CODEX ALIMENTARIUS COMMISSION

E

Food and Agriculture Organization of the United Nations

World Health Organization

Viale delle Terme di Caracalla, 00153 Rome, Italy - Tel: (+39) 06 57051 - E-mail: codex@fao.org - www.codexalimentarius.org

REP18/PR

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX ALIMENTARIUS COMMISSION

41st Session
Rome, Italy
2 – 6 July 2018

REPORT OF THE 50th SESSION OF THE CODEX COMMITTEE ON PESTICIDE RESIDUES

Haikou, P.R. China, 9 - 14 April 2018

TABLE OF CONTENTS

LIST OF APPENDICES

Pages

SUMMARY AND STATUS OF WORK

Responsible Party	Purpose	Text/Topic	Code	Step	Para(s). App.
Members CCEXEC75 CAC41	Adoption	MRLs for different combinations of pesticide/commodity(ies) proposed by adoption by CCPR49	---	5/8	App. II 117
CCEXEC75 CAC41	Revocation	CXLs for different combinations of pesticide/commodity(ies) proposed for revocation by CCPR49	---	---	App. III 117
JMPR 2018 (or future sessions) Members CCPR51 (or future sessions)	Action / Information	MRLs for different combinations of pesticide/commodity(ies) that were retained by CCPR awaiting further assessment from JMPR	---	4 7	App(s) IV & V 117
CCEXEC75 CAC41	Information	MRLs for different combinations of pesticide/commodity(ies) that were withdrawn (discontinued) by CCPR	---	4 7	App. VI 110
Members CCEXEC75 CAC41	Adoption	Revision of the *Classification of Food and Feed*: Type 04: Nuts, seeds and saps Type 05: Herbs and spices	---	5/8 8	App(s) VII & VIII 118 & 120
		Tables on examples of representative commodities for vegetable commodity groups (for inclusion in the *Principles and Guidance for the Selection of Representative Commodities for the Extrapolation of MRLs for Pesticides to Commodity Groups* (CXG 84-2012)) Table 4: Nuts, seeds and saps Table 5: Herbs and spices	---	5/8	App(s) VII & VIII 127
EWG (USA and Netherlands) Members CCPR51	Action	Revision of the *Classification of Food and Feed* for selected commodity groups Tables on examples of representative commodities for selected commodity groups	---	2/3	App. X 124 & 129
Codex Secretariat CCPR51	Action / Information	Impact of the revised commodity groups and subgroups in Type 03, Type 04 and Type 05 on the CXLs	---	---	App. IX 121
EWG (Netherlands, Australia, Uganda) CCPR51	Action	Review of the IESTI equations (possible revision of the IESTI equations)	---	---	App(s) XI & XII 137
CCEXEC75 CAC41 JMPR 2019	Approval (new work)	Priority list of pesticides for evaluation by the 2019 JMPR	---	1/2/3	App. XIII 153
EWG (Australia with the assistance of Kenya, Chile and Canada) Members CCPR51	Action (follow-up by CCPR / JMPR)	JMPR schedules for evaluations of pesticides	---	---	
	Action	Discussion paper on management of unsupported compounds			

Responsible Party	Purpose	Text/Topic	Code	Step	Para(s). App.
EWG (Germany and Australia) Members CCPR51	Action	Information on national registration of pesticides Establishment of a Codex database of national registration of pesticides	---	---	157
EWG (Chile, India and USA) Members CCPR51	Action	Discussion paper on biopesticides	---	---	160
EWG (Iran and Costa Rica) Members CCPR51	Action	Discussion paper on the revision of the *Guidelines on the use of mass spectrometry for the identification, confirmation and quantitative determination of residues* (CXG 56-2005)	---	---	166
EWG (Canada, Costa Rica and Kenya) Members CCPR51	Action	Discussion paper on the opportunities and challenges related to the participation of JMPR in an international joint review of a new compound	---	---	168

LIST OF ABBREVIATIONS

ADI	Acceptable Daily Intake
ALINA	The Latinamerican Association of the National Agrochemical Industries
ARfD	Acute Reference Dose
AU	African Union
CAC	Codex Alimentarius Commission
CCEXEC	Executive Committee
CCMAS	Codex Committee on Methods of Analysis and Sampling
CCPR	Codex Committee on Pesticide Residues
CCRVDF	Codex Committee on Residues of Veterinary Drugs in Foods
cGAP	Critical GAP
CL	Circular Letter
CLI	CropLife International
CRD	Conference Room Document
CXL	Codex Maximum Residue Limit for Pesticide (as adopted by CAC)
DIE	Daily Intake Estimate
EDCs	Endocrine Disrupting Chemicals
EFSA	European Food Safety Authority
EHC	Environmental Health Criteria
EMRL	Extraneous Maximum Residue Limit
EU	European Union
EWG	Electronic Working Group
FAO	Food and Agricultural Organization of the United Nations
GAP	Good Agricultural Practice (in the use of pesticides)
GEMS/Food	Global Environment Monitoring System - Food Contamination Monitoring and Assessment Program
GLP	Good Laboratory Practices
GRIN	Germplams Resources Information Network (GRIN Database)
HR	Highest residue in edible portion of a commodity found in trials used to estimate a maximum residue level of pesticide(s) in the commodity
IAEA	International Atomic Energy Agency
IEDI	International Estimated Daily Intake
IESTI	International Estimate of Short-Term Intake
IGG	FAO Intergovernmental Group (IGG) on Tea
JECFA	Joint FAO/WHO Expert Committee on Food Additives
JMPR	Joint FAO/WHO Meeting on Pesticide Residues
LOQ	Limit of Quantification
MRL	Maximum Residue Limit

NHF	National Health Federation
NOAEL	No Observed Adverse Effect Level
OECD	Organization for Economic Co-operation and Development
PAD	Pesticide Attributes Database
PWG	Physical Working Group
RIVM	National Institute for Public Health and the Environment
SD	Standard Devitation
STMR	Supervised Trial Median Residues
TBPE	Tertiary butylphenylethanol
TF/AMR	Codex Task Force on Antimicrobial Resistance
TDI	Tolerable Daily Intake
TOR	Terms of Reference
TTC	Threshold of Toxicological Concern
USA	United States of America
WG	Working Group
WHO	World Health Organization
WTO	World Trade Organization

INTRODUCTION

1. The 50th Session of the Codex Committee on Pesticide Residues (CCPR) was held in Haikou, China, from 9 to 14 April 2018 at the kind invitation of the Government of the People's Republic of China. Professor Xiongwu QIAO, Director of the Shanxi Academy of Agricultural Science chaired the Session, assisted by Dr. Guibiao YE, Director of CCPR Secretariat, Institute for Control of Agrochemicals, Ministry of Agriculture and Rural Affairs the People's Republic of China. Representatives from 52 Member countries, one Member organization, and 10 international organizations attended the Session. The list of participants is attached as Appendix I.

OPENING OF THE SESSION[1]

2. Mr. Aiguo MA, General Agronomist of Ministry of Agriculture and Rural Affairs of the People's Republic of China, opened the Session, congratulated CCPR on its achievements over the past 50 years; underscored the importance of setting robust and practical standards in order to achieve global harmonization; and expressed the Chinese Government commitment to continue supporting Codex activities. Ms Caixiang FU, Vice Governor of Hainan Province, addressed the Committee and extended their warmest welcome to all participants.

3. Mr Guilherme Costa, Chairperson of the Codex Alimentarius Commission, Mr. Zhongjun ZHANG, Deputy Representative of Food and Agriculture Organization of the United Nations Representation in China, also addressed the Committee. Mr Tom Heilandt, Secretary of the Codex Alimentarius Commission addressed the meeting through a pre-recorded video message.

Division of Competence[2]

4. CCPR noted the division of competence between the European Union and its Member States, according to paragraph 5, Rule II of the Procedure of the Codex Alimentarius Commission.

ADOPTION OF THE PROVISIONAL AGENDA (Agenda Item 1)[3]

5. CCPR adopted the Provisional Agenda as its Agenda for the Session with the following additions under Agenda Item 11, Other Business:

   (i) Biopesticides (Chile);
   (ii) Participation of JMPR in an international joint review of a new compound (Canada);
   (iii) Uniform risk management approach to address the issue of endocrine disrupting chemicals in food (India);
   (iv) Revision of the *Guidelines on the use of mass spectrometry for the identification, confirmation and quantitative determination of residues* (CXG 56-2005); and
   (v) Information by Japan on the current situation of the proposed new MRLs for Fosetyl-Al.

6. CCPR agreed to establish in-session working groups on the following topics, open to all members and observers and working in English:

   (i) Classification of Food and Feed – To consider key issues related to the revision of the Classification (CXM 4-1989) and examples of representatives commodities (CXG 84-2012) (Agenda Item 7) (chaired by the United States of America and co-chaired by The Netherlands);

   (ii) IESTI equations – To consider key points raised in the discussion paper on the review of the IESTI equations (Agenda Item 8) (chaired by The Netherlands and co-chaired by Australia and Uganda).

APPOINTMENT OF RAPPORTEURS (Agenda Item 2)

7. CCPR appointed Mr. David LUNN (New Zealand) and Mr Kevin BODNARUK (Australia) to act as rapporteurs.

MATTERS REFERRED TO THE COMMITTEE BY THE CODEX ALIMENTARIUS COMMISSION AND/OR OTHER SUBSIDIARY BODIES (Agenda Item 3)[4]

8. CCPR noted that some matters were for information only, and that matters for action would be considered under the relevant agenda items.

---

1 CRD34 (Remarks delivered at the opening ceremony)
2 CRD01
3 CX/PR 18/50/01
4 CX/PR 18/50/02; CRD03 (Chile); CRD04 (EU, Kenya); CRD14 (AU); CRD17 (Ghana); CRD20 (Paraguay); CRD21 (Mali); CRD26 (Senegal); CRD28 (Nicaragua); CRD29 (Nigeria)

Closer collaboration between CCPR and CCRVDF

9. Delegations supported the need to evolve innovative ways for better collaboration between JMPR/JECFA (see Agenda Item 4a) and CCPR/CCRVDF, for optimal evaluation of dual use compounds, and proposed that these could include:

- Improved collaboration between JMPR/JECFA e.g. harmonized MRLs, residue definitions, etc.
- Regular communication between delegations to CCPR and CCRVDF as well as within the Codex Secretariat itself.
- Improved synchronization of work between the CCPR and CCRVDF WG on Priorities.

CCPR agreed to further consider this matter under Agenda Item 9 (paragraph 152).

MATTERS OF INTEREST ARISING FROM FAO AND WHO (Agenda Item 4a)[5]

10. CCPR noted matters of interest arising from FAO and WHO relevant to the work of the Committee as follows:

- Improvement of chronic dietary exposure assessment.
- Acute probabilistic dietary exposure assessment for pesticides.
- Global food consumption databases and ongoing activities to support countries to generate and to use data for risk analysis purposes.

11. The Representative of WHO provided relevant information to CCPR on the FAO/WHO scientific advice in particular:

- The establishment of a joint JECFA and JMPR Expert working group on assessment of chronic dietary exposure for pesticides and veterinary drugs.
- The alignment of methodologies to assess compounds used both as pesticides and veterinary drugs.
- The progress on the performance of a probabilistic assessment based on the acute exposure for 47 pesticides having an acute reference dose.
- Ongoing efforts to support countries to generate and to use data for risk analysis purposes.

12. The Representative of FAO reported on the outcome of the FAO survey on the use of antibiotics in crops conducted after CCPR49. Overall, the survey indicated that antibiotics and antimicrobials that specifically inhibit or kill bacteria are approved for use to treat plant diseases in at least 20 countries. The regulations and oversight of antibiotic use are strong and residues present on foods of plant origin are minimal. In contrast, the amounts and types of antimicrobials used, the crops treated and the potential for antimicrobial resistance (AMR) are unknown. In order to develop science-based recommendations to mitigate the negative public health impacts of AMR, the use of antimicrobials in plant production resulting in occupational exposure, food, and environmental contamination need to be assessed. FAO will continue to work on this area together with WHO and OIE.

13. CCPR noted that the work priorities of FAO and WHO related to the work of the Committee should include:

- The impact of the use of antimicrobial compounds in plant protection (food and feed).
- Close cooperation between scientific bodies (in particular JMPR and JECFA).
- Capacity building to enhance participation of Codex members in the work of JMPR and CCPR.

MATTERS OF INTEREST ARISING FROM OTHER INTERNATIONAL ORGANIZATIONS (Agenda Item 4b)[6]

14. CCPR noted information provided by IAEA and OECD on their activities relevant to the work of CCPR.

REPORT ON ITEMS OF GENERAL CONSIDERATION BY THE 2017 JMPR (Agenda Item 5a)[7]

15. CCPR noted the information provided by the JMPR Secretariat on the following matters:

- Special studies on microbiological effects of pesticide residues in foods.
- Use of historical control data.
- Further consideration of the process for establishing group MRLs - update on the use of the revised commodity classification for vegetables.
- Field use pattern anticipated residue comparison model.
- Update of the IESTI model used for the calculation of dietary intake - new large portion data.

16. CCPR further noted comments of delegations in regard to the following matters:

---

5 CX/PR 18/50/03; CRD05 (EU, Kenya); CRD14 (AU); CRD17 (Ghana); CRD21 (Mali); CRD26 (Senegal)

6 CX/PR 18/50/04; CRD05 (Kenya); CRD14 (AU); CRD17 (Ghana); CRD21 (Mali); CRD26 (Senegal); CRD32 (Australia, USA)

7 Section 2 of the 2017 JMPR Report; CRD06 (China, EU, Kenya); CRD14 (AU); CRD17 (Ghana); CRD21(Mali)

Special studies on microbiological effects of pesticide residues in foods

17. Delegations welcomed the initiative of JMPR to carry out when appropriate assessments of the adverse chronic and acute effects of pesticide residues on the microorganisms in the human gastrointestinal tract in line with those routinely done by JECFA for veterinary drug residues.

Establishment group MRLs with the revised Classification of Food and Feed (CXM 4-1989)

18. In relation to the establishment of group MRLs using the revised Classification (in particular the revised Type 02), delegations expressed concerns on the JMPR exclusion of certain commodities (in particular minor crops) from their recommended group MRLs. It was recalled that one of the key points for the revision of the Classification was the establishment of group MRLs that cover minor crops which otherwise would be difficult to establish.

19. The JMPR Secretariat indicated that JMPR had identified several cases where there was insufficient information to support a conclusion that a group MRL would be sufficient to accommodate potential residues in all commodities in the group. Where the morphology and crop production practices suggested that potential residues could be significantly different from those in the representative commodity, JMPR agreed that the best science-based decision was to make the recommendations for a subgroup rather than for a group as this would be more scientifically sound. JMPR welcomed additional information comparing residues in the various commodities of the crop grouping including guidance from CCPR on the acceptable variation of residues between members of a group or sub-group.

20. The JMPR Secretariat agreed that JMPR would revisit those recommendations in 2018 to exclude peppers (subgroup) (except martynia, okra and roselle) from the MRL recommendations for the subgroup of peppers (Oxamyl (126), Fenpyroximate (193), Spinetoram (233) and Fluopyram (243)) based on the information to be submitted by EU and Canada.

Field use pattern anticipated residue comparison model/tool

21. Delegations noted that this tool would allow JMPR to make use of data from trials not reflecting the cGAP. The tool was a pragmatic approach to decide if the results of supervised trials with several parameters not matching cGAP could be used to recommend MRLs.

22. Delegations supported this approach in general. However, CCPR considered that there was a need to validate the tool to ensure that the residue data sets were suitable for estimating MRLs. Therefore, the tool should be tested for different pesticide / commodity combinations comparing the outcome of assessments based on trials that match the GAP, with the outcome of assessments based on residue trials that deviate in different parameters from the GAP to gain experience in the application of the tool and to increase confidence amongst users.

Update of the IESTI model used for the calculation of dietary intake: New large portion data

23. Delegations noted the following:

- It would be useful to explore mechanisms to support developing countries to generate / provide large portion data in order to make the risk assessment more accurate and the MRLs more globally accepted.
- The database should be updated regularly and should take into consideration the outcome of the international workshop on the IESTI equations in relation to consumption data to be expressed as a function of actual body weights.
- A new revision of the European model for pesticide risk assessment had been published and contained updated EU consumption data that could be taken into account for the IESTI model used by JMPR.

REPORT ON JMPR RESPONSES TO SPECIFIC CONCERNS RAISED BY CCPR (Agenda Item 5b)[8]

24. CCPR noted that specific concerns on compounds raised by CCPR would be addressed when discussing the relevant compounds under Agenda Item 6.

25. In addition, CCPR noted information provided by the JMPR Secretariat on the following matters:

- Update from JECFA
- Harmonization of the dietary exposure methodologies for compounds used both as pesticides and veterinary drugs – Harmonizing/combining exposure from veterinary drug and pesticide use
- Pesticides for vector control – New pesticide active ingredients developed initially for vector control: Use of JMPR WHO Core Assessment Group for Pesticides (new pesticide active ingredients developed initially for vector control may be included in future JMPR meetings)
- Update from the IPCS
- Harmonization of the residue definition – determining the level of interest in a pilot project to achieve more harmonized residue definitions

8 Section 3 of the 2017 JMPR Report; CRD06 (Kenya); CRD14 (AU); CRD17 (Ghana); CRD21 (Mali)

MAXIMUM RESIDUE LIMITS FOR PESTICIDES IN FOOD AND FEED AT STEPS 7 AND 4 (Agenda Item 6)[9]

General Remarks

26. The EU advised CCPR that they would be introducing reservations for a number of proposed draft and draft MRLs during the discussions on the individual compounds and that the reasons for these reservation were outlined in CRD06.

27. The EU explained to CCPR that it was current EU policy to align EU MRLs with Codex MRLs (CXLs) if three conditions were fulfilled:

    (i) that EU sets MRLs for the commodity under consideration;
    (ii) that the current EU MRL is lower than the CXL; and
    (iii) that the CXL is acceptable to EU with respect to aspects such as consumer protection, supporting data, and extrapolations.

28. In the interest of transparency EU advised CCPR that they would be making reservations during the discussions on the individual compounds where they considered the third criterion had not been met (CRD06).

29. Norway and Switzerland advised CCPR that they supported all EU reservations, as their residue risk assessment approach was the same as that of the EU.

30. CCPR agreed to note these reservations in the report where relevant.

31. The EU also explained that the MRLs and the currently taken positions for Difenoconazole (224), Propiconazole (160), Prothioconazole (232) and Tebuconazole (189) might be revised in future, pending an evaluation of triazole derivative metabolites in the EU.

CAPTAN (7)

32. CCPR noted that JMPR could not propose a maximum residue level for ginseng due to unreliable analytical results.

CHLORMEQUAT (15)

33. CCPR agreed to advance all the proposed draft MRLs for adoption at Step 5/8 and the subsequent revocation of the associated CXLs. CCPR also agreed to revoke the CXLs for maize fodder (dry); rapeseed; rapeseed oil, crude; rye flour; and wheat, wholemeal.

2,4-D (20)

34. In response to the concern form from USA relating to the 2017 JMPR lack of a recommended maximum residue level for cotton seed, the JMPR Secretariat explained that there were questions about the storage stability of 2,4-D and 2,4-DCP residue in cotton seed and that the results of the storage stability studies for soya bean were not able to be extrapolated to cotton seed. The JMPR Secretariat advised that this concern would be considered by the 2018 JMPR.

DIQUAT (31)

35. CCPR noted that diquat was scheduled for evaluation by the 2018 JMPR.

CARBENDAZIM (72) + THIOPHANATE-METHYL (77)

36. CCPR was informed that the 2017 JMPR could not recommend maximum residue levels for Thiophanate-methyl (77) and Carbendazim (72) because of insufficient toxicological data for carbendazim (arising from the use of thiophanate-methyl). CCPR agreed to maintain all CXLs awaiting the outcome of the 2022 JMPR re-evaluation based on toxicological data to be submitted for carbendazim.

OXAMYL (126)

37. CCPR noted the reservations of EU, Norway and Switzerland on the advancement of the proposed draft MRLs for cucumber and summer squash due to acute health risks for a group of EU consumers.

38. Canada, Germany, Uganda and Kenya suggested CCPR and JMPR to keep martynia, okra and roselle in the peppers (subgroup) and wait for the submission of more information for consideration by the 2018 JMPR.

---

[9] CL 2018/11-PR; CX/PR 18/50/05; CX/PR 18/50/05-Add.1 (Australia, Brazil, Canada, Chile, Egypt); CRD07 (China, EU, Kenya, USA); CRD14 (AU); CRD17 (Ghana); CRD19 (Indonesia); CRD20 (Paraguay); CRD25 (Morocco); CRD29 (Nigeria); CRD31(El Salvador)

39. In light of the discussions on crop group extrapolation (Agenda Item 5a, paragraph 22), CCPR decided to keep the proposed draft MRLs for pepper chili (dried) and for peppers (subgroup) (includes all commodities in this subgroup, except martynia, okra and roselle) at Step 4. CCPR further decided to advance all the remaining proposed draft MRLs for adoption at Step 5/8 with the subsequent revocation of the associated CXLs.

40. CCPR also agreed to revoke the CXLs for citrus fruit; cotton seed; eggs; peanut; peanut fodder; poultry meat; poultry edible offal; spices, fruits and berries; spices, roots and rhizomes. CCPR further agreed to withdraw the draft MRLs for citrus fruit (at 3 mg/kg); cucumber (at 1 mg/kg); melons, except watermelon (at 1 mg/kg); and peppers (subgroup) (at 5 mg/kg).

PROPICONAZOLE (160)

41. CCPR noted the reservations of EU, Norway and Switzerland on the advancement of the proposed draft MRL for all commodities because they could not finalize their consumer risk assessment due to toxicological concerns with certain metabolites and the ongoing review of triazole metabolites.

42. CCPR also noted the proposal from EU, Norway and Switzerland that, more refined MRL recommendations are possible for post-harvest treatment (using the mean residue+4SD) and that the metabolism studies for post-harvest uses are required. CCPR agreed to keep all the proposed draft MRLs at Step 4 awaiting JMPR re-evaluation in 2018.

ABAMECTIN (177)

43. The JMPR Secretariat informed CCPR that the new toxicology studies for this compound confirmed the ADI of 0-0.001 mg/kg bw established by the 2015 JMPR.

44. CCPR noted that no alternative GAP was available for spinach and agreed to withdraw the proposed draft MRL for spinach.

BIFENTHRIN (178)

45. CCPR noted that the 2019 JMPR would evaluate this compound.

FENPROPIMORPH (188)

46. CCPR noted the reservations of EU, Norway and Switzerland on the advancement of the proposed draft MRLs for banana because of their acute consumer risk concern.

47. CCPR agreed to advance all the proposed draft MRLs for adoption at Step 5/8, with the subsequent revocation of the associated CXLs.

TEBUCONAZOLE (189)

48. CCPR noted that EU, Norway and Switzerland reserved their positions on the advancement of the proposed draft MRL for beans with pods (subgroup) pending the outcome of the ongoing periodic re-evaluation in EU.

49. CCPR agreed to advance the proposed draft MRL for the subgroup of beans with pods for adoption at Step 5/8 and to withdraw the draft MRL for common bean (pods and/or immature seeds).

FENPYROXIMATE (193)

50. CCPR noted that EU, Norway and Switzerland reserved their position on the advancement of the proposed draft MRLs for pear; cucumbers; and melon, except watermelons pending completion of their review of this compound. In addition, they had reservations on the advancement of the draft MRLs for the peppers (subgroup) (except martynia, okra and roselle) and coffee beans, as these were based on residues of parent compound only. They also had reservations for citrus fruit, due to different extrapolation policies as well as for Meat (from mammals, other than marine mammals); edible offal (mammalian) and mammalian fats (except milk fats) due to the different enforcement residue definitions for animal commodities.

51. CCPR agreed to keep the proposed draft MRLs for apricot; cherries (subgroup); cherry tomato; peach; plums (subgroup); watermelon; and tomato at Step 4, awaiting evaluation of the additional toxicological data by the 2020 JMPR.

52. CCPR agreed to advance all other proposed draft MRLs for adoption at Step 5/8, with the subsequent revocation of the associated CXLs and to revoke the CXL for pome fruit.

IMIDACLOPRID (206)

53. CCPR noted that while the 2017 JMPR evaluated this compound, no maximum residue levels were proposed for pistachio nuts, since no trials matched GAP.

CYPRODINIL (207)

54. CCPR noted the reservation of EU, Norway and Switzerland on the advancement of the proposed draft MRL for pomegranate due to uncertainty over the relevance of the foliar metabolism study used to support a post-harvest use and because more refined MRL recommendations are possible for post-harvest treatments (using the mean residue + 4SD).

55. The JMPR Secretariat indicated that JMPR would reconsider the available metabolism data and the MRL calculation at the 2018 JMPR.

56. CCPR agreed to keep the proposed draft MRL for pomegranate at Step 4 awaiting the outcome of the 2018 JMPR.

57. CCPR agreed to advance all other proposed draft MRLs for adoption at Step 5/8, with the subsequent revocation of the associated CXLs.

TRIFLOXYSTROBIN (213)

58. CCPR noted the reservation of EU, Norway and Switzerland on the advancement of the proposed draft MRL for Cabbages head, due to the different policies on commodity definition for risk assessment.

59. CCPR agreed to advance all the proposed draft MRLs for adoption at Step 5/8, with the subsequent revocation of the associated CXLs.

DIFENOCONAZOLE (224)

60. CCPR noted the reservations of EU, Norway and Switzerland on the advancement of the proposed draft MRL for pome fruit due to acute and chronic exposure concerns for European consumers, and for rice due to the lack of a processing study and a different approach to establishing MRLs for rice.

61. The JMPR Secretariat commented that as no data was available to derive a processing factor for husked rice, the 2017 JMPR was not able to recommend any maximum residue level for husked rice.

62. CCPR agreed to advance all the proposed draft MRLs for adoption at Step 5/8, with the subsequent revocation of the associated CXLs.

AZOXYSTROBIN (229)

63. CCPR agreed to advance all the proposed draft MRLs for adoption at Step 5/8.

PROTHIOCONAZOLE (232)

64. CCPR agreed to advance all the proposed draft MRLs for adoption at Step 5/8, with the subsequent revocation of the associated CXLs.

SPINETORAM (233)

65. CCPR noted the reservation of EU, Norway and Switzerland on the advancement of the proposed draft MRLs for avocado due to the limited number of trials matching the critical GAP and uncertainty over the calculation of the scaling factor by the 2017 JMPR. For milks; meat (from mammals other than marine mammals); edible offal (mammalian) and mammalian fats (except milk fats) as cabbage/kale was not included in the livestock dietary burden calculations. For persimmons as the critical GAP differs from other pome fruits. For plums (subgroup) since the inclusion of 11 additional trials that were scaled because the trials did not match the GAP resulted in a higher MRL.

66. The JMPR Secretariat commented that it was the general principle for JMPR to make use of the available data as much as possible. Since residues in persimmons were less than those in pome fruits, JMPR noted that the group MRL for pome fruits accommodated the cGAP for persimmons. According to the monograph, in the livestock dietary burden, the residue contribution from kale was not significant.

67. CCPR agreed to advance all the other proposed draft MRLs for adoption at Step 5/8, with the subsequent revocation of the associated CXLs (see paragraph 22).

FLUOPYRAM (243)

68. CCPR noted the reservations of EU, Norway and Switzerland on the advancement of the proposed draft MRLs for milks due to chronic intake concerns, for rice because of a lack of processing factors, and for dry peas (subgroup) as the number of residue trials available was considered insufficient.

69. The JMPR Secretariat indicated that processing factor data were available to derive a MRL recommendation for husked and polished rice. JMPR agreed to the recommendation for husked rice and polished rice in 2018. For dried peas, the five residue trials were considered in conjunction with nine data sets for dry beans in deriving a maximum residue level recommendation.

70. CCPR agreed to withdraw the propose draft MRLs for peppers chili, dried and peppers (subgroup) currently held at Step 4 and advance all other proposed draft MRLs for adoption at Step 5/8, with the subsequent revocation of the associated CXLs.

ACETAMIPRID (246)

71. CCPR noted that the 2017 JMPR could not recommend a maximum residue level for pistachio as the submitted residue trials did not match the GAP. Iran would provide alternative GAP to match the trials for consideration by the 2019 JMPR.

72. CCPR agreed to withdraw the proposed draft MRL for mustard greens as no data were submitted for the evaluation of an alternative GAP by the 2017 JMPR.

ISOPYRAZAM (249)

73. CCPR agreed to advance all the proposed draft MRLs to Step 5/8, with the subsequent revocation of the associated CXLs.

PROPYLENE OXIDE (250)

74. The JMPR Secretariat informed CCPR that no MRLs could be proposed for tree nuts due to further clarifications required on the analytical method.

SAFLUFENACIL (251)

75. CCPR noted the reservation from EU, Norway and Switzerland on the advancement of the proposed draft MRLs for mustard seed and linseed due to the different residue definition for enforcement.

76. CCPR agreed to advance the proposed draft MRLs for mustard seed and linseed to Step 5/8.

SULFOXAFLOR (252)

77. CCPR agreed to hold the proposed draft MRL for tree nuts at Step 4 awaiting evaluation by the 2019 JMPR.

PICOXYSTROBIN (258)

78. CCPR noted the reservations from EU, Norway and Switzerland on the advancement of the proposed draft MRLs for all fresh food commodities of plant and animal origin because of toxicological concerns.

79. In response to the concern form from USA relating to the lack of a recommended maximum residue level for rape oilseed, the JMPR Secretariat advised that the 2018 JMPR would consider this concern.

80. CCPR agreed to advance all the proposed draft MRLs to Step 5/8.

FENAMIDONE (264)

81. CCPR noted that there was no alternative GAP information available for mustard greens and spinach, and agreed to withdraw the draft MRLs (currently at Step 4) for these two commodities.

IMAZAPYR (267)

82. CCPR noted the reservations of EU, Norway and Switzerland on the advancement of the proposed draft MRL for barley due to the number of residue trials being lower than required by EU policy in combination with an inhomogeneous distribution of residue levels.

83. CCPR agreed to forward the proposed draft MRLs for barley and barley straw and fodder (dry) for adoption at Step 5/8.

IMAZAMOX (276)

84. CCPR noted the reservations of EU, Norway and Switzerland on the advancement of the proposed draft MRL for barley due to this compound being under review in EU and because of a potentially different residue definition for enforcement.

85. CCPR agreed to forward the proposed draft MRLs for barley and barley straw and fodder (dry) for adoption at Step 5/8.

FLONICAMID (282)

86. CCPR noted the reservations of EU, Norway and Switzerland on the advancement of the proposed draft MRLs due to a different residue definition for enforcement.

87. CCPR agreed to advance the proposed draft MRLs for all commodities for adoption at Step 5/8.

FLUPYRADIFURONE (285)

88. CCPR noted the reservations of EU, Norway and Switzerland on the advancement of the proposed draft MRLs for cherries, peaches and plums (subgroups) because of a different residue definition for enforcement.

89. CCPR agreed to advance all the proposed draft MRLs for adoption at Step 5/8.

QUINCLORAC (287)

90. CCPR noted the reservations of EU, Norway and Switzerland on the advancement of the proposed draft MRL for rape seed due to the exclusion of the more toxic methyl ester metabolite from the residue definition for enforcement; for husked rice due to the use of an indicative conversion factor to estimate total residues, a different commodity definition and insufficient data to derive a robust processing factor; and for all animal commodities because the livestock dietary burden was derived from the residue contributions from rape seed and rice.

91. In response, the JMPR Secretariat advised that the 2017 JMPR had reviewed the residue definition for enforcement and had confirmed its previous recommendation and that for rice, the low level of risk supported the use of an indicative conversion factor. However, noting that a number of countries had included the methyl ester metabolite in their enforcement residue definitions, the JMPR Secretariat agreed that JMPR should re-visit this issue in 2018 or 2019.

92. CCPR agreed to advance all the proposed draft MRLs for adoption at Step 5/8.

BICYCLOPYRONE (295)

93. CCPR noted the reservations of EU, Norway and Switzerland on the advancement of the proposed draft MRL for edible offal (mammalian) due to an intake concern for EU consumers.

94. CCPR agreed to advance the proposed draft MRLs for adoption at Step 5/8.

CYCLANILIPROLE (296)

95. CCPR noted the reservation of EU, Norway and Switzerland on the advancement of the proposed draft MRLs for fresh food commodities as a consumer risk assessment could not be completed due to the toxicological data gaps.

96. The JMPR Secretariat clarified that the toxicity of the main plant metabolite NK-1375 was lower than the parent compound, and showed no genotoxicity potential.

97. A number of delegations commented that JMPR had used a model to estimate MRLs for most plant commodities, and that the model needed validation to ensure that the derived MRL proposals were appropriate (see paragraphs 23-24)

98. The JMPR Secretariat responded that the submitted data did not match GAP and that in the past no MRL recommendations would had been made. Therefore, JMPR applied the model (paragraphs 23-24) to the data to derive the proposed draft MRLs (see Agenda Item 5a, paragraph 22).

99. CCPR agreed to keep all the proposed draft MRLs at Step 4 pending the evaluation of new data and revised GAP information by the 2019 JMPR. CCPR also invited JMPR to engage with national regulators to continue validation of the model.

FENAZAQUIN (297)

100. CCPR noted the reservations of EU, Norway and Switzerland on the advancement of the proposed draft MRL for cherries (subgroup) and hops (dry) because different toxicological reference values had been established in EU, with the metabolite TBPE identified as being of higher toxicity than parent; and that no residue data relating to TBPE were reported by JMPR.

101. The JMPR Secretariat clarified that JMPR had evaluated the toxicity of TBPE, and that the NOAEL of TBPE was set higher than the parent compound. The EU indicated that an additional uncertainty factor had been used to obtain the reference dose for TBPE.

102. CCPR agreed to advance the proposed draft MRLs for adoption at Step 5/8.

FENPYRAZAMINE (298)

103. In response to comments from EU, Norway and Switzerland, the JMPR Secretariat confirmed that the proposed MRLs for grapes should be 3 mg/kg, and 9 mg/kg for dried grapes.

104. CCPR agreed to advance all the proposed draft MRLs for adoption at Step 5/8.

ISOPROTHIOLANE (299)

105. CCPR agreed to advance the proposed draft MRLs for adoption at Step 5/8.

NATAMYCIN (300)

106. The JMPR Secretariat noted that no ADI or ARfD had been established by the 2017 JMPR due to an inadequate database.

PHOSPHONIC ACID (301)

107. The JMPR Secretariat advised that the ADI of 0-0.1 mg/kg bw established for Fosetyl-aluminium (302), while derived from toxicological studies on fosetyl-aluminium, also applied directly to phosphonic acid.

108. CCPR agreed to revise the expression of the ADI to more explicitly indicate this advice.

109. The proposed MRLs are listed under fosetyl-aluminium.

FOSETYL-ALUMINIUM (302)

110. CCPR agreed to advance all the proposed draft MRLs for adoption at Step 5/8.

TRIFLUMEZOPYRIM (303)

111. CCPR agreed to advance all the proposed draft MRLs for adoption at Step 5/8.

Conclusion

112. CCPR:

(i) Agreed to forward to CAC41:

- Proposed draft MRLs for adoption at Step 5/8 (Appendix II)
- Codex MRLs (CXLs) for revocation (Appendix III)

(ii) Noted that:

- Draft and proposed draft MRLs retained at Steps 7 and 4 are attached as Appendices (IV and V)
- Draft and proposed draft MRLs withdrawn are attached as Appendix (VI)

REVISION OF THE *CLASSIFICATION OF FOOD AND FEED* (CXM 4-1989)

113. The United States of America and the Netherlands, as Chair and co-Chair of the EWG on the revision of the Classification, presented the report of the in-session WG and noted that:

- the priorities were to address unresolved issues involved with the crop grouping and the tables on representative commodities associated with Types 04 and 05;
- the crop grouping for the feed commodities; and
- the approach for crops that do not meet the criteria for crop grouping (i.e. Options 1 and 2).

114. CCPR recalled the decision[10] taken at CCPR49 on the approach to the revision of the Classification to include a commodity only in one group or subgroup to avoid confusion of having two different CXLs for the same commodities and based on this took decisions in relation to the allocation of commodities in certain groups and subgroups.

115. CCPR further noted that additional commodities for inclusion in different groups in Types 04 and 05 as well as editorial corrections had been included based on the written comments submitted to this session.

116. CCPR considered the recommendation on Agenda Items 7 (a-e) as follows:

REVISION OF THE CLASSIFICATION: CLASS A - PRIMARY COMMODITIES OF PLANT ORIGIN - TYPE 04 NUTS, SEEDS AND SAPS (AT STEPS 7 AND 4) (Agenda Item 7a)[11]

117. CCPR recalled that Type 04 included: Group 022 Tree nuts (Step 7); Group 023 Oilseeds and oilfruits (Step 7); Group 024 Seed for beverages and sweets (Step 7); and Group 025 Sap producing trees (Step 4) and endorsed the recommendations to:

---

10 REP17/PR, para. 112

11 CL 2018/12-PR; CL 2018/13-PR; CX/PR 18/50/06; CX/PR 18/50/06-Add.1 (Canada, China, Egypt, EU, Kenya); CRD08 (Thailand); CRD14 (AU); CRD16 (Japan); CRD17 (Ghana); CRD20 (Paraguay); CRD21 (Mali); CRD22 (Ecuador); CRD29 (Nigeria); CRD31 (El Salvador); CRD33 (Report of the in-Session WG of the Classification)

(i) Include Chilean hazelnut in Group 022 Tree nuts.

(ii) Maintain perilla seed in Group 023 Oilseeds and not to transfer it to Group 028 Spices as most perilla seed is used for oil and it will be difficult to distinguish between the different varieties in trade used as oilseed or spices.

(iii) Include coconut, inflorescence sap and Palmyra palm, inflorescence sap in Group 025 Tree saps, without the creation of separate subgroups and modify the commodity descriptor to indicate that sap can also be collected from the inflorescence of the trees.

(iv) Remove specific provisions for chestnuts in the portion of the commodity to which the MRLs applies (and which is analyzed) in Group 022 Tree nuts as the general provision for tree nuts is also applicable to this commodity.

(v) Not to include (i) soya bean as already included in other groups in Type 02 and (ii) cupuaçu (*Theobroma grandiflorum*) as already included in Group 006B (Assorted tropical and sub-tropical fruits)

(vi) Maintain Subgroup 023D "Other Oilseeds" in Group 023 Oilseeds and oilfruits and not transfer them into the miscellaneous group.

