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Working document on pesticides to be considered for inclusion in the national control programmes to ensure compliance with maximum residue levels of pesticides residues in and on food of plant and animal origin.

This document has been conceived as a working document of the Commission Services. It does not represent the official position of the Commission. It does not intend to produce legally binding effects.

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1. Scope

This document serves the dual purpose of:

- ✓ Proposing pesticides to be included in the EU Multi-Annual Control Programme (EU MACP).
- ✓ Recommending pesticides to be included in the National Control Programmes (NCPs) of the Member States on a voluntary basis.

The assessment of active substances is based on:

- ✓ occurrence data originating from EFSA's annual reporting data
- ✓ toxicological reference data found on the EU MRL database and
- ✓ analytical capabilities of the EU laboratories which are assessed via an annual survey conducted by the EURL-SRM.

This document is revised each year following the Working Group Meeting of Experts on monitoring of pesticide residues in/on food and is endorsed by the Standing Committee on Plants, Animals, Food and Feed, section pesticides residues (SC PAFF phytopharmaceuticals – section residues) and serves as a preliminary evaluation of the pesticides included on the annual European Commission Regulation.

2. Introduction

On 4 October 2013 an Expert Group Meeting on Pesticides Residues Monitoring was held in Brussels. In this meeting it was agreed not to include voluntary analyses in the Regulation concerning the EU MACP for 2015, 2016 and 2017. However, it was deemed necessary to already highlight in advance certain pesticides, which following the assessment detailed in **Chapter 3**, could be considered for inclusion in the Regulation for the EU MACP. These pesticides are listed in **Chapter 4** of this document and can be, on a voluntary basis, taken up in the National Control Programmes of the Member States during the assessment period. After an evaluation of the analytical capability and the monitoring data gathered under the National Control Programmes, their inclusion or non-inclusion in the EU MACP is considered.

The document is completed by a series of Annexes as detailed below:

- ✓ **Annex I** includes pesticides for which monitoring data are required for specific risk management questions.
- ✓ **Annex II** lists pesticides for which support is needed from the EURLs.
- ✓ Pesticides that are of interest to EFSA for cumulative risk assessment and which are not taken up in the chapter 4 of this document or the MACP, are included in **Annex III** to this document.
- ✓ **Annex IV** includes active substances for which occurrence data indicated very few findings and, thus, can include substances coming from the Chapter 4 assessment or even from the list included in the EU MACP.
- ✓ **Annex V** details the assessment methodology of the active substances.
- ✓ **Annex VI** includes the form of proposals of pesticides to be assessed by Member States or EURLs.
- ✓ Substances of interest to be analysed in honey under national control programmes are listed in **annex VII**.
- ✓ Commodities of interest to be analysed under the national control programmes are listed in **annex** VIII.
- ✓ Substances that have been moved from Chapter 4 of this document into the EU MACP are listed in **Annex IX**.
- ✓ Annex X provides a brief description of a project regarding the collection of samples of organic products of plant origin for the determination of background levels of dithiocarbamates (CS2), as several false positive analysis results indicate the natural occurrence of CS2 in specific plant products.

Residue Definitions:

All pesticides mentioned in this document are recommended to be analysed for their **full and legal residue definition** according to Reg. (EC) N° 396/2005. In order to avoid that this document would be outdated due to future changes in residue definitions, only the general name of the residue definition is mentioned. For the full details of each residue definition, as well as specific residue definitions for certain commodities, reference is made to the most recent version of Reg. (EC) No 396/2005.

3. Categorisation, prioritisation and assessment

During the SCOFCAH of 12-13 June 2014 the Member States were requested to take a position on the approach for categorisation and prioritisation of the substances that are taken up in this document. A majority of the Member States was in favour of an approach in which the pesticides are divided into specific categories. Based on a limited set of criteria each pesticide is attributed a priority and a time line for evaluation of inclusion or non-inclusion in the MACP.

3.1. Categorisation

The pesticides in Chapter 4 are split up into the following *categories*:

- ✓ Frequent detections, MRL exceedances or RASFF notifications.
 - Based on the occurrence data of the 3 previous years (starting from the year with the latest data available), candidates for inclusion in this WD are substances with (a) MRL exceedances and/or (b) high rate of findings (>=0.5% of samples) for 3 consecutive years (for animal commodities where findings are less, a rate of >=0.01% can be taken into account).
 - Based on the RASFF notifications of 3 years, the 15 substances with the highest frequency of occurrence in the alerts are examined for findings for 3 years. The above procedure is followed.
- ✓ Recently approved substances. Substances approved during the time interval between two consecutive working group meetings.
- ✓ Art. 12 priority list.
- ✓ High toxicity.

3.2. Prioritisation

The substances included in Chapter 4 of this document are prioritised based on the **type of analytical method**.

- ✓ MRM method: priority 1
- ✓ MRM/ SRM or SRM method: priority 2
- ✓ In case **no standards and/or analytical method** are available for substances that qualify to the categories mentioned under chapter 3.1, the substances are **not included in chapter 4**. They are however taken up in Annex II to this document that lists substances for which support from the EURLs is requested.

A further refinement of the priority is made based on toxicity.

- ✓ if ADI \leq 0.1 mg/kg bw/day **or** ARfD \leq 0.1 mg/kg bw, then priority A is assigned.
- ✓ if ADI > 0.1 mg/kg bw/day and ARfD > 0.1 mg/kg bw, then priority B is assigned.

Based on the above, *prioritization* is illustrated in the following table:

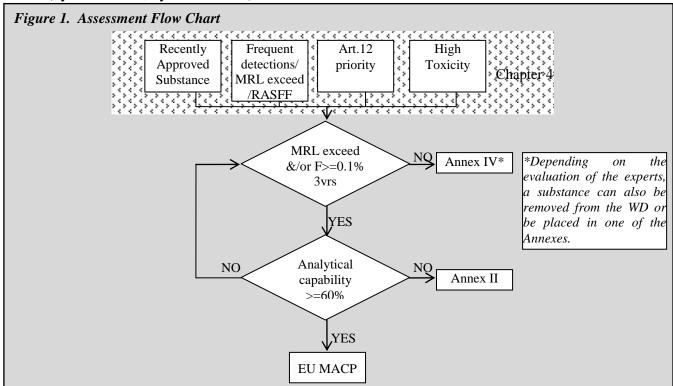
	Analytical Capability	Priority 1	Priority 2
Toxicity			
		MRM	MRM/SRM or SRM
Priority A	$ADI \le 0.1 \text{ mg/kg bw/day or}$ $ARfD \le 0.1 \text{ mg/kg bw}$	1A	2A
Priority B	ADI > 0.1 mg/kg bw/day and ARfD > 0.1 mg/kg bw or No Toxicological Reference Values Available	1B	2В

Table 1. Prioritization Matrix of Active Substances

- ✓ For pesticides with priorities 1A and 1B, the evaluation will be done after 1 year, for categories 2A and 2B after 2 years.
- ✓ The sub-priorities A and B, which are linked to the toxicity, don't affect the evaluation timeline and are only for information to the MS, in case they want guidance on which substances should be prioritised.
- ✓ In case of RASFF notifications it is possible to accord a higher priority to certain specific substances after discussions in the expert group.

3.3. Assessment

As illustrated in **Figure 1**, frequently detected substances as defined in 3.1, recently approved substances, substances identified as top-15 in annual RASFF findings, high toxicity substances and Art.12 priority substances can be included in Chapter 4 of this document based on the discussion of the experts during the working group. Based on the datasets of 3 years preceding EFSA'a latest published annual report, in the case a Chapter 4 active substance indicates MRL exceedances and/or findings of more than 0.1% of the analysed samples for 3 years consecutively, and if there is good (>=60%) analytical capability across EU laboratories, then that active substance is eligible for addition on the EU MACP depending on the experts' evaluation. In case analytical capability is <60% then the substance is placed in Annex II for support from the EURLs and is re-evaluated in 1 or 2 years depending on the prioritisation factor of that substance (1yr for 1A/1B, 2yrs for 2A/2B).



4. Pesticides to be considered for inclusion in National Control Programmes (NCP)

The substances are listed in alphabetical order, separately for commodities of plant origin and of animal origin and per category. Substances newly added to this version of the WD are indicated in white background, while older substances that were evaluated during the 2018 WG are in grey background.

4.1. Pesticides to be considered for analysis in products of plant origin (PO)

4.1.1. Frequent detections¹, MRL exceedances or RASFF notifications

<u>4-CPA(4-chlorophenoxyaceticacid)</u> (Not approved) – PO

Added: 10/2018

Toxicity: no toxicological reference values available

Method: MRM/SRM

Priority: 2B

Evaluation: after 2 years (10/2020)

✓ 0.03% findings (0.02% MRL exceedances) EFSA 2014

✓ 0.03% findings (0.02% MRL exceedances) EFSA 2015

✓ 0.02% findings (0.03% MRL exceedances) EFSA 2016

No data on analytical capability

Chlordecone (Not approved) – PO

Added: 10/2018

Toxicity: no toxicological reference values available

Method: MRM Priority: 1B

Evaluation: after 1 year (10/2019)

✓ 0.74% findings (0.41% MRL exceedances) EFSA 2014 ✓ 3.53 % findings (1.36% MRL exceedances) EFSA 2015 ✓ 1.21% findings (0.52% MRL exceedances) EFSA 2016

No data on analytical capability.

<u>Diafenthiuron (Not Approved) – PO</u>

Added: 10/2018

Toxicity: no toxicological reference values available

Method: MRM/SRM

Priority: 1B

Evaluation: after 1 year (10/2019)

✓ 0.03% findings (0.03% MRL exceedances) EFSA 2014

✓ 0.00% findings (0.01% MRL exceedances) EFSA 2015

✓ 0.02% findings (0.03% MRL exceedances) EFSA 2016

No data on analytical capability.

<u>Dinotefuran (Not Approved) – PO</u>

Added: 10/2018

Toxicity: no toxicological reference values available

Method: MRM Priority: 1B

Evaluation: after 1 year (10/2019)

✓ 0.07% findings (0.06% MRL exceedances) EFSA 2014

✓ 0.01% findings (0.03% MRL exceedances) EFSA 2015

✓ 0.03% findings (0.03% MRL exceedances) EFSA 2016

No data on analytical capability.

Fenobucarb (Not Approved) – PO

Added: 10/2018

Toxicity: no toxicological reference values available

Method: MRM Priority: 1B

Evaluation: after 1 year (10/2019)

✓ 0.09% findings (0.06% MRL exceedances) EFSA 2014

✓ 0.00% findings (0.02% MRL exceedances) EFSA 2015

✓ 0.06% findings (0.01% MRL exceedances) EFSA 2016

No data on analytical capability.

Fosetyl-Al – PO

Method: SRM

Toxicity: ADI = 3 mg/kg bw/day, ARfD NA

Priority: 2B

Evaluation: after 2 years $(10/2017) \rightarrow 10/2018 \rightarrow 10/2019$

Both fosetyl and phosphonic acid are SRM substances. Whereas phosphonic acid is frequently found in virtually all types of crops, fosetyl itself is rarely found (e.g. in grapes, strawberries, cucumber, melons, lettuce, ruccola, tomatoes, zucchini)

✓ 1.3% Findings in vegetables, 0.5% in fruits and nuts EFSA 2011

✓ 6.36% findings EFSA 2012

✓ 33.78% findings EFSA 2013

✓ 33.26% EFSA 2014

✓ 27.46% findings (0.19% MRL exceedances) EFSA 2015

✓ 28.14% findings (1.15% MRL exceedances) EFSA 2016

38% labs and 81% MS analysed full RD in 2015

29% labs and 54% MS analysed full RD in 2016

29% labs and 54% MS analysed full RD in 2017

¹ SRM-compounds are typically analysed on specific commodities so their detection frequencies are typically higher than if they would have been analysed randomly.

