

codex alimentarius commission



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

WORLD
HEALTH
ORGANIZATION



JOINT OFFICE: Viale delle Terme di Caracalla 00100 ROME Tel: 39 06 57051 www.codexalimentarius.net Email: codex@fao.org Facsimile: 39 06 5705 4593

ALINORM 04/27/24

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX ALIMENTARIUS COMMISSION

Twenty-seventh Session

Geneva, Switzerland, 28 June - 03 July 2004

REPORT OF THE THIRTY-SIXTH SESSION OF THE CODEX COMMITTEE ON PESTICIDE RESIDUES

New Delhi, India, 19 - 24 April 2004

Note: This report includes Codex Circular Letter CL 2004/16-PR.

codex alimentarius commission



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

WORLD
HEALTH
ORGANIZATION



JOINT OFFICE: Viale delle Terme di Caracalla 00100 ROME Tel: 39 06 57051 www.codexalimentarius.net Email: codex@fao.org Facsimile: 39 06 5705 4593

CX 4/40.2

CL 2004/16-PR
May 2004

TO: - Codex Contact Points
- Interested International Organizations

FROM: Secretary,
Codex Alimentarius Commission
Joint FAO/WHO Food Standards Programme
Viale delle Terme di Caracalla,
00100 Rome, Italy

SUBJECT: DISTRIBUTION OF THE REPORT OF THE THIRTY-SIXTH SESSION OF THE CODEX COMMITTEE ON PESTICIDE RESIDUES (ALINORM 04/27/24)

The report of the Thirty-sixth Session of the Codex Committee on Pesticide Residues will be considered by the 27th Session of the Codex Alimentarius Commission (Geneva, Switzerland, 28 June - 03 July 2004).

PART A: MATTERS FOR ADOPTION BY THE 27TH SESSION OF THE CODEX ALIMENTARIUS COMMISSION

- 1. DRAFT MAXIMUM RESIDUE LIMITS FOR PESTICIDES AT STEP 8 (ALINORM 04/27/24, APPENDIX II);**
- 2. PROPOSED DRAFT MAXIMUM RESIDUE LIMITS FOR PESTICIDES AT STEP 5/8 (ALINORM 04/27/24, APPENDIX III);**

Member Governments and interested international organizations wishing to comment on the Draft MRLs and Proposed Draft MRLs at Steps 8 and 5/8; are invited to do so in writing, in conformity with the Guide of the Consideration of Standards of the Procedure for the Elaboration of Codex Standards Including Consideration of Any Statements Relating to Economic Impact (*Codex Alimentarius Procedural Manual*, Thirteenth Edition) to the Secretary, Codex Alimentarius Commission, Viale delle Terme di Caracalla, 00100 Rome, Italy (fax: +39 06 57054593; e-mail, codex@fao.org), **not later than 10 June 2004.**

3. WITHDRAWAL OF CODEX MAXIMUM RESIDUE LIMITS FOR PESTICIDES RECOMMENDED FOR REVOCATION (ALINORM 04/27/24, APPENDIX V)

Member Governments and interested international organizations wishing to comment on the proposed revocation (not including that of Codex MRLs replaced by the revised MRLs) are invited to do so in writing to the Secretary, Codex Alimentarius Commission, Viale delle Terme di Caracalla, 00100 Rome, Italy (fax: +39 06 57054593; e-mail, codex@fao.org), **not later than 10 June 2004.**

4. PROPOSED DRAFT AND PROPOSED DRAFT REVISED MAXIMUM RESIDUE LIMITS AT STEP 5 (ALINORM 03/27/24, APPENDIX IV)

Member Governments and interested international organizations wishing to submit comments including the implications which the Proposed Draft Maximum Residue Limits may have for their economic interest are invited to do so in writing in conformity with the Procedures for the Elaboration of Codex Standards and Related Texts (at Step 5) (*Codex Alimentarius Procedural Manual*, Thirteenth Edition) to the Secretary, Codex Alimentarius Commission, Viale delle Terme di Caracalla, 00100 Rome, Italy (fax: +39 06 57054593; e-mail, codex@fao.org), **not later than 10 June 2004**.

PART B: REQUEST FOR COMMENTS:

1. DRAFT AND PROPOSED DRAFT MRLS AT STEPS 6 AND 3¹

Member Governments and interested international organizations are invited to comment on the draft MRLs and proposed draft MRLs as contained in **Appendix VI** of this report at Steps 6 and 3. Comments should be sent in writing in conformity with the Uniform Procedure for the Elaboration of Codex Standards and Related Texts at Steps 3 and 6 including possible implications of the proposed draft MRLs for their economic interests (*Codex Alimentarius Procedural Manual*, Thirteenth Edition) preferably by an email to Dr Hans JEURING, Food and Consumer Product Safety Authority, Prinses Beatrixlaan 2, PO Box 19506,2500 CM Den Haag, Fax:+31 70 348 4061,E-mail: hans.jeuring@vwa.nl, with a copy to the Secretary, Codex Alimentarius Commission, Viale delle Terme di Caracalla, 00100 Rome, Italy (fax: +39 06 57054593; e-mail: codex@fao.org), **not later than 1 February 2005**.

2. PROPOSED DRAFT GUIDELINES ON THE USE OF MASS SPECTROMETRY (MS) FOR IDENTIFICATION, CONFIRMATION AND QUALITATIVE DETERMINATION OF RESIDUES AT STEP 3

Member Governments and interested international organizations are invited to comment on the proposed Draft Guidelines on the Use of Mass Spectrometry (MS) for Identification, Confirmation and Qualitative Determination of Residues at Step 3 (see paras 188-189 and Appendix VII). Comments should be sent preferably by an email to Dr Hans JEURING, Food and Consumer Product Safety Authority, Prinses Beatrixlaan 2, PO Box 19506,2500 CM Den Haag, Fax:+31 70 348 4061,E-mail: hans.jeuring@vwa.nl, with a copy to the Secretary, Codex Alimentarius Commission, Viale delle Terme di Caracalla, 00100 Rome, Italy (fax: +39 06 57054593; e-mail: codex@fao.org), **not later than 1 December 2004**.

3. PROPOSED DRAFT GUIDELINES ON THE ESTIMATION OF UNCERTAINTY OF RESULTS AT STEP 3

Member Governments and interested international organizations are invited to comment on the proposed Draft Guidelines on the Estimation of Uncertainty of Results at Step 3 (see paras 190-193 and Appendix VIII) and should do so in writing preferably by an email. Comments should be sent to Dr Hans JEURING, Food and Consumer Product Safety Authority, Prinses Beatrixlaan 2, PO Box 19506,2500 CM Den Haag, Fax:+31 70 348 4061,E-mail: hans.jeuring@vwa.nl, with a copy to the Secretary, Codex Alimentarius Commission, Viale delle Terme di Caracalla, 00100 Rome, Italy (fax: +39 06 57054593; e-mail: codex@fao.org), **not later than 1 December 2004**.

4. PROPOSED REVISED CRITERIA FOR PRIORITIZATION PROCESS

Member Governments and interested international organizations are invited to comments on the set of criteria for the prioritization process of compounds for evaluation by JMPR (see paras 211 - 219 and Appendix X). Comments should be sent in writing preferably by an email to Dr Hans JEURING, Food and Consumer Product Safety Authority, Prinses Beatrixlaan 2, PO Box 19506,2500 CM Den Haag, Fax:+31 70 348 4061,E-mail: hans.jeuring@vwa.nl, with a copy to the Secretary, Codex Alimentarius Commission, Viale delle Terme di Caracalla, 00100 Rome, Italy (fax: +39 06 57054593; e-mail: codex@fao.org), **not later than 1 December 2004**.

¹ For proposed draft MRLs to be proposed by the JMPR 2004 (20 - 29 September 2004) a separate CL will be issued.

5. REVISION OF THE CODEX CLASSIFICATION OF FOODS AND ANIMAL FEEDS

While considering the proposed revision of the Codex Classification for Foods and Animal Feeds, the Committee agreed to invite additional comments on the proposals for commodities contained in Appendix IX. Comments should be sent in writing preferably by an email to Dr Hans JEURING, Food and Consumer Product Safety Authority, Prinses Beatrixlaan 2, PO Box 19506,2500 CM Den Haag, Fax:+31 70 348 4061,E-mail: hans.jeuring@vwa.nl, with a copy to the Secretary, Codex Alimentarius Commission, Viale delle Terme di Caracalla, 00100 Rome, Italy (fax: +39 06 57054593; e-mail: codex@fao.org), **not later than 1 October 2004**.

6. PROPOSALS FOR ADDITIONS TO PRIORITY LISTS OF PESTICIDES SCHEDULED FOR EVALUATION OR REEVALUATION BY JMPR

Proposals are being requested from countries for pesticides to be added to the Codex Priority List of Pesticides, for subsequent recommendation to the Joint Meeting on Pesticide Residue (JMPR) for evaluation.

Those countries planning to submit proposals for consideration by the Codex Committee on Pesticide Residues at the next Session are invited to consult Appendices I and II of the CL 2002/1-PR, complete and send the completed Appendix II² to Dr Trevor DOUST, Manager – Chemistry and Residues Evaluation, National Registration Authority for Agricultural and Veterinary Chemicals, PO Box E 240, KINGSTON, ACT 2604, Fax: +61 2 6272 3551, Email: tdoust@nra.gov.au with copies to Dr Hans JEURING, Food and Consumer Product Safety Authority, Prinses Beatrixlaan 2, PO Box 19506,2500 CM Den Haag, Fax:+31 70 348 4061, E-mail: hans.jeuring@vwa.nl and the Secretary, Codex Alimentarius Commission, Viale delle Terme di Caracalla, 00100 Rome, Italy (fax: +39 06 57054593; e-mail: codex@fao.org), **not later than 1 December 2004**.

PART C: REQUEST FOR INFORMATION AND DATA TO BE SENT TO JOINT FAO/WHO MEETING ON PESTICIDE RESIDUES

RESIDUES AND TOXICOLOGICAL DATA REQUIRED BY JMPR FOR PESTICIDES SCHEDULED FOR EVALUATION OR PERIODIC RE-EVALUATION

Governments and interested international organizations are invited to send inventory of data for pesticides on the agenda of the JMPR. Inventories of information on use patterns or Good Agricultural Practices, residue data, national MRLs, etc. should be sent to Dr Amelia Tejada, Plant Protection Service, AGP, FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy, Fax: +39 06 5705 6347 E-mail: amelia.tejada@fao.org well before **30 November** of a year before a JMPR meeting where a pesticide of concern is scheduled to be evaluated and, submission of residue data should be well before the **end of February** of the same year as the JMPR meeting. Toxicological data should be sent to Dr Angelika TRITSCHER, WHO Joint Secretary to JECFA and JMPR, International Programme on Chemical Safety, World Health Organization, 20 Avenue Appia, CH-1211 Geneva 27, Switzerland, Fax: +41 22 791 4848, E-mail: tritschera@who.int, not later than one year before the JMPR meeting (see Appendix XI of ALINORM 04/27/24).

Those countries specified under individual compounds in the ALINORM 04/2724 concerning matters related to the FAO Panel of the JMPR (GAP, residue evaluation, etc.) on specific pesticide/commodity(ies) or concerning toxicological matters are invited to send information of data availability and/or toxicological data (for deadlines see the paragraph above).

² In completing Appendix II, only a brief outline is needed. The form may be retyped if more space is needed under any one heading provided that the general format is maintained.

While consulting Appendix I, please note that pesticide/commodity combinations which are already included in the Codex system or under consideration are found in a working document prepared for and used as a basis of discussion at each Session of the Codex Committee on Pesticide Residues; the most recent being CX/PR 04/5. Consult the document to see whether or not a given pesticide has already been considered.

SUMMARY AND CONCLUSIONS

The summary and conclusions of the 36th Session of the Codex Committee on Pesticide Residues are as follows:

MATTERS FOR APPROVAL BY THE 27TH SESSION OF THE COMMISSION

The Committee recommended to the Commission:

- Adoption of the draft and draft revised MRLs at Step 8 and proposed draft MRLs at Step 5/8 (Appendix II and Appendix III);
- Revocation of certain existing Codex MRLs (Appendix V);
- Adoption of the proposed draft and proposed draft revised MRLs for certain commodities at Step 5 (Appendix IV).

The Committee agreed to ask the Commission to approve the following new work:

- Priority List for the establishment of MRLs for certain pesticides (paras 204-206, Appendix XI);
- Limited Revision of the Codex Classification of Foods and Animal Feeds (1993) (paras 248 – 258).

OTHER MATTERS OF INTEREST TO THE COMMISSION

The Committee:

- generally agreed with the views and recommendations under the General Considerations of the 2003 JMPR (paras 10 - 38);
- agreed to forward several questions regarding probabilistic intake assessment for consideration by the WHO Workshop on Intake Assessment planned for November 2004, as part of the Project to Update the Principles and Methods for Risk Assessment of Chemicals in Food (paras 46 – 59);
- agreed to redraft the document outlining the risk analysis policies used in establishing MRLs for pesticides for consideration by the next session, having regard to the *Working Principles for Risk Analysis and Application in the Framework of the Codex Alimentarius* (paras 176 – 247);
- agreed to circulate for further comments the Proposed Draft Amendments to the *Guidelines on Good Practice in Pesticide Residue Analysis* on a) the Use of Mass Spectrometry, b) the Estimation of Uncertainty of Results; and agreed to consider further the revision of the list of methods of analysis for pesticide residues at the next session (paras 184 – 195);
- agreed on the priority list of pesticides to be evaluated by JMPR and agreed to ask further comments on the proposed draft criteria for prioritization for consideration at its next session (paras 204 – 219);
- agreed on the main steps of the procedure to be followed for establishment of Interim Codex MRLs, and agreed to refine it further at the next session (paras 220 – 234);
- agreed on the procedure for the establishment of Codex MRLs for spices, including consideration of monitoring data by the JMPR (paras 235 – 247); and
- agreed to consider further the policy to be followed in the establishment of MRLs for processed foods at its next session (paras 259 – 262).

TABLE OF CONTENTS

	Paragraphs
INTRODUCTION	1
OPENING OF THE SESSION	2-3
ADOPTION OF THE AGENDA	4-5
APPOINTMENT OF RAPPORTEURS	6
MATTERS REFERRED TO THE COMMITTEE BY THE CODEX ALIMENTARIUS COMMISSION AND/OR OTHER CODEX COMMITTEES	7-9
REPORT ON GENERAL CONSIDERATIONS BY THE 2003 JOINT FAO/WHO MEETINGS ON PESTICIDE RESIDUES	10-38
GEMS/FOOD PROGRESS REPORT ON DIETARY INTAKE	39-45
DIETARY EXPOSURE IN RELATION TO MRL SETTING : DISCUSSION PAPER ON THE PROPOSALS FOR IMPROVEMENT METHODOLOGY FOR POINT ESTIMATES	46-59
DRAFT AND PROPOSED DRAFT MAXIMUM RESIDUE LIMITS FOR PESTICIDES IN FOODS AND FEEDS AT STEPS 7 AND 4	60-175
General remarks	60-68
Captan (007)	69
Carbaryl (008)	70 - 72
2,4-D (020)	73
Diazinon (022)	74
Dicofol(026)	75-76
Dimethoate (027)	77-83
Diphenylamine (030)	84
Ethion (034)	85
Fenitrothion (037)	86-89
Folpet (041)	90
Lindane (048)	91-92
Malathion(049)	93-94
Omethoate (055)	95
Parathion-methyl (059)	96-97
Piperonyl butoxide (062)	98-99
Pyrethrins (063)	100
Thiabendazole (065)	101-104
Carbendazim (072)	105
Disulfoton (074)	106-108
Amitrole (079)	109-110
Dichlorane (083)	111-113
Dodine (084)	113-114
Fenamiphos (085)	115-116
Pirimiphos-methyl (086)	119-120
Chlorpyrifos-methyl (090)	121-125
Acephate (095)	126-128
Carbofuran (096)	129 - 134
Methamidophos (100)	135-137
Phosmet (103)	138-140
Propargit (113)	141-142
Aldicarb (117)	143

Oxamyl (126)	144-146
Diflubenzuron (130)	147
Deltamethrin (135)	148-150
Bendiocarb (137).....	151
Carbosulfan (145)	152
Methoprene (147).....	153
Tolyfluanide (162).....	154-156
Oxydemeton-methyl (166)	157
Terbufos (167).....	158-159
Hexaconazole (170).....	160-161
Penconazole (182).....	162
Fenproximate (193).....	163
Haloxifop (194)	164
Tebufenozid (196).....	165
Chlorpropham (201).....	166
Spinozad (203)	167-168
Esfenvalerate (204).....	169
Flutolanil (205).....	170
Imidacloprid (206).....	171
Cyprodinil (207).....	172-173
Famoxadone (208).....	174
Methoxyfenozide (209).....	175
DISCUSSION PAPER ON THE RISK ANALYSIS POLICIES USED IN ESTABLISHING MRLS FOR PESTICIDES	176-183
MATTERS RELATED TO METHODS OF ANALYSIS AND SAMPLING:	184-203
(A) PROPOSED DRAFT GUIDELINES ON THE USE OF MASS SPECTROMETRY (MS) FOR IDENTIFICATION, CONFIRMATION AND QUALITATIVE DETERMINATION OF RESIDUES AT STEP 4	188 - 189
(B) PROPOSED DRAFT GUIDELINES ON THE ESTIMATION OF UNCERTAINTY OF RESULTS AT STEP 4	190-193
(C) PROPOSED DRAFT REVISION OF THE LIST OF METHODS OF ANALYSIS FOR PESTICIDE RESIDUES AT STEP 4.....	194 - 195
OTHER MATTERS.....	196-203
ESTABLISHMENT OF CODEX PRIORITY LIST FOR PESTICIDES	204-206
WORKSHARING	207
SUBMISSION OF DATA TO SUPPORT SCHEDULED REVIEWS	208
EXPANDED CAPACITY OF THE JMPR	209-210
PROPOSED DRAFT CRITERIA FOR PRIORITIZATION PROCESS OF PESTICIDES.....	211-219
DISCUSSION PAPER ON THE PILOT PROJECT FOR EXAMINATION OF NATIONAL MRLS AS INTERIM CODEX MRLS FOR SAFER REPLACEMENT PESTICIDES	220-234
CONSIDERATION OF THE ELABORATION OF MRLS FOR SPICES	235-247
DISCUSSION PAPER ON THE REVISION OF THE CODEX CLASSIFICATION OF FOODS AND ANIMAL FEEDS	248-258
DISCUSSION PAPER ON THE ESTABLISHMENT OF MRLS FOR PROCESSED OR READY-TO-EAT FOODS	259-262
OTHER BUSINESS AND FUTURE WORK	263-265
DATE AND PLACE OF THE NEXT SESSION	266-267

LIST OF APPENDICES

	Pages
APPENDIX I LIST OF PARTICIPANTS	30
APPENDIX II DRAFT AND REVISED DRAFT MAXIMUM RESIDUE LIMITS FOR PESTICIDES (ADVANCED TO STEP 8 OF THE CODEX PROCEDURE)	49
APPENDIX III PROPOSED DRAFT AND PROPOSED DRAFT REVISED MAXIMUM RESIDUE LIMITS FOR PESTICIDES (ADVANCED AT STEPS 5/8 OF THE CODEX PROCEDURE).....	56
APPENDIX IV PROPOSED DRAFT MAXIMUM RESIDUE LIMITS FOR PESTICIDES (ADVANCED AT STEP 5 OF THE CODEX PROCEDURE)	57
APPENDIX V CODEX MAXIMUM RESIDUE LIMITS FOR PESTICIDES RECOMMENDED FOR REVOCATION	61
APPENDIX VI DRAFT AND REVISED DRAFT MAXIMUM RESIDUE LIMITS FOR PESTICIDES (RETURNED TO STEP 6 AND 3 OF THE CODEX PROCEDURE)	68
APPENDIX VII PROPOSED DRAFT GUIDELINES ON THE USE OF MASS SPECTROMETRY (MS) FOR IDENTIFICATION, CONFIRMATION AND QUANTITATIVE DETERMINATION OF RESIDUES AT STEP 3 OF THE CODEX PROCEDURE.....	72
APPENDIX VIII PROPOSED DRAFT GUIDELINES ON ESTIMATION OF UNCERTAINTY OF RESULTS (AT STEP 3 OF THE CODEX PROCEDURE).....	77
APPENDIX IX PROPOSALS TO INCLUDE OF NEW COMMODITIES IN THE CODEX CLASSIFICATION	83
APPENDIX X PROPOSED REVISED CRITERIA FOR PRIORITIZATION PROCESS.....	90
APPENDIX XI PRIORITY LIST OF CHEMICALS SCHEDULED FOR EVALUATION AND RE- EVALUATION BY JMPR	94
APPENDIX XII DRAFT AND REVISED DRAFT MAXIMUM RESIDUE LIMITS FOR PESTICIDES (RETAINED AT STEP 7 AND 4).....	99

LIST OF ABBREVIATIONS

(Used in this Report)

CAC	Codex Alimentarius Commission
CCFAC	Codex Committee on Food Additives and Contaminants
CCGP	Codex Committee on General Principles
CCMAS	Codex Committee on Methods of Analysis and Sampling
CCNFSDU	Codex Committee on Nutrition and Foods for Special Dietary Uses
CCPR	Codex Committee on Pesticide Residues
CCRVDF	Codex Committee on Residues of Veterinary Drugs in Foods
CLI	CropLife International
CI	Consumers International
EC	European Community
FAO	Food and Agricultural Organization of the United Nations
JECFA	Joint FAO/WHO Expert Committee on Food Additives
JMPR	Joint FAO/WHO Meeting on Pesticide Residues
SPS Agreement	Agreement on the Application of Sanitary and Phytosanitary Measures
WHO	World Health Organization
WTO	World Trade Organization
acute RfD	acute Reference Dose
ADI	Acceptable Daily Intake
CXL	Codex Maximum Residue Limit for Pesticide
DIE	Daily Intake Estimate
GAP	Good Agricultural Practice in the Use of Pesticides
EMRL	Extraneous Maximum Residue Limit
IEDI	International Estimated Daily Intake
IESTI	International Estimated of Short-Term Intake
MRL	Maximum Residue Limit
NOEL	No Observed Adverse Effect Level
PHI	Pre-harvest Interval
PTDI	Provisional Tolerable Daily Intake
STMR	Supervised Trials Median Residue
TMDI	Theoretical Maximum Daily Intake

INTRODUCTION

1. The Codex Committee on Pesticide Residues (CCPR) held its 36th Session in New Delhi, India, from 19 to 24 April 2004 at the kind invitation of the government of India. Dr H.J. Jeuring of the Food and Consumer Product Safety Authority of The Netherlands chaired the Session. The Session was attended by 38 Member countries, 1 Member Organization and 13 international organizations. The list of participants is attached as Appendix I to this Report.

OPENING OF THE SESSION

2. Welcoming addresses were presented by Mrs Rita Teaotia, Joint Secretary, Ministry of Health and Family Welfare, and Chairperson, National Codex Committee, Government of India; Dr S.P. Agarwal, DGHS, Government of India; Dr Mangala Rai, Secretary, Department of Agricultural Research and Education and DG, ICAR, Government of India; Mr J.V.R. Prasada Rao, Secretary (Health), Ministry of Health and Family Welfare, Government of India, and Dr R.K. Mahajan, ADG (PFA), National Codex Contact Point, India.

3. These addresses and presentations highlighted the various international initiatives in managing risks associated with the use of pesticides, and the importance of effective pesticide regulation in order to manage pests, safeguard consumer health and protect the environment. The meeting was informed that the increasing adoption of Integrated Pest Management systems in India, and the greater use of biological control agents had resulted in a significant reduction in pesticides use and that recent legislation had established MRLs for 121 pesticides. Several of the addresses also emphasized the important role of Codex, particularly the CCPR, in establishing international pesticide residue standards to ensure safe food and facilitate trade, and the Committee was congratulated for recognising the special characteristics of spice production in developing countries in its current work on the establishment of MRLs for spices.

ADOPTION OF THE AGENDA (AGENDA ITEM 1)

4. The Committee adopted the provisional Agenda as contained in CX/PR 04/1.

5. The Delegation of the European Community presented CRD 11 on the division of competence between the European Community and its Member States according to Rule II, Paragraph 5 of the Rules of Procedure of the Codex Alimentarius Commission.

APPOINTMENT OF RAPPORTEURS (AGENDA ITEM 2)

6. Dr D. Lunn (New Zealand) and Dr Y. Yamada (Japan) were appointed as rapporteurs.

MATTERS REFERRED TO THE COMMITTEE BY THE CODEX ALIMENTARIUS COMMISSION AND/OR OTHER CODEX COMMITTEES (AGENDA ITEM 3)³

7. The Committee noted that matters arising from the 26th Session of the Codex Alimentarius Commission (CAC), the 53rd Session of the Executive Committee, the 25th Session of the Committee on Methods of Analysis and Sampling (CCMAS), the 36th Session of the Codex Committee on Food Additives and Contaminants (CCFAC) and the FAO/WHO were presented for information purposes or would be discussed in more detail under the relevant Agenda Items.

8. Matters of special interest to the Committee included the Commission decision to meet annually, at least for the next two years; the new requirement for project document for new work; and progress in the adoption of MRLs and Guidelines.

³ CX 04/2; CX/PR 04-Add.1; CRD 3 (Report of the FAO/WHO Workshop on the Provision of Scientific Advice to Codex and Member Countries); CRD 10 (comments from the European Community).

9. The Committee also noted that the 25th CCMAS amended the text proposed by the 35th CCPR on single laboratory validated methods of analysis to make it more general and send it through the CCGP to the Commission for adoption; the CCFAC's interest in the revision of the Codex Classification of foods and animal feeds and the highlights of the recent FAO/WHO/OIE expert workshops on antimicrobial resistance.

REPORT ON GENERAL CONSIDERATIONS BY THE 2003 JOINT FAO/WHO MEETING ON PESTICIDE RESIDUES (AGENDA ITEM 4)⁴

2.1 THE WHO CLASSIFICATION OF PESTICIDES BY HAZARD

10. In recent years, JMPR included in their evaluation a classification of the pesticides based on the 'WHO recommended classification of pesticides by hazard' (IPCS 2002). The 2003 Meeting noted that classification is related to occupational hazard not dietary intake risks and decided to discontinue listing this information.

11. The Delegation of the EC noted that they agree with the JMPR on the guiding criteria and principles for the classification, but that it is not of the opinion that confusion might occur between the classification and the performance of acute dietary risk. Therefore the Delegation of the EC regrets the decision by the JMPR to no longer include this classification.

2.2 SETTING THE ACUTE REFERENCE DOSE ON THE BASIS OF HEMATOLOGICAL EFFECTS

12. The 2001 and the 2002 Meetings indicated that haematological effects may occur after single exposure to a chemical and therefore such effects may form the basis for an acute reference dose (RfD). The 2003 Meeting set acute RfDs for three compounds, famoxadone, methoxyfenozide and tebufenozide, on the basis of haematotoxic effects occurring after repeated exposure. The mechanism causing these effects is unknown, and hence it is unclear if these effects can also occur after single exposure. The Meeting acknowledged that the acute RfD, for these three compounds or based on conservative assumptions and the assessment could be refined in the future.

13. For such a refinement, general guidance on appropriate single dose studies addressing haematological endpoints needs to be developed. In this context the Meeting recommended to establishment of a working group to develop such further guidance.

14. The Committee was informed that the working groups final draft guidance document on the setting of acute RfD will be discussed at the 2004 JMPR and published in the report of that meeting.

2.3. REVIEW OF PROVISION OF SCIENTIFIC ADVICE

15. The Committee was updated on the FAO/WHO consultative process on the review of the provision of scientific advice. In this process background papers were posted on the Internet for public comments (through an electronic forum) and a workshop was convened by the FAO and WHO to discuss means to improve the provision of scientific advice by FAO and WHO to Codex and Member States. The Committee was advised that the final report of the workshop is available on the Internet and that CRD 35 included the executive summary and the recommendations from this workshop.

16. The Committee was also informed that a Joint FAO/WHO Expert Consultation was planned (but not yet funded) to further consider issues and recommendations that require more development.

2.4 PROJECT TO UPDATE THE PRINCIPLES AND METHODS FOR THE RISK ASSESSMENT OF CHEMICALS IN FOOD

17. The Delegation of Japan expressed their hope that the project will be timely completed.

⁴ Report of the 2003 JMPR; CRD 9 (Comments of the EC), CRD 10 (comments of the EC); CRD 15 (comments of Consumers International).

⁵ Report of the FAO/WHO Workshop on the Provision of scientific advice to Codex and Member Countries

2.5 SELECTIVE SURVEYS TO PROVIDE RESIDUE DATA FOR ESTIMATING MAXIMUM RESIDUE LEVELS FOR SPICES

18. The Committee was informed that the 2002 JMPR had considered the options for estimating maximum residue levels for spices based on monitoring data (2002 JMPR Report) and provided guidance on the format for reporting such data and the 2003 JMPR gave further consideration to possible options for estimating maximum residue levels when there is insufficient monitoring data and prepared guidelines for conducting selective surveys to generate pesticide residue.

19. The EC considers it important that the analytical quality of the data is ensured.

2.6 EXPRESSION OF MRLS FOR FAT-SOLUBLE PESTICIDES IN MILK AND MILK PRODUCTS

20. The Committee was informed that in response to a question of the 35th CCPR on the expression of MRLs for fat-soluble compound in milk in relation to the LOQs, the 2003 JMPR considered the issue and decided that whether or not an MRL for a fat soluble compound in milk should have the suffix "F" depends on: (i) the logPow, (ii) the solubility in fatty animal tissues, and (iii) the distribution between the fat and non-fat fractions of the milk, where available. The 2003 JMPR further clarified that when the suffix "F" is appended, milk fat should be analyzed while without the suffix "F" whole milk should be analyzed. To apply an MRL for milk with the suffix "F" to milk products, the MRL for milk is multiplied by 25 and the resultant value applies to the fat extracted from the milk products.

21. The Delegation of the EC questioned the appropriateness of multiplying the MRL for milk by 25 for the application to milk products when the MRL is at or below the LOQ. The Representative of JMPR noted that the use of "F" outdated its usefulness and currently more sensitive analytical methods are available than before and indicated that further consideration would be necessary.

22. The Committee was informed that this issue would be considered again by the 2004 JMPR.

2.7 REFINEMENT OF THE ESTIMATIONS OF MAXIMUM RESIDUE LEVELS FOR PROCESSED COMMODITIES

23. The FAO Joint Secretariat to JMPR advised the Committee that JMPR has refined its estimation of residues and MRLs for processed commodities to remove the double rounding-up associated with examination of the MRL and processing factor. The revised process now involves multiplying the highest RAC residue found in supervised trials by the calculated processing factor to derive the MRL for the processed food. The Committee was informed that a JMPR policy to estimate maximum residue levels only when concentration of residue is expected in processing and for processed commodities for which codex commodity code exist. The EC expressed its reservation regarding the general application of the MRL for a RAC to processed commodities in the case of a processing factor less than 1.

2.8 DEVELOPMENT OF AUTOMATED SPREADSHEET APPLICATION FOR THE CALCULATION OF DIETARY INTAKE

24. The Committee was informed that JMPR has agreed to adopt automated spreadsheet applications developed by RIVM/SIR⁶, for the calculation of dietary intake with the spreadsheets being used to calculate IEDIs and IESTIs using the formulae described in Section 3 of 2003 Report. The spreadsheet applications will be made available on the following address:

http://www.who.int/foodsafety/publication/chem/regional_diets and will be updated when necessary.

2.9 IMPROVING ESTIMATES OF DIETARY INTAKE

25. The Committee was informed of a number of initiatives taken by JMPR to improve the estimation of dietary intakes.

- The 35th Session of the CCPR (ALINORM 03/24A) requested the JMPR to consider the probabilistic aspects in the point estimates, when the results exceed the acute RfD. In response, the

⁶ National Institute for Public Health and the Environment (RIVM); Centre for Substances and Integrated Risk Assessment (SIR)

2003 JMPR agreed in principle to adopt a tiered approach to estimating short-term dietary intake, in which the second tier could be probabilistic modelling. However it also recognized the lack of consumption data and the lack of an available model validated at the international level, which hamper the development of such a second tier. The 2003 JMPR welcomed the initiative of the CCPR in deciding to establish a Working Group on this subject. The Meeting noted that a probabilistic model useful for JMPR purposes is under development in The Netherlands (RIKILT, Institute of Food Safety) and agreed that it would consider this model when available.

- The JMPR took note of the prepublication IUPAC report on short-term dietary risk assessment⁷ and on the basis of the evidence presented, it agreed to use a new default variability factor of 3 in the calculation of residue levels in high-residue units used in point estimates of short-term intake.
- In the situation that the IESTI exceeds the acute RfD, the Meeting agreed to indicate in the section on Dietary Risk Assessment ways in which those parameters used in the dietary risk assessments which are based on conservative assumptions might be refined.
- The JMPR suggested further immediate refinements of the dietary intake by: improving the accuracy of consumption figures for long-term exposure by introducing the proposed 13 sub-regional diets; increased availability of large portion sizes and unit weights for the calculation of short-term exposure, especially those from developing countries; evaluation of typical commercial processing to investigate whether it would be possible to derive default processing factors and/or extrapolate processing data; refinement of generic and commodity-specific variability factors as used in the short-term intake calculations; elaboration of procedures for probabilistic modelling at the international level.

2.10 IESTI CALCULATION: REFINING THE VARIABILITY FACTOR FOR ESTIMATION OF RESIDUE LEVELS IN HIGH RESIDUE LEVELS

26. The Committee noted that the current JMPR procedures for estimating the short-term dietary intake of pesticide residues rely on the deterministic procedures proposed by the FAO/WHO Consultation in 1997⁸. After considering the discussion paper prepared by the Delegation of The Netherlands for the 35th Session of the CCPR and the IUPAC report⁹ that summarized and analysed the available data on residue level variability from unit to unit for a number of pesticides over a range of crops the JMPR agreed to adopt a default variability factor of 3 for the estimation of residue levels in high-residue units in the IESTI calculations where unit weights exceed 25 g. A variability factor is not used in IESTI calculations where unit weights are below 25 g. However JMPR has confirmed that the current practice will continue of using specific unit variability factors in preference to the default value where the supporting data are available, valid and sufficient.

27. The Committee noted that JMPR based its decision to use a new general default variability factor of 3 on a pre-publication version of the paper which has been published in a peer-reviewed journal in the beginning of March 2004 (CRD 7), and considers this decision to be a risk assessment decision, not a risk management one. In further explanation for this decision, The Committee was **advised** that the FAO/WHO consultation held in Geneva 10-14 February 1997 refined the concept of the variability factor to be the residue in the 97.5th percentile unit divided by the mean residue for the lot and that it was crucial to determine the residue value reflecting the 97.5th percentile unit with sufficient confidence. In CRD 7, a statistically sound method is described to achieve this. The JMPR member further indicated that JMPR had revised all the assessments conducted since 1999 for commodity-compound combinations for which the acute RfD had been exceeded. The results are in Chapter 3 of the JMPR 2003 Report. Based on the use of the variability factor of 3, about 30% of the calculated intakes for children were now below the acute RfD. The

⁷ Hamilton D, Ambrus A, Dieterle R, Felsot A, Harris C, Petersen B, Racke K, Wong S, Gonzalez R, Tanaka K, Earl M, Roberts G and Bhula, R. 2003. Pesticide residues in food – acute dietary exposure. (CRD 7)

⁸ WHO, Food consumption and exposure assessment of chemicals. *Report of a FAO/WHO Consultation, Geneva, Switzerland, 10-14 Feb, 1997*. Document WHO/FSF/FOS/97.5 (1997)

⁹ Hamilton D, Ambrus A, Dieterle R, Felsot A, Harris C, Petersen B, Racke K, Wong S, Gonzalez R, Tanaka K, Earl M, Roberts G and Bhula, R. 2003. Pesticide residues in food – acute dietary exposure. Submitted for publication.

EC expressed their reservation on variability factor of 3, pending internal evaluation in the EC in view of a late availability of document.

