01	n/a
	SEU	7 × < 0.01; **0.017**		n/a	0.017	0.01	n/a
Peas (fresh without pods)	NEU	12 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.015	0.01	n/a
	SEU	8 × < 0.01; 0.015					
Peas, dry	NEU	4 × < 0.01; 0.013; 0.015; 0.017; 0.019; **0.026**; 2 × 0.027; 0.031	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.031	0.016	n/a
	SEU	9 × < 0.01; **0.042**; 0.1	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.1	0.01	n/a
Pulses (other than peas and beans): lentils, lupins/lupini beans	NEU	11 × < 0.01; 0.013; 0.015; 0.017; 0.019; 0.026; 2 × 0.027; 0.027; 0.031	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.031	0.01	n/a
	SEU	16 × < 0.01; 0.017; 0.042; 0.1	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.1	0.01	n/a
Celeries, cardoons, Florence fennels, rhubarbs	SEU	3 × < 0.01; 0.05	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.05	0.01	n/a

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)	CF[d]
Globe artichoke	SEU	3 × < 0.01; 0.012	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.012	0.01	n/a
Soya beans	NEU	2 × < 0.01; 2 × 0.011; 0.014; 0.034; 0.043; 0.052	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.052	0.013	n/a
Mustard seeds, linseeds, poppy seeds, Gold of Pleasure	NEU	5 × < 0.01; **2 × 0.013**; **0.055**	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.055	0.01	n/a
	SEU	6 × < 0.01; 2 × 0.013		n/a	0.013	0.01	n/a
Olives, table	SEU	6 × < 0.01; 0.013; 0.021	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.021	0.01	n/a
Olives, oil production	SEU	7 × < 0.01; **0.015**	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.015	0.01	n/a
Hops	NEU	0.14; 0.18; 0.22; 0.31	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.31	0.20	n/a
Residue definition for risk assessment: 1,2,4-T (1,2,4 Triazole)							
Citrus fruits	SEU	8 × < 0.01; 7 × < 0.01; < *0.01* (Pulp: 16 × < 0.01)	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01 (Pulp: 0.01)	0.01 (Pulp: 0.01)	n/a
Hazelnuts	SEU	6 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	NEU	No residue data submitted.					
Pistachios	SEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	NEU	No residue data submitted.					
Kaki/Japanese persimmons	SEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Strawberries	NEU	9 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	Indoor	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a

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)	CF[d]
Other small fruits and berries: blueberries, cranberries, currants (red, black and white), gooseberries (green, red and yellow), rose hips, mulberries (black and white), azaroles/ Mediterranean medlars, elderberries	NEU	6 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU (France)	No residue trials submitted. According to EU guidelines, berries belonging to the group of 'other small fruits and berries' can be grown in southern or northern zone in France and the residue data from one of these zones can be accepted for the use in the other zone (European Commission, 2020). Thus, NEU residue data can support also the SEU use of mefentrifluconazole on small fruits and berries in France.					
Other root and tuber vegetables except sugar beets: beetroots, carrots, celeriacs/turnip rooted celeries, horseradishes, Jerusalem artichokes, parsnips, parsley roots/ Hamburg roots parsley, radishes, salsifies, swedes/rutabagas, turnips	NEU	Roots: 8 × < 0.01 Tops: 8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	Roots: n/a Tops: n/a	Roots: 0.01 Tops: 0.01	Roots: 0.01 Tops: 0.01	n/a n/a
Beetroots	SEU (France)	No residue trials submitted. No trials were submitted in support of the intended SEU use of mefentrifluconazole on beetroots. According to EU Guidelines, beetroot is essentially cultivated in the NEU zone of France (European Commission, 2020), therefore NEU data can support the intended SEU use on beetroots in France.					
Tomatoes, aubergines	NEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.				
	Indoor	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Peppers	Indoor	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a			n/a

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)	CF[d]
Cucurbits with edible peel: cucumbers, gherkins, courgettes	NEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.				
	Indoor	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Cucurbits with inedible peel: melons, pumpkins, watermelons	SEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	Indoor	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Flowering brassica: cauliflower, broccoli	NEU	4 × < 0.01; 4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	4 × < 0.01; 4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.				
Head cabbages	NEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.				
Brussel sprouts	NEU	4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Spinaches, roman rocket/rucola, baby leaf crops, herbs and edible flowers	SEU	4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Beans (fresh without pods)	NEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	8 × < 0.01					
Beans, dry	NEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	8 × < 0.01					
Peas (fresh without pods)	NEU	12 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	9 × < 0.01					
Peas, dry	NEU	12 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	11 × < 0.01					

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)	CF[d]
Pulses (other than peas and beans): lentils, lupins/lupini beans	NEU	20 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	19 × < 0.01					
Celeries, cardoons, Florence fennels, rhubarbs	SEU	4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Globe artichoke	SEU	4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Soya beans	NEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Mustard seeds, linseeds, poppy seeds, Gold of Pleasure	NEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	8 × < 0.01					
Olives, table	SEU	6 × < 0.01; **0.011**; **0.013**	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.013	0.01	n/a
Olives, oil productions	SEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Hops	NEU	2 × < 0.01; 0.015; 0.16	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.16	0.013	n/a
Residue definition for risk assessment: Triazole acetic acid (TAA)							
Citrus fruits	SEU	8 × < 0.01; 7 × < 0.01;< *0.01* (Pulp: 16 × < 0.01)	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01 (Pulp: 0.01)	0.01 (Pulp: 0.01)	n/a
Hazelnuts	SEU	3 × < 0.01; **2 × 0.012**; 0.023	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.023	0.011	n/a
	NEU	No residue data submitted.					

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)	CF[d]
Pistachios	SEU	4 × < 0.01; 0.12; 0.15	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.15	0.01	n/a
	NEU	No residue data submitted.					
Kaki/Japanese persimmons	SEU	6 × < 0.01, **0.012**, 0.013	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.013	0.01	n/a
Strawberries	NEU	9 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	Indoor	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Other small fruits and berries: blueberries, cranberries, currants (red, black and white), gooseberries (green, red and yellow), rose hips, mulberries (black and white), azaroles/ Mediterranean medlars, elderberries	NEU	4 × < 0.01; 0.018; **0.044**	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.044	0.01	n/a
	SEU (France)	No residue trials submitted. According to EU guidelines, berries belonging to the group of 'other small fruits and berries' can be grown in southern or northern zone in France and the residue data from one of these zones can be accepted for the use in the other zone (European Commission, 2020). Thus, NEU residue data can support also the SEU use of mefentrifluconazole on small fruits and berries in France.					
Other root and tuber vegetables except sugar beets: beetroots, carrots, celeriacs/turnip rooted celeries, horseradishes, Jerusalem artichokes, parsnips, parsley roots/ Hamburg roots parsley, radishes, salsifies, swedes/rutabagas, turnips	NEU	Roots: 8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	Roots: n/a	Roots: 0.01	Roots: 0.01	n/a
		Tops: 7 × < 0.01; 0.013		Tops: n/a	Tops: 0.013	Tops: 0.01	n/a

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)	CF[d]
Beetroots	SEU (France)	No residue trials submitted. No trials were submitted in support of the intended SEU use of mefentrifluconazole on beetroots. According to EU Guidelines, beetroot is essentially cultivated in the NEU zone of France (European Commission, 2020), therefore NEU data can support the intended SEU use on beetroots in France.					
Tomatoes, aubergines	NEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	8 × < 0.01					
	Indoor	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Peppers	Indoor	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Cucurbits with edible peel: cucumbers, gherkins, courgettes	NEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.				
	Indoor	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Cucurbits with inedible peel: melons, pumpkins, watermelons	SEU	7 × < 0.01; 0.015	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.015	0.01	n/a
	Indoor	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Flowering brassica: cauliflower, broccoli	NEU	4 × < 0.01; 4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	4 × < 0.01; 4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.				
Head cabbages	NEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.				
Brussel sprouts	NEU	4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Spinaches, roman rocket/rucola, baby leaf crops, herbs and edible flowers	SEU	4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a

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)	CF[d]
Beans (fresh without pods)	NEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	8 × < 0.01					
Beans, dry	NEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	8 × < 0.01					
Peas (fresh without pods)	NEU	12 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
	SEU	9 × < 0.01					
Peas, dry	NEU	12 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.011	0.01	n/a
	SEU	10 × < 0.01; 0.011	See Table B.1.2.1 for mefentrifluconazole.	n/a			n/a
Pulses (other than peas and beans): lentils, lupins/lupini beans	NEU	20 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.011	0.01	n/a
	SEU	18 × < 0.01; 0.011	See Table B.1.2.1 for mefentrifluconazole.				
Celeries, cardoons, Florence fennels, rhubarbs	SEU	3 × < 0.01; 0.016	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Globe artichoke	SEU	4 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Soya beans	NEU	6 × < 0.01; 0.011; 0.02	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.02	0.01	n/a
Mustard seeds, linseeds, poppy seeds, Gold of Pleasure	NEU	7 × < 0.01; **0.013**	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.013	0.01	n/a
	SEU	8 × < 0.01					
Olives, table	SEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a
Olives, oil productions	SEU	8 × < 0.01	See Table B.1.2.1 for mefentrifluconazole.	n/a	0.01	0.01	n/a

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)	CF[d]
Hops	NEU	2 × < 0.01; **0.013**; 0.016	See Table B.1.2.1 for mefentrifluconazole. Residue values highlighted in bold when higher in samples from untreated plots.	n/a	0.016	0.012	n/a

MRL: maximum residue level; n/a: not applicable.
(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 refers to the whole commodity and not to the edible portion.
(c): Supervised trials median residue. The median residue for risk assessment refers to the whole commodity and not to the edible portion.
(d): Conversion factor to recalculate residues according to the residue definition for monitoring to the residue definition for risk assessment.

B.1.2.2. Residues in rotational crops

Residues in rotational and succeeding crops expected based on confined rotational crop study?	yes	Levels of mefentrifluconazole lower than TDMs. Rotational crop field trials triggered (EFSA, 2018c).
Residues in rotational and succeeding crops expected based on field rotational crop study?	yes	Rotational crop feeding studies assessed previously (EFSA, 2018c, 2020). Soil application at 300 g/ha. Determination of residues of mefentrifluconazole (MFZ) and TDMs in different representative succeeding crops (wheat, carrot/radish, broccoli/cauliflower, spinaches/lettuces) planted at plant back intervals (PBI) of 30, 120, 365 days. • MFZ = residues do not exceed the LOQ of 0.01 mg/kg for different representative succeeding crops at any PBI • 1,2,4-T = residues do not exceed the LOQ of 0.01 mg/kg for different representative succeeding crops at any PBI. • TAA = residues do not exceed the LOQ of 0.01 mg/kg for root and tubers, brassica and leafy crops at any PBI. Residues were detected in wheat at all PBIs (up to 0.35 mg/kg in treated wheat grain, up to 0.15 mg/kg in straw, most controls contained background levels but lower than treated samples). • TA = residues were detected in all commodities at all PBIs. Residues were highest in wheat commodities (up to 0.52 mg/kg in wheat grain) and leafy crops (up to 0.35 mg/kg in flowering brassica); most controls contained background levels but lower than treated samples). • TLA = residues were detected in all commodities except leafy crops and carrot roots at all PBIs. Residues were highest in wheat commodities (up to 0.16 mg/kg in treated wheat straw, followed by spinaches/lettuces leaves (up to 0.092 mg/kg) and radish tops (up to 0.038 mg/kg; most controls contained background levels but commonly lower than treated samples). New rotational crop field trials (Austria, 2022). Soil application at 800 g a.s./ha. Determination of residues of MFZ and TDMs in different representative succeeding crops: carrots or radishes (root and tuber vegetables), cauliflower

	(brassica vegetables), spinaches or lettuces (leafy vegetables), cucumber or zucchini (fruiting vegetables), peas/beans (fresh and dry-legume vegetables) planted at plant-back intervals (PBI) of 30 days. • MFZ = Residues were < 0.01 mg/kg, except in spinaches (one sample at BBCH 49 at 0.012 mg/kg, and two samples at the immature stage of BBCH 41 at 0.013 and 0.032 mg/kg), and lettuces (one sample at the immature growth stage of BBCH 41 at 0.016 mg/kg). • 1,2,4-T = Residues did not exceed the LOQ of 0.01 mg/kg in all examined representative succeeding crops (treated or untreated). • TAA = Residues were < 0.01 mg/kg, except in dry peas (two samples at 0.013 and 0.016 mg/kg). Samples from the untreated plots did not contain TAA. • TA = Residues were above the LOQ of 0.01 mg/kg in all samples. Highest residues were determined in peas fresh and dry 1.7 and 1.9 mg/kg, respectively. In most samples from untreated plots TA was present at significant levels, but generally lower compared to the treated samples. • TLA = Residues were < 0.01 mg/kg, except in dry peas (two samples at 0.013 and 0.016 mg/kg). Spinaches from the untreated plots contained background levels of TLA, however lower compared to treated samples. In soil samples (0–20 cm) taken at the time of planting the rotational crops, mefentrifluconazole ranged from 0.078–0.3 mg/kg (0.27 mg/kg the theoretical calculated soil concentration, based on the nominal soil treatment of 800 g a.s./ha), while 1,2,4-T was below the LOQ.

TDM: triazole derivative metabolite; TA: triazole alanine; TLA: triazole lactic acid; TAA: triazole acetic acid; 1,2,4-T: 1,2,4-triazole.

B.1.2.3. Processing factors

Processed commodity	Number of valid trials[a]	Processing Factor (PF)		CF_P[b]	Comment/Source
		Individual values	Median PF		
Mefentrifluconazole					
Cucurbits with inedible peel, pulp	16	0.09; 0.09; 0.11; 0.12; 0.12; 0.14; 0.14; 0.17; 0.18; 0.20; 0.28; 0.29; 0.33; 0.38; 0.43; 0.63	0.18	n/a	Austria (2022)
Strawberries, washed	3	0.6; 0.7; 1.19	0.7	n/a	Austria (2022)
Strawberries, canned	3	0.77; 0.93; 1.18	0.93	n/a	Austria (2022)
Strawberries, syrup	3	0.17; 0.2; 0.3	0.2	n/a	Austria (2022)
Strawberries, jam	3	0.26; 0.43; 0.48	0.43	n/a	Austria (2022)
Cucumber, canned	3	0.67; 0.88; 1.73	0.88	n/a	Austria (2022)
Cucumber, vegetable stock	3	< 0.18; 0.06; 0.13	0.13	n/a	Austria (2022)
Cucumber, washed	3	0.29; 0.52; 0.52	0.52	n/a	Austria (2022)
Cucumber, pickled	3	0.26; 0.73; 0.84	0.73	n/a	Austria (2022)
Head cabbages, cooked	1	< 0.09[c]	Tentative	n/a	Austria (2022)
Head cabbages, sauerkraut	1	< 0.09[c]	Tentative	n/a	Austria (2022)
Head cabbages, sauerkraut juice	1	< 0.09	Tentative	n/a	Austria (2022)
Peas, washed	3	0.7; < 0.91; 1.07	0.91	n/a	Austria (2022)
Peas, cooked	3	0.65; < 0.91; 1.07	0.91	n/a	Austria (2022)
Peas, canned	3	0.75; < 0.91; 1.03	0.91	n/a	Austria (2022)
Olives, wet pomace	3	0.86; 1.03; 1.06	1.03	n/a	Austria (2022)
Olives, dried pomace	3	1.5; 2.04; 2.33	2.04	n/a	Austria (2022)
Olives, oil (cold pressed)	3	1.42; 1.59; 2.04	1.59	n/a	Austria (2022)
Olives, press cake	3	1.28; 1.53; 2.04	1.53	n/a	Austria (2022)
Olives, raw oil	3	2.84; 4.4; 4.48	4.40	n/a	Austria (2022)
Olives, refined oil	3	0.01; 0.019; 0.019	0.019	n/a	Austria (2022)
Olives, fermented olives	3	0.84; 0.97; 1.1	0.97	n/a	Austria (2022)
Hops, extracts	3	1.71; 1.89; 3.07	1.89	n/a	Austria (2022)
Hops, draff	3	0.13; 0.14; 0.19	0.14	n/a	Austria (2022)
Hops, brewer's yeast	3	0.03; 0.03; 0.05	0.03	n/a	Austria (2022)
Hops, beer	3	0.0003; < 0.0005; < 0.0011	< 0.0005	n/a	Austria (2022)
Orange, juice	3	0.01; 0.02; 0.02	0.02	n/a	Austria (2022)
Orange, wet pomace	3	1.55; 1.74; 2.18	1.74	n/a	Austria (2022)
Orange, dried pomace	3	4.66; 6.22; 8.03	6.44	n/a	Austria (2022)
Orange, pulp	19	0.02; 0.02;0.03; 0.03; 0.03; 0.04; 0.05; 0.06; 0.06; 0.07; 0.07; 0.09; 0.12; 0.12; 0.17; 0.21; 0.23; 0.28; 0.59	0.06	n/a	Data from supervised residue trials and a new processing study with oranges (Austria, 2022)
Orange, dried pulp	3	0.04; 0.11; 0.14	0.11	n/a	Austria (2022)
Orange, oil	3	38.54; 41.18; 71.03	41.18	n/a	Austria (2022)
Orange, marmalade	3	0.09; 0.11; 0.31	0.11	n/a	Austria (2022)
Tomato, blanched	3	00.5; 0.06; 0.06	0.06	n/a	Austria (2022)
Tomato, canned	3	0.05; 0.06; 0.08	0.06	n/a	Austria (2022)

Processed commodity	Number of valid trials[a]	Processing Factor (PF)		CF_P[b]	Comment/Source
		Individual values	Median PF		
Tomato, ketchup after pasteurisation	3	0.35; 0.56; 0.68	0.56	n/a	Austria (2022)
Tomato, paste	3	0.46; 0.49; 1.00	0.49	n/a	Austria (2022)
Tomato, peeled tomatoes	3	0.07; 0.06; 0.03	0.06	n/a	Austria (2022)
Tomato, puree	3	0.20; 0.28; 0.31	0.28	n/a	Austria (2022)
Tomato, raw juice	3	0.08; 0.08; 0.11	0.08	n/a	Austria (2022)
Tomato, sun-dried tomatoes	3	6.67; 9.17; 15.97	9.17	n/a	Austria (2022)
Tomato, washed	3	0.67; 0.67; 0.93	0.67	n/a	Austria (2022)
Tomato, wet pomace	3	1.75; 2.93; 7.14	2.93	n/a	Austria (2022)
TA					
Strawberry, washed	3	0.67; 0.94; 0.97	0.94	n.a.	Austria (2022)
Strawberry, canned	3	1.12; 1.13; 1.20	1.13	n.a.	Austria (2022)
Strawberry, fruit syrup	3	< 0.59; 0.23;0.37	0.37	n.a.	Austria (2022)
Strawberry, jam	3	< 0.33; < 0.59; 0.14	0.33	n.a.	Austria (2022)
Cucumber, canned	3	0.9; 1.00; 1.00	1.00	n.a.	Austria (2022)
Cucumber, washed	3	1.07; 1.13; 1.24	1.13	n.a.	Austria (2022)
Cucumber, pickled	3	0.31; 0.51; 0.52	0.51	n.a.	Austria (2022)
Head cabbages, inner leaves	3	0.63; 0.67; 1.07	0.67	n.a.	Austria (2022)
Head cabbages, outer leaves	3	0.49; 0.73; 0.85	0.73	n.a.	Austria (2022)
Head cabbages, cooked	3	0.26; 0.28; 0.41	0.28	n.a.	Austria (2022)
Head cabbages, sauerkraut	3	0.93; 1.00; 1.07	1.00	n.a.	Austria (2022)
Head cabbages, sauerkraut juice	3	0.66; 0.76; 0.78	0.76	n.a.	Austria (2022)
Pea, washed pea	3	0.80; 0.97; 1.08	0.97	n.a.	Austria (2022)
Pea, cooked peas	3	0.67; 0.72; 1.00	0.72	n.a.	Austria (2022)
Peas, canned peas	3	0.38; 0.55; 0.69	0.55	n.a.	Austria (2022)
Olives, wet pomace	2	0.64; 3.39	2.02[d]	n.a.	Austria (2022)
Olives, dried pomace	2	0.99; 1.24	1.11	n.a.	Austria (2022)
Olives, oil (cold pressed)	2	< 0.19; 0.07	< 0.13	n.a.	Austria (2022)
Olives, press cake	2	0.46; 1.73	1.10	n.a.	Austria (2022)
Olives, raw oil	2	< 0.06; < 0.19	< 0.12	n.a.	Austria (2022)
Olives, refined oil	2	< 0.06; < 0.19	< 0.12	n.a.	Austria (2022)
Olives, fermented olives	2	2.5; 2.7	2.58	n.a.	Austria (2022)
Hops, extracted hops	3	< 0.03; < 0.07; 0.20	0.07	n.a.	Austria (2022)
Hops, hops draff	3	0.15; 0.31; 0.33	0.31	n.a.	Austria (2022)
Hops, brewer's yeast	3	0.17; 0.39; 0.40	0.39	n.a.	Austria (2022)
Hops, beer	3	0.17; 0.23; 0.38	0.23	n.a.	Austria (2022)
Orange, juice	3	0.67; 0.68; 0.27	0.67	n.a.	Austria (2022)
Orange, wet pomace	3	0.81; 1.0; 1.27	1.0	n.a.	Austria (2022)
Orange, dried pomace	3	1.33; 1.55; 2.0	1.55	n.a.	Austria (2022)
Orange, pulp	3	0.8; 1.0; 1.16	1.0	n.a.	Austria (2022)
Orange, dried pulp	3	2.20; 2.61; 3.33	2.61	n.a.	Austria (2022)
Orange, oil	3	0.06; 0.22; 0.13	0.13	n.a.	Austria (2022)

Processed commodity	Number of valid trials[a]	Processing Factor (PF)		CF_P[b]	Comment/Source
		Individual values	Median PF		
Orange, marmalade	3	0.29; 0.22; 0.27	0.27	n.a.	Austria (2022)
TLA					
Strawberry, washed	1	0.84	0.84[c]	n.a.	Austria (2022)
Strawberry, canned	1	0.71	0.71[c]	n.a.	Austria (2022)
Strawberry, fruit syrup	1	0.45	0.45[c]	n.a.	Austria (2022)
Strawberry, jam	1	0.35	0.35[c]	n.a.	Austria (2022)
Cucumber, canned	2	< 0.83; < 0.83	0.83	n.a.	Austria (2022)
Cucumber, washed	3	< 0.83; 1.0; > 1.0	1.0	n.a.	Austria (2022)
Cucumber, pickled	2	< 0.83; < 0.83	0.83	n.a.	Austria (2022)
Pea, washed pea	2	1.31; 1.25	1.28	n.a.	Austria (2022)
Pea, cooked peas	2	< 0.77; < 0.83	0.80	n.a.	Austria (2022)
Peas, canned peas	2	< 0.77; < 0.83	0.80	n.a.	Austria (2022)
Hops, extracted hops	3	0.27; 1.07; 1.15	1.07	n.a.	Austria (2022)
Hops, hops draff	3	< 0.07; 0.02; < 0.08	0.07	n.a.	Austria (2022)
Hops, brewer's yeast	3	< 0.07; < 0.02; < 0.08	0.07	n.a.	Austria (2022)
Hops, beer	3	< 0.07; < 0.02; < 0.08	0.07	n.a.	Austria (2022)
Orange, juice	2	0.22; 1.0	0.61[d]	n.a.	Austria (2022)
Orange, wet pomace	2	0.89; 1.0	0.95	n.a.	Austria (2022)
Orange, dried pomace	2	2.89; 4.5	3.70	n.a.	Austria (2022)
Orange, pulp	2	0.67; 1.0	0.84	n.a.	Austria (2022)
Orange, dried pulp	2	2.56; 3.0	2.78	n.a.	Austria (2022)
Orange, oil	2	0.22; 1.0	0.61[d]	n.a.	Austria (2022)
Orange, marmalade	2	0.22; 1.0	0.61[d]	n.a.	Austria (2022)
1,2,4-T					
Olives, wet pomace	3	< 0.75; 0.74; > 1.01	0.75	n.a.	Austria (2022)
Olives, dried pomace	3	< 0.71; 1.48; > 2.16	1.48	n.a.	Austria (2022)
Olives, oil (cold pressed)	2	< 0.71; < 0.75	0.73	n.a.	Austria (2022)
Olives, press cake	3	< 0.75; 0.86; > 1.15	0.86	n.a.	Austria (2022)
Olives, raw oil	2	< 0.71; < 0.75	< 0.73	n.a.	Austria (2022)
Olives, refined oil	2	< 0.71; < 0.75	< 0.73	n.a.	Austria (2022)
Hops, extracted hops	3	1.82; 2.91; > 4.40	2.91	n.a.	Austria (2022)
Hops, hops draff	2	< 0.45; < 0.91	0.68	n.a.	Austria (2022)
Hops, brewers yeast	2	< 0.45; < 0.91	0.68	n.a.	Austria (2022)
Hops, beer	2	< 0.45; < 0.91	0.68	n.a.	Austria (2022)
TAA					
Strawberry, washed	1	< 0.08	< 0.08[c]	n.a.	Austria (2022)
Strawberry, canned	1	< 0.08	< 0.08[c]	n.a.	Austria (2022)
Strawberry, fruit syrup	1	< 0.08	< 0.08[c]	n.a.	Austria (2022)
Strawberry, jam	1	< 0.08	< 0.08[c]	n.a.	Austria (2022)
Hops, extracted hops	3	< 0.10; > 1.10; > 1.40	1.10	n.a.	Austria (2022)
Hops, hops draff	3	0.62; > 5.80; > 6.40	5.80	n.a.	Austria (2022)
Hops, brewers yeast	3	0.56; > 5.40; > 5.60	5.40	n.a.	Austria (2022)
Hops, beer	3	0.80; > 4.80; > 8.10	4.80	n.a.	Austria (2022)
Orange, juice	1	1.0	1.0[c]	n.a.	Austria (2022)
Orange, wet pomace	1	1.0	1.0[c]	n.a.	Austria (2022)
Orange, dried pomace	1	3.0	3.0[c]	n.a.	Austria (2022)
Orange, pulp	1	1.0	1.0[c]	n.a.	Austria (2022)

Processed commodity	Number of valid trials[a]	Processing Factor (PF)		CF_P[b]	Comment/Source
		Individual values	Median PF		
Orange, dried pulp	1	4.5	4.5[c]	n.a.	Austria (2022)
Orange, oil	1	1.0	1.0[c]	n.a.	Austria (2022)
Orange, marmalade	1	1.0	1.0[c]	n.a.	Austria (2022)

PF: processing factor.
(a): Studies with residues of mefentrifluconazole or the TDMs in the RAC at the LOQ were disregarded (unless concentration occurs in a processed commodity). For these cases, the calculated PF (level in processed commodity/LOQ in RAC) was reported with a 'higher than' (>) symbol (FAO, 2009).
(b): Conversion factor for risk assessment in the processed commodity; median of the individual conversion factors for each processing residues trial.
(c): A tentative PF is derived based on a limited dataset.
(d): A tentative PF is derived, since two PFs differ significantly (more than 50%). A third trial is required for a robust PF.

B.2. Residues in livestock

Dietary burden calculation according to OECD (2013).