- ⇒ Analytical capability poor
- ⇒ Findings justify inclusion in EU MACP
- ⇒ Keep extra year in Chapter 4 of WD

Glufosinate ammonium – PO

At request of EFSA, since residues are found in animal origin commodities, interesting to also check soybean which is used both as food and feed.

Method: SRM

Toxicity: ADI = 0.021 mg/kg bw/day, ARfD = 0.021mg/kg

bw

Priority: 2A

Evaluation: after 2 years $(10/2017) \rightarrow 10/2018 \rightarrow 10/2019$

✓ 0.3% findings in vegetables EFSA 2011

✓ 0.37% findings in 2011-2013 (EURL priority list)

- ✓ 0% findings EFSA 2012
- ✓ 0.26% findings EFSA 2013
- √ 0.03% findings EFSA 2014
- ✓ 0.26% findings (0.00% MRL exceedances) EFSA 2015
- ✓ 0.82% findings (0.03% MRL exceedances) EFSA 2016 6% labs and 23% MS analysed full RD in 2015

10% labs and 27% MS analysed full RD in 2016

14% labs and 32% MS analysed full RD in 2017

- ⇒ Analytical capability poor
- ⇒ Not clear if findings justify inclusion in EU MACP
- ⇒ Keep extra year in Chapter 4 of WD

Especially relevant for apples, cultivated fungi, peaches/ nectarines, potatoes, strawberries and rice. Additionally relevant for some non-MACP commodities such as: celery, currants maize and soyabeans.

Nicotine (Not Approved) – PO

Added: 10/2018

Toxicity: ADI=0.0008 mg/kg bw/day, ARfD=0.0008 mg/kg

bw/day

Method: MRM Priority: 1A

Evaluation: after 1 year (10/2019)

- ✓ 2.66% findings (0.77% MRL exceedances) EFSA 2014
- ✓ 0.25% findings (0.13% MRL exceedances) EFSA 2015
- ✓ 1.76 % findings (0.21% MRL exceedances) EFSA 2016

24% labs and 58% MS analysed full RD in 2016 20% labs and 39% MS analysed full RD in 2017

Also included in Annex I, but listed here as it may be of concern of the EU MACP commodities (e.g brassica crops).

Novaluron (not approved) – PO

Toxicity: ADI = 0.01 mg/kg bw/day, ARfD NA

Method: MRM Priority: 1A

Evaluation: after 1 year $(10/2018) \rightarrow 10/2019$

- ✓ 0.14% findings (0.00% MRL exceedances) EFSA 2013
- ✓ 0.12% findings (0.00% MRL exceedances) EFSA 2014
- ✓ 0.06% findings (0.00% MRL exceedances) EFSA 2015
- ✓ 0.05% findings (0.00% MRL exceedances) EFSA 2016

45% labs and 58% MS analysed full RD in 2016

49% labs and 71% MS analysed full RD in 2017

- ⇒ Analytical capability medium
- ⇒ Not clear if findings justify inclusion in EU MACP
- ⇒ Keep extra year in Chapter 4 of WD

<u>Prochloraz – PO</u>

Toxicity: ADI = 0.01 mg/kgbw/day, ARfD = 0.025 mg/kgbw Method: SRM (possible future revision of residue definition that would allow MRM method).

Evaluation: after 1 year (10/2019)

- ✓ 1.8% findings EFSA 2012 report
- ✓ 1.63% findings EFSA 2013 report
- ✓ 1.19% findings (0.01% MRL exceedances) EFSA 2014
- ✓ 1.20% findings (0.05% MRL exceedances) EFSA 2015
- ✓ 1.17% findings (0.02% MRL exceedances) EFSA 2016

10% labs and 35% MS analysed full RD in 2015

11% labs and 42% MS analysed full RD in 2016

14% labs and 7% MS analysed full RD in 2017

Especially relevant for apples, bananas, broccoli, cauliflowers, cereals, cultivated fungi, grapefruit, head cabbage, kiwi, lettuce, melons, onions, oranges, pears, peppers (sweet), potatoes, strawberries, rice, table grapes, tomatoes and wheat. Additionally relevant for several non-MACP commodities such as avocados, basil, beans with pods, cherries, Chinese cabbage, clementines, mandarins, fresh herbs (coriander, celery leaves), garlic, lemons, limes, lychee, mangoes, papayas, guavas passion fruits, peas with pods, pineapples, peppers (chili), plums, pomegranates, pomelos, shallots, tea, wild fungi.

Pyridalil – PO

Toxicity: ADI = 0.03 mg/kg bw/day, ARfD NA

Method: MRM Priority: 1A

Evaluation: after 1 year $(10/2018) \rightarrow 10/2019$

- ✓ 0.08% findings (0.00% MRL exceedances) EFSA 2013
- ✓ 0.13% findings (0.00% MRL exceedances) EFSA 2014
- ✓ 0.17% findings (0.01% MRL exceedances) EFSA 2015

✓ 0.16% findings (0.00% MRL exceedances) EFSA 2016 35% labs and 62% MS analysed full RD in 2016 43% labs and 61% MS analysed full RD in 2017

- ⇒ Analytical capability medium
- ⇒ Findings justify inclusion in EU MACP
- ⇒ Keep extra year in Chapter 4 of WD so that more labs have the time to add this substance to their scope.

Pyrethrins – PO

Toxicity: ADI = 0.04 mg/kg bw/day, ARfD = 0.2 mg/kg bw

Method: MRM/SRM

Priority: 2A

Evaluation after 2 years $(10/2017) \rightarrow 10/2018 \rightarrow 10/2019$

0.06% findings EFSA 2012 0.18% findings EFSA 2013 0.14% findings EFSA 2014

0.13% findings (0.00% MRL exceedances) EFSA 2015 0.13% findings (0.00% MRL exceedances) EFSA 2016 38% labs and 73% MS analysed full RD in 2015 43% labs and 81% MS analysed full RD in 2016 37% labs and 82% MS analysed full RD in 2017

- ⇒ Analytical capability medium
- ⇒ Findings justify inclusion in EU MACP

⇒ Keep extra year in Chapter 4 of WD so that more labs have the time to add this substance to their scope.

Especially relevant for all kinds of fruits, vegetables and cereals within the EU MACP scope. Additionally relevant for several non-MACP commodities such as: currants, fresh herbs (e.g. basil), nuts (e.g. almonds, coconuts, hazelnuts), pineapples, pomegranates, sunflower seeds and rucola.

Quinalphos (not approved) – PO

Added: 10/2018

Toxicity: no toxicological reference values available

Method: MRM Priority: 1B

Evaluation: after 1 year (10/2019)

- ✓ 0.02% findings (0.01% MRL exceedances) EFSA 2014
- ✓ 0.02% findings (0.01% MRL exceedances) EFSA 2015
- ✓ 0.01% findings (0.01% MRL exceedances) EFSA 2016

No data on analytical capability.

Spinetoram – PO

Toxicity: ADI = 0.025 mg/kg bw/day, ARfD 0.1 mg/kg bw

Method: MRM Priority: 1A

Evaluation: after 1 year $(10/2018) \rightarrow 10/2019$

- ✓ 0.12% findings (0.00% MRL exceedances) EFSA 2013
- ✓ 0.28% findings (0.02% MRL exceedances) EFSA 2014
- ✓ 0.24% findings (0.01% MRL exceedances) EFSA 2015
- ✓ 0.25% findings (0.02% MRL exceedances) EFSA 2016

37% labs and 54% MS analysed full RD in 2016 45% labs and 64% MS analysed full RD in 2017

- ⇒ Analytical capability medium
- ⇒ Findings justify inclusion in EU MACP
- ⇒ Keep extra year in Chapter 4 of WD so that more labs have the time to add this substance to their scope.

<u>Tolfenpyrad</u> (not approved) – PO

Added: 10/2018

Toxicity: no toxicological reference values available

Method: MRM Priority: 1B

Evaluation: after 1 year (10/2019)

- ✓ 0.14% findings (0.11% MRL exceedances) EFSA 2014
- ✓ 0.19% findings (0.00% MRL exceedances) EFSA 2015
- ✓ 0.04% findings (0.04% MRL exceedances) EFSA 2016

No data on analytical capability.

<u>Trifluralin (not approved) – PO</u>

Added: 10/2018

Toxicity: ADI = 0.015 mg/kg bw/day

Priority: 2B

Evaluation: after 2 years (10/2020)

- ✓ 0.02% findings (0.01% MRL exceedances) EFSA 2014
- ✓ 0.01% findings (0.01% MRL exceedances) EFSA 2015
- ✓ 0.01% findings (0.01% MRL exceedances) EFSA 2016

No data on analytical capability

4.1.2. Recently approved substances

Benzovindiflupyr – PO

Approved since 03/2016

Toxicity: ADI 0-0.05 mg/kg bw day, ARfD 0.1 mg/kg bw

Method: MRM Priority 1A

Evaluation: after 1 year $(10/2017) \rightarrow 10/2018 \rightarrow 10/2019$

✓ No EFSA monitoring data for 2012, 2013, 2014, 2015.

✓ In 2016 analysed but not detected.

2% labs and 8% MS analysed full RD in 2015 14.4% labs and 50% MS analysed full RD in 2016 24% labs and 46% MS analysed full RD in 2017

⇒ Analytical capability poor

⇒ Not clear if findings justify inclusion in EU MACP

⇒ Keep in chapter 4 of WD for an extra year.

Relevant commodities: soybean, wheat, apples, grapes, pears, peanuts, potatoes and maize.

Fenpicoxamid – PO

Approved since 10/2018

Toxicity: no toxicological reference values available

Method MRM Priority: 2B

Evaluation after 2 years (10/2020)

✓ No monitoring data available EFSA 2014, 2015, 2016

No data on analytical capability.

Oxathiapipronil – PO

Approved since 03/2017

Toxicity: ADI = 0.15 mg/kg bw/day

Method MRM Priority: 2B

✓ Evaluation after 1 year (10/2019)

✓ No monitoring data available EFSA 2014, 2015, 2016

No data on analytical capability.

Pyriofenone – PO

Approved since 02/2014

Toxicity: ADI = 0.07 mg/kg bw/day, ARfD NA

Method MRM Priority 1A

Evaluation after 1 year $(10/2018) \rightarrow 10/2019$

✓ No monitoring data available EFSA 2012, 2013, 2014 and 2015

✓ N.D EFSA 2016

17% labs and 39% MS analysed full RD in 2016 24% labs and 50% MS analysed full RD in 2017

⇒ Analytical capability poor

⇒ Not clear if findings justify inclusion in EU MACP

Sulfoxaflor - PO

Approved since 08/2015

Toxicity: ADI = 0.04 mg/kgbw/day, ARfD = 0.25 mg/kgbw

Method: MRM Priority: 1B

Evaluation after 1 year $(10/2017) \rightarrow 10/2018$

- ✓ No monitoring data 2012, 2013, 2014 and 2015.
- ✓ 0.00% findings (0.03% MRL exceedances) EFSA 2016

6% labs and 12% MS analysed full RD in 2015 27% labs and 54% MS analysed full RD in 2016 36% labs and 57% MS analysed full RD in 2017

- ⇒ Analytical capability poor
- ⇒ Not clear findings justify inclusion in EU MACP
- ⇒ Keep 1 extra year in chapter 4 of WD.

4.1.3. Art. 12 priority list

No pesticide identified under this category.

4.1.4. High toxicity

No pesticide identified under this category.

4.2. Pesticides to be considered for analysis in products of animal origin (AO)

4.2.1. Frequent detections², MRL exceedances or RASFF notifications

Azoxystrobin – AO

Added: 10/2018

Toxicity: ADI 0.2 mg/kg bw/day, ARfD NA

Method: MRM Priority: 2A

Evaluation: after 2 years (10/2020)

✓ 0.06 % findings (0.00% MRL exceedances) EFSA 2014

✓ 0.46 % findings (0.00% MRL exceedances) EFSA 2015

✓ 0.60 % findings (0.00% MRL exceedances) EFSA 2016

No data on analytical capability.