2.11 REVISED DATA REQUIREMENTS FOR STUDIES OF ENVIRONMENTAL FATE

28. The Committee was informed that in response to the request of the last session of the Committee to consider data requirements for environmental fate studies, JMPR has reviewed their data requirements, and the revised set of environmental fate studies required for elucidation is summarized under Sec 2.11 of the 2003 JMPR report.

2.12. PILOT PROJECT ON WORKSHARING

29. The Committee was advised that the purpose of the pilot project is to investigate the feasibility of using national and regional evaluations to expedite JMPR evaluations and that the main objectives of the worksharing project were to:

- Make better use of available resources
- Increase the transparency of the JMPR evaluation process
- Facilitate the international acceptance of JMPR evaluations by governments
- Facilitate submissions of dossiers by industry

The Delegation of Australia proposed to include an additional bullet to read: “Increase the output of the JMPR evaluation process”.

30. The 35th CCPR had selected trifloxystrobin as compound for this pilot project and it will be evaluated at the 2004 JMPR. Australia, Canada, the EU and the USA have provided their evaluations and identified their evaluator and Japan also has expressed interest. The manufacturer has also provided all original data.

31. For residue reviews, worksharing will include studies or information on identity, physical and chemical properties, metabolism, environmental fate in soil and water-sediment systems, stability of pesticides, analytical methodology and residue definition will be considered. For toxicological reviews all data evaluations will be considered. Currently the FAO- and WHO-appointed experts are reviewing the data and preparing an evaluation for the 2004 JMPR. National/International evaluations are compared and the differences noted. If there are differences in the evaluations, the evaluator will use the original data from the manufacturer and proposes a conclusion to the JMPR.

32. The Committee noted that the practice and experience of this pilot project on worksharing will be discussed at the 2004 JMPR, and an evaluation report summarizing the experience will be prepared after the meeting, for consideration by this Committee in 2005.

33. The Committee was informed that the use of national evaluations is already common practice at JMPR WHO Panel, the outcome of this project will facilitate and formalize this approach.

2.13 IMPLEMENTATION OF THE RECOMMENDATION OF THE YORK WORKSHOP AND THE ZONING REPORT

34. The FAO Joint Secretary advised the Committee that JMPR had already been using the recommendations of the York meeting and the “Zoning Report” whenever possible, but that the JMPR would need further information before their full utilization on some of the recommendations.

35. Recognizing that practical experience would be necessary to see how the recommendations could be implemented, JMPR had agreed to test the practical applicability of the principles with one pesticide in 2004 and has requested FAO to initiate the process and to identify a compound suitable for the pilot project.

2.14 SUBMISSION OF ADDITIONAL DATA FOR EVALUATION OF PESTICIDE RESIDUES

36. The FAO Joint Secretary advised the Committee that the JMPR continues to receive supplementary data and information from the sponsors without an indication of the specific purpose for its provision, and that JMPR has re-emphasized that the submitter must explain clearly why the data or information was submitted, with reference to JMPR or CCPR Reports. JMPR considered that this should be a pre-condition for scheduling the evaluation of the submitted material and should be used by the FAO Joint Secretary in presenting the rationale for the evaluation.

37. The 2003 JMPR reconfirmed that the evaluation of the results of additional metabolism studies, and of supervised trials revealing information on the proportions of the parent compound and significant metabolites can only be carried out at the time of a periodic review when all relevant information is available and taken into consideration in deciding on the definition of the residue.

38. When the intention is to change a CXL the request should be addressed to the CCPR; other matters should be addressed to the FAO Joint Secretary to the JMPR

GEMS/FOODS PROGRESS REPORT ON DIETARY INTAKES (Agenda Item 5)¹⁰

39. The Committee recalled that at its 31st session WHO presented its efforts to develop more representative diets using a cluster analysis approach based on FAO Food Balance Sheet data. The Committee welcomed this approach and was informed of the work progress at the 35th session. Using the cluster analysis approach 13 Consumption Cluster Diets were produced; however, major data gaps were encountered. Meanwhile average Food Balance Sheet data for the period 1997-2001 have recently become available to GEMS/Food and it was decided to use this new information as basis for developing new Consumption Cluster Diets. Presently a list of missing country and commodity data is compiled.

40. The WHO Representative informed the Committee that the five GEMS/Food Regional Diets have been updated, and that minor changes had been made to correct small computational errors and to clarify the food codes. The revisions are not believed to significantly alter previous exposure assessments. The Committee noted that copies of the revised GEMS/Food Regional Diets were available on request from the WHO and have been published on the WHO Food Safety website.

41. The Committee was informed that FAO and WHO have agreed to add two additional experts to JMPR starting in 2004: one member will have particular expertise in food consumption data; the other being an expert in food processing practices who would also evaluate data.

42. At the request of the Committee at the 35th session, WHO performed a full acute intake assessment of carbofuran (96) in light of intake concerns.

43. The results calculated using the new variability factor of 3 as introduced by the 2003 JMPR for general population and children age 6, show that except for the consumption of oranges, sweet, sour by children, none of the IESTIs exceeded the acute RfD for general population and children ages 6 and below. The results calculated using the previously applied variability factors show that the IESTIs for children consuming banana, cantaloupe, cucumber and oranges, sweet, sour exceeded the acute RfD.

44. The Delegation of India expressed the view that the large portion size used in the calculation did not reflect the actual consumption, especially in developing countries. The Delegation of the Republic of Korea pointed out that the data provided in the GEMS/FOOD regional diets did not reflect its national data for several commodities. India and Republic of Korea expressed their willingness to send their data.

45. The Representative of WHO invited member countries to provide relevant data to GEMS/Foods in order to improve the current Food Regional Diets.

¹⁰ CX/PR 04/6, CRD 9 (comments of the European Community), CRD 15 (comments of Consumers International)

DIETARY EXPOSURE IN RELATION TO MRL SETTING: DISCUSSION PAPER ON THE ADOPTION OF PROBABILISTIC METHODOLOGY FOR THE PURPOSE OF THE CODEX MRL SETTING (Agenda Item 6)¹¹

46. The Committee recalled that at its 35th session, while considering the discussion paper on proposals for improved methodology for point estimates of acute intake of pesticide residues, it requested a Working Group to prepare a paper considering the adoption of probabilistic methodology for the purpose of Codex MRL setting; and that paper should include worked examples of probabilistic calculations for some compounds for which compound-commodity combinations exceed the Acute RfD in international point estimates using the same parameters (field trial data, consumption data, influence of processing and variability) as those, which were the basis of the JMPR point estimates. The Working Group was also asked to discuss and propose parameters to be used in probabilistic calculations at the international level.

47. The Delegation of the Netherlands introduced the document and indicated that probabilistic intake assessment was a powerful tool for refining of chronic and acute dietary intake assessments. It facilitated cumulative intake assessment and the combined acute exposure assessment of the pesticide in more than one crop; however some limitations still existed at the international level due to the lack of data especially food consumption data.

48. The Delegation pointed out that it was important for risk managers to make a choice on the approach selected for making decisions on the acceptability of MRLs and that it was necessary to select a type of calculation and to decide on the cut-off points such as the percentile level and on the use of other parameters such as the variability factors and whether to use consumption data from “total population” or “consumers only”. The Delegation indicated that new software was developed and made available on the internet; however a short specialized training was necessary to use it properly. It was pointed out that after training the process of probabilistic intake calculations was not so time-consuming and that new consumption data from various countries were now available and might be used for exposure calculations in the future.

49. Several delegations, while generally supporting the concept of probabilistic intake calculations noted that there was still the need to solve several fundamental problems such as: to clarify whether and when “total population” or “consumers only” consumption value should be used as a parameter; that further guidance on the minimum data quality and quantity should be provided; that risk management considerations should take into account the severity of toxicological consequences; that more discussion on the use of variability factors was necessary as this might exaggerate exposure; and that the use of 99.9 percentile for different population groups in relation to acute toxicity required more clarification while the use of this percentile might not be justified sometimes due to the small data base, so that it could be seen as the target for the future. It was also indicated that other models existed for probabilistic dietary intake assessment and that these model should be compared against each other. Several delegations indicated that free availability of models are also important.

50. The Committee noted that some delegations consider that the use of field trials data lead to on overestimation of the exposure, and therefore they apply a lower cut-off level in the probabilistic intake assessment.

51. The WHO Representative informed the Committee of a WHO workshop on intake assessment planned for November 2004. This workshop is part of the ‘Project to Update the Principles and Methods for Risk Assessment of Chemicals in Food’. The WHO Representative recommended that the Committee formulates questions regarding probabilistic intake assessment that could be addressed in this workshop.

¹¹ CX/PR 04/4; CRD 2 (Report on the Probabilistic intake calculations performed for the Codex Committee on Pesticide residues, Institute of Food Safety, Wageningen, January 2004); CRD 8 (comments of Crop Life International); CRD 9 (comments of European Community); CRD 14 (comments of Australia); CRD 15 (comments of Consumers International); CRD 24 Additional comments of the European Community); CRD 25 (Report of the *Ad Hoc* Working Group).

52. The Observer of CropLife International, while referring to its written comments in CRD 8, supported the recommendation to use the 99.9 percentile acceptability threshold versus 99.99 percentile and to use the whole population exposure versus consumers only as the basis for the exposure assessment.

53. The Observer of Consumers International indicated that a “consumers only” approach should be used when estimating the intake of residues for a given commodity and the total population approach should be used when estimating the intake of residues in a variety of foods per day and that the definition of “rarely eaten” foods was not clear enough and that approach proposed in the discussion documents could underestimate the risk for consumers. The Observer also was of the view that an approach should be developed to take into account exposures resulting from the presence of a combination of substances with the same toxic effect (e.g. cholinesterase inhibitors such as organophosphorus compounds and carbamates).

54. The Chairperson noted that enforcement authorities sometimes faced practical difficulties in deciding on the acceptance of consignments for commodities where the use of probabilistic intake calculations on a total population basis and the 99.9th percentile, could lead to the acceptance of MRLs where a point calculation of the actual residue detected suggested the acute RfD may be exceeded. The Delegation of Australia noted that in such cases uncertainty factors and the severity of risk should be taken into account when deciding on the acceptability of low probability that the acute RfD is exceeded.

55. Some delegations were of the view that scientific basis for probabilistic intake calculations should be improved and that there was a need to ask FAO/WHO to provide assistance in this regard.

56. Noting the above mentioned WHO Workshop on intake assessment, the Committee decided to establish an *Ad Hoc* Working Group¹² to formulate questions for the above workshop.

57. The Chairperson of the Working Group Dr Kloet introduced the Report of the *Ad Hoc* Working Group presented in CRD 25 and presented eight questions developed by the Working Group.

58. It was proposed to put an additional question regarding possible problem for the enforcement (see para above), however the Committee was of the view that the issue as phrased in meeting was more relevant for risk managers and therefore did not agree on its inclusion. However, the Committee agreed to come back to the question on the possible enforcement at the next Session and.

59. When considering these questions, the Committee noted that reference in questions related to probabilistic intake assessment rather than probabilistic risk assessment. The Committee deleted the seventh question regarding the need for training and agreed that the following questions to be forwarded to FAO/WHO Workshop on intake assessment:

- Advice should be provided on the circumstances under which a “total population approach” versus “consumers only approach” should be used in the probabilistic modelling of acute exposure to pesticide residues. What is meant by the term “total population” e.g. all consumers or all of a sub-population of consumers e.g. children <6 years? What sub-populations should be considered? Is a “total population approach” sufficiently protective of the consumer for those commodities that are eaten by a low percentage of the population, by a high percentage of the population but only occasionally e.g. the chance of recording a consumption day is low, or by vulnerable populations such as children e.g. for compounds with developmental neurotoxicological effects?
- Advice is required on how the following should be considered in deciding on the ‘cut off’ percentile for risk management in the probabilistic acute exposure distribution e.g. where a deterministic exposure and the specified upper percentile in a probabilistic exposure assessment exceed the acute RfD, what is the appropriate way to express the risk in relation to the magnitude of exceedances?
 - (i) How should the quality and quantity of the input data and the associated scientific uncertainty including the magnitude and frequency of the risk be expressed?

¹² Netherlands (Chair), Australia, Denmark, European Commission, Germany, Ireland, Japan, New Zealand, United States of America, FAO, WHO, Crop Life International and International Banana Association.

- (ii) Can the severity of the toxicological end-point (e.g. teratogenic versus cholinesterase inhibition) be expressed and how? It is possible to express this risk from a risk management perspective?
 - (iii) How can the inherent over-estimates of exposure, that would be included in probabilistic dietary exposure assessments at the international level, be quantified? i.e. those resulting from the use of supervised trials residues data rather than monitoring data and those resulting from the intake value from one country with the highest consumption.
- Can precise statements on the variability of data used in probabilistic exposure assessment be made? How can uncertainty be taken into account and specified/presented in terms of specific statements on risk assessments such as those currently used by JMPR?
 - How should outputs from probabilistic assessments, including the magnitude and frequency of risk, be reported to ensure the transparency of output?
 - How should the information on the quantity and quality of data, the scientific uncertainty and the severity of the toxicological end-point be used by the risk manager to determine the appropriate upper percentile cut-off (e.g. 95, 99, 99.9 or 99.99th percentile)?
 - A number of methods exist to allow the decomposing of residues data from field trials to give residues expressed in a form appropriate for acute consumer exposure assessments i.e. as single servings of commodities - a surrogate for the use of variability factors. Which of these methods should be used and how should the outputs be expressed?
 - What is the minimum level of reliable data required (including food consumption data) for international probabilistic modelling of acute consumer exposure to support the setting of Codex MRLs? Can guidelines be developed? This issue also needs to be addressed as part of the “output” from probabilistic models.
 - The CCPR noted that a number of models for probabilistic intake assessment were available. How should these models be validated and certified as ‘fit for the purpose’ of risk assessment appropriate for JMPR and risk management in CCPR?
 - Is there further information that can be provided from risk assessors which would support risk management decision-making based on probabilistic intake assessments at an international level?

DRAFT AND PROPOSED DRAFT MAXIMUM RESIDUE LIMITS FOR PESTICIDES IN FOODS AND FEEDS AT STEPS 7 AND 4 (Agenda Item 7)¹³

GENERAL REMARKS

60. The Chairman noted that a number of Delegations had expressed opposition to the progression of MRLs where intake concerns had been identified by JMPR and informed the Committee that such MRLs should not be advanced beyond Step 6 until the dietary intake concerns had been addressed.

61. He also informed the Committee that a full list of CXLs and MRLs, for which acute dietary intake concerns had been noted by JMPR, would be available for the next session so that these could be considered for deletion or withdrawal.

62. In responding to the concern expressed by the Delegation of Australia about the elaboration of MRLs for processed commodities where residue concentration did not occur, the Chairman indicated that

¹³ CL 2003/15-PR; CL 2003/26-PR; CX/PR 04/5; CX/PR 04/5-Add.19comments of Australia,EC, USA); CRD 10 (Additional comments of the EC); CRD 15 (comments of Consumers International); CRD 19 (comments of Canada); CRD 20 (comments of Morocco); CRD 22 (English summary of comments of Morocco).

depending on the outcome of the discussions under Agenda Item 14, it may be possible to consider taking action on these CXLs at the next session.

63. The Committee reaffirmed that where JMPR had confirmed an existing CXL, the confirmed MRL should be progressed through the Steps as a new MRL as the decision of JMPR was based on new data sets and that there was a need to comment on the JMPR recommendation.

64. The Committee **agreed** to include a footnote in the Appendix for revocations that current MRLs should be revoked only if new MRLs are adopted, where applicable.

65. The Committee noted the written comments from the Delegation of the European Community that within the EC MRLs were derived using a statistical method, possibly leading to different MRLs to those proposed by JMPR from the same data set and that their comments on the MRLs proposed by the 2003 JMPR were preliminary, since the full evaluations were not yet available.

66. The meeting also noted the comments from Consumers International that for organophosphate and related compounds for which no developmental neurotoxicity studies had been evaluated, dietary intake risks to children could not be properly assessed.

67. It was noted that residue definitions on omethoate and carbendazim should be updated.

68. The Secretariat informed the Committee that the web version of updated MRS would be available after next Session of the Commission.

CAPTAN (007)

69. The Committee **decided** to return the MRLs to Step 6 awaiting toxicological evaluations and new intake calculations by the 2004 JMPR.

CARBARYL (008)

70. The Delegation of Australia expressed their reservation on MRLs for stone fruits and grapes for acute dietary intake concerns. The Delegation of the EC considered the database for some commodities to be insufficient, and expressed acute intake concerns for citrus commodities. The Delegation of Japan noted that the code numbers for some of the commodities still needed to be developed. The Delegation of Thailand requested the retention of the existing CXL for peppers in view of new information on chili peppers which would be provided to the JMPR.

71. The Committee **decided** to advance the MRLs for almond hulls; asparagus; beetroot; carrot; egg plant; kidney of cattle, goats, pigs & sheep; liver of cattle, goats, pigs & sheep; maize fodder; maize forage; maize oil; crude; meat (from mammals other than marine mammals), milks; olive oil, virgin; olives; peppers sweet; rice bran, unprocessed; rice hulls; rice straw and fodder, dry; rice polished; sorghum forage (green); sorghum forage (dry); soya bean (dry); soya bean fodder; soya bean forage (green); soya bean hulls; soya bean oil, crude; sunflower forage; sunflower seed; sunflower seed oil, crude; sweet corn (corn-on-the-cob); sweet corn cannery waste; sweet potato; tomato; tomato paste; tomato juice; three nuts; turnip, garden; wheat; wheat bran, unprocessed; wheat flour; wheat germ; wheat straw and fodder, dry to Step 8.

72. The Committee **decided** to return the MRLs of cherries; citrus fruits; citrus juice; citrus pulp, Dry; dried grapes (currants, raisins and sultanas); grape juice; grape pomace, dry; grapes; stone fruits to Step 6. The Committee **decided** to withdraw the CXLs for all commodities recommended by the 2002 JMPR for withdrawal except one for apple. In addition, the Committee **decided** to delete the CXLs for rice and sweet corn (kernels) and to retain for 4 years under the Periodic Review Procedure the CXL for peppers (except peppers, sweet), awaiting new information from Thailand.

2,4-D (020)

73. Noting the information provided on the GAP for 2,4-D on citrus fruits, the Committee **decided** to advance the MRLs for citrus fruits to Step 8.

DIAZINON (022)

74. The Committee **decided** to return the MRL for cabbages, head to Step 6, awaiting the evaluation of new information from the USA and Australia. The Committee also **decided** to advance the remaining draft MRLs to Step 8.

DICOFOL (026)

75. The Delegations of India and Morocco informed the Committee that monitoring and field data to support a lower MRL for tea (green, black), can be submitted.

76. The Committee **decided** to maintain the existing CXL awaiting future evaluations by The JMPR of these new data.

DIMETHOATE (027)

77. The Committee **noted** written comments of the Delegation of Australia, European Community and USA which opposed the advancement of the MRLs beyond Step 6 for commodities with of acute and chronic intake concerns.

78. The Committee **noted** that the use on grapes, plums/prunes, pome fruits, sorghum and onion bulb would no longer be supported. The Committee was informed that the deletion of the MRLs for these commodities would result in a chronic intake estimate below the ADI for the European diet.

79. The Delegation of Chile expressed its concern with the deletion of these MRLs as dimethoate was commonly used on commodities of great importance in international trade. The Delegation proposed to review the definition in order to take into account omethoate.

80. The Committee **noted** that the residue definition for dimethoate and that for the calculation of dietary intake dimethoate was considered with omethoate. The FAO Joint Secretary indicated that the residue definition could be reviewed only in the framework of the periodic review of this compound.

81. The Committee **agreed** to consider the deletion of the the CXLs for apple, grapes, onion bulb, plum (including prunes), pear and sorghum and withdrawal of the draft MRLs for grapes, plums (including prunes) and pome fruit at its next session.

82. The Committee **agreed** to advance all proposed draft MRLs to Step 5 and returned draft MRLs for barley; grapes; peas (pods and succulent = immature seeds); plums (including prunes); pome fruits; sugar beet leaves or tops; tomato; turip, greens; and turnip garden.

83. The Committee **decided** to withdraw the draft MRLs Brussels sprouts; cauliflower; lettuce, head; which would be replaced by new proposed draft MRLs; and wheat wheat straw and fodder, dry.

DIPHENYLAMINE (030)

84. The Committee **decided** to advance the MRLs for cattle milk and pear to Step 8.

ETHION (034)

85. The Committee **agreed** to delete the CXL for citrus fruits, because the use of ethion would no longer be supported.

FENITROTHION (037)

86. The Committee **noted** that the 2003 JMPR had recommended withdrawal of the CXLs for meat; milks; rice bran; unprocessed, rice polished; wheat bran, processed; wheat flour, wheat whole meal and white bread.
87. The Committee **decided** to withdraw the CXL for white bread.
88. The Committee **decided** to retain the other CXLs recommended for withdrawal for 4 years under the Periodic Review Program as there was support these MRLs.
89. The Committee **decided** to advance the MRL for cereal grains and wheat bran unprocessed to Step 5. The Committee was informed that data would be available for pome fruits, stone fruits, grapes, tomatoes and soya beans for evaluation at a later date.

FOLPET (041)

90. The Committee **decided** to return all draft MRLs to Step 6 awaiting review by the 2004 JMPR.

LINDANE (048)

91. The Committee **decided** to withdraw the CXL for carrot, rape seed, sugar beet and sugar beet leaves or tops.
92. The Committee **decided** to advance all other MRLs to Step 5/8.

MALATHION (049)

93. The Committee **decided** to retain the MRLs for commodities who also can be used as animal feed at Step 6 awaiting the review by JMPR of animal feeding studies. The Committee **decided** to advance the MRLs for asparagus; beans, except broad bean and soya bean; blueberries; cucumber; mustard greens; onion; bulb; spring onion; sweet corn (corn on the cob); tomato juice and turnip greens to Step 8.
94. The Committee **decided** to retain the current CXL for apple; broccoli; cabbages, head; cereal grains; citrus fruits and grapes awaiting the review of new residue data by the 2004 JMPR.

OMETHOATE (055)

95. The Committee **decided** to withdraw all draft MRLs because this compound was no longer be supported. The Delegation of the EC indicated that the residue definition for omethoate should include dimethoate (see also para 78).

PARATHION-METHYL (059)

96. The Committee **noted** that animal transfer studies were not available and **decided** to return the animal feed and associated commodities: alfalfa fodder; alfalfa fodder (green); bean forage (green); cotton seed; cotton seed oil, crude; cotton seed oil, edible; hay or fodder (dry) of grasses; maize; maize flour; maize oil, crude; maize oil, edible; pea hay or pea fodder; pea vines (green); rape seed; rape seed oil, crude; rape seed oil, edible; sugar beet leaves or tops; wheat; wheat bran, unprocessed; wheat flour and wheat straw and fodder dry to Step 6 awaiting the evaluation of the JMPR.
97. The Committee **decided** to advance the MRLs for apple; cabbage, head; dried grapes (=currants raisins and sultanas); grapes; peach and peas (dry) to step 8 and the MRL for nectarine to step 5/8.

PIPERONYL BUTOXIDE (062)

98. The Committee **noted** that the Commission, in 2003 had returned all MRLs to Step 6 due to the concerns about the use pattern. Following an explanation from the Delegation of Australia on the GAP for this compound, the Committee **decided** to advance all MRLs to Step 8.

99. The Committee **decided** to request the Commission to reinstate the former CXL of wheat at 10 mg/kg (PoP), if the draft MRL for cereal grains is not adopted at Step 8 (see also para 63) given that the decision to revoke the CXL was taken contrary to the proposal of the CCPR.

PYRETHRINS (063)

100. The Committee **decided** to advance the MRL for cereal grains to Step 5/8.

THIABENDAZOLE (065)

101. The Delegation of Morocco provided with the preliminary data (CRD 20) and informed the Committee that data on citrus to support a higher MRL will become available this year and will be submitted to the JMPR. The Delegation of USA advised the Committee that the GAP supporting the MRL for mushrooms had been changed in the United States.

102. The Committee **decided** to return the MRL for citrus fruits and mushrooms to Step 6 awaiting the submission of additional data from Morocco and the USA and to delete the MRLs for melons, except watermelons, and strawberry, as these uses were no longer supported.

103. The Committee **requested** the JMPR to perform acute intake assessment taking into account the Acute RfD of 0.1 mg/kg bw established by the 2002 JECFA.

104. The Committee was **informed** that data relating to the acute reference dose would be provided for evaluation by the 2005 JMPR.

CARBENDAZIM (072)

105. The Committee **decided** to advance the MRLs for asparagus; cherries; common beans pod and/or immature seeds); mango; peanut; peanut fodder; pepper, chili; soya bean (dry); squash, summer; sugar beet and sugar beet leaves or tops to Step 5 and returned the remaining MRLs to Step 6 awaiting the establishment of an acute RfD by JMPR in 2005.

DISULFOTON (074)

106. The Committee noted the acute intake concerns had not been resolved even with the use of probabilistic methods.

107. The Committee was informed that the probabilistic assessment did not result in exceedance of exceed the acute RfD for individual commodities although the combined intake from all commodities exceeded the acute RfD. The Committee **decided** to return the MRLs of broccoli; cabbages, head; cauliflower; lettuce head and lettuce leaf to Step 6 awaiting further refinements in the acute dietary intake probabilistic assessment methodology.

108. The Committee **decided** to delete the CXLs of potato and radish, Japanese as these were no longer supported.

AMITROLE (079)

109. The Committee noted that the Commission, in 2003 returned all MRLs to Step 6 because of concerns about the methods of analysis.

110. The Committee considered that the analytical methods reported by JMPR were acceptable and advanced all MRLs to Step 8.

DICHLORAN (083)

111. The Committee **decided** to advance the MRLs for grapes; nectarine and peach to Step 5/8 and to withdraw the existing CXLs for lettuce, head; plums (including prunes); strawberries and tomato as recommended by the JMPR.

112. The Committee was informed that new data on lettuce; plums; strawberries and tomatoes will become available by the end of 2004.

DODINE (084)

113. The Committee **decided** to advance the MRLs for cherries; nectarine; peach and pome fruits to Step 5.

114. The Committee noted that the CXLs for grapes and strawberries will be considered for deletion next year.

FENAMIPHOS (085)

115. The Committee **decided** to return the MRLs for peppers; tomato and watermelon to Step 6 because of acute intake concerns and to advance the remaining MRLs to Step 8.

116. The Committee **agreed** to consider at its next session the deletion of the CXLs for grapes, pineapple and carrot because of acute intake concerns.

PIRIMIPHOS-METHYL (086)

117. The Committee **decided** to retain the CXLs of meat and eggs for 4 years under the periodic review procedure as the relevant data, including storage stability data, had been submitted to JMPR.

118. The Committee **decided** to consider the withdrawal of all other existing CXLs at the next session. The Committee **agreed** to advance the MRLs of cereal grains, milks and wheat bran, unprocessed to Step 5.

CHLORPYRIFOS-METHYL (090)

119. The Committee **decided** to return all proposals for draft MRLs for barley; oats and rice to Step 6 awaiting review by JMPR.

120. The Delegation Republic of Korea informed the Committee of their chronic dietary intake concerns with the rice MRL and the Committee **requested** the Delegation Republic of Korea to submit their intake calculations to JMPR.

METHOMYL (094)

121. The Committee **decided** to advance the draft MRLs to Step 5 for alfalfa fodder; alfalfa forage (green); barley; bean fodder; beans, except broad bean and soya bean; brassica vegetables; celery; citrus pulp, dry; fruiting vegetables, cucurbits; grapes; leafy vegetables; pea vines (green); soya bean forage (green); wheat; wheat bran, unprocessed; wheat flour and wheat germ.

122. The Committee **decided** to return the proposals for the draft MRLs for apple and pear to Step 6 because of acute intake concerns.

123. The Committee **decided** to advance the draft MRLs to Step 8 for cotton seed, hulls; cotton seed, meal; rape seed forage; soya bean hulls; soya bean meal; beans (dry); common bean (pods and/or immature seeds); cotton seed; cotton seed oil, edible; edible offal (mammalian); eggs; maize; maize forage; maize oil,

edible; meat (from mammals other than marine mammals); milks; nectarine; oats; peach; plums (including prunes); potato; poultry meat; poultry, edible offal of ; rape seed; soya bean fodder; soya bean oil, crude; soya bean oil, refined; straw, fodder (dry) and hay of cereal grains and other grass-like plants.

124. The Committee **decided** to retain the CXLs for mint hay and peppers for 4 years under the Periodic Review procedure as new data had already been submitted to JMPR.

125. The Committee **decided** to recommend the revocation of CXLs as recommended by the 2001 JMPR for barley straw and fodder; kale; maize fodder; spinach and also to consider revocation of the CXLs for sweet corn and tomato next year because of acute intake concerns.

ACEPHATE (095)

126. The Committee **decided** to advance the draft MRLs to Step 5 for artichoke, globe; beans, except broad bean and soya bean; edible offal (mammalian); eggs; flowerhead brassicas; mandarins; meat (from mammals other than marine mammals); milks; nectarine; peach; peppers; pome fruits; poultry meat; poultry, edible offal of and soya bean (dry).

127. The Committee **decided** to recommend the revocation of CXLs as recommended by the 2003 JMPR at its next session for alfalfa forage (green); cabbages, head; cattle fat; cotton seed; lettuce, head; pig fat; potato; sugar beet; sugar beet leaves or tops; tomato and tree tomato.

128. The Committee **decided** to retain the CXLs for broccoli and cauliflower until the MRL for flowerhead brassicas reaches Step 8 and to retain the CXLs for cattle meat and pig meat until the MRL for meat (from mammals other than marine mammals) reaches Step 8.

CARBOFURAN (096)

129. The Committee noted that the EC had established an acute RfD ten times lower than that established by JMPR, and the EC was invited to submit their data to JMPR.

130. The Committee **decided** to advance to Step 5 the draft MRLs for maize; maize forage; potato; sugar beet; sugar beet leaves or tops and also to return to Step 6 the draft MRLs for cantaloupe; cucumber; mandarin; oranges, sweet, sour; squash, summer; sweet corn (corn-on-the-cob) for acute intake concerns.

131. The Committee **decided** to advance the draft MRLs for cottonseed; rape seed; rice straw and fodder, dry and rice, husked to Step 8.

132. The Committee **decided** to recommend the revocation of CXLs as recommended by the 1997 JMPR for maize fodder and oilseed.

133. The Committee also **requested** that the MRL data base for carbofuran should also indicate the source of the MRL, either carbosulfan or carbofuran.

134. The Delegation of India informed the Committee that it would submit data to support a review of the existing CXL for sugar cane.

METHAMIDOPHOS (100)

135. The Committee **decided** to withdraw the MRLs for peach (1 mg/kg); pome fruits (0.5 mg/kg) and tomato (1 mg/kg) as these had been replaced by newer limits recommended by the 2003 JMPR.

136. The Committee **decided** to advance all remaining MRLs to Step 5. The Committee **agreed** to consider at its next session the withdrawal of the CXLs for alfalfa forage (green); cattle fat; cauliflower; goat fat; lettuce head; peppers, chili; peppers, sweet; pig fat; sheep, fat and tree tomato, as recommended by the 2003 JMPR.

137. The Committee **agreed** to ask JMPR for clarification of cucumber proposal and to reconsider the cucumber CXL at the next session.

PHOSMET (103)

138. The Committee **decided** to return MRLs for all commodities except tree nuts to Step 6 for because of acute intake concerns and to advance the MRL for tree nuts to Step 8.

139. The Committee was informed that the EC was likely to establish a lower Acute RfD than recently established by the JMPR. The EC agreed that once their evaluation was completed, they would send to JMPR data on how their acute RfD had been derived.

140. The Committee therefore **decided** to return MRLs for all commodities except tree nuts to Step 6 because of acute intake concerns and to advance the MRL for tree nuts to Step 8.

PROPARGITE (113)

141. The Committee **decided** to withdraw the CXLs for alfalfa fodder; alfalfa forage (green); apple pomace (dry); common beans (pods and/or immature seeds); cranberry; cucumber; fig; maize fodder; maize forage; mint hay; peanut fodder; peanut forage; sorghum; sorghum forage (green); sorghum straw and fodder dry. Although withdrawal was recommended by the 2002 JMPR for beans (dry); pears; potato; strawberry and walnuts, the Committee **decided** to retain these CXLs for four years under the Periodic Review Procedure.

142. The Committee **decided** to advance all the remaining MRLs to Step 8. The Delegation of the EC expressed a reservation for the advancement of the MRL for grapes and grape juice because of intake concern for children.

ALDICARB (117)

143. The Committee **decided** to return the MRLs for banana and potato to Step 6 because of acute intake concerns.

OXAMYL (126)

144. The Committee **decided** to withdraw the CXLs for banana; beans, except broad bean and soya bean; celery; coffee beans; maize; onion, bulb, pineapple; soya bean (dry); squash (summer); sugar cane; and watermelon.

145. The Committee **agreed** to advance the MRLs for carrot, edible offal of cattle, goats, horses, pigs and sheep; eggs; meat (from mammals other than marine mammals), milks; peanut; peanut fodder; poultry meat and poultry, Edible offal of, to Step 8. The Committee furthermore **decided** to return the MRLs for citrus fruits; cucumber; melons except watermelon, and peppers to Step 6 because of acute intake problems.

146. The Committee agreed with the proposal of the Delegation of Netherlands to add a footnote to indicate that no residues are to expected in meat.

DIFLUBENZURON (130)

147. The Committee **decided** to delete the CXLs for Brussels sprouts; cabbages, head; cotton seed; plums (including prunes); soya bean (dry) and tomato. The Committee **decided** to advance the MRLs for citrus fruits; edible offal (mammalian); meat (from mammals other than marine mammals); milks; mushrooms; pome fruits; poultry meat; rice and rice straw and fodder, dry to Step 8.

DELTAMETHRIN (135)

148. The Committee **decided** to delete the existing CXLs for artichoke, globe; banana; cacao beans; coffee beans; edible offal (mammalian); fig; fruiting vegetables other than cucurbits; hops, dry; kiwifruit; legume animal feeds; melons, except watermelon; oilseed, except peanut; peanut; pineapple; straw and fodder (dry) of cereal grains and tree tomato.

149. The Committee **noted** that while the 2003 JMPR had not indicated any acute dietary intake concern for leafy vegetables, this conclusion was based on the use of a variability factor of 3. As Delegations had not had sufficient time to examine this intake calculation, the Committee **decided** to return the MRL for leafy vegetables to Step 6.

150. The Committee **decided** to advance all remaining MRLs, except for leafy vegetables, to Step 8.

BENDIOCARB (137)

151. The Committee **decided** to recommend the deletion of all CXLs, recalling that this compound is no longer supported.

CARBOSULFAN (145)

152. The Committee **decided** to return the MRLs for citrus pulp, dry ; mandarin; and oranges (sweet, sour) to Step 6 because they are associated with the relevant carbofuran MRLs (see para xx). The Committee **decided** to advance all other MRLs to Step 5, noting that while all these MRLs were at the limit of detection, the omission of Steps 6 and 7 should not be done because the full evaluation was not yet available.

METHOPRENE (147)

153. The Committee **was informed** that the CXL for peanuts had been revoked by the CAC in 2003 but that there was now some support for the use of this commodity. The Secretariat advised the Committee that since the CXL had been revoked by the Commission, a new MRL proposal would need to be introduced into the system.

TOLYLFLUANID (162)

154. The Committee **decided** to withdraw the CXL for gherkin.

155. The Committee **decided** to advance the MRL for lettuce, head at 15mg/kg to Step 5, and delete the earlier proposal at 0.2 mg/kg.

156. The Committee **decided** to advance all other MRLs to Step 8.

OXYDEMETON-METHYL (166)

157. The Committee **decided** to return all MRLs to Step 6, awaiting the JMPR 2004 evaluation.

TERBUFOS (167)

158. The Chairman informed the Committee that the 2003 JMPR has established an acute RfD but did not perform an acute dietary intake calculation, as no STMRS HRs had been estimated.