Mefentrifluconazole

Relevant groups	Dietary burden expressed in				Most critical diet[a]	Most critical commodity[b]		Trigger exceeded (Yes/No) 0.004 mg/kg bw	Previous assessment (EFSA, 2020) Max burden mg/kg bw
	mg/kg bw per day		mg/kg DM						
	Median	Maximum	Median	Maximum					
Cattle (all diets)	0.158	**0.242**	6.59	8.48	Dairy cattle	Barley	Straw	Yes	0.238
Cattle (dairy only)	0.129	**0.242**	3.34	6.28	Dairy cattle	Barley	Straw	Yes	0.238
Sheep (all diets)	0.210	**0.525**	4.95	12.36	Lamb	Barley	Straw	Yes	0.520
Sheep (ewe only)	0.165	**0.412**	4.94	12.36	Ram/Ewe	Barley	Straw	Yes	0.407
Swine (all diets)	0.005	**0.017**	0.23	0.76	Swine (breeding)	Beet, sugar	Tops	Yes	0.014
Poultry (all diets)	0.035	**0.150**	0.52	2.19	Poultry layer	Wheat	Straw	Yes	0.147
Poultry (layer only)	0.035	**0.150**	0.52	2.19	Poultry layer	Wheat	Straw	Yes	0.147
Fish (carp)	–	–	–	**0.101**	–	–	–	Yes (0.1 mg/kg DM)	0.061
Fish (trout)	–	–	–	**0.116**	–	–	–	Yes (0.1 mg/kg DM)	0.042
Fish (salmon)	–	–	–	**0.140**	–	–	–	Yes (0.1 mg/kg DM)	–

TA

Relevant groups	Dietary burden expressed in				Most critical diet[a]	Most critical commodity[b]		Trigger exceeded (Yes/No) Max burden mg/kg bw	Previous assessment (EFSA, 2020) Max burden mg/kg bw
	mg/kg bw per day		mg/kg DM						
	Median	Maximum	Median	Maximum					
Cattle (all diets)	0.015	0.033	0.46	1.05	Dairy cattle	Cabbages, heads	Leaves	Yes	0.024
Cattle (dairy only)	0.015	0.033	0.40	0.85	Dairy cattle	Cabbages, heads	Leaves	Yes	0.024
Sheep (all diets)	0.015	0.042	0.41	0.99	Lamb	Swede	Roots	Yes	0.033
Sheep (ewe only)	0.014	0.033	0.41	0.99	Ram/Ewe	Swede	Roots	Yes	0.027
Swine (all diets)	0.012	0.026	0.46	1.01	Swine (finishing)	Swede	Roots	Yes	0.021
Poultry (all diets)	0.026	0.037	0.37	0.54	Poultry layer	Cabbages, heads	Leaves	Yes	0.031
Poultry (layer only)	0.026	0.037	0.37	0.54	Poultry layer	Cabbages, heads	Leaves	Yes	0.029

TLA

Relevant groups	Dietary burden expressed in				Most critical diet[a]	Most critical commodity[b]		Trigger exceeded (Yes/No) 0.004 mg/kg bw	Previous assessment (EFSA, 2020) Max burden mg/kg bw
	mg/kg bw per day		mg/kg DM						
	Median	Maximum	Median	Maximum					
Cattle (all diets)	0.010	0.150	0.25	3.97	Dairy cattle	Barley	Straw	Yes	0.146
Cattle (dairy only)	0.010	0.150	0.25	3.90	Dairy cattle	Barley	Straw	Yes	0.146
Sheep (all diets)	0.016	0.323	0.38	7.60	Lamb	Barley	Straw	Yes	0.319
Sheep (ewe only)	0.012	0.253	0.35	7.60	Ram/Ewe	Barley	Straw	Yes	0.25
Swine (all diets)	0.003	0.008	0.10	0.31	Swine (finishing)	Swede	Roots	Yes	0.03
Poultry (all diets)	0.004	0.048	0.06	0.70	Poultry layer	Barley	Straw	Yes	0.044
Poultry (layer only)	0.004	0.048	0.06	0.70	Poultry layer	Barley	Straw	Yes	0.044

TAA

Relevant groups	Dietary burden expressed in				Most critical diet[a]	Most critical commodity[b]		Trigger exceeded (Yes/No) 0.004 mg/kg bw	Previous assessment (EFSA, 2020) Max burden mg/kg bw
	mg/kg bw per day		mg/kg DM						
	Median	Maximum	Median	Maximum					
Cattle (all diets)	0.004	0.007	0.10	0.19	Dairy cattle	Barley	Straw	Yes	0.007

Relevant groups	Dietary burden expressed in				Most critical diet[a]	Most critical commodity[b]		Trigger exceeded (Yes/No) 0.004 mg/kg bw	Previous assessment (EFSA, 2020) Max burden mg/kg bw
	mg/kg bw per day		mg/kg DM						
	Median	Maximum	Median	Maximum					
Cattle (dairy only)	0.004	0.007	0.10	0.19	Dairy cattle	Barley	Straw	Yes	0.007
Sheep (all diets)	0.005	0.012	0.12	0.28	Lamb	Barley	Straw	Yes	0.012
Sheep (ewe only)	0.004	0.009	0.12	0.28	Ram/Ewe	Barley	Straw	Yes	0.009
Swine (all diets)	0.004	0.004	0.13	0.13	Swine (finishing)	Distiller's grain	Dried	**No**	0.004
Poultry (all diets)	0.007	0.008	0.11	0.12	Poultry layer	Barley	Straw	Yes	0.008
Poultry (layer only)	0.007	0.008	0.11	0.12	Poultry layer	Barley	Straw	Yes	0.008

1,2,4-T

Relevant groups	Dietary burden expressed in				Most critical diet[a]	Most critical commodity[b]		Trigger exceeded (Yes/No) 0.004 mg/kg bw	Previous assessment (EFSA, 2020) Max burden mg/kg bw
	mg/kg bw per day		mg/kg DM						
	Median	Maximum	Median	Maximum					
Cattle (all diets)	0.002	0.003	0.08	0.09	Dairy cattle	Swede	Roots	**No**	0.002
Cattle (dairy only)	0.002	0.003	0.06	0.07	Dairy cattle	Swede	Roots	**No**	0.002
Sheep (all diets)	0.003	0.003	0.07	0.08	Lamb	Swede	Roots	**No**	0.002
Sheep (ewe only)	0.002	0.003	0.07	0.08	Ram/Ewe	Swede	Roots	**No**	0.002
Swine (all diets)	0.001	0.002	0.06	0.07	Swine (breeding)	Swede	Roots	**No**	0.001
Poultry (all diets)	0.002	0.002	0.02	0.02	Poultry layer	Swede	Roots	**No**	0.001
Poultry (layer only)	0.002	0.002	0.02	0.02	Poultry layer	Swede	Roots	**No**	0.001

bw: body weight; 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'.

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 per day)**	**Duration (days)**	**Comment/Source**
	Laying hen	1.1	14	Laying hens; Label position C-ring, TFMP-ring or T-ring MFZ (EFSA, 2018c)
	Lactating ruminants	0.36–0.43	12–14	Goat; Label position C-ring, TFMP-ring or T-ring MFZ (EFSA, 2018c)
	Pig	n/a	n/a	EFSA (2018c)
	Fish	5 mg/kg DM	10–14	Rainbow trout; Label position C-ring or T-ring MFZ (EFSA, 2018c)

Time needed to reach a plateau concentration in milk and eggs (days)	Milk: 5–8	EFSA (2018c)
	Eggs: 5–7	EFSA (2018c)
Metabolism in rat and ruminant similar	Yes	EFSA (2018c)
Can a general residue definition be proposed for animals?	Yes	EFSA (2018c)
Animal residue definition for monitoring (RD-Mo)	Mefentrifluconazole	
Animal residue definition for risk assessment (RD-RA)	• Animals, except poultry and fish: 1) Mefentrifluconazole 2) TA and TLA, since these compounds share the same toxicity 3) TAA 4) 1,2,4-T • Poultry: 1) Sum of mefentrifluconazole, metabolite M750F022 and fatty acid conjugates of M750F022, expressed as parent CF_{risk}: 6.2 for muscle; 16.3 for fat; 4.9 for liver and eggs 2) TA and TLA, since these compounds share the same toxicity 3) TAA 4) 1,2,4-T • Fish: 1) Mefentrifluconazole 2) 1,2,4-triazole‡ ‡In future TA, TAA and TLA, (of which metabolism in fish is currently unknown), may also need to be included in the RD–RA as demonstrated appropriate for other animals i.e. ruminant and poultry (EFSA, 2018c).	
Fat soluble residues	Mefentrifluconazole: Yes (EFSA, 2018c) TDMs: No (EFSA, 2018b; Austria, 2022)	

Methods of analysis for monitoring of residues (analytical technique, matrix, LOQs)	Muscle, fat, liver, kidney, milk and egg matrices: LC–MS/MS, LOQ 0.01 mg/kg (EFSA, 2018c)

C-ring: chlorophenyl ring; TFMP-ring: trifluoromethylphenyl ring; T-ring: triazole ring; Bw: body weight; LC–MS/MS: liquid chromatography with tandem mass spectrometry; LOQ: limit of quantification; QuEChERS: Quick, Easy, Cheap, Effective, Rugged, and Safe; ILV: independent laboratory validation; TDM: triazole derivative metabolite; TA: triazole alanine; TLA: triazole lactic acid; TAA: triazole acetic acid; 1,2,4-T: 1,2,4-triazole.

B.2.1.2. Stability of residues in livestock

Animal products (available studies)	**Animal**	**Commodity**	**T (°C)**	**Stability (months)**				**Comment/ Source**
				MFZ	**M750F022**	**1,2,4-T**	**TA/ TAA/ TLA**	
	Bovine	Muscle	≤ – 18	5.9	5.9	12	–	EFSA (2018c)
			≤ – 20	–	–	–	6	Austria (2022)
	Bovine	Fat	≤ – 20	–	–	–	6	Austria (2022)
	Bovine	Liver	≤ – 18	5.9	5.9	12	–	EFSA (2018c)
	Bovine	Kidney	≤ – 18	5.9	5.9	12	–	EFSA (2018b,c)
	Bovine	Milk	≤ – 18	5.9	5.9	18	–	EFSA (2018c)
			≤ – 20	–	–	–	6	Austria (2022)
	Bovine	Cream	≤ – 20	–	–	–	6	Austria (2022)
	Swine	Kidney	≤ – 20	–	–	–	6	Austria (2022)
	Poultry	Liver	≤ – 20	–	–	–	6	Austria (2022)
	Poultry	Eggs	≤ – 18	5.9	5.9	12	–	EFSA (2018b,c)
			≤ – 20	–	–	–	6	Austria (2022)

B.2.2. Magnitude of residues in livestock

Calculations for the magnitude of residues in products of animal origin were performed with Animal model 2017[13] for mefentrifluconazole and TDMs.

B.2.2.1. Mefentrifluconazole

Animal commodity	**Residues at the closest feeding level (mg/kg)**		**Estimated value at 1 N**		**MRL proposal (mg/kg)**	**CF[(c)]**
	Mean	**Highest**	**STMR[(a)] (mg/kg)**	**HR[(b)] (mg/kg)**		
Cattle (all) Closest feeding level (0.192 mg/kg bw; 0.8 N rate Dairy cattle (highest diet))[(d)]						
Muscle	0.01	0.01	0.02	0.03	0.03	n.a.
Fat	0.05	0.06	0.11	0.20	0.2	n.a.
Liver	0.15	0.18	0.17	0.34	0.4	n.a.
Kidney	0.05	0.07	0.04	0.11	0.15	n.a.
Cattle (dairy only) Closest feeding level (0.192 mg/kg bw; 0.8 N rate, Dairy cattle (highest diet))[(d)]						
Milk[(d)]	0.01	0.01	0.01	0.02	0.03	n.a.
Sheep (all) Closest feeding level (0.192 mg/kg bw; 0.4 N rate, Dairy cattle (highest diet))[(d)]						
Muscle	0.01	0.01	0.02	0.05	0.05	n.a.
Fat	0.05	0.06	0.13	0.39	0.4	n.a.
Liver	0.15	0.18	0.21	0.66	0.7	n.a.

[13] https://ec.europa.eu/food/plant/pesticides/max_residue_levels/guidelines_en

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N		MRL proposal (mg/kg)	CF[c]
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)		
Kidney	0.05	0.07	0.05	0.25	0.3	n.a.
Sheep (ewe only) Closest feeding level (0.192 mg/kg bw; 0.5 N rate, Ewe)[d]						
Milk[d]	0.01	0.01	0.02	0.03	0.04	n.a.
Swine (all)[e] Closest feeding level (0.034 mg/kg bw; 1.5 N rate, Breeding (highest diet))[d]						
Muscle	0.01	0.01	0.010	0.010	0.01*	n.a.
Fat	0.02	0.02	0.003	0.009	0.01*	n.a.
Liver	0.03	0.03	0.005	0.017	**0.02**[f]	n.a.
Kidney	0.01	0.01	0.002	0.007	0.01*	n.a.
Poultry (all) Closest feeding level (0.096 mg/kg bw; 0.6 N rate, Layer)[d]						
Muscle	0.01	0.01	0.01	0.01	0.015	6.2
Fat	0.01	0.01	0.01	0.02	0.03	16.3
Liver	0.01	0.02	0.01	0.03	0.03	4.9
Poultry (layer only) Closest feeding level (0.096 mg/kg bw; 0.6 N rate, Layer)[d]						
Eggs	0.01	0.01	0.01	0.01	0.015	4.9

bw: body weight; STMR: supervised trials median residue; HR: highest residue; n.a.: not applicable.
*Indicates that the MRL is proposed at the limit of quantification.
(a): The mean residue level for milk and the mean residue levels for eggs and tissues were recalculated at the 1 N rate for the median dietary burden.
(b): The mean residue level in milk and the highest residue levels in eggs and tissues, were recalculated at the 1 N rate for the maximum dietary burden.
(c): Conversion factor for risk assessment in the processed commodity.
(d): Closest feeding level and N dose rate related to the maximum dietary burden.
(e): 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 swine.
(f): MRL for swine liver is higher than the existing EU MRL set in Reg. (EU) 2021/590.

B.2.2.2. Triazole derivative metabolites: risk assessment values estimated for the calculated dietary burdens

1) Feeding study with mefentrifluconazole assessed during the pesticides peer review (EFSA, 2018c).

- **TA residue levels arising from the use of mefentrifluconazole at the calculated DB for mefentrifluconazole.**

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Cattle (all) Closest feeding level (0.192 mg/kg bw; 0.8 N rate; Dairy cattle)[c]				
Muscle	0.05	0.06	0.05	0.08
Fat	0.02	0.04	0.02	0.05
Liver	0.17	0.22	0.16	0.27
Kidney	0.05	0.07	0.05	0.08
Cattle (dairy only) Closest feeding level (0.192 mg/kg bw; 0.8 N rate; Dairy cattle)[c]				
Milk[d]	No residues	No residues	No residues	No residues

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Sheep (all) Closest feeding level (0.192 mg/kg bw; 0.8 N rate; Lamb)[c]				
Muscle	0.05	0.06	0.05	0.17
Fat	0.02	0.04	0.02	0.10
Liver	0.17	0.22	0.18	0.59
Kidney	0.05	0.07	0.05	0.18
Sheep (ewe only) Closest feeding level (0.192 mg/kg bw; 0.5 N rate; Ewe)[c]				
Milk[d]	No residues	No residues	No residues	No residues
Swine (all) Closest feeding level (0.034 mg/kg bw; 1.5 N rate; Breeding)[c]				
Muscle	0.04	0.06	0.006	0.030
Fat	0.01	0.02	0.002	0.008
Liver	0.14	0.17	0.022	0.086
Kidney	0.04	0.05	0.007	0.026
Poultry (all) Closest feeding level (0.096 mg/kg bw; 0.6 N rate; Layer)[c]				
Muscle	0.02	0.02	0.06	0.03
Fat	0.01	0.01	0.01	0.01
Liver	0.02	0.03	0.08	0.04
Poultry (layer only) Closest feeding level (0.096 mg/kg bw; 0.6 N rate; Layer)[c]				
Eggs	No residues	No residues	No residues	No residues

- **1,2,4-T residue levels arising from the use of mefentrifluconazole at the calculated DB for mefentrifluconazole.**

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Cattle (all) Closest feeding level (0.192 mg/kg bw; 0.8 N rate; Dairy cattle)[c]				
Muscle	0.03	0.03	0.03	0.04
Fat	0.02	0.02	0.02	0.03
Liver	0.03	0.03	0.03	0.04
Kidney	0.03	0.03	0.02	0.04
Cattle (dairy only) Closest feeding level (0.192 mg/kg bw; 0.8 N rate; Dairy cattle)[c]				
Milk[d]	0.04	0.05	0.04	0.05
Sheep (all) Closest feeding level (0.192 mg/kg bw; 0.8 N rate; Lamb)[c]				
Muscle	0.03	0.03	0.03	0.08
Fat	0.02	0.02	0.02	0.06
Liver	0.03	0.03	0.03	0.09
Kidney	0.03	0.03	0.03	0.09
Sheep (ewe only[e]) Closest feeding level (0.192 mg/kg bw; 0.5 N rate; Ewe)[c]				
Milk[d]	0.04	0.05	0.04	0.08

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Swine (all) Closest feeding level (0.034 mg/kg bw; 1.5 N rate; Breeding)[c]				
Muscle	0.01	0.01	0.002	0.006
Fat	0.01	0.01	0.010	0.010
Liver	0.01	0.02	0.002	0.008
Kidney	0.01	0.02	0.002	0.009
Poultry (all) Closest feeding level (0.096 mg/kg bw; 0.6 N rate; Layer)[c]				
Muscle	0.01	0.01	0.01	0.02
Fat	0.01	0.01	0.01	0.01
Liver	0.01	0.01	0.01	0.02
Poultry (layer only) Closest feeding level (0.096 mg/kg bw; 0.6 N rate; Layer)[c]				
Eggs	0.01	0.01	0.01	0.02

2) Feeding study with TA assessed during the TDM peer review (EFSA, 2018b).

- **TA residue levels estimated in animal commodities from TA present in the feed at the calculated DB for TA.**

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Cattle (all) Closest feeding level (0.06 mg/kg bw; 1.8 N rate; Dairy cattle)[c]				
Muscle	0.04	0.05	0.01	0.03
Fat	0.02	0.02	0.004	0.01
Liver	0.10	0.15	0.03	0.08
Kidney	0.04	0.04	0.01	0.02
Cattle (dairy only) Closest feeding level (0.06 mg/kg bw; 1.8 N rate; Dairy cattle)[c]				
Milk[d]	0.01	0.01	0.01	0.01
Sheep (all) Closest feeding level (0.06 mg/kg bw; 1.4 N rate; Lamb)[c]				
Muscle	0.04	0.05	0.01	0.06
Fat	0.02	0.02	0.01	0.05
Liver	0.10	0.15	0.03	0.19
Kidney	0.04	0.04	0.01	0.04
Sheep (ewe only) Closest feeding level (0.06 mg/kg bw; 1.8 N rate; Ewe)[c]				
Milk[d]	0.01	0.01	0.01	0.01
Swine (all) Closest feeding level (0.06 mg/kg bw; 2.3 N rate; Finishing)[c]				
Muscle	0.04	0.05	0.01	0.02
Fat	0.02	0.02	0.004	0.01
Liver	0.10	0.15	0.02	0.06
Kidney	0.04	0.04	0.01	0.02
Poultry (all) Closest feeding level (0.02 mg/kg bw; 0.5 N rate; Layer)[c]				

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Muscle	0.02	0.02	0.02	0.03
Fat	0.02	0.02	0.03	0.04
Liver	0.06	0.06	0.07	0.11
Poultry (layer only) Closest feeding level (0.02 mg/kg bw; 0.5 N rate; Layer)[c]				
Eggs	0.01	0.01	0.01	0.02

- **TLA residue levels estimated in animal commodities from TA present in the feed at the calculated DBs for TA.**

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Cattle (all) Closest feeding level (0.06 mg/kg bw; 1.8 N rate; Dairy cattle)[c]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.02	0.02	0.004	0.01
Liver	0.01	0.01	0.01	0.01
Kidney	0.01	0.01	0.01	0.01
Cattle (dairy only) Closest feeding level (0.06 mg/kg bw; 1.8 N rate; Dairy cattle)[c]				
Milk[d]	0.01	0.01	0.01	0.01
Sheep (all) Closest feeding level (0.06 mg/kg bw; 1.4 N rate; Lamb)[c]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.02	0.02	0.004	0.01
Liver	0.01	0.01	0.01	0.01
Kidney	0.01	0.01	0.01	0.01
Sheep (ewe only) Closest feeding level (0.06 mg/kg bw; 1.8 N rate; Ewe)[c]				
Milk[d]	0.01	0.01	0.01	0.01
Swine (all) Closest feeding level (0.06 mg/kg bw; 2.3 N rate; Finishing)[c]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.02	0.02	0.004	0.01
Liver	0.01	0.01	0.01	0.01
Kidney	0.01	0.01	0.01	0.01
Poultry (all) Closest feeding level (0.02 mg/kg bw; 0.5 N rate; Layer)[c]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.01	0.01	0.01	0.01
Liver	0.01	0.01	0.01	0.01
Poultry (layer only) Closest feeding level (0.02 mg/kg bw; 0.5 N rate; Layer)[c]				
Eggs	0.01	0.01	0.01	0.01

- **1,2,4-T residue levels estimated in animal commodities from TA present in the feed at the calculated DBs for TA.**

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Cattle (all) Closest feeding level (0.06 mg/kg bw; 1.8 N rate; Dairy cattle)[c]				
Muscle	0.02	0.03	0.01	0.02
Fat	0.01	0.02	0.003	0.01
Liver	0.02	0.03	0.01	0.02
Kidney	0.02	0.02	0.01	0.01
Cattle (dairy only) Closest feeding level (0.06 mg/kg bw; 1.8 N rate; Dairy cattle)[c]				
Milk[d]	0.02	0.03	0.01	0.01
Sheep (all) Closest feeding level (0.06 mg/kg bw; 1.4 N rate; Lamb)[c]				
Muscle	0.02	0.03	0.01	0.02
Fat	0.01	0.02	0.003	0.02
Liver	0.02	0.03	0.01	0.02
Kidney	0.02	0.02	0.00	0.01
Sheep (ewe only) Closest feeding level (0.06 mg/kg bw; 1.8 N rate; Ewe)[c]				
Milk[d]	0.02	0.03	0.01	0.01
Swine (all) Closest feeding level (0.06 mg/kg bw; 2.3 N rate; Finishing)[c]				
Muscle	0.02	0.03	0.005	0.01
Fat	0.01	0.02	0.003	0.01
Liver	0.02	0.03	0.005	0.01
Kidney	0.02	0.02	0.004	0.01
Poultry (all) Closest feeding level (0.02 mg/kg bw; 0.5 N rate; Layer)[c]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.01	0.01	0.01	0.01
Liver	0.01	0.01	0.01	0.01
Poultry (layer only) Closest feeding level (0.02 mg/kg bw; 0.5 N rate; Layer)[c]				
Eggs	0.01	0.01	0.01	0.01

- **TAA residue levels estimated in animal commodities from TA present in the feed at the calculated DBs for TA.**

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Cattle (all) Closest feeding level (0.06 mg/kg bw; 1.8 N rate; Dairy cattle)[c]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.01	0.02	0.003	0.01
Liver	0.01	0.01	0.01	0.01
Kidney	0.01	0.01	0.01	0.01

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Cattle (dairy only) Closest feeding level (0.06 mg/kg bw; 1.8 N rate; Dairy cattle)[c]				
Milk[d]	0.01	0.01	0.01	0.01
Sheep (all) Closest feeding level (0.06 mg/kg bw; 1.4 N rate; Lamb)[c]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.01	0.02	0.003	0.01
Liver	0.01	0.01	0.01	0.01
Kidney	0.01	0.01	0.01	0.01
Sheep (ewe only) Closest feeding level (0.06 mg/kg bw; 1.8 N rate; Ewe)[c]				
Milk[d]	0.01	0.01	0.01	0.01
Swine (all)[e] Closest feeding level (0.06 mg/kg bw; 2.3 N rate; Finishing)[c]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.01	0.02	0.003	0.01
Liver	0.01	0.01	0.01	0.01
Kidney	0.01	0.01	0.01	0.01
Poultry (all) Closest feeding level (0.02 mg/kg bw; 0.5 N rate; Layer)[c]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.01	0.01	0.01	0.01
Liver	0.01	0.01	0.01	0.01
Poultry (layer only) Closest feeding level (0.02 mg/kg bw; 0.5 N rate; Layer)[c]				
Eggs	0.01	0.01	0.01	0.01

(3) Feeding study with TAA assessed during the TDM peer review (EFSA, 2018b).

- **TA residue levels estimated in animal commodities from TAA present in the feed at the calculated DBs for TAA.**

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Cattle (all) Closest feeding level (0.015 mg/kg bw; 2.0 N rate; Dairy cattle)[c]				
Muscle	0.02	0.02	0.005	0.010
Fat	0.01	0.01	0.003	0.005
Liver	0.03	0.03	0.008	0.015
Kidney	0.02	0.02	0.005	0.010
Cattle (dairy only) Closest feeding level (0.015 mg/kg bw; 2.0 N rate; Dairy cattle)[c]				
Milk[d]	0.01	0.01	0.01	0.01
Sheep (all) Closest feeding level (0.015 mg/kg bw; 1.3 N rate; Lamb)[c]				
Muscle	0.02	0.02	0.007	0.021
Fat	0.01	0.01	0.010	0.010
Liver	0.03	0.03	0.010	0.033
Kidney	0.02	0.02	0.007	0.019

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Sheep (ewe only) Closest feeding level (0.015 mg/kg bw; 1.6 N rate; Ewe)[c]				
Milk[d]	0.01	0.01	0.01	0.01
Swine (all) Closest feeding level (0.015 mg/kg bw; 4.0 N rate; Finishing)[c]				
Muscle	0.02	0.02	0.005	0.005
Fat	0.01	0.01	0.003	0.003
Liver	0.03	0.03	0.008	0.008
Kidney	0.02	0.02	0.005	0.005
Poultry (all) Closest feeding level (0.019 mg/kg bw; 2.3 N rate; Layer)[c]				
Muscle	0.01	0.01	0.010	0.010
Fat	0.01	0.01	0.010	0.010
Liver	0.02	0.02	0.006	0.009
Poultry (layer only) Closest feeding level (0.019 mg/kg bw; 2.3 N rate; Layer)[c]				
Eggs	0.01	0.01	0.010	0.010

- **TLA residue levels estimated in animal commodities from TAA present in the feed at the calculated DBs for TAA.**

The feeding study conducted with TAA demonstrated that residues of TLA will be < 0.01 mg/kg in all food commodities. For risk assessment of the overall residue levels of TLA from the consumption of TAA in animal feed a level of 0.01 mg/kg has been included, as done during the peer review of TDMs (EFSA, 2018c).

- **1,2,4-T residue levels estimated in animal commodities from TAA present in the feed at the calculated DBs for TAA.**

The feeding study conducted with TAA demonstrated that residues of 1,2,4-T will be < 0.01 mg/kg in all food commodities. For risk assessment of the overall residue levels of 1,2,4-T from the consumption of TAA in animal feed a level of 0.01 mg/kg has been included, as done during the peer review of TDMs (EFSA, 2018c).

TAA residue levels estimated in animal commodities from TAA in the feed at the calculated DBs for TAA.

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Cattle (all) Closest feeding level (0.015 mg/kg bw; 2.0 N rate; Dairy cattle)[c]				
Muscle	0.01	0.01	0.010	0.010
Fat	0.01	0.01	0.010	0.010
Liver	0.01	0.01	0.010	0.010
Kidney	0.01	0.01	0.003	0.005
Cattle (dairy only) Closest feeding level (0.015 mg/kg bw; 2.0 N rate; Dairy cattle)[c]				
Milk[d]	0.01	0.01	0.01	0.01
Sheep (all) Closest feeding level (0.015 mg/kg bw; 1.3 N rate; Lamb)[c]				
Muscle	0.01	0.01	0.010	0.010
Fat	0.01	0.01	0.010	0.010

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Liver	0.01	0.01	0.010	0.010
Kidney	0.01	0.01	0.003	0.014
Sheep (ewe only) Closest feeding level (0.015 mg/kg bw; 1.6 N rate; Ewe)[c]				
Milk[d]	0.01	0.01	0.01	0.01
Swine (all) Closest feeding level (0.015 mg/kg bw; 4.0 N rate; Finishing)[c]				
Muscle	0.01	0.01	0.010	0.010
Fat	0.01	0.01	0.010	0.010
Liver	0.01	0.01	0.010	0.010
Kidney	0.01	0.01	0.003	0.003
Poultry (all) Closest feeding level (0.019 mg/kg bw; 2.3 N rate; Layer)[c]				
Muscle	0.01	0.01	0.010	0.010
Fat	0.01	0.01	0.010	0.010
Liver	0.01	0.01	0.010	0.010
Poultry (layer only) Closest feeding level (0.019 mg/kg bw; 2.3 N rate; Layer)[c]				
Eggs	0.01	0.01	0.010	0.010

4) Feeding studies with TLA. New feeding study (Austria, 2022).