Endrin (Not approved) – AO

Added: 10/2018

Toxicity: ADI 0.0002 mg/kg bw/day, ARfD NA

Method: MRM Priority: 1A

Evaluation: after 1 years (10/2019)

✓ 0.05 % findings (0.00% MRL exceedances) EFSA 2014

✓ 0.30 % findings (0.00% MRL exceedances) EFSA 2015

✓ 0.04 % findings (0.00% MRL exceedances) EFSA 2016

No data on analytical capability.

Chlorobenzilate (Not approved) – AO

Added: 10/2018

Toxicity: ADI 0.02 mg/kg bw/day, ARfD NA

Method: MRM Priority: 1B

Evaluation: after 1 year (10/2019)

✓ 0.05 % findings (0.00% MRL exceedances) EFSA 2014

✓ 0.13 % findings (0.00% MRL exceedances) EFSA 2015

0.14 % findings (0.00% MRL exceedances) EFSA 2016

No data on analytical capability.

<u>Pendimethalin – AO</u>

Added: 10/2018

Toxicity: ADI 0.125 mg/kg bw/day, ARfD 0.3 mg/kg bw

Method: MRM Priority: 1B

Evaluation: after 1 years (10/2019)

✓ 0.04 % findings (0.00% MRL exceedances) EFSA 2014

✓ 0.90 % findings (0.00% MRL exceedances) EFSA 2015

✓ 0.44 % findings (0.00% MRL exceedances) EFSA 2016

No data on analytical capability.

Carbendazim and thiophanate methyl – AO

Toxicity: ADI = 0.02 mg/kg bw/day, ARfD = 0.02 mg/kgbw

Method: MRM/SRM Priority: 2A

Evaluation after 2 years $(10/2017) \rightarrow 10/2018 \rightarrow 10/2019$

✓ 2.28% findings EFSA 2012

✓ 0% findings EFSA 2013 (712 samples)

√ 0.37% findings EFSA 2014 (1350 samples)

✓ 1.49% findings (0.00% MRL exceedances) EFSA 2015

✓ 0.27% findings (0.00% MRL exceedances) EFSA 2016

51% labs and 68% MS analysed full RD in 2015

42% labs and 72% MS analysed full RD in 2016

38% labs and 64% MS analysed full RD in 2017

⇒ Analytical capability medium

⇒ Findings justify inclusion in EU MACP

⇒ Keep 1 extra year in chapter 4 of WD so that more labs have the time to add this substance to their scope.

Relevant for honey.

Chlormequat – AO

Toxicity: ADI = 0.04 mg/kg bw/day, ARfD = 0.09 mg/kg bw

Method: SRM Priority: 2A

Evaluation after 2 years $(10/2017) \rightarrow 10/2018 \rightarrow 10/2019$

✓ 0 % findings EFSA 2012 (2 samples)

✓ 0% findings EFSA 2013 (100 samples)

✓ N.D. EFSA 2014 (93 samples)

✓ N.D. EFSA 2015 report (11 samples)

✓ N.D. EFSA 2016 preliminary report (91 samples)

21% labs and 56% MS analysed full RD in 2015

26% labs and 43% MS analysed full RD in 2016

18% labs and 25% MS analysed full RD in 2017

⇒ Analytical capability poor

⇒ Not clear if findings justify inclusion in EU MACP

⇒ Keep 1 extra year in chapter 4 WD.

Relevant for muscle, liver, kidney and cow's milk. It can be

used on feed crops.

Fluazifop-P – AO

Toxicity: ADI=0.01 mg/kg bw/day, ARfD=0.017 mg/kgbw Method: SRM (hydrolysis required to cover the full residue

definition)

<u>Glufosinate-ammonium – AO</u>

Toxicity: ADI = 0.021 mg/kg bw, ARfD = 0.021 mg/kg bw

Method: SRM Priority: 2A

² SRM-compounds are typically analysed on specific commodities so their detection frequencies are typically higher than if they would have been analysed randomly.

Priority: 2A

Evaluation after 2 years $(10/2017) \rightarrow 10/2018 \rightarrow 10/2019$

- ✓ 0 % findings EFSA 2012 (148 samples)
- ✓ 0% findings EFSA 2013
- ✓ 1.03% findings (0.51%MRL exceedances) EFSA 2014
- ✓ N.D. EFSA 2015 report (54 samples)
- ✓ N.D. EFSA 2016 preliminary report (953 samples)

12% labs and 40% MS analysed full RD in 2015

10% labs and 32% MS analysed full RD in 2016

3% labs and 0% MS analysed full RD in 2017

- ⇒ Analytical capability poor
- ⇒ Not clear if findings justify inclusion in EU MACP
- ⇒ Keep 1 extra year in chapter 4 of WD.

Relevant for animal fat, liver, kidney, eggs, cows' milk and butter.

Evaluation after 2 years $(10/2017) \rightarrow 10/2018 \rightarrow 10/2019$

- No monitoring results available in EFSA 2012, 2013, 2014.
- ✓ N.D EFSA 2015 (26 samples)
- ✓ N.D. EFSA 2016 (47 samples)
- 4% labs and 12% MS analysed full RD in 2015
- 3% labs and 8% MS analysed full RD in 2016
- 7% labs and 14% MS analysed full RD in 2017
- \Rightarrow Analytical capability poor
- ⇒ Not clear whether findings justify inclusion in EU MACP
- ⇒ Keep 1 extra year in chapter 4 of WD.

Relevant for liver and kidney of ruminants and swine.

Mepiquat – AO

Toxicity: ADI = 0.2 mg/kg bw/day, ARfD = 0.3 mg/kg bw

Method: SRM Priority: 2B

Evaluation after 2 years (10/2017) \rightarrow 10/2018 \rightarrow 10/2019

- ✓ No monitoring results available in EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (30 samples)
- ✓ N.D. EFSA 2014 (31 samples)
- ✓ N.D. EFSA 2015 (11 samples)
- ✓ N.D. EFSA 2016 (46 samples)

20% labs and 52% MS analysed full RD in 2015

25% labs and 56% MS analysed full RD in 2016

13% labs and 21% MS analysed full RD in 2017

- ⇒ Analytical capability poor
- ⇒ Not clear if findings justify inclusion in EU MACP
- ⇒ Keep 1 extra year in chapter 4 WD.

Relevant for ruminant's muscle and fat, liver, kidney and cow's milk.

4.2.2. Recently approved

Fenpyrazamine – AO

Approved since 01/2013

Toxicity: ADI = 0.13 mg/kg bw/day, ARfD = 0.3 mg/kg

bw

Method: MRM Priority: 1B

Evaluation: after 1 year $(10/2017) \rightarrow 10/2018 \rightarrow 10/2019$

✓ No EFSA monitoring data for 2014

✓ N.D. EFSA 2015, 2016

14.3% labs and 36% MS analysed full RD in 2015 17.3% labs and 44% MS analysed full RD in 2016 21% labs and 36% MS analysed full RD in 2017

⇒ Analytical capability poor

⇒ Not clear if findings justify inclusion in EU MACP

⇒ Keep 1 extra year in chapter 4 WD.

This substance is not expected to leave significant residues in food of animal origin.

Penflufen – AO

Approved since 02/2014

Toxicity: ADI = 0.04 mg/kg bw/day, ARfD = 0.5 mg/kg bw

Method: MRM Priority: 1A

Evaluation: after 1 year $(10/2017) \rightarrow 10/2018 \rightarrow 10/2019$

✓ No monitoring data available EFSA 2012, 2013, 2014, 2015

✓ N.D. EFSA 2016

6% labs and 20% MS analysed full RD in 2015 8.6% labs and 24% MS analysed full RD in 2016 15% labs and 29% MS analysed full RD in 2017

⇒ Analytical capability poor

⇒ Not clear if findings justify inclusion in EU MACP

⇒ Keep 1 extra year in chapter 4 WD.

Sulfoxaflor - AO

Approved since 08/2015

Toxicity: ADI = 0.04 mg/kgbw/day, ARfD = 0.25 mg/kgbw

Method: MRM Priority: 1B

Evaluation after 1 year $(10/2017) \rightarrow 10/2018 \rightarrow 10/2019$

✓ No monitoring data 2012, 2013, 2014 and 2015.

✓ N.D. EFSA 2016 (24samples)

3.6% labs and 12% MS analysed full RD in 2015 3.6% labs and 12% MS analysed full RD in 2016 13% labs and 29% MS analysed full RD in 2017

⇒ Analytical capability poor

⇒ Not clear if findings justify inclusion in EU MACP

 \Rightarrow Keep 1 extra year in chapter 4 WD.

4.3. Evaluation

- ✓ The evaluation of the chapter 4 substances at the end of the specified evaluation period will be done based on the information listed in Annex V.
- ✓ The data on the number of labs analysing each substance is collected by the EURLs and stored in the EURL data pool.
- ✓ The data on the number of MRL exceedances and findings is gathered by EFSA as part of data collection for the National Programmes. These results are then be summarised by COM and added to this document.
- ✓ In the expert group meeting a decision is taken for moving a substance to the MACP, for deletion from the WD (addition to Annex IV for information for Member States) or for an additional evaluation period in the working document.

5. Proposals for inclusion of new substances in the working document

COM, EFSA, the EURLs and the Member States can put forward substances to be included in the working document by filling out the form in Annex VI. The proposal for inclusion of new substances should be sent to COM by June, prior to the annual expert group meeting on pesticides residues monitoring. During this meeting the submitted proposals will be discussed.

6. Procedure for development of the document

- ➤ During the SCOFCAH of 12-13 June 2014 it was decided to develop this document according to an approach in which the pesticides are divided into specific categories. Based on a limited set of criteria each pesticide is attributed a priority and a time line for evaluation of inclusion or non-inclusion in the MACP.
- ➤ In Rev.2 of this Working Document this approach was implemented. Details on the substances, criteria, priorities and timelines were discussed in the expert meeting on monitoring on 10 October 2014.
- ➤ COM included the decisions taken in the expert group in Rev.3 of this document. In Rev.4 and 5 additional comments from MS experts and the EURLs were taken into account. During the PAFF Committee of 24-25 November 2014 the Member States took note of Rev 5(3).
- Rev 5(3) was applicable to samples analysed in 2015.
- ➤ By June 2015 COM, EFSA, the EURLs and Member States could send a proposal to COM for new substances to be included in the working document.
- ➤ In October 2015 new substances that were proposed for inclusion in the working document were discussed in the expert group.
- ▶ By June 2016 COM, EFSA, the EURLs and Member States could send a proposal to COM for new substances to be included in the working document.
- By August 2016, the EURLs gathered through a survey the information on the % of labs analysing each substance (2015 analyses). By that time the Member States could also submit to EFSA the monitoring data for those substances for which the evaluation timing was set for 10/2016. EFSA summarised these data for the October/November expert group.

- 1
- In October/ November 2016 decisions were taken in the expert group on which chapter 4 substances to move to the MACP 2018, which ones to be deleted from the WD, which ones to be evaluated for an additional period. During this meeting also new substances that were proposed for inclusion in the working document were discussed.
- ➤ By June 2017 COM, EFSA, the EURLs and Member States could send a proposal to COM for new substances to be included in the working document.
- ➤ By August 2017, the EURLs gathered, through a survey, the information on % of labs analysing each substance (2016 analyses). By that time the Member States could also submit to EFSA the monitoring data for those substances for which the evaluation timing was set for 10/2017. EFSA summarised these data for the October/ November expert group.
- ➤ During the Standing Committee on Plants, Animals, Food and Feed (PAFF) section Residues of 21-22 November 2017, the Member States took note of the Rev9(1) of the document.
- ➤ By June 2018 COM, EFSA, the EURLs and Member States could have sent a proposal to COM for new substances to be included in the working document.
- By October 2018, the EURLs will gather through a survey the information on % of labs analysing each substance (2017 analyses). By that time the Member States will also submit to EFSA the monitoring data for those substances for which the evaluation timing was set for 10/2018. EFSA will summarise these data for the October expert group.
- ➤ In October 2018, decisions were taken in the expert group on which chapter 4 substances to move to the MACP 2020, which ones to be deleted from the WD and which ones to be evaluated for an additional period. During this meeting also new substances were proposed for inclusion in the working document.