159. The Committee noted that this compound was scheduled for Period Review in 2005.

HEXACONAZOLE (170)

160. The Committee noted that there was no longer support for this compound at the Codex level, however it still would be used in some countries.

161. The Committee **decided** to delete all existing CXLs.

PENCONAZOLE (182)

162. The Committee recalled that the compound was no longer supported at the international level. However, as the compound has not yet been scheduled for period re-evaluation, the Committee **decided** to postpone consideration of this compound.

FENPYROXIMATE (193)

163. The Committee **decided** to return the MRLs to Step 6 awaiting the establishment of an acute RfD and acute intake calculations by the 2004 JMPR.

HALOXYFOP (194)

164. The Committee **decided** to maintain the MRLs for alfalfa forage (green); cattle kidney; cattle liver; cattle meat; cattle milk; fodder beet leaves or tops and sugar beet leaves or tops at Step 4 and the remaining MRLs at Step 7, awaiting the establishment of an acute RfD by the JMPR.

TEBUFENOZIDE (196)

165. The Committee **decided** to advance the MRLs for edible offal (mammalian); meat (from mammals other than marine mammals) and milks to step 5/8 and to advance all other MRLs to Step 8, noting that the MRLs for cattle commodities could now be withdrawn.

CHLORPROPHAM (201)

166. Noting that this compound was tentatively scheduled for toxicological evaluation by the JMPR 2005, the Committee **decided** to return the MRL for potato to Step 6 because of acute intake concerns. As potatoes are a feeding stuff for animals, the Committee also **decided** to return the MRLs for cattle meat, cattle milk and cattle, edible offal of, to Step 6.

SPINOSAD (203)

167. The Committee **decided** to advance MRLs for brassica vegetables and leafy vegetables to step 8.

168. Recalling earlier discussions on the question of the expression of milk MRLs for partially fat soluble pesticides, the Committee **decided** to return the MRL for milk to Step 6 and to request the JMPR to further consider how MRLs should be expressed for milk/milkfat.

ESFENVALERATE (204)

169. The Committee **decided** to advance MRLs for eggs; poultry meat, poultry edible offal of; rapeseed and wheat straw and fodder, dry to Step 8. Noting that esfenvalerate and fenvalerate have the same residue definition, and that higher fenvalerate CXLs exist for cotton seed; tomato and wheat, the Committee **decided** to return the MRLs for these commodities to Step 6 until fenvalerate is phased out.

FLUTOLANIL (205)

170. The Committee **decided** to advance all MRLs to Step 8.

IMIDACLOPRID (206)

171. The Committee **decided** to advance all MRLs to Step 8.

CYPRODINIL (207)

172. The Committee **decided** to advance all MRLs to Step 5.

173. The Delegation of Republic of Korea expressed its concern in relation to MRL for strawberries and indicated that their MRL was much lower.

FAMOXADONE (208)

174. The Committee **decided** to advance all MRLs to Step 5.

METHOXYFENOZIDE (209)

175. The Committee **decided** to advance all MRLs to Step 5 and agreed that the MRL for spinach should not be advanced beyond Step 6 unless the acute intake concern for children had been resolved.

DISCUSSION PAPER ON THE RISK ANALYSIS POLICIES USED BY THE CODEX COMMITTEE IN ESTABLISHING MRLs FOR PESTICIDES (Agenda Item 8)¹⁴

176. The Chairperson introduced the paper prepared at the request of the last session of the Committee and recalled that the Commission had adopted the Working Principles for Risk Analysis for Application in the Framework of the Codex Alimentarius and had asked relevant Codex Committees develop or complete specific guidelines on risk analysis in their respective areas. The Chairperson highlighted the main aspects of the Proposed Draft Risk Analysis Principles addressing the application of risk analysis principles by JMPR and the Committee on Pesticide Residues and noted that risk management policy had not been included at this stage, but would need to be addressed in the further development of the document.

177. The Delegation of Denmark asked whether that the request for a full safety evaluation (paragraph k) took into account the proposals for establishment of interim MRLs. The Chairperson noted that the document described the current procedures, that the development of interim MRLs was being tested as a pilot project, and changes could be made as required in the further elaboration of the principles.

178. The Delegation of the EC while agreeing to most of the text in the document expressed the view that paragraph l) should be less specific about acute exposure calculations and leave other possibilities open. The Delegation of Australia proposed to amend the sections relating to regional diets (l and x) to make them less prescriptive.

179. The Committee agreed that the reference to “other legitimate factors” should be completed with a reference to the Statements of Principles Concerning the Role of Science in the Codex Decision-Making Process and the Extent to which Other Factors Are Taken into Account.

180. The Delegation of Japan, noted that the Committee had taken several decisions relevant to risk management, that appeared in various working documents and previous reports, and that all these decisions should be compiled in one single document, and proposed several amendments to the text. The Delegation also pointed out that the reference to “safety assessment” should be clarified and that the document should be consistent with the draft risk analysis principles recently finalized by the Committee on Food Additives and Contaminants.

181. The Observer from Consumers International expressed the view that substantial changes should be introduced to current practices in order to ensure conformity with the Working Principles for Risk Analysis adopted by the Commission and to improve the transparency of the process. In particular, the Observer noted that the separation between risk assessment and risk management should be respected and the Committee should carry out the risk management tasks that were currently undertaken by JMPR, such as proposing MRLs and establishing risk assessment policy.

182. The Committee noted that the development of the proposed Draft Principles was in reply to a specific request of the Commission and therefore a project document was not required to justify this new work.

¹⁴ CX/PR 04/6, CRD 9 (comments of the European Community), CRD 13 (comments of Japan), CRD 15 (comments of Consumers International)

183. The Committee agreed to initiate the development of Proposed Risk Analysis Principles for circulation at Step 3 for consideration by the next session, subject to approval as new work by the Commission. The Committee agreed that the Chairperson with assistance of the Delegation of Japan would redraft the Proposed Draft Principles on the basis of the current document, taking into account the written comments and the discussion of the current session, and containing current CCPR risk management policies.

MATTERS RELATED TO METHODS OF ANALYSIS (Agenda Item 9)¹⁵

184. The Committee recalled that its last session had agreed to undertake new work on 1) Proposed Draft Guidelines on the Use of Mass Spectrometry, to be prepared by the FAO/IAEA Joint Training and Reference Center for Food and Pesticide Control and 2) Proposed Draft Guidelines on the Estimation of Uncertainty of Results, to be prepared by the representative of FAO/IAEA. These proposals were subsequently approved as new work by the 26th Session of the Commission.

185. The Committee noted that document CX/PR 04/7 Estimation of Uncertainty of Measurements and Confirmation of Results presented the conclusions of the Consultants' Meeting convened by the Joint FAO/IAEA Division (Vienna, 22-26 March 2004) in order to provide recommendations on the issues under consideration in the CCPR and to develop the above mentioned guidelines. Due to the short time elapsed since the Consultation, it had not been possible to circulate the Proposed Draft Guidelines for comments at Step 3.

186. The Committee noted that the Consultants' Meeting had recommended incorporating both Proposed Draft Guidelines into the recently revised Guidelines on Good Laboratory Practice in Residue Analysis.

187. The Chair of the ad hoc Working Group on Methods of Analysis, Dr Piet Van Zoonen (Netherlands) introduced the report of the Working Group (CRD 5) and highlighted its main discussions and recommendations, as follows.

(A) PROPOSED DRAFT GUIDELINES ON THE USE OF MASS SPECTROMETRY (MS) FOR IDENTIFICATION, CONFIRMATION AND QUALITATIVE DETERMINATION OF RESIDUES AT STEP 4

188. The Committee agreed with the changes proposed by the Working Group to the working document as follows: some additional text was included under the derivatisation section; the reference to packed columns was deleted from Table 6; the reference to the ions in Figure 2 was clarified; provisions on reporting of results were clarified; and the reference section was expanded to include other relevant papers. It was further agreed that the document presented in Appendix I of CRD 5 should ultimately replace paragraphs 4.7 to 4.9 of the Guidelines on Good Practice in Pesticide Residue Analysis.

189. The Committee agreed to circulate the Proposed Draft Amendment to the Guidelines on Good Practice in Pesticide Residue Analysis as amended at the present session, for comments at Step 3 (see Appendix VII).

(B) PROPOSED DRAFT GUIDELINES ON THE ESTIMATION OF UNCERTAINTY OF RESULTS AT STEP 4

190. The Committee noted that consideration of measurement uncertainty was relatively recent and that although there is general consensus about the estimation of uncertainty, there are widely different views and practices among members concerning the use of measurement uncertainty in compliance testing.

191. The Committee agreed that the Guidelines on Good Practice in Pesticide Residue Analysis should be amended to insert in the main body of the text a short statement (to be developed) on the basic principles for the estimation of uncertainty of analytical results and to attach the detailed guidelines as an Annex to the Guidelines.

¹⁵ CX/PR 04/7, CRD 5 (Report of the *ad hoc* Working Group on Methods of Analysis), CRD 22 (comments of Morocco), CRD 24 (comments of the EC)

192. The Committee agreed to circulate for comment at Step 3 the Proposed Draft Guidelines on the Estimation of Uncertainty of Results as contained in Appendix VIII as an amendment to the Guidelines on Good Practice in Pesticide Residue Analysis.

193. The Committee also agreed that the Delegation of the Netherlands would prepare a paper considering the issues related to the use and implications of measurement uncertainty, with the assistance of interested delegations, for consideration at the next session.

(C) PROPOSED DRAFT REVISION OF THE LIST OF METHODS OF ANALYSIS FOR PESTICIDE RESIDUES AT STEP 4

194. The Committee recalled that its last session had agreed that a list of analytical methods would be prepared and circulated for comments and that the current list would be placed on the FAO/IAEA website. However this had not been possible for technical reasons and document CX/PR 04/9 had not been prepared. The Committee was informed that some countries had submitted updated methods in recent years and that the available methods covered the determination of most compounds for which MRLs had been established by Codex. The Committee noted that methods should be submitted either to the delegation of the Netherlands or to the Joint FAO/IAEA Division, and that a template would be prepared by FAO/IAEA to facilitate collection of methods. The Committee agreed to invite FAO/IAEA to put the list of available methods on their website in order to facilitate the update of the list of methods.

195. The Committee welcomed the offer of the Delegation of the Netherlands to collate the available methods and to report to the next session.

Other matters

196. The Committee noted that the Working Group had discussed the problems related to the determination of dithiocarbamates in capers, as this plant belongs to the Brassica family and naturally produces compounds that release CS₂ under acid-hydrolysis conditions, which result in anomalous results for dithiocarbamates.

197. The Committee had an extensive discussion on this question. The Delegation of Morocco indicated that analysis of capers using the screening method (CS₂ analysis) resulted in seemingly very high levels of dithiocarbamates being detected, although individual dithiocarbamates were not confirmed by HPLC analysis. The Delegation pointed out that in practice this resulted in substantial problems for exporting countries of capers and therefore proposed to include a footnote in the MRL for dithiocarbamates to address this issue.

198. Some delegations suggested that JMPR be asked to consider alternative method for the determination of dithiocarbamates. However, it was noted that there was no dithiocarbamate MRL for capers and that no residues had been detected using HPLC analysis; therefore the problem was related only to methodology and was not the responsibility of JMPR.

199. The Delegation of Brazil indicated that the problem of anomalous results for dithiocarbamates had also been identified with the analysis of papaya and the Committee noted that this could be considered at the next session on the basis of relevant data.

200. On response to a proposal to ask JMPR to reconsider the residue definition of dithiocarbamates, the Delegation of the United States indicated that the change of the residue definition from CS₂ to individual dithiocarbamates would require changes to all relevant MRLs and proposed to consider use of confirmation methods when high levels were detected with the screening method, prior to reporting exceedance on MRLs.

201. After some further discussion, the Committee agreed to include the following note to the list of MRLs for dithiocarbamates:

“Some commodities contain natural compounds that generate CS₂ “

202. The Committee also agreed that this issue would be referred to the Working Group on Methods of Analysis at the next session.

203. The Committee expressed its appreciation to Dr Van Zoonen and to the Working Group for their excellent work and substantial progress on several complex issues and agreed that the Working Group should be re-convened during the next session.

ESTABLISHMENT OF CODEX PRIORITY LISTS OF PESTICIDES (Agenda Item 10)¹⁶

204. The report of the *ad hoc* Working Group on Priorities was presented by its Chair, Dr Trevor Doust (Australia) who highlighted the main issues discussed and the amendments proposed to the tentative lists of scheduled compounds.

205. The Committee **agreed** with the proposals of the Working Group and amended the schedule as follows:

2004: Dithiocarbamates (105) was removed because the revised JMPR data requirements meant that additional environmental studies were no longer required.

2005: Sulfuryl fluoride was tentatively scheduled for both toxicological and residues evaluation in 2005, instead of 2007, taking into account that is a replacement for methyl bromide.

2006: Propiconazole (160) was moved from 2007 to 2006 for periodic residue re-evaluation.

2007: Lambda-cyhalothrin was reinstated in the tentative schedule for toxicological re-evaluation in 2007.

2011/2013: Dichlorvos (025) and fenpropathrin (185) were tentatively scheduled for toxicological re-evaluation in 2011 and for residues in 2013.

Bromopropylate (070) has not been supported for evaluation and therefore was deleted from schedule.

206. In addition, it was agreed to include zeta-cypermethrin in the tentative schedule for a complete toxicological re-evaluation of cypermethrin in 2006, as the periodic evaluation of alpha- and zeta-cypermethrin for residues was scheduled for 2005.

WORKSHARING

207. The Committee noted that in the framework of the FAO/WHO/OECD Pilot Project on Worksharing, to assess the feasibility of using national evaluations as part of the JMPR assessment, JMPR would evaluate trifloxystrobin in 2004 and that work on another chemical could be initiated in 2006. The Observer from CropLife International indicated that bifenazate, dimethomorph and quinoxifen could be considered as candidate compounds. The WHO Representative pointed out that it was necessary to coordinate the schedules of evaluations between JMPR and regional or national authorities. The Committee welcomed the offer from the European Community to provide a list of compounds for which evaluations are available to the JMPR Secretariat.

Submission of data to support scheduled reviews

208. The Committee noted the difficulties faced by the WHO Joint Secretary in the preparation of the agenda for the WHO JMPR due to the delays in the submission of data for review and agreed to ask for better commitment from data submitters. The Observer of CropLife International advised the Committee that data availability still needed to be confirmed for benalaxyl (155), cyhexatin (067)/azocyclotin(129),

¹⁶ CL 2003/15-PR, ALINORM 03/24, Appendix VIII, CX/PR 04/10, CRD 1 (Report of the ad hoc Working Group on Priorities), CRD 9 (Comments of EC), CRD 10 (Comments of EC).

chlorpropham(201), ethoxyquin(35), guazatine(114), and imazalil(110) but data for all other compounds scheduled for evaluation by 2005 JMPR would be submitted.

Expanded Capacity of the JMPR

209. FAO indicated financial problems in expanding membership both for FAO and WHO. The Committee noted with satisfaction the proposal to expand the evaluation capacity of the JMPR by 2007, as presented by the FAO Joint Secretary and supported the strengthening of JMPR.

210. The WHO Joint Secretary referred to the financial difficulties faced by WHO to carry out JMPR evaluations and invited delegations to draw the attention of their governments to the need to support WHO in this area.

PROPOSED DRAFT CRITERIA FOR PRIORITIZATION PROCESS OF PESTICIDES (Agenda Item 10a¹⁷)

211. The Committee recalled that its last session had considered a set of criteria for the prioritization of pesticides and had agreed to circulate them for comments and consideration at its next session. The Committee noted that the Working Group on Priorities had proposed some amendments to the criteria included in document CX/PR 04/11 (section 2.3 Evaluation) in order to minimize confusion in data submission process.

212. The Committee had a general discussion on the document in particular on section 2,3.

213. The Delegation of Japan, while supporting the establishment of prioritization criteria, questioned some of the proposed procedures that appeared to deviate from the Codex procedure and stated that the text did not differentiate between Codex and JMPR procedures.

214. The Delegation of the EC expressed its concern that the criteria document implies that industry could propose the development of new or revised MRLs and recalled that such proposals could only be made by members of the Commission.

215. The Codex Secretariat recalled that the criteria for prioritization of pesticides should be consistent with the Criteria for the Establishment of Work Priorities, especially if they were intended for inclusion in the Procedural Manual; that in the framework of Codex only governments could make proposals for new work and that no reference could be included to proposals from the industry.

216. The JMPR Secretariat informed the Committee that governments or industry could make proposals for evaluation and could submit data directly to JMPR, and that this highlighted the differences between the procedures followed by JMPR and by Codex.

217. The Delegation of Australia pointed out that the participation of the industry was essential, as the manufacturers provide the data to JMPR, and suggested the text be made more general and suggested to clarify the data requirements and procedures for various scenarios under the evaluation category.

218. The Codex Secretariat and the JMPR Secretariat proposed to separate clearly the criteria from the procedures in the document in order to avoid confusion; and to separate the provisions that were applicable to Codex from those applicable to JMPR. It was also noted that provisions concerning data submission could be replaced by a reference to the relevant recommendations from FAO and WHO in this respect.

219. The Committee recognized that it would not be possible to finalize the text at the current session and agreed to circulate the revised version of the Proposed Draft Criteria, as contained in Appendix X for comments and consideration at the next session and agreed that the Working Group should be reconvened prior to the next Session of the Committee.

¹⁷ ALINORM 03/24A, Appendix IX; CX/PR 04/11,; CRD 1 (Report of the *ad hoc* Working Group on Priorities); CRD 6 (comments of the United States); CRD 9 (comments of the European Community).

DISCUSSION PAPER ON THE PILOT PROJECT FOR THE EXAMINATION OF NATIONAL MRLS AS INTERIM CODEX MRLS FOR SAFER REPLACEMENT PESTICIDES (Agenda Item 11)¹⁸

220. The Committee recalled that at its last Session, it had agreed to initiate the pilot project and that the 26th Session of the Commission approved work on the project with the understanding that the Proposed Interim MRLs would be submitted for adoption at Step 8 by the Commission.
221. The Delegation of the United States introduced the document and indicated that issues and concerns expressed by the delegations at the last session of the Committee had been addressed during the revision of the document. The Delegation clarified that chemicals proposed and accepted for the Pilot Project must meet the criteria of being new, safer, and replacement chemicals as described in CX/PR 03/14 and that the current document included indicators on how success of the pilot project would be measured. The paper also outlined the procedure that would allow member countries to assess the nominations and conduct a scientific review that should lead to consensus-based MRL recommendations. It was indicated that there was consistency with the normal Codex MRL setting process; and that the interim MRL procedure would allow the faster establishment of MRLs for safer compounds in Codex which would facilitate use of safer pesticides. The Delegation outlined the steps and procedures for the establishment of interim MRLs (as presented in CRD 21) and pointed out that the first two steps had been completed: bifenazate, fludioxonil and trifloxystrobin had been nominated and an executive summary of the supporting information had been provided to the Working Group on Priorities.
222. The Delegation indicated that the detailed summary containing the information necessary to evaluate compounds would be provided to member governments in sufficient time for them to evaluate the information and submit their comments and that if a member government requests a specific study report(s) as critical part of their review of the nomination, such requests would be addressed by the nominating country.
223. In order to assist in the validation of the proposed interim MRL procedure, and noting that fludioxonil and trifloxystrobin were scheduled for JMPR 2004 evaluation, the Delegation suggested that JMPR be asked to compare their recommendations with the proposed interim MRLs and to comment on discrepancies.
224. The Delegation suggested that the 37th session of the CCPR consider recommendations of the Priorities Working Group and comments. It might then decide to advance the proposed MRLs to the Commission for interim adoption or proposes to delete them. The Committee would also decide on possible revision/improvement of the process for elaborating interim MRLs.
225. Many delegations supported the proposed pilot project in principle and indicated that the establishment of interim MRLs would introduce safer pesticides, facilitate trade and improve efficiency of Codex.
226. Some delegations commented on the definition of “safer” and “replacement” compounds, the need to clarify the roles and responsibilities of the different parties, the importance of accessibility to the raw data and how decisions would be taken if different MRLs were proposed by different countries for the same commodity.
227. Some delegations pointed out that the implementation of the interim MRL procedure should not detract from the need to reinforce the work of JMPR and expressed concern that the procedure could result in an incomplete separation of risk assessment and risk management. The Delegation of the United States clarified that while structurally the risk assessment and risk management in the proposed procedure are both

¹⁸ CX/PR 04/12, CRD 4 (Pilot project on the Interim MRL: Study summaries and dietary intake calculations for bifenazate, fludioxonil and trifloxystrobin); CRD 9 (comments of the EC); CRD 15 (comments of Consumers International); CRD 23 (comments of India); CRD 21 (Pilot project on the Interim MRL: Study summaries and dietary intake calculations for bifenazate, fludioxonil and trifloxystrobin; replaces CRD 4); CRD 24 (comments of the EC) and CRD 27 (prepared by the United States).

under the CCPR, in fact, the risk assessments would be carried out by national governments with risk management decisions taken by CCPR.

228. Some delegations expressed concern regarding the availability of the complete national government assessments for chemicals including toxicology and residue reviews. It was clarified that the process was meant to include the assessments from the national governments that had established the MRLs being proposed and that the government of the nominating country would obtain these assessments when working with data submitters. It was noted that one national government assessment for each MRL would be sufficient and that if more than one MRL was proposed for a commodity, the highest MRL would be considered.

229. Many delegations supported a thorough evaluation of the project before deciding on whether to nominate a further group of substances and that Interim MRLs should be approved for a limited four year period of time. It was also proposed to limit the pilot project to compounds that are scheduled for evaluation by JMPR within four years and to consider refining the procedure in future meetings of the Committee.

230. The Delegation of the United States agreed that the evaluation of the process of the pilot project was of great importance and was of the view that this evaluation would depend on member governments and JMPR feedback. The Delegation suggested that the originally established Pilot Project Working Group¹⁹ could consider comments from member governments and JMPR on the operation of the procedure and prepare a paper on the proposed procedure for consideration.

231. The Committee concluded that some uncertainties existed with some of the procedures involved in the Pilot Project but recognized that these uncertainties should be able to be resolved during the pilot phase of the project. The Committee **agreed** to use the procedure for establishment of interim MRLs as described in CRD 21 and that Interim MRLs established under the scheme should be maintained not more than four years.

232. The Committee noted that Member Organizations could also nominate chemicals and propose interim MRLs.

233. In clarifying the procedure to be followed, the Committee confirmed that:

- detailed summaries of evaluations would be circulated for comments to Members by the Codex secretariat upon submission by nominating country
- comments from Members would be compiled by the Pilot Project Working Group and sent to the Working Group on Priorities and to Members and other interested parties
- the Working Group on Priorities would address technical issues and provide recommendations for the next session of the Committee

234. The Committee also agreed that the Pilot Project Working Group would prepare draft proposals on refinements of the procedure, based on comments received for consideration by the next session of the Committee.

CONSIDERATION OF THE ELABORATION OF MRLS FOR SPICES (Agenda Item 12)²⁰

235. The Committee noted that following the decision of the 35th Session of the Committee the Delegation of South Africa and its drafting partners had prepared a revised paper to provide further information on the elaboration of MRLs for spices.

¹⁹ Consisting of Argentina, Australia, Canada, Chile, EC, Egypt, France, The Netherlands, New Zealand, Senegal, South Africa, Sudan, Crop Life International, Consumers International and FAO/WHO Secretariat.

²⁰ CX/PR 04/13; CRD 9 (comments of the European Community); CRD 12 (comments from Indonesia); CRD 26 (corrected table of spices).

236. The Delegation of South Africa introduced the paper and informed the Committee that the revised paper clarified the definition of spices and provided the list of spices of interest, irrespective of whether they were classified as spices in the Codex Classification; proposed grouping of similar spices for purposes of elaboration of group MRLs; considered existing MRLs on fresh vegetables, the dried form of which are also used as spices; and clarified the criteria for use of monitoring data to set MRLs for pesticides on spices.
237. Several delegations welcomed the paper and supported its content, especially as the proposals in the paper would facilitate the elaboration of MRLs for commodities of importance for developing countries.
238. The Delegation of the EC, in addition to its written comments, indicated that Codex MRLs should normally be established following the existing procedures and that only in exceptional cases where the concerned commodity such as spices forms a very minor component of diet, monitoring data could be used to elaborate MRLs.
239. The Committee amended the definition of spices as suggested by India by including “rhizome” and “flowers and parts thereof”, in order to be consistent with groupings of spices.
240. The Committee noted that saffron was also produced in several other countries and added Iran, Spain and Malta to the list of saffron producing countries.
241. Noting that MRLs existed for fresh chilli and other peppers for a number of pesticides and that GAP and trial data were required to establish these MRLs, the Committee **agreed** that chili pepper fell outside of the definition of spices for the proposes of setting MRLs.
242. There was some support for use of the general dehydration factor to derive to MRLs for dried chili peppers and vegetables when they were used as spices.
243. The Committee agreed to include candlenut (*Aleyrites moluccana*) under the “fruit or berries” group as proposed by the Delegation of Indonesia.
244. The Delegation of China reiterated the suggestion to use monitoring data to establish MRLs for tea. However, it was clarified that Codex MRLs for tea existed and that a decision had already been taken to limit the use of monitoring data for to establish MRLs for spices.
245. The Delegation of Thailand suggested that after gaining more experience on the elaboration MRLs for spices it could be possible to extend this approach to herbs.
246. The Committee **agreed** with the following recommendations as proposed in the document:
- To request JMPR to review existing MRLs on peppers with the view of setting MRLs for dried chilli peppers using processing/dehydration factors as appropriate. The industry is encouraged to submit to the JMPR any processing study that would support the derivation of such dehydration factor(s).
 - To schedule for JMPR review, the elaboration of MRLs on spices in Group 028 as modified, for pesticides already in the Codex system for which the data must be submitted by the first week of May 2004;
 - To ask governments, spice trade industry, and interested parties to organize the monitoring data on spices according to the format prescribed by the JMPR and to send the data to South Africa who will then collate the information and submit the consolidated data to JMPR as soon as the schedule for evaluation has been set; and
 - To consider the inclusion of spices among the commodities for which MRLs should be established, whenever a pesticide is evaluated under the periodic review process, if the pesticide is one of those observed on spices in the monitoring process;

247. The Committee also recommended that governments and the spice trade industry continue to collect monitoring data for pesticides on spices on a regular basis, following agreed criteria and other JMPR guidelines on the conduct of selective surveys, in order to keep the database updated for future review.

DISCUSSION PAPER ON THE REVISION OF THE CODEX CLASSIFICATION OF FOODS AND ANIMAL FEEDS (Agenda Item 13)²¹

248. The Committee noted that the review of the Codex Classification of Foods and Animal Feeds had been considered at the last session and that there was general support for the limited revision.

249. The Delegation of the Netherlands introduced the document and indicated that the electronic form (MS Word) of the Classification provided by the Delegation of Australia could be used as a basis for the proposed revision which is placed on FAO website.

250. It was indicated that the Delegation of the USA has made available a Microsoft Access database on the internet, which also could be used as a basis for proposed revision. The Delegation was of the view that while in principle both systems could be used for the revision, the MS-Word version should be used initially.

251. The Delegation indicated that new commodities proposed by governments were listed in Appendix 1 and that this list, together with those commodities suggested by Delegation of Malaysia (CRD 17) should be evaluated against criteria proposed in the document. The attention of the Committee was also drawn to the fact that several governments had made proposals to subgroup and regroup commodity groups (included in Appendix 2 and in CRD 17), and that proposals for regrouping of individual commodities, updating of scientific names and expansion of codes with new varieties or species were listed in Appendix 3.

252. The Delegation informed the Committee that several countries had proposed the inclusion of other commodity groups and suggested that such proposals should be evaluated for their importance and that governments proposing the inclusion of new commodities should be asked to provide information on the importance of the commodity in international trade, in the diet or for setting MRLs. The Delegation suggested that governments be asked to comment on the current proposals, to submit new proposals for commodities not included in the Classification.

253. The Committee noted the need to assign code letters and code numbers to the uncoded commodities for MRLs for which JMPR had proposed carbaryl and methomyl.

254. The Secretariat informed the Committee that the CCFAC had asked the CCPR to consider the possibility of work on common classification.

255. The Delegation of Japan indicated that the request of the CCFAC related to their work on the establishment of maximum levels for contaminants, and that the questions of processed foods should be considered jointly to achieve consistency between the two Committees.

256. The Delegation of Australia commented that the proposed revision had been discussed by the Committee for quite some time and that there was a need to proceed with the revision without further delay.

257. The Committee **agreed** to ask the Commission to approve new work on the limited revision of the Classification. The Committee **agreed** to attach the Appendices of the document CX/PR 04/14 to the report and to invite additional comments on the above proposals (see Appendix IX).

258. The Committee requested the Delegation of the Netherlands with assistance of the Delegation of Japan to prepare a revised version of the Classification for circulation at Step 3 and consideration at its next session and requested the above delegations to prepare a project document for new work (see para 8).

²¹ CX/PR 04/14; CRD 9 (comments of the EC); CRD 17 (comments of Malaysia).

DISCUSSION PAPER ON THE ESTABLISHMENT OF MRLs FOR PROCESSED OR READY-TO-EAT FOODS (Agenda Item 14)²²

259. The Committee recalled that its last session had asked the Delegation of the United States, with the assistance of the Delegation of the Netherlands, to prepare a discussion paper on the policy to be followed in the establishment of MRLs for processed foods.

260. The Delegation of the United States informed the Committee that the paper had not been prepared as the Committee needed to decide first whether the current policy on the establishment of MRLs for processed foods should be followed or whether more fundamental changes were required. The Delegation supported the current approach of JMPR, as reflected in section 2.7 of the JMPR 2003 Report.

261. The Delegation of the EC indicated that in the EC MRLs are set for raw commodities and then applied to processed and composite foods after applying the appropriate processing or percentage composition factors. The Delegation pointed out that this was an important subject that required further discussion and proposed to develop guidelines in this area.

262. The Committee welcomed the proposal of the Delegation of the EC with the assistance of the Delegation of the United States to prepare a discussion paper on the use of processing studies and the establishment of MRLs for processed foods for consideration at the next session.

OTHER BUSINESS AND FUTURE WORK (Agenda Item 15)²³

263. The Delegation of India indicated that it had generated national residue trial data for the establishment of MRLs for a number of compounds in tea and seed oils and asked whether these data could be considered by JMPR. The Delegation of China informed the Committee that they would also submit data after compilation to support MRLs for tea. The JMPR Secretariat noted that although the deadline for data submission for JMPR 2004 was already passed, it would be possible to consider additional data for paraquat if India submitted the data in the JMPR format as soon as possible, and that for other compounds requests for data evaluation should be forwarded to the Priorities Working Group. Consumers International generally supported this proposal,

264. The Delegation of Mexico asked for clarification on the entry into force of Codex adoption or revocation of MRLs and how this would affect the use of compounds at the national level. The Secretariat indicated that Codex MRLs, standards and related texts were recommendations to governments and a reference in international trade while the establishment of regulations on MRLs at the national level was the responsibility of member countries.

265. The Delegation of the EC informed the Committee that the WTO SPS Agreement included provisions to address this problem.

DATE AND PLACE OF THE NEXT SESSION (Agenda Item 15)

266. The Committee was informed that the 37th Session would be held in The Hague from 18 to 23 April 2005.

267. The Committee welcomed the offer from the Delegation of Brazil to hold the 38th Session in Brazil in 2006.

²² CRD 24 (comments of the EC)

²³ CRD 28 (comments of India)

Annex I

SUMMARY STATUS OF WORK

Subject	Step	Action by	Document Reference in ALINORM 04/27/24
Draft and Revised Draft MRL s	8	Governments, 27 th Session of the CAC	Paras 60-175 and Appendix II
Draft and Revised Draft MRLs	5/8	Governments, 27 th Session of the CAC	Paras 60 – 175 and Appendix III
Proposed Draft MRLs	5	Governments, 27 th Session of the CAC	Paras 60-175 and Appendix IV
Codex Maximum Residue Limits Recommended for Revocation		Governments, 27 th Session of the CAC	Paras 60-175 and Appendix V
Draft and Proposed Draft MRLs	6 / 3	Governments, CCPR 37	Paras 60-175 and Appendix VI
Proposed Draft and Revised Draft Maximum Residue Limits for Pesticides (Retained at Step 7 and 4)			Paras 60-175 and Appendix XII
Proposed Draft Revision of the List of Methods of Analysis for Pesticide Residues	3	FAO/IAEA, Governments, 37 th CCPR	Para. 194
Proposed Draft Guidelines on the Use of Mass Spectrometry (MS) for Identification, Confirmation and Quantitative Determination of Residues	3	Governments, 37 th CCPR	Para. 189 Appendix VII
Proposed Draft Guidelines on the Estimation of Uncertainty of Results	3	Governments, 37 th CCPR	Para. 192 and Appendix VIII
Proposed Draft Criteria for Prioritization Process of Pesticides		Governments, 37 th CCPR	Para. 219 and Appendix X
New work:			
Priority List of Pesticides (New Pesticides and Pesticides under Periodic Review)	1	27 th Session of the CAC, Governments, Australia, 37 th CCPR	Paras 204-206 and Appendix XI
Limited Revision of the Codex Classification of Foods and Animal Feeds	1/2/3	27 th Session of the CAC, Netherlands, Governments, 37 th CCPR	Para. 257 and Appendix IX
Discussion papers on:			
Risk Analysis Policies Used in Establishing Codex MRLs		Chairperson, 37 th CCPR	Para. 144
Use and Implications of Measurement Uncertainty		Netherlands	Para. 193
Draft Proposals on Refinements of the Codex Interim MRLs Establishment Procedure		US ²⁴ , Governments, 37 th CCPR	Para. 234
Establishment of MRLs for Processed or Ready-to-Eat Foods		EC, USA, 37 th CCPR	Para. 262

²⁴ Argentina, Australia, Canada, Chile, EC, Egypt, France, The Netherlands, New Zealand, Senegal, South Africa, Sudan, FAO/WHO Secretariat, Consumers International and Crop Life International.