- **TA residue levels estimated in animal commodities from TLA present in the feed at the calculated DBs for TLA.**

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Cattle (all) Closest feeding level (0.174 mg/kg bw; 1.2 N rate; Dairy cattle)[c]				
Muscle	0.08	0.11	0.01	0.10
Fat	0.07	0.09	0.00	0.08
Liver	0.25	0.29	0.02	0.25
Kidney	0.11	0.11	0.01	0.10
Cattle (dairy only) Closest feeding level (0. 174 mg/kg bw; 1.2 N rate; Dairy cattle)[c]				
Milk[d]	0.01	0.01	0.01	0.01
Sheep (all) Closest feeding level (0. 174 mg/kg bw; 1.2 N rate; Lamb)[c]				
Muscle	0.08	0.11	0.01	0.20
Fat	0.07	0.09	0.01	0.16
Liver	0.25	0.29	0.03	0.54
Kidney	0.11	0.11	0.01	0.20
Sheep (ewe only) Closest feeding level (0. 174 mg/kg bw; 0.7 N rate; Ewe)[c]				
Milk[d]	0.01	0.01	0.01	0.02
Swine (all) Closest feeding level (0.035 mg/kg bw; 4.7 N rate; Finishing)[c]				
Muscle	0.03	0.04	0.002	0.008

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Fat	0.02	0.02	0.001	0.004
Liver	0.06	0.08	0.004	0.018
Kidney	0.03	0.04	0.002	0.008
Poultry (all) Closest feeding level (0.05 mg/kg bw; 1.1 N rate; Layer)[c]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.01	0.01	0.01	0.01
Liver	0.01	0.02	0.00	0.02
Poultry (layer only) Closest feeding level (0.05 mg/kg bw; 1.1 N rate; Layer)[c]				
Eggs	0.01	0.01	0.01	0.01

- **TLA residue levels estimated in animal commodities from TLA present in the feed at the calculated DBs for TLA.**

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Cattle (all) Closest feeding level (0.174 mg/kg bw; 1.2 N rate; Dairy cattle)[c]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.01	0.01	0.01	0.01
Liver	0.01	0.01	0.01	0.01
Kidney	0.01	0.01	0.01	0.01
Cattle (dairy only) Closest feeding level (0.174 mg/kg bw; 1.2 N rate; Dairy cattle)[c]				
Milk[d]	0.01	0.01	0.01	0.01
Sheep (all) Closest feeding level (0.174 mg/kg bw; 1.2 N rate; Lamb)[c]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.01	0.01	0.01	0.02
Liver	0.01	0.01	0.01	0.01
Kidney	0.01	0.01	0.01	0.01
Sheep (ewe only) Closest feeding level (0.174 mg/kg bw; 0.7 N rate; Ewe)[c]				
Milk[d]	0.01	0.01	0.01	0.01
Swine (all) Closest feeding level (0.035 mg/kg bw; 4.7 N rate; Finishing)[c]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.01	0.01	0.01	0.01
Liver	0.01	0.01	0.01	0.01
Kidney	0.01	0.01	0.01	0.01
Poultry (all) Closest feeding level (0.05 mg/kg bw; 1.1 N rate; Layer)[c]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.01	0.01	0.01	0.01
Liver	0.01	0.01	0.01	0.02

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Poultry (layer only) Closest feeding level (0.05 mg/kg bw; 1.1 N rate; Layer)[c]				
Eggs	0.01	0.01	0.01	0.01

- **1,2,4-T residue levels estimated in animal commodities from TLA present in the feed at the calculated DBs for TLA.**

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[a] (mg/kg)	HR[b] (mg/kg)
Cattle (all) Closest feeding level (0.174 mg/kg bw; 1.2 N rate; Dairy cattle)[c]				
Muscle	0.07	0.08	0.00	0.07
Fat	0.07	0.08	0.00	0.06
Liver	0.06	0.07	0.00	0.06
Kidney	0.08	0.08	0.01	0.07
Cattle (dairy only) Closest feeding level (0.174 mg/kg bw; 1.2 N rate; Dairy cattle)[c]				
Milk[d]	0.06	0.06	0.005	0.05
Sheep (all) Closest feeding level (0.174 mg/kg bw; 1.2 N rate; Lamb)[c]				
Muscle	0.07	0.08	0.01	0.14
Fat	0.07	0.08	0.01	0.14
Liver	0.06	0.07	0.01	0.13
Kidney	0.08	0.08	0.01	0.15
Sheep (ewe only) Closest feeding level (0.174 mg/kg bw; 0.7 N rate; Ewe)[c]				
Milk[d]	0.06	0.06	0.01	0.08
Swine (all) Closest feeding level (0.035 mg/kg bw; 4.7 N rate; Finishing)[c]				
Muscle	0.01	0.02	0.001	0.004
Fat	0.01	0.02	0.001	0.004
Liver	0.01	0.02	0.001	0.004
Kidney	0.02	0.02	0.001	0.004
Poultry (all) Closest feeding level (0.05 mg/kg bw; 1.1 N rate; Layer)[c]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.01	0.01	0.01	0.01
Liver	0.01	0.01	0.01	0.01
Poultry (layer only) Closest feeding level (0.05 mg/kg bw; 1.1 N rate; Layer)[c]				
Eggs	0.01	0.01	0.01	0.01

- **TAA residue levels estimated in animal commodities from TLA present in the feed at the calculated DBs for TLA.3**

Animal commodity	Residues at the closest feeding level (mg/kg)		Estimated value at 1 N	
	Mean	Highest	STMR[(a)] (mg/kg)	HR[(b)] (mg/kg)
Cattle (all) Closest feeding level (0.174 mg/kg bw; 1.2 N rate; Dairy cattle)[(c)]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.01	0.01	0.01	0.01
Liver	0.01	0.01	0.01	0.01
Kidney	0.01	0.01	0.01	0.01
Cattle (dairy only) Closest feeding level (0.174 mg/kg bw; 1.2 N rate; Dairy cattle)[(c)]				
Milk[(d)]	0.01	0.01	0.01	0.01
Sheep (all) Closest feeding level (0.174 mg/kg bw; 1.2 N rate; Lamb)[(c)]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.01	0.01	0.01	0.01
Liver	0.01	0.01	0.01	0.01
Kidney	0.01	0.01	0.01	0.03
Sheep (ewe only Closest feeding level (0.174 mg/kg bw; 0.7 N rate; Ewe)[(c)]				
Milk[(d)]	0.01	0.01	0.01	0.01
Swine (all) Closest feeding level (0.035 mg/kg bw; 4.7 N rate; Finishing)[(c)]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.01	0.01	0.01	0.01
Liver	0.01	0.01	0.01	0.01
Kidney	0.01	0.01	0.01	0.01
Poultry (all) Closest feeding level (0.05 mg/kg bw; 1.1 N rate; Layer)[(c)]				
Muscle	0.01	0.01	0.01	0.01
Fat	0.01	0.01	0.01	0.01
Liver	0.01	0.01	0.01	0.01
Poultry (layer only) Closest feeding level (0.05 mg/kg bw; 1.1 N rate; Layer)[(c)]				
Eggs	0.01	0.01	0.01	0.01

bw: body weight; STMR: supervised trials median residue; HR: highest residue.
*: Indicates that the MRL is proposed at the limit of quantification.
(a): The mean residue level for milk and the mean residue levels for eggs and tissues were recalculated at the 1 N rate for the median dietary burden.
(b): The mean residue level in milk and the highest residue levels in eggs and tissues, were recalculated at the 1 N rate for the maximum dietary burden.
(c): Closest feeding level and N dose rate related to the maximum dietary burden.

B.2.2.3. Overview of TDM risk assessment values

An overview of the risk assessment values derived for TDMs from the feeding studies with mefentrifluconazole, TA, TAA and TLA for the dietary burdens calculated in the present assessment (see Appendix B.2)

Bovine		Muscle	Fat	Liver	Kidney	Milk
1,2,4-T	HR	0.132	0.112	0.130	0.232	0.119
	STMR	0.047	0.033	0.047	0.045	0.059
TA	HR	0.214	0.139	0.622	0.211	0.032
	STMR	0.069	0.031	0.212	0.068	0.030

TAA	HR	0.030	0.031	0.030	0.028	0.030
	STMR	0.030	0.023	0.030	0.023	0.030
TLA	HR	0.030	0.032	0.030	0.031	0.030
	STMR	0.030	0.024	0.030	0.030	0.030
Sheep		Muscle	Fat	Liver	Kidney	Milk
1,2,4-T	HR	0.258	0.230	0.254	0.266	0.183
	STMR	0.053	0.038	0.056	0.054	0.061
TA	HR	0.458	0.321	1.349	0.439	0.037
	STMR	0.083	0.046	0.246	0.079	0.030
TAA	HR	0.030	0.034	0.030	0.050	0.030
	STMR	0.030	0.023	0.030	0.023	0.030
TLA	HR	0.030	0.043	0.030	0.033	0.030
	STMR	0.030	0.024	0.030	0.030	0.030
Swine		Muscle	Fat	Liver	Kidney	–
1,2,4-T	HR	0.033	0.032	0.035	0.032	–
	STMR	0.017	0.024	0.018	0.017	–
TA	HR	0.064	0.023	0.176	0.056	–
	STMR	0.021	0.009	0.055	0.021	–
TAA	HR	No residues expected.				
	STMR	No residues expected.				
TLA	HR	0.030	0.029	0.030	0.030	–
	STMR	0.030	0.024	0.030	0.030	–
Poultry		Muscle	Fat	Liver	Eggs	-
1,2,4-T	HR	0.052	0.040	0.052	0.048	–
	STMR	0.041	0.040	0.041	0.040	–
TA	HR	0.081	0.074	0.180	0.040	–
	STMR	0.072	0.056	0.161	0.033	–
TAA	HR	0.030	0.030	0.030	0.030	–
	STMR	0.030	0.030	0.030	0.030	–
TLA	HR	0.031	0.030	0.038	0.030	–
	STMR	0.030	0.030	0.030	0.030	–

B.3. Residues in honey

B.3.1. Nature of residues and analytical methods for enforcement purposes in honey

B.3.1.1. Metabolism studies, analytical methods and residue definitions in honey

Metabolism studies in honey	Metabolism studies in honey are not available. The nature of the residues in honey is based on the major components of the residue detected in primary crops, rotational crops and processed commodities.
Honey residue definition for monitoring (RD-Mo)	Mefentrifluconazole
Honey residue definition for risk assessment (RD-RA)	1) Mefentrifluconazole 2) Triazole alanine (TA) and triazole lactic acid (TLA) 3) Triazole acetic acid (TAA) 4) 1,2,4-triazole (1,2,4-T)
Methods of analysis for monitoring of residues (analytical technique, crop groups, LOQs)	Not required since residues above the LOQ of 0.05 mg/kg are not anticipated in honey.

LC-MS/MS: liquid chromatography with tandem mass spectrometry; LOQ: limit of quantification; ILV: independent laboratory validation.

B.3.1.2. Storage stability of residues in honey

Products of animal origin (available studies)	Category	Commodity	T (°C)	Stability period		Compounds covered	Comment/ Source
				Value	Unit		
	Bee products	Honey	≤ −18	24	Months	Mefentrifluconazole	Austria (2022)
			≤ −18	9	Months	1,2,4-triazole (1,2,4-T)	Austria (2022)
			≤ −18	9	Months	Triazole alanine (TA)	Austria (2022)
			≤ −18	9	Months	Triazole acetic acid (TAA)	Austria (2022)
			≤ −18	9	Months	Triazole lactic acid (TLA)	Austria (2022)
		Pollen	≤ −18	24	Months	Mefentrifluconazole	Austria (2022)

B.3.2. Magnitude of residues in honey

B.3.2.1. Summary of residues data from the supervised residue trials

Commodity	Region[(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)	CF[(d)]
Honey	EU	**Mo (MFZ):** 4 × < 0.05 **RA (MFZ):** 4 × < 0.05	Semi-field (tunnel) trials on buckwheat treated with 2 × 150 g mefentrifluconazole/ha at BBCH 62–65 via spray application.	**Mo (MFZ):** 0.05* **RA (MFZ):** 0.05*	**RA (MFZ):** < 0.05	**RA (MFZ):** < 0.05	n.r.
		RA (1,2,4-T): 4 × < 0.05		**RA (1,2,4-T):** 0.05*	**RA (1,2,4-T):** < 0.05	**RA (1,2,4-T):** < 0.05	
		RA (TA): 4 × < 0.05		**RA (TA):** 0.05*	**RA (TA):** < 0.05	**RA (TA):** < 0.05	
		RA (TAA): 4 × < 0.05		**RA (TAA):** 0.05*	**RA (TAA):** < 0.05	**RA (TAA):** < 0.05	
		RA (TLA): 4 × < 0.05		**RA (TLA):** 0.05*	**RA (TLA):** < 0.05	**RA (TLA):** < 0.05	

MRL: maximum residue level; GAP: Good Agricultural Practice; Mo: monitoring; RA: risk assessment; n.r.: not relevant.
*: 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, EU: indoor EU trials or Country code: if non-EU trials.
(b): Highest residue. The highest residue for risk assessment refers to the whole commodity and not to the edible portion.
(c): Supervised trials median residue. The median residue for risk assessment refers to the whole commodity and not to the edible portion.
(d): Conversion factor to recalculate residues according to the residue definition for monitoring to the residue definition for risk assessment.

B.4. Consumer risk assessment

ARfD	**Mefentrifluconazole** 0.15 mg/kg bw (European Commission, 2021a)
Highest IESTI, according to EFSA PRIMo	Spinaches: 54% of ARfD Celeries: 38% of ARfD

	Rhubarbs: 37% of ARfD Peppers: 21% of ARfD Cauliflowers: 18% of ARfD Florence fennels: 19% of ARfD Broccoli: 13% of ARfD Other commodities: < 10% of ARfD
ARfD	**Triazole alanine (TA)** 0.3 mg/kg bw (EFSA, 2018b; European Commission, 2021a)
Highest IESTI, according to EFSA PRIMo	Pistachios: 75% of ARfD Melons: 13% of ARfD Cucumbers: 10% of ARfD Watermelons: 10% of ARfD Other commodities: < 10% of ARfD
ARfD	**Triazole acetic acid (TAA)** 1 mg/kg bw (EFSA, 2018b; European Commission, 2021a)
Highest IESTI, according to EFSA PRIMo	All commodities: < 0.4% of the ARfD
ARfD	**Triazole lactic acid (TLA)** 0.3 mg/kg bw (EFSA, 2018b; European Commission, 2021a)
Highest IESTI, according to EFSA PRIMo	Pistachios: 5% of the ARfD Other commodities: ≤ 1% of the ARfD
ARfD	**1,2,4 Triazole (1,2,4-T)** 0.1 mg/kg bw (EFSA, 2018b; European Commission, 2021a)
Highest IESTI, according to EFSA PRIMo	Milk, cattle: 7% of the ARfD Melons: 2% of the ARfD Other commodities: < 1% of the ARfD
Assumptions made for the calculations	**Mefentrifluconazole** Acute exposure was calculated for the new intended uses and for products of animal origin. The calculation is based on the highest residue levels or the median residue levels (for pulses, oilseeds under consideration, olives for oil production, and milk), as estimated from the submitted residue trials and livestock feeding studies. For citrus fruits and cucurbits with inedible peel, residues in the pulp were used as input values. CFs for risk assessment were applied to poultry tissues and eggs to consider the contribution of residues of the metabolite M750F022 and its fatty acid conjugates. **TDMs** Acute exposure calculations were performed separately for each TDM based on residues anticipated from mefentrifluconazole uses only. The calculations were based on the highest residues or the median residues (for pulses, oilseeds under consideration, olives for oil production, and milk) as estimated from the submitted residue trials and livestock feeding studies. For citrus fruits and cucurbits with inedible peel, residues in the pulp were used as input values. Calculations were performed with PRIMo 3.1.

ADI	**Mefentrifluconazole** 0.035 mg/kg bw per day (European Commission, 2021a)

Highest IEDI, according to EFSA PRIMo	15% of the ADI (NL toddler diet) Contribution of commodities under consideration: Spinaches: 5.03% of the ADI (NL toddler diet) Milk, cattle: 1.71% of the ADI (NL toddler diet) Tomatoes: 1.18% of the ADI (GEMS//Foo G06 diet) Other commodities: < 1% of the ADI
ADI	**Triazole alanine (TA)** 0.3 mg/kg bw per day (EFSA, 2018b; European Commission, 2021a)
Highest IEDI, according to EFSA PRIMo	2% of the ADI (NL toddler diet)
ADI	**Triazole acetic acid (TAA)** 1 mg/kg bw per day (EFSA, 2018b; European Commission, 2021a)
Highest IEDI, according to EFSA PRIMo	0.3% of the ADI (NL toddler diet)
ADI	**Triazole lactic acid (TLA)** 0.3 mg/kg bw per day (EFSA, 2018b; European Commission, 2021a)
Highest IEDI, according to EFSA PRIMo	0.8% of the ADI (NL toddler diet)
ADI	**1,2,4 Triazole (1,2,4-T)** 0.023 mg/kg bw per day (EFSA, 2018b; European Commission, 2021a)
Highest IEDI, according to EFSA PRIMo	19% of the ADI (NL toddler diet) Contribution of commodities under consideration: Milk, cattle: 15% of the ADI Other commodities: < 1% of the ADI
Assumptions made for the calculations	**Mefentrifluconazole** The calculation is based on the median residue levels found in raw agricultural commodities under consideration and in previous assessments (EFSA, 2018c, 2020). For citrus fruits and cucurbits with inedible peel, residues in the pulp were used as input values. For products of animal origin chronic exposure was updated with median residues expected in livestock based on all mefentrifluconazole uses. For poultry products, the conversion factors for risk assessment of 6.2 for muscle, 16.3 for fat, 4.9 for liver and eggs derived during the EU pesticides peer review (EFSA, 2018c) were used to take into consideration residues of M750F022 and its fatty acid conjugates in tissues and eggs. The contribution of commodities where no GAP has been reported to EFSA were not included in the calculation. **TDMs** The calculations are based on the median residue levels expected in raw agricultural commodities from mefentrifluconazole uses, previously assessed (EFSA, 2018c, 2020) and new intended uses. For citrus fruits and cucurbits with inedible peel, residues in the pulp were used as input values. The contribution of commodities where no GAP has been reported to EFSA were not included in the calculation. Calculations were perfumed with PRIMo 3.1.

ARfD: acute reference dose; bw: body weight; IESTI: international estimated short-term intake; PRIMo: (EFSA) Pesticide Residues Intake Model; ADI: acceptable daily intake; IEDI: international estimated daily intake; MRL: maximum residue level; STMR: supervised trials median residue; CXL: codex maximum residue limit.

B.5. Recommended MRLs

Code[a]	Commodity	Existing EU MRL (mg/kg)	Proposed EU MRL (mg/kg)	Comment/justification
Enforcement residue definition: Mefentrifluconazole[b]				
0110000	Citrus fruits	0.01*	0.5	The submitted data on oranges, lemons and mandarins are sufficient to derive a group MRL proposal for the intended SEU uses. Risk for consumers unlikely.
0120060	Hazelnuts	0.01*	0.01* (No change)	An MRL amendment is not required for the intended SEU use on hazelnuts. NEU use is not supported by data. Risk for consumers unlikely.
0120100	Pistachios	0.01*	0.05	The submitted data are sufficient to derive an MRL proposal for the intended SEU use. NEU use is not supported by data. Risk for consumers unlikely.
0152000	Strawberries	0.01*	0.8	The MRL proposal is derived from sufficient data supporting the intended outdoor NEU use. The indoor use is supported by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0154000	Other small fruits and berries	0.01*	2	The submitted data on currants are sufficient to derive a group MRL proposal for the intended NEU uses. The intended use in France southern zone is supported by residue trials form NEU zone. Risk for consumers unlikely.
0161030	Table olives	0.01*	2	The submitted data on table olives are sufficient to derive an MRL proposal for the intended SEU use. Risk for consumers unlikely.
0161060	Kaki/Japanese persimmons	0.01*	0.2	The submitted data on pome fruits are sufficient to derive an MRL proposal for the intended SEU use. Risk for consumers unlikely.
0213000	Other root and tuber vegetables except sugar beets	0.01*	0.1	The submitted data on carrots are sufficient to derive a group MRL proposal for the intended NEU uses. The intended France southern use on beetroot is supported by data from the NEU. Risk for consumers unlikely.
0231010	Tomatoes	0.01*	0.4	The MRL proposal is derived from sufficient data supporting the intended indoor EU use on tomatoes. NEU/SEU uses are covered by this MRL. Risk for consumers unlikely.
0231020	Sweet peppers/bell peppers	0.01*	0.9	The submitted data on peppers are sufficient to derive an MRL proposal for the intended indoor use. Risk for consumers unlikely.
0231030	Aubergines/ eggplants	0.01*	0.4	The MRL proposal is derived from sufficient data on tomatoes supporting the intended indoor EU use. NEU/SEU uses are covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.

Code[(a)]	Commodity	Existing EU MRL (mg/kg)	Proposed EU MRL (mg/kg)	Comment/justification
0232000	Cucurbits with edible peel	0.01*	0.3	The group MRL proposal is derived from sufficient data on cucumbers and courgettes supporting the intended indoor EU uses. NEU/SEU uses are covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0233000	Cucurbits with inedible peel	0.01*	0.3	The MRL proposal is derived from sufficient data on melons supporting the intended SEU use. The intended indoor use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0241000	Flowering brassica	0.01*	0.7	The MRL proposal is derived from sufficient data on cauliflowers and broccoli supporting the intended SEU use. The intended NEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0242010	Brussel sprouts	0.01*	0.4	The submitted data are sufficient to derive an MRL proposal for the intended NEU use. Risk for consumers unlikely.
0242020	Head cabbages	0.01*	0.04	The MRL proposal is derived from sufficient data supporting the intended SEU use. The intended NEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0251060	Roman rocket/ rucola	0.01*	7	The submitted data on spinaches are sufficient to derive an MRL proposal for the intended SEU use. Risk for consumers unlikely.
0251080	Baby leaf crops (including brassica species)	0.01*	7	The submitted data on spinaches are sufficient to derive an MRL proposal for the SEU use. Risk for consumers unlikely.
0252010	Spinaches	0.01*	7	The submitted data on spinaches are sufficient to derive an MRL proposal for the intended SEU use. Risk for consumers unlikely.
0256000	Herbs and edible flowers	0.01*	7	The submitted data on spinaches are sufficient to derive an MRL proposal for the intended SEU use. The intended France northern use is supported by data from the SEU. Risk for consumers unlikely.
0260020	Beans (without pods)	0.01*	0.04	The MRL proposal is derived from sufficient data supporting the intended NEU use. The intended SEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0260040	Peas (without pods)	0.01*	0.08	The MRL proposal is derived from sufficient data supporting the intended SEU use on peas. The intended NEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.

Code[(a)]	Commodity	Existing EU MRL (mg/kg)	Proposed EU MRL (mg/kg)	Comment/justification
0270020	Cardoons	0.01*	3	The submitted data on celeries are sufficient to derive an MRL proposal for the intended SEU use. Risk for consumers unlikely.
0270030	Celeries	0.01*	3	The submitted data on celeries are sufficient to derive an MRL proposal for the intended SEU use. Risk for consumers unlikely.
0270040	Florence fennels	0.01*	3	The submitted data on celeries are sufficient to derive an MRL proposal for the intended SEU use. Risk for consumers unlikely.
0270050	Globe artichokes	0.01*	0.7	The submitted data on globe artichokes are sufficient to derive an MRL for the intended SEU use. Risk for consumers unlikely.
0270070	Rhubarbs	0.01*	3	The submitted data on celeries are sufficient to derive an MRL proposal for the SEU use. Risk for consumers unlikely.
0300010	Beans	0.01*	0.01* (No change)	An MRL amendment is not required for the intended NEU/SEU uses on beans. Risk for consumers unlikely.
0300020	Lentils	0.01*	0.15 or 0.2 Further risk management considerations required.	When pooling the SEU residue data on beans (residues < LOQ) and peas (residues < 0.01–0.13 mg/kg), an MRL of 0.15 mg/kg is calculated. Residue data extrapolation from a more critical SEU use on peas alone would result in an MRL of 0.2 mg/kg. Risk for consumers unlikely for both options.
0300030	Peas	0.01*	0.2	The MRL proposal is derived from sufficient data supporting the SEU use on peas. The NEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0300040	Lupins/lupini beans	0.01*	0.15 or 0.2 Further risk management considerations required.	When pooling the SEU residue data on beans (residues < LOQ) and peas (residues < 0.01–0.13 mg/kg), an MRL of 0.15 mg/kg is calculated. Residue data extrapolation from a more critical SEU use on peas alone would result in an MRL of 0.2 mg/kg. Risk for consumers unlikely for both options.
0300990	Other pulses	0.01*	0.15 or 0.2 Further risk management considerations required.	When pooling the SEU residue data on beans (residues < LOQ) and peas (residues < 0.01–0.13 mg/kg), an MRL of 0.15 mg/kg is calculated. Residue data extrapolation from a more critical SEU use on peas alone would result in an MRL of 0.2 mg/kg. Risk for consumers unlikely for both options.
0401010	Linseeds	0.01*	0.08	The MRL proposal is derived from sufficient data on rapeseeds supporting the intended SEU use. The NEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.

Code[(a)]	Commodity	Existing EU MRL (mg/kg)	Proposed EU MRL (mg/kg)	Comment/justification
0401030	Poppy seeds	0.01*	0.08	The MRL proposal is derived from sufficient data on rapeseeds supporting the intended SEU use. The NEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0401070	Soya beans	0.01*	0.01* (No change)	An MRL amendment is not required for the intended NEU use on soya. Risk for consumers unlikely.
0401080	Mustard seeds	0.01*	0.08	The MRL proposal is derived from sufficient data on rapeseeds supporting the intended SEU use. The NEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0401130	Gold of pleasure seeds	0.01*	0.08	The MRL proposal is derived from sufficient data on rapeseeds supporting the intended SEU use. The NEU use is covered by this MRL, since lower residues are anticipated. Risk for consumers unlikely.
0402010	Olives for oil production	0.01*	3	The submitted data on olives for oil production are sufficient to derive an MRL proposal for the intended SEU use. Risk for consumers unlikely.
0700000	Hops	0.05*	15	The submitted data on hops are sufficient to derive an MRL proposal for the intended NEU use. Risk for consumers unlikely.
1011030	Swine, liver	0.015	0.02	MRL proposal based on the updated livestock burden. Risk for consumers unlikely.
1011990	Swine, other	0.015	0.02	MRL proposal based on the updated livestock burden. Risk for consumers unlikely.

MRL: maximum residue level; NEU: northern Europe; SEU: southern Europe; GAP: Good Agricultural Practice.
*: Indicates that the MRL is set at the limit of analytical quantification (LOQ).
(a): Commodity code number according to Annex I of Regulation (EC) No 396/2005.
(b): It is noted that mefentrifluconazole according to the EU pesticides peer review (EFSA, 2018c) is classified as 'fat soluble', however, the footnote 'F' has not been inserted for the enforcement residue in the respective MRL legislation.