(vii) Not to include additional synonym scientific names for shea nut because these are synonyms rather than the accepted name in GRIN, which is the generally used authority for scientific names in the code system of the classification.

Conclusion

118. CCPR agreed to forward all groups in Type 04 (Groups 022, 023, 024 and 025) to CAC41 for adoption at Steps 8 and 5/8 (Appendix VII)

REVISION OF THE CLASSIFICATION: CLASS A - PRIMARY COMMODITIES OF PLANT ORIGIN - TYPE 05 HERBS AND SPICES (AT STEP 7) (Agenda Item 7b)[12]

119. CCPR noted that Type 05 includes Group 027 Herbs and Group 028 Spices and endorsed the recommendations to:

(i) Maintain the subgroups of 028I Dried chili peppers and 028H Citrus peel in Class A Primary commodities of plant origin and not to relocate them into Class D Processed food.

(ii) Maintain Milk thistle in Group 028 Spices and not include it in Group 023 Oilseeds as milk thistle is primarily used for herbicidal / medicinal uses with little use for oil.

(iii) Include caraway seed in Subgroup 028A Spices, seeds, as they are similar to other seeds of the *Apiaceae* in this group.

(iv) Change the entries for oregano and Marjoram to consolidate the entries for marjoram and to cross-reference oregano to marjoram.

Conclusion

120. CCPR agreed to forward all groups in Type 05 (Groups 027 and 028) to CAC41 for adoption at Step 8 (Appendix VIII)

REVISION OF THE CLASSIFICATION: IMPACT OF THE REVISED COMMODITY GROUPS AND SUBGROUPS IN TYPE 03, TYPE 04 AND TYPE 05 ON THE CXLs (Agenda Item 7c)[13]

121. CCPR agreed with the recommendations on the impact of the revised commodity groups and subgroups in Type 03 Grasses, Type 04 Nuts, seeds and saps and Type 05 Herbs and spices on the CXLs as described in Appendix IX.

REVISION OF THE CLASSIFICATION: CLASS C – PRIMARY FEED COMMODITIES TYPE 11 - PRIMARY FEED COMMODITIES OF PLANT ORIGIN (AT STEP 4) (Agenda Item 7d)[14]

122. CCPR endorsed the recommendations to:

(i) Align the structure of Class C based on the water content of feeds (high water content versus low water content) so as to facilitate crop grouping and extrapolation of MRLs.

(ii) Group all feed commodities under Class C and consequently transfer processed feed commodities from Class D (Processed Food of Plant Origin) to Class C.

---

12 CL 2018/20-PR; CX/PR 18/50/07; CX/PR 18/50/07-Add.1 (Canada, China, Egypt, EU, Kenya, Paraguay, Turkey); CRD08 (Japan, Thailand); CRD14 (AU); CRD17 (Ghana); CRD20 (Paraguay); CRD21 (Mali); CRD22 (Ecuador); CRD25 (Morocco); CRD29 (Nigeria); CRD30 (Republic of Korea); CRD31 (El Salvador); CRD33 (Report of the in-Session WG of the Classification)

13 CX/PR 18/50/08; CRD 08 (Canada, EU, Kenya); CRD 14 (AU); CRD16 (Japan); CRD17 (Ghana); CRD21 (Mali); CRD29 (Nigeria); CRD33 (Report of the in-Session WG of the Classification)

14 CL 2018/14-PR; CX/PR 18/50/09; CX/PR 18/50/09-Add.1 (Australia, Canada, Egypt, EU, Kenya, Republic of Korea, USA); CRD08 (Thailand); CRD14 (AU); CRD19 (Indonesia); CRD21 (Mali); CRD33 (Report of in-Session WG of the Classification)

123. CCPR agreed that the structure based on water content would allow the allocation of different type of feeds, e.g. forage, fodder, silage, etc. under the relevant groups and subgroups.

Conclusion

124. CCPR agreed with the structure for Class C – Animal Feed Commodities and that commodities to be included in the groups and subgroups would be further discussed in the EWG for consideration at CCPR51 (Appendix X)

TABLES ON EXAMPLES OF REPRESENTATIVE COMMODITIES FOR COMMODITY GROUPS IN TYPE 04 AND TYPE 05 (FOR INCLUSION IN THE *PRINCIPLES AND GUIDANCE FOR THE SELECTION OF REPRESENTATIVE COMMODITIES FOR THE EXTRAPOLATION OF MAXIMUM RESIDUE LIMITS FOR PESTICIDES FOR COMMODITY GROUPS* (CXG 84-2012) (AT STEP 4) (Agenda Item 7e)[15]

Table 4 (examples of representative commodities for Type 04)

125. CCPR endorsed the recommendations to:

(i) Change the representative commodities for tree nuts to provide more guidance by adding specific examples for almonds, chestnuts, pecan, pistachios and walnuts (coconut is excluded as a representative commodity for this group).
(ii) Add new commodities in groups 022 to 025 based on written comments submitted to this session.
(iii) Bring the crops in Table 4 in line with the crops of the groups 022 to 025.
(iv) Agreed that it is not possible to set a Group CXL for the whole Group 023 as crops in Subgroup 023D Other oilseeds vary broadly and it is not possible to identify representative commodities.

Table 5 (examples of representative commodities for Type 05)

126. CCPR endorsed the recommendations to:

(i) *Subgroup 027A Herbs (herbaceous plants)*: Replace the conjunction "and" with "or" to allow for flexibility when selecting commodities within the subgroup.
(ii) *Subgroup 028D Spices, roots or rhizomes*: To apply the appropriate concentration factors when considering residue data from representative commodities from roots and tuber vegetables identified for this subgroup.

Conclusion

127. CCPR agreed to forward Table 4 (examples of representative commodities for Type 04) and Table 5 (examples of representative commodities for Type 05) to CAC41 for adoption at Step 5/8 and inclusion in the *Principles and Guidance for the selection of representative commodities for the extrapolation of maximum residue limits for pesticides for commodity groups* (CXG 84-2012) (Appendices VII and VIII).

DEVELOPMENT OF A SYSTEM WITHIN THE CLASSIFICATION OF FOOD AND FEED TO PROVIDE CODES FOR COMMODITIES NOT MEETING THE CRITERIA FOR CROP GROUPING (Agenda Item 7f)[16]

128. CCPR endorsed the recommendation to adopt Option 1 namely "*to create a separate Type within each Class of the Classification to provide a list of commodities and codes that do not meet the criteria for inclusion in a crop* group" as a system within the Classification to provide codes for commodities that do not meet the criteria for grouping.

OTHER MATTERS

129. CCPR agreed to re-establish the EWG, chaired by the United States of America and co-chaired by The Netherlands, working in English with the following TOR:

(i) Continue the work on the revision of Class C, Animal Feed Commodities, based on the structure provided in Appendix X.
(ii) Consider the proposal to add subgroups to the groups that would include processed commodities. This may involve the relocation of commodities from Class D.
(iii) Consider new commodities for Class C.
(iv) Initiate work on Type 12 Secondary food commodities of plant origin in Class D
(v) Assign codes to miscellaneous commodities.

---

15 CL 2018/15-PR; CX/PR 18/50/10; CX/PR 18/50/10-Add.1 (Australia, Canada, Chile, China, Egypt, EU, Kenya, USA); CRD08 (Japan, Thailand); CRD14 (AU); CRD17 (Ghana); CRD21 (Mali); CRD22 (Ecuador); CRD25 (Morocco); CRD33 (Report of the in-Session WG of the Classification)

16 CL 2018/21-PR; CX/PR 18/50/11; CX/PR 18/50/11-Add.1 (Australia, Canada, China, Egypt, EU, Kenya, USA); CRD08 (Japan); CRD14 (AU); CRD21 (Mali); CRD22 (Ecuador); CRD33 (Report of the in-Session WG of the Classification)

DISCUSSION PAPER ON THE REVIEW OF THE IESTI EQUATIONS (Agenda Item 8)[17]

130. The Netherlands, as Chair of the In-session WG on the review of the IESTI equations, informed CCPR that the comments submitted in CRDs on TOR (i) - (iii) of the EWG had been considered and recommendations were made for consideration by CCPR as follows.

TOR (i) Recommendation related to information on history, background and use of the IESTI equations:

131. CCPR considered (i) whether the information on history, background and use of the IESTI equations was complete and met the requirements of related TOR (i) of the EWG and (ii) where to publish the information to make it more visibly available to Codex members, observers and other interested stakeholders i.e. as an appendix to the report or as an information document on a dedicated place on the Codex website.

132. CCPR noted the following views expressed by delegations:

(i) The document compiles factual information therefore there are no conflicting information in the document, and can be posted on the Codex website as an information document.
(ii) Member countries need more time to read the information provided in the document as it was available late.
(iii) It was premature to post the document as an information document on the Codex website as the information as currently presented may change in future.
(iv) The information provided was to support discussion in the EWG as per TOR (ii) and (iii)[18] and did not meet the criteria for information document as agreed by CAC.
(v) The information could be published when work on the review of the IESTI equations is complete thus, decision on[19] this matter should be postponed.

Conclusion

133. CCPR agreed to make available the *"information document on history, background and use of the IESTI"* as an Appendix to this report (Appendix XI).

TOR (ii) Advantages and disadvantages that arise from the current IESTI equations and their impact on risk management, risk communication, consumer protection goals and trade

134. CCPR agree to continue the review of the current IESTI equations and their impact on risk management, risk communication, consumer protection goals and trade (including illustrative comments and advantages and challenges).

TOR (iii) Information on blending and bulking

135. CCPR agreed to delete the reference to "Table 3 Appendix 2 of CX/PR 17/49/12" to ensure a more focused Scope and manageable work for the EWG.

136. CCPR noted the relevance of the issues outlined in Table 3 Appendix 2 of CX/PR 17/49/12 and considered that although they are predominantly within the remit of FAO/WHO and/or JMPR, they are important for the holistic consideration of the IESTI equation. CCPR determined for it to be appropriate to return to this table at a future Session of the Committee (Appendix XII).

Conclusion

137. CCPR agreed to re-establish the EWG on IESTI, chaired by the Netherlands and co-chaired by Brazil and Uganda working in English, with the following mandate:

(i) To review and provide illustrative comments on advantages and challenges that arise from the current IESTI equations and their impact on risk management, risk communication, consumer protection goals and trade.
(ii) To gather relevant information on bulking and blending, in order to feed into the risk assessors work through the JMPR Secretariat (Items 4 and 13 on the table noted in Appendix XII).
(iii) Based on the above considerations develop a discussion paper providing recommendations for consideration at CCPR 51.
(iv) To append the information on the history, background and use of the IEST equations as part of the CCPR report (Appendix XII).
(v) To append the table on technical / risk assessment challenges that either arise from the possible revision of the current IESTI equations or are current challenges as well as part of the CCPR (Appendix XII).

---

17 CX/PR 18/50/12; CRD09 (Review of the IESTI equations – reading guide for TOR (ii) and (iii)); CRD10 (China, EU, Kenya, AgroCare); CRD17 (Ghana); CRD19 (Indonesia); CRD20 (Paraguay); CRD23 (CropLife); CRD24 (USA); CRD27 (Netherlands)

18 REP17/PR, para. 161

19 REP14/CAC, para.105 and REP14/GP, para. 86

ESTABLISHMENT OF CODEX SCHEDULES AND PRIORITY LISTS OF PESTICIDES (Agenda Item 9) [20]

138. Australia, as Chair of the EWG on Priorities, opened the discussion on Codex Schedules and Priorities and thanked EWG members, the co-chair from Germany and the United States of America for assistance in the preparation of the proposed 2019 schedule.

139. The EWG Chair indicated two key discussion points i.e. the proposed 2019 Schedule of JMPR evaluations and consideration of future management of unsupported older compounds both noted in CRD02.

2019 Schedule for JMPR evaluations

140. The EWG Chair provided the list of seven new compounds to be scheduled for JMPR evaluation plus one reserve compound.

141. The EWG Chair advised CCPR that there were 19 confirmed new uses and other evaluations listed in the proposed Schedule of new uses and other evaluations for the 2019 extraordinary meeting. One further nomination was presented making the full quota of 20. Four of these were confirmed as also requiring toxicological review. The JMPR Secretariat confirmed that 'data call-in' would occur in May 2018.

142. The EWG Chair advised CCPR that there were 13 confirmed new use and other evaluations listed in the proposed 2019 Schedule of new uses and other evaluations (normal meeting) and four unconfirmed nominations, the latter four given a reserve status. In addition, 13 compounds were listed for evaluation of monitoring data in support of spice MRLs. The sponsor of the compound Cyclaniliprole (263) indicated that revised labels would be provided in support of a re-evaluation of residue data initially undertaken in 2017. The revised labels would be included in the existing new use and other evaluation nomination for Cyclaniliprole (296).

143. During discussions on the new use and other evaluation schedules, CCPR reconfirmed the principle of avoiding nominations for the same compound on two or more consecutive years. CCPR further confirmed that consecutive nominations would only be allowed where Schedule quota was not full. Where the Schedule quota was full, nominators would be asked to consider consolidating consecutive nominations into one.

144. The EWG Chair advised that there were 10 compounds in the proposed 2019 Schedule of periodic reviews with only four supported by a sponsor. The EWG Chair indicated that the six remaining compounds were unsupported and five were the subject of a public health concern. No data package was presented in support of the compound, Bromopropylate (70) for the 2018 periodic review and as such was added to the list of unsupported compounds.

145. CCPR indicated that a commitment of members/observers to provide support/data for the periodic review of the seven unsupported compounds was required prior to CCPR51. If this was the case, the 4-year rule may apply. If not, a recommendation would be put to CCPR to remove the seven compounds from the Codex Pesticide List and all CXLs revoked.

146. CCPR confirmed the 2019 Schedule of JMPR evaluations.

Periodic review and unsupported compounds

147. The EWG Chair opened discussion on unsupported compounds in the periodic review. It was noted that in addition to the seven unsupported compounds in the 2019 Schedule of periodic evaluations, approximately 20 unsupported compounds were listed in Tables 2A and 2B.

148. CCPR noted two key situations, which arose in the periodic review: unsupported compounds and unsupported compounds with public health concerns.

149. The JMPR Secretariat advised that the public health concerns lodged against the six unsupported compounds namely Aldicarb (177), Amitraz (122), Azinphos-methyl (002), Dicloran (83), Fenarimol (192) and Phosalone (60) in the 2019 Schedule of periodic evaluations would be reviewed by the WHO in 2019. The Representative of FAO advised that countries should envisage immediate strategies e.g. alternative GAPs to reduce the exposure when possible or phase out those highly hazardous pesticides.

150. Several members indicated the need for the preparation of a discussion paper to consider strategies for the management of unsupported compounds.

151. CCPR indicated that the EWG on Priorities would utilize the Codex IT Portal to continue maintenance of the CCPR schedules and priority lists, and to prepare a discussion paper on the management of unsupported compounds. All EWG members would be able to participate in both activities.

---

[20] CL 2018/16-PR; CX/PR 18/50/13; CRD02 (Revised schedules and priority lists of pesticides for evaluation by JMPR); CRD12 (China, EU, Kenya, AgroCare); CRD14 (AU); CRD17 (Ghana); CRD21 (Mali)

Compounds with only external animal use

152. CCPR:

(i) noted that the compound Flumethrin (195) has animal product CXLs related only to external animal use. This compound would be forwarded to JECFA for evaluation and consideration of CCRVDF.

(ii) indicated that all compounds for which the existing CXLs are related to similar uses, i.e. external animal use only, will be identified prior to the next session of CCPR by the EWG Priorities.

(iii) The Codex Secretariat will duly inform the JECFA Secretariat and the CCRVDF about the identified compounds and related existing CXLs.

(iv) CXLs for flumethrin currently available on the Codex database for MRLs for pesticides will remain as such until the establishment of CXLs as veterinary drugs.

Conclusion

153. CCPR agreed:

(i) To forward the proposed Schedule of pesticides for evaluation by the 2019 JMPR to CAC41 for approval (Appendix XIII).

(ii) To re-convene the EWG on Priorities, chaired by Australia and co-chaired by Canada, Chile and Kenya working in English. The EWG is tasked with providing a report on the schedules and priority list (Australia), and a discussion paper on the management of unsupported compounds (Kenya, Chile, Canada), for consideration by CCPR51.

NATIONAL REGISTRATION DATABASE OF PESTICIDES (Agenda Item 10)[21]

154. Germany, as co-Chair of the EWG on Priorities, introduced the work on the National Registration Database of Pesticides and highlighted key points raised in the discussion paper as follows:

- The exercise showed that there was a need to refine the excel worksheet to better facilitate inputs from member countries.
- The preferable time interval would be 5 years-time with 20-30 compounds added to the database each year – however further confirmation from CCPR would be required in this regard.
- The replies did not account for wide geographical coverage nevertheless, they give an indication of the registered uses of pesticides e.g. most of the replies indicated registered uses while few replies indicated non or very limited registered uses for certain compounds.

155. Delegations generally supported further development of a national registration database of pesticides and provided the following views:

- The information requested in the excel worksheet should fit the purposes of the database (see paragraph 154).
- The information required should be simplified in order not to create unnecessary burden on Codex member countries;
- The need to indicate registration of compounds for non-food uses should be further clarified;
- The issue of how to report mixtures of active compounds in the excel worksheet should be explored;
- There is a need to facilitate access to the repository of excel worksheets as well as their uploading and downloading onto the Codex website to facilitate inputs, updating and data analysis – the Codex Secretariat noted that this issue would be further examined with the FAO IT division and the EWG Chair.
- Some members indicated that the number of compounds to be added to the database should be no more than 5-10 (instead of the proposed 20-30 active substances). In addition, the time cycle for updating registered uses should be 2-3 years rather than 5 years as this exercise could be resource-intensive and changes in the registration status that may occur during the year(s).

156. The EWG Priorities Chair reconfirmed the key objectives of the registration database, which were to provide members with a data source to facilitate support of commodities no longer supported in a periodic re-evaluation and to determine the global registration status of unsupported compounds. The EWG Chair indicated that the complexity of the project warranted a separate EWG. CCPR supported this view.

---

[21] CL 2018/17-PR; CX/PR 18/50/14; CRD13 (Colombia, EU, Kenya); CRD14 (AU); CRD17 (Ghana); CRD20 (Paraguay); CRD21 (Mali); CRD25 (Morocco)

Conclusion

157. CCPR agreed:

(i) to establish an EWG to continue to develop this project chaired by Germany and co-chaired by Australia working in English; and

(ii) that the Codex Secretariat will issue a CL inviting members:

- to lodge proposals to simplify and improve the excel worksheet including other data / information relevant to the further development of the database;
- to provide comments on the range of active substances that should be added to the database and the time interval to submit updated information; and
- to report back on the findings to the next session of CCPR.

OTHER BUSINESS AND FUTURE WORK (Agenda Item 11)[22]

Discussion paper on biopesticides

158. Chile presented a proposal for new work on biopesticides and observed that in Codex there were no specific guidelines on biopesticides and countries were beginning to develop national regulations with different approaches, which could lead to repercussions in international trade. Chile noted that the work on biopesticides was within the remit of CCPR, and proposed that CCPR consider work on elaboration of guidelines for biopesticides, which would support the harmonization of national regulations on biopesticides. The guidelines would cover aspects such as definitions, classification, a list of compounds that are considered to be exempted from MRLs or that do not give rise to residues, etc. Codex harmonized guidelines would help national risk management authorities in the decision making process in countries where specific regulations on biopesticides were lacking. Chile proposed to establish a EWG to assist in undertaking the preliminary work.

159. CCPR generally supported the proposal on biopesticides. The Committee noted that this was a new area, which lacked internationally harmonized guidelines and yet was increasing growth in the use of biopesticides globally and therefore it merited exploring. A concern was raised on the use of the prefix “bio” as in some regions its use was associated to organic production, and alternative option could be “guidelines for compounds of low public health concerns that could be exempted from the establishment of CXLs”.

Conclusion

160. CCPR endorsed Chile’s proposal and agreed to establish a EWG, chaired by Chile, and co-chaired by India and the United States of America and working in English and Spanish, with the following mandate:

(i) Provide background (such as trade problems and possible risk to human health) for justifying new work under the mandate of CCPR.
(ii) To develop a proposal for guidelines to harmonize concepts to recognize biological and mineral compounds used as pesticides of low public health concern which are or should be exempted of CXLs and/or that do not give rise to residues.
(iii) Provide classification of such compounds and possible lists or criteria, etc.
(iv) Provide a revised project document scoping the work.
(v) Based on the above considerations, present a proposal on future work for consideration at CCPR51.

Discussion paper on the uniform management approach to address the issue of endocrine disrupting chemicals in food

161. India presented a proposal for new work on guidelines for “Uniform Risk Management Guidelines to address Endocrine Disrupting Chemicals as Pesticides in Food”, and stressed that there was a lack of harmonized guidance on regulating endocrine disrupting chemicals, which has emerged as a major concern among countries. The absence of this may result, not only in possible removal of many crop protection chemicals from the market, which could create major trade concerns in near future, despite their previously established safety in use. India requested CCPR to endorse new work on the development of uniform risk management guidelines to address the issue of EDCs as pesticides in food.

162. CCPR deliberated on the proposal and recognized the importance of this issue, however noted that there was no evidence that trade disruption, arising from the presence or withdrawal of CXLs, had occurred. CCPR also pointed out that EDCs comprise a wide spectrum of chemical that could arise from a wide range of sources hence the issue was broad and went beyond the mandate of CCPR.

[22] CRD03 (Chile); CRD11 (Canada); CRD15 (Iran); CRD18 (India)

Conclusion

163. CCPR could not recommend starting the proposed new work at this time. CCPR also noted that India could raise the concern to CAC on its own, as a member of CAC.

Revision of the *Guidelines on the use of mass spectrometry for the identification, confirmation and quantitative determination of residues* (CXG 56-2005)

164. Iran presented a proposal for new work on the revision of CXG 56-2005 and highlighted the gaps in the guidelines that required addressing e.g. the title of the guidelines does not match the content; CXG focuses on confirmation test only; apparent editorial mistakes in the text; CXG 56 covers mass spectrometry in general which requires more detail guidance, etc.

165. CCPR acknowledged the relevance of the issue and emphasized the need for CXG 56 to be harmonized with the *Guidelines on Performance Criteria for Methods of Analysis for the Determination of Pesticide Residues in Food and Feed (*CXG 90-2017).

Conclusion

166. CCPR endorsed Iran's proposal and agreed to establish an EWG, chaired by Iran, and co-chaired by Costa Rica working in English with the following TOR:

(i) To prepare a discussion paper on the background, issues and potential solutions to gaps identified in the guidelines including a project document and an outline of the proposed revision of CXG 56 for consideration at CCPR51.

(ii) To harmonize CXG 56 with CXG 90 and other relevant Codex documents

Consideration of opportunities and challenges related to the participation of JMPR in an international joint review of a new compound

167. Canada introduced a proposal to conduct an assessment of the benefits, challenges and proposed possible solutions to the participation of JMPR in an international joint review of a new compound. Specifically, Canada suggested the creation of an EWG that would perform the assessment and develop a discussion paper to be presented for discussion at CCPR51.

Conclusion

168. CCPR endorsed Canada's proposal and agreed to establish an EWG, chaired by Canada, and co-chaired by Costa Rica and Kenya and working in English with the following TOR:

(i) To identify and assess the benefits, challenges and proposed solutions to the participation of JMPR in an international joint review of a new compound, using previous national and international experience to inform the assessment, such as the sulfoxaflor pilot project;
(ii) This assessment of benefits, challenges and proposed solutions will include but will not be limited to considerations such as resource efficiencies, timelines, enhanced communication and cooperation between competent authorities and the JMPR Secretariat, and science policy issues; and,
(iii) Based on the above considerations, to develop a discussion paper for discussion at CCPR51.

169. CCPR encouraged all delegations and the JMPR Secretariat to actively participate in the EWG and engage in an open and transparent discussion on the aforementioned topic.

Information by Japan on new MRLs for Fosetyl-Al

170. Japan shared information with the Committee on the current situation of the proposed new MRLs for fosetyl-Al with the residue definition of fosetyl and phosponic acid, expressed as fosetyl, in response to concerns or interests of a number of countries. Japan further informed that analytical methods for rice, barley and wheat were being developed and called for sharing of analytical methods.

DATE AND PLACE OF THE NEXT SESSION (Agenda Item 12)

171. The Committee noted that its 51st session was tentatively scheduled to be held in China, in one-year time, the final arrangements being subject to confirmation by the Host Country and the Codex Secretariats.

APPENDIX I

CHAIRPERSON
PRÉSIDENT
PRESIDENTE

Dr Xiongwu Qiao
Shanxi Academy of Agricultural Sciences
81 Longcheng Street, Taiyuan,
Shanxi
China
Tel: 86-351-7581865
Email: ccpr_qiao@agri.gov.cn

VICE-CHAIR
VICE-PRESIDENT
VICEPRESIDENTE

Dr Guibiao Ye
Professor/Director
CCPR Secretariat Institute for the Control of Agrochemicals
Ministry of Agriculture and Rural Affairs
Room 904, Building NO.18, Maizidian Street, Chaoyang District,
Beijing
China
Tel: +86 010 59194302
Email: yeguibiao@agri.gov.cn

MEMBERS NATIONS AND MEMBER ORGANIZATIONS
ÉTATS MEMBRES ET ORGANISATIONS MEMBRES
ESTADOS MIEMBROS Y ORGANIZACIONES MIEMBROS

ANTIGUA AND BARBUDA - ANTIGUA-ET-BARBUDA - ANTIGUA Y BARBUDA

Mr Jonah Ormond
Registrar
Pesticides and Toxic Chemicals
Ministry of Agriculture, Lands, Fisheries and Barbuda Affairs
Dunbars Friars Hill Road St. John's Antigua and Barbuda
St. John's
Antigua and Barbuda
Tel: (268) 462 9191 / 464 4448
Email: jonah.ormond@ab.gov.ag

ARGENTINA - ARGENTINE

Mr Daniel Mazzarella
Secretario CCPR Argentina
Dirección Nacional De Agroquímicos, Productos Veterinarios y Alimentos
SENASA
Av. Paseo Colón 439 4° Piso
Buenos Aires
Argentina
Tel: +541141215335
Email: dmazzare@senasa.gob.ar

AUSTRALIA - AUSTRALIE

Mr Ian Reichstein
Director, National Residue Survey
Department of Agriculture and Water Resources
GPO Box 858
Canberra ACT
Australia
Tel: +61 2 6272 5668
Email: Ian.Reichstein@agriculture.gov.au

Mr Kevin Bodnaruk
Consultant
Horticulture Innovation Australia
26/12 Phillip Mall
West Pymble NSW
Australia
Tel: +61 2 9499 3833
Email: kevinakc@bigpond.net.au

Ms Jacinta Dugbaza
Senior Scientist/ MRL Team Leader
Food Standards Australia New Zealand
PO Box 5423
Kingston
Australia
Tel: +61262712267
Email: jacinta.dugbaza@foodstandards.gov.au

Mr Gerard Mcmullen
Consultant
McMullen Consulting Pty Ltd
76 Bruce Street
Coburg VIC
Australia
Tel: +61 3 8300 0108
Email: gerardmcmullen@optusnet.com.au

Mr Chris Williams
Assistant Director, China and Non-Tariff Measures
Department of Agriculture and Water Resources
GPO Box 858
Canberra ACT
Australia
Tel: +61 2 6272 3614
Email: Chris.Williams@agriculture.gov.au

AUSTRIA - AUTRICHE

Mr Ingo Grosssteiner
National Expert
Austrian Agency for Health and Food Safety
Spargelfeldstrasse 191
Vienna
Austria
Tel: +43 50555 33472
Email: ingo.grosssteiner@ages.at

BENIN - BÉNIN

Mr Kinnou Jean Kisito Chabi Sika
Directeur du Laboratoire Central de Contrôle de la Sécurité Sanitaire des Aliments
Secrétariat Général du Ministère
Ministère de l'Agriculture, de l'Elevage et de la Pêche
Tel: (00229) 95424003 /
Email: kinnousika@yahoo.fr

BRAZIL - BRÉSIL - BRASIL

Mr Carlos Ramos Venancio
General Coordiantor of Pesticide Control
Ministry of Agriculture Livestock and Food Supply - MAPA
Esplanada dos Ministérios, bloco D, Anexo - ala A - Sala 344
Brasília
Brazil
Tel: 55 61 3218-2445
Email: carlos.venancio@agricultura.gov.br

Mr Guilherme Costa
Chair of the Codex Alimentarius Commission
Secretariat of Agribusiness International Relations (SRI)
Ministry of Agriculture, Livestock and Food Supply (MAPA)
Esplanada dos Ministerios Bl.D
Brasília
Brazil
Tel: +55 61 3218-3468
Email: guilherme.costa@agricultura.gov.br

Mr Peter Rembischevski
Health Regulation Expert
Office of Toxicology
Brazilian Health Regulatory Agency - ANVISA
SIA (Setor de Indústria e Abastecimento), Trecho 05 Área Especial 57, Lote 200
Brasília
Brazil
Email: peter.rembischevski@anvisa.gov.br

Mr Marcus Venicius Pires
Health Regulation Expert
Office of Toxicology
Brazilian Health Surveillance Agency - ANVISA
SIA (Setor de Indústria e Abastecimento) Trecho 05, Área Especial 57, Lote 200
Brasília
Brazil
Email: marcus.pires@anvisa.gov.br

BULGARIA - BULGARIE

Mr Ivelin Rizov
State expert
Policies on agri-food chain Directorate
Ministry of Agriculture, Food and Forestry
blvd. "Hristo Botev" 55
Sofia
Bulgaria
Tel: + 359 2 985 11 180
Email: IVRizov@mzh.government.bg

Mrs Irena Bogoeva
Head of department
Risk Assessment Center on Food Chain
bul. "Tsar Boris III" 136
Sofia
Bulgaria
Tel: +359 882 469 414
Email: IBogoeva@mzh.government.bg

Mrs Dafinka Grozdanova
State expert
"Plant growing and organic farming" Directorate
Ministry of Agriculture, Food and Forestry
blvd. Hristo Botev 55
Sofia
Bulgaria
Tel: + 359 2 985 11 210
Email: dgrozdanova@mzh.government.bg

Mrs Neli Mancheva
Chief expert
Policies on agri-food chain Directorate
Ministry of Agriculture, Food and Forestry
blvd. "Hristo Botev" 55
Sofia
Bulgaria
Tel: + 359 2 985 11 162
Email: nmancheva@mzh.government.bg

Mrs Elena Slavova-yanulova
Chief expert
Policies on agri-food chain Directorate
Ministry of Agriculture, Food and Forestry
blvd. "Hristo Botev" 55
Sofia
Bulgaria
Tel: + 359 2 985 11 305
Email: eslavova@mzh.government.bg

Mrs Ivanka Statkova
Chief expert
Policies on agri-food chain Directorate
Ministry of Agriculture, Food and Forestry
blvd. "Hristo Botev" 55
Sofia
Bulgaria
Tel: + 359 2 985 11 445
Email: istatkova@mzh.government.bg

Mrs Outi Tyni
Political Administrator
Directorate General Agriculture, Fisheries, Social Affairs and Health
Council of the European Union - General Secretariat
Brussels
Belgium
Tel: +32 (0) 2 281 27 70
Email: Outi.Tyni@consilium.europa.eu

CAMEROON - CAMEROUN - CAMERÚN

Mr Nya Edouard
Inspecteur phytosanitaire
Ministere de l'Agriculture et du Developpement Rural
Ministère de l'Agriculture et du Developpement Rural
Cameroon
Tel: 237 696189973
Email: nyaedouard@yahoo.fr

Mr Tabi Kpama Gregoire
Ministere des Mines, de l'Industrie et du Developpement Technologique
CAMEROUN
Tel: 237 677501145/ 696307059
Email: tabigregoire@yahoo.fr

CANADA - CANADÁ

Dr Peter Chan
Director General
Health Evaluation Directorate, Pest Management Regulatory Agency
Health Canada
2720 Riverside Drive, AL 6605E
Ottawa
Canada
Tel: 613-736-3510
Email: Peter.Chan@canada.ca

Dr Marcos Alvarez
Executive Director
Pest Management Centre
Agriculture and Agri-Food Canada
Agriculture and Agri-Food Canada Pest Management Centre
960 Carling Ave., CEF Bldg. 57
Ottawa
Canada
Tel: 613-759-7135
Email: Marcos.Alvarez@AGR.gc.ca

Mrs Nathalie Doré
Senior Trade Analyst
Agriculture and Agri-Food Canada
1341 Baseline Road Tower 5, Floor 5, Room 264
Ottawa
Canada
Tel: 613-773-1634
Email: Nathalie.Dore@agr.gc.ca

Dr Jian Wang
Research Scientist
Canadian Food Inspection Agency
Calgary Laboratory Canadian Food Inspection Agency 3650 36th Street NW Calgary, Alberta
Calgary
Canada
Tel: 403 338-5273
Email: jian.wang@inspection.gc.ca

CHILE - CHILI

Ms Roxana Vera Muñoz
Coordinadora Unidad de Acuerdos Internacionales
División de Asuntos Internacionales, Servicio Agrícola y Ganadero, SAG
Ministerio de Agricultura
Bulnes 140, piso 5.
Santiago
Chile
Tel: +56 22 3451167
Email: roxana.vera@sag.gob.cl

Mr Eduardo Aylwin Herman
Asesor
Agencia Chilena para la Inocuidad y Calidad Alimentaria, ACHIPIA
Ministerio de Agricultura
Nueva York 17, piso 4
Santiago
Chile
Tel: +56 2 27979900
Email: eduardo.aylwin@achipia.gob.cl

CHINA - CHINE

Mr Weili Shan
Deputy Director General
Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs
No.22,Maizidian Street, Chaoyang, Beijing
Beijing
China
Tel: 010-59194253
Email: shanweili@agri.gov.cn

Mr Hui Huang
Division Consultant
Department of Crop Production
Ministry of Agriculture and Rural Affairs, P.R.C
11 Nongzhanguan Nanli, Chaoyang District
Beijing
China
Tel: 010-59192899
Email: pmd@agri.gov.cn

Mr Zhenbin Mao
Director
China Food and Drug Administration
Beijing
China
Tel: 010-88330603
Email: kbsbzglc@163.com

Mr Chuanjiang Tao
Division Director
Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs
No.22,Maizidian Street, Chaoyang, Beijing
Beijing
China
Tel: 010-59194084
Email: taochuanjiang@agri.gov.cn

Mr Fugen Li
Division Director
Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs
No.22,Maizidian Street, Chaoyang, Beijing
Beijing
China
Tel: 010-59194739
Email: lifugen@agri.gov.cn

Mrs Xiuying Piao
Senior Engineer
Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs
No.22,Maizidian Street, Chaoyang, Beijing
Beijing
China
Tel: 010-59194081
Email: piaoxiuying@agri.gov.cn

Mrs Fang Gao
Agromomist
Center for agri-Food quality and Safety, MARA
Beijing
China
Tel: 17710064526
Email: 154354062@qq.com

Mr Canping Pan
Professor
China Agricultural University
Beijing
China
Tel: 010-62731978
Email: canpingp@cau.edu.cn

Mr Fengmao Liu
Professor
China Agricultural University
Beijing
China
Tel: 010-62731978
Email: Lfm2000@cau.edu.cn

Mr Shubao Gao
Program officer
National Health Commission of the PRC
No 1 Xizhimen Outer South Road, Xicheng District, Beijing
Beijing
China
Tel: 010-68791581
Email: gaoshubao@nhfpc.gov.cn

Ms Hao Ding
Assistant Researcher
National Center for Food Safety Risk Assessment
Building 2, No. 37, Guangqu Road, Chaoyang District, Beijing, China, 100022
Beijing
China
Tel: 010-52165407
Email: dinghao@cfsa.net.cn

Mrs Lu Cong
Third Secretary
WTO Affairs Department
Ministry of Commerce
Tel: 010-65197362
Email: conglu@mofcom.gov.cn

Mr Songxue Wang
Researcher
Academy of State Administration of Grain
Beijing
China
Tel: 010-58523708
Email: wsx@chinagrain.org

Mr Weimin Yang
Senior Engineer
State Adnimistration of Grain Standards & Quality Center
No.11 Baiwanzhuang Street, Xicheng District Beijing
Beijing
China
Tel: 010-58523775
Email: Ywm9738@sina.com

Dr Chi Cheung, Henry Ng
Principal Medical Officer
Food and Environmental Hygiene Department
Centre for Food Safety, HKSAR Government
Hong Kong
China
Email: hccng@fehd.gov.hk

Ms Ho Yan Chung
Scientific Officer
Food and Environmental Hygiene Department
Centre for Food Safety, HKSAR Government
43/F, Queensway Government Offices, 66 Queensway, Hongkong
Email: hychung@fehd.gov.hk

Dr Xiaoxi Ju
Researcher
Food Safety Center, I.A.C.M., Macao S.A.R.
Rua Nova da Areia Preta No 52
Macao, S.A.R.
China
Tel: 853-82969890
Email: xxju@iacm.gov.mo

Mr Tek Hong Lam
Assistant Technician
Division of Risk Assessment
Food Safety Center, IACM, Maocao S.A.R.
Macao S.A.R
China
Tel: 853-82969969
Email: thlam@iacm.gov.mo

COLOMBIA - COLOMBIE

Ms Diana Ramirez Nieto
Profesional especializada
Instituto Nacional de Vigilancia de Medicamentos y Alimentos - INVIMA
Bogotá
Colombia
Tel: 2948700 EXT 3906
Email: dramirezn@invima.gov.co

COSTA RICA

Ms Veronica Picado Pomar
Jefe Laboratorio de análisis de residuos de agroquímicos
Servicio Fitosanitario del Estado
Calle 72, San José. Ministerio de Agricultura y Ganadería
San Jose
Costa Rica
Tel: (506) 2549-3604
Email: vpicado@sfe.go.cr

DENMARK - DANEMARK - DINAMARCA

Mrs Bodil Hamborg Jensen
Senior Adviser
National Food Institute
Technical University of Denmark
Mørkhøj Bygade 19
Søborg
Denmark
Tel: +45 35887468
Email: bhje@food.dtu.dk

ECUADOR - ÉQUATEUR

Eng Paúl Fernando Penaherrera Medina
consejero Comercial de la Oficina Comercial del Ecuador en Cantón
Instituto de Promoción de Exportaciones e Inversiones Extranjeras PRO ECUADOR
R&F Building #10 Huaxia Road, Office 908, Zhujiang New City, Guangzhou 510623
Cantón
China
Tel: 00862038927650
Email: ppenaherrera@proecuador.gob.ec

