



ANALYSIS OF AGENDA ITEMS IN PREPARATION FOR THE 53rd SESSION OF THE CODEX COMMITTEE ON PESTICIDE RESIDUES

4th – 8th and 13th JULY 2022 - Virtual Meeting

AGENDA ITEM 5(b) – *Report on responses to specific concerns raised by CCPR arising from the 2021 JMPR regular meeting (at Step 7)*

AGENDA ITEM 6 – *MRLs for Pesticides in Food and Feed (at Steps 7 and 4)*

Objectives

This document offers a review and analysis of the agenda items planned for discussion at the 53rd session of the **Codex Committee on Pesticide Residues (CCPR)**, scheduled to take place virtually July 4th – 8th and 13th, 2022. This document is intended for possible use by the Codex communities of practice, promoted by [GForSS](#) and [PARERA](#), as part of their contribution to enhancing awareness and supporting effective participation in international food standard setting meetings (Codex meetings) by representatives from members and observers.

The analysis provided in this document offers a factual review of agenda items, their background and a discussion of some considerations. This analysis is indicative in nature and does not represent an official position of the organizations mentioned above ([PARERA](#) and [GForSS](#)), their membership or their management. It provides a synthesis and analysis of the work currently under discussion by the CCPR, which may be useful for delegations from Arab countries to prepare their positions taking into account the needs and specificity of the region and the potential impact of the proposed food standards.

This analysis is prepared as part of the **Codex Initiative for the Arab Region: Arab Codex Initiative**, implemented by [PARERA](#) and [GForSS](#), hosted and coordinated by the [Arab Industrial Development, Standardization and Mining Organization \(AIDSMO\)](#) and funded by the US Codex Office, US Department of Agriculture.

The focus of the analysis of agenda items 5b and 6 of CCPR53, relates **to specific concerns raised by CCPR and the establishment of MRLs for pesticides in food and feed (at Steps 7 and 4).**

**It is important to note that experts – members of the Arab Expert Working Group – do not represent the organizations and / or jurisdictions to which they are affiliated. The selection and participation in the Arab Expert Working Group proceedings is based on each expert's own credentials and experience, which should not be misconstrued as the country's / delegation's / organization's position to which they belong.*

Agenda Items 5(b) and 6: Responses to specific concerns raised by CCPR and MRLs for pesticides in food and feed (at Steps 7 and 4)

Documents

CX/PR 22/53/5 and CX/PR 22/53/5-Add.1

At CCPR53, responses to specific concerns raised by CCPR and MRLs of 42 pesticides in food and feed (at step 7 and 4) will be discussed with consideration of the guidance, the data and information provided in the reports of the extra and regular JMPR meetings (2021).

Background

Since 1966, CCPR has held 52 sessions and established about 4,300 MRLs related to 200 pesticides recommended by the Joint Meeting of the Food and Agriculture Organization of the United Nations (FAO) Panel of experts on Pesticide Residues in Food and the Environment and the World Health Organization (WHO) Core assessment Group on Pesticide Residues (JMPR). In this regard, JMPR develops Pesticide Specifications and conducts dietary risk assessments to set specific standards for pesticides with the aim to protect consumers and the environment from the use of these products.

The recent decisions and recommendations of CCPR pending from the latest sessions are presented below:

CCPR52 was postponed from April 2020 to July 2021 due to the COVID19 pandemic and took place virtually from 26 – 30 July 2021 with the adoption of the report on 3 August 2021.

MRLs of 52 pesticides, arising from the JMPR 2019 evaluations in May and September 2019 (extraordinary/regular meetings), were discussed in the plenary. The list contained 7 new compounds (new MRLs/compounds), other/additional evaluations (new/revised MRLs, revocation of Codex Maximum Residue Levels - CXLs – for existing compounds) and other revision for periodic review.

The EU and 7 countries have sent comments recorded, among which one country from the Arab region: Morocco.

CCPR52 agreed to:

- ❖ Forward to CAC44 for adoption at Step 5/8, MRLs related to 43 pesticides in different commodities; These MRLs were indeed subsequently adopted by CAC44 (REP21/PR, paragraph 163(i), a), Appendix II);
- ❖ Forward to CAC44 for CXLs for revocation related to 22 pesticides; the revocation was further adopted by CAC44 except the MRLs for acetamiprid/cardammon (REP21/PR, paragraph 163(i), b), Appendix III);
- ❖ Retain at step 4 MRLs for Pyflubumide, Fluensulfone, Fenpyroximate, Bifenthrin, Chlorothalonil;
- ❖ Retain at step 7 MRLs for Metalaxyl-M (in 10 commodities);
- ❖ Withdraw MRLs for 8 pesticides related to certain commodities (Bifenthrin, Cyclaniliprole, Fluxapyroxad, Isofetamid, Propiconazole, Pydiflumetofen, Pyraclostrobin, Tolfenpyrad) (discontinuation of work).

The main decisions of CCPR52, a summary of comments from delegations and the response of JMPR 2021 to the concerns from delegates and the committee regarding the pesticides of interest, are summarized in **appendix 1** of this document.

At CCPR53, delegations will examine the MRLs proposed by JMPR for 42 pesticides in food commodities. In this context, a request for comments at Step 3 by circular letter on the recommendations was sent to Codex



members and observers to invite them to provide comments on the MRLs considering the guidance, the data and information provided in the reports of the extra and regular JMPR meeting (2021).

The committee will discuss also the response of JMPR 2021 to specific concerns raised by CCPR52 and delegates.