Appendix C – Pesticide Residue Intake Model (PRIMo)

- PRIMo Mefentrifluconazole

European Food Safety Authority

EFSA PRIMo revision 3.1; 2019/03/19

Mefentrifluconazole (F)

LOQs (mg/kg) range from:	0.01	to:	0.05
Toxicological reference values			
ADI (mg/kg bw per day):	0.035	ARfD (mg/kg bw):	0.15
Source of ADI:	COM	Source of ARfD:	COM
Year of evaluation:	2019	Year of evaluation:	2019

Input values

Details – chronic risk assessment | Supplementary results – chronic risk assessment

Details – acute risk assessment/children | Details – acute risk assessment/adults

Comments:

Refined calculation mode

Chronic risk assessment: JMPR methodology (IEDI/TMDI)

No of diets exceeding the ADI : ---

	Calculated exposure (% of ADI)	MS Diet	Exposure (µg/kg bw per day)	Highest contributor to MS diet (in % of ADI)	Commodity/ group of commodities	2nd contributor to MS diet (in % of ADI)	Commodity/ group of commodities	3rd contributor to MS diet (in % of ADI)	Commodity/ group of commodities	Exposure resulting from: MRLs set at the LOQ (in % of ADI)	Exposure resulting from: commodities not under assessment (in % of ADI)
TMDI/NEDI/IEDI calculation (based on average food consumption)	15%	NL toddler	5.14	5%	Spinaches	2%	Apples	2%	Milk: Cattle		15%
	10%	DE child	3.34	3%	Apples	1%	Spinaches	0.7%	Table grapes		10%
	7%	NL child	2.59	2%	Spinaches	1%	Apples	0.7%	Milk: Cattle		7%
	5%	GEMS/Food G06	1.81	1%	Tomatoes	0.5%	Table grapes	0.4%	Olives for oil production		5%
	5%	GEMS/Food G08	1.74	0.8%	Olives for oil production	0.5%	Wine grapes	0.4%	Tomatoes		5%
	5%	IE adult	1.73	0.9%	Spinaches	0.6%	Wine grapes	0.4%	Rhubarbs		5%
	5%	GEMS/Food G11	1.69	0.6%	Spinaches	0.5%	Wine grapes	0.5%	Celeries		5%
	5%	GEMS/Food G07	1.62	0.8%	Wine grapes	0.4%	Tomatoes	0.3%	Olives for oil production		5%
	4%	FR child 3 15 yr	1.55	0.7%	Spinaches	0.7%	Milk: Cattle	0.4%	Apples		4%
	4%	GEMS/Food G15	1.52	0.5%	Wine grapes	0.4%	Tomatoes	0.3%	Sweet peppers/bell peppers		4%
	4%	FR toddler 2 3 yr	1.52	1%	Spinaches	0.8%	Milk: Cattle	0.7%	Apples		4%
	4%	GEMS/Food G10	1.47	0.4%	Tomatoes	0.4%	Olives for oil production	0.3%	Spinaches		4%
	4%	RO general	1.34	0.9%	Wine grapes	0.6%	Tomatoes	0.3%	Milk: Cattle		4%
	4%	DE women 14-50 yr	1.34	0.6%	Apples	0.4%	Wine grapes	0.4%	Milk: Cattle		4%
	4%	DE general	1.30	0.6%	Apples	0.4%	Wine grapes	0.4%	Milk: Cattle		4%
	4%	ES child	1.30	0.7%	Olives for oil production	0.6%	Spinaches	0.4%	Milk: Cattle		4%
	4%	FR infant	1.29	2%	Spinaches	0.5%	Milk: Cattle	0.4%	Apples		4%
	3%	NL general	1.20	1%	Spinaches	0.3%	Apples	0.3%	Wine grapes		3%
	3%	UK infant	1.14	1%	Milk: Cattle	0.4%	Apples	0.2%	Eggs: Chicken		3%
	3%	SE general	1.12	0.5%	Bovine: Muscle/meat	0.5%	Spinaches	0.4%	Milk: Cattle		3%
	3%	PT general	1.11	1%	Wine grapes	0.3%	Tomatoes	0.3%	Olives for oil production		3%
	3%	FR adult	1.06	1%	Wine grapes	0.4%	Spinaches	0.2%	Apples		3%
	3%	UK toddler	1.06	0.6%	Milk: Cattle	0.4%	Apples	0.2%	Currants (red, black and white)		3%
	3%	ES adult	1.03	0.5%	Spinaches	0.4%	Olives for oil production	0.3%	Tomatoes		3%
	3%	DK child	1.02	0.5%	Apples	0.4%	Milk: Cattle	0.2%	Cucumbers		3%
	2%	IT adult	0.85	0.7%	Spinaches	0.4%	Tomatoes	0.2%	Apples		2%
	2%	IT toddler	0.82	0.5%	Tomatoes	0.4%	Spinaches	0.2%	Apples		2%
	2%	FI 3 yr	0.79	0.5%	Spinaches	0.2%	Apples	0.2%	Strawberries		2%
	2%	DK adult	0.64	0.5%	Wine grapes	0.2%	Apples	0.2%	Tomatoes		2%
	2%	UK vegetarian	0.63	0.4%	Wine grapes	0.2%	Spinaches	0.2%	Tomatoes		2%
	2%	UK adult	0.60	0.6%	Wine grapes	0.1%	Tomatoes	0.1%	Spinaches		2%
	2%	FI 6 yr	0.58	0.4%	Spinaches	0.2%	Strawberries	0.1%	Tomatoes		2%
	2%	PL general	0.56	0.5%	Apples	0.3%	Tomatoes	0.2%	Table grapes		2%
	1%	LT adult	0.48	0.4%	Apples	0.2%	Tomatoes	0.1%	Milk: Cattle		1%
	1%	FI adult	0.37	0.2%	Tomatoes	0.2%	Wine grapes	0.1%	Apples		1%
	0.6%	IE child	0.20	0.1%	Milk: Cattle	0.1%	Apples	0.1%	Currants (red, black and white)		0.6%

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

Acute risk assessment/children	Acute risk assessment/adults/general population
Details – acute risk assessment/children	Details – acute risk assessment/adults

The acute risk assessment is based on the ARfD.
The calculation is based on the large portion of the most critical consumer group.

Show results for all crops

Unprocessed commodities

Results for children
No. of commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
54%	Spinaches	7/3.6	81
38%	Celeries	3/1.51	56
37%	Rhubarbs	3/1.51	56
29%	Peaches	0.7/0.45	43
26%	Table grapes	0.9/0.53	39
25%	Pears	0.4/0.27	37
21%	Sweet peppers/bell peppers	0.9/0.53	32
19%	Apples	0.4/0.27	29
18%	Cauliflowers	0.7/0.46	27
16%	Florence fennels	3/1.51	25
13%	Broccoli	0.7/0.46	19
10%	Apricots	0.7/0.45	16
10%	Cherries (sweet)	2/1.2	15
8%	Plums	0.5/0.3	13
8%	Cucumbers	0.3/0.18	12

Expand/collapse list

Results for adults
No. of commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
19%	Florence fennels	3/1.51	28
16%	Celeries	3/1.51	24
12%	Table grapes	0.9/0.53	18
10%	Cardoons	3/1.51	16
10%	Spinaches	7/3.6	14
9%	Rhubarbs	3/1.51	14
8%	Wine grapes	0.9/0.53	13
8%	Cherries (sweet)	2/1.2	12
7%	Broccoli	0.7/0.46	11
7%	Cauliflowers	0.7/0.46	11
6%	Sweet peppers/bell peppers	0.9/0.53	8.6
6%	Peaches	0.7/0.45	8.4
5%	Pears	0.4/0.27	8.2
5%	Blueberries	2/0.84	7.7
5%	Apples	0.4/0.27	7.6

Total number of commodities exceeding the ARfD/ADI in children and adult diets (IESTI calculation)

Processed commodities

Results for children
No of processed commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Processed commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
46%	Florence fennels/boiled	3/1.51	68
38%	Rhubarbs/sauce/puree	3/1.51	56
33%	Spinaches/frozen; boiled	7/3.6	50
24%	Broccoli/boiled	0.7/0.46	36
21%	Cauliflowers/boiled	0.7/0.46	32
12%	Currants (red, black and white	2/0.61	17
8%	Peaches/canned	0.7/0.45	12
6%	Elderberries/juice	2/0.61	9.6
5%	Wine grapes/juice	0.9/0.18	7.9
4%	Courgettes/boiled	0.3/0.18	6.4
3%	Apples/juice	0.4/0.08	4.3
3%	Gherkins/pickled	0.3/0.18	4.1
2%	Cranberries/juice	2/0.61	3.5
2%	Azarole (mediteranean medla	2/0.61	3.4
2%	Turnips/boiled	0.1/0.06	2.8

Expand/collapse list

Results for adults
No of processed commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Processed commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
34%	Celeries/boiled	3/1.51	51
20%	Spinaches/frozen; boiled	7/3.6	30
20%	Florence fennels/boiled	3/1.51	29
15%	Rhubarbs/sauce/puree	3/1.51	22
13%	Cauliflowers/boiled	0.7/0.46	19
12%	Cardoons/boiled	3/1.51	18
7%	Broccoli/boiled	0.7/0.46	11
5%	Currants (red, black and	2/0.61	7.7
4%	Elderberries/juice	2/0.61	5.6
3%	Wine grapes/wine	0.9/0.53	5.0
3%	Courgettes/boiled	0.3/0.18	4.1
2%	Wine grapes/juice	0.9/0.18	3.7
2%	Peaches/canned	0.7/0.45	3.7
2%	Table grapes/raisins	0.9/2.49	3.1
2%	Barley/beer	0.6/0.08	3.0

Conclusion:
No exceedance of the toxicological reference value was identified for any unprocessed commodity.
A short-term intake of residues of Mefentrifluconazole (F) is unlikely to present a public health risk.
For processed commodities, no exceedance of the ARfD/ADI was identified.

- PRIMo Triazole alanine

European Food Safety Authority

EFSA PRIMo revision 3.1; 2019/03/19

TA

LOQs (mg/kg) range from: to:

Toxicological reference values

ADI (mg/kg bw per day):	0.3	ARfD (mg/kg bw):	0.3
Source of ADI:	COM	Source of ARfD:	COM
Year of evaluation:	2021	Year of evaluation:	2021

Input values

Details – chronic risk assessment | Supplementary results – chronic risk assessment

Details – acute risk assessment/children | Details – acute risk assessment/adults

Comments:

Refined calculation mode

Chronic risk assessment: JMPR methodology (IEDI/TMDI)

No of diets exceeding the ADI : ---

	Calculated exposure (% of ADI)	MS Diet	Expsoure (µg/kg bw per day)	Highest contributor to MS diet (in % of ADI)	Commodity/ group of commodities	2nd contributor to MS diet (in % of ADI)	Commodity/ group of commodities	3rd contributor to MS diet (in % of ADI)	Commodity/ group of commodities	Exposure resulting from MRLs set at the LOQ (in % of ADI)	Exposure resulting from commodities not under assessment (in % of ADI)
TMDI/NEDI/IEDI calculation (based on average food consumption)	2%	NL toddler	5.63	0.6%	Milk: Cattle	0.3%	Wheat	0.3%	Apples		2%
	1%	DK child	3.75	0.5%	Rye	0.4%	Wheat	0.1%	Milk: Cattle		1%
	1%	DE child	3.52	0.4%	Wheat	0.3%	Apples	0.2%	Milk: Cattle		1%
	1%	GEMS/Food G08	3.48	0.3%	Wheat	0.2%	Soyabeans	0.2%	Olives for oil production		1%
	1%	GEMS/Food G06	3.36	0.6%	Wheat	0.1%	Soyabeans	0.1%	Olives for oil production		1%
	1%	GEMS/Food G10	3.32	0.3%	Soyabeans	0.3%	Wheat	0.1%	Olives for oil production		1%
	1%	GEMS/Food G11	3.29	0.4%	Soyabeans	0.3%	Wheat	0.1%	Milk: Cattle		1%
	1%	NL child	3.20	0.3%	Wheat	0.2%	Milk: Cattle	0.1%	Apples		1%
	1%	GEMS/Food G15	3.09	0.4%	Wheat	0.2%	Soyabeans	0.1%	Milk: Cattle		1%
	1.0%	GEMS/Food G07	2.98	0.4%	Wheat	0.2%	Soyabeans	0.1%	Milk: Cattle		1.0%
	0.9%	FR child 3 15 yr	2.84	0.4%	Wheat	0.2%	Milk: Cattle	0.0%	Apples		0.9%
	0.9%	UK infant	2.78	0.4%	Milk: Cattle	0.2%	Wheat	0.1%	Peas (without pods)		0.9%
	0.9%	ES child	2.68	0.4%	Wheat	0.2%	Olives for oil production	0.1%	Milk: Cattle		0.9%
	0.8%	FR toddler 2 3 yr	2.49	0.3%	Milk: Cattle	0.3%	Wheat	0.1%	Apples		0.8%
	0.8%	RO general	2.49	0.4%	Wheat	0.1%	Milk: Cattle	0.1%	Head cabbages		0.8%
	0.8%	UK toddler	2.41	0.3%	Wheat	0.2%	Milk: Cattle	0.0%	Apples		0.8%
	0.7%	SE general	2.13	0.3%	Wheat	0.1%	Milk: Cattle	0.1%	Bovine: Muscle/meat		0.7%
	0.7%	IT toddler	1.98	0.6%	Wheat	0.0%	Apples	0.0%	Peaches		0.7%
	0.6%	PT general	1.88	0.3%	Wheat	0.1%	Olives for oil production	0.1%	Potatoes		0.6%
	0.6%	DE general	1.80	0.2%	Wheat	0.1%	Milk: Cattle	0.1%	Apples		0.6%
	0.6%	DE women 14-50 yr	1.78	0.2%	Wheat	0.1%	Milk: Cattle	0.1%	Apples		0.6%
	0.6%	IE adult	1.76	0.2%	Wheat	0.0%	Milk: Cattle	0.0%	Potatoes		0.6%
	0.5%	ES adult	1.59	0.2%	Wheat	0.1%	Olives for oil production	0.0%	Milk: Cattle		0.5%
	0.5%	NL general	1.47	0.2%	Wheat	0.1%	Milk: Cattle	0.0%	Apples		0.5%
	0.4%	IT adult	1.32	0.3%	Wheat	0.0%	Apples	0.0%	Peaches		0.4%
	0.4%	FR adult	1.15	0.2%	Wheat	0.0%	Milk: Cattle	0.0%	Apples		0.4%
	0.4%	FR infant	1.15	0.2%	Milk: Cattle	0.1%	Wheat	0.0%	Apples		0.4%
	0.4%	LT adult	1.14	0.1%	Rye	0.1%	Wheat	0.0%	Apples		0.4%
	0.4%	FI 3 yr	1.13	0.1%	Wheat	0.1%	Rye	0.0%	Oat		0.4%
	0.3%	UK vegetarian	0.96	0.2%	Wheat	0.0%	Milk: Cattle	0.0%	Beans		0.3%
	0.3%	DK adult	0.93	0.1%	Wheat	0.1%	Milk: Cattle	0.0%	Rye		0.3%
	0.3%	FI 6 yr	0.88	0.1%	Wheat	0.1%	Rye	0.0%	Potatoes		0.3%
	0.3%	UK adult	0.85	0.1%	Wheat	0.0%	Milk: Cattle	0.0%	Bovine: Muscle/meat		0.3%
	0.2%	IE child	0.51	0.1%	Wheat	0.0%	Milk: Cattle	0.0%	Apples		0.2%
	0.2%	FI adult	0.50	0.1%	Rye	0.0%	Wheat	0.0%	Cucumbers		0.2%
	0.1%	PL general	0.41	0.0%	Apples	0.0%	Potatoes	0.0%	Head cabbages		0.1%

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

Acute risk assessment/children	Acute risk assessment/adults/general population
Details – acute risk assessment/children	Details – acute risk assessment/adults

The acute risk assessment is based on the ARfD.
The calculation is based on the large portion of the most critical consumer group.

Show results for all crops

Unprocessed commodities

Results for children
No. of commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
75%	Pistachios	0/39	226
35%	Peaches	0/1.1	105
19%	Pears	0/0.41	57
15%	Apples	0/0.41	44
13%	Apricots	0/1.1	38
13%	Melons	0/0.25	38
10%	Cucumbers	0/0.47	31
10%	Watermelons	0/0.25	31
9%	Potatoes	0/0.17	26
7%	Courgettes	0/0.47	22
7%	Plums	0/0.51	21
6%	Kaki/Japanese persimmons	0/0.41	19
6%	Cauliflowers	0/0.31	18
4%	Peas (without pods)	0/1.6	13
4%	Broccoli	0/0.31	13

Expand/collapse list

Results for adults
No. of commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
35%	Pistachios	0/39	104
7%	Peaches	0/1.1	21
4%	Cucumbers	0/0.47	13
4%	Pears	0/0.41	13
4%	Apricots	0/1.1	12
4%	Head cabbages	0/0.28	12
4%	Apples	0/0.41	12
4%	Courgettes	0/0.47	11
3%	Watermelons	0/0.25	10
3%	Melons	0/0.25	9.8
3%	Plums	0/0.51	9.1
3%	Kaki/Japanese persimmons	0/0.41	9.0
3%	Peas (without pods)	0/1.6	8.5
2%	Broccoli	0/0.31	7.4
2%	Cauliflowers	0/0.31	7.2

Total number of commodities exceeding the ARfD/ADI in children and adult diets (IESTI calculation)

Processed commodities

Results for children
No of processed commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Processed commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
10%	Peaches/canned	0/1.1	29
8%	Broccoli/boiled	0/0.31	24
7%	Pumpkins/boiled	0/0.25	22
7%	Cauliflowers/boiled	0/0.31	22
6%	Courgettes/boiled	0/0.47	17
5%	Potatoes/fried	0/0.17	16
4%	Gherkins/pickled	0/0.47	11
3%	Maize/oil	0/9.5	8.8
2%	Turnips/boiled	0/0.14	7.1
2%	Parsnips/boiled	0/0.14	7.1
2%	Beetroots/boiled	0/0.14	6.2
1%	Apples/juice	0/0.07	3.8
1%	Salsifies/boiled	0/0.14	3.6
1%	Jerusalem artichokes/boiled	0/0.14	3.6
0.8%	Pears/juice	0/0.07	2.3

Expand/collapse list

Results for adults
No of processed commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Processed commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
5%	Pumpkins/boiled	0/0.25	14
4%	Cauliflowers/boiled	0/0.31	13
4%	Courgettes/boiled	0/0.47	11
3%	Peaches/canned	0/1.1	9.0
2%	Broccoli/boiled	0/0.31	7.5
2%	Beetroots/boiled	0/0.14	5.4
2%	Peas (without pods)/boiled	0/1.6	5.0
2%	Maize/oil	0/9.5	4.8
1.0%	Parsnips/boiled	0/0.14	3.0
0.9%	Turnips/boiled	0/0.14	2.7
0.8%	Celeriacs/boiled	0/0.14	2.5
0.8%	Beans (without pods)/boiled	0/0.49	2.5
0.8%	Apples/juice	0/0.07	2.3
0.4%	Head cabbages/canned	0/0.13	1.2
0.4%	Salsifies/boiled	0/0.14	1.2

Conclusion:
No exceedance of the toxicological reference value was identified for any unprocessed commodity.
A short-term intake of residues of TA is unlikely to present a public health risk.
For processed commodities, no exceedance of the ARfD/ADI was identified.

- PRIMo Triazole lactic acid

European Food Safety Authority

EFSA PRIMo revision 3.1; 2019/03/19

TLA

LOQs (mg/kg) range from: to:

Toxicological reference values

ADI (mg/kg bw per day):	0.3	ARfD (mg/kg bw):	0.3
Source of ADI:	COM	Source of ARfD:	COM
Year of evaluation:	2021	Year of evaluation:	2021

Input values

Details – chronic risk assessment | Supplementary results – chronic risk assessment

Details – acute risk assessment/children | Details – acute risk assessment/adults

Comments:

Refined calculation mode

Chronic risk assessment: JMPR methodology (IEDI/TMDI)

No of diets exceeding the ADI : ---

	Calculated exposure (% of ADI)	MS Diet	Expsoure (µg/kg bw per day)	Highest contributor to MS diet (in % of ADI)	Commodity/ group of commodities	2nd contributor to MS diet (in % of ADI)	Commodity/ group of commodities	3rd contributor to MS diet (in % of ADI)	Commodity/ group of commodities	Exposure resulting from MRLs set at the LOQ (in % of ADI)	Exposure resulting from commodities not under assessment (in % of ADI)
TMDI/NEDI/IEDI calculation (based on average food consumption)	0.8%	NL toddler	2.43	0.6%	Milk: Cattle	0.0%	Apples	0.0%	Maize/corn		0.8%
	0.5%	UK infant	1.42	0.4%	Milk: Cattle	0.0%	Eggs: Chicken	0.0%	Bovine: Muscle/meat		0.5%
	0.4%	NL child	1.19	0.2%	Milk: Cattle	0.0%	Sugar beet roots	0.0%	Apples		0.4%
	0.4%	FR toddler 2 3 yr	1.18	0.3%	Milk: Cattle	0.0%	Bovine: Muscle/meat	0.0%	Swine: Muscle/meat		0.4%
	0.4%	FR child 3 15 yr	1.07	0.2%	Milk: Cattle	0.0%	Wheat	0.0%	Bovine: Muscle/meat		0.4%
	0.4%	DE child	1.06	0.2%	Milk: Cattle	0.0%	Apples	0.0%	Wheat		0.4%
	0.3%	UK toddler	0.90	0.2%	Milk: Cattle	0.0%	Wheat	0.0%	Bovine: Muscle/meat		0.3%
	0.2%	DK child	0.75	0.1%	Milk: Cattle	0.0%	Swine: Muscle/meat	0.0%	Rye		0.2%
	0.2%	SE general	0.69	0.1%	Milk: Cattle	0.0%	Bovine: Muscle/meat	0.0%	Potatoes		0.2%
	0.2%	ES child	0.68	0.1%	Milk: Cattle	0.0%	Wheat	0.0%	Bovine: Muscle/meat		0.2%
	0.2%	RO general	0.67	0.1%	Milk: Cattle	0.0%	Wheat	0.0%	Potatoes		0.2%
	0.2%	FR infant	0.64	0.2%	Milk: Cattle	0.0%	Potatoes	0.0%	Apples		0.2%
	0.2%	DE women 14-50 yr	0.64	0.1%	Milk: Cattle	0.0%	Sugar beet roots	0.0%	Swine: Muscle/meat		0.2%
	0.2%	DE general	0.63	0.1%	Milk: Cattle	0.0%	Sugar beet roots	0.0%	Swine: Muscle/meat		0.2%
	0.2%	GEMS/Food G11	0.58	0.1%	Milk: Cattle	0.0%	Soyabeans	0.0%	Potatoes		0.2%
	0.2%	GEMS/Food G15	0.57	0.1%	Milk: Cattle	0.0%	Wheat	0.0%	Swine: Muscle/meat		0.2%
	0.2%	GEMS/Food G07	0.56	0.1%	Milk: Cattle	0.0%	Wheat	0.0%	Potatoes		0.2%
	0.2%	GEMS/Food G08	0.53	0.1%	Milk: Cattle	0.0%	Swine: Muscle/meat	0.0%	Wheat		0.2%
	0.2%	GEMS/Food G10	0.50	0.1%	Milk: Cattle	0.0%	Poultry: Muscle/meat	0.0%	Soyabeans		0.2%
	0.2%	NL general	0.49	0.1%	Milk: Cattle	0.0%	Sugar beet roots	0.0%	Swine: Muscle/meat		0.2%
	0.1%	GEMS/Food G06	0.42	0.0%	Milk: Cattle	0.0%	Wheat	0.0%	Tomatoes		0.1%
	0.1%	IE adult	0.40	0.0%	Milk: Cattle	0.0%	Wine grapes	0.0%	Wheat		0.1%
	0.1%	ES adult	0.34	0.0%	Milk: Cattle	0.0%	Wheat	0.0%	Bovine: Muscle/meat		0.1%
	0.1%	FR adult	0.34	0.0%	Milk: Cattle	0.0%	Wine grapes	0.0%	Wheat		0.1%
	0.1%	DK adult	0.32	0.1%	Milk: Cattle	0.0%	Swine: Muscle/meat	0.0%	Wine grapes		0.1%
	0.1%	LT adult	0.28	0.0%	Milk: Cattle	0.0%	Potatoes	0.0%	Swine: Muscle/meat		0.1%
	0.1%	UK adult	0.22	0.0%	Milk: Cattle	0.0%	Wine grapes	0.0%	Bovine: Muscle/meat		0.1%
	0.1%	PT general	0.22	0.0%	Potatoes	0.0%	Wine grapes	0.0%	Wheat		0.1%
	0.1%	UK vegetarian	0.21	0.0%	Milk: Cattle	0.0%	Wheat	0.0%	Wine grapes		0.1%
	0.1%	IE child	0.16	0.0%	Milk: Cattle	0.0%	Wheat	0.0%	Potatoes		0.1%
	0.0%	FI 3 yr	0.14	0.0%	Potatoes	0.0%	Wheat	0.0%	Cucumbers		0.0%
	0.0%	IT toddler	0.14	0.0%	Wheat	0.0%	Tomatoes	0.0%	Potatoes		0.0%
	0.0%	FI 6 yr	0.11	0.0%	Potatoes	0.0%	Wheat	0.0%	Cucumbers		0.0%
	0.0%	IT adult	0.11	0.0%	Wheat	0.0%	Tomatoes	0.0%	Apples		0.0%
	0.0%	PL general	0.10	0.0%	Potatoes	0.0%	Apples	0.0%	Tomatoes		0.0%
	0.0%	FI adult	0.07	0.0%	Potatoes	0.0%	Rye	0.0%	Wine grapes		0.0%

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

Acute risk assessment/children	Acute risk assessment/adults/general population
Details – acute risk assessment/children	Details – acute risk assessment/adults

The acute risk assessment is based on the ARfD.
The calculation is based on the large portion of the most critical consumer group.

Show results for all crops

Unprocessed commodities

Results for children
No. of commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
5%	Pistachios	0/2.4	14
4%	Peaches	0/0.14	13
3%	Pears	0/0.06	8.3
2%	Apples	0/0.06	6.5
2%	Table grapes	0/0.07	5.1
2%	Apricots	0/0.14	4.9
1%	Milk: Cattle	0/0.03	3.7
1%	Melons	0/0.02	3.6
1%	Carrots	0/0.05	3.4
1%	Beetroots	0/0.05	3.0
1.0%	Watermelons	0/0.02	2.9
1.0%	Celeriacs/turnip rooted	0/0.05	2.9
0.9%	Currants (red, black and	0/0.36	2.8
0.9%	Swedes/rutabagas	0/0.05	2.7
0.8%	Plums	0/0.06	2.5

Expand/collapse list

Total number of commodities exceeding the ARfD/ADI in children and adult diets (IESTI calculation)

Results for adults
No. of commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
2%	Pistachios	0/2.4	6.4
1%	Blueberries	0/0.36	3.3
0.9%	Peaches	0/0.14	2.6
0.8%	Currants (red, black and	0/0.36	2.4
0.8%	Table grapes	0/0.07	2.4
0.6%	Pears	0/0.06	1.8
0.6%	Swedes/rutabagas	0/0.05	1.8
0.6%	Apples	0/0.06	1.7
0.6%	Wine grapes	0/0.07	1.7
0.5%	Gooseberries (green, red and	0/0.36	1.6
0.5%	Apricots	0/0.14	1.5
0.4%	Beetroots	0/0.05	1.2
0.4%	Milk: Cattle	0/0.03	1.2
0.4%	Plums	0/0.06	1.1
0.3%	Carrots	0/0.05	1.0

Processed commodities

Results for children
No of processed commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Processed commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
1%	Peaches/canned	0/0.14	3.6
0.9%	Turnips/boiled	0/0.05	2.7
0.9%	Parsnips/boiled	0/0.05	2.7
0.8%	Beetroots/boiled	0/0.05	2.3
0.8%	Florence fennels/boiled	0/0.05	2.3
0.7%	Pumpkins/boiled	0/0.02	2.1
0.6%	Rhubarbs/sauce/puree	0/0.05	1.9
0.6%	Maize/oil	0/2	1.9
0.5%	Salsifies/boiled	0/0.05	1.4
0.5%	Jerusalem artichokes/boiled	0/0.05	1.4
0.4%	Courgettes/boiled	0/0.03	1.2
0.4%	Sugar beets (root)/sugar	0/0.12	1.1
0.3%	Currants (red, black and white	0/0.04	1.0
0.3%	Spinaches/frozen; boiled	0/0.07	0.99
0.3%	Potatoes/fried	0/0.01	0.93

Expand/collapse list

Results for adults
No of processed commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Processed commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
0.7%	Beetroots/boiled	0/0.05	2.1
0.6%	Celeries/boiled	0/0.05	1.7
0.4%	Pumpkins/boiled	0/0.02	1.3
0.4%	Peaches/canned	0/0.14	1.1
0.4%	Parsnips/boiled	0/0.05	1.1
0.3%	Maize/oil	0/2	1.0
0.3%	Turnips/boiled	0/0.05	1.0
0.3%	Florence fennels/boiled	0/0.05	0.97
0.3%	Celeriacs/boiled	0/0.05	0.96
0.3%	Courgettes/boiled	0/0.03	0.75
0.2%	Rhubarbs/sauce/puree	0/0.05	0.73
0.2%	Wine grapes/wine	0/0.07	0.66
0.2%	Cardoons/boiled	0/0.05	0.61
0.2%	Spinaches/frozen; boiled	0/0.07	0.59
0.2%	Currants (red, black and	0/0.04	0.46

Conclusion:
No exceedance of the toxicological reference value was identified for any unprocessed commodity.
A short-term intake of residues of TLA is unlikely to present a public health risk.
For processed commodities, no exceedance of the ARfD/ADI was identified.