**LIST OF PARTICIPANTS
LISTE DES PARTICIPANTS
LISTA DE PARTICIPANTES**

Chairman of the Session:

Président de la Session:

Presidente de la Reunión:

Dr Hans JEURING
Food and Consumer Product Safety Authority
Prinses Beatrixlaan 2
PO Box 19506
2500 CM Den Haag
Tel.: +31 70 348 4808
Fax: +31 70 348 4061
E-mail: hans.jeurig@vwa.nl

**ALGERIA
ALGÉRIE
ARGELIA**

Mrs Naima MEDDAD
Analytical Chemist
BD Said Touati
Algeria
Tel.: 021 97 00 58 - 021 96 32 56
Fax : 021 96 43 22
E-mail: cnt@ibnsina.and.s.dz

**AUSTRALIA
AUSTRALIE**

Dr Angelo VALOIS
Manager – Technical and International Policy
Product Safety and Integrity
Product Integrity, Animal and Plant Health Group
Australian Government Department of Agriculture,
Fisheries and Forestry
GPO Box 858
CANBERRA ACT 2601
AUSTRALIA
Tel.: +61 2 6272 5566
Facsimile: +61 2 6272 5697
Email: angelo.valois@daff.gov.au

Mr Ian REICHSTEIN
Manager – Plant Programs
National Residue Survey
Product Integrity, Animal and Plant Health Group
Australian Government Department of Agriculture,
Fisheries and Forestry
GPO Box 858
CANBERRA ACT 2601
AUSTRALIA
Tel.: +61 2 6272 6642
Facsimile: +61 2 6272 4023
Email: ian.reichstein@daff.gov.au

Mr Steve CROSSLEY
Manager – Modelling, Evaluation & Surveillance
Food Standards Australia New Zealand
GPO Box 7186
CANBERRA ACT 2610
AUSTRALIA
Tel.: +61 2 6271 2624
Facsimile: +61 2 6272 2278
Email: steve.crossley@foodstandards.gov.au

Dr Trevor DOUST
Program Manager – Chemistry and Residues
Australian Pesticides and Veterinary Medicines
Authority
PO Box E240
KINGSTON ACT 2603
AUSTRALIA
Tel.: +61 2 6272 3208
Facsimile: +61 2 6272 3551
Email: trevor.doust@apvma.gov.au

Dr Pieter SCHEELINGS
Principal Scientist
Queensland Health Scientific Services
39 Kessels Road
COOPERS PLAINS QLD 4108
AUSTRALIA
Tel.: +61 7 3274 9095
Facsimile: +61 7 3274 9186
Email: pieter.scheelings@health.qld.gov.au

Mr Graham ROBERTS
Representative of States and Territories
4 Allipol Court
BRIAR HILL VIC 3088
AUSTRALIA
Tel.: +61 3 9435 0863
Email: grarob@bigpond.net.au

Mr Bill MURRAY
Grains Research Development Corporation
22 Thornley Close
FERNTREE GULLY VIC 3156
AUSTRALIA
Tel.: +61 3 9763 8396
Email: murraywj@alphalink.com.au

Mr Kevin BODNARUK
Representing horticulture
26/12 Phillip Mall
West Pymble NSW 2073
AUSTRALIA
Tel.: +61 2 9499 3833
Facsimile: +61 2 9499 6055
Email: akc_con@zip.com.au

BELGIUM
BELGIQUE
BELGICA

Mrs Ir. Samira JARRAH
Federal Public Service Health, Food Chain Safety
and Environment,
DG Plants, Animals and Food
Arcade Building 5th floor, room 5086
Boulevard Pachéco 19 Bte 5
1010 Brussels – Belgium
Tel.: +32 (0) 2 210 51 23
Fax: +32 (0) 2 210 51 15
E-mail: Samira.Jarrah@health.fgov.be

Dr Ir Olivier PIGEON
Ministère de la Région Wallonne
Centre de Recherches Agronomiques (CRA-W)
Département Phytopharmacie
Rue du Bordia 11
B-5030 Gembloux, Belgium
Tel.: +32 81 625262
Fax: +32 81 62 52 72
E-mail: pigeon@cra.wallonie.be

BRAZIL
BRÉSIL
BRASIL

Mr Arlindo BONIFÁCIO
Ministry of Agriculture
Esplanada dos Ministerios-Bloco D
Anexo A-3° Andar Sala 343
CEP-70.043-900 Brasilia / DF
Brazil
Tel.: + 55 61 218 2445
Fax: + 55 61 225 5341
E-mail: arlindo@agricultura.gov.br

Mrs Dr H.H. BARRETTO DE TOLEDO
Head Department of Pesticide Residues
Instituto Adolfo Lutz
Seção de Aditivos e Pesticidas Residuais
Av. Dr Arnaldo, 355
1246-902 – São Paulo
Brazil
Tel.: 0055 11 30682945
Fax: 0055 11 30641527
E-mail: hetoledo@hotmail.com

Dr Rosemarie DE SOUZA OLIVEIRA RODRIGUES
GARP – Associação Grupo de Analista de Resíduos de
Pesticida
Av Das Nações Unidas 18001
CEP 04795-900 São Paulo
Brazil
Tel.: 55 11 5643 2166
Fax: 5511 5643 2353
E-mail: rose.rodrigues@syngenta.com

Mr Lucas MEDEIROS DANTAS
Manager – Office of Foods Science and Tecnology
Actions
Brazilian Sanitary Surveillance Agency – Ministry of
Health
SEPN 515 Bloco B Ed. Omega 3° andar
70770-502 – Brasília/DF
Brazil
Tel.: +55 61 4481116
Fax: +55 61 4481080
E-mail: Lucas.Medeiros@anvisa.gov.br

Dr Ricardo Augusto VELLOSO
Risk Assessment Manager
National Sanitary Surveillance Agency
SEPN 515 B1 Ed. Ômega 3° andar sala 1
CEP: 70770-502
Brasilia-DF, Brazil
Tel.: +55 61 448 1082
Fax: +55 61 448 1076
E-mail: ricardo.velloso@anvisa.gov.br

Mrs Cleide M.M. OLIVEIRA
GARP - Associação Grupo de Analista de Resíduos de
Pesticida
Associação Grupo de Analista de Resíduos de
Pesticida
Rua Breves 363
CEP: 04645-000
São Paulo/SP
Brazil
Tel.: +55 11 5522 3504
Fax: +55 11 3064 1527
E-mail: ocleide@uol.com.br

Mr Antonio Shinji MIYASAKA
 Ministry of Agriculture
 Esplanada dos Ministérios Bloco D
 Anexo "A" 3º Andar Sala 343
 CEP: 70043-900 Brasilia-DF
 Brazil
 Tel.: +55 61 218 2445
 Fax: +55 61 225 5341
 E-mail: antoniosm@agricultura.gov.br

Mrs Isanete Soares de Oliveira
 Fiscal Federal Agropecuario
 Farmacéutica - Bioquímica
 Esplanada dos Ministerios
 Bloco "D"- Anexo "B" Sala 328
 CEP - 70043 - 900 Brasilia - DF, BRAZIL
 Tel: +55 61 218 2776
 Fax: +55 61 225 5098
 Email: ioliveira@agricultura.gov.br
clav@agricultura.gov.br

CANADA

Dr Ariff ALLY
 Section Head, FREAS, Health Evaluation
 Division
 Pest Management Regulatory Agency, Health
 Canada
 Sir Charles Tupper Building
 2270 Riverside Drive (6605E)
 Ottawa, Ontario
 K1A 0K9, CANADA
 Tel.: +1 613 736-3549
 Fax: +1 613 736-3505
 E-mail: ariff_ally@hc-sc.gc.ca

Ms Donna J. GRANT
 Supervising Chemist, Pesticide
 Residues Unit
 Calgary Laboratory
 Canadian Food Inspection Agency
 CFIA – Calgary Laboratory
 3650 – 36 St., N.W.
 Calgary, Alberta
 T2L 2L1, CANADA
 Tel.: +403 2997636
 Fax: +403 2213293
 E-mail: grantd@inspection.gc.ca

CHILE CHILI

Mr Arturo CORREA
 Ministry of Agriculture
 Agricultural and Livestock Service
 Subdepartment Pesticides and Fertilizers
 Avda. Bulnes 140 Santiago
 Tel.: (56-2) 950805 – 6879607
 Fax: (56-2) 950805 – 6879607
 E-mail : arturo.correa@sag.gob.cl

Profesor, Dr R.H. GONZÁLEZ
 University of Chile
 Casilla 1004 Santiago
 Tel.: (56-2) 6785714 – 6785815
 Fax: (56-2) 6785812
 E-mail: rgonzale@uchile.cl

Mrs Jimena LÓPEZ
 Chilean Exporters Associations
 Cruz del Sur 133 Piso 2 Las Condes
 Tel.: (56-2) 4724722
 Fax: (56-2) 2064163
 E-mail: jlopez@asoex.cl

Ms Marcela TRIVIÑO
 Chilean Exporters Associations
 Cruz del Sur 133 Piso 2 Las Condes
 Tel.: (56-2) 4724722
 Fax: (56-2) 2064163
 E-mail: mtrivino@asoex.cl

CHINA CHINE

Mr He YIBING, Ph.D
 Deputy Director
 Pesticide Residue Division
 Institute for the Control of Agrochemicals, Ministry of
 Agriculture (ICAMA)
 Building 22, Maizidian Street
 Chaoyang District
 Beijing 100026
 P.R. China
 Tel: + 86 10 65936997, 64194106
 Fax: + 86 10 64194107
 E-mail: heyibing@agri.gov.cn

Dr Deliang TANG
 General Administrative of Quality Supervision,
 Inspection and Quarantine of People's Republic of
 China
 No.9, Madian Donglu, Haidian District. Beijing
 100088
 P.R.CHINA
 Tel: 8610-82262018
 Fax: 8610-82260175
 Email: tangdl@aqsiq.gov.cn

Mr Chu XIAOGANG
 Senior Engineer
 General Administration of Quality Supervision
 Inspection and Quarantine Bureau of China

Mr Liu XINTONG
 Director
 Food Laboratory Shandong Entry – Exit Inspection and
 Quarantine, Bureau of P.R.China, No. 70, Qutangxia
 Rod, Qingdav, Shandong 266002
 P.R.China
 Tel: +86 532 2671044
 Fax: +86 532 2674294
 Email: liuxintong@vip.sina.com

Mr Chen WEILIANG
Engineer
Standardization Administration of P.R.China
Tel: +8610 82262610
Fax: +8610 8226068
Email: chenwl@sal.gov.cn

Mr Koonkay Choi
Senior Chemist
Food and Environmental Hygiene Department
43/F Queensway Government Offices,
66 Queensway
Hong Kong
Tel: +852 28675400
Fax: +852 28933547
Email: kkchoi@fehd.gov.hk

Dr Chu Xiao – Gang
Researcher
Food Inspection Research Center
China Import & Export Commodity
Inspection Technology Institute
No. 3, Gaobeidian North Road
Chaoyang District
Beijing, P.R.CHINA 100025
Tel: +0086 10 85791012, 85771629
Fax: +0086 10 85752995
Email: xgchu2003@163.com
Xgchu2003@hotmail.com

COLOMBIA
COLOMBIE

Mr Jaime INFANTE
Ambassador of Colombia
3, Palam Marg, First Floor
Vasant Vihar
New Delhi – 110057
Tel: +91 11 51662106
Fax: +91 11 51662108
Email: emcolin@bol.net.in

DENMARK
DANEMARK
DINAMARCA

Mr Arne BÜCHERT, MSc
Deputy Head of Division
Danish Institute for Food and Veterinary Research
Mørkhøj Bygade 19
DK-2860 Søborg
Denmark
Tel: +45 72747461
Fax: +45
E-mail: ab@dfvf.dk

Mrs Annette GROSSMANN
Scientific Adviser
Moerkhoej Bygade 19
2860 Soeborg
Denmark
Tel.: +45 33956000
Fax: +45 33956695
E-mail: ang@fdir.dk

Mrs Mette BLAUENFELDT HANSEN
Scientific Adviser
Moerkhoej Bygade 19
2860 Soeborg
Denmark
Tel.: +45 33956000
Fax: +45 33956001
E-mail: myh@fdir.dk

EGYPT
EGYPTE
EGIPTO

Dr Mohamed Hassan AL-ELIMI
Director of the Central Laboratory of
Residue Analysis of Pesticides and
Heavy Metals in Food
Ministry of Agriculture
Agriculture Research Center
7 Nadi El-Said St.
Dokki, Giza
Egypt
Tel: + 202 7601395
Fax; + 202 7611216
E-mail: alelimi@hotmail.com

EUROPEAN COMMUNITY (EC)
COMMUNAUTÉ EUROPÉENNE
COMUNIDAD EUROPEA

Dr H. BELVEZE
Principal Administrator
European Commission
Directorate-General Health and Consumer Protection
200 Rue de la Loi
B-1049 Brussels
Tel.: +32 2 296 28 12
Fax: +32 2 2999 85 66
E-mail: henri.belveze@cec.eu.int

Dr B. DRUKKER
Directorate General Health and Consumer Protection
European Commission
Rue de la Loi 200
B-1049 Brussels
Belgium
Tel.: +32 2 2965779
Fax: +32 2 2965963
E-mail: bas.drukker@cec.eu.int

Mr Luis MARTIN PLAZA
Health and Consumer Protection Directorate-General
European Commission
Rue de la Loi 200
B-1049 Brussels
Belgium
Tel.: +32 2 2993736
Fax: +32 2 29 65963
E-mail: luis.martin-plaza@cec.eu.int

FINLAND
FINLANDE
FINLANDIA

Ms Tiia MÄKINEN
Senior Officer
Plant Production Inspection Centre (KTTK)
P.O.Box 42
00501 Helsinki
Finland
Tel: +358-9-5765 2786
Fax: +358-9-5765 2780
e-mail: tiia.makinen@kttk.fi

GERMANY
ALLEMAGNE
ALEMANIA

Dr Karsten HOHGARDT
Wissenschaftlicher Direktor
Bundesamt für Verbraucherschutz und
Lebensmittelsicherheit
Abteilung 2 "Pflanzenschutzmittel"
Referat 207 – Gesundheit
D-38104 Braunschweig
Tel.: +49 531 2993503
Fax: +49 531 2993002
E-mail: karsten.hohgardt@bvl.bund.de

Dr Otto KLEIN
Bayer CropScience AG
Global Development, Regulatory Affairs
Landwirtschaftszentrum Monheim
D-51368 Leverkusen
Tel.: +49 2173 383463
Fax: +49 2173 383516
E-mail: otto.klein@bayercropscience.com

Dr Henning H. REGENSTEIN
BASF Aktiengesellschaft
Agricultural Center Limburgerhof
APD/RC
Carl Bosch Strasse 64
D-67117 Limburgerhof
Tel.: +49 621 602 7413
Fax: +49 621 602 7604
E-mail: henning.regenstein@basf-ag.de

GHANA

Prof Dr G.S. AYERNOR
Professor of Food Science & Technology
Dept. of Nutrition & Food Science
University of Ghana
PO Box 134 Legon
Ghana
Tel.: +233 24 4360 772
Fax: 233 21 500092
E-mail: sayernnor@yahoo.com

HUNGARY
HONGRIE
HUNGRÍA

Dr Endre RÁCZ
Head of Quality Policy Unit
Ministry of Agriculture and Rural Development
H-1860
Budapest Pf.1.
Hungary
Tel.: +36 1 301 4383
Fax: +36 1 301 4808
E-mail: racze@posta.fvm.hu

INDIA
INDE

Ms Rita TEAOTIA
Joint Secretary (Health)
Government of India
Ministry of Health & Family Welfare
Nirman Bhavan
New Delhi 110 001
INDIA
Tel.: 91-11-23019195
Fax: 91-11-23018842
E-mail: jsrt@nb.nic.in

Dr K.S. MONEY
Chairman
Agriculture & Processed Food Products Export
Development Authority
NCUI Building, 3 Siri Institutional Area
August Kranti Marg
Hauz Khas
New Dehi-110016
Tel.: 91-11-26513167
Fax: 91-11-26534870
E-mail: chairman@apeda.com

Dr R K MAHAJAN
Assistant Director General (PFA)
Government of India
Ministry of Health & Family Welfare
Nirman Bhavan
New Delhi 110001
INDIA
Tel.:91-11-20312290
Fax:91-11-23012290
E-mail: adgpfa@nb.nic.in

Dr K.M. APPAIAH
Head
Food Safety & Analytical Quality Control Laboratory
Central Food Technological Research Institute
Mysore – 570013

Dr J. LAL
Joint Commissioner (S&R)
Department of Food & Public Distribution
Ministry of Consumer Affairs
Krishi Bhaven
New Delhi 110001
E-mail: aqcl@csftri.ren.nic.in

Sri S.K. SINGH
Assistant Director
Export Inspection Council
Ministry of Commerce
3rd Floor, MDYMCA Cultural
Centre Building
1, Jai Singh Road
New Delhi – 110001
Tel.: 91-11-23748188
91-11-23748189
Fax: 91-11-23748024
E-mail: eic@eicindia.org

Shri R.K. BOYAL
General Manager
Agriculture and Processed Food Products Export
Development
Authority (APEDA)
NCUI Building
3 Siri Institutional Area
August Kranti Marg
Hauz Khas
New Delhi – 110016
Tel.:91-11-26514046
Fax: 91-11-26514046
E-mail: gmrkb@apeda.com

Shri Devendra PRASAD
Information Officer
Agriculture and Processed Food Products Export
Development
Authority (APEDA)
NCUI Building
3 Siri Institutional Area
August Kranti Marg
Hauz Khas
New Delhi – 110016
Tel.:91-11-26513475
Fax: 91-11-26519259
E-mail: qmc@apeda.com

Dr S. BABU
Deputy Director
National Institute of Nutrition
Jamai-Osmania PO
Hyderabad – 500007
India

Dr Gita KULSHRESTHA
Professor
And PL. (Referral Lab)
Indian Agricultural Research
Institute
New Delhi -110012, India

Mr P.L. KAUL
Vice President
All India Food Preservers
Association
Mariental India PVT LTD
7/58, South Patel Nagar
New Delhi -110008

Dr D. KANUNGO.
Additional DG (Stores).
Ministry of Health and Family Welfare
R.K. Puram
New Delhi - 110022
India
Tel.: 91-11-26101268
Fax: 91-11-26189307
E-mail: dkanungo@nic.in

Shri. Rajesh BHUSHAN
Director
Ministry of Health and Family Welfare
Nirman Bhavan
New Delhi 110011, India

Dr S.R. GUPTA
Joint Drugs Controller (India)
Ministry of Health and Family Welfare
Nirman Bhavan
New Delhi 110011

Dr S.K. HANDA
WHO Consultant
Ministry of Health and Family Welfare
Nirman Bhavan
New Delhi 110011
Tel.:91-11-23014968
Fax: 91-11-23014968
E-mail:

Mr A.K. SHRIVASTAV
Deputy Assistant Director General (PFA)
Ministry of Health and Family Welfare
Nirman Bhavan
New Delhi 110011
Tel.: 91-11-23013030
Fax: 91-11-23012290
E-mail: dadgaks@nb.nic.in
Codex-india@nb.nic.in

Mr I.K. NARANG
Assistant Commissioner
Department of Animal, Husbandry and Dairying
Ministry of Agriculture
Krishi Bhavan
New Delhi, India

Mr Gautam DEB
Technical Officer (DD)
Department of Animal, Husbandry and Dairying
Ministry of Agriculture
Krishi Bhavan
New Delhi

Dr Sandhya KULSHRESTHA
Joint Director (Medical)
Directorate of PPQ&S
Ministry of Agriculture
NH_IV
Faridabad-121001
Tel.: 91-129-2434466
Fax: 91-129-2413002
E-mail: skulsh57@yahoo.co.in

Mr Surendra SINGH
Assistant Director
Departement of Food Processing Industries
Ministry of Agriculture & Cooperation
Panchsheel Bhavan
Khel Gaon Marg
New Delhi 1100049
Tel.:91-11-26496505
Fax: 91-11-26493228
E-mail: surnsingh@email.com

Mr S.N. PANDEY
Joint Industrial Advisor
Department of Food Processing Industries
Ministry of Agriculture & Cooperation
Panchsheel Bhavan
Khel Gaon Marg
New Delhi 1100049
Tel.: 91-11-26493227
Fax: 91-11-26493228
E-mail: snpandey@hotmail.com

Dr K.L. GABA
Chairman (North zone) AJFPA
Britannia Industries Ltd.
33, Lawrence Read
New Delhi
Tel.:27 18 2806 / 27 86 4929
Fax: 27 18 3499
E-mail: klgaba@dritindia.com

Mr N.K.Das
Chairman
Tea Board
14, BTM Sarani
Kolkata - 700001

Dr T.C. CHANDHURI
Director (Research)
Tea Board
14 BTM Sarani
Kolkata 700001, India

Dr A. BARUA
Scientist
Tea Board
Tea Research Association
Jorhat 785008
Assam

Mr S. KANNAN
Director (Marketing)
Spices Board
Kochi 682025, India

Dr S.N. BHAT
Food Regulatory Manager
Nestle House
Jacaranda Marg
M-Block, DLF, Phase II
Gurgaon-122002, India

Mr K.R.K. MENON
Scientist (QC)
Spices Board
Kochi-682025, India

Ms Parna Dasgupta
Secretary
Confederation of Indian Food
Trade & Industry (CIFTI)
Federation House Tansen Marg
New Delhi -110001
Tel: 91-11-23736305
Fax:91-11-23320714
91-11-23721504
E-mail: parnadasgupta@ficci.com

Dr K.K. SHARMA
Network Coordinator
Indian Agricultural Research
Institute
New Delhi -110012, India

Mr Rakesh CHITKARA
Business Leader
Regulatory, Government and
Public Affairs
Mumbai, India

Dr J. CHAKRABARTI
Director
Central Food Laboratory
3, Kyd Street
Kolkata 700016, India

Dr A.K. DIKSHIT
Principal Scientist
(Pesticide Residues)
Division of Agricultural
Chemical
Indian Agricultural Research
Institute
New Delhi-110012, India

Dr Ram Sanehi SHARMA
Head of Chemistry &
Packaging Divisions, CIL
Directorate of PPQ&S
Ministry of Agriculture
NH-IV, Faridabad 121001
Tel: 91-129-2418507
Fax: 91-129-2413014
Email: cilfbd@hub.nic.in

Dr V.K.BHATNAGAR
Assistant Director and In
charge of Pesticide Division
National Institute of Occupational Health
Meghani Nagar
Ahmedabad-380016, India

Dr Balraj S. Parmar
Head, Division of Agricultural Chemicals
Indian Agricultural Research
Institute, Krishi Bhavan
New Delhi, India

Prof Madhuban GOPAL
National Fellow
Division of Agricultural Chemicals
Indian Agricultural Research
Institute, Krishi BHAVAN
New Delhi, India

Dr Adarsh SHANKAR
CSRIR Complex
PALAMPUR, India

Mr D.S. CHADHA
Technical Adviser
Confederation of India Industry
23. Institutional Area
Lodhi Road
New Delhi-110003, India

Dr Cherukuri Sreenivasa RAO
Scientist (Entomology)
216 B Block, College of Agriculture
Acharya N.G.Ranga Agricultural University
Rajendranagar, Hyderabad – 500 030
Tel: + 040 241 5011 17 Extn. 378
Email: cherukurisrao@yahoo.com

Dr I PADMAJA
Sr. Research Officer
National Institute of Nutrition
Jamai Osmania, Tarnaka
Hyderabad – 500 007
Tel: 27008921
Email: jprambabu@yahoo.com

Dr Irani MUKHERJEE
Sr. Scientist,
Division of Agricultural Chemicals
Indian Agricultural Research Institute
Pusa, New Delhi-110012, India
Tel: +91-11-25787390

Dr V.T. GJBHIYE
Principal Scientist,
Division of Agricultural Chemicals
Indian Agricultural Research Institute
Pusa, New Delhi-110012, India
Tel: +91-11-25841730
Fax: +91-11-25843272
E-mail: gaibhijvt1@rediffmail.com

Mr J.P. SINGH
Section Officer
Ministry of Commerce & Industry
Department of Commerce
Udyog Bhavan
New Delhi – 110001
Tel: +91-11-23010261 /492
Fax: +91-11-23014418
E-mail: moc_epagri5@ub.nic.in

Ms Kusum BHARDWAJ
Ministry of Commerce & Industry
Department of Commerce
Udyog Bhavan
New Delhi – 110001
Tel: +91-11-23010261 /495
Fax: +91-11-23014418
E-mail: moc_epagri@ub.nic.in

Dr Balwinder SINGH
Department of Entomology
Punjab Agricultural University
Ludhiana-141004
Tel: +91-161-2401975 Ext. 320
Fax: +0091-161-2400945
E-mail: balwinder434@rediffmail.com

Mr Vishnu GUPTA
Director (Food & Agriculture)
Bureau of Indian Standards
9, B.S. Zafar Marg
New Delhi- 110002

Mr Deepak GUNVANTE
General Manager
Regulatory Affairs
GlaxoSmithKline Consumer Healthcare Ltd.
Research & Development Centre
Plot No. 67, Sector –32
Gurgaon 122001
Haryana
Tele: +91-124-503700-02
Fax: +91 124 5030962
E-mail: g.gunvante@gsk.com

Dr N.P.Agnihotri
Director
Jai Research Foundation
Post Box No.30, GIDC,
VAPI – 396 195, Gujarat, India
Tel: 91-260-5540242, 5543242
Fax: 91-260-2432762, 2432484
Email: agnihotrinp@jrffonline.com

INDONESIA
INDONÉSIE

Ir. Syukur IWANTORO,
Director
Ministry of Agriculture
Center for Standardization and Accreditation
7th Floor Building E
Jl. Harsono RM NO.3, Ragunan
Pasar Minggu, Jakarta 12550
Telfax: +(62-21) 78842042
E-mail: syukur@deptan.go.id

IRAN

Ms Zahra RIAZI
Member of Iranian National CCPR
Ministry of Agriculture, Plant Protection Organisation,
Tehran, Iran
TEL.: 021- 2402046
Fax: 021 -2403691
E-mail: cc_lyadegarian@yahoo.com

Mr A.L.I. Nili Ahmad ABADI
Member of Iranian National CCPR
Ministry of Agriculture, Tehran, Iran
Tel: 021- 8963847
Fax: 021 -2403691
E-mail: lyadegarian@yahoo.com

Mr Sohrab Javadi KHOSRAGHI
Member of Iranian National CCPR
Ministry of Agriculture, Horticultural Department,
Tehran, Iran
Tel.: 021-64583009
Fax: 021 -2403691
E-mail: lyadegarian@yahoo.com

IRELAND**IRLANDE****IRLANDA**

Dr John ACTON
Agricultural Inspector
Pesticide Control Service
Department of Agriculture and Food
Abbotstown
Castleknock
Dublin 15
Ireland
Tel.: +353 1 607 2069
Fax: +353 1 820 4260
E-mail: john.acton@agriculture.gov.ie

Mr Kari TÖLLIKKÖ
Principal Administrator
Council of the European Union
General Secretariat
Rue de la Loi 175
B-1048 Brussels
Belgium
Tel.: +32 2 2857841
Fax: +32 2 285 6198
E-mail: kari.tollikko@consilium.eu.int

Mr D. O'SULLIVAN
Senior Agricultural Inspector
Pesticide Control Service
Department of Agriculture and Food
Abbotstown
Castleknock
Dublin 15
Tel.: +353 1 607 2614
Fax: +353 1 820 4260
E-mail: dan.osullivan@agriculture.gov.ie

ISRAEL

Ms Rina ASHKENAZY
Head of Chemistry Department
Pesticides and Animal Feed
Plant Protection and Inspection Services
Ministry of Agriculture
P.O Box 78
Bet-Dagan, 50250
Israel
Tel.: +972 3 968 1562
Fax: +972 3 968 1582
E-mail: rinaa@moag.gov.il

ITALY**ITALIE****ITALIA**

Mr Ciro IMPAGNATIELLO
Ministero Delle Politiche Agricole e Forestali
VIA XX Settembre 20
00187 Roma, Italy
Tel: +39 06 46656511
Fax: 39 06 4880273
Email: ciroimpa@tiscali.it
blturco@tiscalinet.it

JAPAN**JAPON**

Dr Koji MIURA
Director
International Food Safety Planning,
Department of Food Safety, Pharmaceutical and Food
Safety Bureau,
Ministry of Health, Labour and Welfare
1-2-2 Kasumigaseki, Chiyoda-ku
Tokyo 100-8916, Japan
Tel.: +81-3-3595-2326
Fax : +81-3-3503-7965
E-mail : miura-koujimd@mhlw.go.jp

Dr Shoji MIYAGAWA
Deputy Director
Standards and evaluation division,
Department of food safety, Pharmaceutical and food
safety bureau,
Ministry of Health, Labour and Welfare
1-2-2 Kasumigaseki, Chiyoda-ku
Tokyo, 100-8916, Japan
Tel.: +81-3-3595-2341
Fax: +81-3-3501-4868

Mr Kenji ASAKURA
 Coordinator, Risk and Crisis Management
 Food Safety and Consumer Affairs Bureau
 Ministry of Agriculture, Forestry and Fisheries
 1-2-1, Kasumigaseki, Chiyoda-ku
 Tokyo 100-8950, Japan
 Tel: +81-3-3502 5716
 Fax: +81-3-3597 0389
 E-mail: kenji_asakura@nm.maff.go.jp

Dr Yukiko YAMADA
 Director for International Affairs (Food Research)
 National Food Research Institute
 2-1-12 Kannondai, Tsukuba- 3058642, Japan
 Tel: +81-3-3502-2319
 Fax: +81-3-3502-0389
 E-mail: yukiko_yamada@nm.maff.go.jp

Mr Norio TERAOKADO
 Technical Official,
 Risk Assessment Division,
 Food Safety Commission Secretariat
 Cabinet Office
 PRUDENTIAL Tower 6F
 2-13-10, Nagatacho, Chiyoda-ku,
 Tokyo 100-8989, Japan
 Tel.: +81-3-5251-9147
 Fax : +81-3-3591-2236
 E-mail: norio.terakado@op.cao.go.jp

Dr Noboru TAKAHASHI
 Deputy Director
 Agricultural Chemicals Control Office, Water
 Environment Dept.
 Environment Management Bureau, Ministry of the
 Environment
 1-2-2, Kasumigaseki, Chiyoda-ku
 Tokyo 100-8975, Japan
 Tel.: +81-3-5521-8311
 Fax: +81-3-3501-2717
 E-mail: NOBORU_TAKAHASHI@env.go.jp

Mr Masaya NAKAMURA
 Pesticide Residue Inspection Division,
 Agricultural Chemicals Inspection Station
 2-772, Suzuki-cho, Kodaira-shi
 Tokyo, 187-0011, Japan
 Tel: +81-(0)42-383-2151
 Fax: +81-(0)42-385-3361
 E-mail: nakamura-m@acis.go.jp

KENYA

Ms Lucy M. Namu
 Senior Analytical Chemist
 Kenya Plant Health Inspectorate Service,
 P.O.Box 49592, GPO 00100,
 Nairobi
 KENYA
 Tel: +254-020-4440087
 Fax: +254 020 4448940
 Email: kephis@nbnet.co.ke

KOREA, REPUBLIC OF CORÉE, RÉPUBLIQUE DE LA

Mr LEE, Je-Bong
 Division of Pesticide and Safety
 Veterinary Research Institute
 249 Seodun-dong, Kwonseon-gu, Suwon, 441-707,
 KOREA
 Tel.: 82-31-290-0585
 Fax: 82-31-290-0508
 E-mail: jblee@rda.go.kr

Mr YOON, Sun Jong
 RESEARCHER
 National Veterinary Research & Quarantine Service of
 Republic of Korea
 Tel.: 82-31-467-1983
 Fax: 82-31-467-1897
 E-mail: ysj@nvrqs.go.kr

Mr PARK Kun-Sang
 Deputy Director, Division of Pesticide and Chemicals
 Korea Food and Drug Administration
 5 Nokbun-dong, Eunpyung-gu, Seoul, 122-704,
 KOREA
 Tel.: 82-02-380-1674, 1675
 Fax: 82-02-380-1387
 E-mail: parkks0@kfda.go.kr

Ms BAE, Sung-Myung
 Senior Researcher,
 Food Sanitation Council, Codex Office
 Pharmaceutical and food policy division,
 Bureau of Health Policy
 Ministry of Health and Welfare
 1, Jooang-dong, Gwacheon-si, Gyeonggi-do, 427-721
 Tel.: 82-2-504-7557
 Fax : 82-2-504-1456
 E-mail: smbae_23@mohw.go.kr

Mr OH, Chang-Hwan
 Director
 Research Institute, LabFrontier Corporation, Ltd.,
 KOREA
 KSBC Bldg, #Mt, 111-8, Iui-dong, Yeongtong-gu,
 Suwon, Kyonggi-do
 443-766, KOREA
 Tel. : +82-31-259-6811, 82-18-621-6177
 Fax : +82-31-259-6830
 E-mail: changhwan@hanmail.net or
changhwan@labfrontier.com

Mr Kwang Rok YANG
 Kyung Nong Corporation
 Dongoh Building
 133-4 seocho – dong
 seocho-gu, seoul
 139-810 Korea
 Tel: +82 2 3488 5962
 Fax: +82 2 3488 5985
 E-mail: kryang@knco.co.kr

Dr Park HYEON SUK
Project Leader
Agro-Tech. Research Group
KT&G Central Research Institute
434 Dangsung-Dong, Suwon
Korea
Tel: +82 31 400 1520
Fax: +82 31 419 9434
E-mail: seatae@ktng.com

Dr Yun Hyun YU
Director
Agro-Tech Research Group
KT & G Central Research Institute
434 Dangsung-Dong, Suwon
Korea
Tel: +82 31 400 1501
Fax: +82 31 419 9434
Email: ginpath@ktng.com

Mr PARK, YooSang
Observer, Manager
DongBu HanNong Chemicals Co., Ltd.
DongBu Financial 19F 891-10 DaeChi-Dong Seoul
135-523 Korea
Tel.: 82-(0)2-3484-1710
Fax: 82-(0)2-565-8535
E-mail: parkys@dongbuchem.com

Mr YANG, Kyew Wan
Assistant Manager
DongBu HanNong Chemicals Co., Ltd.
DongBu Financial 19F 891-10 DaeChi-Dong Seoul
135-523 Korea
Tel.: 82-(0)2-3484-1777
Fax: 82-(0)2-565-8534
E-mail: kwyang@dongbuchem.com

MALAYSIA
MALAISIE
MALASIA

Dr Ainie KUNTOM (Head of delegation)
Analytical and Quality Development Unit
Malaysian Palm Oil Board
No 6, Persiaran Institusi
Bandar Baru Bangi
43000 Kajang, Selangor, MALAYSIA
Tel: +603-8928 2842
Fax: +603-8925 9446
E-mail: ainie@mpob.gov.my

Mr Wan Mohammad Wan HASSAN
Agriculture Officer
Pesticide Board
Department of Agriculture
Jalan Gallagher
50624 Kuala Lumpur, MALAYSIA
Tel: +603-2697 7237
Fax: +603-2698 4121
E-mail: wanmohamad@doa.moa.my

Mr Ma Choon KWONG
Research Officer
Strategic Resources Research Center
Malaysian Agriculture Research and Development
Institute (MARDI)
P.O. Box 12301
50774 Kuala Lumpur, MALAYSIA
Tel: +603-8943 7672
Fax: +603-8948 7639
E-mail: ckma@mardi.my

MEXICO
MEXIQUE

Ing Marco Antonio Cotero GARCÍA
Subdirector de Evaluación y Riesgos
Dirección General de Inocuidad Agroalimentaria,
Acuícola y Pesquera
Secretaría de Agricultura, Ganadería, Desarrollo Rural,
Pesca y Alimentación
(SAGARPA)

MOROCCO
MAROC
MARRUECOS

Mr Saâd BENCHAKROUNE
Directeur Général de l'Etablissement Autonome de
Contrôle et de coordination des exportations
Ministère de l'Agriculture et du développement
rural
72, Rue Mohamed Smiha
20500 Casablanca
Morocco
Tel.: +212 22 308085
Fax: +212 22 302567
E-mail: benchakroune@eacce.org.ma

Mr Mostapha TARHY
Chef du Service Pesticides
Laboratoire Officiel d'Analyses et de Recherches
Chimiques (LOARC)
Rue Nichakra Rahal nr.25
Casablanca
Morocco
Tel.: +212 22302196/98
Fax: +212 22301972
E-mail: loarc@casanet.net.ma

NETHERLANDS
PAYS-BAS
PAISES BAJOS

Dr David G. KLOET
Residue Adviser
RIKILT (Wageningen UR)
P.O. Box 230
6700 AE Wageningen
Tel.: +31 317 475 562
Fax: +31 317 417 717
E-mail: david.kloet@wur.nl

Dr Bernadette OSSENDORP
National Institute of Public
Health and the Environment
P.O. Box 1
3720 BA Bilthoven
Tel.: +31 30 274 3970
Fax: +31 30 274 4475
E-mail: bernadette.ossendorp@rivm.nl

Dr Paula VAN HOEVEN
Nat. Inst. of Public health and the Environment, PO
Box 1
3720 BA BILTHOVEN
Tel : +31 30 2743263
Fax : +31 30 2744475
E-mail : paula.van.hoeven@rivm.nl

Mr Ir. Erica MULLER
Plant Protection Expert
Ministry of Agriculture, Nature
Management and Fisheries
Plant Protection Service
P.O. Box 9102
6700 HC Wageningen
Tel.: +31 317 496 881
Fax: +31 317 421 701
E-mail: e.muller@minlnv.nl

Mrs ir Monique MELLEMA
Product Board for Horticulture
P.O. Box 280
2700 AG Zoetermeer
Tel.: +31 79 347 0707
Fax: +31 79 347 0404
E-mail: m.mellema@tuinbouw.nl