The pesticides under consideration are the following:

❖ **Responses to specific concerns raised by CCPR (JMPR Regular Meeting, 2021, Section 3):**

1. 017 Chlorpyrifos and 090 Chlorpyrifos-methyl (Section 3.4)
2. 069 Benomyl, 072 carbendazim, 077 thiophanate-methyl (Section 3.2)
3. 081 Chlorothalonil (Section 3.3)
4. 160 Propiconazole (Section 3.7)
5. 265 Fluensulfone (Section 3.5)
6. 312 Afidopyropen (Section 3.1)
7. 313 Metconazole (Section 3.6)

❖ **MRLs at Step 4 and 7 of the Step Procedure:**

▪ **Extra meeting**

Additional/New/Other evaluations (other than periodic reviews and new compounds)

034 Ethion	215 Fenhexamid	246 Acetamiprid
110 Imazalil	222 Quinoxifen	252 Sulfoxaflor
147 Methoprene	224 Difenoconazole	262 Bixafen
156 Clofentezine	231 Mandipropamid	268 Isoxaflutole
189 Tebuconazole	232 Prothioconazole	271 Trinexapac-ethyl
197 Fenbuconazole	233 Spinetoram	299 Isoprothiolane
207 Cyprodinil	238 Clothianidin	304 Ethiprole
209 Methoxyfenozide	243 Fluopyram	305 Fenpicoxamid
213 Trifloxystrobin	245 Thiamethoxam	309 Pydiflumetofen

▪ **Regular meeting**

Additional/New/Other Evaluations	
193 Fenpyroximate	299 Isoprothiolane
265 Fluensulfone	313 Metconazole
292 Pendimethalin	
Periodic review of compounds	
138 Metalaxyl and 212 Metalaxyl-M	202 Fipronil
New compounds	
319 Flutianil (319)	322 Pyraziflumid (322)
320 Mefentrifluconazole (320)	323 Spiropidion (323)
321 Pyrasulfotole (321)	324 Tetraniliprole (324)
MRLs RETAINED AT 4 FOR CONSIDERATION BY CCPR53	
178 Bifenthrin (REP21/PR53, paras. 73-78)	

The pesticides of interest and the conclusion of the JMPR assessment of pesticides regarding health issues are summarized in **appendix 2** of this document.

Analysis

Considering the request of the CCPR52 and in accordance with its mandate, JMPR evaluated possible hazards to humans arising from the occurrence of pesticide residues in foods by reviewing residue and analytical aspects of the pesticides under consideration and estimated the MRLs related to their uses according to Good Agricultural Practices.

Given the exceptional circumstances of the COVID-19 pandemic, JMPR has held, in addition to the regular meeting, an extra meeting to review residues and analytical aspects of the pesticides under consideration.

The JMPR Extra Meeting on Pesticide Residues, held virtually from 17 to 21 May and from 7 to 11 June 2021, evaluated 30 pesticides. At the regular meeting, held virtually from 6 to 17 September and the 4th and 7th of October 2021, the JMPR reviewed 15 pesticides including 6 new compounds and two compounds that were re-evaluated for toxicity or residues, or both, within the periodic review program of CCPR.

In the report of the two meetings, JMPR presented the outcomes of the assessment of residues, the estimated MRLs for different commodities and presented the result of dietary risk assessment for pesticide residues in food.

Within the framework of establishment of MRLs for the pesticides reviewed, JMPR estimated supervised trials median residue (STMR), highest residue (HR) levels as a basis for estimating dietary intake and also performed a dietary exposure (both acute and long-term) in relation to the relevant acceptable daily intake

(ADI) and where necessary the acute reference dose (ARfD) and recommended MRLs related to the commodities considered, including the identification of products that may constitute a health concern.

Impact of the Establishment of MRLs in the Arab Region

In the framework of the estimation of long-term and acute dietary exposure related to pesticides (IEDI/IESTI) and for determination of MLRs, CCPR resorted to consumption data extracted from (GEMS/Food) cluster diets which are generally incomplete and do not give a factual representation of the reality of food consumption habits prevalent in the Arab region, as a result of the limited contribution of Arab food competent authorities to the submission of data to GEMS/Food (both occurrence and food consumption information).

Also, in their approaches, the meeting defined (STMR) and (HR) Levels considering the application of Good Agricultural Practices (GAP), which may not be applicable to agricultural practices followed in the Arab region.

Some countries of the Arab region are producers of some commodities like citrus and vegetables. It will be therefore important for the region to study the impact of the application of the proposed MRLs, notably their achievability and their impacts from an exposure assessment stand point, even following the adoption of these MRLs, by CCPR53 and subsequently by the Commission.