- PRIMo Triazole acetic acid

European Food Safety Authority

EFSA PRIMo revision 3.1; 2019/03/19

TAA

LOQs (mg/kg) range from: to:

Toxicological reference values

ADI (mg/kg bw per day):	1	ARfD (mg/kg bw):	1
Source of ADI:	COM	Source of ARfD:	COM
Year of evaluation:	2021	Year of evaluation:	2021

Input values | Details – chronic risk assessment | Supplementary results – chronic risk assessment | Details – acute risk assessment/children | Details – acute risk assessment/adults

Comments:

Refined calculation mode

Chronic risk assessment: JMPR methodology (IEDI/TMDI)

No of diets exceeding the ADI : ---

	Calculated exposure (% of ADI)	MS Diet	Expsoure (µg/kg bw per day)	Highest contributor to MS diet (in % of ADI)	Commodity/ group of commodities	2nd contributor to MS diet (in % of ADI)	Commodity/ group of commodities	3rd contributor to MS diet (in % of ADI)	Commodity/ group of commodities	Exposure resulting from: MRLs set at the LOQ (in % of ADI)	Exposure resulting from: commodities not under assessment (in % of ADI)
TMDI/NEDI/IEDI calculation (based on average food consumption)	0.3%	NL toddler	2.91	0.2%	Milk: Cattle	0.0%	Apples	0.0%	Wheat		0.3%
	0.2%	UK infant	1.61	0.1%	Milk: Cattle	0.0%	Wheat	0.0%	Apples		0.2%
	0.2%	DE child	1.54	0.1%	Milk: Cattle	0.0%	Apples	0.0%	Wheat		0.2%
	0.1%	NL child	1.50	0.1%	Milk: Cattle	0.0%	Wheat	0.0%	Apples		0.1%
	0.1%	FR toddler 2 3 yr	1.37	0.1%	Milk: Cattle	0.0%	Wheat	0.0%	Apples		0.1%
	0.1%	FR child 3 15 yr	1.30	0.1%	Milk: Cattle	0.0%	Wheat	0.0%	Apples		0.1%
	0.1%	DK child	1.26	0.0%	Milk: Cattle	0.0%	Rye	0.0%	Wheat		0.1%
	0.1%	UK toddler	1.13	0.1%	Milk: Cattle	0.0%	Wheat	0.0%	Apples		0.1%
	0.1%	RO general	0.94	0.0%	Milk: Cattle	0.0%	Wheat	0.0%	Apples		0.1%
	0.1%	ES child	0.89	0.0%	Milk: Cattle	0.0%	Wheat	0.0%	Bovine: Muscle/meat		0.1%
	0.1%	SE general	0.89	0.0%	Milk: Cattle	0.0%	Wheat	0.0%	Bovine: Muscle/meat		0.1%
	0.1%	GEMS/Food G15	0.85	0.0%	Wheat	0.0%	Milk: Cattle	0.0%	Barley		0.1%
	0.1%	GEMS/Food G08	0.80	0.0%	Wheat	0.0%	Milk: Cattle	0.0%	Barley		0.1%
	0.1%	DE general	0.80	0.0%	Milk: Cattle	0.0%	Wheat	0.0%	Apples		0.1%
	0.1%	GEMS/Food G07	0.80	0.0%	Wheat	0.0%	Milk: Cattle	0.0%	Barley		0.1%
	0.1%	DE women 14-50 yr	0.80	0.0%	Milk: Cattle	0.0%	Wheat	0.0%	Apples		0.1%
	0.1%	GEMS/Food G11	0.80	0.0%	Milk: Cattle	0.0%	Wheat	0.0%	Barley		0.1%
	0.1%	GEMS/Food G06	0.79	0.0%	Wheat	0.0%	Milk: Cattle	0.0%	Tomatoes		0.1%
	0.1%	GEMS/Food G10	0.74	0.0%	Wheat	0.0%	Milk: Cattle	0.0%	Barley		0.1%
	0.1%	FR infant	0.70	0.1%	Milk: Cattle	0.0%	Apples	0.0%	Wheat		0.1%
	0.1%	NL general	0.61	0.0%	Milk: Cattle	0.0%	Wheat	0.0%	Apples		0.1%
	0.1%	IE adult	0.53	0.0%	Wheat	0.0%	Milk: Cattle	0.0%	Potatoes		0.1%
	0.0%	ES adult	0.50	0.0%	Milk: Cattle	0.0%	Wheat	0.0%	Barley		0.0%
	0.0%	IT toddler	0.49	0.0%	Wheat	0.0%	Apples	0.0%	Tomatoes		0.0%
	0.0%	PT general	0.44	0.0%	Wheat	0.0%	Potatoes	0.0%	Apples		0.0%
	0.0%	FR adult	0.42	0.0%	Milk: Cattle	0.0%	Wheat	0.0%	Wine grapes		0.0%
	0.0%	LT adult	0.40	0.0%	Milk: Cattle	0.0%	Rye	0.0%	Wheat		0.0%
	0.0%	DK adult	0.38	0.0%	Milk: Cattle	0.0%	Wheat	0.0%	Rye		0.0%
	0.0%	IT adult	0.33	0.0%	Wheat	0.0%	Apples	0.0%	Tomatoes		0.0%
	0.0%	UK vegetarian	0.32	0.0%	Wheat	0.0%	Milk: Cattle	0.0%	Apples		0.0%
	0.0%	UK adult	0.31	0.0%	Wheat	0.0%	Milk: Cattle	0.0%	Bovine: Muscle/meat		0.0%
	0.0%	FI 3 yr	0.30	0.0%	Wheat	0.0%	Oat	0.0%	Potatoes		0.0%
	0.0%	FI 6 yr	0.23	0.0%	Wheat	0.0%	Potatoes	0.0%	Rye		0.0%
	0.0%	IE child	0.22	0.0%	Milk: Cattle	0.0%	Wheat	0.0%	Apples		0.0%
	0.0%	PL general	0.14	0.0%	Apples	0.0%	Potatoes	0.0%	Tomatoes		0.0%
	0.0%	FI adult	0.14	0.0%	Rye	0.0%	Wheat	0.0%	Apples		0.0%

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

Acute risk assessment/children	Acute risk assessment/adults/general population
Details – acute risk assessment/children	Details – acute risk assessment/adults

The acute risk assessment is based on the ARfD.
The calculation is based on the large portion of the most critical consumer group.

Show results for all crops

Unprocessed commodities

Results for children
No. of commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
0.8%	Peaches	0/0.08	7.6
0.4%	Milk: Cattle	0/0.03	3.7
0.3%	Apricots	0/0.08	2.8
0.2%	Melons	0/0.02	2.3
0.2%	Watermelons	0/0.02	1.8
0.2%	Potatoes	0/0.01	1.5
0.1%	Pears	0/0.01	1.4
0.1%	Oranges	0/0.01	1.3
0.1%	Apples	0/0.01	1.1
0.09%	Pistachios	0/0.15	0.87
0.09%	Wheat	0/0.06	0.87
0.08%	Plums	0/0.02	0.84
0.08%	Grapefruits	0/0.01	0.79
0.07%	Table grapes	0/0.01	0.73
0.07%	Milk: Goat	0/0.03	0.73

Expand/collapse list

Results for adults
No. of commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
0.1%	Peaches	0/0.08	1.5
0.1%	Milk: Cattle	0/0.03	1.2
0.09%	Apricots	0/0.08	0.87
0.06%	Watermelons	0/0.02	0.61
0.06%	Melons	0/0.02	0.59
0.06%	Milk: Goat	0/0.03	0.55
0.05%	Wheat	0/0.06	0.50
0.05%	Cherries (sweet)	0/0.05	0.50
0.05%	Milk: Sheep	0/0.03	0.45
0.04%	Barley	0/0.09	0.44
0.04%	Head cabbages	0/0.01	0.42
0.04%	Blueberries	0/0.04	0.40
0.04%	Pistachios	0/0.15	0.40
0.04%	Plums	0/0.02	0.36
0.04%	Poultry: Muscle	0/0.03	0.35

Total number of commodities exceeding the ARfD/ADI in children and adult diets (IESTI calculation)

Processed commodities

Results for children
No of processed commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Processed commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
0.5%	Wheat/milling (flour)	0/0.42	5.1
0.2%	Wheat/milling (wholemeal)-ba	0/0.42	2.3
0.2%	Peaches/canned	0/0.08	2.1
0.2%	Oat/boiled	0/0.5	1.8
0.2%	Barley/cooked	0/0.5	1.8
0.2%	Apples/juice	0/0.03	1.6
0.2%	Rye/boiled	0/0.42	1.5
0.2%	Oat/milling (flakes)	0/0.5	1.5
0.1%	Rye/milling (wholemeal)-baki	0/0.42	1.5
0.1%	Pumpkins/boiled	0/0.02	1.3
0.1%	Sugar beets (root)/sugar	0/0.12	1.1
0.1%	Pears/juice	0/0.03	0.98
0.1%	Potatoes/fried	0/0.01	0.93
0.1%	Barley/milling (flour)	0/0.5	0.90
0.1%	Broccoli/boiled	0/0.01	0.79

Expand/collapse list

Results for adults
No of processed commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Processed commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
0.4%	Barley/beer	0/0.1	3.6
0.2%	Wheat/bread/pizza	0/0.42	1.8
0.2%	Wheat/pasta	0/0.42	1.6
0.1%	Wheat/bread (wholemeal)	0/0.42	1.5
0.10%	Apples/juice	0/0.03	1.00
0.08%	Pumpkins/boiled	0/0.02	0.83
0.08%	Oat/boiled	0/0.5	0.76
0.07%	Peaches/canned	0/0.08	0.65
0.04%	Sugar beets (root)/sugar	0/0.12	0.44
0.04%	Cauliflowers/boiled	0/0.01	0.42
0.04%	Beetroots/boiled	0/0.01	0.39
0.03%	Celeries/boiled	0/0.01	0.34
0.02%	Broccoli/boiled	0/0.01	0.24
0.02%	Courgettes/boiled	0/0.01	0.23
0.02%	Parsnips/boiled	0/0.01	0.21

Conclusion:
No exceedance of the toxicological reference value was identified for any unprocessed commodity.
A short-term intake of residues of TAA is unlikely to present a public health risk.
For processed commodities, no exceedance of the ARfD/ADI was identified.

- PRIMo 1,2,4-Triazole

European Food Safety Authority

EFSA PRIMo revision 3.1; 2019/03/19

1,2,4-T

LOQs (mg/kg) range from: to:

Toxicological reference values

ADI (mg/kg bw per day):	0.023	ARfD (mg/kg bw):	0.1
Source of ADI:	COM	Source of ARfD:	COM
Year of evaluation:	2021	Year of evaluation:	2021

Input values

Details – chronic risk assessment | Supplementary results – chronic risk assessment

Details – acute risk assessment/children | Details – acute risk assessment/adults

Comments:

Refined calculation mode

Chronic risk assessment: JMPR methodology (IEDI/TMDI)

No of diets exceeding the ADI : ---

TMDI/NEDI/IEDI calculation (based on average food consumption)	Calculated exposure (% of ADI)	MS Diet	Expsoure (µg/kg bw per day)	Highest contributor to MS diet (in % of ADI)	Commodity/ group of commodities	2nd contributor to MS diet (in % of ADI)	Commodity/ group of commodities	3rd contributor to MS diet (in % of ADI)	Commodity/ group of commodities	Exposure resulting from MRLs set at the LOQ (in % of ADI)	Exposure resulting from commodities not under assessment (in % of ADI)
	18%	NL toddler	4.13	15%	Milk: Cattle	0.5%	Apples	0.3%	Maize/corn		18%
	11%	UK infant	2.58	10%	Milk: Cattle	0.3%	Bovine: Muscle/meat	0.2%	Eggs: Chicken		11%
	9%	FR toddler 2 3 yr	2.05	8%	Milk: Cattle	0.2%	Bovine: Muscle/meat	0.1%	Apples		9%
	8%	NL child	1.88	6%	Milk: Cattle	0.4%	Sugar beet roots	0.3%	Apples		8%
	8%	FR child 3 15 yr	1.75	6%	Milk: Cattle	0.3%	Bovine: Muscle/meat	0.2%	Eggs: Chicken		8%
	7%	DE child	1.61	5%	Milk: Cattle	0.5%	Apples	0.2%	Eggs: Chicken		7%
	7%	UK toddler	1.53	5%	Milk: Cattle	0.3%	Bovine: Muscle/meat	0.2%	Wheat		7%
	5%	FR infant	1.13	4%	Milk: Cattle	0.1%	Potatoes	0.1%	Apples		5%
	5%	SE general	1.13	3%	Milk: Cattle	0.9%	Bovine: Muscle/meat	0.2%	Potatoes		5%
	5%	DK child	1.12	3%	Milk: Cattle	0.3%	Bovine: Muscle/meat	0.2%	Rye		5%
	5%	ES child	1.07	3%	Milk: Cattle	0.3%	Bovine: Muscle/meat	0.2%	Poultry: Muscle/meat		5%
	4%	RO general	1.00	3%	Milk: Cattle	0.2%	Wheat	0.2%	Potatoes		4%
	4%	DE women 14-50 yr	0.98	3%	Milk: Cattle	0.2%	Sugar beet roots	0.1%	Apples		4%
	4%	DE general	0.97	3%	Milk: Cattle	0.2%	Sugar beet roots	0.1%	Apples		4%
	3%	GEMS/Food G11	0.78	2%	Milk: Cattle	0.2%	Potatoes	0.2%	Soyabeans		3%
	3%	GEMS/Food G15	0.76	2%	Milk: Cattle	0.2%	Wheat	0.2%	Poultry: Muscle/meat		3%
	3%	GEMS/Food G07	0.73	2%	Milk: Cattle	0.2%	Poultry: Muscle/meat	0.2%	Wheat		3%
	3%	NL general	0.73	2%	Milk: Cattle	0.1%	Bovine: Muscle/meat	0.1%	Sugar beet roots		3%
	3%	GEMS/Food G10	0.66	1%	Milk: Cattle	0.3%	Poultry: Muscle/meat	0.2%	Bovine: Muscle/meat		3%
	3%	GEMS/Food G08	0.66	1%	Milk: Cattle	0.2%	Wheat	0.2%	Potatoes		3%
	2%	IE adult	0.52	1%	Milk: Cattle	0.1%	Wheat	0.1%	Potatoes		2%
	2%	ES adult	0.50	1%	Milk: Cattle	0.2%	Bovine: Muscle/meat	0.1%	Poultry: Muscle/meat		2%
	2%	GEMS/Food G06	0.49	0.6%	Milk: Cattle	0.3%	Wheat	0.2%	Tomatoes		2%
	2%	DK adult	0.46	1%	Milk: Cattle	0.1%	Bovine: Muscle/meat	0.1%	Swine: Muscle/meat		2%
	2%	FR adult	0.45	1%	Milk: Cattle	0.1%	Bovine: Muscle/meat	0.1%	Wine grapes		2%
	2%	LT adult	0.39	1%	Milk: Cattle	0.1%	Potatoes	0.1%	Apples		2%
	1%	UK adult	0.32	0.8%	Milk: Cattle	0.1%	Bovine: Muscle/meat	0.1%	Poultry: Muscle/meat		1%
	1%	UK vegetarian	0.30	0.8%	Milk: Cattle	0.1%	Wheat	0.1%	Eggs: Chicken		1%
	1%	IE child	0.26	0.9%	Milk: Cattle	0.1%	Wheat	0.0%	Eggs: Chicken		1%
	0.8%	PT general	0.19	0.2%	Potatoes	0.2%	Wheat	0.1%	Wine grapes		0.8%
	0.6%	FI 3 yr	0.13	0.2%	Potatoes	0.1%	Wheat	0.0%	Cucumbers		0.6%
	0.6%	IT toddler	0.13	0.3%	Wheat	0.1%	Tomatoes	0.0%	Potatoes		0.6%
	0.5%	FI 6 yr	0.11	0.2%	Potatoes	0.0%	Wheat	0.0%	Cucumbers		0.5%
	0.4%	IT adult	0.10	0.2%	Wheat	0.1%	Tomatoes	0.0%	Apples		0.4%
	0.4%	PL general	0.09	0.1%	Potatoes	0.1%	Apples	0.0%	Tomatoes		0.4%
	0.3%	FI adult	0.06	0.1%	Potatoes	0.0%	Rye	0.0%	Apples		0.3%

Conclusion:
The estimated long-term dietary intake (TMDI/NEDI/IEDI) was below the ADI.
The long-term intake of residues of 1,2,4-T is unlikely to present a public health concern.

Acute risk assessment/children	Acute risk assessment/adults/general population
Details – acute risk assessment/children	Details – acute risk assessment/adults

The acute risk assessment is based on the ARfD.
The calculation is based on the large portion of the most critical consumer group.

Show results for all crops

Unprocessed commodities

Results for children
No. of commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
7%	Milk: Cattle	0/0.06	7.3
2%	Potatoes	0/0.01	1.5
2%	Melons	0/0.01	1.5
1%	Milk: Goat	0/0.06	1.5
1%	Sheep: Muscle/meat	0/0.26	1.4
1%	Pears	0/0.01	1.4
1%	Oranges	0/0.01	1.3
1%	Watermelons	0/0.01	1.2
1%	Apples	0/0.01	1.1
1%	Bovine: Liver	0/0.13	1.0
1.0%	Bovine: Muscle/meat	0/0.13	0.95
1.0%	Peaches	0/0.01	0.95
0.9%	Bovine: Edible offals (other	0/0.13	0.95
0.9%	Poultry: Muscle/meat	0/0.05	0.88
0.9%	Bovine: Kidney	0/0.23	0.87

Expand/collapse list

Results for adults
No. of commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
2%	Milk: Cattle	0/0.06	2.3
1%	Sheep: Muscle/meat	0/0.26	1.2
1%	Milk: Goat	0/0.06	1.1
0.9%	Milk: Sheep	0/0.06	0.92
0.8%	Bovine: Muscle	0/0.13	0.75
0.7%	Sheep: Liver	0/0.25	0.71
0.6%	Equine: Muscle/meat	0/0.13	0.63
0.6%	Poultry: Muscle	0/0.05	0.61
0.5%	Bovine: Liver	0/0.13	0.52
0.5%	Bovine: Kidney	0/0.23	0.49
0.4%	Bovine: Edible offals (other	0/0.13	0.43
0.4%	Head cabbages	0/0.01	0.42
0.4%	Watermelons	0/0.01	0.41
0.4%	Goat: Muscle	0/0.26	0.40
0.4%	Melons	0/0.01	0.39

Total number of commodities exceeding the ARfD/ADI in children and adult diets (IESTI calculation)

Processed commodities

Results for children
No of processed commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Processed commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
1%	Sugar beets (root)/sugar	0/0.12	1.1
0.9%	Potatoes/fried	0/0.01	0.93
0.9%	Pumpkins/boiled	0/0.01	0.89
0.8%	Broccoli/boiled	0/0.01	0.79
0.7%	Cauliflowers/boiled	0/0.01	0.70
0.6%	Potatoes/dried (flakes)	0/0.05	0.59
0.5%	Apples/juice	0/0.01	0.54
0.5%	Oranges/juice	0/0.01	0.53
0.5%	Turnips/boiled	0/0.01	0.51
0.5%	Parsnips/boiled	0/0.01	0.51
0.5%	Florence fennels/boiled	0/0.01	0.45
0.4%	Beetroots/boiled	0/0.01	0.44
0.4%	Wine grapes/juice	0/0.01	0.44
0.4%	Rhubarbs/sauce/puree	0/0.01	0.37
0.4%	Carrots/juice	0/0.01	0.36

Expand/collapse list

Results for adults
No of processed commodities for which ARfD/ADI is exceeded (IESTI): ---

IESTI

Highest % of ARfD/ADI	Processed commodities	MRL/input for RA (mg/kg)	Exposure (µg/kg bw)
0.6%	Pumpkins/boiled	0/0.01	0.55
0.4%	Sugar beets (root)/sugar	0/0.12	0.44
0.4%	Cauliflowers/boiled	0/0.01	0.42
0.4%	Beetroots/boiled	0/0.01	0.39
0.3%	Celeries/boiled	0/0.01	0.34
0.3%	Apples/juice	0/0.01	0.33
0.2%	Broccoli/boiled	0/0.01	0.24
0.2%	Courgettes/boiled	0/0.01	0.23
0.2%	Parsnips/boiled	0/0.01	0.21
0.2%	Wine grapes/juice	0/0.01	0.21
0.2%	Florence fennels/boiled	0/0.01	0.19
0.2%	Turnips/boiled	0/0.01	0.19
0.2%	Celeriacs/boiled	0/0.01	0.18
0.2%	Oranges/juice	0/0.01	0.15
0.1%	Rhubarbs/sauce/puree	0/0.01	0.15

Conclusion:
No exceedance of the toxicological reference value was identified for any unprocessed commodity.
A short-term intake of residues of 1,2,4-T is unlikely to present a public health risk.
For processed commodities, no exceedance of the ARfD/ADI was identified.

Appendix D – Input values for the exposure calculations

D.1. Livestock dietary burden calculations

Feed commodity	Median dietary burden		Maximum dietary burden	
	Input value[(c)] (mg/kg)	Comment	Input value[(c)] (mg/kg)	Comment
Risk assessment residue definition: Mefentrifluconazole				
Barley straw	4.25	STMR (EFSA, 2018c)	18	HR (EFSA, 2018c)
Beet, sugar tops	0.24	STMR (EFSA, 2020)	1.1	HR (EFSA, 2020)
Cabbages, heads	0.01	STMR	0.02	HR
Corn, field stover (fodder)	0.13	STMR (EFSA, 2020)	0.61	HR (EFSA, 2020)
Corn, pop stover (fodder)	0.13	STMR (EFSA, 2020)	0.61	HR (EFSA, 2020)
Oat straw	4.25	STMR (EFSA, 2018c)	18	HR (EFSA, 2018c)
Rye straw	3.6	STMR (EFSA, 2018c)	18	HR (EFSA, 2018c)
Triticale straw	3.6	STMR (EFSA, 2018c)	18	HR (EFSA, 2018c)
Turnip tops (leaves)	4.8	STMR	6.1	HR
Wheat straw	3.6	STMR (EFSA, 2018c)	18	HR (EFSA, 2018c)
Carrot culls	0.02	STMR	0.06	HR
Potato culls	0.01	STMR (EFSA, 2020)	0.01	HR (EFSA, 2020)
Swede roots	0.02	STMR	0.06	HR
Turnip roots	0.02	STMR	0.06	HR
Barley grain	0.1	STMR (EFSA, 2018c)	0.1	STMR (EFSA, 2018c)
Bean seed (dry)	0.01	STMR	0.01	STMR
Corn, field (Maize) grain	0.01	STMR (EFSA, 2020)	0.01	STMR (EFSA, 2020)
Corn, pop grain	0.01	STMR (EFSA, 2020)	0.01	STMR (EFSA, 2020)
Cowpea seed	0.01	STMR	0.01	STMR
Lupin seed	0.01	STMR	0.01	STMR
Oat grain	0.1	STMR (EFSA, 2018c)	0.1	STMR (EFSA, 2018c)
Pea (Field pea) seed (dry)	0.01	STMR	0.01	STMR
Rye grain	0.01	STMR (EFSA, 2018c)	0.01	STMR (EFSA, 2018c)
Soybean seed	0.01	STMR	0.01	STMR
Triticale grain	0.01	STMR (EFSA, 2018c)	0.01	STMR (EFSA, 2018c)
Wheat grain	0.01	STMR (EFSA, 2018c)	0.01	STMR (EFSA, 2018c)
Apple pomace, wet	0.25	STMR × PF (3.1) (EFSA, 2020)	0.25	STMR × PF (3.1) (EFSA, 2020)
Beet, sugar dried pulp	0.1	STMR × PF (4.8) (EFSA, 2020)	0.1	STMR × PF (4.8) (EFSA, 2020)
Beet, sugar ensiled pulp	0.02	STMR × PF (0.9) (EFSA, 2020)	0.02	STMR × PF (0.9) (EFSA, 2020)
Beet, sugar molasses	0.02	STMR × PF (0.9) (EFSA, 2020)	0.02	STMR × PF (0.9) (EFSA, 2020)
Brewer's grain dried	0.24	STMR × PF (2.4) (EFSA, 2018c)	0.24	STMR × PF (2.4) (EFSA, 2018c)
Canola (Rape seed) meal	0.02	STMR × PF (2) (EFSA, 2020)	0.02	STMR × PF (2) (EFSA, 2020)
Citrus dried pulp	0.02	STMR × PF (0.11)	0.02	STMR × PF (0.11)
Corn, field milled by-products	0.09	STMR × PF (8.8) (EFSA, 2020)	0.09	STMR × PF (8.8) (EFSA, 2020)