ESTONIA - ESTONIE

Mrs Sille Vahter
Chief specialist
Food Safety Department
Ministry of Rural Affairs of the Republic of Estonia
Lai str 39/41
Tallinn
Estonia
Tel: +3726256211
Email: sille.vahter@agri.ee

EUROPEAN UNION - UNION EUROPÉENNE - UNIÓN EUROPEA

Mr Marco Castellina
Administrator
Health & Food Safety Directorate-General
European Commission
Rue Froissart 101
Brussels
Belgium
Tel: +32 229-87443
Email: marco.castellina@ec.europa.eu

Mr Christophe Didion
Administrator
DG Santé
European Commission
F101 04/057
Brussels
Belgium
Tel: +32 229-95427
Email: christophe.didion@ec.europa.eu

Ms Hermine Reich
European Food Safety Authority
Via Carlo Magno 1A
Parma
Italy
Email: Hermine.REICH@efsa.europa.eu

Mr Volker Wachtler
Administrator
DG SANTE
European Commission
Rue Froissart
Brussels
Belgium
Tel: +32 229-58305
Email: volker.wachtler@ec.europa.eu

FINLAND - FINLANDE - FINLANDIA

Ms Tiia Mäkinen-töykkä
Senior Inspector
Finnish Food Safety Authority Evira
Mustialankatu 3 FI-00790 Helsinki FINLAND
Helsinki
Finland
Email: tiia.makinen@evira.fi

Dr Minna Huttunen
Senior Officer, Food Policy
Ministry of Agriculture and Forestry
P.O. Box 30 FI-00023 Government FINLAND
Finland
Tel: +358505957848
Email: minna.huttunen@mmm.fi

FRANCE - FRANCIA

Mrs Florence Gerault
residue expert
Genera Directorate for Food
Ministry of Agriculture
SRAL 10 rue Le Notre 49044 Angers Cedex France
Angers
France
Tel: 0033241723234
Email: florence.gerault@agriculture.gouv.fr

Dr Xavier Sarda
Deputy Head of Consumer Safety Unit
Directorate of Regulated Products
Anses
14 rue Pierre et Marie Curie
Maisons Alfort
France
Tel: 33 1 49 77 21 66
Email: xavier.sarda@anses.fr

GERMANY - ALLEMAGNE - ALEMANIA

Ms Monika Schumacher
Desk Officer
Section Pesticide Residues and Contaminants Foods, Food Contact Materials
Federal Ministry of Food and Agriculture
Rochusstr. 1
Bonn
Germany
Tel: +49 228 99 529 4662
Email: monika.schumacher@bmel.bund.de

Dr Karsten Hohgardt
Director and Professor
Plant Protection Products
Federal Office of Consumer Protection and Food Safety
Messeweg 11 - 12
Braunschweig
Germany
Tel: +49 531 299 3503
Email: karsten.hohgardt@bvl.bund.de

Dr Hans Dieter Jungblut
Head of Global Consumer Safety
Crop Protection
BASF SE
Speyerer Str. 2
Limburgerhof
Germany
Tel: +49 621 60 27774
Email: hans-dieter.jungblut@basf.com

Dr Ingrid Maria Kaufmann Horlacher
Head of laboratory / Senior Chemist
Chemical and Veterinary Investigatory Office Stuttgart
Schaflandstr. 3/2
Berlin
Germany
Email: Ingrid.Kaufmann-Horlacher@cvuas.bwl.de

GHANA

Ms Ernestina Agaalie Adeenze
Standards Officer
Pesticide Residue Laboratory
Ghana Standards Authority
P. O. Box MB 245 Accra
Accra
Ghana
Tel: +233243080241
Email: eadeenze@gmail.com

Mrs Rosemary Yaaba Davudu
Senior Research Officer
Research Department
Quality Control Company ltd, Cocobod
QCC, Box 247 Tema
ACCRA
Ghana
Tel: 0244465975
Email: Yaabaquaicoe@yahoo.com

Mr Joseph Cantamanto Edmund
Deputy Director
Chemicals Control and Management Centre
Environmental Protection Agency
P. O. M 326 Accra
Accra
Ghana
Tel: +233 208168907
Email: joseph.edmund@epa.gov.gh

Ms Jocelyn Adeline Naa Koshie Lamptey
Principal Regulatory Officer
Food Enforcement Dept.
Food and Drugs Authority
P.O. Box CT 2783 Cantonments, Accra
Accra
Ghana
Tel: +233 244 563764
Email: nakoshie@yahoo.com

Dr Paul Osei-fosu
Head
Food and Agric
Ghana Standards Authority
P.O. Box MB 245 Accra
Accra
Ghana
Tel: +233 208 150469
Email: posei_fosu@yahoo.co.uk

Mr Benjamin Osei-tutu
Senior Regulator Officer
Food Safety Management
Food and Drugs Authority
P. O. BOX 2783 Cantonments, Accra
Accra
Ghana
Tel: +233 244453406
Email: otumfuo4@gmail.com

Mr Philip Tawiah
Research Officer
Research Department
Quality Control Company ltd, Cocobod
QCC, Box 247 Tema
Accra
Ghana
Tel: 0243167281
Email: Optimalgenuity@yahoo.com

HONDURAS

Mr Juan Carlos Paguada
Coordinador Subcomite de Residuos de Plaguicidas en Honduras
SubDirección de Inocuidad Agroalimentaria
SENASA
Boulevard Miraflores Ave. La FAO, edificio SENASA, colonia Loma Linda Sur
Tegucigalpa
Honduras
Tel: (504) 2232-6213 ext 228
Email: jpaguada@senasa.gob.hn

INDIA - INDE

Dr Pranjib Chakrabarty
Assistant Director General (Plant Protection & Biosafety)
Indian Council of Agricultural Research (ICAR)
Krishi Bhawan, Dr Rajendra Prasad Road
New Delhi
India
Tel: 91-9540029275
Email: adgpp.icar@nic.in

Dr Krishan Kumar Sharma
Network Coordinator
IARI
All India Network Project on Pesticide Residues Indian Agricultural Research Institute
Indian Agricultural Research Institute New Delhi - 110 012
New Delhi
India
Tel: 011-25846396
Email: kksaicrp@yahoo.co.in

IRAN (ISLAMIC REPUBLIC OF) -
IRAN (RÉPUBLIQUE ISLAMIQUE D') -
IRÁN (REPÚBLICA ISLÁMICA DEL)

Mrs Roya Noorbakhsh
Expert of Institute of Standard & Industrial Research of Iran & Secretary of CCPR in Iran
faculty of food and agriculture- Research Standard Institute
Institute of Standard & Industrial Research of Iran
Email: roybakhsh@yahoo.com

JAPAN - JAPON - JAPÓN

Dr Yukiko Yamada
Advisor to Vice-Minister
Ministry of Agriculture, Forestry and Fisheries, Japan
1-2-1 Kasumigaseki, Chiyoda-ku
Tokyo
Japan
Tel: '81-3-3501-6869
Email: yukiko_yamada530@maff.go.jp

Ms Keiko Miyachi
Technical Officer
Pharmaceutical and Environmental Health Bureau
Ministry of Health, Labour and Welfare
1-2-2 Kasumigaseki, Chiyoda-ku
Tokyo
Japan
Tel: '+81-3-3595-2423
Email: codexj@mhlw.go.jp

Mr Yuta Ogawa
Assistant Director
Pharmaceutical and Environmental Health Bureau
Ministry of Health, Labour and Welfare
1-2-2 Kasumigaseki, Chiyoda-ku
Tokyo
Japan
Tel: +81-3-3595-2423
Email: codexj@mhlw.go.jp

Mr Yoshiyuki Takagishi
Assistant Director
Food Safety Policy Division, Food Safety and Consumer Affairs Bureau
Ministry of Agriculture, Forestry and Fisheries
1-2-1, Kasumigaseki, Chiyoda-ku
Tokyo
Japan
Tel: +81-3-3502-8731
Email: yoshiyuki_takagis500@maff.go.jp

KAZAKHSTAN - KAZAJSTÁN

Dr Nailya Karsybekova
Coordinator
Ministry of Healthcare the Republic of Kazakhstan
Dostyk 18
Astana
Kazakhstan
Email: assem.smagul@gmail.com

Ms Meiramgul Ibraimova
Ministry of Health of the Republic of Kazakhstan, Committee for public health protection
Astana city 8, Mangilik yel ave
Astana
Kazakhstan
Tel: +770049811111
Email: assem.smagul@gmail.com

Mrs Gulmira Issenova
Head of the Test Center for Phytosanitary Laboratory Analysis
Kazakh institution for plants 26/5000 zashchita i karantin rasteniy plant protection and quarantine
Astana
Kazakhstan
Tel: +77004981111
Email: assem.smagul@gmail.com

Mrs Zhanar Tolysbayeva
Technical expert
Codex Alimentarius
Ministry of Healthcare the Republic of Kazakhstan
Nazhimedinova 14/1, apt 4, Astana, Kazakhstan
Astana
Kazakhstan
Email: assem.smagul@gmail.com

KENYA

Ms Lucy Muthoni Namu
Head, Quality Assurance & Laboratory Accreditation
Kenya Plant Health Inspectorate Services
P.O.Box 49592,00100 600
NAIROBI
Kenya
Tel: +254-020 661800
Email: lnamu@kephis.org

Dr Henry Kibet Rotich
Director- Metrology and Testing Division
Metrology and Testing Laboratory
Kenya Bureau of Standards
P.O BOX 54974
Nairobi
Kenya
Tel: +2540206948000
Email: rotichh@kebs.org

Mr Njane Samuel Njoroge
Manager -Regulation and compliance
Compliance
Tea Directorate
P.O Box 20064
Nairobi
Kenya
Tel: +254-722200556
Email: Snjane@teaboard.or.ke

MADAGASCAR

Dr Roger Rejo
Chercheur
Centre National des Recherches sur l'Environnement
Ministère des Recherches Scientifiques
Email: rogerrejo@gmail.com

Mrs Verosoanandraina Lantoarimaka
Membre du bureau
Direction de la Protection des Végétaux-
Ministère auprès de la Présidence chargée de l'Agriculture et de l'Elevage
Email: lanto.julien@yahoo.fr

Dr Miraho Felaniaina Rajemiarimoelisoa
Président Comité National du Codex Alimentarius
Ministère de la Santé Publique
Email: mirahofelaniana@yahoo.fr

MALAYSIA - MALAISIE - MALASIA

Mr Mohammad Nazrul Fahmi Abdul Rahim
Principal Assistant Director
Pesticide Control Division
Department of Agriculture Malaysia
Level 4, Wisma Tani, Jalan Sultan Salahuddin
Kuala Lumpur
Malaysia
Tel: +603-20301499
Email: nazrulfahmi@doa.gov.my

Ms Nurhayati Kamyon
Assistant Director
Pesticide Control Division
Department of Agriculture Malaysia
Level 4, Wisma Tani, Jalan Sultan Salahuddin
Kuala Lumpur
Malaysia
Tel: +603-20301496
Email: hayatikamyon@doa.gov.my

MALI - MALÍ

Dr Sékouba Keita
Chef de Division
Agence Nationale de la Sécurité Sanitaire des Aliments
Ministère de la Santé et de l'Hygiène Publique
Centre Commercial, Quartier du FleuveRue 305 BPE 2362
Bamako
Mali
Tel: +22379156031
Email: sekokake@yahoo.fr

MOROCCO - MAROC - MARRUECOS

Mr Ahmed Jaafari
Chef de Service du Suivi et du Contrôle des intrants Chimiques Agriculture
Office National de Sécurité Sanitaire des Produits Alimentaires(ONSSA)
Avenue Haj Ahmed Cherkaoui Agdal Rabat
Rabat
Morocco
Tel: +212537681351,+212537676611
Email: ahmed.jaafari@ONSSA.GOV.MA

Mr Zouaoui Ahmed
chef de Service des Pesticides
Agriculture
Laboratoire Officiel d'Analyses et de Recherches Chimiques(LOARC)
25 rue Nichakra Rahal Casablanca
Casablanca
Morocco
Tel: +212522302007
Email: zouaouiloarc@yahoo.fr

Mr Aarar Mustapha
Délégué
Agriculture
Etablissement Autonomme Contrôle et de Coordination des Exportations(EACCE)
N°72; Rue Mohamed Smiha, Casablanca
Casablanca
Morocco
Tel: +212 5 22 30 51 04
Email: aarar@eacce.org.ma

Mrs Asmaa Ouagari
Association des Professionnels du thé au Maroc
Rabat
Morocco
Tel: +212608800080
Email: asmaa.ouagari@mathe.ma

NETHERLANDS - PAYS-BAS - PAÍSES BAJOS

Mr Hidde Rang
Senior Policy Advisor
Directorate Nutrition, Health protection and Prevention (VGP
Ministry of Health, Welfare and Sport
P.O. Box 20350
The Hague
Netherlands
Tel: 0031 611306407
Email: h.rang@minvws.nl

Ms Bernadette Ossendorp
Head of Department for Food Safety
Centre for Nutrition, Prevention and Healthy Services
RIVM
PO Box 1
Bilthoven
Netherlands
Tel: +31 30 274 3970
Email: bernadette.ossendorp@rivm.nl

Ms Dorin Poelmans
Officer Plant Health
Dutch Food and Consumer Product Safety Authority
PO Box 9102
Wageningen
Netherlands
Tel: +31 88 2232121
Email: D.A.M.POELMANS@NVWA.NL

NEW ZEALAND - NOUVELLE-ZÉLANDE - NUEVA ZELANDIA

Mr Warren Hughes
Principal Adviser
ACVM Regulation and Assurance
Ministry for Primary Industries
25 The Terrace
Wellington
New Zealand
Email: warren.hughes@mpi.govt.nz

Mr Dave Lunn
Principle Adviser Residues
Regulation and Assurance Branch
Ministry for Primary Industries
Wellington
New Zealand
Email: dave.lunn@mpi.govt.nz

Ms Rebecca Fisher
Regulatory Adviser - Food Safety
Market access Solutionz Ltd
PO Box 10629
Wellington
New Zealand
Email: Rebecca@solutionz.co.nz

Ms Maria Lloyd
Senior Adviser Plant Expert
Regulation and Assurance Branch
Ministry for Primary Industries
25 The Terrace
Wellington
New Zealand
Email: Maria.Lloyd@mpi.govt.nz

NIGERIA - NIGÉRIA

Dr Vincent Ikape Isegbe
Coordinating Director
Nigeria Agricultural Quarantine Service
Plot 81 Raplph Sodiende Street (Enugu House) CBD, Abuja
Abuja
Nigeria
Tel: +2348052625445
Email: visegbe@gmail.com

Mr John Abah Obaje
Director
Plant Quarantine
Nigeria Agricultural Quarantine Service
Plot 81, Ralph Sodeinde Street, Enugu House, Central Area
Abuja
Nigeria
Tel: +2348035059047
Email: edwardsonobj2009@yahoo.com

NORWAY - NORVÈGE - NORUEGA

Mrs Ingunn Haarstad Gudmundsdottir
Senior Adviser
Norwegian Food Safety Authority
P.O Box 383
Brumunddal
Norway
Tel: + 47 41429212
Email: Ingunn.Haarstad.Gudmundsdottir@mattilsynet.no

PERU - PÉROU - PERÚ

Mr Ethel Humberto Reyes Cervantes
Coordinador Titular de la Comisión Técnica del Codex sobre Residuos de Plaguicidas.
Senasa /Minagri (Ministerio de Agricultura)
Email: ereyesc@senasa.gob.pe

REPUBLIC OF KOREA - RÉPUBLIQUE DE CORÉE - REPÚBLICA DE COREA

Dr Yonghyun Jung
Deputy Director
Pesticide and Verterinary Drug Residues Division
Ministry of Food and Drug Safety
Osong Health Technology Administration Complex 187,
Osongsaengmyeong 2-ro, Osong-eup, Heungdeok-gu,
Cheongju-si, Chungcheongbuk-do, 28159, Korea
Cheongju-si
Republic of Korea
Tel: +82 43-719-4204
Email: jyh311@korea.kr

Prof Moo-hyeog Im
Professor
Food Engineering Department
Daegu University
201, Daegudae-ro, Jilyang, Gyeongsan
Gyeongsangbuk-do
Republic of Korea
Tel: +82-53-850-6537
Email: imh0119@daegu.ac.kr

Ms Kyung-hee Jung
Scientific Officer
Residues and Contaminants Standard Division
Ministry of Food and Drug Safety
Osong Health Technology Administration Complex, 187
Osongsaengmyeong2(i)-ro, Osong-eup
Chungcheongbuk-do
Republic of Korea
Tel: +82-43-719-3867
Email: inukioo@korea.kr

Ms Hyo-young Kim
Scientific Officer
National Agricultural Products Quality Management
Ministry of Agriculture, Food, and Rural Affairs
141, Yongjeon-ro, Gimcheon-si, Gyeongsangbuk-do
Gimcheon-si
Republic of Korea
Tel: 82-54-429-7771
Email: hyo02@korea.kr

Dr Ki-hyun Kim
Scientific officer
National Institute of Animal Science
Ministry of Agriculture, Food, and Rural Affairs
1500, Kongjwipatjwiro, Iseo-myeon, Wanju-gun, Jeollabuk-do, Korea
Wanju-gun
Republic of Korea
Tel: +82-63-238-7473
Email: kihyun@korea.kr

Dr Tae-hwa Kim
Observer, CEO
Pesticide Residue Analysis
Analysis Technology and Tomorrow
Daegu Technobuilding 301 kyungdaero 17-41
Daegu
Republic of Korea
Tel: 82-53-951-6800
Email: thkim@atnt.co.kr

Mr Seo-hong Kim
observer
Food Engineering department
Daegu university
201 daegudae-ro, jilyang, Gyeongsan, Gyeongbuk
Gyeong city
Republic of Korea
Tel: +82-53-850-6537
Email: 3765ksh@hanmail.net

Prof Mi-gyung Lee
Professor
Andong National University
#1375 Gyeongdong-ro, Andong-si, Gyeongsangbuk-do,36729,
Republic of Korea
Tel: +82-54-820-6011
Email: leemig@andong.ac.kr

Mr Bong-hyun Nam
Food & Drug Safety Attache
Embassy of the Republic of Korea(China)
No. 20 Dong Fang Dong Lu, Chaoyang District
Beijing
China
Tel: +86-10-8531-0848
Email: nahmbh@hanmail.net

Ms Yu-min Park
Codex researcher
Food Standard Division
Ministry of Food and Drug Safety
Osong Health Technology Administration Complex, 187
Osongsaengmyeong2(i)-ro, Osong-eup
Chungcheongbuk-do
Republic of Korea
Tel: +82-43-719-2437
Email: hellopym@korea.kr

Ms Hyejin Park
Agricultural Research Official
National Agricultural Products Quality Management Service(NAQS)
Ministry of Agriculture, Food, and Rural Affairs
141, Yongjeon-ro, Gimcheon-si, Gyeongsangbuk-do, Korea
Gimcheon-si
Republic of Korea
Tel: 82-10-9455-0390
Email: hjpark1126@korea.kr

Dr Kyeong-ae Son
Scientific Officer
National Institute of Agricultural Sciences
Ministry of Agriculture, Food and Rural Affairs
166 Nongsaengmyeong-ro, Iseo-myeon, WanjuGun, Jeollabuk-do, Korea
Wanju-gun
Republic of Korea
Tel: 82-63-238-3356
Email: sky199@korea.kr

RUSSIAN FEDERATION - FÉDÉRATION DE RUSSIE - FEDERACIÓN DE RUSIA

Mrs Natalia Dobreva
Head of division
FSFI «Federal Centre of Quality and Safety Assurance for Grain and Grain products»
Olkhovskaya street, 16 bld. 1
Moscow
Russian Federation
Email: n_dobreva@mail.ru

Mrs Viktoria Kostina
Chief exspert
Rostov branch of the FSFI «Federal Centre of Quality and Safety Assurance for Grain and Grain products»
Email: serapost@yandex.ru

Mr Sergey Potapov
Head of division
Division of International Markets Analysis
FSFI «Federal Centre of Quality and Safety Assurance for Grain and Grain products»
Olkhovskaya street, 16 bld. 1
Moscow
Russian Federation
Tel: +7 (499) 267 30 15
Email: serapost@yandex.ru

Prof Valerii Rakitski
Acting Director
FBES “Federal Scientific Centre of Hygiene named after F. F. Erisman” of Rospotrebnadzor
Semashko st. 2, Mytischi town, Moscow Region
Russian Federation
Tel: +7-495-586-11-44
Email: pesticidi@yandex.ru

SAUDI ARABIA - ARABIE SAOUDITE - ARABIA SAUDITA

Mr Mohammed Aldosari
Senior Microbiologist
executive dept. of technical regulations and standards
Saudi Food and Drug Authority
Saudi Arabia - Saudi Food and Drug Authority (3292) North Ring Road - Al Nafal Unit (1)
Riyadh
Saudi Arabia
Tel: +966112038222
Email: codex.cp@sfda.gov.sa

SENEGAL - SÉNÉGAL

Mr Papa Sam Gueye
Coordonnateur du Comité du Codex sur les résidus de pesticides
Ceres locustox Km 15
Ministère de l'agriculture et de l’équipement rural
Route de Rufisque
Dakar
Senegal
Tel: +221 563 11 63
Email: psamgueye@hotmail.com

Mr Nar Diene
Coordonnateur de Comité
Ministère santé et action sociale
Centre anti-poison
fann /dakar
Dakar
Senegal
Tel: +221 77649 61 56
Email: snardiene@yahoo.fr

Mrs Mame Diarra Faye Leye
Point de Contact du Codex Alimentarius
Centre Anti Poison
Ministère de la Santé et de l'Action sociale
Hôpital de Fann - Avenue Cheikh Anta Diop
Dakar
Senegal
Tel: +221 77 520 09 15
Email: mamediarrafaye@yahoo.fr

SINGAPORE - SINGAPOUR - SINGAPUR

Dr Yuansheng Wu
Deputy Director
Pesticide Residues Section, VPHL Chemistry Department, Laboratories Group
Agri-Food & Veterinary Authority of Singapore
10 Perahu Road Singapore 718837
Singapore
Tel: +65 67952837
Email: WU_Yuan_Sheng@ava.gov.sg

Mr Say Yong Toh
Scientist, Pesticide Residues Section
VPHL Chemistry Department, Laboratories Group
Agri-Food & Veterinary Authority of Singapore
10 Perahu Road Singapore 718837
Singapore
Tel: +6567952818
Email: TOH_Say_Yong@ava.gov.sg

SOUTH AFRICA - AFRIQUE DU SUD - SUDÁFRICA

Ms Aluwani Madzivhandila
Assistant Director: Food Control
Department of Health
Department of Health
Private Bag X828
PRETORIA
South Africa
Tel: +27 12 395 9359
Email: Aluwani.Madzivhandila@health.gov.za

SPAIN - ESPAGNE - ESPAÑA

Mrs Alicia Yagüe
Jefa de Servicio de Gestión de residuos de productos fitosanitarios y medicamentos veterinarios
de gestión de residuos de productos fitosanitarios y medicamentos veterinarios
Agencia Española de consumo seguridad alimentaria y nutrición
Calle Alcalá 56
Madrid
Spain
Tel: +34 91 338 08 86
Email: ayague@msssi.es

SUDAN - SOUDAN - SUDÁN

Mrs Nour Grashi
Pesticide Residue Speachilist/ Head of Conformity assessment section
Pesticide Residue Standards
Sudanese Standard & Metrology Organization
ALjamaa Street
Khartoum
Sudan
Tel: +249912367408
Email: nourssmo2009@hotmail.com

Dr Hassan Ali
Director of Integrated Agricultural Management Center.
Integrated Agricultural Management Center
Ministry of Agriculture /Agricultural Research Corporation,
Khartoum
Sudan
Tel: +24922658852
Email: abdelgadirhasan@gmail.com

Ms Ahlam Ahmed
plant protection Diractorate
Pesticide Rigestration Sector
Ministry of Agriculture & Forestry
Ministry of Agriculture & Forestry-plant protection Administration
Khartoum
Sudan
Tel: +249912839500
Email: ahlamhassan424@yahoo.com

Mr Emadeldin Shareif Mohammed Sharafeldin
Ministry of cabinet
Sudanese standard & metrology organization
Sudan - Khartoum
Tel: +249912316658
Email: wadshareef@outlook.com

Mr Ismail Omer
Director of Pesticide anlysis lab.
Pesticide anlysis
Ministry of Agriculture & Forestry
Khartoum
Sudan
Tel: +24922658852
Email: ismalsadd55@yahoo.com

SWEDEN - SUÈDE - SUECIA

Mr Niklas Montell
Principal Regulatory Officer
National Food Agency
Box 622
Uppsala
Sweden
Tel: +46 733545341
Email: niklas.montell@slv.se

SWITZERLAND - SUISSE - SUIZA

Dr Emanuel Hänggi
Scientific Officer
Food and Nutrition
Federal Food Safety and Veterinary Office FSVO
Bern
Switzerland
Email: Emanuel.Haenggi@blv.admin.ch

Mr Till Stéphane Goldmann
Early Warning Group
Nestec Ltd.
Food Safety & Quality Competence Pillar
Nestlé Research Center PO Box 44
Lausanne
Switzerland
Email: Till.Goldmann@rdls.nestle.com

THAILAND - THAÏLANDE - TAILANDIA

Ms Siriporn Boonchoo
Deputy-Director General
Department of Agriculture
Department of Agriculture 50 Phaholyothin Road Ladyao Chatuchak Bangkok Thailand
Bangkok
Thailand
Tel: (+66) 2940 5419
Email: siripornboonchoo@gmail.com

Mr Pisan Pongsapitch
Deputy Secretary General
National Bureau of Agricultural Commodity and Food Standards
National Bureau of Agricultural Commodity and Food Standards
50 Phaholyothin Road, Lad Yao, Chatuchak
Bangkok
Thailand
Tel: 662-561-3717
Email: pisan@acfs.go.th

Ms Panida Chaiyanboon
Senior research scientist
Department of Agriculture
Ministry of Agriculture and Cooperatives
50 Phaholyothin Road, Lad Yao, Chatuchak
Bangkok
Thailand
Tel: +662 579 3578
Email: acpanida@yahoo.com

Ms Sirisawad Chansri
Veterinarian, Professional Level
Department of Livestock Development
Ministry of Agriculture and Cooperatives
91, Moo 4, Thiwanon Road, Bangkadi, Amphoe Meuang
Pathumthanee
Thailand
Tel: +662 967 9714
Email: sirisawads@gmail.com

Mrs Wischada Jongmevasna
Senior Medical Scientist
Department of Medical Sciences
Ministry of Public Health
88/7 Thiwanon Road, Amphoe Meuang,
Nontaburi
Thailand
Tel: +66812535804
Email: wischada.j@gmail.com

Mr Charoen Kaowsuksai
Vice- Chairman of Food Processing Industry Club
The Federation of Thai Industries
Queen Sirikit National Convention Center, Zone C, 4th Floor,
60 New Rachadapisek Rd., Klongtoey
Bangkok
Thailand
Tel: 662-9763088
Email: jidsudakos@cpram.co.th

Ms Chalearmphorn Kuanha
Medical Scientist, Professional Level
Department of Medical Sciences
Ministry of Public Health
88/7 Tiwanon Road, Muang
Nonthaburi
Thailand
Tel: +66818896579
Email: chalearmphorn.k@dmsc.mail.go.th

Ms Dawisa Paiboonsiri
Standards Officer
National Bureau of Agricultural Commodity and Food Standards
Ministry of Agriculture and Cooperatives
50 Phaholyothin Road Ladyao
Bangkok
Thailand
Email: dawisa.p@gmail.com

Ms Jintana Poomongkutchai
Senior research scientist
Department of Agriculture
Ministry of Agriculture and Cooperatives
50 Phaholyothin Road, Lad Yao, Chatuchak
Bangkok
Thailand
Tel: +662 579 3578
Email: kunjintana@yahoo.com

Ms Chitra Settaudom
Senior Advisor in Standards of Health Products
Food and Drug Administration
Ministry of Public Health
88/24 Moo 4, Tiwanon Road, Muang
Nonthaburi
Thailand
Tel: 662 590 7140
Email: schitra@fda.moph.go.th

Ms Kangsadan Singsoong
Food and Drug Technical Officer, Practitioner Level
Food and Drug Administration
Ministry of Public Health
88/24 Tiwanon Road
Nonthaburi
Thailand
Tel: +6625907178
Email: kangsadan@fda.moph.go.th

Ms Wiphada Sirisomphobchai
Medical Scientist, Senior Professional Level
Department of Livestock Development
Ministry of Agriculture and Cooperatives
91 Moo 4, Tumbol Bangkadi, Amphur Muang,
Pathum Thani
Thailand
Tel: + 66 2 967 9728
Email: wiphada.s@dld.go.th

Ms Chutima Sornsumrarn
Standards Officer
National Bureau of Agricultural Commodity and Food Standards
Ministry of Agriculture and Cooperatives
50 Phaholyothin Road, Ladyao, Chatuchak
Bangkok
Thailand
Tel: +6625612277 ext. 1425
Email: acfs.chu@gmail.com

TURKEY - TURQUIE - TURQUÍA

Mr İlhami Sahin
Coordinator
The General Directorate of Food and Control
The Ministry of Food, Agriculture and Livestock
Gıda, Tarim ve Hayvancilik Bakanligi Eskisehir Yolu 9. km
Lodumlu
Ankara
Turkey
Tel: 00903122587757
Email: ilhami.sahin@tarim.gov.tr

UGANDA - OUGANDA

Mr Geoffrey Onen
Principal Government Analyst
Government Chemist and Analytical Laboratory
Plot 2 Lourdel Road, Wandegeya P.O Box 2174, Kampala
KAMPALA
Uganda
Tel: +256-770-737085
Email: geoffrey.onen@gmail.com

Mr Hakim Baligeya Mufumbiro
Ag. Manager, Standards Department
Standards
Uganda National Bureau of Standards
Plot 2-12, ByPass Link, Bweyogerere Industrial and Business Park, P.O. Box 6329, Kampala, Uganda
Kampala
Uganda
Tel: +256 772 513680
Email: hakim.mufumbiro@unbs.go.ug

UNITED KINGDOM - ROYAUME-UNI - REINO UNIDO

Dr Julian Cudmore
MRL technical lead and consumer exposure specialist
Chemicals Regulation Division
Health and Safety Executive
Email: Julian.Cudmore@hse.gov.uk

Mr Russell Wedgbury
MRLs Policy
Chemicals Regulation Division
Health and Safety Executive
Email: Russell.Wedgbury@hse.gov.uk

UNITED STATES OF AMERICA –
ÉTATS-UNIS D'AMÉRIQUE –
ESTADOS UNIDOS DE AMÉRICA

Mr David J. Miller
Chief, Chemistry & Exposure Branch and Acting Chief,
Toxicology & Epidemiology Branch
Health Effects Division, Office of Pesticide Programs
U.S. Environmental Protection Agency
William J. Clinton Building 1200 Pennsylvania Avenue, NW
Washington, DC
United States of America
Tel: +1-703-305-5352
Email: Miller.Davidj@epa.gov

Dr Bill Barney
Senior Coordinator
Food, Crop Grouping, and Biopesticides
Rutgers University
IR-4 Project Headquarters 500 College Road East Suite 201 W
Princeton, NJ
United States of America
Tel: +1-732-932-9575 ext. 4603
Email: barney@aesop.rutgers.edu

Ms Kimberly Berry
Director
Regulatory Data Services
Bryant Christie, Inc.
500 Union Street Suite 701
Seattle, WA
United States of America
Tel: +1-206-292-6340
Email: Kimberly.berry@bryantchristie.com

Ms Marian Bleeke
Global Residue and Exposure Strategy Lead
Monsanto
700 Chesterfield Parkway West
Chesterfield, MO
United States of America
Tel: +1636-737-9355
Email: Marian.s.bleeke@monsanto.com

Mrs Julie Chao
Senior international Trade Specialist
Plant Division, Office of Agreements and Scientific Affairs
Foreign Agricultural Service, U.S.Department of Agriculture
1400 independence Avenue, SW South Building
Washington, Dc
United States of America
Tel: +1-202-378-1056
Email: Julie.chao@fas.usda.gov

Dr Michal Eldan
Vice President, Health and Environment
Global Regulatory & Scientific Affairs
Luxembourg-Pamol, Inc.
3647 Willowbend Blvd Suite 810
Houston, TX
United States of America
Tel: +1.212.495.9717
Email: meldan@luxpam.com

Mrs Anna Gore
International Trade Specialist
International Regulations and Standards Division, Foreign Agricultural Service
U.S. Department of Agriculture
1400 Independence Ave SW
Washington, DC
United States of America
Tel: +1202.720.5620
Email: anna.gore@fas.usda.gov

Ms Heidi Irrig
MRL Manager North America
Syngenta
410 Swing Road
Greensboro, NC
United States of America
Tel: +1-336-632-7243
Email: heidi.irrig@syngenta.com

Dr John Johnston
Scientific Liaison
Food Safety and Inspection Service
US Department of Agriculture
2150 Centre Ave Building D Room 2059
Fort Collins, CO
United States of America
Tel: +1- 202-365-7175
Email: John.Johnston@fsis.usda.gov

Dr Daniel Kunkel
Associate Director, Food and International Programs
IR-4 Project Headquarters
Rutgers, The State University of NJ
500 College Road East Suite 201
W Princeton, NJ
United States of America
Tel: +1.732.932.9575; ext: 4616
Email: kunkel@aesop.rutgers.edu

Dr Chia Pei (charlotte) Liang
Chemist, Plant Products Branch
Center for Food Safety and Applied Nutrition
U.S. Food and Drug Administration
Division of Plant Products and Beverages Office of Food Safety
5100 Paint Branch Parkway
College Park, MD
United States of America
Tel: +1-240-402-2785
Email: charlotte.liang@fda.hhs.gov

Ms Marie Maratos
International Issues Analyst
U.S. Codex Office, Food Safety & Inspection Service
U. S. Department of Agriculture
1400 Independence Avenue, SW Room 4861
Washington, DC
United States of America
Tel: +1-202-690-4795
Email: marie.maratos@fsis.usda.gov

Mr Aaron Niman
Environmental Health Scientist
LCDR, U.S. Public Health Service
U.S. Environmental Protection Agency
Office of Chemical Safety and Pollution Prevention Health Effects Division Office of Pesticide Programs 1400 Constitution Ave NW
Washington, DC
United States of America
Tel: +1.703.347.8184
Email: Niman.Aaron@epa.gov

Dr Allen Scarborough
North America Trade Flow Manager
North America Regulatory Affairs
Bayer CropScience LP
P.O. Box 12014 2 T.W. Alexander Drive Research Triangle Park
Triangle Park, NC
United States of America
Tel: +1 919 549 2397
Email: allen.scarborough@bayer.com

URUGUAY

Mrs Susana Franchi
Manager of Pesticide Residues Laboratory
Pesticide Residues Laboratory - Analysis and diagnosis Division
Direccion General de Servicios Agricolas / Ministerio de Ganaderia, Agricultura y Pesca
Millan 4703 (work adress)
Montevideo
Uruguay
Tel: +59823098410 ext 237
Email: sfranchi@mgap.gub.uy

VIET NAM

Mr Huu Tin Nguyen
Deputy Head
Food Testing Department
Quality Assurance And Testing Center 3
49 Pasteur street
Ho Chi Minh
Viet Nam
Tel: 903.919.364
Email: nh-tin@quatest3.com.vn

Mrs Tuyet Phuong Vo
Head
Department No. 3
Quality Assurance and Testing Center 3
49 Pasteur, District 1
Ho Chi Minh city
Viet Nam
Tel: 908626994
Email: vt-phuong@quatest3.com.vn

INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE (IICA)

Mr Eric Bolaños Ledezma
Especialista, Sanidad Agropecuaria e Inocuidad de Alimentos SAIA
Instituto Interamericano de Cooperación para la Agricultura (IICA)
Apto Postal 55-2200, San José Vazquez de Coronado San Isidro 11101
San José
Costa Rica
Tel: + 506 2216 0418
Email: erick.bolanos@iica.int

AGRO-CARE A.IU.S.BL (AGRO)

Ms Amanda Francisco
Regulatory Affairs Manager
Regulatory
AENDA
Rua Frei Caneca, 1100 apt 212
São Paulo
Brazil
Tel: +5511974460444
Email: amanda@aenda.org.br

Ms Amada Velez Mendez
REPRESENTATIVE
AGROCARE
tuxpan 45 A sexto piso Col. Roma Sur
Ciudad de Mexico
Mexico
Tel: 52 55 5601 1100
Email: amada.velez@umffaac.org.mx

GLOBAL PULSE CONFEDERATION (CICILS)

Mr Todd Scholz
Vice President
Research and Member Services
USA Dry Pea & Lentil Council
2780 W Pullman Road
Moscow
United States of America
Tel: 00208-882-3023
Email: office@globalpulses.com

CROPLIFE INTERNATIONAL (CROPLIFE)

Mr Philip Brindle
Global MRL Manager
BASF Agricultural Products
26 Davis Drive
Durham NC
United States of America
Tel: 19195472654
Email: philip.brindle@basf.com

Mr Peter Chalmers
Head of Devlopment and Registration
Adama Asia Pacific
9 Temasek Boulevard #16-03A Suntec Tower Two
Singapore
Singapore
Tel: 006564999320
Email: peter.chalmers@adama.com

Mr Koichiro Cho
Ishihara Sangyo Kaisha Ltd.
3-1 Nishi-Shibukawa 2-Chome Kusatsu
Shiga
Japan
Tel: 00818095901769
Email: k-chou@iskweb.co.jp

Ms Cheryl Cleveland
Global Consumer Safety
BASF
26 Davis Dr
Durham, NC
United States of America
Tel: 0019195930194
Email: cheryl.cleveland@basf.com

Ms Lydia Cox
Director
Nichino America
4550 Linden Hill Road
Wilmington, DE
United States of America
Tel: 0013023577472
Email: lcox@nichino.net

Mr Craig Dunlop
Manager Regulatory Policy and Compliance
Syngenta
Schwarzwaldallee 215
Basel
Switzerland
Tel: 0041791393178
Email: craig.dunlop@syngenta.com