Specific Considerations

- ❖ **For Dimethoate:** Concerns were previously raised in relation with the possible genotoxicity of Omethoate, a metabolite of Dimethoate. The proponents of this substance indicated the possible availability of new data in this regard. However, such data were not submitted for the evaluation of the 2021 JMPR, which continues to consider a possible public health concern until such data become available and address this concern.
- ❖ Arab delegations may therefore wish to support upholding JMPR's decision in 2019, to postpone the establishment of MRLs for Dimethoate substances until such time that data on the metabolites of dimethoate including Omethoate are fully submitted and address the genotoxicity concern.
- ❖ **For Fipronil:** In view of the estimated IEDI for Fipronil on the basis of some GEMS/Food Consumption Cluster Diets, leading to exceed the ADI, Arab delegations may wish to support not advancing the MRLs proposed for Fipronil.
- ❖ **For Fenpyroximate:** Due to estimated IESTI for Fenpyroximate leading to exposure levels resulting the consumption of some commodities that exceed the ARfD, Arab delegations may wish to support the JMPR assessment that exposure to Fenpyroximate residues resulting from the consumption of the following commodities may present a public health concern: Peeled mandarins, Oranges, Apple, Pear, Cherries, Apricot, Nectarine, Peach, Blackberries, Raspberries, raspberry juice, Blueberries, Currants, currant juice, Gooseberries, Bitter melon, Chayote, Cucumbers, Angled loofah, Smooth loofah, Snake gourd, Summer squashes, Melons, Watermelons, Tomato, Eggplants, Phaseolus beans with pods, Cardoons; cardoons cooked, Celery, cooked celery, canned celery, celery juice, Bulb fennel; cooked bulb fennel; Rhubarb, rhubarb.
- ❖ **For Chlorpyrifos in Eggplant:** Arab Codex delegations may wish to support the conclusion of JMPR for the inadmissible nature of the data stemming from the supervised field trials, given that these supervised field trials for Chlorpyrifos on eggplant were conducted at a significantly longer re-treatment interval and cannot be used for the estimation of a maximum residue level.

- ❖ **For Cypermethrins in Eggplants:** Arab delegations may wish to support the conclusion of JMPR for the inability to establish MRLs using the data submitted from the supervised field trials because they originated also from trials where the re-treatment interval was found to be significantly longer.

Conclusion and Recommendations

It would be important for Arab countries to continue to invest in the development of essential data to support dietary exposure assessment for pesticide in food, and particularly food consumption data, relevant for the region and to update the relevant Cluster Diet in this database.

It would be important to document the possible impacts and in particular, the achievability of MRLs on the designated food products from the region, by conducting exposure assessments based on the relevant consumption data generated by Arab countries reflecting their real consumption habits.

It would also be important to document the feedback from representatives of the operators in the region, on the feasibility of these MRLs, in particular for exporters from the region.

APPENDIX 1

Table 1: Summary of the main decisions of CCPR52 and delegation comments

	Pesticide	Comments of delegations	CCPR52 decisions
1	Dimethoate/omethoate	The manufacturer informed that additional toxicology data were available and could be submitted to the JMPR.	Maintain all the CXLs under the 4-year rule, awaiting the outcome of the JMPR evaluation of the new data.
2	Thiabendazole		Advance all the proposed MRLs for adoption at Step 5/8 , with the subsequent revocation of the associated CXL for mango as recommended by the 2019 JMPR. The decision was upheld by CAC44.
3	Carbendazim	Reservation of the EU, Norway and Switzerland on the advancement of the proposed MRLs, pending the outcome of their ongoing evaluation of Benomyl, Carbendazim, Thiophanate methyl.	Advance the proposed MRLs for spices, seeds for adoption at Step 5/8 . The decision was upheld by CAC44.
4	Chlorothalonil	<ul style="list-style-type: none"> -Reservation of the EU, Norway and Switzerland; - UK submitted the concern form on the chronic exposures for metabolite R613636; -The Observer from CropLife informed that data were available to refine the exposure assessments for evaluation by JMPR. 	<p>Retain the draft MRL for cranberry at Step 4, awaiting the re-evaluation by the 2021 JMPR.</p> <p>For the concern raised by the European Union (EU), the Meeting JMPR 2021 concluded that, based on the information presented in the EU documentation, the potential public health concerns raised by the EU over dietary exposures to chlorothalonil and its metabolites had not been substantiated and that they did not merit any review in advance of the normal periodic review.</p> <p>For the concern raised by the United Kingdom related to the acute intake assessment for the metabolite R613636 in cranberry, the Meeting JMPR 2021 concluded that the acute exposure to R613636 in cranberry commodities is not expected to be a public health concern.</p>
5	Phosmet		Revise the database as suggested by Australia related to CXL listed in the Codex database for Phosmet in pome fruit (10 mg/kg) which should be 3 mg/kg.
6	Iprodione	<ul style="list-style-type: none"> - EU submitted a concern form on the safety of Iprodione residues as a result of exceedances of the EU ADI and ARfD. -JMPR strongly recommended considering the prioritisation of Iprodione for periodic re-evaluation. 	CCPR noted Iprodione had been included in the list of the 2022 periodic re-evaluations.

7	Cypermethrin (including alpha- and zeta-Cypermethrin)	Reservations of the EU, Norway and Switzerland on the advancement of the proposed MRL for ginseng, dried (including red ginseng), pending the outcome of the ongoing periodic re-evaluation in the EU.	Advancement of the proposed MRLs for adoption at Step 5/8 , as recommended by the 2019 JMPR. The decision was upheld by CAC44.
8	Diflubenzuron	-EU sent a concern form relating to the plant metabolite (4-chloroaniline). -JMPR Secretariat advised that the re-evaluation conducted by JECFA had concluded that this metabolite was not a significant health concern but exposure from different sources could be a concern.	
9	Methoprene	EU, Norway and Switzerland expressed their reservation on the advancement of the proposed MRL for peanut, whole, due to a chronic risk from existing EU MRLs for European consumers, and a lack of studies on the metabolic behaviour after post-harvest treatment and on the nature and magnitude of residues in processed products.	Advancement of the proposed MRL for peanut, whole for adoption at Step 5/8, as recommended by the 2019 JMPR. The decision was upheld by CAC44.
10	Glyphosate	EU, Norway and Switzerland expressed their reservation on the advancement of the proposed MRLs for dry beans (subgroup) (except soya beans); dry peas (subgroup), pending the outcome of the ongoing periodic re-evaluation in the EU.	Advance the proposed MRLs for dry beans (subgroup) (except soya beans); and dry peas (subgroup) for adoption at Step 5/8, with the subsequent revocation of the associated CXLs, as recommended by the 2019 JMPR. The decision was upheld by CAC44.
11	Propiconazole	Reservation of the EU, Norway and Switzerland on the advancement of the proposed MRL A potential public health concern was raised by the European Union (EU) about a number of aspects of Propiconazole, which had resulted in differences between JMPR and EU in respect of the ADI and ARfD, the residue definition and consideration of metabolites.	Advancement of the proposed MRL for peaches (including apricots and nectarine) (subgroup) (Po) at the step 5/8, with the subsequent revocation of the CXL for peach and withdrawal of the previous MRLs for peach. The decision was upheld by CAC44. The JMPR 2021 concluded that based on the information presented in the EU documentation, the potential concerns identified about dietary exposures to propiconazole and its metabolites were not substantiated and did not merit any review in advance of the normal periodic review.
12	Buprofezin	-EU, Norway and Switzerland expressed their reservations on the	Advance all the proposed MRLs for adoption at Step 5/8, with the subsequent revocation of the