Feed commodity	Median dietary burden		Maximum dietary burden	
	Input value[c] (mg/kg)	Comment	Input value[c] (mg/kg)	Comment
Corn, field hominy meal	0.02	STMR × PF (1.7) (EFSA, 2020)	0.02	STMR × PF (1.7) (EFSA, 2020)
Corn, field gluten feed	0.03	STMR × PF (2.7) (EFSA, 2020)	0.03	STMR × PF (2.7) (EFSA, 2020)
Corn, field gluten, meal	0.03	STMR × PF (2.7) (EFSA, 2020)	0.03	STMR × PF (2.7) (EFSA, 2020)
Distiller's grain dried	0.02	STMR × PF (2.4) (EFSA, 2018c)	0.02	STMR × PF (2.4) (EFSA, 2018c)
Flaxseed/Linseed meal	0.02	STMR × default PF (2)[b]	0.02	STMR × default PF (2)[b]
Lupin seed meal	0.01	STMR × default PF (1.1)[b]	0.01	STMR × default PF (1.1)[b]
Potato process waste	0.005	STMR × PF (0.5) (EFSA, 2020)	0.005	STMR × PF (0.5) (EFSA, 2020)
Potato dried pulp	0.02	STMR × PF (2.4) (EFSA, 2020)	0.02	STMR × PF (2.4) (EFSA, 2020)
Rape meal	0.02	STMR × PF (2) (EFSA, 2020)	0.02	STMR × PF (2) (EFSA, 2020)
Soybean meal	0.01	STMR × PF (0.83 (EFSA, 2020))	0.01	STMR × PF (0.83 (EFSA, 2020))
Soybean hulls	0.01	STMR × PF (0.83 (EFSA, 2020))	0.01	STMR × PF (0.83 (EFSA, 2020))
Sunflower meal	0.02	STMR × default PF (2)[b] (EFSA, 2020)	0.02	STMR × default PF (2)[b] (EFSA, 2020)
Wheat gluten meal	0.02	STMR × PF (0.3) (EFSA, 2018c)	0.02	STMR × PF (0.3) (EFSA, 2018c)
Wheat milled by-products	0.07	STMR × PF (0.62) (EFSA, 2018c)	0.07	STMR × PF (0.62) (EFSA, 2018c)
Risk assessment residue definition: TA				
Barley straw	0.09	STMR (EFSA, 2018c)	0.71	HR (EFSA, 2018c)
Beet, sugar tops	0.03	STMR (EFSA, 2020)	0.07	HR (EFSA, 2020)
Cabbages, heads	0.125	STMR	0.28	HR
Corn, field stover (fodder)	0.01	STMR (EFSA, 2020)	0.04	HR (EFSA, 2020)
Corn, pop stover (fodder)	0.01	STMR (EFSA, 2020)	0.04	HR (EFSA, 2020)
Oat straw	0.09	STMR (EFSA, 2018c)	0.71	HR (EFSA, 2018c)
Rye straw	0.04	STMR (EFSA, 2018c)	0.47	HR (EFSA, 2018c)
Triticale straw	0.04	STMR (EFSA, 2018c)	0.47	HR (EFSA, 2018c)
Turnip tops (leaves)	0.01	STMR (carrot tops)	0.07	HR (carrot tops)
Wheat straw	0.04	STMR (EFSA, 2018c)	0.47	HR (EFSA, 2018c)
Carrot culls	0.03	STMR	0.14	HR
Potato culls	0.03	STMR (EFSA, 2020)	0.17	HR (EFSA, 2020)
Swede roots	0.03	STMR	0.14	HR
Turnip roots	0.03	STMR	0.14	HR
Barley grain	0.25	STMR (EFSA, 2018c)	0.25	STMR (EFSA, 2018c)
Bean seed (dry)	0.15	STMR	0.15	STMR
Corn, field (Maize) grain	0.08	STMR (EFSA, 2020)	0.08	STMR (EFSA, 2020)
Corn, pop grain	0.08	STMR (EFSA, 2020)	0.08	STMR (EFSA, 2020)
Cowpea seed	0.2	STMR	0.2	STMR
Lupin seed	0.2	STMR	0.2	STMR
Oat grain	0.25	STMR (EFSA, 2018c)	0.25	STMR (EFSA, 2018c)
Pea (Field pea) seed (dry)	0.36	STMR	0.36	STMR

Feed commodity	Median dietary burden		Maximum dietary burden	
	Input value[c] (mg/kg)	Comment	Input value[c] (mg/kg)	Comment
Rye grain	0.25	STMR (EFSA, 2018c)	0.25	STMR (EFSA, 2018c)
Soybean seed	0.05	STMR	0.05	STMR
Triticale grain	0.25	STMR (EFSA, 2018c)	0.25	STMR (EFSA, 2018c)
Wheat grain	0.25	STMR (EFSA, 2018c)	0.25	STMR (EFSA, 2018c)
Apple pomace, wet	0.05	STMR × PF (0.8) (EFSA, 2020)	0.05	STMR × PF (0.8) (EFSA, 2020)
Beet, sugar dried pulp	0.27	STMR × default PF (18)[b] (EFSA, 2020)	0.27	STMR × default PF (18)[b] (EFSA, 2020)
Beet, sugar ensiled pulp	0.05	STMR × default PF (3)[b] (EFSA, 2020)	0.05	STMR × default PF (3)[b] (EFSA, 2020)
Beet, sugar molasses	0.17	STMR × PF (11) (EFSA, 2020)	0.17	STMR × PF (11) (EFSA, 2020)
Brewer's grain dried	0.01	STMR × PF (0.04) (EFSA, 2018c)	0.01	STMR × PF (0.04) (EFSA, 2018c)
Canola (Rape seed) meal	0.26	STMR × default PF (2)[b]	0.26	STMR × default PF (2)[b]
Citrus dried pulp	0.03	STMR × PF (2.61)	0.03	STMR × PF (2.61)
Corn, field milled by-pdts	0.06	STMR × PF (0.85) (EFSA, 2020)	0.06	STMR × PF (0.85) (EFSA, 2020)
Corn, field hominy meal	0.06	STMR × PF (0.83) (EFSA, 2020)	0.06	STMR × PF (0.83) (EFSA, 2020)
Corn, field gluten feed	0.02	STMR × PF (0.3) (EFSA, 2020)	0.02	STMR × PF (0.3) (EFSA, 2020)
Corn, field gluten, meal	0.02	STMR × PF (0.3) (EFSA, 2020)	0.02	STMR × PF (0.3) (EFSA, 2020)
Distiller's grain dried	0.83	STMR × PF (3.3) (EFSA, 2018c)	0.83	STMR × PF (3.3) (EFSA, 2018c)
Flaxseed/Linseed meal	0.62	STMR × default PF (2)[b]	0.62	STMR × default PF (2)[b]
Lupin seed meal	0.22	STMR × default PF (1.1)[b]	0.22	STMR × default PF (1.1)[b]
Potato process waste	0.03	STMR × PF (1.1) (EFSA, 2020)	0.03	STMR × PF (1.1) (EFSA, 2020)
Potato dried pulp	0.04	STMR × PF (1.5) (EFSA, 2020)	0.04	STMR × PF (1.5) (EFSA, 2020)
Rape meal	0.26	STMR × default PF (2)[b] (EFSA, 2020)	0.26	STMR × default PF (2)[b] (EFSA, 2020)
Soybean meal	0.08	STMR × PF (1.67 (EFSA, 2020))	0.08	STMR × PF (1.67 (EFSA, 2020))
Soybean hulls	0.03	STMR × PF (0.50 (EFSA, 2020))	0.03	STMR × PF (0.50 (EFSA, 2020))
Sunflower meal	0.12	STMR × default PF (2)[b] (EFSA, 2020)	0.12	STMR × default PF (2)[b] (EFSA, 2020))
Wheat gluten meal	0.05	STMR × PF (0.2) (EFSA, 2018c)	0.05	STMR × PF (0.2) (EFSA, 2018c)
Wheat milled by-pdts	0.15	STMR × PF (0.6) (EFSA, 2018c)	0.15	STMR × PF (0.6) (EFSA, 2018c)
Risk assessment residue definition: TLA				
Barley straw	0.44	STMR (EFSA, 2018c)	11	HR (EFSA, 2018c)
Beet, sugar tops	0.05	STMR (EFSA, 2020)	0.13	HR (EFSA, 2020)
Cabbages, heads	0.01	STMR	0.01	HR
Corn, field stover (fodder)	0.01	STMR (EFSA, 2020)	0.03	HR (EFSA, 2020)
Corn, pop stover (fodder)	0.01	STMR (EFSA, 2020)	0.03	HR (EFSA, 2020)
Oat straw	0.44	STMR (EFSA, 2018c)	11	HR (EFSA, 2018c)
Rye straw	0.08	STMR (EFSA, 2018c)	1.5	HR (EFSA, 2018c)

Feed commodity	Median dietary burden		Maximum dietary burden	
	Input value[c] (mg/kg)	Comment	Input value[c] (mg/kg)	Comment
Triticale straw	0.08	STMR (EFSA, 2018c)	1.5	HR (EFSA, 2018c)
Turnip tops (leaves)	0.07	STMR (carrot tops)	0.28	HR (carrot tops)
Wheat straw	0.08	STMR (EFSA, 2018c)	1.5	HR (EFSA, 2018c)
Carrot culls	0.01	STMR	0.05	HR
Potato culls	0.01	STMR (EFSA, 2020)	0.01	HR (EFSA, 2020)
Swede roots	0.01	STMR	0.05	HR
Turnip roots	0.01	STMR	0.05	HR
Barley grain	0.01	STMR (EFSA, 2018c)	0.01	STMR (EFSA, 2018c)
Bean seed (dry)	0.01	STMR	0.01	STMR
Corn, field (Maize) grain	0.01	STMR (EFSA, 2020)	0.01	STMR (EFSA, 2020)
Corn, pop grain	0.01	STMR (EFSA, 2020)	0.01	STMR (EFSA, 2020)
Cowpea seed	0.01	STMR	0.01	STMR
Lupin seed	0.01	STMR	0.01	STMR
Oat grain	0.01	STMR (EFSA, 2018c)	0.01	STMR (EFSA, 2018c)
Pea (Field pea) seed (dry)	0.02	STMR	0.02	STMR
Rye grain	0.01	STMR (EFSA, 2018c)	0.01	STMR (EFSA, 2018c)
Soybean seed	0.01	STMR	0.01	STMR
Triticale grain	0.01	STMR (EFSA, 2018c)	0.01	STMR (EFSA, 2018c)
Wheat grain	0.01	STMR (EFSA, 2018c)	0.01	STMR (EFSA, 2018c)
Apple pomace, wet	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Beet, sugar dried pulp	0.18	STMR × default PF (18)[b] (EFSA, 2020)	0.18	STMR × default PF (18)[b] (EFSA, 2020)
Beet, sugar ensiled pulp	0.03	STMR × default PF (3)[b] (EFSA, 2020)	0.03	STMR × default PF (3)[b] (EFSA, 2020)
Beet, sugar molasses	0.02	STMR × PF (1.5) (EFSA, 2020)	0.02	STMR × PF (1.5) (EFSA, 2020)
Brewer's grain dried	0.001	STMR × PF (0.1) (EFSA, 2018c)	0.001	STMR × PF (0.1) (EFSA, 2018c)
Canola (Rape seed) meal	0.02	STMR × default PF (2)[b] (EFSA, 2020)	0.02	STMR × default PF (2)[b] (EFSA, 2020)
Citrus dried pulp	0.03	STMR × PF (2.78)	0.03	STMR × PF (2.78)
Corn, field milled by-pdts	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Corn, field hominy meal	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Corn, field gluten feed	0.01	STMR × PF (0.5) (EFSA, 2020)	0.01	STMR × PF (0.5) (EFSA, 2020)
Corn, field gluten, meal	0.003	STMR × PF (0.3) (EFSA, 2020)	0.003	STMR × PF (0.3) (EFSA, 2020)
Distiller's grain dried	0.03	STMR × PF (3.3) (EFSA, 2018c)	0.03	STMR × PF (3.3) (EFSA, 2018c)
Flaxseed/Linseed meal	0.02	STMR × default PF (2)[b]	0.02	STMR × default PF (2)[b]
Lupin seed meal	0.01	STMR × default PF (1.1)[b]	0.01	STMR × default PF (1.1)[b]
Potato process waste	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Potato dried pulp	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Rape meal	0.02	STMR × default PF (2)[b] (EFSA, 2020)	0.02	STMR × default PF (2)[b] (EFSA, 2020)

Feed commodity	Median dietary burden		Maximum dietary burden	
	Input value[c] (mg/kg)	Comment	Input value[c] (mg/kg)	Comment
Soybean meal	0.01	STMR × PF (1 (EFSA, 2020))	0.01	STMR × PF (1 (EFSA, 2020))
Soybean hulls	0.01	STMR × PF (1.2 (EFSA, 2020))	0.01	STMR × PF (1.2 (EFSA, 2020))
Sunflower meal	0.02	STMR × default PF (2)[b]	0.02	STMR × default PF (2)[b]
Wheat gluten meal	0.02	STMR × PF (1.8) (EFSA, 2018c)	0.02	STMR × PF (1.8) (EFSA, 2018c)
Wheat milled by-pdts	0.07	STMR × PF (7) (EFSA, 2018c)	0.07	STMR × PF (7) (EFSA, 2018c)
Risk assessment residue definition: TAA				
Barley straw	0.04	STMR (EFSA, 2018c)	0.33	HR (EFSA, 2018c)
Beet, sugar tops	0.01	STMR (EFSA, 2020)	0.01	HR (EFSA, 2020)
Cabbages, heads	0.01	STMR	0.01	HR
Corn, field stover (fodder)	0.01	STMR (EFSA, 2020)	0.02	HR (EFSA, 2020)
Corn, pop stover (fodder)	0.01	STMR (EFSA, 2020)	0.02	HR (EFSA, 2020)
Oat straw	0.04	STMR (EFSA, 2018c)	0.33	HR (EFSA, 2018c)
Rye straw	0.03	STMR (EFSA, 2018c)	0.16	HR (EFSA, 2018c)
Triticale straw	0.03	STMR (EFSA, 2018c)	0.16	HR (EFSA, 2018c)
Turnip tops (leaves)	0.01	STMR (carrot tops)	0.01	HR (carrot tops)
Wheat straw	0.03	STMR (EFSA, 2018c)	0.16	HR (EFSA, 2018c)
Carrot culls	0.01	STMR	0.01	HR
Potato culls	0.01	STMR (EFSA, 2020)	0.01	HR (EFSA, 2020)
Swede roots	0.01	STMR	0.01	HR
Turnip roots	0.01	STMR	0.01	HR
Barley grain	0.08	STMR (EFSA, 2018c)	0.08	STMR (EFSA, 2018c)
Bean seed (dry)	0.01	STMR	0.01	STMR
Corn, field (Maize) grain	0.01	STMR (EFSA, 2020)	0.01	STMR (EFSA, 2020)
Corn, pop grain	0.01	STMR (EFSA, 2020)	0.01	STMR (EFSA, 2020)
Cowpea seed	0.01	STMR	0.01	STMR
Lupin seed	0.01	STMR	0.01	STMR
Oat grain	0.08	STMR (EFSA, 2018c)	0.08	STMR (EFSA, 2018c)
Pea (Field pea) seed (dry)	0.01	STMR	0.01	STMR
Rye grain	0.07	STMR (EFSA, 2018c)	0.07	STMR (EFSA, 2018c)
Soybean seed	0.01	STMR	0.01	STMR
Triticale grain	0.07	STMR (EFSA, 2018c)	0.07	STMR (EFSA, 2018c)
Wheat grain	0.07	STMR (EFSA, 2018c)	0.07	STMR (EFSA, 2018c)
Apple pomace, wet	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Beet, sugar dried pulp	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Beet, sugar ensiled pulp	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Beet, sugar molasses	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Brewer's grain dried	0.01	STMR × PF (0.1) (EFSA, 2018c)	0.01	STMR × PF (0.1) (EFSA, 2018c)
Canola (Rape seed) meal	0.02	STMR × default PF (2)[b] (EFSA, 2020)	0.02	STMR × default PF (2)[b]
Citrus dried pulp	0.01	STMR[a]	0.01	STMR[a]

Feed commodity	Median dietary burden		Maximum dietary burden	
	Input value[c] (mg/kg)	Comment	Input value[c] (mg/kg)	Comment
Corn, field milled by-pdts	0.02	STMR × PF (2) (EFSA, 2020)	0.02	STMR × PF (2) (EFSA, 2020)
Corn, field hominy meal	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Corn, field gluten feed	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Corn, field gluten, meal	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Distiller's grain dried	0.23	STMR × PF (3.3) (EFSA, 2018c)	0.23	STMR × PF (3.3) (EFSA, 2018c)
Flaxseed/Linseed meal	0.01	STMR[a]	0.01	STMR[a]
Lupin seed meal	0.01	STMR[a]	0.01	STMR[a]
Potato process waste	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Potato dried pulp	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Rape meal	0.02	STMR × default PF (2)[b] (EFSA, 2020)	0.02	STMR × default PF (2)[b] (EFSA, 2020)
Soybean meal	0.01	STMR × PF (1.33 (EFSA, 2020))	0.01	STMR × PF (1.33 (EFSA, 2020))
Soybean hulls	0.01	STMR × PF (0.5 (EFSA, 2020))	0.01	STMR × PF (0.5 (EFSA, 2020))
Sunflower meal	0.12	STMR × default PF (2)[b] (EFSA, 2020)	0.12	STMR × default PF (2)[b]
Wheat gluten meal	0.07	STMR × PF (1) (EFSA, 2018c)	0.07	STMR × PF (1) (EFSA, 2018c)
Wheat milled by-pdts	0.04	STMR × PF (0.6) (EFSA, 2018c)	0.04	STMR × PF (0.6) (EFSA, 2018c)
Risk assessment residue definition: 1,2,4-T				
Barley straw	0.01	STMR (EFSA, 2018c)	0.01	HR (EFSA, 2018c)
Beet, sugar tops	0.01	STMR (EFSA, 2020)	0.02	HR (EFSA, 2020)
Cabbages, heads	0.01	STMR	0.01	HR
Corn, field stover (fodder)	0.01	STMR (EFSA, 2020)	0.01	HR (EFSA, 2020)
Corn, pop stover (fodder)	0.01	STMR (EFSA, 2020)	0.01	HR (EFSA, 2020)
Oat straw	0.01	STMR (EFSA, 2018c)	0.01	HR (EFSA, 2018c)
Rye straw	0.01	STMR (EFSA, 2018c)	0.01	HR (EFSA, 2018c)
Triticale straw	0.01	STMR (EFSA, 2018c)	0.01	HR (EFSA, 2018c)
Turnip tops (leaves)	0.01	STMR (carrot tops)	0.01	HR (carrot tops)
Wheat straw	0.01	STMR (EFSA, 2018c)	0.01	HR (EFSA, 2018c)
Carrot culls	0.01	STMR	0.01	HR
Potato culls	0.01	STMR (EFSA, 2020)	0.01	HR (EFSA, 2020)
Swede roots	0.01	STMR	0.01	HR
Turnip roots	0.01	STMR	0.01	HR
Barley grain	0.01	STMR (EFSA, 2018c)	0.01	STMR (EFSA, 2018c)
Bean seed (dry)	0.01	STMR	0.01	STMR
Corn, field (Maize) grain	0.01	STMR (EFSA, 2020)	0.01	STMR (EFSA, 2020)
Corn, pop grain	0.01	STMR (EFSA, 2020)	0.01	STMR (EFSA, 2020)
Cowpea seed	0.01	STMR	0.01	STMR
Lupin seed	0.01	STMR	0.01	STMR

Feed commodity	Median dietary burden		Maximum dietary burden	
	Input value[c] (mg/kg)	Comment	Input value[c] (mg/kg)	Comment
Oat grain	0.01	STMR (EFSA, 2018c)	0.01	STMR (EFSA, 2018c)
Pea (Field pea) seed (dry)	0.01	STMR (EFSA, 2018c)	0.01	STMR
Rye grain	0.01	STMR	0.01	STMR (EFSA, 2018c)
Soybean seed	0.01	STMR (EFSA, 2018c)	0.01	STMR
Triticale grain	0.01	STMR (EFSA, 2018c)	0.01	STMR (EFSA, 2018c)
Wheat grain	0.01	STMR (EFSA, 2018c)	0.01	STMR (EFSA, 2018c)
Apple pomace, wet	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Beet, sugar dried pulp	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Beet, sugar ensiled pulp	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Beet, sugar molasses	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Brewer's grain dried	0.01	STMR[a] (EFSA, 2018c)	0.01	STMR[a] (EFSA, 2018c)
Canola (Rape seed) meal	0.01	STMR[a]	0.01	STMR[a]
Citrus dried pulp	0.01	STMR[a]	0.01	STMR[a]
Corn, field milled by-pdts	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Corn, field hominy meal	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Corn, field gluten feed	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Corn, field gluten, meal	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Distiller's grain dried	0.01	STMR[a] (EFSA, 2018c)	0.01	STMR[a] (EFSA, 2018c)
Flaxseed/Linseed meal	0.01	STMR[a]	0.01	STMR[a]
Lupin seed meal	0.01	STMR[a]	0.01	STMR[a]
Potato process waste	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Potato dried pulp	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Rape meal	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Soybean meal	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Soybean hulls	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Sunflower meal	0.01	STMR[a] (EFSA, 2020)	0.01	STMR[a] (EFSA, 2020)
Wheat gluten meal	0.01	STMR[a] (EFSA, 2018c)	0.01	STMR[a] (EFSA, 2018c)
Wheat milled by-pdts	0.01	STMR[a] (EFSA, 2018c)	0.01	STMR[a] (EFSA, 2018c)

STMR: supervised trials median residue; HR: highest residue; PF: processing factor; LOQ: limit of quantification; n/a: not applicable.

(a): Since residues in RAC were below the LOQ, a processing factor was not applied. Concentration of residues is not expected.

(b): In the absence of specific processing factors supported by data, default processing factors of the animal model calculator were used in the calculation to consider the potential concentration of residues in these commodities.

(c): Figures in the table are rounded to two digits, but the calculations are normally performed with the actually calculated values (which may contain more digits). To reproduce dietary burden calculations, the unrounded values need to be used.

D.2. Dietary burden calculations for fish

Feed commodity	Dietary burden	
	Input value (mg/kg)	Comment
Risk assessment residue definition: Mefentrifluconazole		
Faba bean, dry seed	0.01	STMR
Chick pea, dry seed	0.01	STMR
Cowpea, dry seed	0.01	STMR
Lupin seed (white), dry seed	0.01	STMR
Pea, dry seed	0.01	STMR
Soybean, seed heat processed	0.01	STMR[(a)]
Wheat, grain extruded	0.01	STMR (EFSA, 2018c)
Barely, brewer's grain dried	0.24	STMR × PF (EFSA, 2018c)
Canola/rapeseed, meal, prepressed solvent extracted	0.02	STMR × PF (EFSA, 2020)
Corn, feed meal	0.01	STMR[(a)] (EFSA, 2020)
Corn, bran	0.02	STMR × PF (EFSA, 2020)
Corn, gluten feed	0.03	STMR × PF (EFSA, 2020)
Corn, gluten meal	0.03	STMR × PF (EFSA, 2020)
Corn, starch, cooked	0.01	STMR[(a)] (EFSA, 2020)
Corn, distiller's grain mill	0.01	STMR[(a)] (EFSA, 2020)
Linseed, meal mechanically or solvent extracted	0.02	STMR × PF[(b)]
Lupin, meal solvent extracted	0.011	STMR × PF[(b)]
Mustard seed, meal solvent extracted	0.02	STMR × PF[(b)]
Potato protein	0.015	STMR × PF (EFSA, 2020)
Rye, distiller's dried grain	0.033	STMR × PF[(b)] (EFSA, 2018c)
Soybean, meal mechanically or solvent extracted	0.008	STMR × PF (0.83)
Soybean, without hulls, meal solvent extract	0.008	STMR × PF (0.83)
Soybean, protein concentrate	0.01	STMR[(a)]
Sunflower seed, meal mechanically or solvent extracted	0.02	STMR × CF[(b)] (EFSA, 2020)
Sunflower seed, meal without hulls, mechanically or solvent extracted	0.02	STMR × CF[(b)] (EFSA, 2020)
Wheat, bran	0.03	STMR × PF (EFSA, 2018c)
Wheat, flour	0.003	STMR × PF (EFSA, 2018c)
Wheat, germ	0.01	STMR × PF (EFSA, 2018c)
Wheat, middlings	0.02	STMR × PF (EFSA, 2018c)
Wheat, gluten	0.006	STMR × PF (EFSA, 2018c)
Vegetable oil	0.564	STMR (olives for oil production) × PF (1.59; olive oil)

STMR: supervised trials median residue; PF: processing factor; CF: conversion factor.
(a): Since residues in RAC were < LOQ, a processing factor was not applied. Concentration of residues is not expected (Austria, 2022).
(b): Default processing factor from the OECD Animal Model 2017.