Dr H.A.VAN DER SCHEE
Senior Surveyance Officer
Food and Consumer Product Safety Authority
Regionale dienst Noordwest
Inspectorate for Health Protection
and Veterinary Public Health
Hoogte Kadijk 401
1018 BK Amsterdam, Netherlands
Tel: +31 20 524 4600
Fax: +31 20 524 47 00
E-mail: henk.van.der.schee@vwa.nl

Dr Jacob Van Klaveren
Senior Scientist
RIKILT Institute of Food Safety
P.O.Box 230
6700 AE Wageningen

Ir. J.D. VAN KLAVEREN
Scientist
Residue Adviser
RIKILT (Wageningen UR)
P.O. Box 230
6700 AE Wageningen
Tel: +31 317 475465
Fax: +31 317 417717
Email: Jacob.vanklaveren@wur.nl

NEW ZEALAND
NOUVELLE-ZELANDE
NUEVA ZELANDIA

Mr David W. LUNN
Programme Manager (Residues-Plants)
Dairy & Plants Products Group
New Zealand Food Safety Authority
P.O. Box 2835
Wellington
Tel: +64 4 463 2654
Fax: +64 4 463 2675
Email: dave.lunn@nzfsa.govt.nz

Mr Warren HUGHES
Senior Assessor (Approvals)
Agricultural Compounds and Veterinary Medicines
Group
New Zealand Food Safety Authority
PO Box 2835
Wellington
Tel: +64 4 463 2500, 64 4 463 2560
Fax: +64 4 463 2566
Email: warren.hughes@nzfsa.govt.nz

NORWAY
NORVEGE
NORUEGA

Ms Cécile BLOM
Higher Executive Officer
Postal address:
Norwegian Food Safety Authority - Head Office
Section on Contaminants, Food Additives, etc.
P.O.Box 383
N-2381 Brumunddal, Norway
E-mail: ccblo@mattilsynet.no

Ms Merete DÆHLI
Postal address:
Norwegian Food Safety Authority -
Regional Office Plants and Vegetable Food
P.O.Box 383
N-2381 Brumunddal, Norway
E-mail: medeh@mattilsynet.no

SOUTH AFRICA
AFRIQUE DU SUD
SUDÁFRICA

Ms Neervana KHELAWANLALL
Chief Plant and Quality Technician
National Department of Agriculture
LA-GF-003 Agriculture Place
PRETORIA 001
South Africa
Tel: (+27-12) 310 7301
Fax: (+27-12) 319 6765
E-mail: NeervanaK@nda.agric.za

SPAIN
ESPAGNE
ESPAÑA

Mr S. GUTIERREZ DEL ARROYO GARCÍA
ARENAL
Jefe De Servicio en La Subdirección General De
Coordinación Científica
A.E.S.A. (Ministerio de Sanidad y Consumo)
C/ Alcalá, 56 – 4ª planta 28071-MADRID ESPAÑA
Tel.: + 34 91 3380620
Fax: + 34 91 3380238
E-mail: sgutierrez@msc.es

Mr Fernando Vares - MEGINO
MINISTRY OF AGRICULTURE
Alfonso XII, 62 – 28014 MADRID
SPAIN
Tel.: 00 34 91 347 40 88
Fax: 00 34 91 347 83 16
E-mail: fvaresme@mapya.es

SUDAN
SOUDAN

Dr Mohamed Mahmoud EL HANAN
Under Secretary Ministry of Agriculture & Forestry
Ministry of Agriculture & Forestry P.O. Box 285
Khartoum.
Tel. : 0912300792
Fax: 0183782027
Sudan

SWEDEN
SUEDE
SUECIA

Dr David CARLANDER
Food Division
Ministry of Agriculture, Food and Fisheries
SE – 103 33 Stockholm
SWEDEN
Tel: +46 8 405 2134
Fax: +46 8 206496
Mobile: +46 70 205 6859
E-mail: david.carlander@agriculture.ministry.se

Mrs Ingegard BERGMAN
Principal Administrative Officer
National Food Administration
P.O.Box 622
SE – 751 26 Uppsala
Tel: +46 18 175500
Fax: 46 18 105848
E-mail: inbe@slv.se

Mr Arne ANDERSSON
Head of Division
P.O.Box 622
SE – 751 26 Uppsala
Tel: +46 18 175641
Fax: 46 18 105848
E-mail: aran@sl.se

SWITZERLAND
SUISSE
SUIZA

Dr Claude WÜTHRICH
Food Safety
Plant Protection Products and Biocides Unit
Swiss Federal Office of Public Health
CH-3003 Bern
Switzerland
Tel.: +41 31 322 95 69
Fax: +41 31 322 95 74
E-mail: claudewuethrich@bag.admin.ch

Dr Werner KOBEL
SYNGENTA CROP PROTECTION AG
Global Human Safety Basel CPCP96811
WRO-1058.7.48
Postfach
CH-4002 Basel
Switzerland
Tel.: +41 61 323 6239
Fax: +41 61 323 5334
E-mail: werner.kobel@syngenta.com

SYRIA
SIRIE
SIRIA

Mr M.M. TAHER
FAO Representative in the Syrian Arab Republic
PO Box 10709
Damascus
Syria
Tel.: +963 11 9700
Fax: +963 11 6121140
E-mail:
Fao-syr@fao.org

THAILAND
THAILANDE
TAILANDIA

Mr Boonpeng SANTIWATTANATAM
Vice Chairman of Food Processing Industry Club
Federation of Thai Industries
Queen Sirikit Convention Centre Zone C
Bangkok. 10110
Thailand
Tel: +662 638 2226
Fax: +662 631 0725, 662 631 0988
Email: boonpeng@epd.co.th

Mr Pisan PONGSAPITCH
Standards Officer
National Bureau of Agricultural Commodity and Food
Standards,
Ministry of Agriculture and Cooperatives,
Bangkok 10200,
Thailand
Tel: +66 2 281 9710
Fax: +662 280 3899
Email: pisan@acfs.go.th

Ms Napaporn THITITANANUKIJ
Senior Chemical Specialist
2008 charansanitwong 40 Road
Bangyeekhan Bangplad
Bangkok 10700
Thailand
Tel: +662 8868088 Ext. 501
Fax: +662 8835021
Email: napaport@nfi.or.th

Ms Pateharee MENAKANIT
Director, Pest Management Division
Bureau of Agricultural Product Quality Development
Department of Agricultural Extension
Bangkok 10900
Thailand
Tel: +662 9406479
Fax: +662 5790280
Email: patcharee@doae.go.th

Mrs Linda PLEANPRASERT
Assistant Manager (Technical)
Thai Food Processors' Association
170/21-22, 9th Floor, Ocean Tower 1
Ratchadaphisek Road
Klongtoey
Bangkok, Thailand
Tel: +662 2612684 - 6
Fax: +662 2612996 - 7
Email: linda@thaifood.org

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

Lois ROSSI
Director of Registration Division
Office of Pesticide Programs
U.S. EPA
1200 Pennsylvania Ave. NW
Washington, DC 20460
USA
Tel.: +1 703 308-8162
Fax: +1 703 305 6920
E-mail: Rossi.Lois@epa.gov

Dr Robert L. EPSTEIN
Deputy Administrator
Science and Technology Programs
Agricultural Marketing Service
U.S. Department of Agriculture
Room 3507-South Building
(Mail Stop 0222)
1400 Independence Avenue, SW
Washington, DC 20250
Tel: +1 202 720-5231
Fax: +1 202 720-6496
E-mail: Robert.Epstein@usda.gov

Syed Amjad ALI
U.S. Codex Office
U.S. Department of Agriculture
South Building, Room 4861
1400 Independence Avenue, SW
Washington, DC 20250-3700
Tel: +1 202 205 7760
Fax: +1 202 720 3157
E-mail: Syed.Ali@fsis.usda.gov

Cynthia DEYRUP
Office of Public Health and Science
Food Safety and Inspection Service
U.S. Department of Agriculture
1400 Independence Avenue, SW
Room 343, Aerospace Building
Washington, DC 20250
Tel: +1 202 690-1081
Fax: +1 202 690-6565
E-mail: Cindy.Deyrup@fsis.usda.gov

Dr Stephen FUNK
Health Effects Division
Office of Pesticide Programs (H7509C)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Tel: +1 703 305-5430
Fax: +1 703 305-0871
E-mail: Funk.Steve@epa.gov

Kathy MONK
Registration Division
Office of Pesticide Programs
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Tel: +1 703 308 8071
Fax: +1 703 305 6920
E-mail: Monk.Kathy@epa.gov

Nancy N. RAGSDALE
U.S. Department of Agriculture
Agricultural Research Service
National Program Staff
Pest Management Chemistry
George Washington Carver Center
5601 Sunnyside Avenue
Room 4-2108
Beltsville, MD 20705-5140
Tel: +1 301 504-4509
Fax: +1 301 504-6231
E-mail: NNR@ars.usda.gov

Bill BRYANT
Chairman
Bryant Christie, Inc.
1425 Fourth Avenue, Suite 808
Seattle, WA 98101
Tel: +1 206 292-6340
Fax: +1 206 292-6341
E-mail: Billb@bryantchristie.com

Cecilia GASTON
Managing Scientist
Exponent, Inc.
1730 Rhode Island Avenue, NW
Suite 1100
Washington, DC 20036
Tel: +1 202 772 4903
Fax: +1 202 772 4979
E-mail: cgaston@exponent.com

Stephen WRATTEN
CropLife America Representative
Manager, Registrations
Monsanto Company
800 North Lindbergh Boulevard
St. Louis, MO 63167
Tel: +1 314 694-1582
Fax: +1 314 694-4028
E-mail: Stephen.j.wratten@monsanto.com

**INTERNATIONAL GOVERNMENTAL
ORGANIZATIONS/ORGANISATIONS
GOUVERNEMENTALES INTERNATIONALES/
ORGANIZACIONES GUBERNAMENTALES
INTERNACIONALES**

**FOOD AND AGRICULTURE ORGANIZATION
OF THE UNITED NATIONS (FAO)
ORGANISATION DES NATIONS UNIES POUR
L'ALIMENTATION ET L'AGRICULTURE
ORGANIZACION DE LAS NACIONES UNIDAS
PARA LA AGRICULTURA Y LA
ALIMENTACION**

Dr Amelia W. TEJADA
FAO Joint Secretary to JMPR
Plant Production and Protection Division
FAO
Viale delle Caracalla
00100 Rome
Italy
Tel.: +39 06 5705 4010
Fax: +39 06 5705 6347
E-mail: amelia.tejada@fao.org

FAO/IAEA

Dr Piet VAN ZOONEN
Head of Laboratory
National Institute of Public Health
and the Environment, P.O. Box 1
3720 BA Bilthoven
Tel: + 41 30 274 2876
Fax: + 41 30 2287531
E-mail: piet.van.zoonen@rivm.nl

**WORLD HEALTH ORGANIZATION (WHO)
ORGANISATION MONDIALE DE LA SANTE
(OMS)
ORGANIZACION MUNDIAL DE LA SALUD**

Dr Angelika TRITSCHER
WHO Joint Secretary to JECFA and JMPR
International Programme on Chemical Safety
World Health Organization
20, Avenue Appia, CH-1211 Geneva 27
Switzerland
Ph: +41 22 791 3569
Fax: +41 22 791 4848
E-mail: tritschera@who.int

**INTERNATIONAL NON-GOVERNEMNTAL
ORGANIZATIONS/ORGANISATIONS
INTERNATIONALES NON
GOUVERNEMENTALES/ORGANIZACIONES
INTERNACIONALES NO
GUBERNAMENTALES**

CONSUMERS INTERNATIONAL

Mr Sri Ram KHANNA
Managing Trustee
Voluntary organization in interest of Consumer
Education (VOICE)
441 (basement) Jangpura
Mathura Road
New Delhi 110-014
India
Tel.: +9111243 19078-80
Fax: +9111243 19081
E-mail: srkhanna@giasd101.vsnl.net.in

Mr Bejon MISRA
Chief Executive Officer
Voluntary organization in interest of Consumer
Education (VOICE)
441 (basement) Jangpura
Mathura Road
New Delhi 110-014
India
Tel.: +9111243 19078
Fax: +9111243 19081
E-mail: consumeralert@eth.net

Mr Kamaljit SINGH
Codex & Food Safety Manager
Voluntary organization in interest of Consumer
Education (VOICE)
441 (basement) Jangpura
Mathura Road
New Delhi 110-014
India
Tel.: +9111243 19078
Fax: +9111243 19081
E-mail: testing@consumer-voice.org

Mr S. KRISHANAN
Director
Consumer Coordination Council of India
43-A, Pocket-IV
Mayur Vihar, Phase I
New Delhi - 110091
Tel.: +91 11 271 2678
Fax: +91 11 271 126678
E-mail: cccdel@del3.vsnl.net.in

Mr CHANDERBHUSHAN
Voluntary organization in interest of Consumer
Education (VOICE)
441 (basement) Jangpura
Mathura Road
New Delhi 110-014
India
Tel.: +9111243 19078-80
Fax: +9111243 19081
E-mail: cvoice@vsnl.net

CROP LIFE INTERNATIONAL (CLI)

Dr PREMJI HALARNKAR
Project Manager
Arvesta Corporation
100 First Street, Suite 1700
San Francisco, California 94105, USA
Tel.: + 415-778-4823
Fax: +415-284-9884
E-mail: phalarnkar@arvesta.com

Mr Steve L. KOZLEN
Regulatory Affairs Manager Europe
Makhteshim Agan ICC
283 Avenue Louise
1050 Brussels
Belgium
Tel.: + 32 2 646 8606
Fax: + 32 2 646 9152
E-mail: steve.kozlen@maicc.be

Mr Toshikazu MIYAKAWA
JCPA, General Manager
Nihonbashi Club Bldg.
5-8-1 Muromach; Nihonbashi, Chuo-ru
Tokyo, Japan
Tel.: + 81 3 3241 0230
Fax: + 81 3 3241 3149
E-mail: miyakawa@jcpa.or.jp

Mr David J. OSBORN
Senior Registration Specialist
Crompton Europe Limited
Kennet House
4 Langley Quay
Slough Berkshire SL3 6EH UK
Tel.: +44 1753 603056
Fax : +44 1753 603077
E-mail: david.osborn@cromptoncorp.com

Mr Makoto SAKAKIBARA
Group Leader, Regulatory Affairs Group,
Technology Div.
SDS Biotech K.K.
2-5-6 Shiba, Minato-Ku
Tokyo 105 – 0014
Tel. : +81 3 5427 2417
Fax : +81 3 5427 2430
E-mail : Makoto_Sakakibara@sdk.co.jp

Mr Yukiharu TANAKA
Manager, Registration & Development Department
Japan Unit
Arysta LifeScience Corporation
8-1, Akashi-cho, Chuo-ku, Tokyo
104-6591, Japan
Tel. : +81 35474587
Fax : +81 35474695
E-mail : tanaka_yukihary@arysta-ls.com

Dr Gabriele TIMME
Bayer CropScience AG
Development/Developmental Affairs
Alfred-Nobel-Str. 50
D-40789 Monheim/Rhein
Tel. : +49 2173 383882
Fax : +49 2173 383572
E-mail : Gabriele.Timme@bayercropscience.com

Dr John. M. BECKER
FMC Corporation
1735 Market Street
Philadelphia, PA 19103 USA
Tel. : +215 299 6670
Fax : +215 299 6468
E-mail : john_becker@fmc.com

Mrs Mary Jean MEDINA
FMC Chemical International, AG
Manilea, Philippines
Tel : +63 2 8175546
Fax : +63 2 8181485
e-mail : jean_medina@fmc.com

Dr Friedbert PISTEL
Tel : +49 76734 919134
Fax: +49 6734 919191
e-mail : friedbert.pistel@scc-gmbh.de

Mr S.S GULERIA
Business Development Manager
Bayer (India) Limited
BG: CropScience
1-2 Community Centre, Aram Bagh,
Off. Panchkuian Road,
New Delhi – 110 055
Tel: +91-11-23547531, 23547535
Fax: +91-11-23547582, 23631543
Mobile: 9810036323
Email: suneet.guleria@bayercropscience.com

Dr Frank KIDD
Gowan Comercio Internacionale Services, Limitade
370 South Main Street
Yuma, Anizona 85364
Tel : +1 928 819 1579
Fax: +1 928 373 1860
e-mail : fkidd@gowanco.com

Dr Leon HERSHBERGER
DvPont Crop Protection
Stine-Huskell Research Centre
P.O.Box 30
New York, DE 19714-0030
USA
Tel. : +1 302 366 6308
Fax : +1 302 366 6412
E-mail : leon.w.hershberger@usa.dupont.com

Mr Rocky ROWE
Manager
International Regulatory Policy
Croplife International
143 Ave. Louise
Beussels 1050
Tel. : +32 2 541 16687
Fax : +32 2 542 0416
E-mail : rocky@croplife.org

Mr Masaru NOKATA
Head Manager, Toxicological & Pharmaceutical
Research Centre, Research Division
Nihon Nohyat Co. Ltd.
345, Oyamada-cho, Kawachi: - Nagano,
Osaka 586-0094, Japan
Tel. : +81 721 56 9001
Fax : +81 721 56 9090
E-mail : nokata-masaru@nichino.co.jp

Mr Yoshiyuki EGUCHI
Manager, Regulatory Affairs Department
Nippon Soda Co., Ltd.
2-1, 2-Chome Ohtemachi
Chiyoda-ku, Tokyo 100-8165
Japan
Tel. : +81 3 3245 6042
Fax : +81 3 3245 6289
E-mail : y.eguchi@nippon-soda.co.jp

Prof Madhuban GOBEL
National Fellow
Division of Agriculture Chemicals
IARI, New Delhi 110012
India
Tel.: +91 11 2584 8706 (0)
Fax: +91 11 25843272
E-mail: madhubangobel@hotmail.com

INTERNATIONAL BANANA ASSOCIATION (IBA)

Dr Caroline A. HARRIS
Manager, International Regulatory Affairs
Exponent International Ltd.
2D Hornbeam Park Oval, Harrogate
North Yorkshire HG2 8RB
United Kingdom
Tel :+44 1423 853201
Fax :+441423 810431
E-mail : charris@uk.exponent.com

**INTERNATIONAL CO-OPERATIVE ALLIANCE
(ICA)**

Mr Kazuo ONITAKE
Safety Policy Service
Japanese Consumers' Co-operative Union
Co-op Plaza,
3-29-8, Shibuya, Shibuyaku,
Tokyo, Japan 150-8913
Tel: +81-3-5778-8109
Fax: +81-3-5778-8002
e-mail: kazuo.onitake@jccu.coop

**INTERNATIONAL ORGANIZATION OF SPICE
TRADE ASSOCIATION (IOSTA)**

Mrs Elizabeth ERMAN
Executive Director
American Spice Trade Association, Inc.
2025 M Street, NW
Suite 800
Washington, DC 20036-3309
USA
Tel : +202 367 1127
Fax : +202 367 2225
E-mail: elizabeth-erman@astaspice.org

**INTERNATIONAL SOCIETY OF
CITRUSCULTURE (ISC)**

Mr Charles R. ORMAN
Director, Science & Technology
Sunkist Growers, Inc.
John V. Newman Research Center
PO Box 3720
Ontario, CA 91761
Tel: (909) 933-2257
Fax: (909) 933-2409
E-Mail: corman@sunkistgrowers.com

**INTERNATIONAL SOFT DRINKS COUNCIL
(ISDC)**

Mr M. BHAGIA
Advisor
International Soft Drinks Council
1101 Sixteenth Street, NW
Washington, D.C. 20036
U.S.A.
Tel.: +91-124-2355880 ext. 471
Fax: +91-124-2356398
E-mail: mahirwan.bhagia@pepsi.com

Mr A. YADAV
Advisor
International Soft Drinks Council
1101 Sixteenth Street, NW
Washington, D.C. 20036
U.S.A.
Tel.: +91-124-2355880
Fax: +91-124-2356286
E-mail: ajit.yadav@pepsi.com

Dr D.V. DARSHANE
Advisor
International Soft Drinks Council
1101 Sixteenth Street, NW
Washington, D.C. 20036
U.S.A.
Tel.: +91-124-6348041-041
Fax: +91-124-6348654-9927
E-mail: dvdarshane@apac.ko.com

Mr Abhijit SARKAR
Advisor
International Soft Drinks Council
1101 Sixteenth Street, NW
Washington, D.C. 20036
U.S.A.
Tel.: +91-124-6348041-041
Fax: +91-124-6348654-9927
E-mail: sarkar@apac.ko.com

**INTERNATIONAL UNION OF PURE AND
APPLIED CHEMISTRY (IUPAC)**

Dr Kenneth D. RACKE
Global Regulatory Leader
Dow AgroSciences
9330 Zionsville Road
Bldg 308/2B
Indianapolis, IN 46268
USA
Tel.: 1-317-337-4654
Fax: 1-317-337-3810
Email: Kracke@dow.com

Dr Sue-Sun WONG
Chief of Residue Control Division
Taiwan Agricultural Chemicals & Toxic Substances
Research Institute
11 Kung-Ming Road
Wu-Feng, Taichung Hsien
Taiwan Province of China
Tel.: +886 4 2330 0612
Fax: +886 4 2332 4738
Email: sswong@tactri.gov.tw

**NETHERLANDS SECRETARIAT
SECRETARIAT PAYS-BAS
SECRETARIA PAISES-BAJOS**

Dr Joop W. DORNSEIFFEN
Ministry of Health, Welfare and Sport
Directorate of Public Health
P.O. Box 20350, 2500 EJ The Hague
The Netherlands
Tel.: +31 70 340 6961
Fax: +31 70 340 5554
E-mail: jw.dornseiffen@minvws.nl

Mrs Karin A. SCHENKEVELD
Ministry of Health, Welfare and Sport
Directorate of Public Health
P.O. Box 20350
2500 EJ The Hague
The Netherlands
Tel.: +31 70 5177090
Fax: +31 70 5112281
E-mail: ka.schenkeveld@hotmail.com

Ms Sue BAKER
Ministry of Health, Welfare and Sport
Directorate of Public Health
P.O. Box 20350
2500 EJ The Hague
The Netherlands
Tel.: +31 70 340 5080
Fax: +31 70 340 5177
E-mail: s.baker@minvws.nl

Ir Peter D.A. OLTTHOF
Ministry of Health, Welfare and Sport
Directorate of Public Health
P.O. Box 20350
2500 EJ The Hague
The Netherlands
Tel.: +31 70 340 6957
Fax: +31 70 340 5554
E-mail: pda.olthof@worldonline.nl

Dr Renske HITTENHAUSEN-GELDERBLOM
Food and Consumer Product Safety Authority
Inspectorate for Health Protection
Hoogte Kadijk 401
1018 BK Amsterdam
The Netherlands
Tel.: +31 20 524 4600
Fax: +31 20 524 4700
E-mail: renske.hittenhausen-gelderblom@kvw.nl

Ir. Bas VAN DER HEIDE
Ministry of Health, Welfare and Sport
Directorate of Public Health
P.O. Box 20350
2500 EJ The Hague
The Netherlands
Tel: +31 70 3405619
Fax: +31 70 3405554
E-mail: : b.vd.heide@minvws.nl

Dr H. ROELFZEMA
Ministry of Health, Welfare and Sport
Directorate of Public Health
P.O. Box 20350
2500 EJ The Hague
The Netherlands
Tel: +31 70 3406965
Fax: +31 70 3405554
E-mail: : h.roelfzema@minvws.nl

Joyce DE STOPPELAAR
Ministry of Health, Welfare and Sport
Directorate of Public Health
P.O. Box 20350
2500 EJ The Hague
The Netherlands
Tel: +31 70 3406875
Fax: +31 70 3405554
E-mail: : jm.d.stoppelaar@minvws.nl

CODEX SECRETARIAT

Dr Jeronimas MASKELIUNAS
Food Standards Officer
Joint FAO/WHO Food Standards Programme
FAO
Viale delle Terme di Caracalla
00100 Rome
Italy
Tel.: +39 06 5705 3967
Fax: + 39 06 570 54593
E-mail: jeronimas.maskeliunas@fao.org

Dr Selma DOYRAN
Senior Officer
Joint FAO/WHO Food Standards Programme
FAO
Viale delle Terme di Caracalla
00100 Rome
Italy
Tel.: +39 06 570
Fax: +39 06 570
E-mail: selma.doyran@fao.org

APPENDIX II

DRAFT AND REVISED DRAFT MAXIMUM RESIDUE LIMITS FOR PESTICIDES
(Advanced to Step 8 of the Codex Procedure)

			MRL (mg/kg)	Step	Note
008	CARBARYL				
CM	1207	Rice hulls ¹	50		8
AF	1053	Sorghum forage (dry) ¹	5		8
AB	0541	Soya bean hulls ¹	0.3		8
AV	0702	Sunflower forage ¹	5		8
AB	0447	Sweet corn cannery waste ¹	7.4		8
VW	0448	Tomate paste ¹	10		8
AM	0660	Almond hulls	50		8
VS	0621	Asparagus	15		8
VR	574	Beetroot	0.1		8
VR	577	Carrot	0.5		8
VO	0440	Egg plant	1		8
MO	0098	Kidney of cattle, goats, pigs and sheep			8
MO	0099	Liver of cattle, goats, pigs and sheep			8
GC	0645	Maize	0.02	(*)	8
AF	0645	Maize forage,	400	dry	8
AS	0645	Maize fodder	250		8
OC	0645	Maize oil, crude	0.1		8
MM	0095	Meat (from mammals other than marine mammals)	0.05		8
ML	0106	Milks	0.05		8
FT	0305	Olives	30		8
OC	0305	Olive oil, virgin	25		8
VO	0445	Peppers, sweet	5		8
CM	1206	Rice bran, unprocessed	170		8
AS	0649	Rice straw and fodder. Dry	120		8
CM	1205	Rice, polished	1		8
AF	0651	Sorghum forage, green	20		8
OC	0541	Soya bean oil, crude	0.2		8
VD	541	Soya bean (dry)	0.2		8
AL	0541	Soya bean fodder	15		8
AL	1265	Soyabean forage (green)	30	Dry wt	8
OC	0802	Sunflower seed oil, crude	0.05		8
VO	0448	Sweet corn, corn on the cob	0.1		8
VR	0508	Sweet potato	0.02	(*)	8
SO	0802	Sunflower seed	0.2		8
VO	0448	Tomato	5		8
JF	0448	Tomato juice	3		8
TN	0085	Tree nuts	1		8
VR	0506	Turnip, Garden	1		8
GC	0654	Wheat	2		8
CF	1211	Wheat flour	0.2		8
CF	1210	Wheat germ	1		8
CM	0654	Wheat bran, unprocessed	2		8
AS	0654	Wheat straw and fodder, dry	30		8
20	2,4-D				
FC	0001	Citrus fruits	1	Po	8

22	DIAZINON					
MM	814	Goat meat	2	(fat)	8	
MO	98	Kidney of cattle, goats, pigs and sheep	0.03		8	
MO	99	Liver of cattle, goats, pigs and sheep	0.03		8	
MM	98	Meat of cattle, pigs and sheep	2	(fat)	8	
FP	9	Pome fruits	0.3		8	
30	DIPHENYLAMINE					
ML	812	Cattle milk	0.0004	(*) F	8	
FP	230	Pear	5	Po	8	
49	MALATHION					
VS	621	Asparagus	1		8	
VP	61	Beans, except broad bean and soy bean	1		8	
FB	20	Blueberries	10		8	
VC	424	Cucumber	0.2		8	
VL	485	Mustard greens	2		8	
VA	385	Onion, Bulb	1		8	
VA	0389	Spring onion	5		8	
VO	447	Sweet corn (corn-on-the-cub)	0.02		8	
JF	448	Tomato juice	0.01		8	
VL	506	Turnip greens	5		8	
59	PARATHION-METHYL					
FP	226	Apple	0.2		8	
VB	41	Cabbages, Head	0.05		8	
DF	269	Dried grapes (=currants, raisins and sultanas)	1		8	
FB	269	Grapes	0.5		8	
FS	247	Peach	0.3		8	
VD	72	Peas (dry)	0.3		8	
62	PIPERONYL BUTOXIDE					
MO	1280	Cattle kidney	0.3		8	
MO	1281	Cattle liver	1		8	
MM	812	Cattle meat	5	(fat)	8	
ML	812	Cattle milk	0.2	F	8	
GC	80	Cereal Grains	30	Po	8	
FC	1	Citrus fruits	5		8	
JF	1	Citrus juice	0.05		8	
DF	167	Dried fruits	0.2	Po	8	
PE	112	Eggs	1		8	
VC	45	Fruiting vegetables, Cucurbits	1		8	
MO	0098	Kidney of cattle, goats, pigs & sheep	0.2		8	Excluding cattle kidney
VL	483	Lettuce, Leaf	50		8	
MO	0099	Liver of cattle, goats, pigs & sheep	1		8	
OC	645	Maize oil, Crude	80	PoP	8	
MM	0095	Meat (from mammals other than marine mammals)	2		8	Excluding cattle meat
ML	0106	Milks	0.05	F	8	Excluding cattle milk
VL	485	Mustard greens	50		8	
AL	72	Pea hay or pea fodder (dry)	200	(dry)	8	
AL	528	Pea vines (green)	400	(dry)	8	
SO	703	Peanut, Whole	1		8	
VO	51	Peppers	2		8	
PM	110	Poultry meat	7	(fat)	8	

PO	111	Poultry, Edible offal of	10		8
VD	70	Pulses	0.2	Po	8
VL	494	Radish leaves (including radish tops)	50		8
VR	75	Root and tuber vegetables	0.5		8
VL	502	Spinach	50		8
VO	448	Tomato	2		8
JF	448	Tomato juice	0.3		8
CM	654	Wheat bran, Unprocessed	80	PoP	8
CF	1211	Wheat flour	10	PoP	8
CF	1210	Wheat germ	90	PoP	8
CF	1212	Wheat wholemeal	30	PoP	8
79 AMITROLE					
FB	0269	Grapes	0.05		8
FP	0009	Pome fruits	0.05	(*)	8
FS	0012	Stone fruits	0.05	(*)	8
85 FENAMIPHOS					
FP	226	Apple	0.05	(*)	8
FI	327	Banana	0.05		8
VB	402	Brussels sprouts	0.05		8
VB	41	Cabbages, Head	0.05		8
OC	691	Cotton seed oil, Crude	0.05	(*)	8
MO	105	Edible offal (mammalian)	0.01	(*)	8
PE	112	Eggs	0.01	(*)	8
MM	95	Meat (from mammals other than marine mammals)	0.01	(*)	8
ML	106	Milks	0.005	(*)	8
OC	697	Peanut oil, Crude	0.05	(*)	8
PO	110	Poultry meat	0.01	(*)	8
PO	111	Poultry, Edible offal of	0.01	(*)	8
94 METHOMYL					
AB	0691	Cotton seed, hulls ¹	0.2		8
AB	1203	Cotton seed, meal ¹	0.05		8
AV	0495	Rape seed forage ¹	0.2		8
AB	0541	Soya bean hulls ¹	1		8
AB	1265	Soya bean meal ¹	0.2		8
VD	0071	Beans (dry)	0.05		8
VP	0526	Common bean (pods and/or immature seeds)	1		8
SO	0691	Cotton seed	0.2		8
OR	691	Cotton seed oil, Edible	0.04		8
MO	105	Edible offal (mammalian)	0.02	(*)	8
PE	112	Eggs	0.02	(*)	8
GC	0645	Maize	0.02	(*)	8
AF	0645	Maize forage	50		8
OR	645	Maize oil, Edible	0.02	(*)	8
MM	0095	Meat (from mammals other than marine mammals)	0.02	(*)	8
ML	0106	Milks	0.02	(*)	8
FS	0245	Nectarine	0.2		8
GC	0647	Oats	0.02	(*)	8
FS	0247	Peach	0.2		8
FS	14	Plums (including prunes)	1		8
VR	0589	Potato	0.02	(*)	8
PM	110	Poultry meat	0.02	(*)	8
PO	111	Poultry, Edible offal of	0.02	(*)	8
SO	495	Rape seed	0.05		8
AL	541	Soya bean fodder	0.2		8
OC	541	Soya bean oil, Crude	0.2		8

Except carrot

OR	541	Soya bean oil, Refined	0.2		8
AS	161	Straw, fodder (dry) and hay of cereal grains and other grass-like plants	10		8

96 CARBOFURAN

SO	0691	Cotton seed	0.1		8
SO	0495	Rape seed	0.05	(*)	8
AS	0649	Rice straw and fodder (dry)	1		8
CM	0649	Rice, husked	0.1		8

103 PHOSMET

TN	0085	Tree nuts	0.2		8
----	------	-----------	-----	--	---

113 PROPARGITE

AM	0838	Almond hulls	50		8
TN	0660	Almonds	0.1	(*)	8
FP	0226	Apple	3		8
JF	0226	Apple juice	0.2		8
FC	0001	Citrus fruits	3		8
AB	0001	Citrus pulp, dry	10		8
SO	0691	Cotton seed	0.1		8
OR	0691	Cotton seed oil, Edible	0.2		8
DF	0269	Dried grapes (=currants, raisins and sultanas)	12		8
MO	0105	Edible Offal (Mammalians)	0.1	(*)	8
PE	0112	Eggs	0.1	(*)	8
JF	0269	Grape juice	1		8
FB	0269	Grapes	7		8
DH	1100	Hops, dry	100		8
CF	1255	Maize flour	0.2		8
OC	0645	Maize oil, crude	0.7		8
OR	0645	Maize oil, edible	0.5		8
MM	0095	Meat (from mammals other than marine mammals)	0.1	(*) (fat)	8
ML	0106	Milks	0.1	(*) F	8
JF	0004	Orange juice	0.3		8
OC	0698	Peanut oil, crude	0.3		8
OR	0698	Peanut oil, edible	0.3		8
PM	0110	Poultry meat	0.1	(*) (fat)	8
PO	0111	Poultry, edible offal of	0.1	(*)	8
FS	0012	Stone fruit	4		8
DT	1114	Tea, Green, Black	5		8

126 OXAMYL

VR	0577	Carrot	0.1		8	
MO	0096	Edible offal of cattle, goats, horses, pigs & sheep	0.02	(*)	8	Animal commodity, no residues are expected from consumption of feed commodities with oxamyl as evaluated by JMPR
PE	0112	Eggs	0.02	(*)	8	Animal commodity, no residues are expected from consumption of feed commodities with oxamyl as evaluated by JMPR
MM	0095	Meat (from mammals other than marine mammals)	0.02	(*)	8	Animal commodity, no residues are expected from consumption of feed commodities with oxamyl as evaluated by JMPR
ML	0106	Milks	0.02	(*)	8	
SO	0697	Peanut	0.05		8	
AL	0697	Peanut fodder	0.2		8	

VR	0589	Potato	0.1		8
PM	0110	Poultry meat	0.02	(*)	8
PO	0111	Poultry, Edible offal of	0.02	(*)	8
Animal commodity, no residues are expected from consumption of feed commodities with oxamyl as evaluated by JMPR					
130 DIFLUBENZURON					
FC	0001	Citrus fruits	0.5		8
MO	0105	Edible offal (mammalian)	0.1	(*)	8
MM	0095	Meat (from mammals other than marine mammals)	0.1	(fat)	8
ML	0106	Milks	0.02	(*) F	8
VO	0450	Mushrooms	0.3		8
FP	0009	Pome fruit	5		8
PM	0110	Poultry meat	0.05	(*)	8
				(fat)	
GC	0649	Rice	0.01	(*)	8
AS	0649	Rice straw and fodder, dry	0.7		8
135 DELTAMETRIN					
FP	0226	Apple	0.2		8
VR	0577	Carrot	0.02		8
GC	0080	Cereal grains	2	Po	8
FC	0001	Citrus fruits	0.02		8
PE	0112	Eggs	0.02	(*)	8
VB	0042	Flowerhead brassicas	0.1		8
FB	0269	Grapes	0.2		8
TN	0666	Hazelnuts	0.02	(*)	8
Mo	0098	Kidney of cattle, goats, pigs and sheep	0.03	(*)	8
VA	0384	Leek	0.2		8
VP	0060	Legume vegetables	0.2		8
MO	0099	Liver of cattle, goats, pigs and sheep	0.03	(*)	8
MO	0098	Kidney of cattle, goats, pigs and sheep	0.03	(*)	8
ML	0106	Milks	0.05		8
VO	0450	Mushrooms	0.05		8
FS	0245	Nectarine	0.05		8
FT	0305	Olives	1		8
VA	0385	Onion, Bulb	0.05		8
FS	0247	Peach	0.05		8
FS	0014	Plums (including Prunes)	0.05		8
VR	0589	Potato	0.01	(*)	8
PM	0110	Poultry meat	0.1	(fat)	8
PO	0111	Poultry, edible offal of	0.02	(*)	8
VD	0070	Pulses	1 Po		8
VR	0494	Radish	0.01	(*)	8
FB	0275	Strawberry	0.2		8
SO	0802	Sunflower seed	0.05	(*)	8
VO	0447	Sweet corn (corn-on-the-cob)	0.02	(*)	8
DT	1114	Tea, Green, Black	5		8
VO	0448	Tomatoes	0.3		8
TN	0688	Walnuts	0.02	(*)	8
CF	1211	Wheat flour	0.3	PoP	8
CF	1212	Wheat wholemeal	2	PoP	8
162 TOLYLFUANID					
FB	0264	Blackberries	5		8
VC	0424	Cucumber	1		8
FB	0021	Currants, Black, Red, White	0.5		8