		<p>advancement of the proposed MRLs for tree nuts (group); eggs; mammalian fats (except milk fats); poultry fats; poultry meat and poultry, edible offal of, due to the potential formation of aniline from residues of Buprofezin in commodities during processing.</p> <p>-The 2019 JMPR concluded that exposure to aniline in processed commodities did not represent a public health concern.</p>	<p>associated CXLs, as recommended by the 2019 JMPR.</p> <p>The decision was upheld by CAC44.</p>
13	Bifenthrin	<p>CCPR noted the 2019 JMPR conclusion that the estimated acute dietary exposure to residues of Bifenthrin in strawberries may present a public health concern.</p>	<p>For strawberries, revoke the CXL, withdraw the draft MRL currently at Step 4 and retain the proposed MRL of 3 mg/kg at Step 4 waiting for advice on the availability of an alternative GAP or other information.</p> <p>For celery and lettuce, head, keep the proposed MRLs at Step 4, waiting one year for advice on the availability of additional data or alternative GAP information to resolve the acute intake concerns identified by the 2015 JMPR.</p> <p>For okra, withdraw the draft MRL because of the insufficient number of trials submitted to JMPR and based on confirmation from the sponsor they had no additional data and no new GAP information.</p> <p>For barley and barley straw and fodder, dry revoke the CXLs as recommended by the 2019 JMPR.</p> <p>For straw and fodder (dry) of cereal grains advance the proposed MRL for adoption at Step 5/8, and to include a note that this MRL excluded barley straw and fodder, dry.</p> <p>The decisions was upheld by CAC44.</p>
14	Clethodim	<p>Manufacturer would submit additional toxicology data for the metabolites of Clethodim to the JMPR.</p>	<p>Retain all the CXLs under the 4-year rule, awaiting the re-evaluation by the JMPR.</p>
15	Tebuconazole	<p>Reservations of the EU, Norway and Switzerland on the advancement of the proposed MRLs, pending the outcome of the ongoing periodic re-evaluation in the EU.</p>	<p>Advance all the proposed MRLs for adoption at Step 5/8, as recommended by the 2019 JMPR</p> <p>The decision was upheld by CAC44</p>
16	Tolclofos-methyl	<p>EU, Norway and Switzerland expressed their reservations of the advancement of the proposed MRL for potato due to their acute</p>	<p>Advance all the proposed MRLs for adoption at Step 5/8, with the subsequent revocation of the associated CXLs, as recommended by the 2019 JMPR.</p> <p>The decision was upheld by CAC44</p>

		consumer risk for European consumers.	
17	Kresoxim-methyl		Advance the proposed MRL for pome fruits (group), except Japanese persimmon, for adoption at step 5/8, with the subsequent revocation of the associated CXL. The decision was upheld by CAC44
18	Pyriproxifen (200)		Agreed to advance the proposed MRL for mango for adoption at Step 5/8. The decision was upheld by CAC44
19	Cyprodinil	EU, Norway and Switzerland have commented on the proposed MRL for soya bean (dry), relating to the use of the proportionality approach despite the trials deviating by more than one parameter from the GAP.	Advance the proposed MRL for soya bean (dry) for adoption at Step 5/8, as recommended by 2019 JMPR. The decision was upheld by CAC44
20	Pyraclostrobin		Advance the proposed MRLs for root vegetables (subgroup) except sugar beet and spinach for adoption at Step 5/8, with the subsequent revocation of the associated CXLs and withdrawal of the associated MRLs. The decision was upheld by CAC44
21	Boscalid	EU, Norway and Switzerland expressed their reservation of the on the advancement of the proposed MRL for pome fruit, because a lower MRL could be derived using the OECD calculator.	Advance all the proposed MRLs for adoption at Step 5/8, with the subsequent revocation of the associated CXLs. The decision was upheld by CAC44
22	Azoxystrobin		Advance the proposed MRL for guava for adoption at Step 5/8. The decision was upheld by CAC44
23	Chlorantraniliprole		Advance all the proposed MRLs for adoption at Step 5/8, The decision was upheld by CAC44
24	Spirotetramat		Advance all the proposed MRLs for adoption at Step 5/8. The decision was upheld by CAC44
25	Metaflumizone	EU, Norway and Switzerland expressed their reservation on the advancement of the proposed MRL for grape, due to their acute consumer risk for European consumers.	CCPR agreed to advance all the proposed MRLs for adoption at Step 5/8, with the subsequent revocation of the associated CXLs. CAC44 agreed with the revisions of MRLs for Metaflumizone for mammalian fats (excluding milk fats) at 0.15 mg/kg and milk fats at 0.6 mg/kg.