D.3. Consumer risk assessment

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Risk assessment residue definition: Mefentrifluconazole						
Grapefruits	0.5	Intended use	0.01	STMR-RAC (pulp)	0.01	HR-RAC (pulp)
Oranges	0.5	Intended use	0.01	STMR-RAC (pulp)	0.01	HR-RAC (pulp)
Lemons	0.5	Intended use	0.01	STMR-RAC (pulp)	0.01	HR-RAC (pulp)
Limes	0.5	Intended use	0.01	STMR-RAC (pulp)	0.01	HR-RAC (pulp)
Mandarins	0.5	Intended use	0.01	STMR-RAC (pulp)	0.01	HR-RAC (pulp)
Other citrus fruit	0.5	Intended use	0.01	STMR-RAC (pulp)	–	
Hazelnuts/cobnuts	0.01	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Pistachios	0.05	Intended use	0.017	STMR-RAC	0.024	HR-RAC
Apples	0.4	Reg. (EU) 2021/590	0.08	STMR-RAC	0.27	HR-RAC
Pears	0.4	Reg. (EU) 2021/590	0.08	STMR-RAC	0.27	HR-RAC
Quinces	0.4	Reg. (EU) 2021/590	0.08	STMR-RAC	0.27	HR-RAC
Medlar	0.4	Reg. (EU) 2021/590	0.08	STMR-RAC	0.27	HR-RAC
Loquats/Japanese medlars	0.4	Reg. (EU) 2021/590	0.08	STMR-RAC	0.27	HR-RAC
Other pome fruit	0.04	Reg. (EU) 2021/590	0.08	STMR-RAC		
Apricots	0.7	Reg. (EU) 2021/590	0.15	STMR-RAC	0.45	HR-RAC
Cherries (sweet)	2	Reg. (EU) 2021/590	0.48	STMR-RAC	1.2	HR-RAC
Peaches	0.7	Reg. (EU) 2021/590	0.15	STMR-RAC	0.45	HR-RAC
Plums	0.5	Reg. (EU) 2021/590	0.11	STMR-RAC	0.3	HR-RAC
Table grapes	0.9	Reg. (EU) 2021/590	0.18	STMR-RAC	0.53	HR-RAC
Wine grapes	0.9	Reg. (EU) 2021/590	0.18	STMR-RAC	0.53	HR-RAC
Strawberries	0.8	Intended use	0.19	STMR-RAC	0.49	HR-RAC
Blueberries	2	Intended use	0.605	STMR-RAC	0.84	HR-RAC
Cranberries	2	Intended use	0.605	STMR-RAC	0.84	HR-RAC
Currants (red, black and white)	2	Intended use	0.605	STMR-RAC	0.84	HR-RAC
Gooseberries (green, red and yellow)	2	Intended use	0.605	STMR-RAC	0.84	HR-RAC
Rose hips	2	Intended use	0.605	STMR-RAC	0.84	HR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Mulberries (black and white)	2	Intended use	0.605	STMR-RAC	0.84	HR-RAC
Azarole/ Mediterranean medlar	2	Intended use	0.605	STMR-RAC	0.84	HR-RAC
Elderberries	2	Intended use	0.605	STMR-RAC	0.84	HR-RAC
Other small fruit & berries	2	Intended use	0.605	STMR-RAC		
Table olives	2	Intended use	0.525	STMR-RAC	0.88	HR-RAC
Kaki/Japanese persimmons	0.2	Intended use	0.072	STMR-RAC	0.11	HR-RAC
Potatoes	0.01	Reg. (EU) 2021/590	0.01	STMR-RAC	0.01	HR-RAC
Beetroots	0.1	Intended use	0.017	STMR-RAC	0.055	HR-RAC
Carrots	0.1	Intended use	0.017	STMR-RAC	0.055	HR-RAC
Celeriacs/turnip rooted celeries	0.1	Intended use	0.017	STMR-RAC	0.055	HR-RAC
Horseradishes	0.1	Intended use	0.017	STMR-RAC	0.055	HR-RAC
Jerusalem artichokes	0.1	Intended use	0.017	STMR-RAC	0.055	HR-RAC
Parsnips	0.1	Intended use	0.017	STMR-RAC	0.055	HR-RAC
Parsley roots/ Hamburg roots parsley	0.1	Intended use	0.017	STMR-RAC	0.055	HR-RAC
Radishes	0.1	Intended use	0.017	STMR-RAC	0.055	HR-RAC
Salsifies	0.1	Intended use	0.017	STMR-RAC	0.055	HR-RAC
Swedes/rutabagas	0.1	Intended use	0.017	STMR-RAC	0.055	HR-RAC
Turnips	0.1	Intended use	0.017	STMR-RAC	0.055	HR-RAC
Other root and tuber vegetables	0.1	Intended use	0.017	STMR-RAC		
Tomatoes	0.4	Intended use	0.115	STMR-RAC	0.19	HR-RAC
Sweet peppers/bell peppers	0.9	Intended use	0.21	STMR-RAC	0.53	HR-RAC
Aubergines/egg plants	0.4	Intended use	0.115	STMR-RAC	0.19	HR-RAC
Cucumbers	0.3	Intended use	0.049	STMR-RAC	0.18	HR-RAC
Gherkins	0.3	Intended use	0.049	STMR-RAC	0.18	HR-RAC
Courgettes	0.3	Intended use	0.049	STMR-RAC	0.18	HR-RAC
Other cucurbits – edible peel	0.3	Intended use	0.049	STMR-RAC		
Melons	0.3	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Pumpkins	0.3	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Watermelons	0.3	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Other cucurbits – inedible peel	0.3	Intended use	0.01	STMR-RAC		
Sweet corn	0.01	Reg. (EU) 2021/590	0.01	STMR-RAC	0.01	HR-RAC
Broccoli	0.7	Intended use	0.03	STMR-RAC	0.46	HR-RAC
Cauliflowers	0.7	Intended use	0.03	STMR-RAC	0.46	HR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Other flowering brassica	0.7	Intended use	0.03	STMR-RAC		
Brussels sprouts	0.4	Intended use	0.068	STMR-RAC	0.14	HR-RAC
Head cabbages	0.04	Intended use	0.013	STMR-RAC	0.016	HR-RAC
Roman rocket/ rucola	7	Intended use	2.45	STMR-RAC	3.6	HR-RAC
Baby leaf crops (including brassica species)	7	Intended use	2.45	STMR-RAC	3.6	HR-RAC
Spinaches	7	Intended use	2.45	STMR-RAC	3.6	HR-RAC
Chervil	7	Intended use	2.45	STMR-RAC	3.6	HR-RAC
Chives	7	Intended use	2.45	STMR-RAC	3.6	HR-RAC
Celery leaves	7	Intended use	2.45	STMR-RAC	3.6	HR-RAC
Parsley	7	Intended use	2.45	STMR-RAC	3.6	HR-RAC
Sage	7	Intended use	2.45	STMR-RAC	3.6	HR-RAC
Rosemary	7	Intended use	2.45	STMR-RAC	3.6	HR-RAC
Thyme	7	Intended use	2.45	STMR-RAC	3.6	HR-RAC
Basil and edible flowers	7	Intended use	2.45	STMR-RAC	3.6	HR-RAC
Laurel/bay leaves	7	Intended use	2.45	STMR-RAC	3.6	HR-RAC
Tarragon	7	Intended use	2.45	STMR-RAC	3.6	HR-RAC
Other herbs	7	Intended use	2.45	STMR-RAC		
Beans (without pods)	0.04	Intended use	0.01	STMR-RAC	0.025	HR-RAC
Peas (without pods)	0.08	Intended use	0.01	STMR-RAC	0.059	HR-RAC
Cardoons	3	Intended use	0.6	STMR-RAC	1.51	HR-RAC
Celeries	3	Intended use	0.6	STMR-RAC	1.51	HR-RAC
Florence fennels	3	Intended use	0.6	STMR-RAC	1.51	HR-RAC
Globe artichokes	0.7	Intended use	0.25	STMR-RAC	0.31	HR-RAC
Rhubarbs	3	Intended use	0.6	STMR-RAC	1.51	HR-RAC
Beans	0.01	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Lentils	0.2	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Peas	0.2	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Lupins/lupini beans	0.2	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Other pulses	0.2	Intended use	0.01	STMR-RAC		
Linseeds	0.08	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Poppy seeds	0.08	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Sunflower seeds	0.05	Reg. (EU) 2021/590	0.01	STMR-RAC	0.01	STMR-RAC
Rapeseeds/canola seeds	0.06	Reg. (EU) 2021/590	0.01	STMR-RAC	0.01	STMR-RAC
Soya beans	0.01	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Mustard seeds	0.08	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Gold of pleasure seeds	0.08	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Olives for oil production	3	Intended use	0.355	STMR-RAC	0.355	STMR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Barley	0.6	Reg. (EU) 2021/590	0.1	STMR-RAC	0.1	STMR-RAC
Maize/corn	0.01	Reg. (EU) 2021/590	0.01	STMR-RAC	0.01	STMR-RAC
Oat	0.6	Reg. (EU) 2021/590	0.1	STMR-RAC	0.1	STMR-RAC
Rye	0.05	Reg. (EU) 2021/590	0.01	STMR-RAC	0.01	STMR-RAC
Wheat	0.05	Reg. (EU) 2021/590	0.01	STMR-RAC	0.01	STMR-RAC
Hops (dried)	15	Intended use	4.5	STMR-RAC	5	HR-RAC
Sugar beet roots	0.06	Reg. (EU) 2021/590	0.02	STMR-RAC	0.04	HR-RAC
Swine: Muscle/ meat[c]	0.01	Reg. (EU) 2021/590	0.01	STMR-RAC	0.01	HR-RAC
Swine: Fat tissue	0.01	Reg. (EU) 2021/590	0.01	STMR-RAC	0.01	HR-RAC
Swine: Liver	0.02	MRL proposal	0.005	STMR-RAC	0.017	HR-RAC
Swine: Kidney	0.01	Reg. (EU) 2021/590	0.01	STMR-RAC	0.01	HR-RAC
Swine: Edible offals (other than liver and kidney)	0.01	Reg. (EU) 2021/590	0.01	STMR-RAC	0.01	HR-RAC
Swine: Other products	0.02	MRL proposal	0.01	STMR-RAC	0.017	HR-RAC
Bovine: Muscle/ meat[c]	0.04	Reg. (EU) 2021/590	0.04	STMR-RAC	0.06	HR-RAC
Bovine: Fat tissue	0.2	Reg. (EU) 2021/590	0.11	STMR-RAC	0.2	HR-RAC
Bovine: Liver	0.4	Reg. (EU) 2021/590	0.17	STMR-RAC	0.34	HR-RAC
Bovine: Kidney	0.15	Reg. (EU) 2021/590	0.04	STMR-RAC	0.11	HR-RAC
Bovine: Edible offals (other than liver and kidney)	0.1	Reg. (EU) 2021/590	0.04	STMR-RAC	0.11	HR-RAC
Bovine: Other products	0.4	Reg. (EU) 2021/590	0.17	STMR-RAC	0.34	HR-RAC
Sheep: Muscle/ meat[c]	0.06	Reg. (EU) 2021/590	0.04	STMR-RAC	0.12	HR-RAC
Sheep: Fat tissue	0.4	Reg. (EU) 2021/590	0.13	STMR-RAC	0.39	HR-RAC
Sheep: Liver	0.7	Reg. (EU) 2021/590	0.21	STMR-RAC	0.66	HR-RAC
Sheep: Kidney	0.3	Reg. (EU) 2021/590	0.05	STMR-RAC	0.25	HR-RAC
Sheep: Edible offals (other than liver and kidney)	0.3	Reg. (EU) 2021/590	0.05	STMR-RAC	0.25	HR-RAC
Sheep: other products	0.7	Reg. (EU) 2021/590	0.21	STMR-RAC		

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Goat: Muscle/ meat[c]	0.06	Reg. (EU) 2021/590	0.04	STMR-RAC	0.12	HR-RAC
Goat: Fat tissue	0.4	Reg. (EU) 2021/590	0.13	STMR-RAC	0.39	HR-RAC
Goat: Liver	0.7	Reg. (EU) 2021/590	0.21	STMR-RAC	0.66	HR-RAC
Goat: Kidney	0.3	Reg. (EU) 2021/590	0.05	STMR-RAC	0.25	HR-RAC
Goat: Edible offals (other than liver and kidney)	0.3	Reg. (EU) 2021/590	0.05	STMR-RAC	0.25	HR-RAC
Goat: other products	0.7	Reg. (EU) 2021/590	0.21	STMR-RAC		
Equine: Muscle/ meat[c]	0.04	Reg. (EU) 2021/590	0.04	STMR-RAC	0.06	HR-RAC
Equine: Fat tissue	0.2	Reg. (EU) 2021/590	0.11	STMR-RAC	0.2	HR-RAC
Equine: Liver	0.4	Reg. (EU) 2021/590	0.17	STMR-RAC	0.34	HR-RAC
Equine: Kidney	0.15	Reg. (EU) 2021/590	0.04	STMR-RAC	0.11	HR-RAC
Equine: Edible offals (other than liver and kidney)	0.1	Reg. (EU) 2021/590	0.04	STMR-RAC	0.11	HR-RAC
Equine: Other products	0.4	Reg. (EU) 2021/590	0.17	STMR-RAC		
Poultry: Muscle/ meat[c]	0.015	Reg. (EU) 2021/590	0.062	STMR-RAC × CF (6.2)	0.062	HR-RAC × CF (6.2)
Poultry: Fat tissue	0.03	Reg. (EU) 2021/590	0.163	STMR-RAC × CF (16.3)	0.326	HR-RAC × CF (16.3)
Poultry: Liver	0.03	Reg. (EU) 2021/590	0.052949692	STMR-RAC × CF (4.9)	0.147	HR-RAC × CF (4.9)
Poultry: Kidney	0.03	Reg. (EU) 2021/590	0.052949692	STMR-RAC × CF (4.9)	0.147	HR-RAC × CF (4.9)
Poultry: Edible offals (other than liver and kidney)	0.03	Reg. (EU) 2021/590	0.052949692	STMR-RAC × CF (4.9)	0.147	HR-RAC × CF (4.9)
Poultry: Other products	0.03	Reg. (EU) 2021/590	0.049	STMR-RAC × CF (4.9)		
Milk: Cattle	0.03	Reg. (EU) 2021/590	0.01	STMR-RAC	0.01	STMR-RAC
Milk: Sheep	0.04	Reg. (EU) 2021/590	0.02	STMR-RAC	0.02	STMR-RAC
Milk: Goat	0.04	Reg. (EU) 2021/590	0.02	STMR-RAC	0.02	STMR-RAC
Milk: Horse	0.03	Reg. (EU) 2021/590	0.01	STMR-RAC	0.01	STMR-RAC
Eggs: Chicken	0.015	Reg. (EU) 2021/590	0.049	STMR-RAC × CF (4.9)	0.0539	HR-RAC × CF (4.9)
Eggs: Duck	0.015	Reg. (EU) 2021/590	0.049	STMR-RAC × CF (4.9)	0.0539	HR-RAC × CF (4.9)