Mr Takahiro Egawa
Project Manager
DuPont Production Agriscience KK
Sanno Park Tower 11-1 Nagata-cho 2-chome Chiyoda-ku
Tokyo
Japan
Tel: 0081355218411
Email: takahiro.egawa@dupont.com

Mr Kazuyuki Fukushima
Regulatory Affairs Division Biosciences Sales & Marketing
Ishihara Sangyo Kaisha, Ltd.
3-15, Edobori 1-chme, Nishi-ku
Osaka
Japan
Tel: +81-6-6444-7154
Email: k-fukushima@iskweb.co.jp

Mr Masaki Hiraki
Manager
"Asia Pacific Group Development & Registration Department"
Mitsui Chemical Agro inc.
Nihonbashi Dia Building, 1-19-1, Nihonbashi Chuo-ku
Tokyo
Japan
Tel: +81-3-5290-2869
Email: Masaki.Hiraki@mitsuichemicals.com

Ms Junko Horita
Research and Development Department
Kumiai Chemical Industry Co., Ltd.
4-26, Ikenohata, 1-chome, Taitoh-ku
Tokyo
Japan
Tel: 81-3-3822-5091
Email: j-horita@kumiai-chem.co.jp

Dr Peter Horne
Global Regulatory Affairs - Associate Director
FMC Agricultural Solutions
Stine Research Center 1090 Elkton Road
Newark, Delaware
United States of America
Tel: 0013023666228
Email: peter.horne@fmc.com

Mr Kazuaki Iijima
Associate Director
Chemistry Division
The Institute of Environmental Toxicology
4321 Uchimoriya-machi, Joso-shi
Ibaraki
Japan
Tel: +81-297-27-4516
Email: iijima@iet.or.jp

Mr Naoto Ikegami
Manager
Nippon Soda Co., Ltd
2-1 Ohtemachi 2-chome Chiyoda-ku
Tokyo
Japan
Tel: +818059875487
Email: n.ikegami@nippon-soda.co.jp

Mr Yuji Ikemoto
Assistant General Manager
Overseas Registration Group, Registration Department, Market Development Division
Nihon Nohyaku CO.,LTD.
Kyobshi OM Bldg. 19-8, Kyobashi 1-Chome, Chuo-ku
Tokyo
Japan
Tel: +81-(0)3-6361-1411
Email: ikemoto-yuji2@nichino.co.jp

Ms Rieko Ishikawa
Senior Specialist
Arysta LifeScience
8-1, Akashi-cho Chuo-ku
Tokyo
Japan
Tel: 0081335474516
Email: rieko.ishikawa@arysta.com

Ms Amelia Jackson-gheissari
International Regulatory Affairs Manager
Monsanto
1300 I (Eye) Street, NW Suite 450 East
Washington DC
United States of America
Tel: 0012023832847
Email: amelia.elizabeth.jackson.-.gheissari@monsanto.com

Mr Michael Kaethner
Regulatory Policy
Bayer CropScience
Geb 6100 A1.4 Alfred Nobel Str 50
Monheim
Germany
Tel: 00492173387521
Email: michael.kaethner@bayer.com

Mr Shuya Kurita
SDS Biotech K.K.
1-1-5 Higashin-Nihombashi
Tokyo
Japan
Tel: 0081358255516
Email: shuya_kurita@sdsbio.co.jp

Ms Kyung Hee Lee
Product Registration
Kyung Nong Corp
12F, Dongoh B/D 28 Hyoryeong-ro 77-gil Seocho-gu
Seoul
Republic of Korea
Tel: 00821088290917
Email: khlee5@knco.co.kr

Ms Eun Young Lee
Regulatory Affairs
FarmHannong Co, Ltd
5F, FKJ Tower 24 Yeoui-daero Yeongdeungpo-gu
Seoul
Republic of Korea
Tel: 00821054404871
Email: eylee@farmhannong.com

Ms Sa Mi Lee
Regulatory Science, Asia Pacific
Bayer
23 Boramae-ro 5 go Dongjak-gu
Seoul
Republic of Korea
Tel: 00821037271325
Email: sami.lee@bayer.com

Mr Neil John Lister
Operator and Consumer Safety
Syngenta
Jealott's Hill
Bracknell
United Kingdom
Tel: 00441344414381
Email: neil.lister@syngenta.com

Dr Ray Mcallister
Senior Director Regulatory Policy
CropLife America
1156 15th Street, N.W. Suite 400
Washington DC
United States of America
Tel: 0012025776657
Email: ray@croplife.us

Dr Wibke Meyer
Regulatory Affairs Manager
CropLife International
326 avenue Louise
Brussels
Belgium
Tel: 003225420410
Email: wibke.meyer@croplife.org

Mr Takashi Morimoto
Sumitomo Chemical Company
27-1, Shinkawa 2-chome, Chuo-ku
Tokyo
Japan
Tel: +81-3-5543-5692
Email: morimotot2@sc.sumitomo-chem.co.jp

Mr Makoto Nabeshima
Technical Advise
Technical Product & Development Section, Fertilizers and Agrochemicals Div.
National Federation of Cooperative Associations
1-3-1 Otemachi Chiyoda-ku
Tokyo
Japan
Tel: 81-3-6271-8289
Email: nabeshima-makoto-q1@zennoh.or.jp

Mr Yoshihiro Nishimoto
R&RA Global Lead
Sumitomo Chemical Company
27-1, Shinkawa 2-chome, Chuo-ku
Tokyo
Japan
Tel: +81-3-5543-5720
Email: nishimotoy@sc.sumitomo-chem.co.jp

Mr Masaru Nokata
Advisor
Registration Department, Market Development Division
Nihon Nohyaku CO.,LTD.
Kyobshi OM Bldg. 19-8, Kyobashi 1-Chome, Chuo-ku
TOKYO
Japan
Tel: +81-(0)3-6361-1423
Email: nokata-masaru@nichino.co.jp

Ms Mi Kyoung Park
Regulatory Affairs
Syngenta Korea Ltd
18th floor SC bank building Jongro 47 Jongro-Gu
Seoul
Republic of Korea
Tel: 00821088074663
Email: mikyoung.park@syngenta.com

Mr Vasant Patil
Regulatory Affairs
CropLife Asia
150 Cantonment Road Block B#01-107
Singapore
Singapore
Tel: 006591501802
Email: vasant.patil@croplifeasia.org

Mr James William Pickering
Registration Manager
Nichino Europe
39 Ladcroft Lane Sutton Bonington
Loughborough
United Kingdom
Tel: 00441509670743
Email: bpickering@nichino-europe.com

Ms Monika Richter
Global Food Safety
BASF
Speyerer Strasse 2
Limburgerhof
Germany
Tel: 00496216027733
Email: monika.a.richter@basf.com

Ms Nanami Saita
Crop Protection Regulatory
Syngenta Japan K.K.
21F, Office Tower X 1-8-10 Harumi Chuo-ku
Tokyo
Japan
Tel: 0081362213839
Email: nanami.saita@syngenta.com

Mr Jun Shiota
SDS Biotech K.K.
1-1-5, Higashi-Nihombashi Chuo-ku
Tokyo
Japan
Tel: 0081358255516
Email: Jun_Shiota@sdsbio.co.jp

Ms Jane Stewart
Expert scientist
BASF
26 Davis Drive
Research Triangle Park, NC
United States of America
Tel: 0019736412103
Email: jane.stewart@basf.com

Mr Keiichi Sudo
Kureha Corporation
3-26-2 Hyakunin-cho Shinjuku-ku
Tokyo
Japan
Tel: 0081333627320
Email: k-sudo@kureha.co.jp

Mr Marcus Theurig
Regulatory Policy
Bayer AG, CropScience
Alfred-Nobel Str. 50
Monheim
Germany
Tel: 00492173383576
Email: marcus.theurig@bayer.com

Ms Carmen Tiu De Mino
R&D
Dow AgroSciencs LLC
9330 Zionsville Road
Indianapolis
United States of America
Tel: +0013173724215
Email: tcarmen@dow.com

Mr Hiroyuki Tobina
Assistant Manager
Nihon Nohyaku Co., Ltd.
19-8, Kyobashi 1-Chome Chuo-ku
Tokyo
Japan
Tel: 0081363611422
Email: tobina-hiroyuki@nichino.co.jp

Mr Shinpei Tsushima
Manager
Nippon Soda Co, LTd.
2-1 Ohtemachi 2-chome Chiyoda-ku
Tokyo
Japan
Tel: +818059693622
Email: s.tushima@nippon-soda.co.jp

Mr Hajime Unno
Manager
Nihon Nohyaku Co., Ltd.
Kyobashi OM Bldg 19-8 Kyobashi 1-chome Chuo-ku
Tokyo
Japan
Tel: 0081363611411
Email: unno-hajime@nichino.co.jp

Mr Masaru Watanabe
Hokko Chemical Industry Co., LTD.
1-5-4 Nihonbashi Honcho Chuo-ku
Tokyo
Japan
Tel: 0081332795831
Email: ma@hokkochem.co.jp

Ms Han Yan
Manager
Regulatory Affairs Dept.
Nippon Soda Trading（Shanghai）Co.,Ltd
RM.2318,Ruijing Building,205,Maoming South Road
Shanghai
China
Tel: 021-64731277, 13701959545
Email: yanhan@nipponsoda-sh.com

Mr Tokunori Yokota
General manager
Regulatory Affairs
Japan Crop Protection Association
2-3-6 Kayaba-cho Nihonbashi Chuoku
Tokyo
Japan
Tel: +81-3-5649-7191
Email: yokota@jcpa.or.jp

Mr Jae Yong Yoo
Regulatory & Stewardship
Dow AgroSciencs
11th floor Samsung Life Insurance Daechi 2 Bldg 412 Téhéran-Ro Gangnam-Gu
Seoul
Republic of Korea
Tel: 0082234900717
Email: JYoo@dow.com

Ms Sun Kyoung Yoon
Regulatory Affairs
Crop Protection
Monsanto Singapore
151 Lorong Chuan, #06-08 New Tech Park
Singapore
Singapore
Tel: +6564885670
Email: sun.kyoung.yoon@monsanto.com

GRAIN AND FEED TRADE ASSOCIATION (GAFTA)

Mr Alan Ding
Chief Representative
The Grain and Feed Trade Association Beijing Office
1-1-1607 Leading International Centre NO.1 Guang Qu Men Nan Xiao Jie， 100061，Beijing, China
Beijing
China
Tel: +86-13910017217
Email: gafta@263.net

INTERNATIONAL COUNCIL OF BEVERAGES ASSOCIATIONS (ICBA)

Dr Ronald Williams, Jr
Advisor to ICBA
International Council of Beverages Associations
1275 Pennsylvania Avenue NW, Suite 1100
Washington, D.C.
United States of America
Email: ronaldwilliams@coca-cola.com

INTERNATIONAL COUNCIL OF GROCERY MANUFACTURERS ASSOCIATIONS (ICGMA)

Dr Adrian Tucker
Managing Scientist
Food and Chemicals Regulation
Exponent International Limited
Suite #101, Building 1 No. 1387, Zhangdong Road
Shanghai,
China
Tel: +86 21 3115 7850
Email: atucker@exponent.com

INTERNATIONAL FRUIT AND VEGETABLE JUICE ASSOCIATION (IFU)

Dr David Hammond
IFU (Int. Fruit and Vegetable Juice Association)
23, Boulevard des Capucines
Paris
France
Tel: +44 1934 627844
Email: davidfruitjuice@aol.com

INTERNATIONAL SOCIETY OF CITRICULTURE (ISC)

Mr James Cranney
Representative for ISC
International Society of Citriculture
California Citrus Quality Council 853 Lincoln Way, Suite 206
Auburn, CA 95603
Auburn
United States of America
Tel: 5038851894
Email: jcranney@ccqc.org

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY (IUPAC)

Dr Caroline Harris
Centre Director
IUPAC
Exponent International Ltd The Lenz
Harrogate
United Kingdom
Tel: +44 1423 853201
Email: charris@exponent.com

CODEX SECRETARIAT

Ms Gracia Brisco
Food Standards Officer
Joint FAO/WHO Food Standards Programme
Food and Agriculture Organization of the UNited Nations (FAO)
Viale delle Terme di Caracalla
Rome
Italy
Tel: +39 06 5705 2700
Email: gracia.brisco@fao.org

Mr Patrick Sekitoleko
Food Standards Officer
Joint FAO/WHO Food Standards Programme
Food and Agriculture Organization of the United Nations (FAO)
Viale delle Terme di Caracalla
Rome
Italy
Tel: +39 06 5705 6626
Email: patrick.sekitoleko@fao.org

Ms Myoengsin Choi
Food Standards Officer
Food and Agriculture Organization (FAO)
Viale delle Terme di Caracalla
Rome
Italy
Email: myoengsin.choi@fao.org

FAO

Ms Yongzhen Yang
FAO JMPR Secretary
Viale delle Terme di Caracalla
Rome
Italy
Tel: +39 06 57054246
Email: Yongzhen.Yang@fao.org

WHO

Dr Philippe Jean Verger
Scientist
Risk Assessment and Management World Health Organization (WHO)
20, avenue Appia Geneva 27
Switzerland
Tel: +41 22 791 3053
Email: vergerp@who.int

HOST SECRETARIAT

Ms Lifang Duan
Senior Agronomist
CCPR Secretariat Institute for the Control of Agrochemicals
Ministry of Agriculture and Rural Affairs
NO.18 Maizidian Street, Chaoyang District
Beijing
China
Tel: Tel: +86 13911379536
Email: duanlifang@agri.gov.cn

Dr Fengzu Zhang
CCPR Secretariat Institute for the Control of Agrochemicals
Ministry of Agriculture and Rural Affairs
NO.18 Maizidian Street, Chaoyang District
Beijing
China
Tel: +86 010 5919 4254
Email: zhangfengzu@agri.gov.cn

Ms Meng Fu
CCPR Secretariat Institute for the Control of Agrochemicals
Ministry of Agriculture and Rural Affairs
NO.18 Maizidian Street, Chaoyang District
Beijing
China
Tel: +86 010 5919 4255
Email: ccpr@agri.gov.cn

Ms Mengmeng Qu
Institute for the Control of Agrochemicals
Ministry of Agriculture and Rural Affairs
NO.22 Maizidian Street, Chaoyang District Beijing China
Email: qumengmeng@agri.gov.cn

Ms Guangyan Zhu
Senior Technician
Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs, P.R.China
No. 22, Maizidian street, Chaoyang District, Beijing, China
Beijing
China
Tel: +86 010 5919 4105
Email: zhuguangyan@agri.gov.cn

Ms Ran Liu
Institute for the Control of Agrochemicals
Ministry of Agriculture and Rural Affairs
NO.22 Maizidian Street, Chaoyang District Beijing China
Tel: +86 010 59194130
Email: liuran@agri.gov.cn

Ms Jian Huang
Institute for the Control of Agrochemicals
Ministry of Agriculture and Rural Affairs
NO.22 Maizidian Street, Chaoyang District Beijing China
Tel: +86 010 5919 4111
Email: huangjian225@sina.com

Dr Longfei Yuan
State Key Laboratory of Integrated Management of Pest Insects and Rodents
Institute of Zoology, Chinese Academy of Sciences
1 Beichen West Road, Chaoyang District, Beijing China
Tel: +86 010 64807261
Email: yuanlongfei@ioz.ac.cn

APPENDIX II

PROPOSED DRAFT MAXIMUM RESIDUE LIMITS FOR PESTICIDES

(Recommended for adoption at Step 5/8)

	Commodity		MRL (mg/kg)		Step	Note
15	**Chlormequat**					
	GC 0640	Barley	2		5/8	
	AS 0640	Barley straw and fodder, dry	50	(dw)	5/8	
	SO 0691	Cotton seed	0.5		5/8	
	MO 0105	Edible offal (mammalian)	1		5/8	
	PE 0112	Eggs	0.1		5/8	
	FB 0269	Grapes	0.04	(*)	5/8	
	MF 0100	Mammalian fats (except milk fats)	0.1		5/8	
	MM 0095	Meat (from mammals other than marine mammals)	0.2		5/8	
	ML 0106	Milks	0.3		5/8	
	GC 0647	Oats	4		5/8	
	AS 0647	Oat straw and fodder, dry	7	(dw)	5/8	
	PO 0111	Poultry, edible offal of	0.1		5/8	
	PF 0111	Poultry fats	0.04	(*)	5/8	
	PM 0110	Poultry meat	0.04	(*)	5/8	
	GC 0650	Rye	6		5/8	
	CM 0650	Rye bran, Unprocessed	20		5/8	
	AS 0650	Rye straw and fodder, dry	20	(dw)	5/8	
	CF 1251	Rye wholemeal	8		5/8	
	GC 0653	Triticale	5		5/8	
	AS 0653	Triticale straw and fodder, dry	80	(dw)	5/8	
	GC 0654	Wheat	2		5/8	
	CM 0654	Wheat bran, unprocessed	7		5/8	
	AS 0654	Wheat straw and fodder, dry	80	(dw)	5/8	
126	**Oxamyl**					
	VB 0402	Brussels sprouts	0.01	(*)	5/8	
	VR 0577	Carrot	0.01	(*)	5/8	
	VO 2700	Cherry tomato	0.01	(*)	5/8	
	VC 0424	Cucumber	0.02		5/8	
	MO 0105	Edible offal (mammalian)	0.01	(*)	5/8	
	VO 2046	Eggplants, subgroup of (includes all commodities in this subgroup)	0.01	(*)	5/8	
	MF 0100	Mammalian fats (except milk fats)	0.01	(*)	5/8	
	MM 0095	Meat (from mammals other than marine mammals)	0.01	(*)	5/8	
	VC 0046	Melons, except watermelon	0.01		5/8	
	ML 0106	Milks	0.01	(*)	5/8	
	VR 0588	Parsnip	0.01	(*)	5/8	
	VR 0589	Potato	0.01	(*)	5/8	
	VC 0431	Squash, summer	0.04		5/8	
	VR 0596	Sugar beet	0.01	(*)	5/8	
	VO 0448	Tomato	0.01	(*)	5/8	
	VC 0432	Watermelon	0.01		5/8	
188	**Fenpropimorph**					
	FI 0327	Banana	2		5/8	
	GC 0640	Barley	0.2		5/8	
	AS 0640	Barley straw and fodder, dry	0.5		5/8	
	MO 0105	Edible offal (mammalian)	0.7		5/8	
	PE 0112	Eggs	0.005	(*)	5/8	
	MF 0100	Mammalian fats (except milk fats)	0.05		5/8	

	Commodity		MRL (mg/kg)		Step	Note
	MM 0095	Meat (from mammals other than marine mammals)	0.04		5/8	
	ML 0106	Milks	0.01		5/8	
	GC 0647	Oats	0.2		5/8	
	AS 0647	Oat straw and fodder, dry	0.5		5/8	
	PO 0111	Poultry, edible offal of	0.005	(*)	5/8	
	PF 0111	Poultry fats	0.005	(*)	5/8	
	PM 0110	Poultry meat	0.005	(*)	5/8	
	GC 0650	Rye	0.07		5/8	
	AS 0650	Rye straw and fodder, dry	0.5		5/8	
	VR 0596	Sugar beet	0.03		5/8	
	AB 0596	Sugar beet pulp, dry	0.1		5/8	
	GC 0653	Triticale	0.07		5/8	
	AS 0653	Triticale straw and fodder, dry	0.5		5/8	
	GC 0654	Wheat	0.07		5/8	
	CF 1210	Wheat germ	0.3		5/8	
	CM 0654	Wheat bran, unprocessed	0.2		5/8	
	AS 0654	Wheat straw and fodder, dry	0.5		5/8	
	CF 1212	Wheat wholemeal	0.1		5/8	
189	**Tebuconazole**					
	VP 2060	Beans with pods, subgroup of (includes all commodities in this subgroup)	3		5/8	
193	**Fenpyroximate**					
	FP 0226	Apple	0.2		5/8	
	FI 0326	Avocado	0.2		5/8	
	DF 0226	Apples, dried	1		5/8	
	VP 2060	Beans with pods, subgroup of (includes all commodities in this subgroup)	0.5		5/8	
	FC 0001	Citrus fruit, group of (includes all commodities in this group)	0.6		5/8	
	SB 0716	Coffee beans	0.07		5/8	
	VC 0424	Cucumber	0.3		5/8	
	DF 0269	Dried grapes (=currants, raisins and sultanas)	0.2		5/8	
	MO 0105	Edible offal (mammalian)	0.5		5/8	
	VO 2046	Eggplants, subgroup of (includes all commodities in this subgroup)	0.3		5/8	
	FB 0269	Grapes	0.1		5/8	
	DH 1100	Hops, dry	15		5/8	
	GC 0645	Maize	0.01	(*)	5/8	
	AS 0645	Maize fodder, dry	5		5/8	
	MF 0100	Mammalian fats (except milk fats)	0.1		5/8	
	MM 0095	Meat (from mammals other than marine mammals)	0.1	(fat)	5/8	
	VC 0046	Melons, except watermelon	0.2		5/8	
	ML 0106	Milks	0.01	(*)	5/8	
	VO 0051	Peppers, subgroup of (includes all commodities in this subgroup)	0.2		5/8	(except martynia, okra and roselle)
	FP 0230	Pear	0.2		5/8	
	VR 0589	Potato	0.05	(*)	5/8	
	FB 0272	Raspberries, Red, Black	0.2		5/8	
	VC 0431	Squash, summer	0.06		5/8	
	FB 0275	Strawberry	0.3		5/8	
	DT 1114	Tea, Green, Black (black, fermented and dried)	8		5/8	
	TN 0085	Tree nuts	0.05	(*)	5/8	
	OR 0001	Citrus oil, edible	25		5/8	

	Commodity		MRL (mg/kg)		Step	Note
207	**Cyprodinil**					
	VS 0620	Artichoke, globe	4		5/8	
	VP 2060	Beans with pods, subgroup of (includes all commodities in this subgroup)	2		5/8	
	VR 0577	Carrot	1.5		5/8	
	VS 0624	Celery	30		5/8	
	FI 0336	Guava	1.5		5/8	
	VR 0589	Potato	0.01 (*)		5/8	
	TN 0085	Tree nuts	0.04		5/8	(except almond and pistachio)
213	**Trifloxystrobin**					
	VB 0041	Cabbages, Head	1.5		5/8	
	SO 0691	Cotton seed	0.4		5/8	
	VR 0604	Ginseng	0.03 (*)		5/8	
	VL 0502	Spinach	20		5/8	
224	**Difenoconazole**					
	VS 0620	Artichoke, globe	1.5		5/8	
	FB 0020	Blueberries	4		5/8	
	SB 0716	Coffee beans	0.01 (*)		5/8	
	VD 2065	Dry beans, subgroup of (includes all commodities in this subgroup)	0.05		5/8	(except soya bean)
	VD 2066	Dry peas, subgroup of (includes all commodities in this subgroup)	0.15		5/8	
	VO 0050	Fruiting vegetables other than cucurbits	0.6		5/8	(except peppers, chilli
	DV 0604	Ginseng, dried including red ginseng	0.8		5/8	
	VO 0444	Peppers Chili	0.9		5/8	
	HS 0444	Peppers Chili, dried	5		5/8	
	FI 2540	Pitaya	0.15		5/8	
	FP 0009	Pome fruits	4	Po	5/8	
	GC 0649	Rice	8		5/8	
	CM 1205	Rice, polished	0.07		5/8	
	AS 0649	Rice straw and fodder, dry	17	(dw)	5/8	
	FB 0275	Strawberry	2		5/8	
	AS 0447	Sweet corn fodder	0.01 (*)	(dw)	5/8	
	GC 0447	Sweet corn (corn on the cob) (kernels plus cob with husk removed)	0.01 (*)		5/8	
	VC 0432	Watermelon	0.02		5/8	
229	**Azoxystrobin**					
	FI 2540	Pitaya	0.3		5/8	
	SO 0495	Rape seed	0.5		5/8	
	GS 0659	Sugar cane	0.05		5/8	
232	**Prothioconazole**					
	SO 0691	Cotton seed	0.3		5/8	
	MO 0105	Edible offal (mammalian)	0.3		5/8	
	PE 0112	Eggs	0.005 (*)		5/8	
	MF 0100	Mammalian fats (except milk fats)	0.02		5/8	
	MM 0095	Meat (from mammals other than marine mammals)	0.01		5/8	
	ML 0106	Milks	0.004 (*)		5/8	
	PO 0111	Poultry, edible offal of	0.1		5/8	
	PF 0111	Poultry fats	0.01 (*)		5/8	
	PM 0110	Poultry meat	0.01 (*)		5/8	
233	**Spinetoram**					
	FS 0240	Apricot	0.15		5/8	
	FI 0326	Avocado	0.3		5/8	

	Commodity		MRL (mg/kg)		Step	Note
	VC 2039	Fruiting vegetables, cucurbits - cucumbers and summer squashes, subgroup of (includes all commodities in this subgroup)	0.04		5/8	
	FS 0013	Cherries, subgroup of (includes all commodities in this subgroup)	0.09		5/8	
	SO 0691	Cotton seed	0.01 (*)		5/8	
	FB 0021	Currants, Black, Red, White	0.5		5/8	
	MO 0105	Edible offal (mammalian)	0.08		5/8	
	PE 0112	Eggs	0.01 (*)		5/8	
	VA 0384	Leek	0.05		5/8	
	FI 0343	Litchi	0.015		5/8	
	MF 0100	Mammalian fats (except milk fats)	1		5/8	
	FC 0003	Mandarins, subgroup of (including mandarin-like hybrids) (includes all commodities in this subgroup)	0.15		5/8	
	MM 0095	Meat (from mammals other than marine mammals)	1	(fat)	5/8	
	VC 0046	Melons, except watermelon	0.01 (*)		5/8	
	GC 0645	Maize	0.01 (*)		5/8	
	FI 0345	Mango	0.01 (*)		5/8	
	ML 0106	Milks	0.02		5/8	
	FM 0183	Milk fats	0.15		5/8	
	FI 0351	Passion fruit	0.4		5/8	
	HS 0444	Peppers chili, dried	4		5/8	
	VO 0051	Peppers, subgroup of (includes all commodities in this subgroup)	0.4		5/8	(except martynia, okra and roselle)
	FS 0014	Plums, subgroup of (including fresh Prunes) (includes all commodities in this subgroup)	0.09		5/8	
	VR 0589	Potato	0.01 (*)		5/8	
	PO 0111	Poultry, edible offal of	0.01 (*)		5/8	
	PF 0111	Poultry fats	0.01 (*)		5/8	
	PM 0110	Poultry meat	0.01 (*)	(fat)	5/8	
	CM 0649	Rice, husked	0.02 (*)		5/8	
	AS 0649	Rice straw and fodder, dry	1.5		5/8	
	VD 0541	Soya bean, dry	0.01 (*)		5/8	
	FB 0275	Strawberry	0.15		5/8	
	AS 0447	Sweet corn fodder	0.15		5/8	
	GC 0447	Sweet corn (corn on the cob) (kernels plus cob with husk removed)	0.01 (*)		5/8	
	FT 0305	Table olives	0.07		5/8	
243	**Fluopyram**					
	VS 0620	Artichoke, globe	0.4		5/8	
	GC 0640	Barley	0.2		5/8	
	AS 0640	Barley straw and fodder, dry	2		5/8	
	HH 0722	Basil	70		5/8	
	DH 0722	Basil, dry	400		5/8	
	AL 0061	Bean fodder	70		5/8	
	FB 2006	Bush berries, subgroup of (includes all commodities in this subgroup)	7		5/8	
	FB 2005	Cane berries, subgroup of (includes all commodities in this subgroup)	5		5/8	
	FS 0013	Cherries, subgroup of (includes all commodities in this subgroup)	2		5/8	
	VO 2700	Cherry tomato	0.4		5/8	
	SO 0691	Cotton seed	0.8		5/8	
	HS 0730	Dill seed	70		5/8	

Commodity		MRL (mg/kg)		Step	Note
VD 2065	Dry beans, subgroup of (includes all commodities in this subgroup)	0.15		5/8	(except soy bean (dry))
VD 2066	Dry peas, subgroup of (includes all commodities in this subgroup)	0.7		5/8	
MO 0105	Edible offal (mammalian)	8		5/8	
PE 0112	Eggs	2		5/8	
VO 2046	Eggplants, subgroup of (includes all commodities in this subgroup)	0.5		5/8	
DH 1100	Hops, dry	50		5/8	
FC 0002	Lemons and limes (including citron) (includes all commodities in this subgroup)	1		5/8	
GC 2091	Maize cereals, subgroup of (includes all commodities in this subgroup)	0.02		5/8	
AS 0645	Maize fodder, dry	18		5/8	
MF 0100	Mammalian fats (except milk fats)	1.5		5/8	
MM 0095	Meat (from mammals other than marine mammals)	1.5		5/8	
FC 0003	Mandarins, subgroup of (including mandarin-like hybrids) (includes all commodities in this subgroup)	0.6		5/8	
FI 0345	Mango	1		5/8	
ML 0106	Milks	0.8		5/8	
GC 0647	Oats	0.2		5/8	
AS 0647	Oat straw and fodder, dry	2		5/8	
VA 0387	Onion, Welsh	2		5/8	
FC 0004	Oranges, Sweet, Sour, subgroup of (including Orange-like hybrids) (includes all commodities in this subgroup)	0.6		5/8	
AL 0072	Pea hay or pea fodder, dry	100		5/8	
SO 0697	Peanut	0.2		5/8	
PF 0111	Poultry fats	1		5/8	
AL 0697	Peanut fodder	47		5/8	
HS 0444	Peppers chili, dried	30		5/8	
VO 0051	Peppers, subgroup of (includes all commodities in this subgroup)	3		5/8	(except martynia, okra, roselle)
VR 0589	Potato	0.15		5/8	
PO 0111	Poultry, edible offal of	5		5/8	
PM 0110	Poultry meat	1.5		5/8	
FC 0005	Pummelo and Grapefruits, subgroup of (including Shaddock-like hybrids, among others Grapefruit)	0.4		5/8	
GC 0649	Rice	4		5/8	
AS 0649	Rice straw and fodder, dry	17		5/8	
GC 0650	Rye	0.9		5/8	
AS 0650	Rye straw and fodder, dry	23		5/8	
VD 0541	Soya bean, dry	0.3		5/8	
AL 0541	Soya bean fodder	35		5/8	
VA 0389	Spring Onion	15		5/8	
GC 0447	Sweet corn (Corn on the cob) (kernels plus cob with husk removed)	0.01	(*)	5/8	
SO 0702	Sunflower seed	0.7		5/8	
VO 0448	Tomato	0.5		5/8	
GC 0653	Triticale	0.9		5/8	
AS 0653	Triticale straw and fodder, dry	23		5/8	
GC 0654	Wheat	0.9		5/8	
AS 0654	Wheat straw and fodder, dry	23		5/8	
VS 0469	Witloof chicory (sprouts)	0.15		5/8	

	Commodity		MRL (mg/kg)		Step	Note	
249	**Isopyrazam**						
	DF 0226	Apples, dried	3		5/8		
	GC 0640	Barley	0.6		5/8		
	AS 0640	Barley straw and fodder, dry	15	(dw)	5/8		
	VR 0577	Carrot	0.15		5/8		
	VO 2700	Cherry tomato	0.4		5/8		
	VC 0424	Cucumber	0.06		5/8		
	MO 0105	Edible offal (mammalian)	0.02		5/8		
	VO 2046	Eggplants, subgroup of (includes all commodities in this subgroup)	0.4		5/8		
	MF 0100	Mammalian fats (except milk fats)	0.03		5/8		
	MM 0095	Meat (from mammals other than marine mammals)	0.03	(fat)	5/8		
	VC 0046	Melons, except watermelon	0.15		5/8		
	ML 0106	Milks	0.01	(*)	5/8		
	FM 0183	Milk fats	0.02		5/8		
	SO 0697	Peanut	0.01	(*)	5/8		
	VO 0445	Peppers, Sweet (including pimento or pimiento)	0.09		5/8		
	FP 0009	Pome fruits, group of (includes all commodities in this group)	0.4		5/8		
	SO 0495	Rape seed	0.2		5/8		
	GC 0650	Rye	0.03		5/8		
	AS 0650	Rye straw and fodder, dry	15	(dw)	5/8		
	VO 0448	Tomato	0.4		5/8		
	DV 0448	Tomato, dried	5		5/8		
	AS 0653	Triticale straw and fodder, dry	15	(dw)	5/8		
	GC 0653	Triticale	0.03		5/8		
	GC 0654	Wheat	0.03		5/8		
	AS 0654	Wheat straw and fodder, dry	15	(dw)	5/8		
251	**Saflufenacil**						
	SO 0693	Linseed	0.6		5/8		
	SO 0485	Mustard seed	0.6		5/8		
258	**Picoxystrobin**						
	GC 0640	Barley	0.3		5/8		
	AS 0640	Barley straw and fodder, dry	7	(dw)	5/8		
	VD 2065	Dry beans, subgroup of (includes all commodities in this subgroup)	0.06		5/8		
	VD 2066	Dry peas, subgroup of commodities in this subgroup)			(includes all	0.06	5/8
	MO 0105	Edible offal (mammalian)	0.02		5/8		
	PE 0112	Eggs	0.01	(*)	5/8		
	GC 0645	Maize	0.015		5/8		
	AS 0645	Maize fodder, dry	20	(dw)	5/8		
	OR 0645	Maize oil, edible	0.15		5/8		
	MF 0100	Mammalian fats (except milk fats)	0.02		5/8		
	MM 0095	Meat (from mammals other than marine mammals)	0.02		5/8		
	ML 0106	Milks	0.01	(*)	5/8		
	GC 0647	Oats	0.3		5/8		
	AS 0647	Oat straw and fodder, dry	7	(dw)	5/8		
	AL 0072	Pea hay or pea fodder, dry	150	(dw)	5/8		
	GC 0656	Popcorn	0.015		5/8		
	PO 0111	Poultry, edible offal of	0.01	(*)	5/8		
	PF 0111	Poultry fats	0.01		5/8		
	PM 0110	Poultry meat	0.01	(*)	5/8		

	Commodity		MRL (mg/kg)		Step	Note
	GC 0650	Rye	0.04		5/8	
	AS 0650	Rye straw and fodder, dry	7	(dw)	5/8	
	AL 0541	Soya bean fodder	5	(dw)	5/8	
	OR 0541	Soya bean oil, refined	0.2		5/8	
	GC 0447	Sweet corn (Corn on the cob) (kernels plus cob with husk removed)	0.01 (*)		5/8	
	GC 0653	Triticale	0.04		5/8	
	AS 0653	Triticale straw and fodder, dry	7	(dw)	5/8	
	GC 0654	Wheat	0.04		5/8	
	CF 0654	Wheat bran, Processed	0.15		5/8	
	CF 1210	Wheat germ	0.15		5/8	
	AS 0654	Wheat straw and fodder, dry	7	(dw)	5/8	
267	**Imazapyr**					
	GC 0640	Barley	0.7		5/8	
	AS 0640	Barley straw and fodder, dry	0.05	(dw)	5/8	
276	**Imazamox**					
	AS 0640	Barley straw and fodder, dry	0.05	(dw)	5/8	
	GC 0640	Barley	0.02		5/8	
282	**Flonicamid**					
	VP 2060	Beans with pods, subgroup of (includes all commodities in this subgroup)	0.7		5/8	(except soya bean (succulent seeds in pods))
	VD 2065	Dry beans, subgroup of (includes all commodities in this subgroup)	0.15		5/8	(except soya bean (dry))
	VD 2066	Dry peas, subgroup of (includes all commodities in this subgroup)	1		5/8	
	VP 2061	Peas with pods, subgroup of	0.8		5/8	
	VP 2062	Succulent beans without pods, subgroup of (includes all commodities in this subgroup)	0.3		5/8	(except soya bean (succulent seeds))
	VP 2063	Succulent peas without pods, subgroup of (includes all commodities in this subgroup)	0.4		5/8	
285	**Flupyradifurone**					
	FS 0013	Cherries, subgroup of (includes all commodities in this subgroup)	2		5/8	
	FS 2001	Peaches, subgroup of (including Apricots and Nectarine) (includes all commodities in this subgroup)	1.5		5/8	
	FS 0014	Plums, subgroup of (including fresh Prunes) (includes all commodities in this subgroup)	0.4		5/8	
	DF 0014	Prunes, dried	3		5/8	
287	**Quinclorac**					
	MO 0105	Edible offal (mammalian)	0.1		5/8	
	PE 0112	Eggs	0.05 (*)		5/8	
	MF 0100	Mammalian fats (except milk fats)	0.05 (*)		5/8	
	MM 0095	Meat (from mammals other than marine mammals)	0.05 (*)	(fat)	5/8	
	ML 0106	Milks	0.05 (*)		5/8	
	PF 0111	Poultry fats	0.05 (*)		5/8	
	PM 0110	Poultry meat	0.05 (*)	(fat)	5/8	
	PO 0111	Poultry, edible offal of	0.05 (*)		5/8	
	SO 0495	Rape seed	0.15		5/8	
	GC 0649	Rice	10		5/8	
	AS 0649	Rice straw and fodder, dry	8	(dw)	5/8	
	CM 0649	Rice, husked	10		5/8	
	CM 1205	Rice, polished	8		5/8	