26	Dicamba	EU, Norway and Switzerland expressed their reservation on the advancement of the proposed MRLs for cotton seed; maize; and soya bean (dry), pending the outcome of the ongoing periodic re-evaluation in the EU.	Advance all the proposed MRLs for adoption at Step 5/8, with the subsequent revocation of the associated CXLs, as recommended by 2019 JMPR. The decision was upheld by CAC44
27	Acetamiprid		Advance the proposed MRLs for spices, seeds for adoption at Step 5/8 and to revoke the CXL for cardamom. CAC44 agreed with the proposed MRL for adoption at step 5/8 and did not endorse the revocation of the CXL on acetamiprid for cardamom that will be retained for one year awaiting clarifications by JMPR at CCPR53.
28	Penthiopyrad	EU, Norway and Switzerland expressed their reservation on the advancement of all proposed MRLs due to different residue definitions for risk assessment and the extrapolation methods.	Advance all the proposed MRLs for adoption at Step 5/8, as recommended by the 2019 JMPR. The decision was upheld by CAC44
29	Fluxapyroxad	EU indicated that the extrapolations from lemons to mandarins are not in accordance with the agreed extrapolation rules.	Advance all the proposed MRLs for adoption at Step 5/8, with the subsequent withdrawal of the associated MRLs and the revocation of the CXL for oranges, sweet, sour (including orange-like hybrids) (subgroup). The decision was upheld by CAC44
30	Picoxystrobin	EU, Norway and Switzerland expressed their reservation on the advancement of the proposed MRLs for coffee beans; cotton seed; edible offal (mammalian); mammalian fats (except milk fats); meat (from mammals other than marine mammals) (fat); milks; sorghum; tea, green, black (black, fermented and dried) due to several health concerns identified in the EFSA peer review, including possible genotoxicity of picoxystrobin and its main plant metabolites.	Advance all the proposed MRLs for adoption at Step 5/8, with the subsequent revocation of the associated CXLs. The decision was upheld by CAC44.
31	Benzovindiflupyr		Advance the proposed MRLs for bulb onions (subgroup); sugar cane to Step 5/8 with the

			subsequent revocation of the associated CXL for sugar cane. The decision was upheld by CAC44
32	Fluensulfone	<p>EU, Norway and Switzerland expressed their reservation on the advancement of all the proposed MRLs due to the metabolism studies are not representative for the residue behaviour observed in the residue trials. The EU considered that the genotoxic potential of MeS (2-Methylsulfonylthiazole) cannot be excluded and that further genotoxicity tests would be needed to follow up on the positive results in vitro.</p> <p>A concern form from the Delegation of the USA was sent to JMPR, relating to the proposed maximum residue level for pome fruit and also on the decision not to calculate a processing factor for citrus juice.</p> <p>For pome fruit, the Delegation of the USA advised that in one of the pear trials used for estimating the maximum residue level, the reported residue values were incorrect, and that based on the corrected values, a higher maximum residue limit should be estimated.</p> <p>For citrus juice, the Delegation of the USA proposed that since detectable residues of the BSA metabolite of Fluensulfone were present in orange juice, processing factors for total residues (parent plus BSA) could be calculated from the two processing studies, and since the higher of these factors was very similar to that calculated for apple juice, the apple juice processing factor should be considered the appropriate processing factor for calculating the MRL for citrus/orange juice.</p>	<p>Retained the proposed MRLs for apple juice; apples, dried and pome fruits (group) at Step 4, awaiting the evaluation by the 2021 JMPR and advance the other proposed MRLs for adoption at Step 5/8, as recommended by 2019 JMPR. For the concern raised about Pome fruit, the JMPR 2021 estimated a maximum residue level of 0.3 mg/kg for Fluensulfone (Fluensulfone+BSA metabolite), an STMR of 0 mg/kg and an HR of 0 mg/kg for Fluensulfone (parent only) in pome fruit (except persimmon, Japanese) to replace the previous recommendation. Because the STMR and the HR remain unchanged, no refinement of the dietary exposure estimation was needed. Based on the 2019 JMPR conclusion that any uptake of the metabolite MeS from permanent crops would be insignificant, the Meeting considered it unnecessary to revisit the Cramer class III TTC assessment for MeS (2-Methylsulfonylthiazole).</p> <p>For the concern raised about Citrus juice, the JMPR 2021 confirmed the 2019 JMPR conclusion that a processing factor for citrus juice could not be calculated.</p>