Annex I: Substances for which information on residues is needed for specific risk management questions.

Monitoring data for these substances could be used for answering specific risk management questions. These substances are for the time being no candidates for uptake in the MACP.

- Anthraquinone, especially relevant for tea, dried herbs and dried spices.
- ➤ Benzalkonium chloride³
- ➤ Chlorates⁴
- ➤ Didecyldimethylammonium chloride⁵
- Glyphosate in soyabean
- ➤ Nicotine, especially relevant in goji berries (small fruits and berries), mushrooms, tea, chives, brassica crops, moringa. ARfD exceedances reported.

³ The results should be reported as mixture of alkylbenzyldimethylammonium chlorides with alkyl chain lengths of C8, C10, C12, C14, C16 and C18.

⁴ The results for chlorates (including Mg, Na and K chlorates), should be expressed as chlorate.

⁵ The results should be reported as mixture of alkyl-quaternary ammonium salts with alkyl chain lengths of C8, C10 and C12.

Annex II: Substances for which analytical support is requested from the EURLs

For the substances listed in this Annex, support is needed from the EURLs because no validated analytical method and/or no standards are available. To be checked and updated with EURLs.

Substances relevant for plant origin commodities.

(a) Support required due to residue definition

Bifenazate – PO

Toxicity: ADI = 0.01 mg/kg bw/day, ARfD NA

No validated method available for the full residue definition (applicable from 19/08/2014).

Method: MRM/SRM

- ✓ 0.3% findings in vegetables (EFSA 2011 report)
- ✓ 0.24% findings EFSA 2012 report (parent)
- ✓ 0.29% findings EFSA 2013 report (parent)
- ✓ 0.30% findings EFSA 2014 report
- ✓ 0.17% findings EFSA 2015 report
- ✓ 0.24% findings EFSA 2016 report

7% labs and 23% MS analysed full RD in 2016

54% labs and 71% MS analysed full RD in 2017

Cyflufenamid - PO

Standard is now available. Support needed to improve analytical capability.

Toxicological, occurrence and laboratory capability data in §4.1.1

Desmethyl-chlorpyriphos-methyl – PO

EFSA investigated the metabolism of chlorpyrifos-methyl in post-harvest treatment in cereals. Desmethyl-chlorpyrifos-methyl was observed as a significant metabolite as a result of degradation of the parent compound under standard hydrolytic conditions. Toxicological data for desmethyl-chlorpyrifos-methyl are missing and should be provided.

EFSA proposed an enforcement residue definition (specific to chlorpyrifos-methyl) which includes the parent compound (in all crops) and its desmethyl metabolite (in cereals and processed commodities only); chlorpyrifos-methyl can be enforced in plant commodities with a limit of quantification (LOQ) of 0.01 mg/kg, while analytical methods are not commercially available for its desmethyl metabolite and should be developed.

Fosetyl-Al – PO

The EURL-SRM has published a method for fosetyl and phosphonic acid (QuPPe). The method is available on-line. Standards are available. The EURL-SRM also provides OfLs isotope labelled standard of phosphonic acid, synthesized at the EURL-SRM.An interlaboratory validation study is planned.

Toxicological, occurrence and laboratory capability data in §4.1.1

<u>Glufosinate ammonium – PO</u>

At request of EFSA, residues are found in animal origin commodities, interesting to also check soybean which is used both as food and feed.

The EURL-SRM has published a method for glufosinate, MPPA and N-acetyl glufosinate (QuPPe). The method is available on-line and several labs use it for these compounds. Standards are available.An interlaboratory validation study is planned.

Toxicological, occurrence and laboratory capability data in §4.1.1

Guazatine (not approved) – PO

No method or standards available (standards are available but they are mixtures of compounds that do not always correspond with the formulations).

Toxicity: ADI = 0.0048 mg/kg bw/day, ARfD = 0.04 mg/kg bw Especially relevant for citrus fruits and cereals based on use pattern

✓ No monitoring data EFSA 2012, 2013, 2014, 2015 or 2016.

Glyphosate (future residue definition 'sum of glyphosate, AMPA and N-acetylglyphosate) – PO

In the upcoming Art. 12 review the residue definition for glyphosate will be changed.

The EURL-SRM has published a method for glyphosate, N-acetyl glyphosate and AMPA (QuPPe). The method available on-line and many labs use it. An interlaboratory validation is planned. Standards are available

Meptyldinocap (approved since 01/04/2015) – PO

No method available for full residue definition, 2,4 DNOP and 2,4-DNOCP standards are available. The EURL-SRM is working on a method for this compound which should be published next year (2018).

Toxicity: ADI = 0.016 mg/kg bw/day, ARfD = 0.12 mg/kg bw

- ✓ 0.04% findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report
- ✓ 0.04% findings EFSA 2014 report
- ✓ 0.00% findings EFSA 2015 report
- ✓ 0.13% findings EFSA 2016 report

9% labs and 29% MS analysed full RD in 2017

Especially relevant for melons, strawberries and table grapes.

Prochloraz – PO

Current SRM method does not cover full RD (possible future revision of residue definition that would allow MRM method).

Toxicological, occurrence and laboratory capability data in §4.1.1

Nicotine (Not approved) – PO

Toxicological, occurrence and laboratory capability data in §4.1.1

Triclopyr – PO

This substance shares the same metabolites as chlorpyriphos and chlorpyriphos-methyl. For these substances new toxicological studies are available requiring the review of certain MRLs. As these metabolites are not taken up in the current residue definition, method development should only start once the Art. 12 Regulation is voted.

Toxicity: ADI = 0.03 mg/kg bw/day, ARfD = 0.3 mg/kg bw Method: MRM/SRM, method was developed by the EURL-SRM, the report will be published in the near future.

Relevant for oranges, mandarins, apples, pears

- ✓ 0.07% findings EFSA 2012 report (parent)
- ✓ 0.03% findings EFSA 2013 report (parent)
- ✓ 0.02% findings EFSA 2014 report
- ✓ 0.06% findings EFSA 2015 report (19604 samples)
- ✓ 0.03% findings EFSA 2016 report (22614 samples)

42% labs and 77% MS analysed full RD in 2017

43% labs and 79% MS analysed full RD in 2017

Especially relevant for bananas, kiwi, pears, oranges, strawberries and table grapes. Additionally relevant for some non-MACP commodities such as: apricots, mandarins/clementines, lemons, limes and plums.

Tritosulfuron – PO

New residue definition after Art. 12 review: separate MRLs are set for tritosulfuron and 2-amino-4-methoxy-6-(trifluormethyl)-1,3,5-triazine (AMTT).

A method for AMTT has been developed by the EURL-SRM and it is now available on-line. AMTT standard is available.

Toxicity parent: ADI = 0.06 mg/kg bw/day, ARfD NA

Toxicity AMTT: ADI and ARfD 0.0001 mg/kg bw/day

Method: MRM/SRM method for AMTT available

 ${\bf Standard\ for\ AMTT\ is\ not\ commercially\ available}.$

Especially relevant for rice, wheat, rye and oats

- ✓ 0% findings EFSA 2012 report
- 0% findings EFSA 2013 report
- ✓ 0% findings EFSA 2014 report (7447 samples)
- ✓ 0% findings EFSA 2015 report (4160 samples)
- ✓ 0% findings EFSA 2016 report (7002 samples)

25% labs and 50% MS analysed full RD in 2016

25% labs and 46% MS analysed full RD in 2017

(b) Support required due to other reasons

Benzovindiflupyr – PO

Toxicological, occurrence and laboratory capability data in $\S4.1.2$

Fenpyrazamine – PO

Toxicological, occurrence and laboratory capability data in $\S 4.1.2$

Fluensulfone - PO

Not approved in EU, recently approved outside EU
No method available

ADI 0-0.01 mg/kg bw day, ARfD 0.1 mg/kg bw Relevant commodities: fruiting vegetables

<u>Lambda-cyhalothrin</u>, <u>Gamma-cyhalothrin – PO</u>

Cyhalothrin is not approved in the EU since 1994, hence the default MRL of 0.01* mg/kg applies. It is constituted by four isomers (2 diastereomeric pairs): R,R; R,S; S,R and S,S, as follows:

1: (R)- α -cyano-3-phenoxybenzyl (1R)-cis-3-[(Z)-2-chloro-3,3,3trifluoropropenyl]-2,2-dimethylcyclopropanecarboxylate; 2: (R)-α-cyano-3-phenoxybenzyl (1S)-cis-3-[(Z)-2-chloro-3,3,3trifluoropropenyl]-2,2-dimethylcyclopropanecarboxylate; 3: (S)- α -cyano-3-phenoxybenzyl (1R)-cis-3-[(Z)-2-chloro-3,3,3trifluoropropenyl]-2,2-dimethylcyclopropanecarboxylate; 4: (S)-α-cyano-3-phenoxybenzyl (1S)-cis-3-[(Z)-2-chloro-3,3,3trifluoropropenyl]-2,2-dimethylcyclopropanecarboxylate. Lambda-cyhalothrin is a 1:1 mixture of two of the four cyhalothrin components, the R,R and S,R isomers (numbers 1 and 3) and its approval was renewed by Regulation (EU) 2016/146 of 4 February 2016. Gamma-cyhalothrin is constituted by only the most toxic of the four components, the S,R isomer (the third one), which is also contained in lambda-cyhalothrin. As a result, gamma cyhalothrin is twice as toxic as lambdacyhalothin and four times more toxic than cyhalothrin. It is an approved active substance under Regulation (EU) 1334/2014 of 16 December 2014.

Following a Commission investigation in September 2016, it was found that most authorisations of gamma-cyhalothrin PPPs in MSs are based on reference to lambda-cyhalothrin, i.e to a less toxic compound of isomers than the actual substance used in the PPPs.

Currently no validated analytical methods are available to distinguish between the more toxic residues of gammacyhalothrin and the residues of lambda-cyhalothrin, while both share the same residue definition.

As part of the outcome of the discussion held during the SC PAFF of 21-22 September 2017 it was requested that the EURLs would continue their effort to develop a routine method which can discriminate between the two substances.

Novaluron (Not approved) – PO

Toxicological, occurrence and laboratory capability data in §4.1.1. Support needed to improve analytical capability.

Paraquat – PO

For the analysis of paraquat in soybean (high fat matrix) it is challenging to enforce the MRL set at the LOQ of 0.02* mg/kg. A method was developed but it does not show the robustness needed.

The EURLs are requested to validate a method and to circulate it to the labs.

The analysis of paraquat in soyabean is no candidate for the EU MACP. It can be considered for the national programmes.

Pyridalil– PO

Toxicological, occurrence and laboratory capability data in $\S4.1.1$

Pyrethrins-PO

Toxicological, occurrence and laboratory capability data in $\S 4.1.1$

Pyriofenone – PO

Approved since 2/2014

Method and standard available in the meanwhile.

Toxicological, occurrence and laboratory capability data in $\S4.1.2$

Spinetoram – PO

Toxicological, occurrence and laboratory capability data in §4.1.1

Sulfoxaflor - PO

Toxicological, occurrence and laboratory capability data in §4.1.1. Support needed to improve analytical capability.