	Commodity		MRL (mg/kg)		Step	Note
295	**Bicyclopyrone**					
	MO 0105	Edible offal (mammalian)	3		5/8	
	PE 0112	Eggs	0.01	(*)	5/8	
	GC 0640	Barley	0.04		5/8	
	CF 0640	Barley bran, processed	0.1		5/8	
	AS 0640	Barley straw and fodder, dry	0.8	(dw)	5/8	
	GC 0645	Maize	0.02	(*)	5/8	
	MF 0100	Mammalian fats (except milk fats)	0.02	(*)	5/8	
	MM 0095	Meat (from mammals other than marine mammals)	0.02	(*)	5/8	
	ML 0106	Milks	0.02	(*)	5/8	
	AS 0645	Maize fodder, dry	0.5		5/8	
	GC 0654	Wheat	0.04		5/8	
	PO 0111	Poultry, edible offal of	0.01	(*)	5/8	
	PF 0111	Poultry fats	0.01	(*)	5/8	
	PM 0110	Poultry meat	0.01	(*)	5/8	
	GS 0659	Sugar cane	0.02	(*)	5/8	
	CF 0654	Wheat bran, processed	0.1		5/8	
	CF 1210	Wheat germ	0.06		5/8	
	AS 0654	Wheat straw and fodder, dry	0.8	(dw)	5/8	
	AS 0447	Sweet corn fodder	0.5	(dw)	5/8	
	GC 0447	Sweet corn (corn on the cob) (kernels plus cob with husk removed)	0.03		5/8	
297	**Fenazaquin**					
	FS 0013	Cherries, subgroup of (includes all commodities in this subgroup)	2		5/8	
	DH 1100	Hops, dry	30		5/8	
298	**Fenpyrazamine**					
	TN 0660	Almonds	0.01	(*)	5/8	
	FB 2006	Bush berries, subgroup of (includes all commodities in this subgroup)	4		5/8	
	FB 2005	Cane berries, subgroup of (includes all commodities in this subgroup)	5		5/8	
	FS 0013	Cherries, subgroup of (includes all commodities in this subgroup)	3		5/8	
	VO 4275	Cherry tomato	3		5/8	
	VC 0424	Cucumber	0.7		5/8	
	DF 0269	Dried grapes (=currants, raisins and sultanas)	9		5/8	
	MO 0105	Edible offal (mammalian)	0.05		5/8	
	VO 2046	Eggplants, subgroup of (includes all commodities in this subgroup)	3		5/8	
	VR 0604	Ginseng	0.7		5/8	
	FB 0269	Grapes	3		5/8	
	VL 0482	Lettuce, head	1.5		5/8	
	VL 0483	Lettuce, leaf	1.5		5/8	
	MF 0100	Mammalian fats (except milk fats)	0.02	(*)	5/8	
	MM 0095	Meat (from mammals other than marine mammals)	0.02	(*)	5/8	
	ML 0106	Milks	0.01	(*)	5/8	
	FS 2001	Peaches, subgroup of (including Apricots and Nectarine) (includes all commodities in this subgroup)	4		5/8	
	VO 0445	Peppers, Sweet (including pimento or pimiento)	3		5/8	
	FS 0014	Plums, subgroup of (including fresh Prunes) (includes all commodities in this subgroup)	2		5/8	

	Commodity		MRL (mg/kg)		Step	Note
	FB 0275	Strawberry	3		5/8	
	VO 0448	Tomato	3		5/8	
299	**Isoprothiolane**					
	MO 0105	Edible offal (mammalian)	0.01	(*)	5/8	
	MF 0100	Mammalian fats (except milk fats)	0.01	(*)	5/8	
	MM 0095	Meat (from mammals other than marine mammals)	0.01	(*)	5/8	
	ML 0106	Milks	0.01	(*)	5/8	
	CM 0649	Rice, husked	6		5/8	
	CM 1205	Rice, polished	1.5		5/8	
302	**Fosetyl-Al**					
	FI 0326	Avocado	20		5/8	
	VC 0424	Cucumber	60		5/8	
	MO 0105	Edible offal (mammalian)	0.5		5/8	
	FB 0269	Grapes	60		5/8	
	DH 1100	Hops, dry	1500		5/8	
	VL 0482	Lettuce, head	200		5/8	
	VL 0483	Lettuce, leaf	40		5/8	
	MF 0100	Mammalian fats (except milk fats)	0.2		5/8	
	FC 0003	Mandarins, subgroup of (including mandarin-like hybrids) (includes all commodities in this subgroup)	50		5/8	
	MM 0095	Meat (from mammals other than marine mammals)	0.15		5/8	
	VC 0046	Melons, except watermelon	60		5/8	
	ML 0106	Milks	0.1		5/8	
	FC 0004	Oranges, Sweet, Sour, subgroup of (including Orange-like hybrids) (includes all commodities in this subgroup)	20		5/8	
	FP 0009	Pome fruits, group of (includes all commodities in this group)	50		5/8	
	VO 0445	Peppers, Sweet (including pimento or pimiento)	7		5/8	
	VC 0431	Squash, summer	70		5/8	
	TN 0085	Tree nuts	400		5/8	
	VL 0502	Spinach	20		5/8	
	FB 0275	Strawberry	70		5/8	
	VO 0448	Tomato	8		5/8	
303	**Triflumezopyrim**					
	MO 0105	Edible offal (mammalian)	0.01	(*)	5/8	
	PE 0112	Eggs	0.01	(*)	5/8	
	MF 0100	Mammalian fats (except milk fats)	0.01	(*)	5/8	
	MM 0095	Meat (from mammals other than marine mammals)	0.01	(*)	5/8	
	FM 0183	Milk fats	0.01	(*)	5/8	
	ML 0106	Milks	0.01	(*)	5/8	
	PO 0111	Poultry, edible offal of	0.01	(*)	5/8	
	PF 0111	Poultry fats	0.01	(*)	5/8	
	PM 0110	Poultry meat	0.01	(*)	5/8	
	CM 0649	Rice, husked	0.01		5/8	
	CM 1205	Rice, polished	0.01		5/8	
	GC 0649	Rice	0.2		5/8	
	AS 0649	Rice straw and fodder, dry	0.4	(dw)	5/8	

APPENDIX III

CODEX MAXIMUM RESIDUE LIMITS FOR PESTICIDES

(Recommended for revocation)

	Commodity		MRL (mg/kg)		Step	Note
15	**Chlormequat**					
	GC 0640	Barley	2		CXL-D	
	SO 0691	Cotton seed	0.5		CXL-D	
	PE 0112	Eggs	0.1		CXL-D	
	MM 0814	Goat meat	0.2		CXL-D	
	MO 0098	Kidney of cattle, goats, pigs and sheep	0.5		CXL-D	
	MO 0099	Liver of cattle, goats, pigs & sheep	0.1		CXL-D	
	AS 0645	Maize fodder (dry)	7		CXL-D	
	MM 0097	Meat of cattle, pigs & sheep	0.2		CXL-D	
	ML 0107	Milk of cattle, goats & sheep	0.5		CXL-D	
	GC 0647	Oats	10		CXL-D	
	PO 0111	Poultry, edible offal of	0.1		CXL-D	
	PM 0110	Poultry meat	0.04	(*)	CXL-D	
	SO 0495	Rape seed	5		CXL-D	
	OC 0495	Rape seed oil, crude	0.1	(*)	CXL-D	
	GC 0650	Rye	3		CXL-D	
	CM 0650	Rye bran, Unprocessed	10		CXL-D	
	CF 1250	Rye flour	3		CXL-D	
	CF 1251	Rye wholemeal	4		CXL-D	
	AS 0081	Straw and fodder (dry) of cereal grains	30		CXL-D	
	GC 0653	Triticale	3		CXL-D	
	GC 0654	Wheat	3		CXL-D	
	CM 0654	Wheat bran, unprocessed	10		CXL-D	
	CF 1211	Wheat flour	2		CXL-D	
	CF 1212	Wheat wholemeal	5		CXL-D	
126	**Oxamyl**					
	VR 0577	Carrot	0.1		CXL-D	
	FC 0001	Citrus fruit, group of (includes all commodities in this group)	5		CXL-D	
	SO 0691	Cotton seed	0.2		CXL-D	
	VC 0424	Cucumber	2		CXL-D	
	MO 0096	Edible offal of cattle, goats, horses, pigs & sheep	0.02	(*)	CXL-D	
	PE 0112	Eggs	0.02	(*)	CXL-D	
	MM 0095	Meat (from mammals other than marine mammals)	0.02	(*)	CXL-D	
	VC 0046	Melons, except watermelon	2		CXL-D	
	ML 0106	Milks	0.02	(*)	CXL-D	
	SO 0697	Peanut	0.05		CXL-D	
	AL 0697	Peanut fodder	0.2		CXL-D	
	VR 0589	Potato	0.1		CXL-D	
	VO 0448	Tomato	2		CXL-D	
	PO 0111	Poultry, edible offal of	0.02	(*)	CXL-D	
	PM 0110	Poultry meat	0.02	(*)	CXL-D	
	HS 0191	Spices, fruits and berries	0.07		CXL-D	
	HS 0193	Spices, roots and rhizomes	0.05		CXL-D	
188	**Fenpropimorph**					
	FI 0327	Banana	2		CXL-D	
	GC 0640	Barley	0.5		CXL-D	
	AS 0640	Barley straw and fodder, dry	5		CXL-D	
	MO 0098	Kidney of cattle, goats, pigs and sheep	0.05		CXL-D	

	Commodity		MRL (mg/kg)			Step	Note
	PE 0112	Eggs	0.01	(*)		CXL-D	
	MO 0099	Liver of cattle, goats, pigs & sheep	0.3			CXL-D	
	MF 0100	Mammalian fats (except milk fats)	0.01			CXL-D	
	MM 0095	Meat (from mammals other than marine mammals)	0.02			CXL-D	
	ML 0106	Milks	0.01			CXL-D	
	GC 0647	Oats	0.5			CXL-D	
	AS 0647	Oat straw and fodder, dry	5			CXL-D	
	PO 0111	Poultry, edible offal of	0.01	(*)		CXL-D	
	PF 0111	Poultry fats	0.01	(*)		CXL-D	
	PM 0110	Poultry meat	0.01	(*)		CXL-D	
	VR 0596	Sugar beet	0.05	(*)		CXL-D	
	GC 0650	Rye	0.5			CXL-D	
	AS 0650	Rye straw and fodder, dry	5			CXL-D	
	GC 0654	Wheat	0.5			CXL-D	
	AS 0654	Wheat straw and fodder, dry	5			CXL-D	
193	**Fenpyroximate**						
	FI 0326	Avocado	0.2			CXL-D	
	FC 0001	Citrus fruit, group of (includes all commodities in this group)	0.5			CXL-D	
	VP 0526	Common bean (pods and/or immature seeds)	0.4			CXL-D	
	VC 0424	Cucumber	0.3			CXL-D	
	DF 0269	Dried grapes (=currants, raisins and sultanas)	0.3			CXL-D	
	MO 0105	Edible offal (mammalian)	0.02			CXL-D	
	FB 0269	Grapes	0.1			CXL-D	
	DH 1100	Hops, Dry	10			CXL-D	
	MM 0095	Meat (from mammals other than marine mammals)	0.2		(fat)	CXL-D	
	VC 0046	Melons, except watermelon	0.05	(*)		CXL-D	
	ML 0106	Milks	0.01	(*)		CXL-D	
	FP 0009	Pome fruits	0.3			CXL-D	
	VR 0589	Potato	0.05			CXL-D	
	FB 0275	Strawberry	0.8			CXL-D	
	TN 0085	Tree nuts	0.05	(*)		CXL-D	
207	**Cyprodinil**						
	VP 0061	Beans, except broad bean and soya bean	0.7			CXL-D	(green pods and immature seeds)
	VR 0577	Carrot	0.7			CXL-D	
213	**Trifloxystrobin**						
	VB 0041	Cabbages, Head	0.5			CXL-D	
224	**Difenoconazole**						
	VO 0050	Fruiting vegetables other than cucurbits	0.6			CXL-D	(except sweet corn and mushroom)
	DV 0604	Ginseng, dried including red ginseng	0.2			CXL-D	
	HS 0444	Peppers chili, dried	5			CXL-D	
	FP 0009	Pome fruits	0.8			CXL-D	
232	**Prothioconazole**						
	ML 0106	Milks	0.004	(*)		CXL-D	
	MM 0095	Meat (from mammals other than marine mammals)	0.01			CXL-D	
	MO 0105	Edible offal (mammalian)	0.5			CXL-D	
233	**Spinetoram**						
	PO 0111	Poultry, Edible offal of	0.01	(*)		CXL-D	
	PM 0110	Poultry meat	0.01			CXL-D	

	Commodity		MRL (mg/kg)			Step	Note
	PF 0111	Poultry fats	0.01	(*)		CXL-D	
	ML 0106	Milks	0.01	(*)		CXL-D	
	FM 0183	Milk fats	0.1			CXL-D	
	MM 0095	Meat (from mammals other than marine mammals)	0.2		(fat)	CXL-D	
	PE 0112	Eggs	0.01	(*)		CXL-D	
	MO 0105	Edible offal (mammalian)	0.01	(*)		CXL-D	
243	**Fluopyram**						
	VD 0071	Beans (dry)	0.07			CXL-D	
	FB 0264	Blackberries	3			CXL-D	
	FS 0013	Cherries, subgroup of (includes all commodities in this subgroup)	0.7			CXL-D	
	VD 0524	Chick-pea (dry)	0.07			CXL-D	
	SO 0691	Cotton seed	0.01			CXL-D	
	PE 0112	Eggs	1			CXL-D	
	MO 0098	Kidney of cattle, goats, pigs and sheep	0.8			CXL-D	
	VD 0533	Lentil (dry)	0.07			CXL-D	
	VD 0545	Lupin (dry)	0.07			CXL-D	
	MO 0099	Liver of cattle, goats, pigs & sheep	5			CXL-D	
	MM 0095	Meat (from mammals other than marine mammals)	0.8			CXL-D	
	ML 0106	Milks	0.6			CXL-D	
	AL 0072	Pea hay or pea fodder (dry)	40			CXL-D	
	SO 0697	Peanut	0.03			CXL-D	
	VR 0589	Potato	0.03			CXL-D	
	PO 0111	Poultry, edible offal of	2			CXL-D	
	PM 0110	Poultry meat	0.5			CXL-D	
	FB 0272	Raspberries, Red, Black	3			CXL-D	
	VD 4521	Soybean (dry)	0.05			CXL-D	
	VO 0448	Tomato	0.4			CXL-D	
249	**Isopyrazam**						
	GC 0640	Barley	0.07			CXL-D	
	AS 0640	Barley straw and fodder, dry	3			CXL-D	
	MO 0105	Edible offal (mammalian)	0.02			CXL-D	
	MF 0100	Mammalian fats (except milk fats)	0.01	(*)		CXL-D	
	MM 0095	Meat (from mammals other than marine mammals)	0.01	(*)		CXL-D	
	ML 0106	Milks	0.01	(*)		CXL-D	
	FM 0183	Milk fats	0.02			CXL-D	
	AS 0650	Rye straw and fodder, dry	3			CXL-D	
	GC 0650	Rye	0.03			CXL-D	
	GC 0653	Triticale	0.03			CXL-D	
	AS 0653	Triticale straw and fodder, dry	3			CXL-D	
	GC 0654	Wheat	0.03			CXL-D	
	AS 0654	Wheat straw and fodder, dry	3			CXL-D	

APPENDIX IV

DRAFT MAXIMUM RESIDUE LIMITS FOR PESTICIDES

(Retained at Step 7)

	Commodity		MRL (mg/kg)	Source	Step	Note
178	**Bifenthrin**					
	VO 0442	Okra	0.2		7	
212	**Metalaxyl-M**					
	FP 0226	Apple	0.02 (*)		7	
	SB 0715	Cacao beans	0.02		7	
	FB 0269	Grapes	1		7	
	VL 0482	Lettuce, Head	0.5		7	
	VA 0385	Onion, Bulb	0.03		7	
	VO 0445	Peppers, Sweet (including pimento or pimiento)	0.5		7	
	VR 0589	Potato	0.02 (*)		7	
	VL 0502	Spinach	0.1		7	
	SO 0702	Sunflower seed	0.02 (*)		7	
	VO 0448	Tomato	0.2		7	

APPENDIX V

PROPOSED DRAFT MAXIMUM RESIDUE LIMITS FOR PESTICIDES

(Retained at Step 4)

	Commodity		MRL (mg/kg)		Source	Step	Note
31	**Diquat**						
	VD 0071	Beans (dry)	0.05			4	
	MO 0105	Edible offal (mammalian)	0.01	(*)		4	
	PE 0112	Eggs	0.01	(*)		4	
	MM 0095	Meat (from mammals other than marine mammals)	0.01	(*)		4	
	ML 0106	Milks	0.001	(*)		4	
	PO 0111	Poultry, edible offal of	0.01	(*)		4	
	PM 0110	Poultry meat	0.01	(*)		4	
126	**Oxamyl**						
	HS 0444	Peppers chili, dried	0.01	(*)		4	
	VO 0051	Peppers, subgroup of (includes all commodities in this subgroup)	0.01	(*)		4	(except martynia, okra and roselle)
148	**Propamocarb**						
	VB 0041	Cabbages, Head	1			4	
	VL 0480	Kale (including among others: Collards, Curly kale, Scotch kale, thousand-headed kale; not including Marrow-stem kele)	20			4	
160	**Propiconazole**						
	FS 0013	Cherries, subgroup of (includes all commodities in this subgroup)	3		Po	4	
	FC 0002	Lemons and limes (including citron) (includes all commodities in this subgroup)	15		Po	4	
	FC 0003	Mandarins, subgroup of (including mandarin-like hybrids) (includes all commodities in this subgroup)	15		Po	4	
	OR 0004	Orange oil, edible	2800			4	
	FC 0004	Oranges, sweet, sour, subgroup of (including orange-like hybrids) (includes all commodities in this subgroup)	15		Po	4	
	FS 0247	Peach	1.5		Po	4	
	FI 0353	Pineapple	4		Po	4	
	FS 0014	Plums, subgroup of (including fresh prunes) (includes all commodities in this subgroup)	0.5		Po	4	
	FC 0005	Pummelo and grapefruits, subgroup of (including Shaddock-like hybrids, among others grapefruit)	6		Po	4	
178	**Bifenthrin**						
	VS 0624	Celery	3			4	
	VL 0482	Lettuce, Head	4			4	
	FB 0275	Strawberry	3			4	
193	**Fenpyroximate**						
	FS 0240	Apricot	0.4			4	
	FS 0013	Cherries, subgroup of (includes all commodities in this subgroup)	2			4	
	VO 2700	Cherry tomato	0.3			4	
	FS 0247	Peach	0.8			4	
	FS 0014	Plums, subgroup of (including fresh Prunes) (includes all commodities in this subgroup)	0.8			4	
	VO 0448	Tomato	0.3			4	
	VC 0432	Watermelon	0.05			4	
207	**Cyprodinil**						
	FI 0355	Pomegranate	10		Po	4	

	Commodity		MRL (mg/kg)			Source	Step	Note
252	**Sulfoxaflor**							
	TN 0085	Tree nuts	0.015				4	
296	**Cyclaniliprole**							
	FS 0013	Cherries, subgroup of (includes all commodities in this subgroup)	0.9				4	
	VO 2700	Cherry tomato	0.1				4	
	MO 0105	Edible offal (mammalian)	0.01	(*)			4	
	VO 2046	Eggplants, subgroup of (includes all commodities in this subgroup)	0.1				4	
	VB 0042	Flowerhead brassicas, subgroup of (includes all commodities in this subgroup)	1				4	
	VC 2039	Fruiting vegetables, cucurbits - cucumbers and summer squashes, subgroup of (includes all commodities in this subgroup)	0.06				4	
	VC 2040	Fruiting vegetables, cucurbits – melons, pumpkins and winter squashes (subgroup of) (includes all commodities in this subgroup)	0.15				4	
	FB 0269	Grapes	0.8				4	
	VB 2036	Head brassicas, subgroup of (includes all commodities in this subgroup)	0.7				4	
	VL 0054	Leaves of Brassicaceae, subgroup of, (includes all commodities in this subgroup)	15				4	
	MF 0100	Mammalian fats (except milk fats)	0.01	(*)			4	
	MM 0095	Meat (from mammals other than marine mammals)	0.01	(*)	(fat)		4	
	FM 0183	Milk fats	0.01	(*)			4	
	ML 0106	Milks	0.01	(*)			4	
	FS 2001	Peaches, subgroup of (including Apricots and Nectarine) (includes all commodities in this subgroup)	0.3				4	
	HS 0444	Peppers chili, dried	2				4	
	VO 0051	Peppers, subgroup of (includes all commodities in this subgroup)	0.2				4	(except martynia, okra and roselle)
	FS 0014	Plums, subgroup of (including fresh Prunes) (includes all commodities in this subgroup)	0.2				4	
	FP 0009	Pome fruits, group of (includes all commodities in this group)	0.3				4	
	DF 0014	Prunes, dried	0.8				4	
	AS 0081	Straw and fodder (dry) of cereal grains	0.45		(dw)		4	
	VO 0448	Tomato	0.1				4	
	DV 0448	Tomato, dried	0.4				4	

APPENDIX VI

PROPOSED DRAFT MAXIMUM RESIDUE LIMITS FOR PESTICIDES

(Withdrawn by CCPR)

	Commodity		MRL (mg/kg)	Step	Note
126	**Oxamyl**				
	VO 0051	Peppers, subgroup of (includes all commodities in this subgroup)	5	MRL-W	
	VC 0046	Melons, except watermelon	1	MRL-W	
	VC 0424	Cucumber	1	MRL-W	
	FC 0001	Citrus fruit, group of (includes all commodities in this group)	3	MRL-W	
177	**Abamectin**				
	VL 0502	Spinach	0.15	MRL-W	
189	**Tebuconazole**				
	VP 0526	Common bean (pods and/or immature seeds)	2	MRL-W	
243	**Fluopyram**				
	VO 0051	Peppers, subgroup of (includes all commodities in this subgroup)	0.5	MRL-W	
	HS 0444	Peppers chili, dried	5	MRL-W	
246	**Acetamiprid**				
	VL 0485	Mustard greens	15	MRL-W	
264	**Fenamidone**				
	VL 0502	Spinach	60	MRL-W	
	VL 0485	Mustard greens	60	MRL-W	

APPENDIX VII

PART A

DRAFT AND PROPOSED DRAFT REVISION OF THE CLASSIFICATION OF FOOD AND FEED:

CLASS A: PRIMARY FOOD COMMODITIES OF PLANT ORIGIN

TYPE 04: NUTS, SEEDS AND SAPS

(For adoption at Steps 8 and 5/8)

Tree nuts **Group 022** **Group Letter Code TN**

Group 022, Tree nuts are the seeds of a variety of trees and shrubs, which are characterized by an inedible shell enclosing an oily seed.

The seed is protected from pesticides applied during the growing season by the shell and other parts of the fruit.

The edible portion of the nut is consumed in natural, dried or processed forms.

Portion of the commodity to which the MRL applies (and which is analysed): **Whole commodity after removal of shell.**

Code No.	Commodity
TN 0085	**Group of Tree nuts**
	(includes all commodities in this group)
TN 3100	**African nut**
	Ricinodendron heudelotii (Baill.) Heckel
TN 0660	**Almond**
	Prunus dulcis (Mill.) D. A. Webb,
	syn: *Amygdalus communis* L., *Prunus amygdalus* Batsch.
TN 3101	**Araucaria nut**
	Araucaria bidwillii Hook; *A. angustifolia* (Bertol.) Kuntze;
	A. araucana (Molina) K. Koch
TN 0661	**Beech nut**
	Fagus sylvatica L.; *F. grandifolia* Ehrh.
TN 3102	**Betel nut**
	Areca catechu L.
TN 0662	**Brazil nut**
	Bertholletia excelsa Humb. & Bonpl.
-	**Brazilian pine,** see Araucaria nut, TN 3101
	Araucaria angustifolia (Bertol.) Kuntze
-	**Bunya,** see Araucaria nut, TN 3101
	Araucaria bidwillii Hook
-	**Bur oak**, see Oak nut, TN 3107
	Quercus macrocarpa Michx.
-	**Bush nut**, see Macadamia nut, TN 0669
TN 0663	**Butter nut**
	Juglans cinerea L.
-	**Cajou**, see Cashew nut, TN 0295
	Anacarduim giganteum Hancock ex Engl.

TN 3111	**Canarium nut/galip nut**
	Canarium harveyi
TN 3103	**Candle nut**
	Aleurites moluccanus (L.) Willd.
TN 0295	**Cashew nut**
	Anacardium occidentale L.; *Anacarduim giganteum* Hancock ex Engl.
-	**Castanha-do-maranhão**, see Pachira nut, TN 0670
	Pashira glabra Pasq.
	syn: *Bombacopsis glabra* (Pasq.) A. Robyns
TN 0664	**Chestnut**
	Castanea spp.
TN 3112	**Chilean hazelnut**
	Gevuina avellana Molina
-	**Chinquapin**, see Chestnut, TN 0664
	Castanea pumila (L.) Mill.
TN 0665	**Coconut**
	Cocos nucifera L.
TN 3104	**Dika nut**
	Irvingia gabonensis (Aubry-Lecomte ex O'Rorke) Baill.
-	**Filberts**, see Hazelnut, TN 0666
	Corylus maxima Mill.
TN 3105	**Ginkgo**
	Ginkgo biloba L
-	**Guiana chestnut**, see Pachira nut, TN 0670
	Pachira aquatica Aubl.
-	**Heartnut**, see Walnut, TN 0678
	Juglans ailantifolia var. *cordiformis* (Makino) Rehder
TN 0666	**Hazelnut**
	Corylus avellana L.; *C. maxima* Mill.;
	C. americana Marschall; C. *californica* (A. DC.) Rose
TN 0667	**Hickory nut**
	Carya ovata (Mill.) K. Koch.; *C. glabra* (Mill.) Sweet;
	other sweet *Carya* species
TN 0668	**Japanese horse-chestnut**
	Aesculus turbinata Blume;
-	**Java almond**, see Pili nut, TN 0674
	Canarium vulgare Leenh.; *C indicum* L.
TN 0669	**Macadamia nut**
	Macadamia ternifolia F. Muell.; *M. tetraphylla* L.A.S. Johnson;
	M.intregifolia Maiden & Betche

TN 3106	**Mongongo**
	Schinziophyton rautanenii Schinz) Radcl.-Sm
-	**Monkey-pot,** see Sapucaia nut, TN 0676
	Lecythis pisonis Cambess.
-	**Monkey-puzzle,** see Araucaria nut, TN 3101
	Araucaria araucana (Molina) K. Koch
TN 3107	**Oak nut**
	Quercus spp.
TN 3108	**Okari nut**
	Terminalia kaernbachii Warb.
TN 0670	**Pachira nut**
	Pachira insignis Savigny; *Pashira glabra* Pasq.; *Pachira aquatica* Aubl.
-	**Paradise nut**, see Sapucaia nut TN 0676
	Lecythis zabucajo Aubl.
TN 0672	**Pecan**
	Carya illinoensis (Wangenh.) K. Koch
TN 3109	**Pequi seed**
	Caryocar brasiliense Cambess.
-	**Pignolia or Pignoli**, see Pine nut, TN 0673
TN 0674	**Pili nut**
	Canarium ovatum Engl.; *C. luzonicum* A Gray; *C. vulgare* Leenh.; *C indicum* L.
TN 0673	**Pine nut**
	Mainly *Pinus pinea* L.; also *P. cembra* L.; *P. edulis* Engelm.; *P.sibirica* Du Tour*; P. Koraiensis* Siebold & Zucc.; *P. Gerardiana* Wall. Ex D. Don*; P. Monophylla* Torr & Frém. and other *Pinus* species, except *P. armandii* Franch. and *P. massoniana* Lamb.
-	**Pinocchi**, see Pine nut, TN 0673
-	**Piñon nut**, see Pine nut, TN 0673
TN 0675	**Pistachio nut**
	Pistachio vera L.
-	**Queensland nut**, see Macadamia nut, TN 0669
TN 0676	**Sapucaia nut**
	Lecythis zabucajo Aubl.; *L. minor* Jacq.; *L. ollaria* Loefl..; *L. pisonis* Cambess
TN 0677	**Tropical almond**
	Terminalia catappa L.
TN 0678	**Walnut**
	Juglans regia L.; *J. nigra* L. *J. hindsii* Jeps. Ex R.E. Sm.; *J. microcarpa* Berland var. *microcarpa; Juglans ailantifolia* var. *cordiformis* (Makino) Rehder
-	**Walnut, Black**, see Walnut, TN 0678
	Juglans nigra L.; *J. hindsii* Jeps. Ex R.E. Sm.; *J. microcarpa* Berland var. *microcarpa*
-	**Walnut, English; Walnut, Persian**, see Walnut, TN 0678
	Juglans regia L.
TN 3110	**Yellow-horn**
	Xanthoceras sorbifolium Bunge

GROUP 023 OILSEEDS AND OILFRUITS

Class A

Type 4 Nuts, seeds and saps Group 023 Group Letter Code SO

Oilseed consists of seeds from a variety of plants used in the production of edible vegetable oils, seed meals and cakes for animal feed. Some important vegetable oil seeds are by-products of fibre or fruit crops (e.g. cotton seed, olives).

Some of the oilseeds are, directly or after slight processing (e.g. roasting), used as food (e.g. peanuts) or for food flavouring (e.g. poppy seed, sesame seed).

Oilseeds are protected from pesticides applied during the growing season by the shell or husk of fruit flesh.

The group Oilseeds and oilfruits is divided into five subgroups:

023A Small seed oilseeds

023B Sunflower seeds

023C Cottonseed

023D Other oilseeds

023E Oilfruits

Portion of the commodity to which the MRL applies (and which is analysed): **Oilseeds: Unless otherwise specified, seed or kernels, with shell or husk. Oilfruits: whole commodity**

Group 023	Oilseeds and oilfruits
Code No.	**Commodity**
SO 0088	**Group of Oilseeds and oilfruits** (rape seeds, sunflower seeds, cotton seeds and other oilseeds and oilfruits) (includes all commodities in this group)
SO 0089	**Subgroup of Oilseeds and oilfruits, except peanut** (includes all commodities in this group except peanuts)
SO 0091	**Subgroup of Oilseeds,** (includes all commodities from the groups small seed oilseeds, sunflower seeds, cotton seeds)
SO 0092	**Subgroup of Small seed oilseeds**, **Sunflower seeds, Cotton seeds and Oilfruits**

Subgroup 023A Small seed oilseeds

Code No.	**Commodity**
SO 2090	**Subgroup of small seed oilseeds** (includes all commodities in this subgroup)
SO 0090	**Subgroup of Mustard seeds** (Mustard seed; Mustard seed, Field; Mustards seed, Indian)
SO 3140	**Borage seed** *Borago officinalis* L.
-	**Colza**, see Rape seed, SO 0495
-	**Colza, Indian**, see Mustard seed, Field, SO 0694
SO 3162	**Corn gromwell seed** *Buglossoides arvensis;* syn: *Lithospermum arvense*
-	**Canola**, see Rape seed, SO 0495
SO 3163	**Evening primrose seed** *Oenothera biennis*
-	**Flax-seed**, see Linseed, SO 0693
SO 3141	**Gold of pleasure seed** *Camelina sativa* (L.) Crantz

SO 3142 **Hare's ear mustard seed**

Congringia orientalis (L.) Dumort

SO 3164 **Honesty seed**

Lunaria annua

SO 3143 **Lesquerella seed** (gaslight blodderpod)

Lesquerella recurvata (Engelm. ex. A. Gray) S. Watson

SO 0693 **Linseed**

Linum usitatissimum L.

SO 3144 **Meadow foam seed**

Limnanthes alba Hartw. ex Benth.

SO 0485 **Mustard seed**

Brassica nigra (L.) Koch; *Sinapis alba* L.
Synonym: *Brassica hirta* Moench.

SO 0694 **Mustard seed, Field**

Brassica campestris L., var. *sarson* Prain; *B. campestris* L., var. *toria* Duthie & Fuller

SO 0478 **Mustard seed, Indian**

Brassica Juncea (L.) Czern. & Coss.

SO 3145 **Perilla seed**

Perilla frutescens (L.) Britton var. *frutescens*

SO 0698 **Poppy seed**

Papaver somniferum L.

SO 3165 **Purple viper's bugloss seed**

Echium plantagineum

SO 3166 **Radish seed**

Raphanus sativus convar. Oleifer

SO 0495 **Rape seed**

Brassica napus L.

- **Rape seed, Indian**, see Mustard seed, Field, SO 0694

Brassica campestris L., var. *toria* Duthie & Fuller

SO 0700 **Sesame seed**

Sesamum indicum L.
Synonym: *S. orientale* L.

SO 3167 **Turnip rape seed**

Brassica rapa subsp. Oleifera

Subgroup 023B Sunflower seeds

Code No.	Commodity
SO 2091	**Subgroup of Sunflower seeds**
	(includes all commodities in this subgroup)
SO 3146	**Jojoba seed**
	Simmondsia chinensis (Link) C. K. Schneid.
SO 0695	**Niger seed**
	Guizotia abyssinica (L.) Cass.

SO 0699 **Safflower seed**

Carthamus tinctorius L.

SO 0702 **Sunflower seed**

Helianthus annuus L.

SO 3147 **Tallowwood nut**

Ximenia americana L.

SO 3148 **Tea oil plant seed**

Camellia oleifera C. Abel

Subgroup 023C Cottonseed

SO 0691 **Cottonseed**

Gossypium spp.; several species and cultivars

Subgroup 023D Other oilseeds

Code No. **Commodity**

SO 3150 **American oil palm seed**

Elaeis oleifera (Kunth) Cortés

SO 3169 **Argan nut**

Argania spinosa

SO 3151 **Babassu seed**

Attalea speciosa Mart. Ex Spreng

SO 0690 **Ben Moringa seed**

Moringa oleifera Lam.

Synonyms: *M. pterygosperma* Gaertn.

SO 3170 **Castor bean**

Ricinus communis

- **Coconut**, see Group 022: Tree nuts, TN 0665

SO 3152 **Coyoli palm seed**

Acrocomia aculeata (Jacq.) Lodd. ex Mart.

- **Drumstick tree seed**, see Ben Moringa seed, SO 0690

SO 3153 **Grape seed**

Vitis vinifera L., several cultivars

- **Groundnut**, see Peanut, SO 0697

SO 3154 **Hempseed**

Cannabis sativa L. var. *sativa*

- **Horseradish tree seed**, see Ben Moringa seed, SO 0690

SO 0692 **Kapok**

Ceiba pentandra (L.) Gaertn.

- **Karite nuts**, see Shea nuts SO 0701

- **Maize**, see Group 020: Cereal grains

SO 3155 **Melon seed**

Cucumis melo L. spp. several species and cultivars

- **Palm kernel**, see Palm nut, SO 0696

SO 0696 **Palm nut**

Elaeis guineensis Jacq.

SO 0697 **Peanut**

Arachis hypogaea L.

SO 0703 **Peanut, whole,** see Peanut, SO 0697

SO 3156 **Pumpkin seed**

Cucurbita pepo L.supsp. *pepo*

SO 3171 **Sea buckthorn/sallow thorn seed**

Hippophaë rhamnoides

SO 0701 **Shea nuts**

Butyrospermum paradoxum (Gaertn.) Hepper, subsp. *parkii* (G. Don.) Hepper
Synonym: *B. parkii* (G. Don.) Kotsky

- **Soya bean (dry),** see Group 015: Pulses, VD 0541

- **Soybean (dry),** see Soya bean (dry)

Subgroup 23 E Oilfruits

Code No.	Commodity
SO 2093	**Subgroup of Oilfruits**
	(includes all commodities in this subgroup)
SO 3158	**American oil palm fruit**
	Elaeis oleifera (Kunth) Cortés
-	**Desert date**, see Group 005: Assorted topical and sub-tropical fruits - edible peel, FT 0296
SO 3159	**Maripa palm fruit**
	Attalea maripa (Aubl.) Mart
SO 0305	**Olives for oil production**
	Olea europeaea L*., var, euroaea*
-	**Olives (Table olives)**, see Group 005: Assorted tropical and sub-tropical fruits - edible peel
SO 3160	**Palm fruit (African oil palm)**
	Elaeis guineensis Jacq.
-	**Peach palm**, see Group 005: Assorted topical and sub-tropical fruits - edible peel,
	Bactris gasipaes Kunth var. *gasipaes.*
SO 3161	**Tucum fruit**
	Bactris setosa Mart.

GROUP 024 SEEDS FOR BEVERAGES AND SWEETS

Seeds for beverages and sweets Group 024 Group Letter Code SB

The seeds for beverages and sweets are derived from tropical and sub-tropical trees and shrubs. After processing the seeds are used in the production of beverages and sweets.

These seeds are protected from pesticides applied during the growing season by the shell or other parts of the fruit.

Portion of the commodity to which the MRL applies (and which is analysed): **Unless otherwise specified, seed only.**

Code No.	Commodity
SB 0091	**Group of seeds for beverages** (includes all commodities in this group)
SB 0715	**Cacao bean** *Theobroma cacao* L.; several ssp.
SB 0716	**Coffee bean** among others *Coffea arabica* L.; *C. canephora* Pierre ex Froehner *C. liberica* Bull ex Hiern.; ssp. and cultivars
SB 0717	**Cola nut** *Cola nitida* (Vent.) Schott & Endl.; *C. acuminata* (P. Beauv.) Schott & Endl.; *C. anomala* K. Schum.; *C. verticillata* (Thonn.) Stapf ex A. Chev.
-	**Kola**, see Cola nut, SB 0717
SB 0718	**Senna seed** *Senna obtusifolia* (L.) H. S. Irwin & Barneby.

GROUP 025 TREE SAPS

Tree saps **Group 025 Group Letter Code ST**

Tree saps are collected by drilling holes into appropriate tree trunks and collecting the exuded sap, or the sap can be collected from the inflorescence of the trees. The sap is concentrated to syrup by heating to evaporate much of the water. Syrup is used as a sweetener on foods, used as an ingredient in baking and as a sweetener or flavouring agent.

Portion of the commodity to which the MRL applies (and which is analysed): **Unless specified, the fresh sap**

Code No.	Commodity
ST 2095	**Group of tree saps**
	(includes all commodities in this group)
ST 3400	**Birch**, tree sap
	Betula spp.
ST 3401	**Coconut**, inflorescence sap
	Cocos nucifera L.
ST 3402	**Hophornbeam,** tree sap
	Ostrya spp.
ST 3403	**Manna,** tree sap
	Fraxinus spp.
ST 3404	**Maple,** tree sap
	Acer spp.
ST 3405	**Nut,** tree sap
	Juglans spp.
ST 3406	**Palm,** tree sap
	Jubea spp. and *Phoenix* spp.
ST 3407	**Palmyra Palm**, inflorescence sap
	Borassus flabellifer Linn.
ST 3408	**Sycamore**, tree sap
	Platanus spp.