33	Tolfenpyrad	<p>-JMPR informed CCPR that the estimated acute dietary exposure to residues of Tolfenpyrad in tomatoes and eggplants may present a public health concern.</p> <p>-EU, Norway and Switzerland expressed their reservations on the advancement of all proposed MRLs pending the outcome of their ongoing import tolerance requests and that for mandarins, oranges and peppers they had identified acute consumer risks.</p>	Withdraw the proposed MRLs for tomatoes (subgroup) and eggplants (subgroup) and advance the other proposed MRLs for adoption at Step 5/8, as recommended by 2019 JMPR. The decision was upheld by CAC44
34	Mesotrione		advance all the proposed MRLs for adoption at Step 5/8, as recommended by the 2019 JMPR The decision was upheld by CAC44
35	Acetochlor	EU, Norway and Switzerland expressed their reservations from the on the advancement of the proposed MRLs for soya bean (dry) and edible offal (mammalian) because of their different residue definition for enforcement.	advance all the proposed MRLs for adoption at Step 5/8, with the subsequent revocation of the associated CXLs. The decision was upheld by CAC44
36	Flonicamid	EU, Norway and Switzerland expressed their reservations from on the advancement of the proposed MRLs because of their different residue definition for enforcement and that for oranges, they had identified an acute consumer risk for oranges.	Advance all the proposed MRLs for adoption at Step 5/8. The decision was upheld by CAC44
37	Fluazifop-p-butyl	EU, Norway and Switzerland expressed their reservation from the on the advancement of the proposed MRLs for elderberries (extrapolation from blueberries) and strawberry (acute and chronic consumer risk identified).	Advance all the proposed MRLs for adoption at Step 5/8, with the subsequent revocation of the associated CXLs, as recommended by the 2019 JMPR. The decision was upheld by CAC44
38	Flupyradifurone		advance all the proposed MRLs for adoption at Step 5/8, The decision was upheld by CAC44
39	Isofetamid		advance all the proposed MRLs for adoption at Step 5/8, with the subsequent withdrawal of the associated MRLs. The decision was upheld by CAC44
40	Pendimethalin (292)		Advance all the proposed MRLs for adoption at Step 5/8. The decision was upheld by CAC44

41	Cyclaniliprole	<p>Reservation from the EU, Norway and Switzerland because the consumer risk assessment could not be finalized and no conclusion could be drawn on the genotoxicity and the general toxicity of several metabolites and that for leaves of Brassicaceae (subgroup), the number of trials were insufficient to recommend an MRL.</p> <p>The JMPR Secretariat, explained that the recommendations were based on 5 trials, while only 4 trials are required</p>	Advance all the proposed MRLs for adoption at Step 5/8, with the subsequent withdrawal of the associated MRLs. The decision was upheld by CAC44
42	Fenazaquin		Advance all the proposed MRLs for adoption at Step 5/8. The decision was upheld by CAC44
43	Fosetyl-aluminium	Reservations of the EU, Norway and Switzerland for coffee beans because of insufficient number of residue trials	Advance all the proposed MRLs for adoption at Step 5/8, with the subsequent revocation of the associated CXL for mammalian fats (except milk fat). The decision was upheld by CAC44
44	Mandestrobin	Reservations of the EU, Norway and Switzerland for rape seed due to their different residue definition for risk assessment.	Advance all the proposed MRLs for adoption at Step 5/8. The decision was upheld by CAC44
45	Pydiflumetofen	JMPR noticed that the estimated acute dietary exposure to residues of pydiflumetofen in leafy greens (subgroup) may present a public health concern. The Observer from CropLife advised CCPR that no new information or alternative GAP was available at the moment	Advance all the proposed MRLs for adoption at Step 5/8. The decision was upheld by CAC44
46	Afidopyropen	Reservations of the EU, Norway and Switzerland due to their concern on the evaluation of metabolites, their acute consumer risk concern (for leaves of Brassicaceae), and the representative crop selection (for herbs).	<p>Advance all the proposed MRLs to Step 5/8, as recommended by the 2019 JMPR. The decision was upheld by CAC44</p> <p>For the concern on the inclusion of M007 in the residue definition of risk assessment of plant Commodities, the JMPR 2021 decided to rephrase the residue definition for dietary risk assessment for plant commodities.</p> <p>For the concern on the low MRL for milk 0.001 mg/kg, the JMPR acknowledges that the maximum residue level for milk is low but is indeed supported by current analytical methods</p>

47	Metconazole	Reservations from the EU, Norway and Switzerland pending the outcome of the ongoing periodic re-evaluation in the EU.	<p>Advance all the proposed MRLs for adoption at Step 5/8 and no maximum residue level could be estimated for residues in wheat due to an insufficient number of trials matching the GAP with regards to the PHI. The decision was upheld by CAC44</p> <p>Based on the data from supervised trials, the JMPR 2021 concluded that the residue levels considered are suitable for establishing maximum residue limits and for IEDI and IESTI assessments.</p> <p>The Meeting concluded that acute and long-term dietary exposure to residues of metconazole from uses considered by the current Meeting is unlikely to present a public health concern.</p>
48	Pyflubumide	JMPR noticed that the estimated acute dietary exposure to residues of pyflubumide in apples and tea, green, black may present a public health concern	Retain the proposed MRLs for apple; tea, green, black (black, fermented and dried) at Step 4, awaiting the JMPR re-evaluation.
49	Pyridate	The 2019 JMPR had established an ADI of 0-0.2 mg/kg bw and an ARfD of 2 mg/kg bw for pyridate and that these differed from the toxicological reference values derived in the EU.	
50	Pyrifluquinazon	The 2019 JMPR was not able to derive a residue definition for dietary risk assessment for animal commodities.	
51	Triflumuron	The 2019 JMPR was not able to derive a residue definition for dietary risk assessment for plant and animal commodities	New toxicology (genotoxicity) data would be re-evaluated by the 2021 JMPR
52	Valifenalate		Advance all the proposed MRLs for adoption at Step 5/8. The decision was upheld by CAC44

APPENDIX 2

Table 2: Conclusion of the JMPR assessment of the pesticides for consideration by CCPR53 (2022)