FB	0269	Grapes	3		8
DH	1100	Hops, dry	50		8
VA	0384	Leek	2		8
VO	0445	Peppers, sweet	2		8
FB	0272	Raspberries, Red, Black	5		8
FB	0275	Strawberry	5		8
VO	0448	Tomato	3		8

196 TEBUFENOZIDE

AM	660	Almond hulls	30		8
TN	660	Almonds	0.05		8
FI	326	Avocado	1		8
FB	20	Blueberries	3		8
VB	400	Broccoli	0.5		8
VB	41	Cabbages, Head	5		8
FC	1	Citrus fruits	2		8
FB	265	Cranberry	0.5		8
FB	0269	Grapes	2		8
DF	269	Dried grapes (=currants, raisins and sultanas)	2		8
PE	112	Eggs	0.02	(*)	8
FB	0269	Grapes			8
VL	53	Leafy vegetables	10		8
HH	738	Mints	20		8
FS	245	Nectarine	0.5		8
FS	247	Peach	0.5		8
TN	672	Pecan	0.01	(*)	8
VO	0051	Peppers	1		8
PM	0110	Poultry meat	0.02	(*)	8
SO	0495	Rape seed	2		8
FB	0272	Raspberries, red, black	2		8
GS	0654	Sugar cane	1		8
VO	0448	Tomato	1		8

203 SPINOSAD

FP	0226	Brassica vegetables	2		8
VL	0053	Leafy vegetables	10		8

204 ESFENVALERATE

PE	0112	Eggs	0.01	(*)	8
PM	0110	Poultry meat	0.01	(*)	8
				(fat)	
PO	0111	Poultry, Edible offal of	0.01	(*)	8
SO	0495	Rapeseed	0.01	(*)	8
AS	0654	Wheat straw and fodder, dry	2		8

205 FLUTOLANIL

PE	0112	Eggs	0.05	(*)	8
MO	0098	Kidney of cattle, goats, pigs and sheep	0.1		8
MO	0099	Liver of cattle, goats, pigs and sheep	0.2		8
MM	0095	Meat (from mammals other than marine mammals)	0.05	(*)	8
ML	0106	Milks	0.05	(*)	8
PO	0111	Poultry edible offal	0.05	(*)	8
PM	0110	Poultry meat	0.05	(*)	8
CM	1206	Rice bran, unprocessed	10		8
AS	0649	Rice straw and fodder, dry	10		8
CM	0649	Rice, husked	2		8
CM	1205	Rice, polished	1		8

206		IMIDACLOPRID			
FP	0226	Apple	0.5		8
AB	0226	Apple pomace, dry	5		8
FS	0240	Apricot	0.5		8
FI	0327	Banana	0.05		8
AS	0640	Barley straw and fodder (dry)	1	dry	8
VP	0061	Beans, except broad bean and soya bean	2		8
VB	0400	Broccoli	0.5		8
VB	0402	Brussels sprouts	0.5		8
VB	0041	Cabbages, head	0.5		8
VB	0404	Cauliflower	0.5		8
GC	0080	Cereals grains	0.05		8
FC	0001	Citrus fruits	1		8
AB	0001	Citrus pulp, dry	10		8
VC	0424	Cucumber	1		8
MO	0105	Edible offal (Mammalian)	0.05		8
VO	0440	Egg plant	0.2		8
PE	0112	Eggs	0.02	(*)	8
FB	0269	Grapes	1		8
DH	1100	Hops, dry	10		8
VA	0384	Leek	0.05	(*)	8
VL	0482	Lettuce, Head	2		8
AS	0645	Maize fodder	0.2	dry	8
AF	0645	Maize forage	0.5	dry	8
FI	0345	Mango	0.2		8
MM	0095	Meat (from mammals other than marine mammals)	0.02	(*)	8
VC	0046	Melons, except Watermelon	0.2		8
ML	0106	Milks	0.02	(*)	8
FS	0245	Nectarine	0.5		8
AF	0647	Oat forage (green)	5	dry	8
AS	0647	Oat straw and fodder, dry	1	dry	8
VA	0385	Onion, Bulb	0.1		8
FS	0247	Peach	0.5		8
FP	0230	Pear	1		8
TN	0672	Pecan	0.05		8
VO	0051	Peppers	1		8
FS	0014	Plums (including prunes)	0.2		8
PM	0110	Poultry meat	0.02	(*)	8
PO	0111	Poultry, Edible offal of	0.02	(*)	8
VR	0589	Potato	0.5		8
SO	0495	Rape seed	0.05	(*)	8
AF	0650	Rye forage (green)	5	dry	8
AS	0650	Rye straw and fodder, dry	1	dry	8
VC	0431	Squash, Summer	1		8
VO	0447	Sweet corn (corn-on-the- cob)	0.02	(*)	8
VR	0596	Sugar beet	0.05	(*)	8
AV	0596	Sugar beet leaves or tops	5	dry	8
VO	0448	Tomato	0.5		8
VC	0432	Watermelon	0.2		8
CM	0654	Wheat bran, unprocessed	0.3		8
CF	1211	Wheat flour	0.03		8
AS	0654	Wheat straw and fodder, dry ^a	1		8

¹ These letters and codes are preliminary and might change in future.

APPENDIX III

DRAFT AND REVISED DRAFT MAXIMUM RESIDUE LIMITS FOR PESTICIDES*(Advanced at Step5/8 of the Codex Procedure)*

			MRL (mg/kg)	Step	Note
48	LINDANE				
GC	0640	Barley	0.01	(*)	5/8
MO	0105	Edible offal (mammalian)	0.01	(*)	5/8
PE	0112	Eggs	0.01	(*)	5/8
GC	0645	Maize	0.01	(*)	5/8
MM	0095	Meat (from mammals other than marine mammals)	0.1	(fat)	5/8
ML	0106	Milks	0.01	(*)	5/8
GC	0647	Oats	0.01	(*)	5/8
PO	0111	Poultry edible offals	0.01	(*)	5/8
PM	0110	Poultry meat	0.05	(fat)	5/8
GC	0650	Rye	0.01	(*)	5/8
GC	0651	Sorghum	0.01	(*)	5/8
AS	0081	Straw and fodder (dry) of cereal grains	0.01	(*)	5/8
VO	1275	Sweet corn (kernels)	0.01	(*)	5/8
GC	0654	Wheat	0.01	(*)	5/8
59	PARATHION-METHYL				
FS	0245	Nectarine	0.3		5/8
63	PYRETHRINS				
GC	0080	Cereal grains	0.3	Po	5/8
83	DICHLORAN				
FB	0269	Grapes	7		5/8
FS	0245	Nectarine	7	Po	5/8
FS	0247	Peach	7	Po	5/8
196	TEBUFENOZIDE				
MO	0105	Edible offal (mammalian)	0.02	(*)	5/8
MM	0095	Meat (from mammals other than marine mammals)	0.05	(fat)	5/8
ML	0106	Milks	0.01	(*)	5/8

APPENDIX IV

DRAFT AND REVISED DRAFT MAXIMUM RESIDUE LIMITS FOR PESTICIDES
(Advanced at Step5 of the Codex Procedure)

			MRL (mg/kg)	Step	Note
27	DIMETHOATE				
VS	0620	Artichoke, Globe	0.05		5
VB	0402	Brussels sprouts	0.2		5
VB	0041	Cabbage, Head	2		5
VB	0404	Cauliflower	0.2		5
VS	0624	Celery	0.5		5
FC	0001	Citrus fruits	5		5
VL	0482	Lettuce, Head	5		5
FI	0545	Mango	1	Po	5
FT	0305	Olives	0.5		5
VO	0445	Peppers, sweet	5	Po	5
GC	0654	Wheat	0.05		5
AS	0654	Wheat straw and fodder, dry	1		5
37	FENITROTHION				
GC	0080	Cereal grains	10	Po	5
CM	0654	Wheat bran (unprocessed)	30	PoP	5
72	CARBENDAZIM				
VS	0621	Asparagus	0.2		5
FS	0013	Cherries	10	Th	5
VP	0526	Common bean (pods and/or immature seeds)	0.5	Th	5
FI	0345	Mango	5		5
SO	0697	Peanut	0.1	(*) Th	5
AL	0697	Peanut fodder	3	Th	5
VO	0444	Peppers, Chili	2		5
VD	0541	Soya bean (dry)	0.5	Th	5
VC	0431	Squash, Summer	0.5	Th	5
VR	0596	Sugar beet	0.1	(*) Th	5
AV	0596	Sugar beet leaves or tops	10	Th	5
84	DODINE				
FS	0013	Cherries	3		5
FS	0245	Nectarines	5		5
FS	0247	Peach	5		5
FP	0009	Pome fruits	5		5
86	PIRIMIPHOS-METHYL				
GC	0080	Cereal grains	7	Po	5
ML	0106	Milks	0.01		5
CM	0654	Wheat bran, Unprocessed	15	PoP	5
94	METHOMYL				
AL	1020	Alfalfa fodder	20		5
AL	1021	Alfalfa forage (green)	25		5
GC	0640	Barley	2		5
AL	61	Bean fodder	10		5
VP	61	Beans, except broad bean	1		5

		and soya bean		
VB	0040	Brassica vegetables	7	5
VS	0624	Celery	3	5
AB	0001	Citrus pulp, Dry	3	5
VC	0045	Fruiting vegetables, Cucurbits	0.1	5
FB	0269	Grapes	7	5
VL	0053	Leafy vegetables	30	5
AL	0528	Pea vines (green)	40	5
VR	0589	Potato	0.02	(*) 8
AL	1265	Soya bean forage (green)	40	5
GC	0654	Wheat	2	5
CM	654	Wheat bran, Unprocessed	3	5
CF	1211	Wheat flour	0.03	5
CF	1210	Wheat germ	2	5

95 ACEPHATE

VS	0620	Artichoke, Globe	0.3	5
VP	0061	Beans, except broad bean and soya bean	5	5
MO	0105	Edible offal (Mammalian)	0.05	5
PE	0112	Eggs	0.01	(*) 5
VB	0042	Flowerhead brassicas	2	5
FC	0003	Mandarins (incl Mandarin- like hybrids)	7	5
MM	0095	Meat (from mammals other than marine mammals)	0.05	5
ML	0106	Milks	0.02	5
FS	0245	Nectarine	2	5
FS	0247	Peach	2	5
VO	0051	Peppers	5	5
FP	0009	Pome fruit	7	5
PM	0110	Poultry meat	0.01	(*) 5
PO	0111	Poultry, Edible offal of	0.01	(*) 5
VD	0541	Soya bean (dry)	0.3	5

96 CARBOFURAN

GC	0645	Maize	0.05	(*) 5
AF	0645	Maize forage	0.2	5
VR	0589	Potato	0.2	5
VR	0596	Sugar beet	0.2	5
AV	0596	Sugar beet leaves or tops	0.7	5

100 METHAMIDOPHOS

VS	0620	Artichoke, Globe	0.2	(Ac) 5
VP	0061	Beans, except broad bean and soya bean	1	(Ac) 5
VB	0041	Cabbage, head	1	5
SO	0691	Cottonseed	0.2	5
MO	0105	Edible offal (Mammalian)	0.01	(*) 5
PE	0112	Eggs	0.01	(*) 5
VB	0042	Flowerhead brassicas	0.5	(Ac) 5
AV	1051	Fodder beet	30	5
AM	1051	Fodder beet leaves or tops	0.02	5
FC	0003	Mandarins	0.5	(Ac) 5
MM	0095	Meat (from mammals other than marine mammals)	0.01	(*) 5
ML	0106	Milks	0.02	5
FS	0245	Nectarine	0.5	(Ac) 5
FS	0247	Peach	0.5	(Ac) 5
VO	0051	Peppers	2	(Ac) 5
FP	0009	Pome fruit	0.5	(Ac) 5
VR	0587	Potato	0.05	5

PM	0110	Poultry meat	0.01	(*)	5
PO	0111	Poultry, Edible Offal of	0.01	(*)	5
VD	0541	Soya bean (dry)	0.1	(Ac)	5
VR	0596	Sugar beet	0.02		5
AV	0596	Sugar beet leaves or tops	30		5
VO	0448	Tomato	2		5

145 CARBOSULFAN

SO	0691	Cotton seed	0.05		5
MO	0105	Edible offal (Mammalian)	0.05	(*)	5
PE	0112	Eggs	0.05	(*)	5
GC	0645	Maize	0.05	(*)	5
AF	0645	Maize forage	0.05	(*)	5
MM	0095	Meat (from mammals other than marine mammals)	0.05	(*)	5
ML	0106	Milks	0.03	(*)	5
VR	0589	Potato	0.05	(*)	5
PM	0110	Poultry meat	0.05	(*)	5
PO	0111	Poultry, Edible offal of	0.05	(*)	5
AS	0649	Rice	0.05	(*)	5
VR	0596	Sugar beet	0.3		5
AV	0596	Sugar beet leaves or tops	0.05	(*)	5

162 TOLYLFUANID

VL	0482	Lettuce, Head	15		5
----	------	---------------	----	--	---

207 CYPRODINIL

AM	0660	Almond hulls	0.05	(*)	5
TN	0660	Almonds	0.02	(*)	5
FP	0226	Apple	0.05		5
GC	0640	Barley	3		5
VP	0061	Beans, except broad bean and soya bean	0.5		5
VC	0424	Cucumber	0.2		5
DF	0269	Dried grapes (= Currants, Raisins and Sultanas)	5		5
MO	0095	Edible offal (Mammalian)	0.01	(*)	5
VO	0440	Egg plant	0.2		5
PE	0112	Eggs ^{1/}	0.01	(*)	5
FB	0269	Grapes	3		5
VL	0482	Lettuce, Head	10		5
VL	0483	Lettuce, Leaf	10		5
MM	0095	Meat (from mammals other than marine mammals)	0.01	(*)	5
ML	0106	Milks	0.0004	(*)	5
VA	0385	Onion, Bulb	0.3		5
FP	0230	Pear	1		5
VO	0445	Peppers, Sweet	0.5		5
PM	0110	Poultry meat	0.01	(*)	5
				(fat)	
PO	0111	Poultry, Edible offal of	0.01	(*)	5
DF	0014	Prunes	5		5
FB	0272	Raspberries, Red, Black	0.5		5
FS	0012	Stone fruits	2		5
AS	0081	Straw and fodder (dry) of cereal grains	10		5
FB	0275	Strawberry	2		5
VC	0431	Squash, Summer	0.2		5
VO	0448	Tomatoes	0.5		5
GC	0654	Wheat	0.5		5
CM	0654	Wheat bran, unprocessed	2		5

208		FAMOXADONE			
GC	0640	Barley	0.2		5
AS	0640	Barley straw and fodder (dry)	5		5
VC	0424	Cucumber	0.2		5
FB	0269	Grape	2		5
AB	0269	Grape pomace dry	7		5
DF	0269	Dried grapes (raisin)	5		5
MO	0105	Edible offal (mammalian)	0.5		5
PE	0112	Eggs	0.01	(*)	5
MM	0095	Meat (from mammals other than marine mammals)	0.5	Fat	5
ML	0106	Milk	0.03	(F)	
VR	0589	Potato	0.02	(*)	
PM	0110	Poultry meat	0.01	(*)	
PM	0111	Poultry, edible offal	0.01	(*)	
VC	431	Summer squash	0.2		
VO	0448	Tomato	2		
GC	0654	Wheat	0.1		
CM	0654	Wheat bran, unprocessed	0.2		
AS	0654	Wheat straw	7		
209		METHOXYFENOZIDE			
AM	0660	Almond hulls	50		5
AB	0226	Apple pomace, dry	7		5
VB	0400	Broccoli	3		5
VB	0041	Cabbages, head	7		5
VS	0624	Celery	15		5
SO	0691	Cotton seed	7		5
DF	0269	Dried grapes (raisins)	3		5
MO	0105	Edible Offal (mammalian)	0.02		5
PE	0112	Eggs	0.01		5
FB	0269	Grapes	1		5
VL	0482	Lettuce, head	15		5
VL	0483	Lettuce, leaf	30		5
GC	0645	Maize	0.02	(*)	5
AS	0645	Maize fodder	60		5
AF	0645	Maize forage	50		5
MM	0095	Meat (for mammals other than marine mammals)	0.05	(fat)	5
ML	0106	Milks	0.01		5
VL	0485	Mustard greens	30		5
FP	0009	Pome fruit	2		5
VO	0051	Peppers	2		5
FP	0009	Pome fruits	2		5
PM	0110	Poultry meat	0.01	(*)	5
PO	0111	Poultry, edible offal of	0.01	(*)	5
DF	0014	Prunes (dried plums)	2		5
VL	0502	Spinach	50		5
FS		Stone fruit	2		5
VO	0447	Sweet corn (corn-on-the- cob)	0.02	(*)	5
VL	0448	Tomato	2		5
TN	0085	Tree nuts	0.1		5

APPENDIX V

**CODEX MAXIMUM RESIDUE LIMITS FOR PESTICIDES RECOMMENDED FOR
REVOCATION**

			MRL (mg/kg)	Step	Note
008	CARBARYL				
AL	1021	Alfalfa forage green	100	T	CXL-D
VS	621	Aspergus	10	T	CXL-D
					To be revoked once the related MRL(s) reach Step 8
FI	0327	Banana	5	T	CXL-D
GC	0640	Barley	5	T	CXL-D
AL	1030	Bean forage green	100		CXL-D
VR	0574	Beetroot	2		CXL-D
					To be revoked once the related MRL(s) reach Step 8
FB	0264	Blacberries	10	T	CXL-D
FB	0020	Blueberries	7	T	CXL-D
VB	0041	Cabbages, Head	5	T	CXL-D
VR	0577	Carrot	2	T	CXL-D
					To be revoked once the related MRL(s) reach Step 8
MM	0812	Cattle meat	0.2	T	CXL-D
AL	1023	Clover	100	T	CXL-D
VP	0526	Common bean (pods and/or immature seeds)	5	T	CXL-D
SO	0691	Cotton seed	1	T	CXL-D
VD	0527	Cowpea (dry)	1	T	CXL-D
FB	0265	Cranberry	7	T	CXL-D
VC	0424	Cucumber	3	T	CXL-D
FB	0266	Dewberries (including boysenberry and loganberry)	10	T	CXL-D
PE	0112	Eggs	0.5	T	CXL-D
VO	0440	Egg plant	5		CXL-D
					To be revoked once the related MRL(s) reach Step 8
MM	0814	Goat meat	0.2	T	CXL-D
AS	0162	Hay or fodder (dry) of grasses	100	T	CXL-D
FI	0341	Kiwuifruit	10	T	CXL-D
VL	0053	Leafy vegetables	10	T	CXL-D
AF	0645	Maize forage,	100	T	CXL-D
					To be revoked once the related MRL(s) reach Step 8
VC	0046	Mellons, except water mellons	3	T	CXL-D
AO3	0001	Milk products	0.1	T	CXL-D
ML	0106	Milks	0.1	T	CXL-D
					To be revoked once the related MRL(s) reach Step 8
AO5	1900	Nuts (whole in shell)	10	T	CXL-D
GC	0647	Oats	5	T	CXL-D
VO	0442	Okra	10	T	CXL-D
FT	0305	Olives	10	T	CXL-D
					To be revoked once the related MRL(s) reach Step 8
DM	0305	Olives, processed	1	T	CXL-D
VR	0588	Parsnip	2	T	CXL-D
AL	0528	Pea vines (green)	100	T	CXL-D
AL	0697	Peanut fodder	100	T	CXL-D
SO	0703	Peanut, Whole	2	T	CXL-D
VP	0063	Peas (pods and/or immature seeds)	5	T	CXL-D
FS	0014	Plums (including prunes)	10	T	CXL-D
VR	0589	Potato	0.2	T	CXL-D
PM	0110	Poultry meat	0.5	T	CXL-D

PO	0113	Poultry skin	5	T	CXL-D	
VC	0429	Pumpkins	3	T	CXL-D	
VR	0494	Radish	2	T	CXL-D	
FB	0272	Raspberries, Red, Black	10	T	CXL-D	
GC	0649	Rice	5	T	CXL-D	
GC	0649	Rice	50		St. 7D	
CM	0649	Rice, Husked	5	T	CXL-D	
GC	0650	Rye	5	T	CXL-D	
MM	0822	Sheep meat	0.2	T	CXL-D	
GC	0651	Sorghum	10	T	CXL-D	
AF	0651	Sorghum forage, green	20		CXL-D	To be revoked once the related MRL(s) reach Step 8
VD	541	Soya bean (dry)	1		CXL-D	To be revoked once the related MRL(s) reach Step 8
AL	1265	Soyabean forage (green)	100		CXL-D	To be revoked once the related MRL(s) reach Step 8
VC	0431	Squash, Summer	3	T	CXL-D	
FB	0275	Strawberry	7	T	CXL-D	
VR	0596	Suggar beat	0.2	T	CXL-D	
AV	0596	Suggar beat leaves or tops	100	T	CXL-D	
VR	0497	Swede	2	T	CXL-D	
VO	1225	Sweet corn (kernels)	1	T	CXL-D	
VO	0448	Tomato	5	T	CXL-D	To be revoked once the related MRL(s) reach Step 8
TN	0085	Tree nuts	1	T	CXL-D	To be revoked once the related MRL(s) reach Step 8
GC	0654	Wheat	5	T	CXL-D	
CM	0654	Wheat bran, unprocessed	20	T	CXL-D	To be revoked once the related MRL(s) reach Step 8
CF	1211	Wheat flour	0.2	T	CXL-D	
CF	1212	Wheat wholemeal	2	T	CXL-D	
VC	0433	Winter squash	3	T	CXL-D	
20	2,4-D					
FC	0001	Citrus fruits	2		CXL-D	
22	DIAZINON					
MM	97	Meat of cattle, pigs and sheep	0.7		CXL-D	To be revoked once the related MRL(s) reach Step 8
FP	9	Pome fruits	2		CXL-D	To be revoked once the related MRL(s) reach Step 8
34	ETHION					
FC	0081	Citrus fruits	5		CXL-D	
37	FENITROTHION					
CP	1211	White bread	0.2		CXL-D	
48	LINDANE					
VR	0577	Carrot	0.2		CXL-D	
PE	0112	Eggs	0.01		CXL-D	To be revoked once the related MRL(s) reach Step 8
PM	0110	Poultry meat	0.05		CXL-D	To be revoked once the related MRL(s) reach Step 8
SO	0495	Rape seed	0.05		CXL-D	
VR	0596	Sugar beet	0.1		CXL-D	
AV	0596	Sugar beet leaves or tops	0.1		CXL-D	
49	MALATHION					
FB	20	Blueberries	0.5		CXL-D	To be revoked once the related MRL(s) reach Step 8
CM	0654	Wheat bran, Unprocessed	20		CXL-D	
CF	1212	Wheat wholemeal	2		CXL-D	

55 OMETHOATE

Delete all proposed MRLs

60 PARATHION-METHYL

VB	41	Cabbages, Head	0.2	CXL-D	To be revoked once the related MRL(s) reach Step 8
VD	82	Peas (dry)	0.2	CXL-D	To be revoked once the related MRL(s) reach Step 8

64 PYRETHRINS

GC	0080	Cereal grains	3	CXL-D	To be revoked once the related MRL(s) reach Step 8
----	------	---------------	---	-------	----------------------------------------------------

74 DISULFOTON

VR	0589	Potato	0.5	CXL-D	
VR	0591	Radish Japanese	0.2	CXL-D	

83 DICHLORAN

FB	0269	Grapes	10	CXL-D	To be revoked once the related MRL(s) reach Step 8
VL	0428	Lettuce, Head	10	CXL-D	
FS	0247	Peach	15	CXL-D	To be revoked once the related MRL(s) reach Step 8
FS	0014	Plums (including prunes)	10	CXL-D	
FB	0275	Strawberry	10	CXL-D	
VO	0448	Tomato	0.5	CXL-D	

85 PENAMIPHOS

FI	327	Banana	0.1	CXL-D	To be revoked once the related MRL(s) reach Step 8
VB	402	Brussels sprouts	0.05	CXL-D	To be revoked once the related MRL(s) reach Step 8
VB	41	Cabbages, Head	0.05	CXL-D	To be revoked once the related MRL(s) reach Step 8

94 METHOMYL

AS	0640	Barley straw and fodder, dry	5	CXL-D	
VP	0526	Common bean (pods and/or immature seeds)	2	CXL-D	To be revoked once the related MRL(s) reach Step 8
SO	0691	Cotton seed	0.5	CXL-D	To be revoked once the related MRL(s) reach Step 8
VL	0480	Kale	5	CXL-D	
GC	0645	Maize	0.05	CXL-D	To be revoked once the related MRL(s) reach Step 8
AS	0645	Maize fodder	50	CXL-D	
AF	0645	Maize forage	50	CXL-D	To be revoked once the related MRL(s) reach Step 8
MM	0095	Meat (from mammals other than marine mammals)	0.02	CXL-D	To be revoked once the related MRL(s) reach Step 8
ML	0106	Milks	0.02	CXL-D	To be revoked once the related MRL(s) reach Step 8
FS	0245	Nectarine	5	CXL-D	To be revoked once the related MRL(s) reach Step 8
GC	0647	Oats	0.5	CXL-D	To be revoked once the related MRL(s) reach Step 8
FS	0247	Peach	5	CXL-D	To be revoked once the related MRL(s) reach Step 8
VR	0589	Potato	0.1	CXL-D	To be revoked once the related MRL(s) reach Step 8
VL	0502	Spinach	5	CXL-D	

96 CARBOFURAN

AS	0645	Maize fodder	5	CXL-D	
----	------	--------------	---	-------	--

SO	0088	Oilseed	0.1*	CXL-D	
CM	0649	Rice, husked	0.2	CXL-D	To be revoked once the related MRL(s) reach Step 8
100 METHAMIDOPHOS					
FS	0247	Peach	1	CXL-D	
FP	0009	Pome fruits	0.5	7	
VO	0448	Tomato	1	7	
103 PHOSMET					
TN	0085	Tree nuts	0.1	CXL-D	To be revoked once the related MRL(s) reach Step 8
113 PROPARGITE					
AL	1020	Alfalfa fodder	75	CXL-D	
AL	1021	Alfalfa forage (green)	30	CXL-D	
TN	0660	Almonds	0.1	CXL-D	To be revoked once the related MRL(s) reach Step 8
FP	0226	Apple	5	CXL-D	To be revoked once the related MRL(s) reach Step 8
JF	0226	Apple pomace, Dry	80	CXL-D	
FS	0240	Apricot	7	CXL-D	To be replaced by MRL for stone fruits
FC	0001	Citrus fruits	5	CXL-D	To be revoked once the related MRL(s) reach Step 8
AB	0001	Citrus pulp, Dry	40	CXL-D	To be revoked once the related MRL(s) reach Step 8
VP	0526	Common bean (pods and/or immature seeds)	20	CXL-D	
SO	0691	Cotton seed	0.1 (*)	CXL-D	To be revoked once the related MRL(s) reach Step 8
FB	0265	Cranberry	10	CXL-D	
VC	0424	Cucumber	0.5	CXL-D	
DF	0269	Dried grapes (=currants, raisins and sultanas)	10	CXL-D	To be revoked once the related MRL(s) reach Step 8
PE	0112	Eggs	0.1	CXL-D	To be revoked once the related MRL(s) reach Step 8
FT	0297	Fig	2	CXL-D	
FB	0269	Grapes	10	CXL-D	To be revoked once the related MRL(s) reach Step 8
DH	1100	Hops, dry	30	CXL-D	To be revoked once the related MRL(s) reach Step 8
AS	0645	Maize fodder	10	CXL-D	
AF	0645	Maize forage	10	CXL-D	
MM	0095	Meat (from mammals other than marine mammals)	0.1	CXL-D	
ML	0106	Milks	0.1	CXL-D	To be revoked once the related MRL(s) reach Step 8
AM	0738	Mint hay	50	CXL-D	
FS	0245	Nectarine	7	CXL-D	To be replaced by MRL for stone fruits
FS	0247	Peach	7	CXL-D	To be replaced by MRL for stone fruits
AL	0697	Peanut fodder	10	CXL-D	
AL	1270	Peanut forageo (green)	10	CXL-D	
GC	0651	Sorghum	5	CXL-D	
AF	0651	Sorghum forage (green)	10	CXL-D	
AS	0651	Sorghum straw and fodder, Dry	10	CXL-D	
DT	1114	Tea, Green, Black	10	CXL-D	To be revoked once the related MRL(s) reach Step 8

126 OXAMYL

FI	0327	Banana	0.2	CXL-D	
VP	0061	Beans, except broad bean and soya bean	0.2	CXL-D	
VS	0624	Celery	5	CXL-D	
SB	0716	Coffee beans	0.1	CXL-D	
GC	0645	Maize	0.05	CXL-D	
VA	0385	Onion, Bulb	0.05	CXL-D	
SO	0697	Peanut	0.1	CXL-D	To be revoked once the related MRL(s) reach Step 8
AL	0697	Peanut fodder	2	CXL-D	To be revoked once the related MRL(s) reach Step 8
FI	0353	Pineapple	1	CXL-D	
VR	0075	Root and tuber vegetables	0.1	CXL-D	To be revoked once the related MRL(s) reach Step 8
VD	0541	Soya Bean (dry)	0.1	CXL-D	
VC	0431	Squash, Summer	2	CXL-D	
GS	0659	Sugar cane	0.05	CXL-D	
VC	0432	Watermelon	2	CXL-D	

130 DIFLUBENZURON

FP	0226	Apple	1	CXL-D	To be replaced by MRL for pome fruits
VB	0402	Brussels sprouts	1	CXL-D	
VB	0041	Cabbages, Head	1	CXL-D	
FC	0001	Citrus fruits	1	CXL-D	To be revoked once the related MRL(s) reach Step 8
SO	0691	Cotton seed	0.2	CXL-D	
MO	0105	Edible offal (mammalian)	0.05	CXL-D	To be revoked once the related MRL(s) reach Step 8
MM	0095	Meat (from mammals other than marine mammals)	0.05	CXL-D	To be revoked once the related MRL(s) reach Step 8
ML	0106	Milks	0.05	CXL-D	To be revoked once the related MRL(s) reach Step 8
VO	0450	Mushrooms	0.1	CXL-D	To be revoked once the related MRL(s) reach Step 8
FP	0230	Pear	1	CXL-D	To be replaced by MRL for pome fruits
FS	0014	Plums (including prunes)	1	CXL-D	
PM	0110	Poultry meat	0.05	CXL-D	To be revoked once the related MRL(s) reach Step 8
VD	0541	Soya bean (dry)	0.1	CXL-D	
VO	0448	Tomato	1	CXL-D	

135 DELTAMETRIN

VS	0620	Artichoke, Globe	0.05	CXL-D	
FI	0327	Banana	0.05	CXL-D	
VD	0071	Beans (dry)	1	CXL-D	To be replaced by MRL for pulses
VB	0040	Brassica vegetables	0.2	CXL-D	To be replaced by MRL for flowerhead brassicas
VA	0036	Bulb vegetables, except fennel, bulb	0.1	CXL-D	To be replaced by the MRLs for leek and onion bulb
SB	0715	Cacao beans	0.05	CXL-D	
GC	0080	Cereal grains	1	CXL-D	To be revoked once the related MRL(s) reach Step 8
SB	0716	Coffee beans	2	CXL-D	
MO	0105	Edible offal (mammalian)	0.05	CXL-D	
PE	0112	Eggs	0.01	CXL-D	To be revoked once the related MRL(s) reach Step 8
VD	0561	Field pea (dry)	1	CXL-D	To be replaced by the MRL for pulses

FT	0297	Fig	0.01	CXL-D	
VO	0050	Fruiting vegetables other than cucurbit	0.2	CXL-D	
FB	0269	Grapes	0.05	CXL-D	To be revoked once the related MRL(s) reach Step 8
DH	1100	Hops, Dry	5	CXL-D	
FI	0341	Kiwifruit	0.05	CXL-D	
AL	0157	Legume animal feeds	0.5	CXL-D	
VP	0060	Legume vegetables	0.1	CXL-D	
VD	0533	Lentil (dry)	1	CXL-D	To be replaced by the MRL for pulses
FC	0003	Mandarins	0.05	CXL-D	
VC	0046	Melons, except watermelon	0.01	CXL-D	
ML	0106	Milks	0.02	CXL-D	To be revoked once the related MRL(s) reach Step 8
VO	0450	Mushrooms	0.01	CXL-D	To be revoked once the related MRL(s) reach Step 8
SO	0088	Oilseed	0.1	CXL-D	To be revoked once the related MRL(s) reach Step 8
SO	0088	Oilseed, except peanut	0.1	CXL-D	
FT	0305	Olives	0.1	CXL-D	To be revoked once the related MRL(s) reach Step 8
FC	0004	Oranges, Sweet, Sour	0.05	CXL-D	To be replaced by the MRL for citrus fruits
SO	0697	Peanut	0.01	CXL-D	
FI	0353	Pineapple	0.01	CXL-D	
FP	0009	Pome fruits	0.1	CXL-D	To be revoked once the related MRL(s) reach Step 8
PM	0110	Poultry meat	0.01	CXL-D	To be revoked once the related MRL(s) reach Step 8
PO	0111	Poultry, edible offal of	0.01	CXL-D	To be revoked once the related MRL(s) reach Step 8
VR	0075	Root and tuber vegetables	0.01	CXL-D	To be replaced by the MRLs for individual commodities
FS	0012	Stone fruits	0.05	CXL-D	To be replaced by the MRL for nectarine and peach
AS	0081	Straw and fodder (dry) of cereal grains	0.5	CXL-D	
FB	0275	Strawberry	0.05	CXL-D	To be revoked once the related MRL(s) reach Step 8
DT	1114	Tea, Green, Black	10	CXL-D	To be revoked once the related MRL(s) reach Step 8
FT	0312	Tree tomato	0.02	CXL-D	
CF	1211	Wheat flour	0.2	CXL-D	To be revoked once the related MRL(s) reach Step 8
CF	1212	Wheat wholemeal	1	CXL-D	To be revoked once the related MRL(s) reach Step 8
137	BENDIOCARB				
VR	0574	Beetroot	0.05	CXL-D	
MF	0812	Cattle fat	0.05	CXL-D	
MO	1280	Cattle kidney	0.2	CXL-D	
MM	0812	Cattle meat	0.05	CXL-D	
MO	0812	Cattle, Edible offal of	0.05	CXL-D	
PE	0112	Eggs	0.05	CXL-D	
GC	0645	Maize	0.05	CXL-D	
AS	0645	Maize fodder	0.05	CXL-D	
AF	0645	Maize forage	0.05	CXL-D	
ML	0106	Milks	0.05	CXL-D	
VR	0589	Potato	0.05	CXL-D	
PF	0111	Poultry fats	0.05	CXL-D	
PM	0110	Poultry meat	0.05	CXL-D	
PO	0111	Poultry, Edible offal of	0.05	CXL-D	