APPENDIX VII

PART B

PROPOSED DRAFT TABLE 4 ON EXAMPLES OF SELECTION OF REPRESENTATIVE COMMODITIES

Type 04 Nuts, Seeds and Saps

(For inclusion in the *Principles and Guidance for the Selection of Representative Commodities for the Extrapolation of Maximum Residue Limits for Pesticides for Commodity Groups* (CXG 84-2012)

(For adoption at Step 5/8)

Group / Subgroup	**Examples of representative commodities** [1)]	**Extrapolation to the following commodities**
Group 022 Tree nuts	Two commodities from Almonds, Chestnuts, Pecan, Pistachio and Walnuts; Coconut is not an acceptable representative commodity	Tree nuts (TN 0085): African nut; Almond; Araucaria nut; Beech nut; Betel nut; Brazil nut; Butter nut; Canarium nut, Candle nut; Cashew nut; Chestnut; Chilean hazelnut; Coconut; Dika nut; Ginkgo; Hazelnut; Hickory nut; Japanese horse chestnut; Macadamia nut; Mongongo; Oak nut; Okari nut; Pachira nut; Pecan; Pequi seed; Pili nut; Pine nut; Pistachio nut; Sapucaia nut; Tropical almond; Walnut; Yellow-Horn.
Group 023 Oilseeds and oilfruits		
Subgroup 023A Small seed oilseeds	Rapeseed	Small seed oilseeds (SO 2090): Borage seed; Corn gromwell seed; Evening primrose seed; Gold of pleasure seed; Hare's ear mustard seed; Honesty seed; Lesquerella seed; Linseed; Meadow foam seed; Mustard seed; Mustard seed, field; Mustard seed, Indian; Perilla seed; Poppy seed; Purple viper's bugloss seed; Radish seed; Rape seed; Sesame seed.
Subgroup 023B Sunflower seeds	Sunflower seed	Sunflower seeds (SO 2091): Jojoba seed; Niger seed; Safflower seed; Sunflower seed; Tallowwood nut; Tea oil plant seed.
Subgroup 023C Cotton seed	Cotton seed	Cotton seed
Subgroup 023D Other oilseeds	[2)]	American oil palm seed; Argan nut; Babassu seed; Ben Moringa seed; Castor bean; Coyoli palm seed; Grape seed; Hempseed; Kapok; Melon seed; Palm nut; Peanut; Pumpkin seed; Sea buckthorn seed; Shea nut.
Subgroup 023E Oilfruits	Olives for oil production	Oilfruits (SO 2093): American oil palm fruit; Maripa palm fruit; Olives for oil production; Palm fruit (African oil palm); Tucum fruit.
Group 024 Seeds for beverages and sweets	Cacao bean and Coffee bean	Seed for beverages (SB 0091): Cacao bean; Coffee bean; Cola nut; Senna seed.

Group / Subgroup	Examples of representative commodities [1)]	Extrapolation to the following commodities
Group 025 Tree saps	Any commodity in this subgroup	Tree saps (ST 2095): Birch sap; Coconut, inflorescence sap; Hophornbeam sap; Manna sap; Maple sap; Nut sap; Palm sap; Palmyra palm, inflorescence sap; Sycamore sap.

1) Alternative representative commodities may be selected based on documented regional/country differences in dietary consumption and/or areas of production

2) It is not possible to set a group-CXL for this subgroup because of the broad range of crops in this subgroup.

APPENDIX VIII

PART A

DRAFT AND PROPOSED DRAFT REVISION OF THE CLASSIFICATION OF FOOD AND FEED:

CLASS A: PRIMARY FOOD COMMODITIES OF PLANT ORIGIN
TYPE 05: HERBS AND SPICES

(For adoption at Steps 8 and 5/8)

Type 5 Herbs and spices Group 027 Group Letter Code HH

Group 27. Herbs consist of leaves, flowers, stems and roots from a variety of (herbaceous) plants, used in relatively small amounts as condiments to flavour foods or beverages. They are used either in fresh or naturally dried form.

Herbs are fully exposed to pesticides applied during the growing season. Post-harvest treatments are often carried out on dried herbs.

Herbs are consumed as components of other foods in succulent and dried forms or as extracts of the succulent products.

The group Herbs is divided into three subgroups:

027A Herbs (herbaceous plants)

027B Leaves of woody plants (leaves of shrubs and trees)

027C Edible flowers

Portion of the commodity to which the MRL applies (and which is analysed): **Whole commodity as marketed, mainly in the fresh form.**

Group 027 Herbs

Code No.	Commodity
HH 0092	**Group of Herbs**
	(includes all commodities in this group)

Subgroup 027A Herbs (herbaceous plants)

Code No.	Commodity
HH 2095	**Subgroup of Herbs (herbaceous plants)**
	(includes all commodities in this subgroup)
HH 3190	**Agrimony**
	Agrimonia eupatoria L.
HH 0720	**Angelica, leaves**
	Angelica archangelica L.; *A. sylvestris* L. *A. dahurica* (Hoffm.) Benth & Hook. F. ex Franch. & Sav.
	Angelica, fragrant, see Angelica, HH 0720
HH 3191	**Anise, leaves**
	Pimpinella anisum L.
-	Applemint, see Mints, HH 0738
	Mentha suaveolens Ehrh.
HH 3192	**Avarum**
	Senna auriculata (L.) Roxb.
HH 3193	**Aztec sweet herb**
	Lippia dulcis Trevir.
HH 3194	**Balloon pea**
	Lessertia frutescens (L.) Goldblatt & J. C. Manning

HH 0721	**Balm, leaves**
	Melissa officinalis L.
HH 3195	**Barrenwort**
	Epimedium grandiflorum C. Morren
HH 0722	**Basil, leaves**
	Ocimum basilicum L.; *Ocimum x citrodorum* Vis.; *O. minimum* L.; *O. americanum* L.; *O. gratissimum* L.; *O. tenuiflorum* L.
HH 3196	**Bisongrass**
	Anthoxanthum nitens (Weber) Y. Schouten & Veldkamp
HH 3197	**Blue mallow**
	Malva sylvestris L.
HH 3198	**Boneset**
	Eupatorium perfoliatum L.
HH 0724	**Borage**
	Borago officinalis L.
HH 3199	**Borage, Indian**
	Plectranthus amboinicus (Lour.) Spreng.
-	**Buchi**
	See Yellow gentian, HH 3260
HH 0725	**Burnet**
	Sanguisorba officinalis L.; *Sanguisorba minor* Scop.
HH 3200	**Calamint**
	Calamintha grandiflora (L.) Moench; *Calamintha nepeta* (L.) Savi
HH 3201	**Calendula, leaves**
	Calendula officinalis L.
HH 3202	**Caltrop**
	Tribulus terrestris L.
HH 3203	**Caraway, leaves**
	Carum carvi L.
HH 0726	**Catmint**
	Nepeta cataria L.
-	**Catnip**, see Catmint, HH 0726
HH 3204	**Catnip, Japanese**
	Schizonepeta multifida (L.) Briq. L.) Briq
HH 3205	**Celandine, greater**
	Chelidonium majus L.
HH 3206	**Celandine, lesser**
	Ficaria verna Huds.
HH 0624	**Celery, leaves**
	Apium graveolens L.; var. *seccalinum* (Alef) Mansf.

HH 3207	**Centaury**
	Centaurium erythraea Rafn.
HH 3208	**Chaste tree**
	Vitex agnus-castus L.
-	**Chervil, leaves**, see Group 013: Leafy vegetables, VL 0465
-	**Chives,** see Group 009: Bulb vegetables, VA 2605
-	**Cilantro**, see Coriander leaves HH 3209
-	**Clary**, see Sage (and related Salvia species), HH 0743
	Salvia sclarea L.
HH 3209	**Coriander, leaves**
	Coriandrum sativum L.
HH 3210	**Coriander, Bolivian**
	Porophyllum ruderale (Jacq.) Cass.
HH 3211	**Coriander, Vietnamese**
	Persicaria odorata (Lour.) Sojak.
HH 0748	**Costmary**
	Tanacetum balsamita L.;
HH 3212	**Cover fern**
	Marsilea crenata C. Presl.
-	Creeping thyme, see Thyme HH 0750
-	
-	*Thymus serpyllum* L.
HH 3213	**Culantro, leaves**
	Eryngium foetidum L.
HH 3214	**Curry plant**
	Helichrysum italicum (Roth.) G. Don
-	**Cut leaf**
	See Native mint, HH 3235
-	**Daylily, flowers,** see Edible flowers, HH 3200
-	**Daylily, leaves,** see Group 013, Leafy vegetables, VL 2600
HH 0730	**Dill, leaves**
	Anethum graveolens L.
HH 3215	**Dokudami**
	Houttuynia cordata Thunb.
HH 3216	**Epazote**
	Dysphania ambrosioides (L.) Mosyakin & Clemants
-	**Estragon**, see Tarragon, HH 0749
HH 3217	**Evening primose**
	Oenothera biennis L.
HH 0731	**Fennel, leaves**
	Foeniculum vulgare Mill.;

HH 3218 **Fennel, Spanish**

Nigella hispanica L. and *Nigella damascena* L.

HH 3219 **Fenugreek, leaves**

Trigonella foenum-graecum L.

HH 3220 **Feverfew**

Tanacetum parthenium (L.) Sch. Bip.

HH 3221 **Field pennycress**

Thlaspi arvense L.

HH 3222 **Fumitory**

Fumaria officinalis L.

HH 3223 **Gambir**

Uncaria gambir (W. Hunter) Roxb.

HH 3224 **Geranium, leaves**

Pelargonium crispum (P.J. Bergius) L'Her and *Pelargonium graveolens* L'Her; *Pelargonium tomentosum* Jacq.*; Pelargonium quercifolium* (L.f.) L'Hér. ex Aiton and other scented varieties]

HH 3225 **Germander, golden**

Teucrium polium L.

HH 3226 **Greater burnet-saxifrage**

Pimpinella major (L.) Huds.

HH 3227 **Gypsywort**

Lycopus europaeus L.

HH 3228 **Heal-all**

Prunella vulgaris L.

HH 3229 **Honewort**

Cryptotaenia canadensis (L.) DC.

HH 0732 **Horehound**

Marrubium vulgare L.

HH 0733 **Hyssop**

Hyssopus officinalis L.

HH 3230 **Hyssop, anise**

Agastache foeniculum (Pursh) Kuntze; *Agastache rugosa* (Fisch. & C.A. Mey) Kuntze

HH 3231 **Jasmine**

Jasminum officinale L.

HH 3232 **Labrador tea**

Rhododendron groenlandicum (Oeder) Kron & Judd, R. tomentosum Harmaja

HH 0734 **Lavender**

Lavendula angustifolia Mill.;

HH 3233 **Lemongrass**

Cymbopogon citratus (DC.) Stapf; *C. flexuosus* (Nees ex Steud.) Will. Watson

HH 3234	**Lemon savory**
	Micromeria biflora (Buch.-Ham. ex D.Don.) Benth.
-	Lemon thyme, see Thyme HH 0750
HH 0735	**Lovage, leaves**
	Levisticum officinale Koch.
-	Love-in-a-mist, see Fennel, Spanish, HH 3218
	Nigella damascene L.
HH 3235	**Marigold, leaves**
	Tagetes erecta L.; *T. filifolia* Lag; *T. lucida* Cav.; *T. micrantha* Cav.; *T. minuta* L.; *T. patula* L.; *T. minuta* L.; *T. tenuifolia* Cav.
HH 0736	**Marjoram,** including Turkish oregano and Syrian oregano
	Origanum majorana L.; *O. onites* L. and *O*. *syriacum* L.
HH 3236	**Marshmallow**
	Althaea officinalis L.
HH 3237	**Meadowsweet**
	Filipendula ulmaria (L.) Maxim.
HH 0738	**Mint**
	Several *Mentha* species and hybrids; (see also individual Mints)
	including *M. arvensis* L.; *M. spicata* L., syn: *M. cordifolia* Opiz ex Fresen.;
	M. x piperita L.; *Mentha x gracilis* Sole; *M. aquatica* L.; *M. longifolia* (L.) Huds.; *M. arvensis* L.*; M. suaveolens* Ehrh.; M. requienii Benth.; M *viridis* L.
HH 3238	**Mint, Korean**
	Agastache rugosa (Fisch. & C. A. Mey.) Kun
HH 3239	**Mioga**, shoots and flower buds
	Zingiber mioga (Thunb.) Roscoe
HH 3240	**Monarda**
	Monarda didyma L.; *M. fistulosa* L.; *M punctata L.; M. citriodora* Cerv. Ex Lag.; *M. pectinata* Nutt.
HH 3241	**Motherwort**
	Leonurus cardiaca L.
HH 3242	**Mountainmint**
	Pycnanthemum spp.
	Including *M. muticum* (Michx.) Pers.; *M. incanum* Michx.; *M. virginianum* (L.) T. Durand & B.D. Jacks. Ex B.L. Rob. & Fernald; *M. verticillatum* (Michx.) Pers.;
-	**Mugwort**, see Southernwood, HH 0754
	Artemisia vulgaris L.
HH 3243	**Mullein**
	Verbascum densiflorum Bertol.
-	**Myrrh**, see Sweet Cicely, HH 0747
HH 0739	**Nasturtium, leaves**
	Tropaeolum majus L.;*T. minus* L.

HH 3244	**Nettle**
	Urtica dioica L.
-	**Oregano**, see Marjoram, HH 0736
	Origanum vulgare L.
HH 3245	**Oregano, Mexican**
	Lippia graveolens Kunth; *L. micromera* Schauer
HH 3246	**Pandan, leaves**
	Pandanus amaryllifolius Roxb.
HH 3247	**Pansy, leaves**
	Viola tricolor L.
HH 0740	**Parsley, leaves**
	Petroselinum crispum (Mill.) Nyman ex A. W. Hill;
	syn: *P. sativum* Hoffm.; *P. hortense* auct.
	P. crispum var. *neapolitanum* Danert
-	Pennyroyal, see Mint, 0738
	Mentha pulegium L.
HH 3248	**Pennywort**
	Centella asiatica (L.) Urb.
-	**Peppermint**, see Mints, HH 0738
	Mentha x piperita L.
HH 3249	**Perilla, leaves**
	Perilla frutescens (L.) Britton var. *crispa* (Thunb.) W. Deane
-	**Phak ka yaeng,** see Rice paddy herb, HH 3251
HH 3250	**Phak paew**
	Trichodesma indicum (L.) Sm.
HH 3251	**Rice paddy herb**
	Limnophila chinensis (Osbeck) Merr.
	syn: *Limnophila aromatica* (Lam.)Merr.
HH 0741	**Rosemary**
	Rosmarinus officinalis L.
HH 0743	**Sage and related *Salvia* species**
	Salvia officinalis L.; *S. sclarea* L.; *S. lavandulifolia* Vahl; *S. fruticosa* Mill.
HH 3252	**Santolina**
	Santolina rosmarinifolia L.; *Santolina rosmarinifolia* L.
HH 0745	**Savory, Summer; Winter**
	Satureja hortensis L.; *S. montana* L.;
HH 0746	**Sorrel, Common**, and related *Rumex* species
	among others *Rumex acetosa* L.; *R. scutatus* L.; *R. patientia* L.

HH 0754	**Southernwood**
	Artemisia abrotanum L.; *A. pontica* L.
-	**Spearmint**, see Mints, HH 0738
	Mentha spicata L.
-	**Spearmint, Scotch**, see Mints, HH 0738
	Mentha x gracilis Sole
-	**Spotted beebalm**, see Monarda, HH 3240
	Monarda punctate L.
HH 3253	**Stevia**
	Stevia rebaudiana (Bertoni) Bertoni
-	**Stink weed or Stinking,** see Culantro, leaves, HH 3212
	Eryngium foetidum L.
-	**Swamp leaf**, see Rice paddy herb, HH 3251
HH 0747	**Sweet Cicely**
	Myrrhis odorata (L.) Scop.
-	Syrian oregano
	See Marjoram, HH 0736
HH 0749	**Tarragon**
	Artemisia dracunculus L.; *A. drancunculoides* Pursh.
HH 0750	**Thyme**
	Thymus vulgaris L.; *T. serpyllum* L.; *T. mastichina* (L.) L.
	T. citriodorus (Pers.) Schreb, *T. serpyllum* L; *T. satureioides*, and *Thymus* hybrids.
HH 3254	**Toon, Chinese**
	Toona sinensis (A. Juss.) M. Roem.
HH 3255	**Veronica**
	Veronica officinalis L.
-	**Vietnamese mint**, see Coriander, Vietnamese, HH 3211
	Polygonum odoratum Lour.
-	**Wasabi, leaves**, see Subgroup 013B Brassica leafy vegetables, VL 2786
	Wasabia japonica (Miq.) Matsum.
-	**Watercress**, see Group 013: Leafy vegetables, VL 0473
-	**Watermint**, see Mints, HH 0738
	Mentha aquatic L.
HH 3256	**Wasabi, stem**
	Eutrema japonicum (Miq.) Koidz.
HH 3257	**Waterpepper, Japanese**
	Persicaria hydropiper (L.) Delabre
-	Wild bergamot, see Monarda, HH 3240
	Monarda fistulosa L.
HH 3258	**Wild betle leaf bush**
	Piper sarmentosum Roxb.

HH 0751	**Winter cress, Common; American**
	Barbarea vulgaris W.T. Aiton.; *B. verna* (Mill.) Asch.
HH 0752	**Wintergreen, leaves**
	Gaultheria procumbens L.
	(not including herbs of the Wintergreen family (*Pyrolaceae*))
-	Wormwood, see Southernwood, HH 0754
	Artemisia absinthium L.
-	Wormwood, Roman, see Southernwood, HH 0754
	Artemisia pontica L.
	Wormwood, white
	Artemisia albo, see Southernwood, HH 0754
HH 3259	**Yarrow**
	Achillea millefolium L.
HH 3260	**Yellow gentian**
	Gentiana lutea L.
HH 3261	**Yerba santa**
	Eriodictyon californicum (Hook. & Arn.) Torr.
HH 3262	**Yomogi**
	Artemisia princeps L.

Subgroup 027B Leaves of woody plants

Code No.	**Commodity**
HH 2096	**Subgroup of Leaves of woody plants**
	(includes all commodities in this subgroup)
HH 3263	**Aniseed myrtle**
	Syzygium anisatum (Vickery) Craven & Biffen
-	**Bay leaves**, see Laurel leaves HH 0723
HH 3264	**Boldo**
	Peumus boldus Molina
HH 0729	**Curry, leaves**
	Bergera koenigii L.
	syn: *Murraya koenigii* L. Sprengel
HH 3265	Damiana
	Turnera diffusa Willd.
HH 3266	**Japanese pepper leaves**
	Zanthoxylum piperitum (L.) DC.
HH 3267	**Kaffir lime, leaves**
	Citrus hystrix DC.
HH 0723	**Laurel, leaves**
	Laurus nobilis L.
HH 3268	**Lemon myrtle**
	Backhousia citriodora F. Muell.

HH 3269 **Linden**

Tilia americana L.

- **Malabar leaf**, see Tejpat leaves, HH 3237

- **Malabathrum**, see Tejpat leaves, HH 3237

HH 3270 **Mulberry, leaves**

Morus spp.

HH 3271 **Myrtle**

Myrtus communis L.

HH 3272 **Native mint**

Prostanthera incise R. Br, *P. rotundifolia* R. Br.

HH 3273 **Pepper, leaves**

Piper spp.

HH 3274 **Pepperbush, leaves**

Tasmiania lanceolata (Poir.) A.C. Sm.; kaffirsassafraDorrigo pepper, *T. stipitata* (Vick.)

HH 0742 **Rue**

Ruta graveolens L.

HH 3275 **Siamese cassia**

Senna siamea (Lam.) H. S. Irwin & Barneby

HH 0744 **Sassafras, leaves**

Sassafras albidum (Nutt.) Nees

HH 3276 **Tejpat, leaves**

Cinnamomum tamala (Buch.-Ham) Nees & Eberm.

Subgroup 027C Edible Flowers

HH 3200 **Subgroup of Edible flowers, and including other edible flowers that are not listed in this subgroup**

HH 3277 Calendula, flowers

Calendula officinalis L.

HH 3278 Courgette, flowers

Cucurbita pepo L.

HH 3279 Daylily, flowers

Hemerocallis sp.

HH 3280 Daisy, common, flowers

Bellis perennis L.

HH 3281 Geranium, flowers

Pelargonium crispum (P.J.Bergius) L'Her and *Pelargonium graveolens* L'Her

HH 0737 Marigold, flowers

Tagetes minuta L. *Tagetes tenuifolia* Cav. and other *Tagetes* spp.

HH 3282 Nasturtium, flowers

Tropaeolum majus L., *Tropaeolum minus* L.

HH 3283 **Violet, flowers**

Viola odorata L.; *V. tricolor* L.

GROUP 028 SPICES

Class A

Type 5 Herbs and spices Group 028 Group Letter Code HS

Group 028. Spices consist of the aromatic seeds, buds, roots, rhizomes, bark, pods, flowers or parts thereof, berries or other fruits from a variety of plants, which are used in relatively small quantities to flavour foods.

Spices are exposed in varying degrees to pesticides applied during the growing season. Also post harvest treatment may be applied to spices in the dried form.

They are consumed primarily in the dried form as condiments.

The group Spices is divided in nine subgroups:

028A Spices, seeds

028B Spices, fruit or berry

028C Spices, bark

028D Spices, root or rhizome

028E Spices, buds

028F Flower or stigma

028G Spices, aril

028H Spices, Citrus peel

028I Dried Chili Peppers

Portion of the commodity to which MRL applies (and which is analysed): **Unless specified, whole commodity as marketed, mainly in the dried form.**

Group 028 Spices

Code No.	Commodity
HS 0093	**Group of Spices** (includes all commodities in this group)

Subgroup 028A Seeds

Code No.	Commodity
HS 0190	**Subgroup of Spices, seeds** (includes all commodities in this subgroup)
HS 3280	**Achiote, seed** *Bixa orellana* L.
HS 3281	**Ajwain** *Trachyspermum ammi* (L.) Sprague ex Turrill syn: *T. copticum* L.
HS 3282	**Ambrette, seed** *Abelmoschus esculentus* (L.) Moench
HS 0720	**Angelica, seed** *Angelica archangelica* L.; *A. sylvestris* L.
-	**Aniseed**, see Anise, seed, HS 0771
HS 0771	**Anise, seed** *Pimpinella anisum* L.
HS 3283	**Annatto, seed** *Bixa orellana* L.
HS 0722	**Basil, seed** *Ocimum* spp.

HS 3284 **Black bread weed**

Nigella arvensis L.

HS 3285 **Black caraway**

Nigella sativa L.

HS 3286 **Calabash nutmeg**

Monodora myristica (Gaertn.) Dunal

HS 3287 **Candlenut**

Aleurites moluccanus (L.) Willd.

HS 3288 **Candlebush**

Senna alata (L.) Roxb.

HS 0774 **Caraway, seed**

Carum carvi L.

HS 0624 **Celery, seed**

Apium graveolens L.

HS 3289 **Chervil, seed**

Anthriscus cerefolium (L.) Hoffm.

HS 3290 **Chinese nutmeg tree**

Torreya grandis Fortune

HS 0779 **Coriander, seed**

Coriandrum sativum L.

HS 3291 **Cubeb, seed**

Piper cubeba L. f.

HS 3292 **Culantro, seed**

Eryngium foetidum L.

HS 0780 **Cumin, seed**

Cuminum cyminum L.

HS 3293 **Daharian angelica, seed**

Angelica dahurica (Hoffm.) Benth. & Hook. f. ex Franch. & Sav.

HS 0730 **Dill, seed**

Anethum graveolens L.

HS 0731 **Fennel, seed**

Foeniculum vulgare Mill. subsp*. vulgare* var. *vulgare,* Fennel, Florence, seed,
Foeniculum vulgare Mill. subsp*. vulgare* var. *azoricum* (Mill.) Thell.

HS 3294 **Fennel flower, seed**

Nigella hispanica L.

HS 0782 **Fenugreek, seed**

Trigonella foenum-graecum L.; *T. caerulea* (L.) Ser*.*

HS 3295 **Grains of Paradise, seed**

Aframomum melegueta K. Schum.

HS 3296 **Guarana**

Paullinia cupana Kunt

HS 3297	**Honewort, seed**
	Cryptotaenia japonica Hassk.
HS 0735	**Lovage, seed**
	Levisticum officinale Koch.
HS 3298	**Mahaleb**
	Prunus mahaleb L.
HS 3299	**Malabar tamarind**
	Garcinia spp.
HS 3300	**Marjoram, seed, including oregano**
	Origanum majorana L.; *O. vulgare* L. *O. onites* L.
HS 3301	**Milk thistle**
	Silybum marianum (L.) Gaertn.
-	**Mustard, black**, seed, see Oilseeds, SO 0485
	Brassica nigra (L.) Koch
-	**Mustard, brown**, seed, see Oilseeds, SO 0485
	Brassica nigra (L.) Koch
-	**Mustard, white**, seed, see Oilseeds SO 0485
	Sinapis alba L. ssp. *alba*
HS 0789	**Nutmeg**
	Seed of *Myristica fragrans* Houtt.
HS 0740	**Parsley, seed**
	Petroselinum crispum (Mill.) Nyman ex A. W. Hill;
-	**Poppy seed,** SO 0495, see Group 023: Oilseed
-	**Sesame seed,** SO 0700, see Group 023: Oilseed
HS 3302	**Wattle seed**
	Acacia victoriae Bent. and other spp.

Subgroup 028B Fruit or berry

Code No.	**Commodity**
HS 0191	**Subgroup of Spices, fruit or berries** (includes all commodities in this subgroup)
-	**Allspice fruit**, see Pimento, HS 0792
HS 3303	**Anise pepper**
	Zanthoxylum piperitum (L.) DC.
HS 3304	**Ashwagandha, fruit**
	Withania somnifera (L.) Dunal
-	Batavia-cassia, fruit
	See Ashwagandha, fruit, HS 3304
HS 3305	**Belleric myrobalan**
	Terminalia bellirica (Gaertn.) Roxb.
HS 3306	**Caper, berries**
	Capparis spinosa L.

HS 0775 **Cardamom, pods and seeds**

Amomum spp.; Cardamon, Nepal, *Amomum subulatum* Roxb., *Amomum aromaticum* Roxb.; Cardamon-amomum, *Amomum compactum* Sol. ex Maton*;* Malabar cardamom*, Amomum villosum* Lour.; Cardomon, Ethiopian, *Aframomum corrorima* (A. Braun) P. C. M. Jansen; Cardomon, green, *Elettaria cardamomum* (L.) Maton

HS 3307 **Cassia, fruit**

Cinnamomum spp.; Cassia, Chinese, fruit, *Cinnamomum aromaticum* Nees.

HS 3308 **Chasteberry,** berry

Vitex negundo L.

HS 3309 **Chinese cornel dogwood**

Cornus officinalis Sieb. Et Zucc.

HS 3310 **Chinese hawthorn**

Crataegus pinnatifida Bunge

HS 3311 **Chinese-pepper**

Zanthoxylum simulans Hance; Chinese prickly ash, *Zanthoxylum bungeanum* Maxim

HS 3312 **Cinnamon, fruit**

Cinnamomum verum J. Presl; Cinnamon, Saigon, fruit, *Cinnamomum loureiroi* Nees

HS 3313 **Coriander, fruit**

Coriandrum sativum L.

HS 3314 **Cumin, black**

Bunium persicum (Boiss.) B. Fedtsch.

HS 3315 **Dorrigo pepper**, berry

Tasmannia stipitata (Vick.) A.C. Smith

HS 3316 **Eucalyptus, fruit**

Eucalyptus spp.

HS 3317 **Gambooge**

Garcinia gummi-gutta (L.) N. Robson

HS 3318 **Gardenia, fruit**

Gardenia jasminoides J.Ellis

HS 3319 **Grains of Selim**

Xylopia aethiopica (Dunal) A. Rich.

HS 0786 **Juniper, berry**

Juniperis communis L.

HS 3320 **Luo han guo**

Siraitia grosvenorii (Swingle) C. Jeffry ex. A.M. Lu & Zhi Y. Zhang

HS 3321 **Miracle fruit**

Synsepalum dulciferum (Scumach. & Thonn.) Daniell

HS 0790 **Pepper, Black; White; Pink; Green** (see Note 1)

Piper nigrum L.

HS 3322 **Pepper, Cubeb**

Piper cuceba L. f.

HS 0791 **Pepper, Long**

Piper longum L.; *P. retrofractum* Vahl.;

HS 3323 **Pepper, Sichuan**

Zanthoxylum bungeanum Maxim.; *Z. schinifolium* Siebold & Zucc.;

Z. simulans Hance; *Z. piperitum* (L.) DC

HS 3324 **Pepperbush, berry**

*Tasmannia lanceolat*a (Poir.) A.C. Sm.; *T. stipitata* (Vick.) A.C. Smith

HS 3325 **Peppertree**

Schinus spp.; Peppertree, Brazilian*, Schinus terebinthifolius* Raddi; Peppertree, Peruvian, *S. molle* L.

HS 0792 **Pimento, fruit**

Pimenta dioica (L.) Merrill

HS 3326 **Saunders, red**

Pterocarpus santalinus L. f.

HS 3327 **Star anise**

Illicium verum Hook.f.

HS 3328 **Sumac**

Rhus coriaria L.

- Tahiti vanilla

Vanilla tahitensis J. W. Moore

See Vanilla, beans, HS 0795

HS 0369 **Tamarind**, sour varieties

see also Group 006: Assorted tropical and sub-tropical fruits - inedible peel

Tamarindus indica L.

- Tasmanian pepper berry

See Pepperbush berry, HS 3324

HS 0370 **Tonka bean**

Dipteryx odorata (Aubl.) Willd.

HS 3329 **Tsao-Ko**

Amomum tsao-ko Crevost & Lemarié

HS 3330 **Uzazi**

Zanthoxylum gilletii (De Wild.) P.G.Waterman

basionym: *Fagara tessmannii*

HS 0795 **Vanilla, beans**

Vanilla planifolia Andrews

HS 3331 **West African pepper**

Piper guineense Thonn.

- West Indian vanilla

Vanilla pompona Schiede

See Vanilla, beans, HS 0795

Subgroup 028C Bark

Code No.	Commodity
HS 0192	**Subgroup of bark** (includes all commodities in this subgroup)
HS 3332	**Angostura, bark**
	Angostura trifoliata (Willd.) T. S. Elias
HS 3333	**Canella bark**
	Canella winterana (L.) Gaertn.
HS 3334	**Cascada buckthorn, bark**
	Frangula purshiana (DC.) A. Gray
-	**Cassia bark**, see Cinnamon bark (including Cinnamon, Chinese bark), HS 0777
	Cinnamomum aromaticum Nees;
HS 3335	**Catechu, bark**
	Senegalia catechu (L. f.) P. J. H. Hurter & Mabb.
HS 0777	**Cinnamon, bark** (including Cinnamon, Chinese bark)
	Cinnamomum verum J. Presl.; Cassia, Chinese, bark, *C. aromaticum* Nees; Batavia-cassia bark, *C. burmannii* (Nees & T. Nees) Blume; Cinnamon, Saigon, bark, *C. loureiroi* Nees;
HS 3336	**Copaiba**
	Copaifera officinalis (Jacq.) L.
HS 3337	**Eucalyptus, bark**
	Eucalyptus spp.
HS 3338	**Eucommina, bark**
	Eucommia ulmoides Oliv.
HS 3339	**Frankincense**
	Boswellia sacra Flueck.; Frankincense, Indian, *Boswellia serrata* Roxb. ex Colebr.
HS 3340	**Galbanum**
	Ferula gummosa Boiss.
HS 3341	**Guaiac**
	Guaiacum officinale L.
HS 3342	**Guggul**
	Commiphora wightii (Arn.) Bhandari
HS 3343	**Gum arabic**
	Senegalia senegal (L.) Britton
HS 3344	**Gum ghatti**
	Anogeissus latifolia (Roxb. ex DC.) Wall. ex Guill. & Perr.
HS 3345	**Gum karaya**
	Stercula urens Roxb.
HS 3346	**Gum tragacanth**
	Astragalus gummifer Labill.
HS 3347	**Haw, black**
	Viburnum prunifolium L.

HS 3348 **Magnolia, bark**

Magnolia officinalis Rehder & E. H. Wilson

HS 3349 **Mastic**

Pistacia lentiscus L.

HS 3350 **Myrrh**

Commiphora myrrha (Nees) Engl. Commiphora africana (A. Rich.) Engl.; Myrrh, bisabol, *Commiphora kataf* (Forssk.) Engl

HS 3351 **Peony, bark**

Paeonia mascula (L.) Mill.

HS 3352 **Pine, maritime**

Pinus pinaster Aiton

HS 3353 **Pygeum**

Prunus africana (Hook.f.) Kalkman

HS 3354 **Quassia, bark**

Quassia amara L.

HS 3355 **Quebracho, bark**

Aspidosperma quebracho-blanco Schltdl.

HS 3356 **Quillaja**

Quillaja saponaria Molina

- **Quinine**, see Red cinchona, HS 3357

HS 3357 **Red cinchona**

Cinchona pubescens Vahkl; *C. officinalis* L.

HS 3358 **Simaruba, bark**

Simarouba amara Aubl.

HS 3359 **Slippery elm**

Ulmus rubra Muhl.

Subgroup 028D Root or rhizome

Code No.	**Commodity**
HS 0193	**Subgroup of Spices, root or rhizome** (includes all commodities in this subgroup)
HS 3360	**Angelica, root** *Angelica archangelica* L.; *A. sylvestris* L. *A. dahurica* (Hoffm.) Benth & Hook. F. ex Franch. & Sav.
HS 3361	**Asafoetida, roots** (see also Note 2) *Ferula foetida* (Bunge) Regel; *F. assa-foetida* L.
HS 3362	**Bai shu** *Atractylodes macrocephala* Koidz.
HS 0772	**Calamus-root** *Acorus calamus* L.
HS 3363	**Cat's claw, root** *Uncaria tomentosa* (Willd.) DC., *Uncaria guianensis* (Aubl.) J. F. Gmel.

HS 3364 **Chinese chaste tree, root**

Vitex negundo L.

- Chinesetree, root

See Chinese chaste tree, root, HS 3364

HS 3365 **Chinese gold thread, root**

Coptis chinensis Franch., *Coptis* spp.

- Coptis

See Chinese gold thread, HS 3365

HS 3366 **Coriander, root**

Coriandrum sativum L.

HS 3367 **Corydalis**

Corydalis spp.

HS 0781 **Elecampane, root**

Inula helenium L.

HS 3368 **Fingerroot**

Boesenbergia rotunda (L.) Mansf.

syn: *B. pandurata* (Roxb.) Schltr.

HS 0783 **Galangal, rhizome**

Languas galanga (L.) Stunz; syn: *Alpinia galanga* Sw.;

Languas officinarum (Hance) Farwelll;

syn: *Alpinia officinarum* Hance

Kaempferia galanga L.

HS 0784 **Ginger, rhizome**

Zingiber officinale Roscoe

- **Horseradish**, see VR 0583, Group 016: Root and Tuber vegetables

HS 3369 **Jalap**

Ipomoea purga (Wender.) Hayne

- **Krachai,** see Fingerroot, HS 3368

- Largehead Atractylodes, rhizome, see Bai shu HS 3362

- **Licorice**, see Liquorice, root, HS 0787

HS 0787 **Liquorice, root**

Glycyrrhiza glabra L.

HS 3370 **Lovage, root**

Levisticum officinale Koch.

HS 3371 **Mongolian milkvetch, root**

Astragalus membranaceus Fisch. Ex Bunge

HS 3372 **Prince Ginseng**

Pseudostellaria heterophylla (Miq.) Pax

HS 3373 **Temulawak**

Curcuma zanthorrhiza Roxb.

HS 3374 **Tuber fleece flower, tuber**

Reynoutria multiflora (Thanb.) Moldenke

HS 0794 **Turmeric, root**

Curcuma longa L.; *C. mangga* Valeton & van Zijp

HS 3375 **White peony root**

Paeonia lactiflora Pall.

HS 3376 **Yellow gentian, root**

Gentiana lutea L.

HS 3377 **Zedoary**

Curcuma zedoaria (Cristm.) Roscoe

Subgroup 028E Buds

Code No.	Commodity
HS 0194	**Subgroup of Spices, buds** (includes all commodities in this subgroup)
HS 0773	**Caper, bud** *Capparis spinosa* L.
HS 0776	**Cassia, bud** *Cinnamomum aromaticum* (L.) Nees
HS 0778	**Cloves, bud** *Syzygium aromaticum* (L.) Merr. & Perr.; syn: *Eugenia caryophyllus* (Sprengel) Bullock & Harrison; *E. aromatica* Kuntze; *E. caryophyllata* Thunb.; *Caryophyllus aromaticus* L.
HS 0739	**Nasturtium, pod** *Tropaeolum* spp.; Nasturtium bush, pods, *Tropaeolum minus* L.; Nasturtium, garden, pods, *Tropaeolum majus* L.

Subgroup 028F Flower or stigma

Code No.	Commodity
HS 0195	**Subgroup of Spices, flower or stigma** (includes all commodities in this subgroup)
HS 3378	**Golden-and-silver honeysuckle** *Lonicera japonica* Thunb.
HS 3379	**Kewra, flowers** *Pandanus fascicularis* Lam.
HS 3380	**Saffron** *Crocus sativus* L.

Subgroup 028G Aril

Code No.	Commodity
HS 0196	**Spices, aril** (includes all commodities in this subgroup)
HS 0788	**Mace** Dried aril of *Myristica fragrans* Houtt.

Subgroup 028H Citrus Peel

Code No.	Commodity
HS 0197	**Subgroup of Spices, Citrus peel** (includes all commodities in this subgroup)
HS 2206	**Kaffir lime, peel**
	Citrus histrix DC.
HS 3381	**Lemon, peel**
	Citrus limon Burm. f.;
HS 3382	**Orange, peel**
	Citrus sinensis Osbeck
HS 3383	**Satsuma mandarin, peel**
	Citrus unshiu Marcow.
HS 2211	**Yuzu, peel**
	Citrus junos Siebold ex Tanaka
	Yuja, peel, see Yuzu peel, HS 2211

Subgroup 028I Dried Chili Peppers

Code No.	Commodity
HS 0444	**Peppers, Chili, dried**
	Capsicum spp.

Note 1: Although white pepper is in principle a processed food belonging to Type 13: Derived products of plant origin, it is listed for convenience in Group 028 Spices. White pepper is prepared from Black pepper, *Piper nigrum* L.: The seeds are retted in water and dried after removal of the mesocarp. The resulting white pepper may or may not be ground into powder. The scientific name of green pepper and pink pepper is *Piper nigrum* L. Pink pepper is mature pepper. Green pepper is an immature stage of pink pepper.

Note 2: Asafoetida is not only marketed as root, but also as products (resin, powder, flour), which are produced from a gum of the root.