Extra JMPR meeting

Pesticide	Conclusion of JMPR assessment
ACETAMIPRID (additional uses pistachio) Neonicotinoid insecticide	Acute dietary and long-term dietary exposure to residues of acetamiprid from uses considered by JMPR are unlikely to present a public health concern.
BIXAFEN (additional uses in pulses, potatoes, cereal grains and oilseed crops) Pyrazole-carboxamide fungicide used to control diseases on multiple crops	Acute and long-term dietary exposure to residues of Bixafen and their metabolites from uses considered by JMPR are unlikely to present a public health concern.
CHLORPYRIFOS (additional uses: eggplant) non-systemic organophosphorus insecticide with contact, stomach and respiratory action.	The Meeting noted that CCPR has scheduled chlorpyrifos and chlorpyrifos-methyl for periodic evaluation by the 2024 JMPR. The JMPR Joint Secretariats are currently investigating the most efficient ways to re-evaluate chlorpyrifos and chlorpyrifos-methyl for toxicology and residues, considering the size and complexity of their dossiers, and the aspects they have in common. The supervised field trials were conducted at a significantly longer re-treatment interval and cannot be used for the estimation of a maximum residue level.
CLOFENTEZINE (additional uses Hops, dry cones) Acaricide used for the control of red spider mites on a wide range of crops	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
CLOTHIANIDIN (additional uses persimmon, barley, rice, sorghum, sweet corn and wheat) Broad-spectrum, neonicotinoid insecticide registered uses on multiple crops	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
CYPERMETHRINS (additional uses eggplant) non-systemic pyrethroid insecticide with contact and stomach action	The supervised field trials were conducted at a significantly longer re-treatment interval in combination with lower application rates and cannot be used for the estimation of a maximum residue level.
CYPRODINIL (additional uses on peas, beans and ginseng) broad-spectrum fungicide used to control a range of pathogens including <i>Tapesia yellundae</i>, <i>Botrytis spp.</i>, <i>Alternaria spp.</i> and <i>Rhynchosium secalis</i>.	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
DIFENOCONAZOLE (additional uses) Broad-spectrum conazole (triazole) fungicide used for the control of diseases in multiple crops	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
ETHION (additional uses chili pepper) Organophosphate insecticide and acaricide with non-systemic and contact action	The supervised field trials were conducted at a significantly longer re-treatment interval in combination with lower application rates and cannot be used for the estimation of a maximum residue level.
ETHIPROLE (additional use on soya beans) Non-systemic phenylpyrazole insecticide	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.

FENBUCONAZOLE (additional use on tea) <i>Triazole fungicide intended for agricultural and horticultural use for the control of a variety of fungal infections of crops.</i>	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
FENHEXAMID (additional uses for in pear, ginseng, asparagus, spring onion and bulb vegetables) <i>hydroxyaniline protective fungicide</i>	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
FENPICOXAMID (additional uses for wheat, similar grains and pseudo cereals without husks) <i>Picolinamide fungicide</i>	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
FLUOPYRAM (additional use on coffee plants) Pyridylethylamide broad spectrum fungicide	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
IMAZALIL (additional uses for citrus mandarins and grapefruits) <i>Imidazole fungicide with protective, curative and anti-sporulant activity</i>	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
ISOPROTHIOLANE (additional uses banana plants) Fungicide belonging to the family of dicarboxylic acids	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
ISOXAFLUTOLE (additional uses) <i>Herbicide</i>	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
MANDIPROPAMID (additional uses on citrus fruits) <i>Fungicide used for the control of foliar oomycete pathogens in a range of crops, including Plasmopara viticola in grapes, Phytophthora infestans in potatoes and tomatoes and Pseudoperonospora cubensis in cucurbits</i>	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
METHOPRENE (additional uses soya beans) <i>An insect growth regulator</i>	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
METHOXYFENOZIDE (additional uses coffee bean, rice, sugar cane and tea) <i>Insecticide that mimics moulting hormone of Lepidopterous larvae</i>	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
PROTHIOCONAZOLE (additional uses) Broad-spectrum systemic fungicide	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
PYDIFLUMETOFEN (several new uses) <i>a broad-spectrum fungicide belonging to the carboxamide group.</i>	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
QUINOXYFEN (additional uses) Fungicide used for protection against powdery mildew diseases on a variety of crops.	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
SPINETORAM (additional uses on pitaya (dragon fruit) and tea) Spinosyn insecticide obtained by chemical modification of a fermentation product of Saccharopolyspora spinose.	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.

SULFOXAFLOR (additional uses chili pepper and okra) insecticide-acaricide belonging to the titronic acid class of compounds	The Meeting concluded that the supervised field trials were conducted at a significantly longer re-treatment interval and cannot be used for the estimation of a maximum residue level.
TEBUCONAZOLE (additional uses avocado, mango, bush berries, cane berries, globe artichoke, asparagus, sunflower and coffee) a broad-spectrum, sulfoximine insecticide with registered uses on multiple crops Triazole broad spectrum fungicide	The Meeting concluded that the supervised field trials were conducted at a significantly longer re-treatment interval and cannot be used for the estimation of a maximum residue level.
THIAMETHOXAM (additional uses persimmon, barley, rice, sorghum, sweet corn and wheat.) Broad-spectrum, neonicotinoid insecticide with registered uses on multiple crops	The Meeting concluded that the supervised field trials were conducted at a significantly longer re-treatment interval and cannot be used for the estimation of a maximum residue level.
TRIFLOXYSTROBIN (additional uses citrus fruits, cane berries, bush berries, leaf lettuce, legume vegetables, dry beans and peas, tree nuts, linseed and coffee) Strobilurin broad-spectrum contact fungicide	The Meeting concluded that the supervised field trials were conducted at a significantly longer re-treatment interval and cannot be used for the estimation of a maximum residue level.
TRINEXAPAC-ETHYL (additional uses) synthetic plant growth regulator used for growth management of crops	Acute and long-term dietary exposure to residues and their metabolites from uses considered by JMPR are unlikely to present a public health concern.