Substances relevant for animal origin commodities

(a) Support required due to residue definition

Boscalid – AO

No method available for the full AO residue definition, standard M510F01 is commercially available, but the development of an analytical method is pending.

Toxicity: ADI = 0.04 mg/kg bw/day, ARfD NA

- ✓ 0 % findings EFSA 2012 report
- ✓ 0 % findings EFSA 2013 report
- ✓ 0.30% findings EFSA 2014 report
- ✓ 0.39% findings EFSA 2015 report
- ✓ 0.14% findings EFSA 2016 report

Relevant for ruminant's and poultry liver, ruminant's kidney

Chlorpropham – AO

No method available for the full AO residue definition; a method for 4-HAS and its validation are pending (not needed for the analysis of code 1016000 (poultry) and 1030000 (eggs).

Toxicity: ADI = 0.05 mg/kg bw/day, ARfD = 0.5 mg/kg bw

- ✓ 0.19 % findings EFSA 2012 report
- ✓ 0 % findings EFSA 2013 report
- ✓ 0% findings EFSA 2014 report (866 samples)
- ✓ 0% findings EFSA 2015 report (502 samples)
- ✓ 0% findings EFSA 2016 (1818 samples)

Relevant for ruminant's and swine kidney

Fenpropidin – AO

No method available for full AO residue definition, standards of 2-methyl-2-[4-(2-methyl-3- piperidin-1-yl-propyl)-phenyl]propionic acid commercially not available Toxicity: ADI = 0.02 mg/kg bw/day, ARfD = 0.02 mg/kg bw

- ✓ 0 % findings EFSA 2012 report
- ✓ 0 % findings EFSA 2013 report
- ✓ 0% finding EFSA 2014 report (356 samples)
- ✓ 0% findings EFSA 2015 report (294 samples)
- ✓ 0% findings EFSA 2016 report (1016 samples)

Relevant for ruminant's and swine liver and kidney.

Fenpropimorph – AO

No validated method available for the full AO residue definition

Method MRM/ SRM. The standard for metabolite fenpropimorph carboxylic acid is now commercially available. Successfull validation at 0.01 mg/kg by EURL-SRM using QuEChERS without PSA cleanup in milk and swine meat. Data publication pending.

Toxicity: ADI = 0.003 mg/kg bw/day, ARfD = 0.03 mg/kg bw

- ✓ 0 % findings EFSA 2012 report (396 sample)
- ✓ 0 % findings EFSA 2013 report (453 samples)
- ✓ 0% findings EFSA 2014 report (238 samples)
- ✓ 0% findings EFSA 2015 report (154 samples)
- ✓ 0% findings EFSA 2016 report (2064samples)

Relevant for ruminant's fat, swine and ruminant's muscle, liver and kidney and cow's milk.

Fluazifop-P – AO

Method: SRM (hydrolysis required to cover the full residue definition).

Toxicological, occurrence and laboratory capability data in §4.2.1

Fluopyram – AO

No method available for the full AO residue definition.

Toxicity: ADI = 0.012 mg/kg bw/day, ARfD = 0.5 mg/kg bw

- ✓ 0 % findings EFSA 2012 report
- ✓ 0 % findings EFSA 2013 report (83 samples)
- ✓ 0% findings EFSA 2014 report (173 samples)
- ✓ 0% findings EFSA 2015 report (107 samples)
- ✓ 0% findings EFSA 2016 report (1138 samples)

<u>Glufosinate-ammonium – AO</u>

Method: SRM, but validation is needed for products of animal origin.

Toxicological, occurrence and laboratory capability data in §4.2.1

<u>Glyphosate</u> (future residue definition 'sum of glyphosate, AMPA and N-acetylglyphosate) – AO

In the upcoming Art. 12 review the residue definition for glyphosate will be changed.

The EURL-SRM has published a method for glyphosate, N-acetyl glyphosate and AMPA (QuPPe), but validation is needed for products of animal origin

Haloxyfop – AO

Method: SRM (hydrolysis required to cover conjugates). Method for food of animal origin (including conjugates) is pending. Toxicological, occurrence and laboratory capability data in §4.2.1

Ioxynil - AO

Method: SRM. Method for food of animal origin (including conjugates) is pending.

Toxicological, occurrence and laboratory capability data in §4.2.1.

Spiroxamine – AO

No method available for full AO residue definition, standard spiroxamine carboxylic acid is commercially not available Toxicity: ADI = 0.025 mg/kg bw/day,ARfD = 0.1 mg/kgbw

- ✓ 0 % findings EFSA 2012 report (395 samples)
- ✓ 0 % findings EFSA 2013 report (428 samples)
- ✓ 0% findings EFSA 2014 report (636 samples)
- ✓ 0% findings EFSA 2015 report (92 samples)
- ✓ 0% findings EFSA 2016 report (84 samples)

Relevant for cows' milk and liver.

(b) Support required due to other reasons

Aminocyclopyrachlor – AO

Not approved in EU, recently approved outside EU ADI 0-3 mg/kg bw day, ARfD N/A Standard commercially available. Successfully validated by EURL-SRM using QuPPe in food of plant origin. Validations in products of animal origin are pending.

Relevant commodities animal fat, milk, liver and kidney.

Benzovindiflupyr – AO

Toxicological, occurrence and laboratory capability data in $\S 4.2.2$.

Carbendazim and Thiophanate methyl – AO

Toxicological, occurrence and laboratory capability data in §4.2.1.

<u>Chlormequat – AO</u>

Toxicological, occurrence and laboratory capability data in §4.2.1.

Fenpyrazamine – AO

Toxicological, occurrence and laboratory capability data in §4.2.2.

Maleic hydrazide – AO

Method: SRM. QuPPe amenable but validation is needed for products of animal origin.

Toxicity: ADI = 0.25 mg/kg bw/day, ARfD NA

Priority: 2B

Evaluation after 2 years $(10/2017) \rightarrow 10/2018$

- ✓ No monitoring results available in EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (15 samples)
- ✓ 0% findings EFSA 2014 report (46 samples)
- ✓ 0.00% findings (0.00% MRL exceedances) EFSA 2015 report (10 samples)
- 0.00% findings (0.00% MRL exceedances) EFSA 2016 report (46 samples)

10% labs and 28% MS analysed full RD in 2015 12% labs and 36% MS analysed full RD in 2016 6% labs and 14% MS analysed full RD in 2017 Relevant for all commodities of animal origin.

Mepiquat – AO Toxicological, occurrence and laboratory capability data in §4.2.1.	Penflufen – AO Toxicological, occurrence and laboratory capability data in §4.2.2.
Penthiopyrad – AO Toxicological, occurrence and laboratory capability data in §4.2.2.	Sulfoxaflor – AO Toxicological, occurrence and laboratory capability data in §4.2.2.

Annex III: Substances that are of interest for cumulative risk assessment

EFSA is currently establishing common assessment groups for cumulative risk assessment. In order to have sufficient data to calculate the background exposure, monitoring results would be needed for compounds from the acute neurotoxicity group, the chronic neurotoxicity group and the thyroid group. Some of these pesticides are not taken up in the MACP or in chapter 4 of this document that lists pesticides that could be considered for future uptake in the MACP. However, since monitoring data for these substances would be of interest for the further development of the CRA methodology, they are listed in this annex, for information only.

- ✓ 2,4-DB (especially relevant for citrus fruits and pome fruits. Additionally relevant for the non-MACP commodity: chamomile)
- ✓ Amitrole
- ✓ Cyhalofop-butyl (especially relevant for rice)
- ✓ Dazomet
- ✓ Flufenacet (especially relevant for beans with pods, grapes, potatoes, rye, oats, strawberries, leek, lettuce, wheat, cucumber and rice. Additionally relevant for several non-MACP commodities such as: celeriac, chives, currants, dill, fennel, raspberries, parsley, strawberries)
- ✓ Glufosinate ammonium (especially relevant for potatoes, strawberries and rice. Additionally relevant for several non-MACP commodities such as: berries, tea)
- ✓ Ioxynil (especially relevant for cereals, leek, lettuce, tomatoes. Additionally relevant for the non-MACP commodity: chives and dill)
- ✓ Isoxaflutole
- ✓ MCPA and MCPB (especially relevant for aubergines, cultivated fungi, head cabbage, table grapes, lettuce, peaches, wheat, rye and strawberries. Additionally relevant for several non-MACP commodities such as: Chamomile, berries, cherries, mint, thyme, lentils, tea)
- ✓ Milbemectin (this substance has two isomers A3 and A4 of 1920 £ each, relevant for strawberries)
- ✓ Metconazole
- ✓ Molinate
- ✓ Oxadiargyl
- ✓ Oxasulfuron
- ✓ Oxyfluorfen
- ✓ Picolinafen
- ✓ Propaquizafop
- ✓ Pyridate (especially relevant for grapefruit, oranges, sweet pepper. Additionally relevant for several non-MACP commodities such as: avocado, Brussel's sprouts, celery, dill, leek, mandarins and tea) (SRM method, support EURLs needed)
- ✓ Ouinoclamine
- ✓ Quizalofop, including quizalfop-P (especially relevant for carrots, head cabbage, spinach, broccoli, spinach and potatoes Additionally relevant for several non-MACP commodities such as: celeriac, parsley, coriander, caraway, fennel. dill, herbs (balm, basil, mint, thyme); beet, chard, artichoke, chicory)
- ✓ Sulfuryl fluoride (especially relevant for nuts, oilseeds and dried fruit)
- ✓ Tri-allate

Annex IV: Substances with a low level of findings

This annex contains substances for which few residues were detected during their evaluation under chapter 4. They were moved to this annex for information of the Member States that are interested of keeping them in their National Programmes as most of them are analysed by a large fraction of laboratories and Member States.

Pesticides relevant to products of plant origin

Previously listed in Chapter 4.1.1 (Frequent detections, MRL exceedances or RASFF notifications)

Amitraz (Not approved) – PO

Method: SRM

Toxicity: ADI 0.003 mg/kg bw/day, ARfD 0.01 mg/kg bw

Priority 2A

Evaluation after 2 years $(10/2017) \rightarrow 10/2018$

- ✓ 0.03% findings 2012 EFSA report
- ✓ 0.27% findings EFSA 2013 report
- ✓ 0.09% findings (0.01% MRL exceedances) EFSA 2014
- ✓ 0.06% findings (0.04% MRL exceedances) EFSA 2015
- ✓ 0.05% findings (0.03% MRL exceedances) EFSA 2016

14% labs and 54% MS analysed full RD in 2015

15% labs and 39% MS analysed full RD in 2016

14% labs and 9% MS analysed full RD in 2017

⇒ Analytical capability poor

⇒ Few findings Especially relevant for sweet peppers, apples, tomatoes, aubergines, grapefruit, oranges, peaches and pears. Additionally relevant for chili peppers, honey, papaya, basil, green beans, okra, mandarins, cucumbers; not relevant for cereals.