VR	0596	Sugar beet	0.05	CXL-D	
AV	0596	Sugar beet leaves or tops	0.05	CXL-D	
162	TOLYLFUANID				
FB	0021	Currants, Black, Red, White	5	CXL-D	To be revoked once the related MRL(s) reach Step 8
VC	0425	Gherkin	2	CXL-D	
FB	0275	Strawberry	3	CXL-D	To be revoked once the related MRL(s) reach Step 8
VO	0448	Tomato	2	CXL-D	
170	HEXACONAZOLE				
FP	0226	Apple		CXL-D	
FI	0327	Banana		CXL-D	
SB	0716	Coffee beans		CXL-D	
FB	0269	Grapes		CXL-D	
GC	0654	Wheat		CXL-D	
AS	0654	Wheat straw and fodder, Dry		CXL-D	
196	TEBUFENOZIDE				
MO	1280	Cattle kidney	0.02	CXL-D	Replaced by Eddible offal (mammalian)
MO	1281	Cattle liver	0.02	CXL-D	Replaced by Eddible offal (mammalian)
MM	812	Cattle meat	0.05	CXL-D	
ML	812	Cattle milk	0.01	CXL-D	

APPENDIX VI

DRAFT AND REVISED DRAFT MAXIMUM RESIDUE LIMITS FOR PESTICIDES*(Returned to Step 6 and 3 of the Codex Procedure)*

			MRL (mg/kg)	Step	Note
007	CAPTAN				
FP	226	Apple	20	6	
FS	13	Cherries	25	6	
VC	424	Cucumber	3	6	
DF	269	Dried grapes (=currants, raisins and sultanas)	50	6	
FB	269	Grapes	25	6	
VC	046	Melons, except watermelon	10		
FS	245	Nectarine	3	6	
FSO	247	Peach	20		
FS	14	Plums (including prunes)	10	6	
FP	9	Pome fruits	15	6	
FB	272	Raspberries, Red, Black	20	6	
FB	275	Strawberry	15		
VO	448	Tomato	5	6	
008	CARBARYL				
FS	0013	Cherries	20	6	
FC	0001	Citrus fruits	15	6	
JF	0001	Citrus juice	0.5	6	
AB	0001	Citrus pulp, dry	4	6	
DF	0269	Dried grapes (=currants, raisins and sultanas)	50	6	
FB	0269	Grapes	40	6	
JF	0269	Grape juice	30	6	
AB	0269	Grape pomace, dry	80	6	
FS	0012	Stone fruits	10	6	
22	DIAZINON				
VB	41	Cabbages, Head	0.5	6	
27	DIMETHOATE				
GC	640	Barley	2	6	
FB	0269	Grapes	2	6	
VP	63	Peas (pods and succulent=immature seeds)	1	6	
FS	14	Plums (including prunes)	1	6	
FP	9	Pome fruits	0.5	6	
AV	596	Sugar beet leaves or tops	0.1	6	
VO	448	Tomato	2	6	
VL	506	Turnip, Greens	1	6	
VR	506	Turnip, Garden	0.1	6	
41	FOLPET				
FP	226	Apple	10	6	
DF	269	Dried grapes (=currants, raisins and sultanas)	40	6	
FB	269	Grapes	10	6	
VL	482	Lettuce, Head	50	6	
FB	275	Strawberry	5	6	
VO	448	Tomato	3	6	
49	MALATHION				
AL	1020	Alfalfa fodder	200	6	

AL	1021	Alfalfa forage (green)	500	(dry)	6
AL	1023	Clover	500	(dry)	6
AL	1031	Clover hay or fodder	150		6
SO	691	Cotton seed	20		6
OC	691	Cotton seed oil, Crude	13		6
OR	691	Cotton seed oil, Edible	13		6
AF	162	Grass forage	200		6
AS	162	Hay or fodder *dry) of grasses	300		6
GC	645	Maize	0.05		6
AS	645	Maize fodder	50		6
AF	645	Maize forage	10	(dry)	6
GC	651	Sorghum	3		6
GC	654	Wheat	0.5		6
CF	1211	Wheat flour	0.2		6
AF	654	Wheat forage (whole plant)	20	dry wt	6
AS	654	Wheat straw and fodder, Dry	50		6
61 PARATHION-METHYL					
AL	1020	Alfalfa fodder	70		6
AL	1021	Alfalfa forage (green)	70		6
AL	1030	Bean forage (green)	1	Fresh wt	6
SO	691	Cotton seed	25		6
OC	691	Cotton seed oil, Crude	10		6
OR	691	Cotton seed oil, Edible	10		6
AS	162	Hay or fodder (dry) of grasses	5		6
GC	645	Maize	0.1		6
CF	1255	Maize flour	0.05		6
OC	645	Maize oil, Crude	0.2		6
OR	645	Maize oil, Edible	0.1		6
AL	82	Pea hay or pea fodder (dry)	80		6
AL	528	Pea vines (green)	40		6
SO	495	Rape seed	0.05		6
OC	495	Rape seed oil, Crude	0.2		6
OR	495	Rapeseed oil, Edible	0.2		6
AV	0596	Sugar beat leaves or tops	0.05	(*) fresh wt	6
GC	654	Wheat	5		6
CM	654	Wheat bran, Unprocessed	10		6
CF	1211	Wheat flour	2		6
AS	0654	Wheat and straw fodder, dry	10		6
65 THIABENDAZOLE					
VO	450	Mushrooms	60		6
FC	001	Citrus fruits	3	Po	6
73 CARBENDAZIM					
FI	0327	Banana	0.2		6
GC	0640	Barley	0.5		6
AS	0640	Barley straw and fodder	2		6
VD	0071	Beans (dry)	0.5		6
FB	0018	Berries and other small fruits	1		6
VR	0577	Carrot	0.2		6
MM	0812	Cattle meat	0.05	(*)	6
PF	0840	Chicken fat	0.05	(*)	6
VC	0424	Cucumber	0.05	(*)	6
MO	0105	Eddible offal (mammalian)	0.05	(*)	6
PE	0112	Eggs	0.05	(*)	6
VP	0529	Garden pea, Shelled	0.02		6

Except grapes

VC	0425	Gherkin	0.05	(*)	6
FB	0269	Grapes	3		6
VL	0482	Lettuce, Head	5		6
ML	0106	Milks	0.05	(*)	6
FC	0004	Oranges, Sweet, Sour	1		6
VO	0051	Peppers	0.1	Th	6
PM	0110	Poultry meat	0.05	(*)	6
SO	0495	Rape seed	0.05	(*)	6
AS	0649	Rice straw and fodder, Dry	15		6
CM	0649	Rice, Husked	2		6
GC	0649	Rye	0.05		6
GC	0654	Wheat	0.05	(*)	6
AS	0654	Wheat and straw fodder, Dry	1		6
74 DISULFOTON					
VB	0400	Broccoli	0.1		6
VB	0041	Cabbages, Head	0.2		6
VB	0404	Cauliflower	0.05		6
VL	0482	Lettuce, Head	1		6
VL	0483	Lettuce, Leaf	1		6
85 PENAMIPHOS					
VO	51	Peppers	0.5		6
VO	448	Tomato	0.5		6
VC	432	Watermelon	0.05	(*)	6
90 CHLORPYRIFOS-METHYL					
GC	0640	Barley	10		6
GC	0647	Oats	10		6
GC	0649	Rice	10	Po	6
94 METHOMYL					
FP	0226	Apple	2		6
FP	0230	Pear	0.3		6
96 CARBOFURAN					
VC	4199	Cantaloupe	0.2		6
VC	0424	Cucumber	0.3		6
FC	0206	Mandarin	0.5		6
FC	0004	Oranges, Sweet, Sour	0.5		6
VC	0431	Squash, Summer	0.3		6
VO	0447	Sweet corn (corn-on-the- cob)	0.1		6
103 PHOSMET					
FS	0240	Apricot	10		6
FB	0020	Blueberries	15		6
FC	0001	Citrus fruits	3		6
FS	0245	Nectarine	10		6
FP	0230	Pome fruit	10		6
117 ALDICARB					
FI	327	Banana	0.2		6
VR	0589	Potato	0.5		6
126 OXAMYL					
FC	0001	Citrus fruits	3		6
VC	0424	Cucumber	1		6
VC	0046	Melons, except watermelon	1		6
VO	0051	Peppers	5		6

Originate from the use of carbosulfan
Originate from the use of carbosulfan

135	DELTAMETRIN			
VL	0053	Leafy vegetables	2	6
145	CARBOSULFAN			
AB	0001	Citrus pulp, Dry	0.1	6
FC	206	Mandarin	0.1	6
FC	0004	Oranges, Sweet, Sour	0.1	6
166	OXYDEMETON-METHYL			
FP	0226	Apple	0.05	6
GC	0640	Barley	0.05	(*) 6
AS	640	Barley straw and fodder, Dry	2	6
VB	0041	Cabbages, Head	0.05	(*) 6
MF	0812	Cattle fat	0.05	(*) 6
VD	526	Common bean (dry)	0.1	6
SO	0691	Cotton seed	0.05	6
PE	0112	Eggs	0.05	(*) 6
FB	0269	Grapes	0.1	6
VL	0480	Kale	0.01	(*) 6
VB	0405	Kohlrabi	0.05	6
FC	0204	Lemon	0.2	6
MM	0097	Meat of cattle, pigs & sheep	0.05	(*) 6
ML	0106	Milks	0.01	(*) 6
FC	0004	Oranges, Sweet, Sour	0.2	6
FP	0230	Pear	0.05	6
MF	0818	Pig fat	0.05	(*) 6
VR	0589	Potato	0.05	(*) 6
PF	0111	Poultry fats	0.05	(*) 6
PM	0110	Poultry meat	0.05	(*) 6
GC	650	Rye	0.05	6
AS	650	Rye straw and fodder, Dry	2	6
MF	0822	Sheep fat	0.05	(*) 6
VR	0596	Sugar beet	0.05	(*) 6
AV	0596	Sugar beet leaves or tops	0.05	(*) 6
GC	0654	Wheat	0.05	(*) 6
AS	654	Wheat straw and fodder, Dry	2	6
193	FENPYROXIMATE			
FP	226	Apple	0.3	6
FB	269	Grapes	1	6
FC	4	Oranges, Sweet, Sour	0.2	6
203	SPINOSAD			
ML	0812	Cattle milk	1	6
204	ESFENVALERATE			
SO	0691	Cotton seed	0.05	6
VO	0448	Tomato	0.1	6
GC	0654	Wheat	0.05	6

APPENDIX VII

**PROPOSED DRAFT GUIDELINES ON THE USE OF MASS SPECTROMETRY (MS) FOR
IDENTIFICATION, CONFIRMATION AND QUANTITATIVE DETERMINATION OF RESIDUES
- At Step 3 of the Codex Procedure**

Confirmatory Tests

When analyses are performed for monitoring or enforcement purposes, it is particularly important that confirmatory data are generated before reporting on samples containing residues of pesticides that are not normally associated with that commodity, or where MRLs appear to have been exceeded. Samples may contain interfering chemicals that may be misidentified as pesticides. Examples in gas chromatography include the responses of electron-capture detectors to phthalate esters and of phosphorus-selective detectors to compounds containing sulphur and nitrogen.

Analysis of pesticide residues with multi-residue methods generally consists of two phases: screening and confirmation. The process is schematically depicted in Fig. 2. The first phase comprises establishment of those pesticide residues that are likely to be present from interpreting the raw data, avoiding false negatives as much as possible. The second phase is the confirmation, which focuses on the pesticides found in phase 1. The use of the results to be reported, and consequent management decision determines the efforts put in the confirmatory process. The choice of the technique used for confirmation depends on their availability, time and cost. They are based on, either further interpretation of chromatographic and mass spectrometric data, or alternative methods using different physico-chemical properties of the compound, the combination of various separation and detection methods. Some alternative procedures for confirmation are given in Table 6.

Whenever chromatographic techniques are used in screening or confirmation proper settings of the retention time windows is pivotal. Care should be taken that the instrument is adjusted correctly before starting the analysis, a system suitability test should be performed prior to each batch of analysis¹. Retention times data base should be adjusted for the current conditions². In phase 1 tolerance intervals of 1.5 to 3% of the absolute retention time may be applied for capillary GC depending on the peak shape. For confirmation of the retention time the absolute tolerance intervals will increase at higher retention time. The tolerance interval should be less than 1 sec for an RT less than 500 sec. For retention times between 500 and 5000 sec. an interval of 0.2% RRT is recommended. For higher retention times 6 sec. is a suitable interval.

Confirmatory tests may be quantitative and/or qualitative but, in most cases, both types of information will be required. Particular problems occur when residues must be confirmed at or about the limit of determination but, although it is difficult to quantify residues at this level, it is essential to provide adequate confirmation of both level and identity.

The need for confirmatory tests may depend upon the type of sample or its known history. In some crops or commodities, certain residues are frequently found. For a series of samples of similar origin, which contain residues of the same pesticide, it may be sufficient to confirm the identity of residues in a small proportion of the samples selected randomly. Similarly, when it is known that a particular pesticide has been applied to the sample material there may be little need for confirmation of identity, although a number of randomly selected results should be confirmed. Where "blank" samples are available, these should be used to check the occurrence of possible interfering substances.

The necessary steps to positive identification are a matter of judgement on the analyst's part and particular attention should be paid to the choice of a method that would minimise the effect of interfering compounds. The technique(s) chosen depend(s) upon the availability of suitable apparatus and expertise within the testing laboratory.

¹ Soboleva E. Ambrus A., Application of system suitability test for quality assurance and performance optimization of a gas chromatographic system for pesticide residue analysis, *J. Chromatogr. A.* 1027. 2004. 55-65.

² Lantos J., Kadenczki L., Zakar F., Ambrus A. Validation of gas chromatographic Databases for qualitative identification of active ingredients of pesticide residues in Fajgelj A. Ambrus A. (eds) *Principles of Method Validation*, Royal Society of Chemistry, Cambridge, 2000, pp 128-137.

Gas Chromatography/Mass spectrometry (GC/MS)

Residue data obtained using mass spectrometry can represent the most definitive evidence and, where suitable equipment is available, it is the confirmatory technique of choice. The technique is also used commonly for residue screening purposes (phase 1). Mass spectrometric determination of residues is usually carried out in conjunction with a chromatographic separation technique to provide retention time ion mass/charge ratio and abundance data simultaneously. Quantitative transmission of labile analytes through the chromatographic system is subject to problems similar to those experienced with other detectors. For quantification, the ions monitored should be those that are the most specific to the analyte, are subject to least interference and provide good signal-to-noise ratio.

When using selected ion monitoring (SIM), tolerance intervals of ion ratios and retention times based on injection of pesticide standard in pure solvent at the concentration close to critical level should have been established at this point. The tolerance intervals for the ion ratios should be within the limits of $\pm 30\%$ of absolute ion abundances ratios. When 2 (or 3) selected ion ratios are within the established tolerance intervals the residue is confirmed³. For a small number of pesticides the mass spectrum may only exhibit one specific ion. In this case alternative confirmation should be sought.

When the ions detected still indicate the possible presence of a residue the result may be reported as tentatively identified. However, when the result would lead to regulatory action, further confirmation of analyte identity shall be sought. This can be achieved with the same GC-MS equipment, by injecting matrix-matched standards of the suspected analyte, in order to compensate for matrix influence on ion ratios. In this case subsequent injections of matrix matched standard and suspected sample has to be made. The deviation of RRT of analyte in standard and suspected peak in sample should typically be less than 0.1%. Two ion ratios measured in a sample should be within the tolerance interval calculated based on the ion ratios in matrix-matched standard. The residue is considered to be confirmed if it complies with the general rule stated above. If the ion ratios are not within the tolerance intervals, additional confirmation of identity may be obtained by the use of alternative analytical techniques, examples are listed in Table 6.

Further confirmation by mass spectrometry can be accomplished by acquisition of the "complete electron-impact mass spectrum (in practice generally from m/z 50 to beyond the molecular ion region. The absence of interfering ions is an important consideration in confirming identity. Additional confirmation of identity may be obtained by (i) the use of an alternative chromatographic column; (ii) by the use of an alternative ionisation technique (eg chemical ionization); (iii) by monitoring further reaction products of selected ions by tandem mass spectrometry (MS/MS or MSⁿ); or (iv) by monitoring selected ions at increased mass resolution.

Mass spectrometric determinations should satisfy similar analytical quality control criteria to those applied to other systems.

HPLC and HPLC-MS

Confirmation of residues detected following separation by HPLC is generally more problematic than where gas chromatography is used. If detection is by UV absorption, production of a complete spectrum can provide good evidence of identity. However, UV spectra of some pesticides are poorly diagnostic, being similar to those produced by many other compounds possessing similar functional groups or structures, and co-elution of interfering compounds can create additional problems. UV absorption data produced at multiple wavelengths may support or refute identification but, in general, they are not sufficiently characteristic on their own. Fluorescence data may be used to support those obtained by UV absorption. LC-MS can provide good supporting evidence but, because the spectra generated are generally very simple, showing little characteristic fragmentation, results produced from LC-MS are unlikely to be definitive. LC-MS/MS is a more powerful technique, combining selectivity with specificity, and often provides good evidence of identity. LC-MS techniques tend to be subject to matrix effects, especially suppression, and therefore confirmation of quantity may require the use of standard addition or isotopically-labelled standards. Derivatisation may also be used for confirmation of residues detected by HPLC (Table 6).

Thin Layer Chromatography (TLC)

In some instances, confirmation of gas chromatographic findings is most conveniently achieved by TLC.

³ Soboleva E. Ahad K. Ambrus A. Applicability of some MS criteria for the confirmation of pesticide residues, <http://www.iaea.org/trc>

Identification is based on two criteria, Rf value and visualisation reaction. Detection methods based on bioassays (e.g. enzyme -, fungal growth or chloroplast inhibition) are especially suitable for qualitative confirmation as they are specific to certain type of compounds, sensitive and normally very little affected by the co-extracts^{4,5}. The scientific literature contains numerous references to the technique⁶. The quantitative aspects of thin-layer chromatography are, however, limited. A further extension of this technique involves the removal of the area on the plate corresponding to the Rf of the compound of interest followed by elution from the layer material and further chemical or physical confirmatory analysis. A solution of the standard pesticide should always be spotted on the plate alongside the sample extract to obviate any problems of non-repeatability of Rf. Over-spotting of extract with standard pesticide can also give useful information. The advantages of thin layer chromatography are speed, low cost and applicability to heat sensitive materials; disadvantages include (usually) lower sensitivity and separation power than instrumental chromatographic detection techniques and need for more efficient cleanup in case of detections based on chemicals colour reactions.

Derivatisation

When selecting ions for GC/MS confirmation based on a derivative, the selected ions must be structurally significant for the residue and not only represent fragments of the derivatizing agent. Whereas derivatisation might be a valuable way to confirm the identity of a residue, it should be taken into account that it will also add an extra element to the uncertainty of a quantitative confirmation .

This area of confirmation may be considered under three broad headings.

(a) Chemical reactions

Small-scale chemical reactions resulting in degradation, addition or condensation products of pesticides, followed by re-examination of the products by chromatographic techniques, have frequently been used. The reactions result in products possessing different retention times and/or detector response from those of the parent compound. A sample of standard pesticide should be treated alongside the suspected residue so that the results from each maybe directly compared. A fortified extract should also be included to prove that the reaction has proceeded in the presence of sample material. Interference may occur where derivatives are detected by means of properties of the derivatising reagent. A review of chemical reactions which have been used for confirmatory purposes has been published by Cochrane, W.P. (Chemical derivatisation in pesticide analysis, Plenum Press, NY (1981)). Chemical reactions have the advantages of being fast and easy to carry out, but specialised reagents may need to be purchased and/or purified.

(b) Physical reactions

A useful technique is the photochemical alteration of a pesticide residue to give one or more products with a reproducible chromatographic pattern. A sample of standard pesticide and fortified extract should always be treated in a similar manner. Samples containing more than one pesticide residue may give problems in the interpretation of results. In such cases pre-separation of specific residues may be carried out using TLC, HPLC or column fractionation prior to reaction.

(c) Other methods

Many pesticides are susceptible to degradation/transformation by enzymes. In contrast to normal chemical reactions, these processes are very specific and generally consist of oxidation, hydrolysis or de-alkylation. The conversion products possess different chromatographic characteristics from the parent pesticide and may be used for confirmatory purposes if compared with reaction products using standard pesticides.

⁴ Ambrus^{1*} Á., Füzesi² I.; Susán² M.; Dobi³ D., Lantos⁴ J., Zakar⁵ F., Korsós⁴ I., Oláh³ J., Beke³ B.B., and L. Katavics⁵
A cost effective screening methods for pesticide residue analysis in fruits, vegetables and cereal grains, J. Environ Sci. Health B39 **2004** *accepted for publication*.

⁵ Ambrus Á.; Füzesi I.; Lantos J.; Korsos I.; Hatfaludi T. Repeatability and Reproducibility of Rf and MDQ Values with Different TLC Elution and Detection Systems. J. Environ Sci. Health B39 **2004** *accepted for publication*.

⁶ IUPAC Report on Pesticides (13) (Bátora, V., Vitorovic, S.Y., Thier, H.-P. and Klisenko, M.A.; Pure & Appl. Chem., 53, 1981, 1039-1049

Table 6. Detection methods suitable for screening (Phase 1) and confirmation (Phase 2) of residues.

	Phase 1 - Screening								
	GC with capillary column – ECD, NPD, FPD, PFPD	GC-MS	LC-MS	LC-DAD or scanning UV	LC-UV/VIS (single wavelength)	LC-fluorescence	GC with packed column – ECD, NPD, FPD	TLC – enzyme -, fungal growth or chloroplast inhibition	
Phase 2, confirmation	GC – capillary column – ECD, NPD, FPD, PFPD	X ¹	X ¹	X	X	X	X	X	X
	GC-MS	X	X ¹ ₂	X	X	X	X	X	X
	LC-MS	X	X		X	X	X	X	X
	Full scan techniques	X	X	X	X	X	X	X	X
	(MS) ⁿ , HRMS, alternative ionisation techniques	X	X	X	X	X	X	X	X
	LC-DAD or scanning UV	X	X	X		X	X	X	X
	LC-UV/VIS (single wavelength)	X	X				X	X	X
	LC-fluorescence	X	X		X	X		X	X
	TLC – enzyme, fungal growth or chloroplast inhibition	X	X	X	X	X	X	X	X ² ₃
	Derivatisation	X	X	X	X	X	X	X	X
	Specific isomers profile	X	X	X	X	X	X	X	

1 – Either the column of different polarity, which results in different elution order of the residues and contaminants eluting in the vicinity to the peak of interest, or another specific detector shall be used.

2- The same GC-MS technique can be used for the phase 2 (confirmation) if different ions are selected or tolerance intervals are established based on matrix matched solutions.

3 – Mobile or stationary phase of different polarity shall be used.

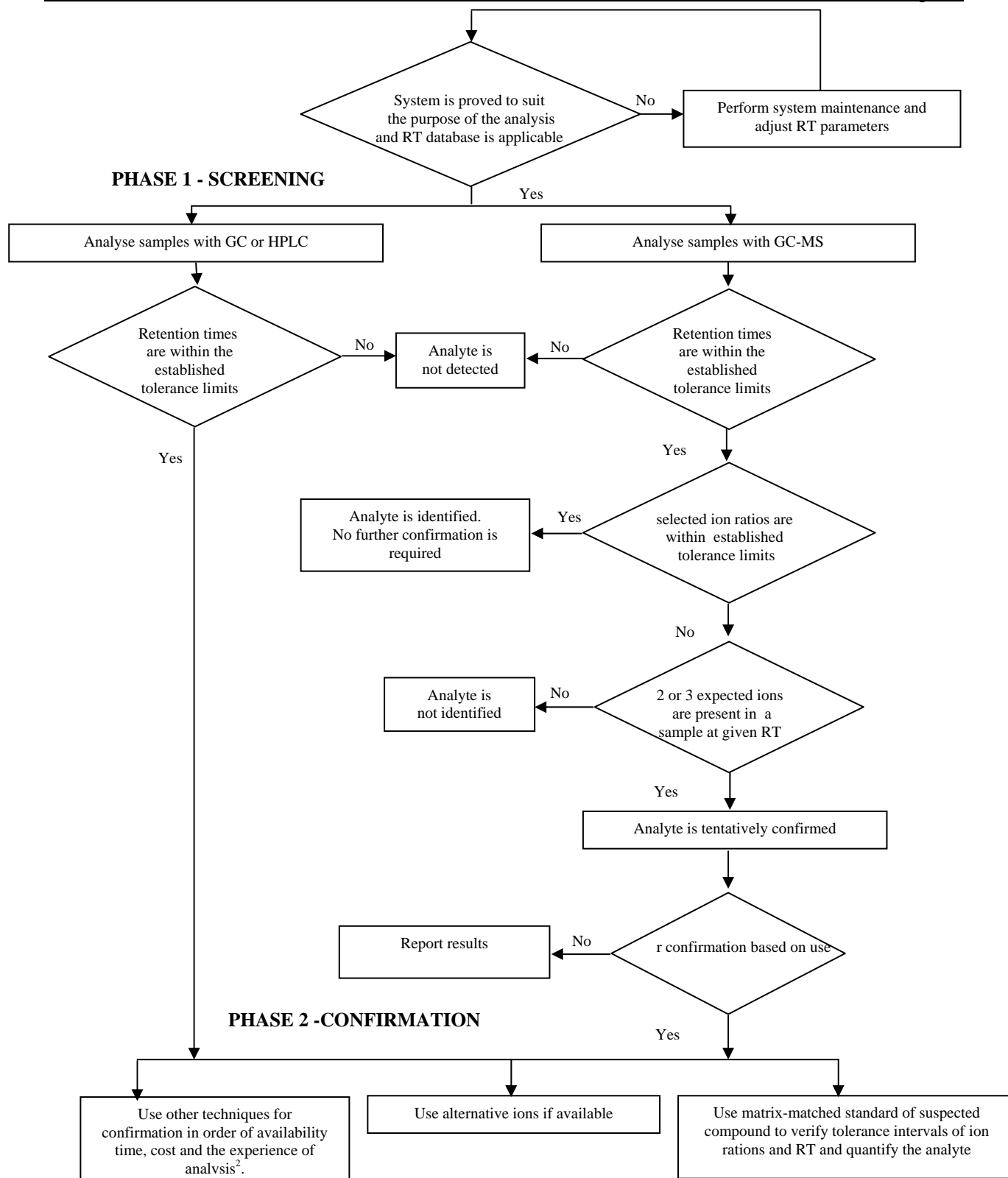


Figure 2. Schematic Representation of Screening and Confirmation (Phase 1 and Phase 2) for Pesticide Residues

1 - Unusual values including banned substances, MRL violation or study requirements as in e.g. exposure assessment

2 – Refer to table 6 for other means of confirmation

3 - For a small number of pesticides the mass spectrum may only exhibit one specific ion. In this case alternative confirmation should be sought.

APPENDIX VIII

**PROPOSED DRAFT GUIDELINES ON ESTIMATION OF UNCERTAINTY OF RESULTS
- At Step 3 of the Codex Procedure**

1. INTRODUCTION

According to the CCMAS guidelines on measurement uncertainty at step 5 of the Codex procedure, it is a requirement under ISO/IEC 17025 that laboratories determine and make available the uncertainty associated with each analytical method and result. To this end, food laboratories operating under Codex guidelines should have available considerable data derived from method validation /verification, inter-laboratory studies and in-house quality control activities, which can be applied to estimate the uncertainties particularly for the routine methods undertaken in the laboratory.

1.1 CONCEPT AND COMPONENTS OF UNCERTAINTY

Measurement uncertainty refers to the ‘uncertainty’ associated with data generated by a measurement process. In analytical chemistry, it generally defines the uncertainty associated with the laboratory process but may also include an uncertainty component associated with sampling and qualitative confirmation.

The uncertainty ‘estimate’ therefore describes the range around a reported or experimental result within which the true value can be expected to lie within a defined level of probability. This is a different concept to measurement error which can be defined as the difference between an individual result and the true value. The reporting of uncertainty is intended to provide a higher level of confidence in the validity of the reported result.

Contributions to data uncertainty are manifold and described in detail in Tables 1 and 2. The evaluation of uncertainty ideally requires an understanding and estimation of the contributions to the uncertainty of each of the activities involved in the measurement process.

2. IDENTIFICATION OF UNCERTAINTY SOURCES

In general, the uncertainty of measurements is comprised of many components, arising from activities involved with the sample. The uncertainty of an analytical result is influenced by three major phases of the determination:

- External operations: sampling (S_S), packing, shipping and storage of samples⁷;
- Preparation of test portion: sample preparation and sample processing (S_{Sp});
- Analysis (S_A): extraction, cleanup, evaporation, derivatisation, instrumental determination

The combined standard (S_{Res}) and relative (CV_L) uncertainty may be calculated according to the error propagation law:

$$S_{Res} = \sqrt{S_S^2 + S_{Sp}^2 + S_A^2} ; S_{Res} = \sqrt{S_S^2 + S_L^2} \quad (1)$$

If the whole sample is analysed the mean residue remains the same and the equation can be written as:

$$CV_{Res} = \sqrt{CV_S^2 + CV_L^2} \text{ and } CV_L = \sqrt{CV_{Sp}^2 + CV_A^2} \quad (2)$$

2.1 ERRORS IN ANALYTICAL MEASUREMENTS

In most measurements we can distinguish between three types of errors: gross, random and systematic errors.

⁷ Packing, shipping, storage, and laboratory preparation of samples may have significant influence on the residues detected, but their contribution to the uncertainty can often not be quantified based on the current information. Examples of such errors are eg selection of sampling position, time of sampling, Incorrect labelling decomposition of analytes or contamination of the sample

Gross errors refer to unintentional/unpredictable errors while generating the analytical result. Errors of this type invalidate the measurement. Laboratory quality assurance procedures should minimize gross errors. It is not possible or desirable to statistically evaluate and include the gross errors in the estimation of uncertainty. They need no further discussion in this document.

Random errors are present in all measurements, and cause replicate results to fall on either side of the mean value. The random error of a measurement cannot be compensated for, but increasing the number of observations and training of the analyst may reduce the effects.

Systematic errors occur in most experiments, but their effects are quite different. The sum of all the systematic errors in an experiment is referred to as the bias. Since they do not sum to zero over a large number of measurements, individual systematic errors cannot be detected directly by replicate analyses. The problem with systematic errors is that they may go undetected unless appropriate precautions are taken. In practice, systematic errors in an analysis can only be identified if the analytical technique is applied to a reference material, the sample is analysed by another analyst or preferably in another laboratory, or by re-analysing the sample by another analytical method. However, only if the reference material matches identically in terms of analyte, matrix, and concentration does it meet the ideal conditions for determining the bias of the method. The bias of a method may also be investigated by recovery studies. However, recovery studies assess only the effects of analysis (S_A) and do not necessarily apply to naturally incurred samples, or components of the bias that may be introduced prior to the analytical step. In pesticide analysis, results are not normally corrected for the recovery, but should be corrected if the average recovery is significantly different from 100%. If the result has been corrected for recovery, the uncertainty associated with recovery should be incorporated in the uncertainty estimation of the measurement.

Some examples of sources of errors are illustrated in Tables 1 and 2. It should be noted that not all sources mentioned have to be evaluated in the uncertainty estimation. Some sources are already incorporated in the overall uncertainty, while others are negligible and may be disregarded. However, it is important to recognise and assess all sources before elimination. Further information may be obtained from published documents^{8,9}.

⁸ EURACHEM Guide to Quantifying Uncertainty in Analytical Measurements, 2nd ed. 1999, <http://www.measurementuncertainty.org>

⁹ Ambrus A. Reliability of residue data, Accred. Qual. Assur. 9, pp. xx. 2004

Table 1: Sources of error in preparation of the test portion

	Sources of systematic error	Sources of random error
Sample preparation	The portion of sample to be analysed (analytical sample) may be incorrectly selected	The analytical sample is in contact and contaminated by other portions of the sample
		Rinsing, brushing is performed to various extent, stalks and stones may be differentially removed
Sample processing (S_{Sp})	Decomposition of analyte during sample processing, cross contamination of the samples	Non homogeneity of the analyte in single units of the analytical sample
		Non homogeneity of the analyte in the ground/chopped analytical sample
		Variation of temperature during the homogenisation process
		Texture (maturity) of plant materials affecting the efficiency of homogenisation process

Table 2: Sources of error in analysis (S_A):

	Sources of systematic error	Sources of random error
Extraction/Clean up	Incomplete recovery of analyte	Variation in the composition (e.g. water, fat, and sugar content) of sample materials taken from a commodity
	Interference of co-extracted materials (load of the adsorbent)	Temperature and composition of sample/solvent matrix
Quantitative determination	Interference of co-extracted compounds	Variation of nominal volume of devices within the permitted tolerance intervals
	incorrect purity of analytical standard	Precision and linearity of balances
	Biased weight/volume measurements	Incomplete and variable derivatisation reactions
	Operator bias in reading analogue instruments, equipment	Changing of laboratory-environmental conditions during analysis
	Determination of substance which do not originate from the sample (e.g. contamination from the packing material)	Varying injection, chromatographic and detection conditions (matrix effect, system inertness, detector response, signal to noise variation etc.)
	Determination of substance differing from the residue definition	Operator effects (lack of attention)
	Biased calibration	Calibration

3. PROCEDURES FOR ESTIMATING MEASUREMENT UNCERTAINTY

Whilst there are a number of options available to laboratories for the estimation of measurement uncertainty, there are two preferred procedures described commonly as the ‘bottom up’ approach and the ‘top down’ approach^{1, 10}

The bottom-up method:

The bottom up or component-by-component approach incorporates an activity-based process whereby the analyst breaks down all the analytical operations into primary activities. These are then combined or grouped

¹⁰ ISO, Guide to the Expression of Uncertainty in Measurement, ISO. Geneva, 1993

into common activities and an estimate made of the contribution of these activities to the combined uncertainty value of the measurement process. The bottom up approach can be very laborious and requires a detailed knowledge of the whole analytical process. The benefit to the analyst is that this approach provides a clear understanding of the analytical activities which contribute significantly to the measurement uncertainty and which therefore may be assigned as critical control points to reduce or manage measurement uncertainty in future applications of the method.

The top-down method:

The top down approach is based on method validation and long-term precision data derived from laboratory control samples, proficiency testing results, published literature data and/or inter-laboratory collaborative trials. Uncertainty estimates based on inter-laboratory studies may also take into account the between-laboratory variability of the data and is likely to provide the most reliable estimate of the method performance and the uncertainty associated with its application. It is important to acknowledge however that collaborative studies are designed to evaluate the performance of a specific method and participating laboratories. They normally do not evaluate imprecision due to sample preparation or processing as the samples generally tend to be highly homogenized.

Pesticide residue analytical laboratories normally look for over 200 residues in numerous commodities that lead to practically infinite number of combinations. Therefore it is recommended that, for estimating the uncertainty associated with multi residue procedures, laboratories use a properly selected range of analytes and sample matrices which represents the residues and commodities to be analysed in terms of physical chemical properties and composition according to the relevant parts of the *Revised Guidelines on Good Laboratory Practice* instead of establishing the uncertainty for each method/analyte/matrix combination.

In summary, laboratories should use either their own long-term precision data or the activity-based procedure (component by component calculation) to establish and refine the uncertainty data.

In certain situations it may also be appropriate to estimate the uncertainty contribution due to sample variability. This will require an understanding of the analyte variability within the sample lot and is not readily available to the laboratory or the analyst. The values obtained from the statistical analysis of over 8500 residue data (Table 4) provide currently the best estimate¹¹. These estimates can be incorporated into the combined uncertainty value.

Likewise it may be necessary to take into consideration the stability of analytes during sample storage and processing if these are likely to result in analyte variability between analysts and laboratories.