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Eggs: Goose	0.015	Reg. (EU) 2021/590	0.049	STMR-RAC × CF (4.9)	0.0539	HR-RAC × CF (4.9)
Eggs: Quail	0.015	Reg. (EU) 2021/590	0.049	STMR-RAC × CF (4.9)	0.0539	HR-RAC × CF (4.9)
Eggs: Others	0.015	Reg. (EU) 2021/590	0.049	STMR-RAC × CF (4.9)		
Risk assessment residue definition: Triazole alanine (TA)						
Grapefruits	n.r.	Intended use	0.015	STMR-RAC	0.01	HR-RAC
Oranges	n.r.	Intended use	0.015	STMR-RAC	0.01	HR-RAC
Lemons	n.r.	Intended use	0.015	STMR-RAC	0.01	HR-RAC
Limes	n.r.	Intended use	0.015	STMR-RAC	0.01	HR-RAC
Mandarins	n.r.	Intended use	0.015	STMR-RAC	0.01	HR-RAC
Other citrus fruit	n.r.	Intended use	0.015	STMR-RAC		
Hazelnuts/cobnuts	n.r.	Intended use	0.15	STMR-RAC	1	HR-RAC
Pistachios	n.r.	Intended use	1.15	STMR-RAC	39	HR-RAC
Apples	n.r.	EFSA (2020)	0.07	STMR-RAC	0.41	HR-RAC
Pears	n.r.	EFSA (2020)	0.07	STMR-RAC	0.41	HR-RAC
Quinces	n.r.	EFSA (2020)	0.07	STMR-RAC	0.41	HR-RAC
Medlar	n.r.	EFSA (2020)	0.07	STMR-RAC	0.41	HR-RAC
Loquats/Japanese medlars	n.r.	EFSA (2020)	0.07	STMR-RAC	0.41	HR-RAC
Other pome fruit	n.r.	EFSA (2020)	0.07	STMR-RAC		
Apricots	n.r.	EFSA (2020)	0.11	STMR-RAC	1.1	HR-RAC
Cherries (sweet)	n.r.	EFSA (2020)	0.04	STMR-RAC	0.24	HR-RAC
Peaches	n.r.	EFSA (2020)	0.11	STMR-RAC	1.1	HR-RAC
Plums	n.r.	EFSA (2020)	0.08	STMR-RAC	0.51	HR-RAC
Table grapes	n.r.	EFSA (2020)	0.01	STMR-RAC	0.04	HR-RAC
Wine grapes	n.r.	EFSA (2020)	0.01	STMR-RAC	0.04	HR-RAC
Strawberries	n.r.	Intended use	0.013	STMR-RAC	0.05	HR-RAC
Blueberries	n.r.	Intended use	0.019	STMR-RAC	0.19	HR-RAC
Cranberries	n.r.	Intended use	0.019	STMR-RAC	0.19	HR-RAC
Currants (red, black and white)	n.r.	Intended use	0.019	STMR-RAC	0.19	HR-RAC
Gooseberries (green, red and yellow)	n.r.	Intended use	0.019	STMR-RAC	0.19	HR-RAC
Rose hips	n.r.	Intended use	0.019	STMR-RAC	0.19	HR-RAC
Mulberries (black and white)	n.r.	Intended use	0.019	STMR-RAC	0.19	HR-RAC
Azarole/ Mediterranean medlar	n.r.	Intended use	0.019	STMR-RAC	0.19	HR-RAC
Elderberries	n.r.	Intended use	0.019	STMR-RAC	0.19	HR-RAC
Other small fruit & berries	n.r.	Intended use	0.019	STMR-RAC		
Table olives	n.r.	Intended use	0.6	STMR-RAC	0.87	HR-RAC
Kaki/Japanese persimmons	n.r.	Intended use	0.069	STMR-RAC	0.41	HR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Potatoes	n.r.	EFSA (2020)	0.03	STMR-RAC	0.17	HR-RAC
Beetroots	n.r.	Intended use	0.026	STMR-RAC	0.14	HR-RAC
Carrots	n.r.	Intended use	0.026	STMR-RAC	0.14	HR-RAC
Celeriacs/turnip rooted celeries	n.r.	Intended use	0.026	STMR-RAC	0.14	HR-RAC
Horseradishes	n.r.	Intended use	0.026	STMR-RAC	0.14	HR-RAC
Jerusalem artichokes	n.r.	Intended use	0.026	STMR-RAC	0.14	HR-RAC
Parsnips	n.r.	Intended use	0.026	STMR-RAC	0.14	HR-RAC
Parsley roots/ Hamburg roots parsley	n.r.	Intended use	0.026	STMR-RAC	0.14	HR-RAC
Radishes	n.r.	Intended use	0.026	STMR-RAC	0.14	HR-RAC
Salsifies	n.r.	Intended use	0.026	STMR-RAC	0.14	HR-RAC
Swedes/rutabagas	n.r.	Intended use	0.026	STMR-RAC	0.14	HR-RAC
Turnips	n.r.	Intended use	0.026	STMR-RAC	0.14	HR-RAC
Other root and tuber vegetables	n.r.	Intended use	0.026	STMR-RAC		
Tomatoes	n.r.	Intended use	0.014	STMR-RAC	0.057	HR-RAC
Sweet peppers/bell peppers	n.r.	Intended use	0.015	STMR-RAC	0.042	HR-RAC
Aubergines/egg plants	n.r.	Intended use	0.014	STMR-RAC	0.057	HR-RAC
Cucumbers	n.r.	Intended use	0.11	STMR-RAC	0.47	HR-RAC
Gherkins	n.r.	Intended use	0.11	STMR-RAC	0.47	HR-RAC
Courgettes	n.r.	Intended use	0.11	STMR-RAC	0.47	HR-RAC
Other cucurbits – edible peel	n.r.	Intended use	0.11	STMR-RAC		
Melons	n.r.	Intended use	0.034	STMR-RAC	0.25	HR-RAC
Pumpkins	n.r.	Intended use	0.034	STMR-RAC	0.25	HR-RAC
Watermelons	n.r.	Intended use	0.034	STMR-RAC	0.25	HR-RAC
Other cucurbits – inedible peel	n.r.	Intended use	0.034	STMR-RAC		
Sweet corn	n.r.	EFSA (2020)	0.04	STMR-RAC	0.29	HR-RAC
Broccoli	n.r.	Intended use	0.038	STMR-RAC	0.31	HR-RAC
Cauliflowers	n.r.	Intended use	0.038	STMR-RAC	0.31	HR-RAC
Other flowering brassica	n.r.	Intended use	0.038	STMR-RAC		
Brussels sprouts	n.r.	Intended use	0.04	STMR-RAC	0.15	HR-RAC
Head cabbages	n.r.	Intended use	0.125	STMR-RAC	0.28	HR-RAC
Roman rocket/ rucola	n.r.	Intended use	0.031	STMR-RAC	0.068	HR-RAC
Baby leaf crops (including brassica species)	n.r.	Intended use	0.031	STMR-RAC	0.068	HR-RAC
Spinaches	n.r.	Intended use	0.031	STMR-RAC	0.068	HR-RAC
Chervil	n.r.	Intended use	0.031	STMR-RAC	0.068	HR-RAC
Chives	n.r.	Intended use	0.031	STMR-RAC	0.068	HR-RAC
Celery leaves	n.r.	Intended use	0.031	STMR-RAC	0.068	HR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Parsley	n.r.	Intended use	0.031	STMR-RAC	0.068	HR-RAC
Sage	n.r.	Intended use	0.031	STMR-RAC	0.068	HR-RAC
Rosemary	n.r.	Intended use	0.031	STMR-RAC	0.068	HR-RAC
Thyme	n.r.	Intended use	0.031	STMR-RAC	0.068	HR-RAC
Basil and edible flowers	n.r.	Intended use	0.031	STMR-RAC	0.068	HR-RAC
Laurel/bay leaves	n.r.	Intended use	0.031	STMR-RAC	0.068	HR-RAC
Tarragon	n.r.	Intended use	0.031	STMR-RAC	0.068	HR-RAC
Other herbs	n.r.	Intended use	0.031	STMR-RAC		
Beans (without pods)	n.r.	Intended use	0.135	STMR-RAC	0.49	HR-RAC
Peas (without pods)	n.r.	Intended use	0.27	STMR-RAC	1.6	HR-RAC
Cardoons	n.r.	Intended use	0.018	STMR-RAC	0.033	HR-RAC
Celeries	n.r.	Intended use	0.018	STMR-RAC	0.033	HR-RAC
Florence fennels	n.r.	Intended use	0.018	STMR-RAC	0.033	HR-RAC
Globe artichokes	n.r.	Intended use	0.038	STMR-RAC	0.063	HR-RAC
Rhubarbs	n.r.	Intended use	0.018	STMR-RAC	0.033	HR-RAC
Beans	n.r.	Intended use	0.15	STMR-RAC	0.15	STMR-RAC
Lentils	n.r.	Intended use	0.2	STMR-RAC	0.2	STMR-RAC
Peas	n.r.	Intended use	0.2	STMR-RAC	0.2	STMR-RAC
Lupins/lupini beans	n.r.	Intended use	0.2	STMR-RAC	0.2	STMR-RAC
Other pulses	n.r.	Intended use	0.2	STMR-RAC		
Linseeds	n.r.	Intended use	0.305	STMR-RAC	0.305	STMR-RAC
Poppy seeds	n.r.	Intended use	0.305	STMR-RAC	0.305	STMR-RAC
Sunflower seeds	n.r.	EFSA (2020)	0.06	STMR-RAC	0.06	STMR-RAC
Rapeseeds/canola seeds	n.r.	EFSA (2020)	0.13	STMR-RAC	0.13	STMR-RAC
Soya beans	n.r.	Intended use	0.305	STMR-RAC	0.305	STMR-RAC
Mustard seeds	n.r.	Intended use	0.305	STMR-RAC	0.305	STMR-RAC
Gold of pleasure seeds	n.r.	Intended use	0.305	STMR-RAC	0.305	STMR-RAC
Olives for oil production	n.r.	Intended use	0.635	STMR-RAC	0.635	STMR-RAC
Barley	n.r.	EFSA (2018c)	0.25	STMR-RAC	0.25	STMR-RAC
Maize/corn	n.r.	EFSA (2020)	0.08	STMR-RAC	0.08	STMR-RAC
Oat	n.r.	EFSA (2018c)	0.25	STMR-RAC	0.25	STMR-RAC
Rye	n.r.	EFSA (2018c)	0.25	STMR-RAC	0.25	STMR-RAC
Wheat	n.r.	EFSA (2018c)	0.25	STMR-RAC	0.25	STMR-RAC
Hops (dried)	n.r.	Intended use	0.455	STMR-RAC	0.75	HR-RAC
Sugar beet roots	n.r.	EFSA (2020)	0.02	STMR-RAC	0.03	HR-RAC
Swine: Muscle/ meat	n.r.	B.2.2.1	0.021	STMR-RAC	0.064	HR-RAC
Swine: Fat tissue	n.r.	B.2.2.1	0.009	STMR-RAC	0.023	HR-RAC
Swine: Liver	n.r.	B.2.2.1	0.055	STMR-RAC	0.176	HR-RAC
Swine: Kidney	n.r.	B.2.2.1	0.021	STMR-RAC	0.056	HR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Swine: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.055	STMR-RAC	0.176	HR-RAC
Swine: Other products	n.r.	B.2.2.1				
Bovine: Muscle/ meat	n.r.	B.2.2.1	0.069	STMR-RAC	0.214	HR-RAC
Bovine: Fat tissue	n.r.	B.2.2.1	0.031	STMR-RAC	0.139	HR-RAC
Bovine: Liver	n.r.	B.2.2.1	0.212	STMR-RAC	0.622	HR-RAC
Bovine: Kidney	n.r.	B.2.2.1	0.068	STMR-RAC	0.211	HR-RAC
Bovine: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.212	STMR-RAC	0.622	HR-RAC
Bovine: Other products	n.r.	B.2.2.1				
Sheep: Muscle/ meat	n.r.	B.2.2.1	0.083	STMR-RAC	0.458	HR-RAC
Sheep: Fat tissue	n.r.	B.2.2.1	0.046	STMR-RAC	0.321	HR-RAC
Sheep: Liver	n.r.	B.2.2.1	0.246	STMR-RAC	1.349	HR-RAC
Sheep: Kidney	n.r.	B.2.2.1	0.079	STMR-RAC	0.079	HR-RAC
Sheep: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.246	STMR-RAC	1.349	HR-RAC
Sheep: other products	n.r.	B.2.2.1				
Goat: Muscle/meat	n.r.	B.2.2.1	0.083	STMR-RAC	0.458	HR-RAC
Goat: Fat tissue	n.r.	B.2.2.1	0.046	STMR-RAC	0.321	HR-RAC
Goat: Liver	n.r.	B.2.2.1	0.246	STMR-RAC	1.349	HR-RAC
Goat: Kidney	n.r.	B.2.2.1	0.079	STMR-RAC	0.079	HR-RAC
Goat: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.246	STMR-RAC	1.349	HR-RAC
Goat: other products	n.r.	B.2.2.1				
Equine: Muscle/ meat	n.r.	B.2.2.1	0.069	STMR-RAC	0.214	HR-RAC
Equine: Fat tissue	n.r.	B.2.2.1	0.031	STMR-RAC	0.139	HR-RAC
Equine: Liver	n.r.	B.2.2.1	0.212	STMR-RAC	0.622	HR-RAC
Equine: Kidney	n.r.	B.2.2.1	0.068	STMR-RAC	0.211	HR-RAC
Equine: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.212	STMR-RAC	0.622	HR-RAC
Equine: Other products	n.r.	B.2.2.1				
Poultry: Muscle/ meat	n.r.	B.2.2.1	0.072	STMR-RAC	0.081	HR-RAC
Poultry: Fat tissue	n.r.	B.2.2.1	0.056	STMR-RAC	0.074	HR-RAC
Poultry: Liver	n.r.	B.2.2.1	0.161	STMR-RAC	0.18	HR-RAC
Poultry: Kidney	n.r.	B.2.2.1	0.033	STMR-RAC	0.04	HR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Poultry: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.161	STMR-RAC	0.18	HR-RAC
Poultry: Other products	n.r.	B.2.2.1				
Milk: Cattle	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	STMR-RAC
Milk: Sheep	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	STMR-RAC
Milk: Goat	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	STMR-RAC
Milk: Horse	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	STMR-RAC
Eggs: Chicken	n.r.	B.2.2.1	0.033	STMR-RAC	0.04	HR-RAC
Eggs: Duck	n.r.	B.2.2.1	0.033	STMR-RAC	0.04	HR-RAC
Eggs: Goose	n.r.	B.2.2.1	0.033	STMR-RAC	0.04	HR-RAC
Eggs: Quail	n.r.	B.2.2.1	0.033	STMR-RAC	0.04	HR-RAC
Eggs: Others	n.r.	B.2.2.1	0.033	STMR-RAC		
Risk assessment residue definition: Triazole lactic acid (TLA)						
Grapefruits	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Oranges	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Lemons	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Limes	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Mandarins	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Other citrus fruit	n.r.	Intended use	0.01	STMR-RAC		
Hazelnuts/cobnuts	n.r.	Intended use	0.077	STMR-RAC	0.25	HR-RAC
Pistachios	n.r.	Intended use	0.116	STMR-RAC	2.4	HR-RAC
Apples	n.r.	EFSA (2020)	0.01	STMR-RAC	0.06	HR-RAC
Pears	n.r.	EFSA (2020)	0.01	STMR-RAC	0.06	HR-RAC
Quinces	n.r.	EFSA (2020)	0.01	STMR-RAC	0.06	HR-RAC
Medlar	n.r.	EFSA (2020)	0.01	STMR-RAC	0.06	HR-RAC
Loquats/Japanese medlars	n.r.	EFSA (2020)	0.01	STMR-RAC	0.06	HR-RAC
Other pome fruit	n.r.	EFSA (2020)	0.01	STMR-RAC		
Apricots	n.r.	EFSA (2020)	0.02	STMR-RAC	0.14	HR-RAC
Cherries (sweet)	n.r.	EFSA (2020)	0.02	STMR-RAC	0.09	HR-RAC
Peaches	n.r.	EFSA (2020)	0.02	STMR-RAC	0.14	HR-RAC
Plums	n.r.	EFSA (2020)	0.01	STMR-RAC	0.06	HR-RAC
Table grapes	n.r.	EFSA (2020)	0.02	STMR-RAC	0.07	HR-RAC
Wine grapes	n.r.	EFSA (2020)	0.02	STMR-RAC	0.07	HR-RAC
Strawberries	n.r.	Intended use	0.01	STMR-RAC	0.013	HR-RAC
Blueberries	n.r.	Intended use	0.036	STMR-RAC	0.36	HR-RAC
Cranberries	n.r.	Intended use	0.036	STMR-RAC	0.36	HR-RAC
Currants (red, black and white)	n.r.	Intended use	0.036	STMR-RAC	0.36	HR-RAC
Gooseberries (green, red and yellow)	n.r.	Intended use	0.036	STMR-RAC	0.36	HR-RAC
Rose hips	n.r.	Intended use	0.036	STMR-RAC	0.36	HR-RAC
Mulberries (black and white)	n.r.	Intended use	0.036	STMR-RAC	0.36	HR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Azarole/ Mediterranean medlar	n.r.	Intended use	0.036	STMR-RAC	0.36	HR-RAC
Elderberries	n.r.	Intended use	0.036	STMR-RAC	0.36	HR-RAC
Other small fruit & berries	n.r.	Intended use	0.036	STMR-RAC		
Table olives	n.r.	Intended use	0.01	STMR-RAC	0.021	HR-RAC
Kaki/Japanese persimmons	n.r.	Intended use	0.01	STMR-RAC	0.038	HR-RAC
Potatoes	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Beetroots	n.r.	Intended use	0.01	STMR-RAC	0.053	HR-RAC
Carrots	n.r.	Intended use	0.01	STMR-RAC	0.053	HR-RAC
Celeriacs/turnip rooted celeries	n.r.	Intended use	0.01	STMR-RAC	0.053	HR-RAC
Horseradishes	n.r.	Intended use	0.01	STMR-RAC	0.053	HR-RAC
Jerusalem artichokes	n.r.	Intended use	0.01	STMR-RAC	0.053	HR-RAC
Parsnips	n.r.	Intended use	0.01	STMR-RAC	0.053	HR-RAC
Parsley roots/ Hamburg roots parsley	n.r.	Intended use	0.01	STMR-RAC	0.053	HR-RAC
Radishes	n.r.	Intended use	0.01	STMR-RAC	0.053	HR-RAC
Salsifies	n.r.	Intended use	0.01	STMR-RAC	0.053	HR-RAC
Swedes/rutabagas	n.r.	Intended use	0.01	STMR-RAC	0.053	HR-RAC
Turnips	n.r.	Intended use	0.01	STMR-RAC	0.053	HR-RAC
Other root and tuber vegetables	n.r.	Intended use	0.01	STMR-RAC		
Tomatoes	n.r.	Intended use	0.01	STMR-RAC	0.037	HR-RAC
Sweet peppers/bell peppers	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Aubergines/egg plants	n.r.	Intended use	0.01	STMR-RAC	0.037	HR-RAC
Cucumbers	n.r.	Intended use	0.01	STMR-RAC	0.033	HR-RAC
Gherkins	n.r.	Intended use	0.01	STMR-RAC	0.033	HR-RAC
Courgettes	n.r.	Intended use	0.01	STMR-RAC	0.033	HR-RAC
Other cucurbits – edible peel	n.r.	Intended use	0.01	STMR-RAC		
Melons	n.r.	Intended use	0.01	STMR-RAC	0.024	HR-RAC
Pumpkins	n.r.	Intended use	0.01	STMR-RAC	0.024	HR-RAC
Watermelons	n.r.	Intended use	0.01	STMR-RAC	0.024	HR-RAC
Other cucurbits – inedible peel	n.r.	Intended use	0.01	STMR-RAC		
Sweet corn	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Broccoli	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Cauliflowers	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Other flowering brassica	n.r.	Intended use	0.01	STMR-RAC		
Brussels sprouts	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Head cabbages	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Roman rocket/ rucola	n.r.	Intended use	0.031	STMR-RAC	0.071	HR-RAC
Baby leaf crops (including brassica species)	n.r.	Intended use	0.031	STMR-RAC	0.071	HR-RAC
Spinaches	n.r.	Intended use	0.031	STMR-RAC	0.071	HR-RAC
Chervil	n.r.	Intended use	0.031	STMR-RAC	0.071	HR-RAC
Chives	n.r.	Intended use	0.031	STMR-RAC	0.071	HR-RAC
Celery leaves	n.r.	Intended use	0.031	STMR-RAC	0.071	HR-RAC
Parsley	n.r.	Intended use	0.031	STMR-RAC	0.071	HR-RAC
Sage	n.r.	Intended use	0.031	STMR-RAC	0.071	HR-RAC
Rosemary	n.r.	Intended use	0.031	STMR-RAC	0.071	HR-RAC
Thyme	n.r.	Intended use	0.031	STMR-RAC	0.071	HR-RAC
Basil and edible flowers	n.r.	Intended use	0.031	STMR-RAC	0.071	HR-RAC
Laurel/bay leaves	n.r.	Intended use	0.031	STMR-RAC	0.071	HR-RAC
Tarragon	n.r.	Intended use	0.031	STMR-RAC	0.071	HR-RAC
Other herbs	n.r.	Intended use	0.031	STMR-RAC		
Beans (without pods)	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Peas (without pods)	n.r.	Intended use	0.01	STMR-RAC	0.015	HR-RAC
Cardoons	n.r.	Intended use	0.01	STMR-RAC	0.05	HR-RAC
Celeries	n.r.	Intended use	0.01	STMR-RAC	0.05	HR-RAC
Florence fennels	n.r.	Intended use	0.01	STMR-RAC	0.05	HR-RAC
Globe artichokes	n.r.	Intended use	0.01	STMR-RAC	0.012	HR-RAC
Rhubarbs	n.r.	Intended use	0.01	STMR-RAC	0.05	HR-RAC
Beans	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Lentils	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Peas	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Lupins/lupini beans	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Other pulses	n.r.	Intended use	0.01	STMR-RAC		
Linseeds	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Poppy seeds	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Sunflower seeds	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	STMR-RAC
Rapeseeds/canola seeds	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	STMR-RAC
Soya beans	n.r.	Intended use	0.013	STMR-RAC	0.013	STMR-RAC
Mustard seeds	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Gold of pleasure seeds	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Olives for oil production	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Barley	n.r.	EFSA (2018c)	0.011	STMR-RAC	0.011	STMR-RAC
Maize/corn	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	STMR-RAC
Oat	n.r.	EFSA (2018c)	0.011	STMR-RAC	0.011	STMR-RAC
Rye	n.r.	EFSA (2018c)	0.01	STMR-RAC	0.01	STMR-RAC
Wheat	n.r.	EFSA (2018c)	0.01	STMR-RAC	0.01	STMR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Hops (dried)	n.r.	Intended use	0.2	STMR-RAC	0.31	HR-RAC
Sugar beet roots	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Swine: Muscle/ meat	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Swine: Fat tissue	n.r.	B.2.2.1	0.024	STMR-RAC	0.029	HR-RAC
Swine: Liver	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Swine: Kidney	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Swine: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Swine: Other products	n.r.	B.2.2.1				
Bovine: Muscle/ meat	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Bovine: Fat tissue	n.r.	B.2.2.1	0.024	STMR-RAC	0.032	HR-RAC
Bovine: Liver	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Bovine: Kidney	n.r.	B.2.2.1	0.03	STMR-RAC	0.031	HR-RAC
Bovine: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Bovine: Other products	n.r.	B.2.2.1				
Sheep: Muscle/ meat	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Sheep: Fat tissue	n.r.	B.2.2.1	0.024	STMR-RAC	0.03	HR-RAC
Sheep: Liver	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Sheep: Kidney	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Sheep: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Sheep: other products	n.r.	B.2.2.1				
Goat: Muscle/meat	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Goat: Fat tissue	n.r.	B.2.2.1	0.024	STMR-RAC	0.03	HR-RAC
Goat: Liver	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Goat: Kidney	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Goat: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Goat: other products	n.r.	B.2.2.1				
Equine: Muscle/ meat	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Equine: Fat tissue	n.r.	B.2.2.1	0.024	STMR-RAC	0.032	HR-RAC
Equine: Liver	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Equine: Kidney	n.r.	B.2.2.1	0.03	STMR-RAC	0.031	HR-RAC
Equine: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Equine: Other products	n.r.	B.2.2.1				
Poultry: Muscle/ meat	n.r.	B.2.2.1	0.03	STMR-RAC	0.031	HR-RAC
Poultry: Fat tissue	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Poultry: Liver	n.r.	B.2.2.1	0.03	STMR-RAC	0.038	HR-RAC
Poultry: Kidney	n.r.	B.2.2.1	0.03	STMR-RAC	0.038	HR-RAC
Poultry: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.03	STMR-RAC	0.038	HR-RAC
Poultry: Other products	n.r.	B.2.2.1				
Milk: Cattle	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	STMR-RAC
Milk: Sheep	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	STMR-RAC
Milk: Goat	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	STMR-RAC
Milk: Horse	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	STMR-RAC
Eggs: Chicken	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Eggs: Duck	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Eggs: Goose	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Eggs: Quail	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Eggs: Others	n.r.	B.2.2.1	0.03	STMR-RAC		
Risk assessment residue definition: Triazole acetic acid (TAA)						
Grapefruits	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Oranges	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Lemons	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Limes	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Mandarins	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Other citrus fruit	n.r.	Intended use	0.01	STMR-RAC		
Hazelnuts/cobnuts	n.r.	Intended use	0.011	STMR-RAC	0.023	HR-RAC
Pistachios	n.r.	Intended use	0.01	STMR-RAC	0.15	HR-RAC
Apples	n.r.	EFSA (2020)	0.03	STMR-RAC	0.01	HR-RAC
Pears	n.r.	EFSA (2020)	0.03	STMR-RAC	0.01	HR-RAC
Quinces	n.r.	EFSA (2020)	0.03	STMR-RAC	0.01	HR-RAC
Medlar	n.r.	EFSA (2020)	0.03	STMR-RAC	0.01	HR-RAC
Loquats/Japanese medlars	n.r.	EFSA (2020)	0.03	STMR-RAC	0.01	HR-RAC
Other pome fruit	n.r.	EFSA (2020)	0.03	STMR-RAC		
Apricots	n.r.	EFSA (2020)	0.02	STMR-RAC	0.08	HR-RAC
Cherries (sweet)	n.r.	EFSA (2020)	0.01	STMR-RAC	0.05	HR-RAC
Peaches	n.r.	EFSA (2020)	0.02	STMR-RAC	0.08	HR-RAC
Plums	n.r.	EFSA (2020)	0.01	STMR-RAC	0.02	HR-RAC
Table grapes	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Wine grapes	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Strawberries	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Blueberries	n.r.	Intended use	0.01	STMR-RAC	0.044	HR-RAC
Cranberries	n.r.	Intended use	0.01	STMR-RAC	0.044	HR-RAC
Currants (red, black and white)	n.r.	Intended use	0.01	STMR-RAC	0.044	HR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Gooseberries (green, red and yellow)	n.r.	Intended use	0.01	STMR-RAC	0.044	HR-RAC
Rose hips	n.r.	Intended use	0.01	STMR-RAC	0.044	HR-RAC
Mulberries (black and white)	n.r.	Intended use	0.01	STMR-RAC	0.044	HR-RAC
Azarole/ Mediterranean medlar	n.r.	Intended use	0.01	STMR-RAC	0.044	HR-RAC
Elderberries	n.r.	Intended use	0.01	STMR-RAC	0.044	HR-RAC
Other small fruit & berries	n.r.	Intended use	0.01	STMR-RAC		
Table olives	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Kaki/Japanese persimmons	n.r.	Intended use	0.01	STMR-RAC	0.013	HR-RAC
Potatoes	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Beetroots	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Carrots	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Celeriacs/turnip rooted celeries	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Horseradishes	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Jerusalem artichokes	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Parsnips	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Parsley roots/ Hamburg roots parsley	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Radishes	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Salsifies	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Swedes/rutabagas	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Turnips	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Other root and tuber vegetables	n.r.	Intended use	0.01	STMR-RAC		
Tomatoes	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Sweet peppers/bell peppers	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Aubergines/egg plants	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Cucumbers	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Gherkins	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Courgettes	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Other cucurbits – edible peel	n.r.	Intended use	0.01	STMR-RAC		
Melons	n.r.	Intended use	0.01	STMR-RAC	0.015	HR-RAC
Pumpkins	n.r.	Intended use	0.01	STMR-RAC	0.015	HR-RAC
Watermelons	n.r.	Intended use	0.01	STMR-RAC	0.015	HR-RAC
Other cucurbits – inedible peel	n.r.	Intended use	0.01	STMR-RAC		
Sweet corn	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Broccoli	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Cauliflowers	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Other flowering brassica	n.r.	Intended use	0.01	STMR-RAC		
Brussels sprouts	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Head cabbages	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Roman rocket/ rucola	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Baby leaf crops (including brassica species)	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Spinaches	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Chervil	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Chives	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Celery leaves	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Parsley	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Sage	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Rosemary	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Thyme	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Basil and edible flowers	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Laurel/bay leaves	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Tarragon	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Other herbs	n.r.	Intended use	0.01	STMR-RAC		
Beans (without pods)	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Peas (without pods)	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Cardoons	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Celeries	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Florence fennels	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Globe artichokes	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Rhubarbs	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Beans	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Lentils	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Peas	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Lupins/lupini beans	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Other pulses	n.r.	Intended use	0.01	STMR-RAC		
Linseeds	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Poppy seeds	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Sunflower seeds	n.r.	EFSA (2020)	0.06	STMR-RAC	0.06	STMR-RAC
Rapeseeds/canola seeds	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	STMR-RAC
Soya beans	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Mustard seeds	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Gold of pleasure seeds	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Olives for oil production	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Barley	n.r.	EFSA (2018c)	0.09	STMR-RAC	0.09	STMR-RAC
Maize/corn	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	STMR-RAC
Oat	n.r.	EFSA (2018c)	0.09	STMR-RAC	0.09	STMR-RAC
Rye	n.r.	EFSA (2018c)	0.06	STMR-RAC	0.06	STMR-RAC
Wheat	n.r.	EFSA (2018c)	0.06	STMR-RAC	0.06	STMR-RAC
Hops (dried)	n.r.	Intended use	0.012	STMR-RAC	0.016	HR-RAC
Sugar beet roots	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Bovine: Muscle/ meat	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Bovine: Fat tissue	n.r.	B.2.2.1	0.023	STMR-RAC	0.031	HR-RAC
Bovine: Liver	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Bovine: Kidney	n.r.	B.2.2.1	0.023	STMR-RAC	0.028	HR-RAC
Bovine: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Bovine: Other products	n.r.	B.2.2.1				
Sheep: Muscle/ meat	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Sheep: Fat tissue	n.r.	B.2.2.1	0.023	STMR-RAC	0.034	HR-RAC
Sheep: Liver	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Sheep: Kidney	n.r.	B.2.2.1	0.023	STMR-RAC	0.05	HR-RAC
Sheep: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Sheep: other products	n.r.	B.2.2.1				
Goat: Muscle/meat	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Goat: Fat tissue	n.r.	B.2.2.1	0.023	STMR-RAC	0.034	HR-RAC
Goat: Liver	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Goat: Kidney	n.r.	B.2.2.1	0.023	STMR-RAC	0.05	HR-RAC
Goat: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Goat: other products	n.r.	B.2.2.1				
Equine: Muscle/ meat	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Equine: Fat tissue	n.r.	B.2.2.1	0.023	STMR-RAC	0.031	HR-RAC
Equine: Liver	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Equine: Kidney	n.r.	B.2.2.1	0.023	STMR-RAC	0.028	HR-RAC
Equine: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Equine: Other products	n.r.	B.2.2.1				
Poultry: Muscle/ meat	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Poultry: Fat tissue	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Poultry: Liver	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Poultry: Kidney	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Poultry: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Poultry: Other products	n.r.	B.2.2.1				
Milk: Cattle	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	STMR-RAC
Milk: Sheep	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	STMR-RAC
Milk: Goat	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	STMR-RAC
Milk: Horse	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	STMR-RAC
Eggs: Chicken	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Eggs: Duck	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Eggs: Goose	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Eggs: Quail	n.r.	B.2.2.1	0.03	STMR-RAC	0.03	HR-RAC
Eggs: Others	n.r.	B.2.2.1	0.03	STMR-RAC		
Risk assessment residue definition: 1,2,4 Triazole						
Grapefruits	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Oranges	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Lemons	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Limes	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Mandarins	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Other citrus fruit	n.r.	Intended use	0.01	STMR-RAC		
Hazelnuts/cobnuts	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Pistachios	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Apples	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Pears	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Quinces	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Medlar	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Loquats/Japanese medlars	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Other pome fruit	n.r.	EFSA (2020)	0.01	STMR-RAC		
Apricots	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Cherries (sweet)	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Peaches	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Plums	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Table grapes	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Wine grapes	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Strawberries	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Blueberries	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Cranberries	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Currants (red, black and white)	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Gooseberries (green, red and yellow)	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Rose hips	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Mulberries (black and white)	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Azarole/ Mediterranean medlar	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Elderberries	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Other small fruit & berries	n.r.	Intended use	0.01	STMR-RAC		
Table olives	n.r.	Intended use	0.01	STMR-RAC	0.013	HR-RAC
Kaki/Japanese persimmons	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Potatoes	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Beetroots	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Carrots	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Celeriacs/turnip rooted celeries	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Horseradishes	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Jerusalem artichokes	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Parsnips	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Parsley roots/ Hamburg roots parsley	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Radishes	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Salsifies	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Swedes/rutabagas	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Turnips	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Other root and tuber vegetables	n.r.	Intended use	0.01	STMR-RAC		
Tomatoes	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Sweet peppers/bell peppers	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Aubergines/egg plants	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Cucumbers	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Gherkins	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Courgettes	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Other cucurbits – edible peel	n.r.	Intended use	0.01	STMR-RAC		
Melons	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Pumpkins	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Watermelons	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Other cucurbits – inedible peel	n.r.	Intended use	0.01	STMR-RAC		
Sweet corn	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Broccoli	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Cauliflowers	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Other flowering brassica	n.r.	Intended use	0.01	STMR-RAC		

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Brussels sprouts	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Head cabbages	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Roman rocket/ rucola	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Baby leaf crops (including brassica species)	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Spinaches	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Chervil	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Chives	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Celery leaves	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Parsley	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Sage	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Rosemary	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Thyme	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Basil and edible flowers	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Laurel/bay leaves	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Tarragon	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Other herbs	n.r.	Intended use	0.01	STMR-RAC		
Beans (without pods)	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Peas (without pods)	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Cardoons	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Celeries	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Florence fennels	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Globe artichokes	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Rhubarbs	n.r.	Intended use	0.01	STMR-RAC	0.01	HR-RAC
Beans	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Lentils	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Peas	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Lupins/lupini beans	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Other pulses	n.r.	Intended use	0.01	STMR-RAC		
Linseeds	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Poppy seeds	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Sunflower seeds	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	STMR-RAC
Rapeseeds/canola seeds	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	STMR-RAC
Soya beans	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Mustard seeds	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Gold of pleasure seeds	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Olives for oil production	n.r.	Intended use	0.01	STMR-RAC	0.01	STMR-RAC
Barley	n.r.	EFSA (2018c)	0.01	STMR-RAC	0.01	STMR-RAC
Maize/corn	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	STMR-RAC
Oat	n.r.	EFSA (2018c)	0.01	STMR-RAC	0.01	STMR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[a] (mg/kg)	Comment	Input value[a] (mg/kg)	Comment[b]
Rye	n.r.	EFSA (2018c)	0.01	STMR-RAC	0.01	STMR-RAC
Wheat	n.r.	EFSA (2018c)	0.01	STMR-RAC	0.01	STMR-RAC
Hops (dried)	n.r.	Intended use	0.013	STMR-RAC	0.16	HR-RAC
Sugar beet roots	n.r.	EFSA (2020)	0.01	STMR-RAC	0.01	HR-RAC
Swine: Muscle/ meat	n.r.	B.2.2.1	0.017	STMR-RAC	0.033	HR-RAC
Swine: Fat tissue	n.r.	B.2.2.1	0.024	STMR-RAC	0.032	HR-RAC
Swine: Liver	n.r.	B.2.2.1	0.018	STMR-RAC	0.035	HR-RAC
Swine: Kidney	n.r.	B.2.2.1	0.017	STMR-RAC	0.032	HR-RAC
Swine: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.018	STMR-RAC	0.035	HR-RAC
Swine: Other products	n.r.	B.2.2.1				
Bovine: Muscle/ meat	n.r.	B.2.2.1	0.047	STMR-RAC	0.132	HR-RAC
Bovine: Fat tissue	n.r.	B.2.2.1	0.033	STMR-RAC	0.112	HR-RAC
Bovine: Liver	n.r.	B.2.2.1	0.047	STMR-RAC	0.13	HR-RAC
Bovine: Kidney	n.r.	B.2.2.1	0.045	STMR-RAC	0.232	HR-RAC
Bovine: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.047	STMR-RAC	0.13	HR-RAC
Bovine: Other products	n.r.	B.2.2.1				
Sheep: Muscle/ meat	n.r.	B.2.2.1	0.053	STMR-RAC	0.258	HR-RAC
Sheep: Fat tissue	n.r.	B.2.2.1	0.038	STMR-RAC	0.23	HR-RAC
Sheep: Liver	n.r.	B.2.2.1	0.056	STMR-RAC	0.254	HR-RAC
Sheep: Kidney	n.r.	B.2.2.1	0.054	STMR-RAC	0.266	HR-RAC
Sheep: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.056	STMR-RAC	0.254	HR-RAC
Sheep: other products	n.r.	B.2.2.1				
Goat: Muscle/meat	n.r.	B.2.2.1	0.053	STMR-RAC	0.258	HR-RAC
Goat: Fat tissue	n.r.	B.2.2.1	0.038	STMR-RAC	0.23	HR-RAC
Goat: Liver	n.r.	B.2.2.1	0.056	STMR-RAC	0.254	HR-RAC
Goat: Kidney	n.r.	B.2.2.1	0.054	STMR-RAC	0.266	HR-RAC
Goat: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.056	STMR-RAC	0.254	HR-RAC
Goat: other products	n.r.	B.2.2.1				
Equine: Muscle/ meat	n.r.	B.2.2.1	0.047	STMR-RAC	0.132	HR-RAC
Equine: Fat tissue	n.r.	B.2.2.1	0.033	STMR-RAC	0.112	HR-RAC
Equine: Liver	n.r.	B.2.2.1	0.047	STMR-RAC	0.13	HR-RAC
Equine: Kidney	n.r.	B.2.2.1	0.045	STMR-RAC	0.232	HR-RAC

Commodity	Existing/ proposed MRL	Source/type of MRL	Chronic risk assessment		Acute risk assessment	
			Input value[(a)] (mg/kg)	Comment	Input value[(a)] (mg/kg)	Comment[(b)]
Equine: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.047	STMR-RAC	0.13	HR-RAC
Equine: Other products	n.r.	B.2.2.1				
Poultry: Muscle/ meat	n.r.	B.2.2.1	0.041	STMR-RAC	0.052	HR-RAC
Poultry: Fat tissue	n.r.	B.2.2.1	0.04	STMR-RAC	0.04	HR-RAC
Poultry: Liver	n.r.	B.2.2.1	0.041	STMR-RAC	0.052	HR-RAC
Poultry: Kidney	n.r.	B.2.2.1	0.041	STMR-RAC	0.052	HR-RAC
Poultry: Edible offals (other than liver and kidney)	n.r.	B.2.2.1	0.041	STMR-RAC	0.052	HR-RAC
Poultry: Other products	n.r.	B.2.2.1				
Milk: Cattle	n.r.	B.2.2.1	0.059	STMR-RAC	0.059	STMR-RAC
Milk: Sheep	n.r.	B.2.2.1	0.061	STMR-RAC	0.061	STMR-RAC
Milk: Goat	n.r.	B.2.2.1	0.061	STMR-RAC	0.061	STMR-RAC
Milk: Horse	n.r.	B.2.2.1	0.059	STMR-RAC	0.059	STMR-RAC
Eggs: Chicken	n.r.	B.2.2.1	0.04	STMR-RAC	0.048	HR-RAC
Eggs: Duck	n.r.	B.2.2.1	0.04	STMR-RAC	0.048	HR-RAC
Eggs: Goose	n.r.	B.2.2.1	0.04	STMR-RAC	0.048	HR-RAC
Eggs: Quail	n.r.	B.2.2.1	0.04	STMR-RAC	0.048	HR-RAC
Eggs: Others	n.r.	B.2.2.1	0.04	STMR-RAC		

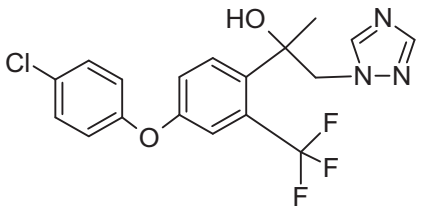
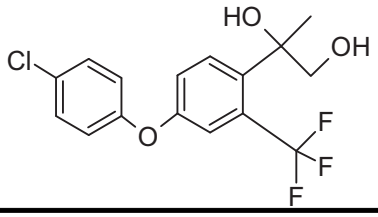
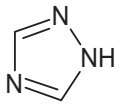
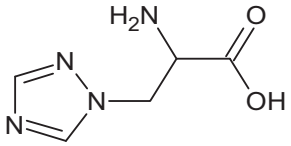
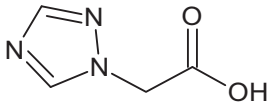
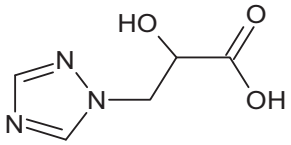
STMR-RAC: supervised trials median residue in raw agricultural commodity; HR-RAC: highest residue in raw agricultural commodity; CF: conversion factor; n.r.: not relevant.

(a): Figures in the table are rounded to two digits, but the calculations are normally performed with the actually calculated values (which may contain more digits). To reproduce dietary burden calculations, the unrounded values need to be used.

(b): Input values for the commodities which are not under consideration for the acute risk assessment are reported in grey.

(c): Consumption figures in the EFSA PRIMo are expressed as meat. Since the a.s. is a fat-soluble pesticides, STMR and HR residue values were calculated considering a 80%/90% muscle and 20%/10% fat content for mammal/poultry meat respectively (FAO, 2016).

Appendix E – Used compound codes

Code/trivial name[(a)]	IUPAC name/SMILES notation/ InChiKey[(b)]	Structural formula[(c)]
Mefentrifluconazole BAS 750 F	(2*RS*)-2-[4-(4-chlorophenoxy)-2-(trifluoromethyl)phenyl]-1-(1*H*-1,2,4-triazol-1-yl)propan-2-ol CC(O)(Cn1cncn1)c1ccc(Oc2ccc(Cl)cc2)cc1C(F)(F)F JERZEQUMJNCPRJ-UHFFFAOYSA-N	
M750F022 2-[4-(4-chlorophenoxy)-2-(trifluoromethyl)phenyl] propane-1,2-diol	2-[4-(4-chlorophenoxy)-2-(trifluoromethyl)phenyl]propane-1,2-diol Clc1ccc(Oc2cc(c(cc2)C(C)(O)CO)C(F)(F)F)cc1 MGUHXOFWMGUWOW-UHFFFAOYSA-N	
Triazole derivative metabolites		
1,2,4-triazole **1,2,4-T**	1*H*-1,2,4-triazole c1ncnn1 NSPMIYGKQJPBQR-UHFFFAOYSA-N	
Triazole alanine **TA**	3-(1*H*-1,2,4-triazol-1-yl)-D,L-alanine NC(Cn1cncn1)C(=O)O XVWFTOJHOHJIMQ-UHFFFAOYSA-N	
Triazole acetic acid **TAA**	1*H*-1,2,4-triazol-1-ylacetic acid O=C(O)Cn1cncn1 RXDBSQXFIWBJSR-UHFFFAOYSA-N	
Triazole lactic acid or Triazole hydroxy propionic acid **TLA**	(2*RS*)-2-hydroxy-3-(1*H*-1,2,4-triazol-1-yl) propanoic acid OC(Cn1cncn1)C(=O)O KJRGHGWETVMENC-UHFFFAOYSA-N	

IUPAC: International Union of Pure and Applied Chemistry; SMILES: simplified molecular-input line-entry system; InChiKey: International Chemical Identifier Key.
(a): The metabolite name in bold is the name used in the conclusion.
(b): ACD/Name 2021.1.3 ACD/Labs 2021.1.3 (File Version N15E41, Build 123232, 7 July 2021).
(c): ACD/ChemSketch 2021.1.3 ACD/Labs 2021.1.3 (File Version C25H41, Build 123835, 28 August 2021).