Benalaxyl including other mixtures of constituent isomers including benalaxyl-M – PO

Method: MRM

Toxicity: ADI = 0.04 mg/kg bw/day, ARfD NA

Priority: 1A

Evaluation: after 1 year (10/2016)

- ✓ 0.1% findings in vegetables EFSA 2011 report
- ✓ 0.05% findings EFSA 2012 report
- ✓ 0.02% findings EFSA 2013 report
- ✓ 0.02% findings EFSA 2014 report
- ✓ 0.04% findings, 0.00% MRL exceedances 2015 EFSA 66% labs and 85% MS analysed full RD in 2015
- ⇒ Analytical capability good
- ⇒ Few findings

Chlorfluazuron (Not approved) – PO

Toxicity: no toxicological reference values available

Method: MRM Priority: 1B

Evaluation: after 1 year (10/2018)

- ✓ 0.01% findings (0.01% MRL exceedances) EFSA 2013
- ✓ 0.09% findings (0.09% MRL exceedances) EFSA 2014
- ✓ 0.01% findings (0.02% MRL exceedances) EFSA 2015
- ✓ 0.00% findings (0.02% MRL exceedances) EFSA 2016

30% labs and 46% MS analysed full RD in 2016 36% labs and 64% MS analysed full RD in 2017

⇒ Analytical capability poor

⇒ Few findings

Clomazone – PO

Method: MRM

Toxicity: ADI = 0.133 mg/kg bw/day, ARfD NA

Priority: 1B

Evaluation: after 1 year (10/2016)

- ✓ 0.1% findings in vegetables (EFSA 2011 report)
- ✓ 0.05% findings EFSA 2012 report
- ✓ 0.03% findings EFSA 2013 report
- ✓ 0.04% findings EFSA 2014 report
- ✓ 0.08% findings, 0.01% MRL exceedances 2015 EFSA 57% labs and 81 % MS analysed full RD in 2015

⇒ Analytical capability medium

⇒ Few findings

<u>Heptachlor (Not approved) – PO</u>

Method: MRM

Toxicity: ADI = 0.0001 mg/kg bw/day, ARfD = NA

Priority: 1A

Evaluation: after 1 year (10/2016)

- ✓ 0.3% findings in animal commodities, 0.1% in vegetables EFSA 2011 report
- ✓ 0.06% findings EFSA 2012 report
- ✓ 0.05% findings EFSA 2013 report
- ✓ 0.02% findings EFSA 2014 report
- ✓ 0.01% findings, 0.00% MRL exceedances 2015 EFSA

Quintozene (Not approved) – PO

Method: MRM

Toxicity: ADI = 0.01 mg/kg bw/day, ARfD NA

Priority: 1A

Evaluation: after 1 year (10/2016)

- ✓ % findings EFSA 2011 report
- ✓ 0.04% findings EFSA 2012 report
- ✓ 0.01% findings EFSA 2013 report
- ✓ 0.03% findings EFSA 2014 report
- ✓ 0.02% findings, 0.00% MRL exceedances 2015 EFSA

48% labs and 89% MS analysed full RD in 2015

67% labs and 92% MS analysed full RD in 2015 ⇒ Analytical capability medium ⇒ Analytical capability good ⇒ Low findings ⇒ Few findings Tetramethrin (Not approved) – PO Toxicity: no toxicological reference values available Method: MRM Priority: 1B Evaluation after 1 year $(10/2016) \rightarrow 10/2018$ ✓ 0.02% findings EFSA 2012 report ✓ 0.02% findings EFSA 2013 report ✓ 0.04% findings (0.01% MRL exceedances) EFSA 2014 ✓ 0.00% findings (0.01% MRL exceedances) EFSA 2015 ✓ 0.01% findings (0.01% MRL exceedances) EFSA 2016 68% labs and 92% MS analysed full RD in 2015 ⇒ Low findings ⇒ Good analytical capability

Previously listed in Chapter 4.1.2 (Recently Approved)

Fluxapyroxad – PO

Approved since 1/2013

Method: MRM

Toxicity: ADI = 0.02 mg/kg bw/day, ARfD = 0.25 mg/kg bw

Priority: 1A

Evaluation: after 1 year (10/2016, extended to 10/2017)

- ✓ 0% findings EFSA 2012 report
- ✓ 0.12% findings EFSA 2013 report
- ✓ 0.01% findings EFSA 2014 report
- ✓ 0.04% findings (0.01% MRL exceedances) EFSA 2015 report (19016 samples)
- ✓ 0.01% findings (0.00% MRL exceedances) EFSA 2016 report (21906 samples)

42% labs and 85% MS analysed full RD in 2015

- 45% labs and 81% MS analysed full RD in 2016 ⇒ Findings don't justify inclusion in EU MACP
- ⇒ Medium analytical capability

Isopyrazam – PO

approved since 4/2013

Method: MRM

Toxicity: ADI = 0.03 mg/kg bw/day, ARfD = 0.2 mg/kg bw

Priority: 1A

Evaluation: after 1 year (10/2016) extended with an extra year (10/2017)

- ✓ No monitoring results EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (473 samples)
- ✓ 0% findings EFSA 2014 report
- ✓ 0.04% findings (0.00% MRL exceedances) EFSA 2015 report (2668 samples)
- ✓ 0.05% findings (0.00% MRL exceedances) EFSA 2016 report (6568 samples)

27% labs and 69% MS analysed full RD in 2015

- 42% labs and 73% MS analysed full RD in 2016
- \Rightarrow Analytical capability medium
- ⇒ Findings don't justify inclusion in EU MACP

Penflufen – PO

Approved since 02/2014

Toxicity: ADI = 0.04 mg/kg bw/day, ARfD = 0.5 mg/kg bw

Method: MRM Priority: 1A

Evaluation: after 1 year $(10/2017) \rightarrow 10/2018$

✓ No monitoring data available EFSA 2012, 2013 or 2014

✓ N.D. EFSA 2015, 2016 (4161 samples)

14% labs and 46% MS analysed full RD in 2015 26% labs and 65% MS analysed full RD in 2016 33% labs and 57% MS analysed full RD in 2017

⇒ Analytical capability poor

⇒ Low findings

Penthiopyrad – PO

Approved since 5/2014

Method: MRM

Toxicity: ADI = 0.1 mg/kg bw/day, ARfD = 0.75 mg/kg bw

Priority: 1B

Evaluation: after 1 year (10/2017)

- ✓ No monitoring data available EFSA 2012 report
- ✓ No monitoring data available EFSA 2013 report
- ✓ 0.08% findings EFSA 2014 report
- ✓ 0.04% findings (0.00% MRL exceedances) EFSA 2015 report (2595 samples)
- ✓ 0.06% findings (0.00% MRL exceedances) EFSA 2016 report (8298 samples)

19% labs and 50% MS analysed full RD in 2015

40% labs and 77% MS analysed full RD in 2016

⇒ Analytical capability medium

⇒ Findings don't justify inclusion in EU MACP

Previously listed in Chapter 4.1.4 (High toxicity)

Ethoprophos – PO

Toxicity: ADI =0.0004 mg/kg bw/day, ARfD = 0.01 mg/kgbw

Method: MRM Priority: 1A

Evaluation: after 1 year (10/2016)

- ✓ 0.01% findings EFSA 2012 report
- ✓ 0.02% findings EFSA 2013 report
- ✓ 0.01% findings EFSA 2014 report
- ✓ 0.01% findings, 0.00% MRL exceedances 2015 EFSA

83% labs and 100% MS analysed full RD in 2015

EURL comment: a lot of laboratories use this as an internal standard. If there are significant findings then this practice is called into question. Also this compound is unstable in protic solvents and therefore is unlikely to be found

⇒ Analytical capability good

⇒ Few findings

Previously listed in Chapter 4.1.5 (Voluntary in Reg. (EU) N° 788/2012)

Phenthoate (Not approved) – PO

Footnote i) in Reg. (EC) N° 788/2012

Method MRM

Toxicity: ADI = 0.003 mg/kg bw/day, ARfD NA

Priority: 1A

Evaluation after 1 year (10/2016)

- ✓ 0.01% findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report
- ✓ 0.03% findings EFSA 2014 report
- ✓ 0.01% findings, 0.00% MRL exceedances 2015 EFSA 78% labs and 100% MS analysed full RD in 2015
- ⇒ Analytical capability good
- ⇒ Few findings

Prothiofos (Not approved) – PO

Footnote g) in Reg. (EC) N° 788/2012

Method: MRM

Toxicity: no ADI or ARfD available in database

Priority: 1B

Evaluation after 1 year (10/2016)

- ✓ 0.01% findings EFSA 2012 report
- ✓ 0.01% findings EFSA 2013 report
- ✓ 0.01% findings EFSA 2014 report
- $\checkmark~0.01\%$ findings, 0.00% MRL exceedances 2015 EFSA 66% labs and 96% MS analysed full RD in 2015
- ⇒ Low findings
- ⇒ Substance mainly of interest for imported commodities
- ⇒ Good analytical capability

Rotenone (Not approved) – PO

Footnote g) in Reg. (EC) N° 788/2012

Method: MRM

Toxicity: no ADI or ARfD in database

Priority: 1B

Evaluation after 1 year (10/2016)

- ✓ 0% findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report
- ✓ 0.01% findings EFSA 2014 report
- ✓ 0.00% findings, 0.00% MRL exceedances 2015 EFSA

50% labs and 89% MS analysed full RD in 2015

- ⇒ Low findings
- ⇒ Medium analytical capability

Triticonazole – PO

Footnote i) in Reg. (EC) N° 788/2012

Method: MRM

Toxicity ADI = 0.025 mg/kg bw/day, ARfD = 0.05 mg/kg

bw

Priority: 1A

Evaluation after 1 year (10/2016)

- ✓ 0% findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report
- ✓ 0.02% findings EFSA 2014 report
- ✓ 0.01% findings, 0.01% MRL exceedances 2015 EFSA 77% labs and 100% MS analysed full RD in 2015
- ⇒ Low findings
- ⇒ Good analytical capability

Pesticides for analysis in products of animal origin

Previously listed in Chapter 4.2.1 (Frequent detections, MRL exceedances or RASFF notification)

Azinphos ethyl (Not approved) – AO

Method: MRM

Toxicity: no toxicological information available

Priority: 1B

Evaluation after 1 year (10/2017)

- ✓ 0% findings EFSA 2012 report
- ✓ 0.12% findings EFSA 2013 report
- ✓ 0% findings EFSA 2014 report
- ✓ 0.00% findings (0.00% MRL exceedances) EFSA 2015 report (73 samples)
- ✓ 0.00% findings (0.00% MRL exceedances) EFSA report (2092 samples)

62% labs and 92% MS analysed full RD in 2015

⇒ Analytical capability good

⇒ No findings

Relevant for animal muscle and fat.

<u>Haloxyfop – AO</u>

Toxicity: ADI=0.00065 mg/kg bw/day, ARfD=0.075

mg/kgbw

Method: SRM (hydrolysis required to cover conjugates)

Priority: 2A

Evaluation after 2 years $(10/2017) \rightarrow 10/2018$

- ✓ 0 % findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (171 samples)
- ✓ 0% findings EFSA 2014 report (258 samples)
- ✓ N.D EFSA 2015 (16 samples)
- ✓ N.D EFSA 2016 (708 samples)

14% labs and 40% MS analysed full RD in 2015 9% labs and 24% MS analysed full RD in 2016

4% labs and 0% MS analysed full RD in 2017

 \Rightarrow Analytical capability poor

 \Rightarrow No findings

Relevant for cows' milk, kidney, liver, butter and poultry fat.

Ioxynil – AO

Toxicity: ADI = 0.005 mg/kg bw/day, ARfD 0.04 mg/kg bw

Method: SRM Priority: 2A

Evaluation after 2 years $(10/2017) \rightarrow 10/2018$

- ✓ No monitoring results available in EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (177 samples)
- ✓ 0% findings EFSA 2014 report (563 samples)
- ✓ N.D EFSA 2015 report (21 samples)
- ✓ N.D EFSA 2015 report (44 samples)
- 4% labs and 12% MS analysed full RD in 2015
- 6% labs and 16% MS analysed full RD in 2016
- 3% labs and 7% MS analysed full RD in 2017
- ⇒ Analytical capability poor
- \Rightarrow No findings

Relevant for ruminant fat, muscle, kidney and liver.

Previously listed in Chapter 4.2.3 (Voluntary in Reg. (EU) N° 788/2012)

Benzovindiflupyr – AO

Approved since 03/2016

Toxicity: ADI 0-0.05 mg/kg bw day, ARfD 0.1 mg/kg bw

Method: MRM Priority 1A

Evaluation: after 1 year (10/2017) -> 10/2018

 No EFSA monitoring data for 2012, 2013, 2014, 2015, 2016

0% labs and 0% MS analysed full RD in 2015 4.9% labs and 16% MS analysed full RD in 2016 13% labs and 29% MS analysed full RD in 2017

- ⇒ Analytical capability poor
- ⇒ Not clear if findings justify inclusion in EU MACP
- ⇒ Already kept in chapter 4 of WD for an extra year. Relevant for animal fat and liver.