Regular JMPR meeting

Pesticide	Conclusion of JMPR assessment
DIMETHOATE Anticholinesterase organophosphate insecticide	In the absence of complete study results, the Meeting re-affirmed the decision of the 2019 JMPR regarding the suspected genotoxic carcinogenicity of omethoate, a metabolite of Dimethoate. More data on metabolites of dimethoate including omethoate are expected to be submitted by the petitioner
ETHOXYQUIN (periodic review)	A toxicological evaluation of ethoxyquin was not performed; the available toxicological database was very limited and it was insufficient as a basis to establish an ADI and ARfD.
FENPYROXIMATE (additional uses: citrus, banana, celery, cranberry, summer squash, watermelon, bean [succulent shelled], blueberry, plum, apricot, and peach) Phenoxy pyrazole acaricide for application to leaves infested with phytophagous mites	Based on the revised ARfD, the current Meeting confirmed that: - the estimated acute dietary exposure to residues of fenpyroximate for the consumption of commodities from <i>Subgroup of cherries, Peach, Watermelon</i> may present a public health concern; - The estimated acute dietary exposure to residues of fenpyroximate for the consumption of commodities <i>Apple, Pear, Apricot, Melons (except watermelon), Subgroup of Tomatoes, Subgroup of Eggplants, Subgroup of Beans with pods</i> as previously considered by the 2017 and 2018 JMPRs <u>may present a public health concern.</u>
FIPRONIL (periodic review) Broad-spectrum insecticide that belongs to the phenylpyrazole chemical family and is used for the control of a wide range of crop, public hygiene, amenity, and veterinary pests.	On the basis of the information provided to the JMPR it was concluded that the estimated long-term dietary exposure to residues of fipronil <u>may present a public health concern.</u>
FLUTIANIL (new compound) Novel fungicide belongs to the thiazolidine chemical class exhibiting both fungicidal and fungistatic contact action and has been registered in a number of countries for use on	Acute dietary and long-term dietary exposure to residues of Flutianil from uses considered by JMPR are unlikely to present a public health concern.

various crops, mostly tree fruits and fruiting vegetables	
GUAZATINE (periodic review) Fungicide having multi-site contact activity.	The submitted dossier for guazatine was inadequate to address the concerns identified by the 1997 JMPR Meeting and for this reason, it was not possible for the Meeting to conclude the toxicological re-evaluation of guazatine.
ISOPROTHIOLANE Systemic fungicide with protective and curative action which is used on rice crops	Isoprothiolane is being evaluated by the Meeting in support of the FAO panel review of isoprothiolane for additional maximum residue limits (MRLs) for bananas. The meeting proposed ADI 0–0.1 mg/kg bw, ARfD Not necessary
MEFENTRIFLUCONAZOLE (reviewed at the request of CCPR) Novel fungicide that is used to control fungal diseases in various crops including cereals, oilseeds, fruits or vegetables.	The meeting proposed ADI 0.04 mg/kg bw ; ARfD 0.3 mg/kg bw
METALAXYL (periodic review) <i>Systemic fungicides with registered uses in a variety of crops around the world.</i>	-Withdraw all previous recommendations made in terms of metalaxyl-M and to make new recommendations in terms of metalaxyl for apple, grapes, onion, bulb, potato, spinach, and sunflower seed as the available analytical methods do not use enantiomeric selective columns and the residues are determined as metalaxyl (sum of R- and S- enantiomers), -Due to the lack of residue data according to GAP, no recommendation was made for cacao beans, head lettuce, sweet peppers and tomato.
METALAXYL-M (periodic review) <i>Systemic fungicides with registered uses in a variety of crops around the world.</i>	The current Meeting evaluated metalaxyl and metalaxyl-M together for toxicology and established a single ADI and ARfD that apply to metalaxyl and metalaxyl-M, either alone or in combination.
PENDIMETHALIN (additional uses) <i>Selective herbicide used to control most annual grasses and certain broadleaf weeds in various crops, such as fruits, vegetables, cereals, pulses, oilseeds, root crops and ornamentals</i>	Acute dietary and long-term dietary exposure to residues of Pendimethalin from uses considered by JMPR are unlikely to present a public health concern.
PYRASULFOTOLE (reviewed at the request of CCPR): <i>Inhibitor of the enzyme 4-hydroxyphenylpyruvate dioxygenase (4-HPPD) in susceptible plants, thereby disrupting the synthesis of carotenoids that are produced by plants to protect against oxidative and photolytic damage</i>	Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
PYRAZIFLUMID (reviewed at the request of CCPR): <i>Fungicide used on fruits such as pome, stone and citrus, as well as persimmon and grape.</i>	No maximum residue level recommendation due to the absence of an enforcement method; Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
SPIROPIDION (reviewed at the request of CCPR): <i>Pro-insecticide incorporating a novel tetramic acid derivative.</i>	-New codes and/or commodity names as agreed by CCPR 52 and proposed for adoption by CAC 43 -Acute dietary and long-term dietary exposure to residues from uses considered by JMPR are unlikely to present a public health concern.
TETRANILIPROLE (reviewed at the request of CCPR): <i>Anthranilic diamide-class insecticide</i>	The meeting proposed: ADI 0–2 mg/kg bw ARfD Not necessary