APPENDIX VIII

PART B

PROPOSED DRAFT TABLE 5 ON EXAMPLES OF SELECTION OF REPRESENTATIVE COMMODITIES

Type 05 Herbs and spices

(For inclusion in the *Principles and Guidance for the Selection of Representative Commodities for the Extrapolation of Maximum Residue Limits for Pesticides for Commodity Groups* (CXG 84-2012)

(For adoption at Step 5/8)

Group / Subgroup	Examples of Representative Commodities [1)]	Extrapolation to the following commodities
Group 027 Herbs		
Subgroup 027A, Herbs (herbaceous plants)	Basil or Mint or Leaf lettuce or Spinach	Herbs (HH 2095): Agrimony; Angelica, leaves; Anise, leaves; Avarum; Azetec sweet herb; Balloon pea; Balm, leaves; Barrenwort; Basil, leaves; Bisongrass; Blue mallow; Boneset; Borage; Borage, Indian; Burnet; Calamint; Calendula, leaves; Caltrop; Caraway, leaves; Catmint; Catnip, Japanese; Celandine, greater; Celandine, lesser; Celery, leaves; Centaury; Chaste tree; Coriander, leaves; Coriander, Bolivian; Coriander, Vietnamese; Costmary; Cover fern; Culantro, leaves; Curry plant; Cut leaf; Dill, leaves; Dokudami; Epazote; Evening primose; Fennel, leaves; Fennel, Spanish; Fenugreek, leaves; Feverfew; Field pennycress; Fumitory; Gambir; Geranium, leaves; Germander, golden; Greater burnet-saxifrage; Gypsywort; Heal-all; Honewort; Horehound; Hyssop; Hyssop, anise; Jasmine; Labrador tea; Lavender; Lemongrass; Lemon savory; Lovage, leaves; Marigold, leaves; Marjoram; Marshmallow; Meadowsweet; Mint; Mint, Korean; Mioga, shoots and flower buds; Monarda; Motherwort; Mountainmint; Mullein; Nasturtium, leaves; Nettle; Oregano, Mexican; Pandan, leaves; Pansy, leaves; Parsley, leaves; Pennywort; Perilla, leaves; Phak paew; Rice paddy herb; Rosemary; Sage and related *Salvia* species; Santolina; Savory, Summer and Winter; Sorrel, common; Southernwood; Stevia; Sweet cicely; Tarragon; Thyme; Toon, Chinese; Veronica; Wasabi, stem; Waterpepper, Japanese; Wild betle leaf bush; Winter cress, common, American; Wintergreen leaves; Yarrow; Yellow gentian; Yerba santa; Yomogi
Subgroup 027B Leaves of woody plants	Any commodity in this subgroup or Leaf Lettuce or Spinach	Leaves of woody plants (HH 2096): Aniseed myrtle; Boldo; Curry, leaves; Damiana; Japanese pepper, leaves; Kaffir lime, leaves; Laurel, leaves; Lemon myrtle; Linden; Mulberry leaves, Myrtle; Native mint; Pepper, leaves; Pepperbush, leaves; Rue; Siamese cassia; Sassafras leaves; Tejpat, leaves
Subgroup 027C Edible flowers	Any commodity in this subgroup or Leaf Lettuce or Spinach	Edible flowers (HH 3200): Calendula, flowers; Courgette, flowers; Daylily, flowers; Daisy, common, flowers; Geranium, flowers; Marigold, flowers; Nasturtium, flowers; Violet, flowers and other edible flowers

Group / Subgroup	Examples of Representative Commodities [1)]	Extrapolation to the following commodities
Group 028 Spices		
Subgroup 028A Spices, seeds	Any commodity in this subgroup	Spices, seeds (HS 0190): Achiote, seed; Ajwain; Ambrette, seed; Angelica, seed; Anise, seed; Annatto, seed; Basil, seed; Black bread weed; Black caraway; Calabash nutmeg; Candlenut; Candlebush; Caraway, seed; Celery, seed; Chervil, seed; Chinese nutmeg tree; Coriander, seed; Cubeb, seed; Culantro, seed; Cumin, seed; Daharian angelica, seed; Dill, seed; Fennel, seed; Fennel flower, seed; Fenugreek, seed; Grains of Paradise, seed; Guarana; Honewort, seed; Lovage, seed; Mahaleb; Malabar tamarind; Marjoram, seed; Milk thistle; Nutmeg; Parsley, seed; Wattle seed
Subgroup 028B Spices, fruit or berry	Any commodity in this subgroup	Spices, fruit or berry (HS 0191): Anise pepper; Ashwagandha, fruit; Batavia-cassia, fruit; Belleric myrobalan; Caper, berries; Cardamom, pods and seeds; Cassia, fruit; Chasteberry, berry; Chinese hawthorn; Chinese-pepper; Cinnamon, fruit; Coriander, fruit; Cumin, black; Dorrigo pepper, berry; Eucalyptus, fruit; Fennel, fruit; Gambooge; Gardenia, fruit; Grains of Selim; Juniper, berry; Luo han guo; Miracle fruit; Pepper, Black, White, Pink, Green; Pepper, Cubeb; Pepper, long; Pepper, Sichuan; Pepperbush, berry; Peppertree; Pimento, fruit; Saunders, red; Star anise; Sumac; Tamarind, sour varieties; Tasmanian pepper berry; Tonka bean; Tsao-Ko; Uzazi; Vanilla, beans; West African pepper
Subgroup 028C Spices, bark	Any commodity in this subgroup	Spices, bark (HS 0192): Angostura, bark; Canella bark; Cascada buckthorn, bark; Catechu, bark; Cinnamon bark; Copaiba; Eucalyptus, bark; Eucommina, bark; Frankincense; Galbanum; Guaiac; Guggul; Gum arabic; Gum ghatti; Gum karaya; Gum tragacanth; Haw, black; Magnolia, bark; Mastic; Myrrh; Pine, maritime; Pygeum; Quassia, bark; Quebracho, bark; Quillaja; Red cinchona; Simaruba, bark; Slippery elm
Subgroup 028D Spices, root or rhizome	Any commodity in this subgroup or commodity from Root and Tuber Vegetables, applying an appropriate concentration factor	Spices, root or rhizome (HS 0193): Angelica, root; Asafoetida, root; Calamus-root; Cat's claw, root; Chinesetree, root; Coptis; Coriander, root; Elecampane, root; Fingerroot; Galangal, rhizome; Ginger, rhizome; Jalap; Liquorice, root, Lovage, root; Temulawak; Tumeric, root; Yellow gentian, root; Zedoary
Subgroup 028E Spices, buds	Any commodity in this subgroup	Spices, buds (HS 0194): Caper, bud; Cassia, bud; Cloves, bud; Nasturtium, pod;
Subgroup 028F Flower or stigma	Saffron	Spices, flower or stigma (HS 0195): Golden-and-silver honeysuckle; Kewra, flowers; Saffron
Subgroup 028G Spices, aril	Mace	Spices, aril (HS 0196): Mace
Subgroup 028H Citrus peel	Any commodity in this subgroup	Spices, citrus peel (HS 0197): Kaffir lime, peel; Lemon, peel, Orange, peel, Satsuma mandarin, peel; Yuzu, peel
Subgroup 028I	Any commodity in this subgroup	Peppers, Chili, dried

1) Alternative representative commodities may be selected based on documented regional/country differences in dietary consumption and/or areas of production

APPENDIX IX
PART A

REVISED COMMODITY GROUPS AND SUBGROUPS IN TYPE 03, TYPE 04 AND TYPE 05 THAT MAY IMPACT ON THE CODEX MRLS (CXLs) ADOPTED BY THE CODEX ALIMENTARIUS COMMISSION

TYPE 03: GRASSES

Group 020 Cereal grains

(1) Seven new subgroups were created. Each subgroup has its own code.

GC 2086 Subgroup 020A Wheat, similar grains, and pseudocereals without husks

GC 2087 Subgroup 020B Barley, similar grains, and pseudocereals with husks

GC 2088 Subgroup 020C Rice Cereals

GC 2089 Subgroup 020D Sorghum grain and Millet

GC 2090 Subgroup 020E Maize Cereals

GC 2091 Subgroup 020F Sweet Corns

Remark: In the minutes from CCPR 49 there was an inconsistency in the numbering of the codes of the subgroup maize cereals and sweet corns; this is corrected in this proposal.

(2) New codes

The codes GC 3080 to GC 3087 are added.

The code GC 1275 Sweet Corn (whole kernel without cob or husk) is added and replaces VO 1275 Sweet corn (kernels).

The description of code GC 0447 has to be adjusted into “Sweet corn (Corn-on-the-cob) (kernels plus cob with husk removed)”.

(3) Commodities moving from other groups

Sweet corn (corn on the cob) and Sweet corn (whole kernel) are moved from the vegetable group to the cereal group. To exclude both sweet corns from the new group CXL of cereals the note “excluding Sweet corn” has to be added to code ‘GC 0080 Group of Cereal grains’ and to code ‘GC 0081 Subgroup of Cereal grains except pseudocereals’. At the same time the groups CXLs of the vegetable group and the subgroup fruiting vegetables other than cucurbits has to be added to both Sweet corns.

(4) It is not possible to set a group-CXLs for the new created subgroups. In none of the new groups the CXL of an active substance is at the same level for all members of the subgroup.

Clarification:

Subgroups wheat, barley, rice and sweet corns: in these subgroups there are new created commodities (GC 3080 t/m GC 3087), no CXLs exists for these new commodities.

Subgroup grain sorghum and millet: there are no existing CXLs for GC 0643 Hungry rice and GC 0644 Job’s tears.

Subgroup maize cereals: the existing CXLs for GC 0645 maize, GC 0656 Popcorn and GC 0657 Teosinte and are not at the same level.

Group 021 Grasses for sugar and syrup production

There were no changes in this group.

APPENDIX IX
PART B

REVISED COMMODITY GROUPS AND SUBGROUPS IN TYPE 03, TYPE 04 AND TYPE 05 THAT MAY IMPACT ON THE CODEX MRLS (CXLS) ADOPTED BY THE CODEX ALIMENTARIUS COMMISSION

TYPE 04: NUTS, SEEDS AND SAPS

Group 022 Tree nuts

(1) The codes TN 3100 – TN 3112 were added

Group 023 Oilseeds and oilfruits

(2) In the group of oilseeds 5 subgroups were created

Subgroup of 023A Small seed oilseeds

Subgroup of 023B Sunflower seeds

Subgroup of 023C Cottonseed

Subgroup of 023D Other oilseeds

Subgroup of 023E Oilfruits

The groups 023C and 023D has no code for the subgroup, the subgroup code for the other groups are:

SO 2090 Subgroup of Small seed oilseeds

SO 2091 Subgroup of Sunflower seeds

SO 2093 Subgroup of Oilfruits

(3) New codes:

the codes SO 0091, SO 0092 **and** SO 3140 - SO 3172 are added

(4) In the database the code SO 4711 is used for Flax seed. All codes 4000 and 5000 are deleted and replaced by a reference, therefore code SO 4711 has to be replaced by the code SO 0693 Linseed.

(5) Commodities moving from and to other groups

In the past the description for FT 0305 was “Olives”. In 2012 the description for this code is changed into Table Olives. In the proposal for oilseeds a code for Olives for oil production is introduced. Before 2012, no distinction was made between table olives and olives for oil production. In case the CXLs set for olives before 2012 are evaluated for both type of olives, the CXL of FT 0305 can be taken over for SO 0305.

(6) The possibility of setting group CXLs for new subgroups:

(7) For none of the new created (sub)groups, it is possible to set a (sub)group CXL, because for no active substance a CXL is set at the same level for all commodities in the new created (sub)group.

Group 024 Seed for beverages and sweets

(8) The code SB 0718 for Senna seed is added to this group.

(9) There are no existing group CXL’s, so no notes are necessary for the group CXL’s to exclude new commodities.

Group 025 Tree saps

(10) The group 025 Tree saps is a new created group. The new group code is ST 2095.

(11) The new codes ST 3400 – ST 3408 are added to this group.

APPENDIX IX
PART C

REVISED COMMODITY GROUPS AND SUBGROUPS IN TYPE 03, TYPE 04 AND TYPE 05 THAT MAY IMPACT ON THE CODEX MRLS (CXLS) ADOPTED BY THE CODEX ALIMENTARIUS COMMISSION

TYPE 05: HERBS AND SPICES

Group 027 Herbs

(1) In the group herbs three new subgroups are created, with each an own subgroup code

HH 2095 Subgroup 027A Herbs (herbaceous plants)

HH 2096 Subgroup 027B Leaves of woody plants (leaves of shrubs and trees)

HH3200 Subgroup 027C Edible Flowers

(2) New codes:

The codes HH 3220 – HH 3383 have been added

(3) Removed codes:

HH 0727 Chives (replaced by VA 2605 Chives)

HH 4737 Chives, Chinese (replaced by VA 2606 Chives, Chinese)

(4) Commodities moving to herbs and spices from other groups

HH 3267 Pepper, leaves replacing VL 0489 Pepper, leaves

Pepper leaves is moved from the leafy vegetable group to the herbs and spices group. To exclude Pepper leaves from the new group CXL of herbs and spices the note “excluding Pepper leaves” has to be added to the group code HH 0092 herbs and the subgroup code HH 2095; the group-CXLs of the leafy vegetable group must be added to Pepper leaves.

(5) Commodities moving from herbs and spices to other groups

HH 0727 Chives is replaced by VA 2605 Chives

HH 4737 Chives, Chinese is replaced by VA 2606

The existing CXLs for herbs HH 0092 has to be given as an individual CXL to those commodities. Both Chives have to be excluded from the CXL of their new subgroup VA 2032 (Subgroup of Green Onions). Because no CXLs are set for the subgroup VA 2032, notes to exclude the new commodities are not necessary.

(6) The possibility of setting group CXLs for new subgroups:

For both new created (sub)groups, it is not possible to set a (sub)group CXL, because for no active substance a CXL is set at the same level for all commodities in the new created (sub)group

Group 028 Spices

(7) In the group spices is divided in nine new subgroups with an own subgroup code.

HS 0190 Subgroup 028A Spices, seeds

HS 0191 Subgroup 028B Spices, fruit or berry

HS 0192 Subgroup 028C Spices, bark

HS 0193 Subgroup 028D Spices, root or rhizome

HS 0194 Subgroup 028E Spices, buds

HS 0195 Subgroup 028F Spices, flower or stigma

HS 0196 Subgroup 028G Spices, aril

HS 0197 Subgroup 028H Spices, Citrus peel

HS 0444 Subgroup 028 I Dried Chili peppers

(8) The codes HS 3283 - HS 3350 have been added.

(9) No spice-commodities are moving from or to other groups.

(10) The possibility of setting group CXLs for new subgroups:

For none of the new created (sub)groups, it is possible to set a (sub)group CXL, because for no active substance a CXL is set at the same level for all commodities in the new created (sub)group

APPENDIX X

PROPOSED STRUCTURE OF CLASS C: ANIMAL FEED COMMODITIES

(For further development by the EWG on the revision of the Classification of Food and Feed)

CLASS C: ANIMAL FEED COMMODITIES

Type 11 Feed commodities of plant origin

Group 50 Legume feed products

- Subgroup 050A: products with high water content (forage)
- Subgroup 050B: products with low water content (hay)
- Subgroup 050C: processed products (like silage, meal, hulls)

Group 51 Cereal grains and grasses (including pseudocereals) feed products

- Subgroup 051A: products with high water content (forage)
- Subgroup 051B: products with low water content (hay, straw)
- Subgroup 051C: processed products (like silage, bran, hulls)

Group 52 Miscellaneous feed products

- Subgroup 052A: products with high water content (forage, beets, tops
- Subgroup 052B: products with low water content (hay)
- Subgroup 052C: processed products like processing residues (meal, hulls, dried pulps), molasses)

APPENDIX XI

HISTORY, BACKGROUND AND USE OF THE INTERNATIONAL ESTIMATE OF SHORT – TERM INTAKE EQUATIONS (IESTI)

Introduction

1. This document was drafted in response to a request from CCPR49 (Rep17/PR par 161) to provide information on the history, background and use of the IESTI equations.

History

2. The MRL is the maximum concentration of a pesticide residue (expressed as mg/kg) to be legally permitted in or on food commodities and animal feeds. MRLs are based on Good Agricultural Practice (GAP) data and foods derived from commodities that comply with the respective MRLs are intended to be toxicologically acceptable (CAC, 2016).

3. Initially, the toxicological acceptability of the MRL was determined by estimating a life-time exposure to the residue and comparing this with the Acceptable Daily Intake (ADI). However, in the early 1990s, it became apparent that, in some cases, residues of a chemical could pose risks due to a single or a few days of exposure. Research on residues of acutely toxic pesticides (organophosphates and carbamates) in individual fruits and vegetables revealed random occurrences of comparatively high residue levels. Some individuals who consume significant amounts of such foods will occasionally eat the “hot” commodity unit (Hamey and Harris, 1999; Harris, 2000).

4. At an international level, a deterministic methodology was developed to address the calculation of the acute, or short-term, dietary exposure to pesticides, the International Estimate of Short-Term Intake (IESTI) of the pesticide residue (for a chronological history of the acute RA methodology see Hamilton & Crossley, 2004; WHO, 2009). In characterizing any risks possibly related to the short-term pesticide dietary exposure, the calculated intake, i.e. the IESTI, is thereafter compared with the established toxicological threshold for acute toxicity (Acute Reference Dose-ARfD) of the chemical (EFSA, 2007). The current IESTI equations as used by JMPR are available at the WHO GEMS-Food website[1]. Acute dietary exposure assessments may be also be performed using distributional (probabilistic) methodologies. Currently, JMPR is not using those.

5. At its 1999 meeting (JMPR, 1999), JMPR performed acute dietary exposure assessments for the first time. For pesticides with low acute toxicity, JMPR concluded that “an ARfD is unnecessary” and that assessing the acute exposure is irrelevant. For all other substances, when sufficient data are available, an ARfD is established and compared to the IESTI. In the IESTI method, the estimates are performed for each crop separately; as it is considered that it would be unlikely that an individual will consume, within a meal or 24 h, two large portions (LP) of different commodities that contain the same pesticide at the highest residue level. This methodology has been further refined by subsequent JMPR meetings The equations as currenty used by JMPR are shown later in this document[2]. It is important to note that the IESTI equations are designed for prospective dietary risk assessment in the framework of MRL setting, using residue data derived from supervised field trials conducted at the critical GAP (cGAP). Hence, the equations were not designed for calculating the actual exposure of a given population (retrospective dietary risk assessment), which depends on monitoring data. The Codex Committee on Pesticide Residues (CCPR) concluded that foods derived from commodities that comply with the respective MRLs are intended to be toxicologically acceptable and that where the IESTI exceeds the ARfD for a pesticide/food combination, the JMPR report should describe the particular situation that gives rise to that acute intake concern. The JMPR shall indicate the possibilities to refine the IESTI. As long as JMPR notes an ARfD exceedance, the MRLs are not advanced to a higher Step of the Codex Procedure[3]

Use of the equations

6. Briefly, the steps taken for the MRL-setting and the role of IESTI in the process, are described below and visualized in Figure 1 (FAO, 2006 FAO 2016b):

1. First, residue definitions suitable for enforcement and for risk assessment need to be determined. This requires the examination of many studies: chemical properties such as isomer composition, hydrolysis and photolysis; metabolism in laboratory animals, livestock and crops; methods of analysis; and toxicity of metabolites.

[1] http://www.who.int/foodsafety/areas_work/chemical-risks/gems-food/en/
[2] First two paragraphs adapted from ‘Principles and methods for the risk assessment of chemicals in food’, EHC 240, 2009, Chapter 6
[3] Risk Analysis Principles applied by the Codex Committee on Pesticide Residues, Codex Alimentarius Commission Procedural Manual, Section IV

2. The central part of the whole process is evaluating the available supervised trials data to produce MRLs suitable for Codex adoption and STMR and HR values suitable for use in risk assessments. Many factors affecting residue levels must be considered – application rate, number of applications, formulation and timing and pre-harvest interval.
3. The critical GAP (Good Agricultural Practice), which is the use of the pesticide that will result in the highest residues in supervised trials, is determined. This is based on authorized uses as indicated on approved labels. In the end, the MRL should cover the critical GAP.
4. The results from the selected trials will be used for the proposal of an MRL, using the OECD calculator. This results in MRLs either equal to or higher than the highest residue ((HR[4]). It is noted that the HR is used in the IESTI equations because 1) the HR relates to the edible portion, and 2) the HR relates to the total residue of toxicological concern (including metabolites and/or degradates).
5. The IESTI equations (see paragraph 20) are used in order to estimate the short-term dietary intake, resulting from the cGAP.
6. The calculated short-term intake is compared with the toxicological threshold (ARfD). If the IESTI is lower than ARfD, the MRL is considered acceptable. If the IESTI is higher than the ARfD, the MRL proposal is usually rejected by CCPR, and the cGAP will not be covered by the MRL. In such cases, an MRL might be set for other uses of the pesticides (e.g. lower doses, longer preharvest interval (PHI), lower application rate, different timing), which may result in lower residue levels, and consequently, in an IESTI lower than the ARfD. Please note that procedurally, JMPR proposes all MRLs it derives to CCPR, even if the IESTI exceeds the ARfD. However, a note indicating that the ARfD is exceeded accompanies such a proposal. It is up to CCPR to decide[16] on the acceptability of the MRL proposals.
7. Once an MRL is established, the labeled use pattern is a critical component of the process to ensure food safety in international trade.

7. It is recommended to refer to the FAO Training Manual (FAO 2016b) for a more detailed description of the evaluation process. In the Training Manual, ample examples and exercises are included.

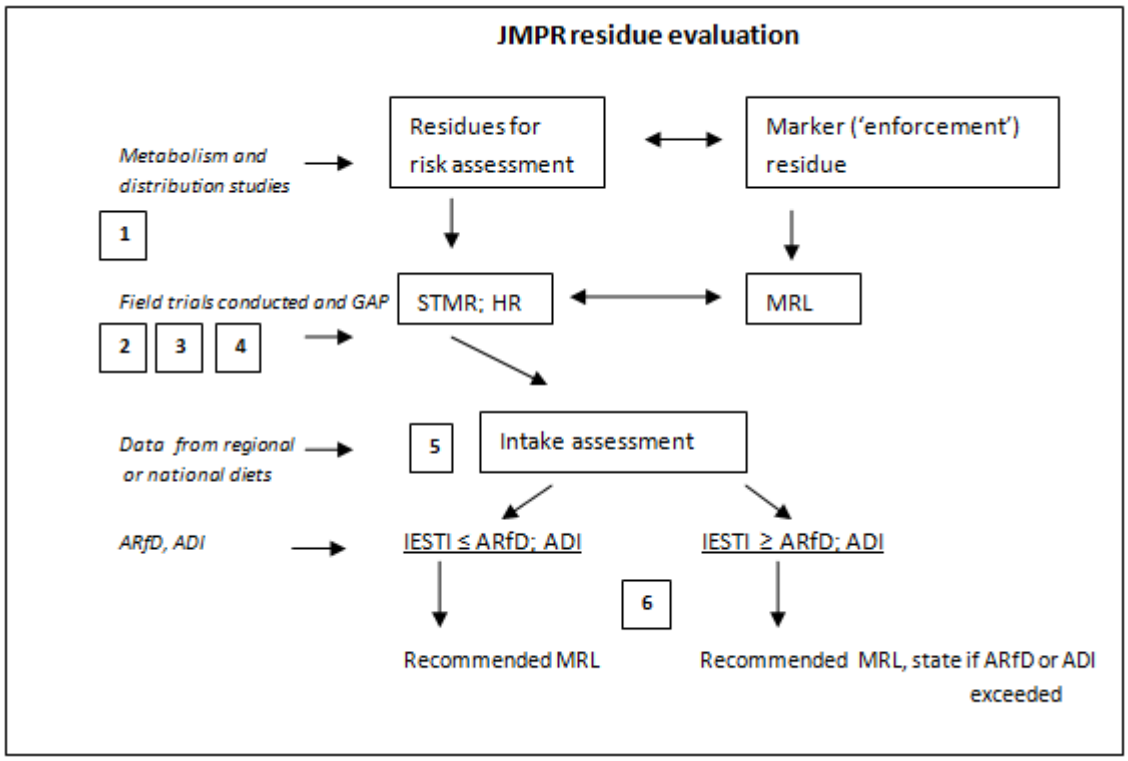

Figure 1: JMPR evaluation of residue data and recommendation of MRLs (adapted from FAO, 2006).

[4] For the residue definition see details in the next Chapter.

8. The MRLs are calculated with the OECD MRL calculator (OECD, 2011). Codex members which use Codex MRLs, implicitly use the IESTI equations. In Australia and the EU, the IESTI equations are used to estimate the short term dietary intake from pesticides for both authorisation of use and MRL setting. Furthermore, in the EU it is also used by food safety inspection services for risk assessment, when a batch is found to contain a residue level that exceeds the MRL[5]. In this case, the IESTI is used to decide whether a recall is needed, and whether the other EU member states need to be alerted.

9. Although the same IESTI equations are used, the input parameters (residues, variability factors, unit weights, large portions) differ among international bodies (JMPR, EFSA) and individual countries. Because of differences in these input parameters, the outcome of acute risk assessments may differ for a single crop-pesticide combination in different parts of the world. A current distinction is that JMPR uses variability factors of 1 or 3, but that EU also uses 5, and 7 resulting in an increased exposure estimate for some commodities.

Further background on the International Estimate of Short-Term Intake (IESTI)

IESTI parameter definitions

10. In this section the concept developed for calculating the IESTI is described. The IESTI is designed to assess dietary intake on the basis of the residue definition for dietary intake. All users of the IESTI apply the following definitions:

bw Mean body weight (in kg), provided by the country from which the LP was reported. The bodyweight represents the mean body weight of the population group of the dietary survey from which the LP was derived (e.g. general population, adults, children).

HR Highest residue in composite sample of edible portion found in the supervised trials performed according to GAP used for estimating the maximum residue level (in mg/kg). A composite sample is a sample that is composed of multiple units of the same commodity

HR-P Highest residue in a processed[6] commodity, calculated by multiplying the highest residue in the raw commodity by a processing factor (in mg/kg).

LP_{person} Highest large portion reported (in principle the 97.5th percentile of consumers only), in kg of food per person per day.

STMR Supervised trials median residue in the edible portion of a food commodity (in mg/kg), derived from the same set of supervised field trials (composite samples) as the HR.

STMR-P Supervised trials median residue in processed commodity calculated by multiplying the STMR in the raw commodity by a processing factor (in mg/kg).

U_e Unit weight of the edible portion (in kg), usually provided by the country that provided the LP.

U_{RAC} Unit weight of the raw agricultural commodity (RAC), in kg, usually provided by the country that provided the LP.

v Variability factor, the factor applied to the composite residue to estimate the residue level in a high-residue unit.

The parameter definitions are described in more detail below.

Residue definition, HR, STMR

11. A pesticide residue is defined as the combination of the pesticide and its relevant metabolites, derivatives and related compounds to which the MRL, HR (highest residue in field trials) or STMR (Supervised Trials Median Residue) apply. In some instances two residue definitions are needed for one compound, one for enforcement and one for the dietary risk assessment. The residue definition for enforcement needs to be simple to allow practical routine monitoring and testing of food products for compliance with MRLs. Therefore, it is preferable not to include metabolites, if they are present as only a minor part of the residues, or if their analysis is cumbersome and expensive. The MRL historically was derived from the HR. Currently, it is derived from the mean residue or the HR using the OECD MRL calculator which takes into account a margin to cover statistical uncertainties. The OECD MRL calculator practically relies on the distribution including the mean, the HR and the statistical spread in the data to recommend an MRL. There are three algorithms options: the mean plus 4 standard deviations or 3 times the mean, or rounding from the HR. However, rounding from the HR is rarely the driver in practical implementation. The uncertainties in these values are mainly associated with the residue dataset available.

[5] Codex MRLs are implemented in EU legislation and as such become EU MRLs, unless a reservation was made during the discussion at CCPR. EU Inspections relate to EU MRLs.

[6] 'Processing' can either relate to removing inedible parts of a commodity, e.g. peeling a banana, or to further (industrial or household) preparation, e.g. milling of grain, cooking of spinach.

The minimum data requirements vary from usually three to four trials for minor or specialty crops[7] to a minimum of eight trials for major crops. Consequently, when only limited residue data are available or if there is a large spread in the data set, the resulting MRL recommendations can be substantially higher than the HR and the STMR. The residue definition for dietary intake purposes should include metabolites and degradation products, which significantly contribute to the toxicological burden of the parent irrespective of their source (FAO, 2016; WHO, 2009).

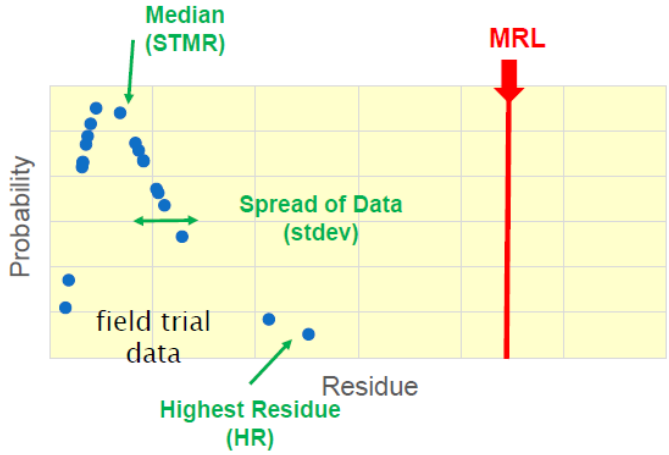

Figure 1 MRLs are derived using the OECD MRL calculator which relies on residue field trial data performed at the critical GAP (Figure taken from Crop Life International, presented in CCPR48, 2016).

12. In the IESTI calculation, the **highest residue (HR)** and the **Supervised Trials Median Residue (STMR)** are used as an input into the equations within the spreadsheets, and they refer to the residue as defined by the residue definition for dietary risk assessment present in the raw edible portion of the crop. In the absence of a HR or STMR for the raw edible portion, the HR or STMR of the Raw Agricultural Commodity (RAC) is used in the dietary risk assessment, typically adding conservatism. This situation is mostly encountered for commodities with an inedible peel, like banana and orange. The HR and STMR are estimated from supervised trials that have been conducted according to the critical GAP (see above).

Processing factor (HR-P, STMR-P)

13. The HR or STMR, derived from supervised trials performed in accordance to the critical GAP, are mostly based on the edible part of the raw commodity. However, some of the commodities may undergo processing prior to consumption. Processing can either relate to removing inedible parts of a commodity, e.g. peeling a banana, or to further (industrial or household) preparation, e.g. milling of grain, cooking of spinach. Adjustment to the residue in the food as consumed can be accomplished by using a peeling factor or processing factor (PF). A PF may be added to the IESTI equation to predict the residue in the raw edible portion or specified processed commodity if only data for the raw agricultural commodity are available. The processing factor is experimentally determined from processing studies. The IESTI calculations can be performed separately to estimate dietary exposure from consumption of the unprocessed or processed form of a food commodity, when relevant.

14. In the present situation, JMPR generally uses the residues as measured in the raw edible portions to estimate STMR and HR, instead of calculating the residue in the edible portion by applying a processing factor to the residue in the RAC.

The Large Portion (LP_{person})

15. The IESTI equation includes the large portion (LP) which is represented by the highest 97.5th percentile of consumption for a particular commodity selected from all available national dietary surveys.[8] The large portion may be derived for the general population, which includes all relevant groups like toddlers/young children, women of childbearing age and adults. In addition, countries may derive separate LPs for specific age groups, andfor example, vegetarians. The LP can be updated when new food consumption data become available.

---

[7] In the "*Guidance to facilitate the establishment of MRLs for Pesticides for Minor Crops*" crops for which consumption is below the threshold of 0.5% worldwide consumption, are divided in three categories. Depending on the category, the minimum number of trials are decided on a case-by-case basis (category 1) to up to 5 trials (category 3) (CX/PR15, Appendix XI).

[8] Please note that the highest LP does not necessarily lead to the highest exposure (expressed as percentage of the ARfD), because the unit weights need to be taken into account. Different unit weights were reported for different countries. Therefore the selection of the most critical LP is based on IESTI calculations for each survey of a country, combining the LP with the U of that country.

16. At national level, the 97.5th percentiles (LP) are calculated by identifying all the days of consumption for each commodity under consideration. If the national survey is based on more than one day per subject, each day is considered independent even for the same consumer. This results in a distribution of "n" days of consumption (or consumer*day) values for which the 97.5th percentile of the distribution can be estimated.

17. At international level all national LPs are collected together with the associated number of consumer*days "n". For each of the commodities, the most critical national LP is selected and used in the JMPR calculations. Since the highest LP *U value is chosen from among the considered countries, the equation will necessarily protect more than 97.5 percent of the total population since the parameters of the worst case country were selected.

18. The reliability of high percentiles is related to the number of observations used to calculate them. Percentiles calculated on a limited number of days of consumption should be treated with caution as the results may not be statistically robust. The Global Environmental Monitoring System (GEMS) Food Programme is regularly collects new available national food consumption data. Since 2011 the number of consumer*day n associated with the 97.5th percentile is also collected and available. In the IESTI equation the highest or most critical LP is considered. The LP should be regularly updated when new data become available. Updates are conducted as a result of a call for data from WHO or at any time that a country submits its new large portion data to WHO. It is noted that the GEMS-Food database relies strongly on the quality of the input data from the Codex member states. For quality purposes, some reliability checks are performed before the large portions are entered in the JMPR IESTI model.

The variability factor (v)

19. The concept of a variability factor was introduced to take into account the different concentrations of residues in individual units of a composite sample and the average residue concentration in the sample lot represented by the composite sample. The variability factor (*v*) was defined as the 97.5th percentile of the residue concentrations present in commodity units (RAC) divided by the mean residue concentration of the sample population: P97.5 residue in units / mean residue in units (Ambrus *et al*., 2014; FAO, 2016).

IESTI Equations

20. Four different cases are distinguished for the calculations of the acute dietary exposure, depending on the unit weight of the RAC (U), the ratio of the food large portion (LP) to unit weight, and on whether or not the food product is blended. The four different equations are presented below.

Case 1

The residue in a *composite sample* (raw or processed) reflects the residue level in a portion of the commodity that would be consumed at one meal (whole fruit or vegetable unit weight (expressed as RAC) is below 25 g). Case 1 also applies to meat, liver, kidney, edible offal and eggs. For grains, oilseed and pulses commodities it applies when the estimates were based on post-harvest use of the pesticide, and hence, the residue is more homogenously distributed.

$$\text{IESTI} = \frac{\text{LP}_{\text{person}} \times (\text{HR or HR - P})}{\text{bw}} \text{ in mg/kg bw}$$

Examples: dried fruits, berries and other small fruits, meat products.

Case 2

The one meal portion, such as *a single fruit or vegetable unit*, might have a higher residue than the composite (whole fruit or vegetable unit weight (expressed as RAC) is equal or above 25 g).

Case 2a

The unit weight of the edible portion (U_e) of the individual commodity is higher (or equal) than 25 g and lower than the large portion weight, i.e. a large portion contains more than one food item.

Example: a single pear (individual commodity) weighs more than 25 g, but a large portion of pears (e.g. 100 g) consists of 4 (more than one) pears.

$$\text{IESTI} = \frac{\{\text{U}_\text{e} \times (\text{HR or HR - P}) \times v\} + \{(\text{LP}_{\text{person}} - \text{U}_\text{e}) \times (\text{HR or HR - P})\}}{\text{bw}} \text{ in mg/kg bw}$$

The Case 2a formula is based on the assumption that the first unit contains residues at the [HR × *v*] level and the next ones contain residues at the HR level, which represents the residue in the composite from the same lot as the first one.

Case 2b

The unit weight (edible portion) of the individual commodity is higher (or equal) than 25 g, and also higher than the large portion weight. In other words, the large portion contains less than one whole food item.

Example: a single cabbage (individual commodity) may weigh around 1000 g (more than 25 g), but a large portion of cabbage can be much less, e.g. 150 g, and hence it consists of less than one cabbage.

$$\text{IESTI} = \frac{\text{LP}_{\text{person}} \times (\text{HR or HR - P}) \times v}{\text{bw}}$$

The Case 2b formula is based on the assumption that there is only one consumed unit and it contains residues at the [HR × *v*] level.

Case 3

Case 3 is for those *processed commodities* where, because of *bulking or blending*, the STMR-P represents the likely highest residue. Case 3 also applies to milk and to grains, oilseeds and pulses for which the estimates were based on pre-harvest use of the pesticide.

Examples: pre-harvestly treated cereal grains, flour, pulses, vegetable oils, fruit juices processed industrially

$$\text{IESTI} = \frac{\text{LP}_{\text{person}} \times (\text{STMR or STMR - P})}{\text{bw}}$$ *in mg/kg bw*

Residues below the LOQ

21. Sometimes residue field trials at cGAP report residues in the raw agricultural commodity at or below the LOQ for all samples. This may represent a zero-residue situation or a situation where residues are present but below the LOQ (≤LOQ) and thus cannot be quantified. In such a situation it is unclear what the input in the IESTI equation should be: zero or the value of the LOQ.

22. The zero-residue situation is the situation where no residues are expected even if higher doses or shorter Pre-Harvest Intervals[9] (PHI) are applied. If other crop field trials at higher doses or shorter PHI show residues above LOQ or metabolism studies indicate the possibility of residues at higher doses the zero-residue situation is not confirmed. A zero-residue situation could originate from the type of application (e.g. herbicide treatment below trees, seed treatment) or the timing of application (early in the growth season before the harvestable part of the crop has formed) or because degradation is very rapid and no relevant residues are found at any time.

23. The JMPR approach[10] in these situations is:

a) For the situation where residues are found below LOQ, but the zero-residue situation is not confirmed at higher doses or lower PHI or in metabolism studies (situation a), the MRL is set at the LOQ and the dietary risk assessment is performed with STMR and HR = LOQ[11].

b) For the situation where residues are found below LOQ and the zero-residue situation is confirmed at higher doses or lower PHI or in metabolism studies (situation b), the MRL is also set at the LOQ, but the dietary risk assessment is performed with STMR and HR = 0.

At present, it is very often unclear whether an MRL at the LOQ relates to a zero-residue situation.

Residues in animal commodities

24. Residues in feed may lead to detectable residues in animal tissues, milk and eggs, necessitating MRLs for those commodities. The residues that may arise in animal commodities are estimated based on the combined information from dietary burden calculations and livestock feeding studies (OECD No 73, 2013).