Bixafen – AO

Remark in Reg. (EC) N° 788/2012: 'To be analysed on voluntary basis in milk and swine meat (2013) and butter and egg (2015). Not relevant for commodities listed in 2014.'

Method: MRM

Toxicity: ADI = 0.02 mg/kg bw/day, ARfD = 0.2 mg/kg bw Priority 1A.

Evaluation after 1 year (10/2017)

- ✓ 0 % findings EFSA 2012 report (133 samples)
- ✓ 0 % findings EFSA 2013 report (527 samples)
- ✓ 0 % findings EFSA 2014 report (480samples)
- ✓ 0.00% findings (0.00% MRL exceedances) EFSA 2015 report (22854 samples)
- ✓ 0.00% findings (0.00% MRL exceedances) EFSA 2016 report (104 samples)

0% labs and 0% MS analysed full RD in 2015 1% labs and 4% MS analysed full RD in 2016

⇒ Analytical capability poor

\Rightarrow No findings

Relevant for cows' milk, animal muscle and fat, butter and eggs.

<u>Chlorobenzilate (not approved) – AO</u>

Footnotes g) and i) in Reg. (EC) N° 788/2012.

Method: MRM

Toxicity: ADI = 0.02 mg/kg bw/day, ARfD NA

Priority: 1A

Evaluation after 1 year (10/2016)

- ✓ 0.96 % findings EFSA 2012 report
- ✓ 0.03% findings EFSA 2013 report
- ✓ 0.05% findings EFSA 2014 report
- ✓ 0.00% findings, 0.00% MRL exceedances 2015 EFSA

55% labs and 84% MS analysed full RD in 2015

Relevant for animal fat, milk and eggs.

⇒ Analytical capability medium⇒ Findings don't justify inclusion in EU MACP

Cyfluthrin – AO

Footnote i) in Reg. (EC) N° 788/2012

Method: MRM

Toxicity: ADI = 0.003 mg/kg bw/day, ARfD = 0.02 mg/kg

bw

Priority: 1A

Evaluation after 1 year (10/2016)

- ✓ 0 % findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (3531 samples)
- ✓ 0% findings EFSA 2014 report (4189 samples)
- ✓ 0.00% findings, 0.00% MRL exceedances 2015 EFSA

82% labs and 96% MS analysed full RD in 2015

Relevant for animal fat.

⇒ Analytical capability good

 \Rightarrow No findings

Cyproconazole – AO

No footnote, remark in Reg. (EC) N° 788/2012: 'To be analysed on voluntary basis in liver (2014), it does not need to be analysed in poultry meat (2014). Not relevant for commodities listed in 2013/2015.'

Method: MRM

Toxicity: ADI = 0.02 mg/kg bw/day, ARfD = 0.02 mg/kg bw

Priority: 1A

Evaluation after 1 year (10/2016)

- ✓ 0 % findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (902 samples)
- ✓ 0% findings EFSA 2014 report (2164 samples)

0.00% findings, 0.00% MRL exceedances 2015 EFSA data 46% labs and 76% MS analysed full RD in 2015

Relevant for liver.

⇒ Analytical capability medium

 \Rightarrow No findings

<u>Dichlorprop</u> (Not approved) – AO

No footnote, remark in Reg. (EC) N° 788/2012: 'To be analysed on voluntary basis in liver (2014), it does not need to be analysed in poultry meat (2014). Not relevant for commodities listed in 2013/2015.'

Method: SRM (hydrolysis required to cover conjugates) Toxicity: no ADI or ARfD in COM database, non-approved

substance Priority: 2B

Evaluation after 2 years (10/2017)

- ✓ 0 % findings EFSA 2012 report (124 samples)
- ✓ 0 % findings EFSA 2013 report (234samples)
- ✓ 0 % findings EFSA 2014 report (531 samples)
- ✓ 0.00% findings (0.00% MRL exceedances) EFSA 2015 report (53 samples)
- ✓ 0.00% findings (0.00% MRL exceedances) EFSA 2016 report (111 samples)

16% labs and 40% MS analysed full RD in 2015 27% labs and 44% MS analysed full RD in 2016

⇒ Analytical capability poor

 \Rightarrow No findings

Relevant for liver and kidney.

Epoxiconazole – AO

No footnote, remark in Reg. (EC) N° 788/2012: 'To be analysed on voluntary basis in liver (2014), it does not need to be analysed in poultry meat (2014). Not relevant for commodities listed in 2013/2015.'

Method: MRM

Toxicity: ADI = 0.008 mg/kg bw/day, ARfD = 0.023 mg/kg

bw

Priority: 1A

Evaluation after 1 year (10/2016)

Etofenprox - AO

No footnote, remark in Reg. (EC) N° 788/2012: 'To be analysed on voluntary basis in milk (2013) and butter (2015), it does not need to be analysed in swine meat (2013) and egg (2015). Not relevant for commodities listed in 2014.'

Method: MRM

Toxicity: ADI = 0.03 mg/kg bw/day, ARfD = 1 mg/kg bw

Priority: 1A

Evaluation after 1 year (10/2016) ✓ 0 % findings EFSA 2012 report

- ✓ 0 % findings EFSA 2012 report
- ✓ 0 % findings EFSA 2013 report (854 samples)
- ✓ 0 % findings EFSA 2014 report (1848 samples)
- √ 0.00% findings, 0.00% MRL exceedances 2015 EFSA
 data

43% labs and 76% MS analysed full RD in 2015 Relevant for liver

- ⇒ Analytical capability medium
- \Rightarrow No findings

- ✓ 0 % findings EFSA 2013 report (1366 samples)
- ✓ 0 % findings EFSA 2014 report (1959 samples)
- ✓ 0.00% findings, 0.00% MRL exceedances 2015 EFSA

44% labs and 80% MS analysed full RD in 2015 Relevant for animal fat, cows' milk and butter.

- ⇒ Analytical capability medium
- ⇒ No findings

Fenthion (Not approved) – AO

Footnote i) in Reg. (EC) N° 788/2012

Method: MRM

Toxicity: ADI = 0.007 mg/kg bw/day, ARfD = 0.01 mg/kg

bw

Priority: 1A

Evaluation after 1 year (10/2016)

- ✓ 0 % findings EFSA 2012 report
- ✓ 0 % findings EFSA 2013 report (2260 samples)
- ✓ 0 % findings EFSA 2014 report (3598 samples)
- ✓ 0.00% findings, 0.00% MRL exceedances 2015 EFSA 31% labs and % MS analysed full RD in 2015

Relevant for animal fat and liver.

⇒ Analytical capability low

⇒ No findings

Fluquinconazole – AO

No footnote, remark h) in Reg. (EC) N $^{\circ}$ 788/2012: 'To be analysed on voluntary basis in milk (2013), liver (2014) and butter (2015), it does not need to be analysed in swine meat (2013), poultry meat (2014) and egg (2015).'

Method: MRM

Toxicity: ADI = 0.002 mg/kg bw/day, ARfD = 0.02 mg/kgbw

Priority: 1A

Evaluation after 1 year (10/2016)

- ✓ 0.35 % findings EFSA 2012 report ✓ 0% findings EFSA 2013 report (1280 samples)
- ✓ 0% findings EFSA 2014 report (2703 samples)
- ✓ 0.00% findings, 0.00% MRL exceedances 2015 EFSA

48% labs and 76% MS analysed full RD in 2015 Relevant for cows' milk, liver and butter.

- ⇒ Analytical capability medium
- ⇒ No findings

Flusilazole (not approved) – AO

No footnote, remark in Reg. (EC) N° 788/2012: 'To be analysed on voluntary basis in swine meat (2013) and liver (2014), it does not need to be analysed in milk (2013) and poultry meat (2014). Not relevant for commodities listed in 2015.'

Method: MRM

Toxicity: ADI = 0.002 mg/kg bw/day, ARfD = 0.005 mg/kg

bw Priority: 1A

Evaluation after 1 year (10/2016)

- ✓ 0 % findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (669 samples)
- ✓ 0% findings EFSA 2013 report (1074 samples)
- ✓ 0.00% findings, 0.00% MRL exceedances 2015 EFSA

1% labs and 4% MS analysed full RD in 2015 Relevant for animal fat, kidney and liver.

⇒ Analytical capability low

 \Rightarrow No findings

Metaflumizone – AO

No footnote, remark in Reg. (EC) N° 788/2012: 'To be analysed on voluntary basis in swine meat (2013), poultry meat, (2014) and egg (2015), it does not need to be analysed in milk (2013), liver (2014) and butter (2015).'

Method: MRM

Toxicity: ADI = 0.01 mg/kg bw/day, ARfD = 0.13 mg/kg bw

Priority: 1A

Evaluation after 1 year (10/2016).

- ✓ 0 % findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (222 samples)
- ✓ 0% findings EFSA 2014 report (1027 samples)
- ✓ 0.00% findings, 0.00% MRL exceedances 2015 EFSA

31% labs and 72% MS analysed full RD in 2015

Relevant for swine muscle, poultry muscle and eggs.

 \Rightarrow Analytical capability low

 \Rightarrow No findings

$\underline{Metazachlor - AO}$

Footnote h) in Reg. (EC) N° 788/2012 and remark: 'To be analysed on voluntary basis in liver (2014), it does not need to be analysed in poultry meat (2014). Not relevant for commodities listed in 2013/2015.'

Method: SRM

Toxicity: ADI = 0.08 mg/kg bw/day, ARfD = 0.5 mg/kg bw

Priority: 2A

Evaluation after 2 years (10/2017)

✓ 0 % findings EFSA 2012 report

Methidathion (Not approved) – AO

Footnote i) in Reg. (EC) N° 788/2012

Method: MRM

Toxicity: ADI = 0.001 mg/kg bw/day, ARfD = 0.01 mg/kg bw

Priority: 1A

Evaluation after 1 year (10/2016)

- ✓ 0 % findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (3707 samples)
- ✓ 0% findings EFSA 2014 report (4804 samples)
- ✓ 0.00% findings, 0.00% MRL exceedances 2015 EFSA

- ✓ 0% findings EFSA 2013 report (701 samples)
- ✓ 0% findings EFSA 2014 report (1650 samples)
- ✓ 0.00% findings (0.00% MRL exceedances) EFSA 2015 report (821 samples)
- ✓ 0.00% findings (0.00% MRL exceedances) EFSA 2016 report (51 samples)

1% labs and 4% MS analysed full RD in 2015

- 6% labs and 16% MS analysed full RD in 2016 ⇒ Analytical capability poor
- \Rightarrow No findings

Relevant for liver and kidney of swine and ruminants.

70% labs and 92% MS analysed full RD in 2015 Relevant for animal fat, muscle, milk and eggs.

⇒ Analytical capability good

⇒ No findings

Parathion-methyl (Not approved) – AO

Footnote i) in Reg. (EC) N° 788/2012

Method: MRM

Toxicity: ADI = 0.003 mg/kg bw/day, ARfD = 0.03 mg/kg bw

Priority: 1A

Evaluation after 1 year (10/2016)

- ✓ 0 % findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (3342 samples)
- ✓ 0% findings EFSA 2014 report (4097 samples)
- ✓ 0.00% findings, 0.00% MRL exceedances 2015 EFSA

52% labs and 88% MS analysed full RD in 2015 Relevant for animal muscle, fat, milk and eggs.