3.1 UNCERTAINTY ESTIMATES OF RESULTS INVOLVING ANALYSIS OF MULTI-COMPONENTS

The estimation of uncertainty of results for multi-component residues arising from the application of technical mixtures including structural and optical isomers, metabolites and other breakdown products may require a different approach particularly where the MRL has been established for the sum of all or some of the component residues. The assessment of the random and systematic errors of the results based on the measurements of multiple peaks is explained in detail in a recent publication¹² and should be consulted where necessary.

4. GUIDANCE VALUES FOR ACCEPTABLE UNCERTAINTIES

The establishment of the standard deviation of a series of tests ran by a single laboratory, as a measure of standard uncertainty, requires the results a large data-set that is not always available. However, for smaller amounts of data the true standard deviation can be estimated as follows:

Depending on the number of observations (n), the relation of the true (σ) standard deviations, calculated (S) standard deviations, and the expected range of the mean value (\bar{x}) at 95% probability are illustrated in Table 3. The multiplying factor, f , provides the link between the estimated and true values as the function of the number of measurements.

Table 3 The values of f for calculation of expected ranges of standard deviation and mean values

¹¹ Ambrus A and Soboleva E. Contribution of sampling to the variability of residue data; www.iaea.org/trc

¹² Soboleva E., Ambrus A., Jarju O., Estimation of uncertainty of analytical results based on multiple peaks, J. Chromatogr. A. 1029. 2004, 161-166

n	$S_{\min}=f_1\sigma$	$S_{\max}=f_2\sigma$	$\bar{x} = \pm f_3S$
	f_1	f_2	f_3
5	0.35	1.67	1.24
7	0.45	1.55	0.92
15	0.63	1.37	0.55
31	0.75	1.25	0.37
61	0.82	1.18	0.26
121	0.87	1.13	0.18

The guidance values for standard uncertainty, given in Table 4, are based on a large number of data and can be used to assess the reality of the estimated uncertainty in a laboratory in order to avoid an unreasonable high or low value.

Table 4. Typical expected uncertainties of major steps of pesticide residue analysis

Procedure	Relative uncertainty	Comments
<p>Sampling of commodities of plant origin.</p> <p>Reflects the variation of mean residues being in composite samples taken randomly from a lot. It does not incorporate the errors of follow-up procedures.</p>	<p>Medium and small commodities. (Sample size ≥ 10)^a: 26-30%^b</p> <p>Large commodities. (Sample size ≥ 5)^a: 36-40%^b</p>	For testing compliance with MRLs, the sampling uncertainty is 0, as the MRLs refer to the average residues in bulk samples.
Sampling of animal products	The relation between the number of samples (n) to be taken for detection of a specified percentage of violation (β_p) with a given probability (β_t), is described by ^a : $1-\beta_t = (\beta_p)^n$	The primary samples should be selected randomly from the whole lot.
<p>Sample processing</p> <p>Includes the physical operation performed for homogenizing the analytical sample and subsampling, but excludes decomposition and evaporation of analytes.</p>	Largely varying depending on sample matrix and equipment. No typical value can be given. The analysts should try to keep it ² below 8-10%.	It may be influenced by the equipment used for chopping / homogenising the sample and the sample matrix, but it is independent from the analyte.
<p>Analysis</p> <p>It includes all procedures performed from the point of spiking of test portions.</p>	<p>Within laboratory reproducibility: 16-53% for concentrations of 1μg/kg to 1 mg/kg^c.</p> <p>Average between- laboratories reproducibility within 0.001-10 mg/kg: 25%^d</p>	The typical CV _A can be conveniently determined from the recovery studies performed with various pesticide-commodity combinations on different days and during the use of the method.

Notes:

(a) Codex Secretariat. Recommended method of sampling for the determination of pesticide residues for compliance with MRLs, ftp://ftp.fao.org/codex/standard/en/cxg_033e.pdf.

(b) Ambrus A. Soboleva E. Contribution of sampling to the variability of residue data; www.iaea.org/trc

- (c) Codex Secretariat, *Revised Guidelines on Good Laboratory Practice in Residue Analysis* ftp://ftp.fao.org/codex/alinorm03/al03_41e
- (d) Alder L., Korth W., Patey A., van der Schee and Schoeneweis S., *Estimation of Measurement Uncertainty in Pesticide Residue Analysis*, *J. AOAC International*, 84, 1569-1578, 2001

In addition to the estimated uncertainties made by the individual laboratories, regulatory authorities and other risk managers may decide on a default expanded uncertainty of measurements which can be used in judging compliance with MRLs (See section 5) based on between-laboratories reproducibility values. For instance, a 50% expanded uncertainty for CV_L is considered to be a reasonable default value.

5. USE OF UNCERTAINTY INFORMATION

If required, the result should be reported together with the expanded uncertainty, U , as follows

Result = $x \pm U$ (units)

The expanded uncertainty, U , may be calculated from the standard combined uncertainty (S_{Res}) with a coverage factor of 2 as recommended by EURACHEM or with the Student t value for the level of confidence required (normally 95%) where the effective degree of freedom is less than 20. The respective calculations for the expanded uncertainty are as follows

$$U = 2S_{Res} \quad \text{or} \quad U = t_{v,0.95}S_{Res}$$

The numerical value of the reported results should follow the general rule that the last digit can be uncertain. Rounding the results should be done only when the final result is quoted since rounding at the initial stages of calculation may introduce unnecessary bias in the calculated values.

APPENDIX IX

ANNEX 1: Proposals to Include of new Commodities in the Codex Classification

Proposed Code	Commodity	Scientific name	Synonyms	Remarks	Proposed by
FRUITS					
FC Citrus fruits					
FP Pome fruits					
FS Stone fruits					
	Davidson plum	<i>Davidsonia pruriens</i> F. Muell.		This is a tropical fruit with edible peel, not a stone fruit	Australia
FB Berries and other small fruits					
	Azarole	<i>Crataegus azarolus</i>	Mediterranean medlar	This is a pome fruit?	EU
FT Assorted tropical and sub-tropical fruits – edible peel					
	African plum	<i>Vitex doniana</i>	Black plum		USA
	aisen	<i>Boscia senegalensis</i>			USA
	almondette	<i>Buchanania Lanzas Spreng.</i>	chiraulinut		USA
FT/FI?	Banana bell	<i>Musa spp.</i>		flower of plant	Australia
	bignay	<i>Antidesma bunius (l.) Spreng.</i>	Chinese-laurel		USA
	Brazil cherry	<i>Eugenia brasiliensis Lam.</i>	Grumichama		USA
	Burmese grape	<i>Baccaurea dombeyi.</i>	baccaurea		USA
	cajou	<i>Anacardium giganterum</i>			USA
	Cattley guava	<i>Psidium cattleianum</i>	purple guava, strawberry guava		USA
	cherry of the Rio Grande	<i>Eugenia aggregata</i> DC.	cereja		USA
	Chinese white olive	<i>Canarium album (Lour.) Raeusch.</i>			USA
	chirauli nut	<i>Buchanania latifolia Roxb.</i>			USA
	coco plum	<i>Chrysobalanus icaco L.</i>	Icacier Coco palm		USA
	craboo	<i>Byrsonima crassifolia (L.) Kunth</i>	golden-spoon		USA
	Egyptian carissa	<i>Carissa edulis Vahl</i>	carissa plum		USA
	galonut	<i>Anacolosa frutescens (Blume) Blume</i>			USA
	governor's plum	<i>Flacourtia indica (Burm.f.) Merr</i>			USA
	guava berry	<i>Myrciaria Fluor</i> Linde			USA
	Herbert river cherry	<i>Antidesma dallachyanum Baill.</i>	Queenlang cherry		USA

	imbe	<i>Garcinia livingstonei</i> T. Anderson	African mangosteen		USA
	jamaica cherry	<i>Garcinia livingstonei</i> T. Anderson	calabur-tree, capulin		USA
	Java plum	<i>Syzygium cumini</i> (L.) Skeels	jambolan		USA
	jelly palm	<i>Butia capitata</i> (Mart.) Becc.			USA
	kapundung	<i>Baccaurea racemosa</i> (Reinw.) Müll. Arg.	menteng		USA
	karanda	<i>Carissa carandas</i> L.			USA
	kei apple	<i>Dovyalis caffra</i> (Hook. f. & Harv.) Warb.			USA
	maya breadfruit	<i>Brosimum a Licaistum</i>			USA
	miracle fruit	<i>Synsepalum dulcificum</i> (Schumach. & Thon.) Daniell			USA
FI/FT	Fruit salad tree (?) Mexican breadfruit	<i>Monstera deliciosa</i> Liebm.	monstera		Australia
	monos plum	<i>Pseudanmomis umbellifera</i>			USA (PR)
	palmyra palm fruit	<i>Borassus flabellifer</i> L.	doub palm, toddy palm, tala palm		USA
	Pejibaye-peach palm	<i>Bactris gasipaes</i> Kunth			USA
	pithecellobium dulce	<i>Pithecellobium dulce</i> (Roxb.) Benth.	blackbead, camachile		USA
	pitomba	<i>Eugenia luschnatheanis</i>			USA
	Purple mombin	<i>Spondias purpurea</i> L.	hog plum, jocote, imbu		USA
	salak	<i>Salacca zalaceae</i>			USA
	sataw	<i>Parkia speciea</i>			USA
	tallowood	<i>Ximenia americana</i>			USA
	toddy palm fruit	<i>Borassus flabellifer</i> L.			USA
	velvet tamarind	<i>Dialium guineense</i> Willd.	Sierra Leone tamarind		USA
	Waterberry	<i>Syzygium guiveense</i>			USA
	whampi	<i>Clausena lansium</i>			USA
FI Assorted tropical and sub-tropical fruits – inedible peel					
	abiu	<i>Pouteria caimito</i> (Ruiz & Pav.) Radlk.	caimito, caimo, cauje		USA, Australia
	Abyssinian gooseberry	<i>Dovyalis absyssinica</i>	Inedible peel		USA
	atemoya	<i>Annona hybrid</i>			USA
	bael fruit	<i>Aegle marmelos</i>			USA
	binjai	<i>Mangifera caesia</i> Jack			USA
	biriba	<i>Rollinia mucosa</i> (Jacq.)			USA

		Baill.			
	champadek	<i>Artocarpus integr</i>			USA
	Ceylon gooseberry	<i>Dovyalis hebecarpa</i> (Gardner) Warb.	ketembilla		USA
	Florida gooseberry	<i>Dovyalis absycinnica</i> X <i>D. hebecarpa</i>			USA
	horse mango	<i>Mangifera foetida</i>			USA
	kaffir plum	<i>Sclerocarpa birrea</i>	Kaffir-date		USA
	langsats	<i>Lansium domesticum</i> <i>Corrêa</i>	langsep, langsium, lanzons		USA
	marang	<i>Autocarpus</i> <i>odoratissimus</i> Blanco			USA
	monkeyfruit	<i>Artocarpus spp</i>			USA
	monstera	<i>Monstera deliciosa</i> <i>Liebm.</i>	Mexican breadfruit		USA
	pandanus	<i>Pandanus sp.</i>			USA
	pitaya	<i>Hylocereus spp.</i> <i>Hylocereus undatus</i>			Australia
	poshte	<i>Annona scleroderma</i>			USA
	pulasan	<i>Nephylium ramboutan-</i> <i>ake (labill.) Leenh.</i>			USA
	satinleaf	<i>Chrysophyllum</i> <i>oliviforme L.</i>	damson plum, wild star apple, caimitillo		USA
	screwpine	<i>Pandamu utilis</i>			USA
	sun sapote	<i>Licania platypus</i>			USA
	white star apple	<i>Chrysophyllum albidum</i> <i>G. Don</i>			USA
VEGETABLES					
VA Bulb vegetables					
VB Brassica (cole or cabbage) vegetables, Head cabbages, flowerhead brassicas					
VC Fruiting vegetables, Cucurbits					
	Chilacayote	<i>Cucurbita ficifolia</i> <i>Bouché</i>	Black-seed squash, fig-leaf gourd		Australia
	Kiwano	<i>Cucumis metuliferus</i>	African horned melon. Horned cucumber		EU
VO Fruiting vegetables, other than Cucurbits					
	Horseradish tree	<i>Moringa oleifera Lam.</i>	Drumstick tree Ben moringa seed	Oilseed, not fruiting vegetable	Australia
VL Leafy vegetables (including Brassica leafy vegetables)					

	Buffalo spinach	<i>Enydra flucutrans</i>			Australia
	Jew mallow; meloukhia; jute	<i>Corchorus olitorius L.</i>	Nalta Jute		Australia
	Foo Yip	<i>Glinus oppositifolius,</i> <i>Glinus lotoides</i>			Australia
	Perilla; beefsteak plant	Perilla <i>frutescens(L.)Britton</i>			Australia
VP Legume vegetables					
VD Pulses					
VR Root and tuber vegetables					
	Chinese keys	<i>Boesenbergia rotunda</i> (L.) Mansf.			Australia
	Ginseng	<i>Panax quinquefolium L.</i>			USA
	Japanese ginger, Myoga ginger	<i>Zingiber mioga</i> (Thunb.) Roscoe		Also dried\Spring shoots and flower buds	Australia
	Lotus root; east Indian lotus	<i>Nelumbo nucifera</i> <i>Gaertn.</i>			Australia
	Rettich	<i>Raphanus L. sp.</i>		White variety of black radish	EU
	Wasabi; Japanese horse radish	<i>Wasabia japonica</i> (Miq.)Matsum.			Australia
	(chinese) water chestnut	<i>Eleocharis dulchis</i> (<i>Burm.f.</i>) <i>Trin. Ex</i> <i>Hensch.</i>			Australia
VS Stalk and stem vegetables					
	Lemongrass	<i>Cymbopogon</i> <i>citratus(DC.)Stapf</i>		Herbs, not stalk and stem.	Australia
GC Cereal grains					
TN Nuts and seeds					
CO Oilseed					
	Evening primrose	<i>Oenothera biennis L.</i>			EU
	Pumpkin seed	<i>Cucurbita pepo</i> var. <i>oleifera</i> Pietsch			EU
HH Herbs					
	Cuphea	<i>Cuphea spp</i>		Oilseed???	USA
	Garden dahlia	<i>Dahlia pinnata Cav. X D.</i> <i>coccinea</i>			USA
	Cilantro, leaf	<i>Coriandrum sativum</i>	Coriander leaf		Australia, EU
	Daylily	<i>Hemerocallis fulva</i> (L.) L.		Bulb vegetable??	USA
	Dokudami	<i>Houttoynia cordata</i>			USA

		Thumb.			
	Epazote	<i>Chenopodium ambrosioides</i> L			USA
	Euphorbia	<i>Euphorbia lathyris</i> L.			USA
	Evening primrose	<i>Oenothera biennis</i> L.	See also Oilseed		USA
	Flameflower	<i>Talinum triangulare</i> (Jacq.) Willd.			USA
	Zenmai fern	<i>Osmunda japonica</i> thunb.			USA
	Edible flowers				USA
	Geranium (scented, lemon, rose)	<i>Pelargonium</i> spp.			USA
	Globe mallow	<i>Sphaeralcea</i> spp.			USA
	Kaffir lime leaves Mauritius papeda	<i>Citrus hystrix</i> DC.			Australia
	Melilot, field	<i>Melilotes Officinalis</i> (L.) PALLAS			EU
HH/HS	Lemon myrtle; lemon ironwood	<i>Backhousia citriodora</i> F. Muell.			Australia
	Vietnamese mint; hot mint; Vietnamese coriander;	<i>Polygonum odoratum</i> Lour.			Australia
	White ginger	<i>Hedychium coronarium</i> J Konig			USA
	Ginkgo	<i>Ginkgo biloba</i> L.			USA
HS Spices					
	Japanese ginger, Myoga ginger	<i>Zingiber mioga</i> (Thunb.) Roscoe		Also dried\Spring shoots and flower buds	Australia
	Lemongrass	<i>Cymbopogon citratus</i> (DC.)Stapf		Herb???	Australia
	Green pepper, fresh	<i>Piper nigrum</i> L.		Immature form of black or white pepper	EU
	Native mountain pepper	<i>Kunzea pomifera</i> F. Muell.			Australia
	Riberry	<i>Syzygium leuhmannii</i>			Australia
	Wattle seed; acacia seed	<i>Acacia</i> spp.			Australia
DT Teas					
	Red tea bush; rooibos	<i>Aspalathus linearis</i> (Burm.f.) R.Dahlgren			Australia

ANNEX 2: PROPOSAL FOR REGROUPING COMMODITY GROUPS

FC Group 1 Citrus fruits

- Small citrus fruits (e.g. lemons, limes, mandarins)
- Big citrus fruits (e.g. oranges, shaddocks, pomelos)

(A problem could be the division of the commodities among the two groups, as there exists a lot of varieties from one crop being on the one hand small and on the other hand big.)

FB Group 4 Berries and small fruits

- 4-1 Cane berries (e.g. blackberries, raspberries, dewberries)
- 4-2 Bush berries (e.g. blueberries, currants and gooseberries)
- 4-3 Other small fruited berries (e.g. grapes, strawberries)

VA group 9 Bulb vegetables

- 9-1 Bulbs (e.g. onions, shallots)
- 9-2 Whole bulb vegetables (e.g. spring onions) (whole plants without roots)

VB group 10 Brassica vegetables

- 10-1 Flowerhead cabbages (e.g. cauliflower, broccoli)
- 10-2 Head cabbages (e.g. cabbage, white, red)
- 10-3 Leafy Brassicas (codes from Leafy vegetables e.g. Chinese cabbage, mustard greens)

kohlrabi?

VC group 11 Fruiting vegetables, Cucurbits

- 11-2 Edible peel (e.g. cucumber, courgette)
- 11-2 Inedible peel (e.g. melon, pumpkins)

VO group 12 Fruiting vegetables, other than Cucurbits

- 12-1 Solanaceae (e.g. tomatoes, peppers)
- 12-2 Mushrooms

VL group 13 Leafy vegetables (including Brassica leafy vegetables) change in Leafy vegetables, except Brassica leafy vegetables

VR group 16 Root and tuber vegetables

A new group is proposed for the foliage of root and tuber vegetables or the tops or leaves should be added to the leafy vegetable group and to the animal feeds (sugar beet tops).

GC group 20 Cereal grains

- 20-1 Small grains (e.g. millet, teff)
- 20-2 Grains (e.g. wheat, barley, rice)
- 20-3 Immature grains (e.g. sweet corn)

ANNEX 3: OTHER AMENDMENTS (SYNONYMS, SCIENTIFIC NAMES, EXPANSION OF CODES, REGROUPING)

Proposed Code	Commodity	Latin name	Synonyms	Remarks	Proposed by
Proposals for crossreferences					
HH 4 HH 0727	Garlic chives	<i>Alium tuberosum</i>		Cross reference to VA	Australia
HH 4 HH 0727	Garlic chive flowers	<i>Alium tuberosum</i>		Cross reference to VA	Australia
HS 0784	Ginger, root	<i>Zingiber officinale</i>		Cross reference to VR	Australia
HS 0794	Turmeric, root	<i>Cucurma longa</i>		Cross reference to VR	Australia
Proposals to extent codes					
VO 4 VO 0440	Thai eggplant	<i>Solanum undatum</i>		Expand Eggplant code	Australia
VO 4 VO 0440	Pea aubergine	<i>Solanum torvum</i>		Expand Eggplant code	Australia
VL 0473	Watercress	<i>Roripa nasturtium aquaticum</i> Synonym of <i>N. officinalis</i>		Inclusion of <i>Roripa</i> under code VL 0473	Australia
VD 0531	Hyacinth bean	<i>Lablab purpureus</i> (L.) Sweet subsp <i>purpureus</i>		Inclusion of <i>purpureus</i> variety	Australia
VR 0576	Canna, edible, Old arrowroot	<i>Canna indica</i>		Inclusion of <i>indica</i> variety	Australia
	La lot	<i>Piper longum</i> , <i>P. sarmentosum</i>		Amendment for VL 0489 Pepper leaves	Australia
Proposals to regroup individual commodities					
FT 4123, FT 312	Tamarillo			Regrouping to FI (inedible peel)	New Zealand
VO 447 VO 1275	Sweet corn			Regroup to Cereal grains GC	USA
FI 339	Jambolan			Regrouping to FT (edible peel)	
VA 380	Fennel bulb			Regroup to VS	NL
Proposals to update scientific names					
VB 0401	Chinese broccoli; Gai lan	<i>Brassica oleracea</i> <i>var. alboglabra</i>	kailan	Current scientific name incorrect	Australia
VS 627	Rhubarb	<i>Rheum x hybridum</i>		Current scientific name incorrect	USA
Addition of synonyms					
VL 486	Warrigal greens; New Zealand spinach	<i>Tetragonia tetragonoides</i> (Pall.) Kuntze		Add synonym	Australia
	Taro, Japanese	<i>Colocasia antiquorum</i>		Synonym of Taro VR 0505	Australia

APPENDIX X**PROPOSED REVISED CRITERIA FOR PRIORITIZATION PROCESS****PROCEDURE FOR PROPOSING PESTICIDES FOR CODEX PRIORITY LISTS**

Member countries are required to nominate chemicals for the Priority List using the following procedure:

1. GENERAL CRITERIA**1.1 Criteria for Inclusion of Compounds on the Priority List**

Before a pesticide can be considered for the Priority List it:

- (a) must be available for use as a commercial product; and
- (b) must not have been already accepted for consideration.

To meet the criteria for inclusion in the priority list the use of the pesticide must: give rise to residues in or on a food or feed commodity moving in international trade, the presence of which is (or may be) a matter of public health concern and thus create (or have the potential to create) problems in international trade.

1.2 Criteria for Selecting Food Commodities for which Codex MRLs or EMRLs should be Established

The commodity for which the establishment of a Codex MRL or EMRL is sought should be such that it may contain pesticide residues and form a component of international trade. A higher priority will be given to commodities that represent a significant proportion of the diet.

2. CATEGORISING THE TYPE OF EVALUATION PROPOSED

Governments are recommended to check if the pesticide is already in the Codex system.

NOTE: Pesticide/commodity combinations which are already included in the Codex system or under consideration are found in a working document prepared for and used as a basis of discussion at each Session of the Codex Committee on Pesticide Residues. Consult the document of the latest session to see whether or not a given pesticide has already been considered.

If the pesticide is not in the Codex system, governments should prepare a proposal for evaluation by completing the Appendix "Pesticide Information for CCPR" below.

In this process:

- (i) consult with the manufacturer(s) about the existence of sufficient toxicological and residue data and confirm that the manufacturer(s) would be willing to submit data to the JMPR, and in what year, and;
- (ii) submit the information to the Ad hoc Working Group on Priorities with a copy to the Secretary, Codex Alimentarius Commission using the format in the Appendix "Pesticide Information for CCPR".

2.1 New Chemicals

For new chemicals the information to satisfy the criterion of whether the propose new chemical is a "safer" or "reduced risk" chemical should be provided using Item 6 "Justification for use" of Section on Pesticide Information for CCPR below.

The nominating country is required to provide:

- The names of the chemical(s) the proposed chemical is likely to replace;
- A summary of acute and chronic dietary exposure calculations encompassing the range of diets considered by the CCPR; and
- Other relevant information to support the proposed new chemicals as a replacement chemical.

2.2 Periodic Re-evaluation

2.2.1 Chemicals that have not been reviewed toxicologically for more than 15 years and/or not having a significant review of maximum residue limits for 15 years taking into account the heavy workload of JMPR will be nominated as the Ad hoc Working Group on Priorities for consideration for review.

2.2.2 Governments may wish to propose a pesticide for re-evaluation and to do so according to Section Pesticide Information for CCPR below.

2.3 Evaluation

Where the pesticide has already been evaluated by the JMPR and MRLs, EMRLs or GLs have been established the following situations may arise:

2.3.1 The JMPR may note a data deficiency in a Periodic Re-evaluation or New Chemical evaluation.

In response, industry or other interested parties may pledge to supply the information to the appropriate Joint Secretary of the JMPR with a copy to the Chair of the Working Group on Priorities. Following scheduling in the JMPR tentative schedule, the data from industry or other interested parties should be submitted subsequently to the appropriate Joint Secretary of the JMPR.

2.3.2 The CCPR may place a chemical under the four-year rule, in which case the government or industry should indicate support for the specific CXLs to the FAO Joint Secretary of the JMPR, with a copy to the Chair of the Working Group on Priorities. Following scheduling in the JMPR tentative schedule, any data in support of maintenance of the CXL(s) would be submitted to the FAO Joint Secretary of the JMPR.

2.3.3 Where a government member or industry seeks to expand the use of an existing Codex chemical; that is, obtain MRLs for one or more new commodities where some CXLs already exist for other commodities. The request for consideration would be directed to the FAO Joint Secretary of the JMPR and copied to the Chair of the Working Group on Priorities. Following scheduling in the JMPR tentative schedule, the data would be submitted to the FAO Joint Secretary of the JMPR.

2.3.4 A government member or an industry may seek to expand the use of an existing CXL. For example a new GAP may necessitate a larger MRL. In this case the request should be made to the FAO Joint Secretary with a copy to the Chair of the Working Group on Priorities. Following scheduling in the JMPR tentative schedule, the data would be submitted to the FAO Joint Secretary of the JMPR.

2.3.5 Where the CCPR requests a clarification or reconsideration of a recommendation from the JMPR, the relevant Joint Secretary will schedule the request for the next JMPR.

2.3.6 Where a serious public health concern exists in relation to a particular pesticide, government members should notify the WHO Joint Secretary of the JMPR promptly and provide appropriate data to the WHO Joint Secretary.

3. CRITERIA FOR PRIORITIZATION

3.1 New Chemicals

When prioritising new chemicals for evaluation by the JMPR, the Committee will consider the following criteria:

1. If the chemical has a reduced acute and/or chronic toxicity risk to humans compared with other chemicals in its classification (insecticide, fungicide, herbicide);
2. The date nominated;
3. The date that data will be submitted (availability of data);
4. The availability of international/national reviews and coordination with other national/international lists; and
5. Allocating new chemicals to be evaluated on a 50:50 basis with periodic re-evaluation chemicals to be evaluated.

3.2 Periodic Re-evaluation

When prioritising chemicals for periodic re-evaluation by the JMPR: the Committee will consider the following criteria:

1. Chemicals that have not been reviewed toxicologically for more than 15 years and/or not having a significant review of maximum residue limits for 15 years taking into account the heavy workload of JMPR;
2. The year the chemical is listed in the list for Candidate Chemicals for Periodic Re-evaluation –Not Yet Scheduled;
3. The date that data will be submitted;
4. If the intake and/or toxicity profile indicate a high level of public health concern.
5. Whether the CCPR has been advised by a national government that the chemical has been responsible for trade disruption;
6. If there is a closely related chemical that is a candidate for periodic re-evaluation that can be evaluated concurrently;
7. Allocating periodic re-evaluation chemicals to be evaluated on a 50:50 basis with new chemicals to be evaluated.

3.3 Evaluations

When prioritising proposed residue evaluations by the JMPR for food commodities, the Working Group on Priorities will consider the following criteria:

1. The date the request was received;
2. The date the data can be submitted;
3. Whether the data is submitted under the 4-year rule for evaluations of extra data; and
4. The nature of the data to be submitted.

PESTICIDE INFORMATION FOR CCPR

for evaluation _____

for reevaluation _____

1. NAME:
2. STRUCTURAL FORMULA:
3. CHEMICAL NAME:
4. TRADE NAME:
5. NAMES AND ADDRESSES OF BASIC PRODUCERS:
6. JUSTIFICATION FOR USE:
7. USES: MAJOR
 MINOR
8. COMMODITIES MOVING IN INTERNATIONAL TRADE AND LEVELS OF RESIDUES:
9. COUNTRIES WHERE PESTICIDE IS REGISTERED¹³:
10. NATIONAL MAXIMUM RESIDUE LIMITS:
11. COMMODITIES FOR WHICH THE NEED FOR ESTABLISHING CODEX MRLS IS RECOGNIZED:
12. MAJOR INTERNATIONAL USE PATTERN:
13. LIST OF DATA (TOXICOLOGY, METABOLISM, RESIDUE) AVAILABLE:
14. DATE DATA COULD BE SUBMITTED TO THE JMPR:
15. PROPOSAL FOR INCLUSION SUBMITTED BY (COUNTRY):

¹³ Countries should provide detailed information on the registration status at the time of proposing a compound for inclusion in priority lists and again when the compound is scheduled for JMPR review.

APPENDIX XI

**PRIORITY LIST OF CHEMICALS SCHEDULED FOR EVALUATION AND RE-EVALUATION
BY JMPR**

The following are the tentative schedules to be evaluated by the FAO/WHO Joint Meeting on Pesticides Residues (JMPR) from 2004 to 2013

2004 JMPR

Toxicological evaluations	Residue evaluations
New compounds	New compounds
Fludioxinil	fludioxinil
trifloxystrobin	trifloxystrobin
	pyraclostrobin
Periodic re-evaluations	Periodic re-evaluations
glyphosate (158)	ethoprophos (149)
phorate (112)	metalaxyl-M
pirimicarb (101)	paraquat (057)
propiconazole (160)	prochloraz (142)
triadimefon (133) { should be evaluated	propineb
triadimenol (168) { together	
Evaluations	Evaluations
bentazone (172) - acute toxicity	chlorpyrifos (017)
captan (007) – acute toxicity	
dimethipin (151) – acute toxicity	folpet (041)
fenpropimorph (188) – acute toxicity	fenitrothion (037)
fenpyroximate (193) – acute toxicity	malathion (047)
folpet (041) – acute toxicity	methomyl (094)
	oxydemeton-methyl (166)
	pirimiphos-methyl (086)
	spinosad (203)

2005 JMPR

Toxicological evaluations	Residue evaluations
New compounds	New compounds
dimethenamid-P	dimethenamid-P
fenhexamid	fenhexamid
indoxacarb	indoxacarb
novaluron	novaluron
sulfuryl fluoride	sulfuryl fluoride
Periodic re-evaluations	Periodic re-evaluations
benalaxyl (155)	alpha and zeta cypermethrin

clofentezine (156)	cypermethrin (118)
cyhexatin (067)/azocyclotin (129)	cyhexatin (067)/ azocyclotin (129)
propamocarb (148)	endosulfan (032)
	glyphosate (158)
	methoprene (147)
	phorate (112)
	terbufos (167)
Evaluations	Evaluations
carbendazim (072) –acute toxicity	ethoxyquin (035)
chlorpropham (201)	guazatine (114)
ethoxyquin (035)	methiocarb (132)
guazatine (114)	
haloxyfop (194)	
imazalil (110) – acute toxicity	
thiabendazole (065)	

2006 JMPR

Toxicological evaluations	Residue evaluations
New Compounds	New Compounds
bifenazate	bifenazate
dimethomorph	dimethomorph
pyrimethanil	pyrimethanil
quinoxifen	quinoxifen
Periodic re-evaluations	Periodic re-evaluations
cyromazine (169)	pirimicarb (101)
<i>alfa</i> and <i>zeta</i> cypermethrin (118)	propiconazole (160)
flusilazole (165)	triazophos (143)
procymidone (136)	triadimefon (133) { should be evaluated
profenofos (171)	triadimenol (168) {together
Evaluations	Evaluations
pirimiphos-methyl (086) –acute toxicity	propargite (113)
thiophanate-methyl (077) – acute toxicity	

2007 JMPR

Toxicological evaluations	Residue evaluations
New Compounds	<i>New Compounds</i>
zoxamide	zoxamide

Periodic re-evaluations	Periodic re-evaluations
azinphos-methyl (002)	clofentezine (156)
cyfluthrin/beta cyfluthrin (157)	permethrin (120)
fentin (040)	propamocarb (148)
vinclozolin (159)	triforine (116)
<i>lambda</i> -cyhalothrin	
Evaluations	Evaluations

2008 JMPR

Toxicological evaluations	Residue evaluations
New Compounds	New Compounds
Periodic re-evaluations	Periodic re-evaluations
bioresmethrin (93)	benelaxyl (155)
buprofezin (173)	cyromazine (169)
chlorpyrifos-methyl (090)	<i>lambda</i> -cyhalothrin replacement of cyhalothrin
hexythiazox (176)	flusilazole (165)
	procymidone (136)
	profenofos (171)
Evaluations	Evaluations

2009 JMPR

Toxicological evaluations	Residue evaluations
New Compounds	New Compounds
Periodic re-evaluations	Periodic re-evaluations
bifenthrin (178)	azinphos-methyl (002)
cadusafos (174)	cyfluthrin/beta cyfluthrin (157)
chorothalanil (081)	fentin (040)
cycloxydim (179)	vinclozolin (159)
Evaluations	Evaluations

2010 JMPR

Toxicological evaluations	Residue evaluations
New Compounds	New Compounds
Periodic re-evaluations	Periodic re-evaluations
aldicarb (117)	bioresmethrin (93)
dicofol (026)	buprofezin (173)
dithianon (028)	chlorpyrifos-methyl (090)
fenbutatin oxide (109)	hexythiazox (176)
Evaluations	Evaluations

2011 JMPR

Toxicological evaluations	Residue evaluations
New Compounds	New Compounds
Periodic re-evaluations	Periodic re-evaluations
dichlorvos (025)	
diquat (031)	amitraz (122)
etofenprox (184)	bifenthrin (178)
fenpropathrin (185)	cadusafos (174)
	chorothalanil (081)
Evaluations	Evaluations

2012 JMPR

Toxicological evaluations	Residue evaluations
New Compounds	New Compounds
Periodic re-evaluations	Periodic re-evaluations
	aldicarb (117)
	cycloxydim (179)
	dithianon (028)
	fenbutatin oxide (109)
Evaluations	Evaluations

2013 JMPR

Toxicological evaluations	Residue evaluations
New Compounds	New Compounds
Periodic re-evaluations	Periodic re-evaluations
	dichlorvos (025)

	dicofol (026)
	diquat (031)
	etofenprox (184)
	fenprothrin (185)
Evaluations	Evaluations

ANNEX I

CHEMICALS PROPOSED FOR PRIORITY LISTING BUT FOR WHICH FURTHER CONSIDERATION IS REQUIRED BEFORE A DECISION CAN BE MADE.

DDT (EMRLs)

Gentamicin, oxytetracycline hydrochloride.

MRLs for various pesticides on spices based on monitoring data.

APPENDIX XII

**PROPOSED DRAFT AND REVISED DRAFT MAXIMUM RESIDUE LIMITS FOR
PESTICIDES**

(Retained at Step 7 and 4)

			MRL (mg/kg)	Step	Note
194	HALOXYFOP				
AL	1021	Alfalfa forage (green)	5	fresh	4
				wt	
MO	1280	Cattle kidney	1		4
MO	1281	Cattle liver	0.5		4
MM	812	Cattle meat	0.05		4
ML	812	Cattle milk	0.3		4
PE	0840	Chicken eggs	0.01	(*)	7
PM	0840	Chicken meat	0.01	(*)	7
PO	0840	Chicken, Edible offal of	0.05		7
SO	0691	Cotton seed	0.2		7
OC	0691	Cotton seed oil, Crude	0.5		7
AM	1051	Fodder beet	0.3		7
AV	1051	Fodder beet leaves or tops	0.3	fresh	4
				wt	
SO	0697	Peanut	0.05		7
VP	0063	Peas (pods and succulent=immature seeds)	0.2		7
VR	0589	Potato	0.1		7
VD	0070	Pulses	0.2		7
SO	0495	Rape seed	2		7
OC	0495	Rape seed oil, Crude	5		7
OR	0495	Rapeseed oil, Edible	5		7
CM	1206	Rice bran, Unprocessed	0.02	(*)	7
CM	0649	Rice, Husked	0.02	(*)	7
CM	1205	Rice, Polished	0.02	(*)	7
OC	0541	Soya bean oil, Crude	0.2		7
OR	0541	Soya bean oil, Refined	0.2		7
VR	0596	Sugar beet	0.3		7
AV	596	Sugar beet leaves or tops	0.3	fresh	4
				wt	
SO	0702	Sunflower seed	0.2		7
201	CHLORPROPHAM				
MM	0812	Cattle meat	0.1	(fat)	7
ML	0812	Cattle milk	0.0005	(*)	7
MO	0812	Cattle, Edible offal of	0.01	(*)	7
VR	0589	Potato	30	Po	7