25. The estimation of the STMR (or median residue) in animal commodities is based on the mean livestock dietary burden and a feeding study. The mean livestock dietary burden is calculated based on the median residues in all feed items. The residue in tissues, milk and eggs corresponding to the mean livestock dietary burden is interpolated either manually from the two closest dose levels in the feeding study (including zero dose) or statistically based on linear regression using all dose levels in the feeding study, or a transfer factor can be used. The average residue level per dose level is taken from the feeding studies to estimate the STMR in muscle, fat, liver, kidney, milk and eggs.

[9] PHI: the pre-harvest interval is the number of days between the last application of a pesticide and harvest of the crop
[10] Regional approaches (e.g. EU) may differ
[11] If residues can be confirmed to be at levels equal to or less than the limit of detection, US-EPA would generally use that as the benchmark, not the LOQ. The EU uses the LOQ even when a no-residue situation is confirmed.

26. The estimation of the HR (or highest residue) in animal commodities is based on the maximum livestock dietary burden and a feeding study. The maximum livestock dietary burden is calculated based on the highest residues in individual feed items, although median residues in feed items are used in case of bulking/blending (e.g. pre-harvest treated seeds, grains) and or processed commodities (e.g. fruit pomace). The residue in tissues, milk and eggs corresponding to the maximum livestock dietary burden is interpolated either manually from the two closest dose levels in the feeding study (including zero dose) or statistically based on linear regression using all dose levels in the feeding study, or a transfer factor can be used. The highest residue level per dose level is taken from the feeding studies to estimate the HR in muscle, fat, liver, kidney, and eggs.

27. The estimation of the MRL in animal commodities is based on the HR, derived as above. In case the residue definition for animal commodities for enforcement and dietary risk assessment is the same, the MRL can be derived from the highest residue for tissues and eggs and the mean residue for milk (both based on the maximum livestock dietary burden). It is noted that if the residue definition is different for enforcement and dietary risk assessment, a highest residue for tissues and eggs and a mean residue for milk (both based on the maximum livestock dietary burden) need to be derived according to each of the definitions.. Please refer to FAO2016a for further explanation.

28. The OECD MRL calculator (2011) is not used in estimating the MRL in animal commodities, since residues obtained in a feeding study generally are not used directly but are used to interpolate the residue at the maximum livestock dietary burden. The Codex MRL for animal commodities is based on rounding up of the highest residue to the nearest figure (e.g. 0.63 becomes 0.7). This policy is the same as used in the OECD MRL calculator: 0.01-0.015-0.02-0.03-0.04-0.05-0.06-0.07-0.08-0.09-0.1 etc. MRLs for milk are based on whole milk, even if the pesticide in question is fat soluble and MRLs for milk are derived by rounding up the STMR to the nearest figure. The Codex MRL for meat is based on muscle residues in case of non-fat soluble pesticides and based on fat residues in case of fat soluble pesticides. This approach is also applied by Australia and the USA. At EU level the MRL setting policy for meat has been changed recently: MRLs will be set for muscle and for fat.

29. The HR and STMR derived as above can now be used in the IESTI equation. The HR (fat) and HR (muscle) are used to estimate dietary exposure from meat by assuming 80% of the meat consumption is actually meat muscle consumption and 20% of the meat consumption is meat fat consumption (90% muscle, 10% fat in case of poultry meat).

30. Currently, the IESTI for milk is estimated using case 3 equations (STMR), while the IESTI for all other animal commodities is estimated using case 1 equations (HR). The STMR and HR are based on the residue definition for dietary risk assessment (for animal commodities). In both equations the variability factor is not used (or v = 1).

References

Ambrus Á, Horváth Zs, Farkas Zs, Szabó I, Dorogházi E, Szeitzné-Szabó M. Nature of the field-to-field distribution of pesticide residues, 2014. Journal of Environmental Science and Health, 49, 4, 229-244.

Codex Alimentarius Commission (CAC), 2005. CX/PR 05/37/4. Discussion paper of the Thirty-Seventh Session of the Codex Committee On Pesticide Residues, The Hague, The Netherlands, 18-23 April 2005, on probabilistic modelling: MRLs: Health or trade limits? ftp://ftp.fao.org/codex/meetings/CCPR/CCPR37/pr37_04e.pdf

Codex Committee on Pesticide Residues (CCPR), 2005. ALINORM 05/28/24. Report of the Thirty-Seventh Session Of The Codex Committee On Pesticide Residues, The Hague, The Netherlands, 18-23 April 2005. Agenda Item 6: Discussion Paper On Probabilistic Modelling: MRLs Health Or Trade Limits? www.fao.org/input/download/report/641/al28_24e.pdf

Codex Committee on Pesticide Residues (CCPR), 2006. ALINORM 06/29/24. Report of the Thirty-eighth session of the Codex Committee on Pesticide Residues, Fortaleza, Brazil, 3-8 April 2006. ftp://ftp.fao.org/codex/Circular_Letters/CxCL2006/cl06_09e.pdf

Codex Alimentarius Commission (CAC), 2016. Joint FAO/WHO Food Standards Programme. Procedural Manual 25th edition. http://www.fao.org/documents/card/en/c/f53ef3d5-b31a-4dc3-a67a-4264186ddf1f/

Crop Life International, 2016. Perspectives on Proposed Changes to IESTI. Powerpoint presentation, Cheryl Cleveland, Ph.D., on behalf of Crop Life International Delegation. Presented April 2016 in CCPR.

EFSA PPR Panel (EFSA Panel on Plant Protection Products and their Residues), 2005 Opinion of the scientific panel on plant health, plant protection products and their residues on a request from commission related to the appropriate variability factor(s) to be used for dietary exposure assessment of pesticide residues in fruit and vegetables. The EFSA Journal, 177: 1-61. http://www.efsa.europa.eu/en/efsajournal/pub/177.htm

EFSA PPR Panel (EFSA Panel on Plant Protection Products and their Residues), 2007. Opinion of the scientific panel on plant protection products and their residues on a request from the Commission on acute dietary intake assessment of pesticide residues in fruit and vegetables, adopted on 19 April 2007. http://www.efsa.europa.eu/en/scdocs/scdoc/538.htm

FAO (Food and Agriculture Organization of the United Nations), 2006. Updating the Principles and Methods of Risk Assessment: MRLs for Pesticides and Veterinary Drugs. Food and Agricultural Organization of the United Nations, Rome, Italy. ftp://ftp.fao.org/ag/agn/jecfa/bilthoven_2005.pdf

FAO (Food and Agriculture Organization of the United Nations), 2016a. FAO manual on the submission and evaluation of pesticide residues data for the estimation of maximum residue levels in food and feed. 3rd ed. FAO Plant Production and Protection Paper 225,, Rome, Italy. http://www.fao.org/3/a-i5452e.pdf

FAO (Food and Agriculture Organization of the United Nations), 2016b. Evaluation of pesticide residues

for estimation of maximum residue levels and calculation of dietary intake. Training Manual. FAO Plant Production and Protection Paper 224, Rome, Italy. http://www.fao.org/3/a-i5545e.pdf

Hamey PY, Harris CA, 1999. The variation of pesticide residues in fruits and vegetables and the associated assessment of risk. Regulatory Toxicology and Pharmacology. Oct;30(2 Pt 2):S34-41.

Hamilton DJ, Ambrus A, Dieterle RM, Felsot A, Harris C, Petersen B, Racke K, Wong S-S, Gonzalez R and Tanaka K, 2004. Pesticide residues in food – acute dietary intake. Pest Management Science, 60: 311-339.

Hamilton DJ and Crossley S eds, 2004. Pesticide residues in food and drinking water: Human exposure and risks. John Wiley & Sons (Wiley Series in Agrochemicals and Plant Protection).

Harris, C. (2000) How the variability issue was uncovered: the history of the UK residue variability findings. Food Additives and Contaminants 17 (7) 491-495.

Joint FAO/WHO Meeting on Pesticide Residues (JMPR), 1999. Progress on acute dietary intake estimation – International Estimate of Short Term Intake (IESTI). *In*: Pesticide residues in food 1999. Report of the Joint Meeting of the FAO panel of Experts on Pesticide Residues in Food and the Environment and the WHO Core Assessment Group on Pesticide Residues, Rome, Italy, 20-29 September 1999. FAO Plant Production and Protection Paper: 10-11

Organization for Economic Co-operation and Development (OECD), 2011. OECD MRL Calculator: Statistical White Paper. Series on Pesticides No. 57. ENV/JM/MONO(2011)3.

Organization for Economic Co-operation and Development (OECD), 2013. Guidance Document On Residues In Livestock, Series on Pesticides No. 73, ENV/JM/MONO(2013)8

World Health Organization (WHO), 2009. EHC 240, Principles and methods for the risk assessment of chemicals in food, Chapter 6: Dietary exposure assessment of chemicals in food. http://www.inchem.org/documents/ehc/ehc/ehc240_index.htm

APPENDIX XII

TECHNICAL / RISK ASSESSMENT CHALLENGES THAT EITHER ARISE FROM THE POSSIBLE REVISION OF THE CURRENT IESTI EQUATIONS OR ARE CURRENT CHALLENGES AS WELL[1]

1	Developing further guidance on the derivation of conversion factors, and developing a database with conversion factors
2	Developing a database with processing factors,
3	A database with P97.5 large portion value derived from the distribution of consumption values of dietary surveys expressed as g/kg body weight is needed. Internationally agreed criteria must be developed for dietary surveys, used for the assessment of consumer exposure. It is noted that this is ongoing work by WHO/ GEMS Food.
4	Information on bulking and blending practices needs to be gathered in order to decide on cases where a median residue instead of the MRL could be used in the dietary risk assessment, or a homogenization factor could be added (see item 13).
5	Clarify the influence of the number of supervised field trials used for the OECD MRL Calculator, where small data sets result in high MRL estimates. It is noted that this especially affects minor crops with low data requirements.
6	The suitability of common moiety residue definitions needs to be reconsidered when multiple active substances are included (e.g. CS_2 for all dithiocarbamates) and one of those is potentially exceeding the ARfD.
7	The acute exposure assessment using the proposed IESTI will merely depend on the LP_{bw} values. Especially LP of children are crucial in risk assessment. The food consumption data are very heterogeneous and based on dietary survey studies of different design, quality and origin. An important reason for heterogeneity is also the preference of certain foods by the population. The more popular a particular food, the more data are available and the more reliable and robust are the P97.5 values. A pragmatic approach has to be established which addresses this issues; e.g. setting the same consumption value for a group of commodities (extrapolation rules).
8	Further guidance/decision making needed on the use of the variability factors relative to the MRL. The current use of the variability factor is not considered to be mathematically appropriate for use with an MRL by many members of the eWG. Using the MRL with current variability factors is considered to be overly conservative and leading to loss of MRLs and disruption of global trade. Since MRLs are now determined consistently by algorithms in the OECD MRL calculator simulation modeling to determine how single item residues might relate to the MRL could be useful. Others consider that the variability factor describes the inhomogeneity of residues on individual units from an unknown lot in relation to a composite sample collected according to Codex sampling procedures. The Codex sampling procedure is also the basis for MRL compliance testing – therefore the relative inhomogeneity (variability) in lots at or above the MRL is identical to lots with lower residues measured in a composite sample. The variability factor to be used remains unaffected. Also, the OECD MRL procedure only considered results from composite field trial samples and includes no extrapolation to individual units as it is described by the new IESTI case 2.
9	To quantify uncertainties related to the use of the IESTI equations as far as possible, and to qualitatively describe the uncertainties that cannot be quantified.
10	To estimate the impact of removing the unit weight from the equation and especially for case 1 and case 2 which distinction currently relies on the unit weight.

[1] REP18/PR, paras. 136-137

11	Reaching consensus regarding the approach to be used to evaluate the level of conservatism of proposed updated IESTI equations and how it compares to both the present set of IESTI equations and state-of-the-science probabilistic methods.
12	Current consumption data on processed commodities in some territories of the world are not available. Many crops which are consumed in large amounts in the processed form (e.g. apples or citrus consumed as juice) will be disproportionately considered when estimating the acute exposure on the basis of consumption data of non-processed commodities only, hampering a meaningful estimate of the acute exposure. Therefore consumption data of processed commodities and recipe data need to be collected from a representative range of countries.
13	For blended foods (e.g. fruit juice, seed/nut oil, flour, corn meal), it is suggested to add a homogenization factor (<1) to the equation to reflect the decreased variability in pesticide residues resulting from processing.
14	The comparison of the deterministic IESTI with probabilistic models is challenging. First the database itself needs to be identical. Second, the results will differ commodity by commodity – how are general conclusions drawn for the equation itself? Third, the probabilistic methodology requires careful preparation and agreement. Especially for the consumption data the aggregation of commodities should be the same for both approaches (e.g. LP for apples, raw vs. apples raw in probabilistic; not LP for total apples expressed as raw vs. all individual foods containing apple).

APPENDIX XIII

CODEX SCHEDULES AND PRIORITY LIST OF PESTICIDES (FOR EVALUATION BY JMPR)

TABLE 1: CCPR SCHEDULE AND PRIORITY LISTS OF PESTICIDES (NEW COMPOUNDS, NEW USES AND OTHER EVALUATIONS)

(For approval)

2019 CCPR SCHEDULE OF JMPR EVALUATIONS (PROPOSED) - NEW COMPOUND EVALUATIONS

DATE STAMP	TOXICOLOGY	RESIDUE	PRIORITIZATION CRITERIA		CRITERIA	COMMODITIES	RESIDUE TRIALS PROVIDED
			REGISTERED	MRL > LOQ	FAO NOMINATION FORM RECEIVED?		
No. 1 2013/12/31	Pyrifluquinazon	Pyrifluquinazon	Y	Y	Y	Citrus; pome fruits; potatoes; stone fruits; grapes; tree nuts; melons; tea; grapes (table grapes, raisins, wine); fruiting vegetables, cucurbits; cotton; leafy vegetables; brassica leafy and head/stem vegetables	Almonds (10); pecans (10); grape (table) (24); raisin, juice (if MRL not included under table grape); plum (18); peach (24); cherry (16); apple (24); pear (12); lemon (10); grapefruits (12); oranges (24); cantaloupe (12); cucumbers (14); summer squash (10); peppers (24); tomatoes (28); cauliflower/broccoli (12); cabbage (16); potatoes (33); cotton seed (24); tea (6) and corresponding animal commodity MRLs
No. 2 2015/12/4	Metconazole	Metaconazole	Y	Y	Y	USA- Stone fruit group; Blueberry; Banana; Garlic; Onion, Bulb; Legume vegetables; Pulses; Soya bean; Root and tuber vegetables1 (except Sugar beet (root)); Sugar beet (roots); Barley; Maize; Oats; Rye; Triticale; Wheat; Sugar cane; Tree nuts; Oilseed (except Cotton seed, Peanuts, Soya bean and Sunflower)**; Cotton seed; Peanuts; Sunflower seed; Meat (from mammals other than marine mammals); Mammalian fats (except milk fats); Edible offal (Mammalian); Milks; Poultry meat; Poultry fats; Poultry, Edible offal; Egg; Peanut oil, crude	USA- Banana (12), barley grain (28), blueberry (11), cotton seed (12), corn/maize (20), sweet corn (12), tree nuts (10), peanuts (14), soya bean (30), stone fruits (22), sugar beet roots (12), sugarcane cane (8), sunflower (12), oats (12), rape oilseed (16), dried shelled peas pulses (15), dry beans (19), triticale wheat (31), potato (32), fresh legumes, peas without pod (13), onion (4), garlic (3)
No. 3 2016/4/19	Triflumuron	Triflumuron	Y	Y	Y	Soybean	
No. 4 2016/11/28	Pyflubumide	Pyflubumide	Y	Y	Y	Tea, apple (labels - yes)	Tea (8)
No. 5 2017/3/16	Pyridate	Pyridate	Y	Y	Y	Alfalfa, cabbage, kale/collard, clover, Leek /spring onion/chive, Onion/shallot/garlic, chickpea	Alfalfa, cabbage, kale/collard, clover, Leek /spring onion/chive,, Onion/shallot/garlic, chickpea - Number of field trials to be advised

DATE STAMP	TOXICOLOGY	RESIDUE	PRIORITIZATION CRITERIA		CRITERIA	COMMODITIES	RESIDUE TRIALS PROVIDED
			REGISTERED	MRL > LOQ	FAO NOMINATION FORM RECEIVED?		
No. 6 2017/3/16	Valifenalate	Valifenalate	Y	Y	Y	Grape, Tomato/aubergine, Onion/shallot/garlic	Grape, Tomato/aubergine, Onion/shallot/garlic - Number of field trials to be advised
No. 7 2015/12/4	Afidopyropen	Afidopyropen	Y	Y	Y	USA- Citrus fruits, Pome fruits, Stone fruits, Brassica (Head, flowering), Fruiting vegetables (tomatoes, peppers), Fruiting vegetables (Cucurbits), Leafy (head, leafy lettuce, spinach), Brassica, leafy (Mustard greens), Soybeans, Potatoes, Celery, Tree nuts, Cotton	Citrus (lemon, 8; oranges, 12; grapfruit, 6); pome fruit (apple, 15; pear, 9); stone fruit (peaches, 13; plum, 10; cherry, 8); Brassica (head cabbage, 10; broccoli, 10); cucurbits (cucumber, 9; cantaloupe, 8, squash, 10); fruiting vegetables (tomatoes, 20; sweet bell peppers, 7; nonbell peppers, 3); leafy lettuce (8); head lettuce (9); spinach (9); mustard greens (8); soybean (20); potato (20); celery (10); tree nuts (almonds, 5; pecans, 5; pistachios, 3); cotton
No. 8 2017/11/30	Pyrasulfutole	Pyrasulfutole	Y	Y	Y	wheat, barley, oat, sorghum	Wheat (44), barley (35), oat (39), sorghum (12)

2019 NEW USES AND OTHER EVALUATIONS

DATE STAMP	TOXICOLOGY	RESIDUE	COMMODITIES	RESIDUE TRIALS PROVIDED
No. 1 2017/8/31		Picoxystrobin (258)	VEGETABLE, ROOT AND TUBER (CROP GROUP 1); VEGETABLE, LEAVES OF ROOT AND TUBER (CROP GROUP 2); ONION, BULB (CROP SUBGROUP 3-07A); ONION, GREEN (CROP SUBGROUP 3-07B); VEGETABLE, LEAFY (CROP GROUP 4-16); VEGETABLE, BRASSICA, HEAD AND STEM (CROP GROUP 5-16), VEGETABLE, LEGUME, EDIBLE PODDED (CROP SUBGROUP 6A); PEA AND BEAN, SUCCULENT SHELLED (CROP SUBGROUP 6B); VEGETABLE, FRUITING (CROP GROUP 8-10); VEGETABLE, CUCURBIT (CROP GROUP 9); NUT, TREE (CROP GROUP 14-12); SUNFLOWER (CROP SUBGROUP 20B); COTTON (CROP SUBGROUP 20C); CELERY (CROP SUBGROUP 22B); ALFALFA, SEED; ALFALFA, FORAGE; ALFALFA, HAY; PEANUT; PEANUT, HAY; GRASS, FORAGE (GROWN FOR SEED); GRASS, HAY (GROWN FOR SEED); AND PROCESSED COMMODITIES THEREOF.; RICE, COFFEE, MANGO	*Root and tuber vegetables* (60 total) [carrot, radish, potato, sugar beet, turnip], bulb onion (10), green onion (5), head lettuce (11), leaf lettuce (13), spinach (9), mustard greens (9), broccoli/cauliflower (11), cabbage (10), celery (10), edible podded beans (8), edible podded peas (4), succulent beans (17), succulent peas (11), *Fruiting vegetables* [(44 total) - tomato (24), bell peppers (13), non-bell peppers (7)], *Cucurbits* (30 total) [cucumbers, muskmelon, summer squash], *Tree nuts* (12 total) [almonds, pecans], cotton (13), sunflower (9), alfalfa (17), peanut (13), grass grown for seed (9), sorghum (13), rice, coffee, mango
No. 2 2015/6/11		Isoxaflutole (268)	SOYA BEAN (LABEL REVIEW)	
No. 3 2016/11/22		Cyclaniliprole	BERRIES AND OTHER SMALL FRUITS, CITRUS FRUITS, ROOT AND TUBER VEGETABLES	Blueberry (10), Raspberry (5), Strawberry (9), Kiwi (3), Orange (12), Grapefruit (6), Lemon (5), Potato (25)
No. 4	Isoprothiolane (999)	Isoprothiolane	BANANA	Banana (16)
No. 5 2016/11/22		Pyriofenone	FRUITING VEGETABLES, OTHER THAN CURCUBITS	Tomato (23), Bell pepper (9), Non-bell pepper (3)
No. 6 2016/9/30		Benzovindiflupyr (261)	BLUEBERRY, ONION, SUGAR CANE	Blueberry, onion (dry and green) (14), sugar cane (8)
No. 7		Bifenthrin(178)	BARLEY, BARLEY (STRAW FODDER) - 4 year rule granted in 2014 / STRAWBERRY, LETTUCE HEAD, CELERY (alternative GAP) / okra - India	
No. 8 2016/11/28		Fluazifop-p-butyl	BLUEBERRY; CANEBERRY; LETTUCE; STRAWBERRY; ONION; MUSTARD GREENS; PAPAYA	Blueberry (9); Caneberry (6); Lettuce (26); Strawberry (6); Onion, green (4); Mustard Greens (12); papaya (8)
No. 9 2016/4/20		Fluensulfone (265)	CEREAL, TREE NUT, STONE FRUIT, POME FRUIT, GRAPES, PEANUTS. COFFEE, CITRUS, SUGARCANE, SOYBEAN, BLACK PEPPER	Cereal (56), tree nut (10), stone fruit (21), pome fruit (26), Grapes (12), peanuts (12), Coffee (4), Citrus (27), Sugarcane (4), Soybean (4), Black pepper (4)
No. 10 2016/7/1		Thiamethoxam(245)	PERSIMMON (KOREA); RICE [SYNGENTA] STRAWBERRY; CHERRY TOMATO; SUGARCANE	Persimmon (6); Rice (8) Strawberry(6); Cherry tomato(6); sugarcane (4)
No. 11 2016/9/30		Lambda-cyhalothrin (146)	PINEAPPLE	Pineapple 8

DATE STAMP	TOXICOLOGY	RESIDUE	COMMODITIES	RESIDUE TRIALS PROVIDED
No. 12 2017/4/24	Sulfoxaflor (252)	Sulfoxaflor	Kenya, Tanzania, Uganda: passion fruit; Ghana and Senegal: mango - TREE NUTS (USA),CORN (label only), SORGHUM (label only), COCOA (label only), PINEAPPLE (label only), BEAN, CORN, RICE	Passion fruit (6); mango (6)
No. 13		Tolfenpyrad (269)	POME FRUIT; CUCURBITS; FRUITING VEG.; BRASSICA; CITRUS; AVOCADO; ONION; BLUEBERRY; STRAWBERRY; CANEBERRY; GREENHOUSE TOMATO; GREENHOUSE CUCUMBER	Apples (16); Cucumbers (6); Cantaloupe (6); Summer Squash (5); Tomatoes (12); Peppers (9); Cauliflower (6); Cabbage (6); Mustard Greens (5); Orange (12); Lemon (5); Grapefruit (6); Avocado (5); Onion (10); Blueberry (11); Strawberry (8); Caneberry (6); Greenhouse tomato (4); Greenhouse cucumber (4)
No. 14		Buprofezin (173)	GRAPE, APPLE, OLIVE, TOMATO, CITRUS, COTTON, PISTACHIO, WALNUT, RICE, TEA, COFFEE (INCLUDING PROCESSED COMMODITIES)	
RES		Penthiopyrad (253)	USA – Blueberry; Caneberry	Blueberry (9) and Cranberry (7)
RES		Cypermethrins (118)	Public health concerns - acute dietary risk– Netherlands – check uses for peach based on existing residue data and labels; Republic of Korea (ginseng)	Ginseng (4)
RES		Acetamiprid (246)	Cumin (India), pistachio (Iran)	Monitoring data (India), field trials (Iran)
		Imidacloprid (206)	Pistachio (Iran)	Field trials (Iran)
		Carbendazim (72)	Dried ginger, dried chilli, cumin	Monitoring data
		Clofenapyr (254)	Dried chilli	Monitoring data
		Clothianidin (238)	Cumin	Monitoring data
		Cypermethrin (118)	Curry leaves, Dry chilli,	Monitoring data
		Deltamethrin (35)	Dried chilli	Monitoring data
		Dicofol (26)	Black pepper, fennel, fenugreek	Monitoring data
		Fenpropathrin (185)	Dried chilli, cumin	Monitoring data
		Metalaxyl (138)	Dried ginger	Monitoring data
		Parathion (59)	Curry leaves	Monitoring data
		Phosalone (60)	Cardamom, dried chilli	Monitoring data
		Phorate (112)	Dried ginger, cumin	Monitoring data
		Propiconazole (160)	Fennel, fenugreek	Monitoring data
		Thiamethoxam (245)	Cumin	Monitoring data

2019 EXTRA NEW USES AND OTHER EVALUATIONS

DATE STAMP	TOXICOLOGY	RESIDUE	COMMODITIES	RESIDUE TRIALS PROVIDED
1 - Priority 1 2016/7/18		Chlorantraniliprole (230)	PALM OIL (MALAYSIA) LABEL PROVIDED ON 18 JULY 2016 / Pulses	Palm oil (4), peas (5), beans (5)
2 - Priority 1 2016/9/30	Chlorothalonil (81)	Chlorothalonil (81)	USA- CRANBERRY (under the 4 year rule).	cranberry (5)
3 - Priority 1 2016/9/30	Mesotrione	Mesotrione	CITRUS, POME FRUIT, STONE FRUIT, TREE NUTS	Citrus – orange, grapefruit, lemon (23), Pome fruit – apple, pear (18), Stone fruit – cherry, peach, plum (21), Tree nuts – almond, pecan (10)
4 - Priority 1 2016/9/30		Thiabendazole	LEGUMES, PULSES, SWEET POTATO	Legumes / pulses (48); sweet potato (8)
5 - Priority 1 2016/11/21		S-Methoprene	PEANUTS	Peanuts (1) - (4 farm sites, 5 different peanut varieties)
6 - Priority 1 2016/11/23		Acetochlor (280)	SOYA BEAN	Soybean (21)
7 - Priority 1 2016/11/25		Tebuconazole (189)	CITRUS	4 trials orange, 4 trials mandarin, 3 processing trials (orange)
8 - Priority 1 2016/11/25		Flupyradifurone (285)	BLACKBERRY, RASPBERRY, AVOCADO, POMEGRANATE, HOP, COCOA AND COFFEE	Blackberry (4), raspberry (7), avocado (4), pomegranate (4), hop (11+2p), cocoa (9+2P) and coffee
9 - Priority 1 2016/11/30	Boscalid (221)	Boscalid (221)	Yes - all commodities listed for evaluation: POME FRUITS, TROPICAL FRUITS (AVOCADO, MANGO, PAPAYA, POMEGRANATE), CUCURBITS, SUGAR CANE, TEA, HERBAL INFUSIONS (GINSENG)POME FRUITS, TROPICAL FRUITS (AVOCADO, MANGO, PAPAYA, POMEGRANATE), CUCURBITS, SUGAR CANE, TEA, HERBAL INFUSIONS (GINSENG)	Pome fruits (54 field and 6 postharvest trials), cherry (55), tropical fruits (avocado (7) mango (9)), berries (strawberry (54 field and 31 greenhouse trials), raspberry (37), blackberry (4), blueberry (20)), cucurbits edible peel (22 greenhouse and 35 field trials), cucurbits inedible peel (54 field and 6 greenhouse trials), ginseng (extrapolation from carrot, 8 field trials), tea (8)
10 - Priority 1 2016/12/1		Mandestrobin	STRAWBERRY, GRAPE, CANOLA	Strawberry (10), grape (16), canola (23)
11 - Priority 1 2016/12/6		Pendimethalin (292)	CANE BERRIES (FB 2005), BUSH BERRIES (FB 2006),	Raspberry (3), Blackberry (4), Blueberry (7), Strawberry (8), Mint (4)
12 - Priority 1 2016/12/8		Fosetyl-Al	KIWI, CABBAGE, CAULIFLOWER, KALE, CELERY, COFFEE	kiwi (8), cabbage (28), cauliflower (15), kale (4), coffee (5)
13 - Priority 1 2017/3/1		Cyantraniliprole	CRANBERRY, BLUEBERRY, ALMOND	cranberry (7), blueberry (8), almond (12)
14 - Priority 1 2017/4/25		Cyprodinil (207)	SOYBEAN (Brazil)	soybean (12)
15 - Priority 1 2017/4/25		Azoxystrobin (229)	COFFEE (Brazil) higher GAP	coffee (8)
16 - Priority 1 2017/4/26		Dicamba (240)	COTTON, SOYBEAN	Cotton (13), soybean (22)

DATE STAMP	TOXICOLOGY	RESIDUE	COMMODITIES	RESIDUE TRIALS PROVIDED
17 - Priority 1 2017/4/26		Flonicamid	CITRUS FRUITS	Orange (12, Grapefruit (6), lemon (5)
18 - Priority 1 2017/5/2	Metaflumizone (236)	Metaflumizone (236)	CITRUS, APPLE, MELON, GRAPE, COFFEE, SOYBEAN, CORN, SUGARCANE	Citrus (12 orange, 5 lemon, 3 processing), apple (12), melon (8), grape (12), coffee (12 + 4 processing), soybean (8), corn (8), sugarcane (6 + 2 processing)
19 - Priority 1 2016/7/1		Spirotetramat (234)	STRAWBERRY, CARROT, SUGARBEET	Strawberry (10); carrot (24); sugarbeet (19)
20 - Priority 1 2018/11/4		glyphosate (158)	PULSES	PULSES

2019 PERIODIC REVIEW

TOXICOLOGY	RESIDUE	COMMODITIES	Comments	PREVIOUS EVALUATION	ADI	ARfD
Carbosulfan (145) / Carbofuran (96)	Carbosulfan / Carbofuran	Awaiting advice on supported commodities - ASPARAGUS; EGG PLANT, MANGO (Thailand)	Netherlands – public health concerns Carbosulfan: Not approved (September 2007, RMS BE) - Information insufficient with regard to consumer exposure Concerns identified with regard to toxicity of the substance and presence of unknown levels of caricnogenic imuprities which may increase during storage, Consumers exposure inconclusive due to uncertainties regarding the effects of certain metabolites, some of which could be genotoxic Carbofuran: Not approved (September 2007, RMS BE) - Information insufficient with regard to consumer exposure. Concerns identified - High toxicity of the substance and some of its metabolites, Consumer exposure inconclusive	1997	0.01 (1986) / 0.001 (1996)	0.02 (2003) / 0.001 (2009)
Dimethoate (027)	Dimethoate	Pulses (Canada) - Dry beans (3 trials), succulent beans (3 trials), dry peas (5 US trials and 10 EU trials), succulent peas (3 US trials and 2 EU trials), edible-podded peas (6 US trials) Thailand – yard-long beans	EU concerns ARfD JMPR 2003 Acute risk for citrus and cherries Sum of dimethoate and omethoate expressed as dimethoateIn the 2003 evaluation by JMPR an ARfD was established. However, in the exposure assessment for the acute risk the highest residue was not used in the case of citrus. Using the HR would lead to an exceedance of the ARfD of 230%. Furthermore, the CXL of 2 mg/kg for cherries leads to an unacceptable acute risk for children and should be revised. Await advice from JMPR on public health concerns		1996 / 0.002	2003 / 0.02
Tolclofos-methyl (191)	Tolclofos-methyl (191)	Lettuce head; lettuce leaf; potato; radish	Await advice – moved from 2017 on request	1994	1994 / 0.07	N/A
Clethodim (187)	Clethodim (187)	Bean; broccoli; cabbage; carrot; cranberry; cucurbits; hops; lettuce; pea; strawberry; blueberry USA – Artichoke; Caneberry; Safflower, Apple, Pear, Cherry, Peach, Plum	MOVED FROM 2017 / Blueberry (9); Artichoke (3); Caneberry (6); Safflower (4); Apple (14), Pear (6), Cherry (15), Peach (9), Plum (6) - Additional data being developed and thus further postponement requested to 2019 - Mexican registration	1994	0.01 / 1994	NR / 2004
Aldicarb (117)	aldicarb	Awaiting advice on commodities	Tox review conducted in 1997	1995	1992 / 0.003	1995 / 0.003

TOXICOLOGY	RESIDUE	COMMODITIES	Comments	PREVIOUS EVALUATION	ADI	ARfD
Amitraz (122)	Amitraz (122)	Awaiting advice on commodities	Falls under the 15-year rule (listed in Table 2B), last evaluation in 1998. The EU proposes to submit a concern form on the basis of public health concerns. The EU and JMPR ARfD and ADI for amitraz are equal. All EU MRLs are set at LOQ.No EU evaluation of residue trials is available. Therefore the acute risk assessment was performed with the existing CXLs.However, when applied in the EFSA PRIMo model exceedances are observed for oranges (663%), apples (490%), pear (455%), peaches (297%), cucumber (292%), tomatoes (291%) for children. Refinement (IESTI 2) of the variability factors would still lead to exceedances of the ARfD for the same crops (211-480%). In addition, even without including the LOQs for the crops without MRLs, the highest calculated TMDI values in % ADI are 254 and 146 in DE and NL child, with pome fruit attributing the most (>100 % of the ADI). It is acknowledged that the use of the STMRs would lower the long-term dietary exposure by approximately a factor of 4-5, whereby exceedance of the ADI is no longer envisaged. Using the FAO IESTI spreadsheets and JMPR ARfD, the ARfD is exceeded in case of oranges (150-290%), apple (280-360%), pear (280-290%), peaches (150-260%), cucumber (130-200%), tomatoes (110-320%). It is acknowledged that the use of HRs would lower the dietary exposure by approximately a factor of 2, but this would still result in exceedances of the ARfD.	1998	1998 / 0.01	1998 / 0.01
Azinphos-methyl (2)	Azinphos-methyl (2)	Awaiting advice on commodities	The EU submitted a concern form in October 2015. Azinphos-methyl was re-evaluated concerning toxicology in 2007 with concerns mentioned by EU in CCPR 2008 due to the use of human data. The re-evaluation for residue behaviour was announced for 2010 but then did not take place as the substance was no longer supported. The substance is not authorised in the EU. It is of public health concern as the ARfD established by JMPR is exceeded for several commodities when using EU consumption data: 185% of ARfD for pears; 135% oranges which might be of no concern taking into account distribution between peel and pulp; Peaches (120%); Pine apples (105%). As the substance is falling under the 15 year rule and it has been confirmed at several meetings of the CCPR that it is no longer supported worldwide, the existing CXLs should urgently been withdrawn (2010 CCPR, para 178; 2011 CCPR, Appendix X; 2012 CCPR, para 166; 2014 CCPR, Appendix XV; 2015 CCPR, Appendix XV).		2007 / 0.03	2007 / 0.1

TOXICOLOGY	RESIDUE	COMMODITIES	Comments	PREVIOUS EVALUATION	ADI	ARfD
Bromopropylate (70)	Bromopropylate (70)		The active substance was first included in 1973 and re-evaluated in 1993, but not since. In the evaluation of 1993 an ADI was set at 0.03 mg/kg bw/d but no ARfD. Since no ARfD was ever set and data for evaluation are missing (supervised field trials, processing studies), the MRLs should be re-evaluated after 41 years. Since in 1993 it was not yet common practice to set an ARfD, EFSA used the ADI to assess the acute effects in the short term intake. A risk assessment was performed using the EFSA PRIMo including the existing CXLs for citrus fruits, pome fruits and grapes. The highest chronic exposure was calculated for the German child, representing 124% of the ADI. Since there were no supervised field trials complying with the critical GAP or reliable processing studies, the intake could not be further refined. The acute intake assessment (using the ADI-value) shows exceedance of the toxicological reference value for citrus fruits (884% for oranges, 594% for grapefruit, 371% for mandarins, 230% for lemons, and 134% for limes), pome fruits (653% for apples, 607% for pears), table grapes (437%) and wine grapes (158%). For further details see EFSA evaluation on the internet at http://www.efsa.europa.eu/en/efsajournal/doc/1640.pdf	1993	0.03 - 1993	N/A
Dicloran (83)	Dicloran (83)		Not approved (April 2008 and May 2011, RMS ES) Concerns identified with regard to the the toxicological relevance of several impurities in the technical material (relevent for residues in food?) and with regard to consumer risk assessment in following crops.	1998	1998 / 0.01	NR (2003)
Fenarimol (192)	Fenarimol	Awaiting advice on commodities	Fenarimol was first included as active substance in 1995. The ADI was set at 0.01 mg/kg bw/d. The COM set an ADI of 0.01 mg/kg bw/d in 2007 as well as an ARfD of 0.02 mg/kg bw/d. Since the JMPR hasn't evaluated the active substance in 19 years whereas now an ARfD-value is available it is proposed to re-evaluate all MRLs. - An ADI- and ARfD-value were derived in a peer-review under 91/414/EEC. EFSA identified in the acute risk assessment for children a possible risk for peppers (157.4%), peaches (148.3%), apples (146.9%), tomatoes (145.4%), pears (136.6%) and bananas (125.4%). A refined calculation was carried out using the HR. For further details see EFSA evaluation on the internet at http://www.efsa.europa.eu/en/efsajournal/doc/161r.pdf	1995	1995 / 0.01	N/A
Phosalon (60)	Phosalon (60)	Awaiting advice on commodities	IS NO LONGER SUPPORTED Falls under the 15-year rule (listed in Table 2B), last evaluation in 1997. The EU proposes submit a concern form on the basis of public health concerns. The substance is not authorised in the EU. EU has established a lower ADI and ARfD than JMPR. Using the EU ARfD and ADI of 0.01 mg/kg, the EU MRLs and the Codex MRL for apple and pome fruit for phosalone leads to exceedance of ADI, with apple contributing most (114-639 %) in various populations. In the short-term dietary risk assessment these MRLs lead to exceedances of the EU ARfD not only in apples (490%), but also in pears (180%) and peaches (120%). The impact of the metabolite oxaphosalone has not been taken into account, but will only add to the dietary exposure. With the ARfD of the JMPR at 0.3 mg/kg bw and the ADI at 0.02 mg/kg bw/day, there are no exposure concerns. Awaiting advice on supported commodities Durian (Thailand)	1997	1997 / 0.02	2001 / 0.3