⇒ Analytical capability medium

⇒ No findings

<u>Profenofos (Not approved) – AO</u>

Footnote i) in Reg. (EC) N° 788/2012:

Method: MRM

Toxicity: ADI = 0.03 mg/kg bw/day, ARfD = 1 mg/kg bw

Priority: 1A

Evaluation after 1 year (10/2016)

- ✓ 0 % findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (3048 samples)
- ✓ 0% findings EFSA 2014 report (4290 samples)
- ✓ 0.00% findings, 0.00% MRL exceedances 2015 EFSA

70% labs and 92% MS analysed full RD in 2015 Relevant for animal fat, milk and eggs.

⇒ Analytical capability good

 \Rightarrow No findings

<u>Prothioconazole – AO</u>

No footnote, remark in Reg. (EC) N° 788/2012: 'To be analysed on voluntary basis in liver (2014), it does not need to be analysed in poultry meat (2014). Not relevant for commodities listed in 2013/2015.'

Method: MRM/SRM

Toxicity: ADI = 0.01 mg/kg bw/day, ARfD = 0.01 mg/kg bw

Priority: 2A

Evaluation after 2 years (10/2017)

- ✓ 0 % findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (157 samples)
- ✓ 0% findings EFSA 2014 report (405 samples)
- ✓ 0.00% findings (0.00% MRL exceedances) EFSA 2015 report (342 samples)
- ✓ 0.00% findings (0.00% MRL exceedances) EFSA 2016 report (96 samples)

2% labs and 8% MS analysed full RD in 2015

No 2016 data available for analytical capability

 \Rightarrow Analytical capability poor

 \Rightarrow No findings

Relevant for ruminant's and swine liver and kidney.

Resmethrin (Not approved) – AO

Footnote i) in Reg. (EC) N° 788/2012

Method: MRM

Toxicity: ADI = 0.03 mg/kg bw/day, ARfD = NA

Priority: 1A

Evaluation after 1 year (10/2016)

- ✓ 0 % findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (2872 samples)
- ✓ 0.06% findings EFSA 2014 report (3372 samples)
- ✓ 0.00% findings, 0.00% MRL exceedances 2015 EFSA

19% labs and 40% MS analysed full RD in 2015

Relevant for animal fat, muscle, liver, kidney, cow's milk and eggs.

 \Rightarrow Analytical capability low

⇒ Few findings

Tau-fluvalinate – AO

No footnote, remark in Reg. (EC) N° 788/2012: 'To be analysed on voluntary basis in milk (2013) and butter (2015), it does not need to be analysed in swine meat (2013) and egg (2015). Not relevant for commodities listed in 2014.'

Method: MRM

Toxicity: ADI = 0.005 mg/kg bw/day, ARfD = 0.05 mg/kg bw

Priority: 1A

Evaluation after 1 year (10/2016)

<u>Tetraconazole – AO</u>

No footnote, remark in Reg. (EC) N° 788/2012: 'To be analysed on voluntary basis in milk (2013), liver (2014) and butter (2015), it does not need to be analysed in swine meat (2013), poultry meat (2014) and egg (2015).'

Method: MRM

Toxicity: ADI = 0.004 mg/kg bw/day, ARfD = 0.05 mg/kg bw

Priority: 1A

Evaluation after 1 year (10/2016)

- ✓ 0 % findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (1308 samples)
- ✓ 0% findings EFSA 2014 report (2417 samples)
- ✓ 0.00% findings, 0.00% MRL exceedances 2015 EFSA 6% labs and 84% MS analysed full RD in 2015 Relevant for cows' milk and butter
- ⇒ Analytical capability low
- \Rightarrow No findings

✓ 0 % findings EFSA 2012 report

- ✓ 0% findings EFSA 2013 report (1834 samples)
- ✓ 0% findings EFSA 2014 report (3058 samples)
- ✓ 0.00% findings, 0.00% MRL exceedances 2015 EFSA 51% labs and 80% MS analysed full RD in 2015

Relevant for cows' milk, liver and butter.

⇒ Analytical capability medium

⇒ No findings

Thiacloprid – AO

No footnote, remark in Reg. (EC) N° 788/2012: 'To be analysed on voluntary basis in liver (2014), it does not need to be analysed in poultry meat (2014). Not relevant for commodities listed in 2013/2015.'

Method: MRM

Toxicity: ADI = 0.01 mg/kg bw/day, ARfD = 0.03 mg/kg bw

Priority: 1A

Evaluation after 1 year (10/2016)

- ✓ 0 % findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (856 samples)
- √ 4.27% findings EFSA 2014 report (0.06% MRL exceedances)
- ✓ 2015 preliminary EFSA data 26.6% findings, 0.5% MRL exceedances in honey. Not tested on other AO commodities.
- $\checkmark~26.60\%$ findings, 0.50% MRL exceedances 2015 EFSA 41% labs and 76% MS analysed full RD in 2015 Relevant for liver, kidney and honey.
- \Rightarrow Analytical capability medium
- \Rightarrow Some findings in honey, that is currently not included in EU MACP

Topramezone (Approval pending) – AO

Footnote h) in Reg. (EC) N° 788/2012 and remark: 'To be analysed on voluntary basis in liver (2014), it does not need to be analysed in poultry meat (2014). Not relevant for commodities listed in 2013/2015.'

Method: MRM

Toxicity: ADI = 0.001 mg/kg bw/day, ARfD = 0.001 mg/kg

bw

Priority: 1A

Evaluation after 1 year (10/2016)

- ✓ No monitoring results available in EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (120 samples)
- ✓ 0% findings EFSA 2014 report (182 samples)
- ✓ 0.00% findings, 0.00% MRL exceedances 2015 EFSA data (47 samples)

8% labs and 24% MS analysed full RD in 2015 Relevant for ruminant's liver and kidney.

⇒ Analytical capability low

⇒ No findings

Triazophos (Not approved) – AO

Footnote i) in Reg. (EC) N° 788/2012

Method: MRM

Toxicity: ADI = 0.001 mg/kg bw/day,ARfD = 0.001 mg/kgbw

Priority: 1A

Evaluation after 1 year (10/2016)

- ✓ 0 % findings EFSA 2012 report
- ✓ 0% findings EFSA 2013 report (3385 samples)
- ✓ 0% findings EFSA 2014 report (4687 samples)
- ✓ 0.00% findings, 0.00% MRL exceedances 2015 EFSA

69% labs and 88% MS analysed full RD in 2015

Relevant for animal fat, eggs and milk.

- ⇒ Analytical capability good
- ⇒ No findings

Annex V: Evaluation at the end of the evaluation period

<u>Information to be gathered for evaluation at the end of the evaluation period</u> *Pesticide X*

- Analytical capability (data collection via EURLs)
 - o % of labs that took part in the survey
 - o % of Member States that took part in the survey
 - o % of the labs that is able to analyse the full residue definition
 - o % of the labs that analyses part of the residue definition
 - o % of the Member States that is able to analyse the full residue definition
 - o % of the Member States that analyses part of the residue definition
- MRL exceedances/ findings (data collection by EFSA as part of the data collection for the National Programmes)
 - N° of samples analysed
 - o % of samples with findings > LOQ
 - o % of samples numerically exceeding the MRL
 - o % of samples analysed according to full residue definition (SSD code P005)
 - o % of samples analysed for part of the residue definition (SSD code P004)
 - o N° of RASFF notifications
 - o N° of ARfD exceedances (not systematically calculated by EFSA, only mentioned if specific MS information is available)

Evaluation summarised by COM in Working Document

Pesticide X

- % of labs that is able to analyse the full residue definition
- % of samples with residues > MRL
- % of findings
- N° of RASSF notifications

Annex VI: Proposals for uptake of new substances in the Working Document

Proposal sheet to be filled out by COM, EFSA, EURLs or Member States

- Proposal made by:
- > Substance:
- Proposed category or annex:
- Findings and/or MRL exceedances:
- Method:
- Toxicity:
- Proposed priority:
- Proposed evaluation period:
- Relevant commodities:
- Additional information:

Annex VII: Substances of interest to be analysed in honey under the national control programmes

EFSA recommended in its 2014 annual report to analyse honey samples for the substances that are listed in the EU MACP in commodities of plant origin, in order to allow estimating the exposure of bees and adapting certain MRLs for honey. Member States are encouraged to conduct these analyses under their national programmes and to clearly report to EFSA which MRL (pesticides MRL or veterinary medicinal product MRL) was used for the evaluation. For honey the residue definition for plant products applies. Next to residue information for the residue definition for plant products, also information on residues in line with the residue definition for animal origin can be useful to get a view on other specific metabolites that might occur in bees.

Substances for which residues frequently occur in honey:

- > Acetamiprid
- ➤ Amitraz (veterinary medicinal product)
- Azoxystrobin
- > Benzalkonium chloride
- Boscalid
- Carbendazim and thiophanate methyl
- Chlorates
- Chlordane
- ➤ Clothianidin
- > Chlorfenvinphos
- Coumaphos (veterinary medicinal product)
- ➤ Didecyldimethylammonium chloride⁶
- Dimoxystrobin
- Dimethoate
- Glyphosate
- > Iprodione
- > Imidacloprid
- ➤ Lambda-cyhalothrin
- Orthophenylphenol
- Thiacloprid

-

⁶ The results should be reported as mixture of alkyl-quaternary ammonium salts with alkyl chain lengths of C8, C10 and C12.

Annex VIII: Commodities of interest to be analysed under the national programmes

EFSA recommended focusing monitoring activities on commodities that frequently contain pesticides residues or that have the potential to result in a significant short-term intake:

- > Small fruits and berries
- Grapefruits
- > Rucola
- Apricots
- Celeriacs
- Brussels sprouts
- > Cherries
- > Tea

As currently little monitoring data are available for pesticides residues in feed, EFSA recommended to include animal feed commodities in the monitoring programmes in order to get a view on the animal exposure. On the basis of residue data for feed EFSA is able to estimate the exposure of humans to the pesticides residues.

- > Rapeseed
- > Soybean

Annex IX: Substances moved from the working document to the EU MACP

- ➤ Ametoctradin (2019 EU MACP)
- Cyazofamid (2019 EU MACP)
- Cyflufenamid (2020 EU MACP)
- ➤ Fenpyrazamine (2020 EU MACP)
- Emamectin benzoate B1a, expressed as emamectin (2019 EU MACP)
- ➤ Etoxazole (2019 EU MACP)
- ➤ Fluopicolide (2018 EU MACP)
- ➤ Glyphosate⁷ (2019 EU MACP)
- Metrafenone (2019 EU MACP)
- Proquinazid (2020 EU MACP)
- Prothioconazole (2018 EU MACP)
- Prosulfocarb (2018 EU MACP)
- > Spirotetramat (2019 EU MACP)
- ➤ Tricyclazole (2020 EU MACP)

⁷ Introduced for Products of Animal Origin. Analytical capability of full RD:

^{2015 (}survey on 84 labs/25MSs): 23% of labs, 48% of MSs

^{2016 (}survey on 81 labs/25MSs): 24% of labs, 48% of MSs

^{3.74%} findings (2.04% MRL exceedances) EFSA 2016 report (294 samples)

Annex X: Special Project on dithiocarbamates (CS2) in organic samples

The existence of naturally occurring dithiocarbamates (CS2) in specific plant commodities can lead to false positive results of MRL exceedances. An effort from the Commission, EFSA and the EURLs has been initiated to examine the background levels of dithiocarbamates in certain plant products.

In order to better understand this issue and in view of the preparation of Art.12 reviews, data on dithiocarbamates background levels in organic products should be made available to EFSA by December 2019. As such MSs should include sampling of organic products for the analysis of dithiocarbamates their National Control Programs in 2018 and deliver the results to EFSA.

Further details on the project can be found following the path below on CIRCA BC:

CIRCABC > SANTE > EURLs for Pesticides

Then in the Library section follow the path:

Library > eurl-pesticides-srm > Project on Phytogenic Levels of Carbon Disulfide (Dithiocarbamates)