

codex alimentarius commission



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

WORLD
HEALTH
ORGANIZATION



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AGENDA ITEM 4

CX/AF 02/5
May 2002

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

AD HOC INTERGOVERNMENTAL CODEX TASK FORCE ON ANIMAL FEEDING

Third Session

Copenhagen, Denmark, 17 - 20 June 2002

INFORMATION PAPER ON ESTABLISHMENT OF CODEX MAXIMUM LEVELS AND RESIDUES LIMITS FOR FEEDINGSTUFFS AND FOODS

Prepared by the Secretariat of the Codex Alimentarius Commission

BACKGROUND

1. At the 2nd Session of the *Ad-hoc* Intergovernmental Codex Task Force on Animal Feeding, the Codex Secretariat provided the delegations with comprehensive information of the work undertaken by the Codex Committee on Food Additives and Contaminants, Codex Committee on Pesticide Residues, Codex Committee on Residues of Veterinary Drugs in Foods, Codex Committee on Food Hygiene and Codex Committee on Food Labelling. The Task Force noted that although the establishment of maximum levels for contaminants, pesticides, veterinary drugs and microbiological limits were outside its mandate, it was within its purview to recommend future work on specific issues in the context of animal feeding as it relates to food safety. The proposals would be presented to the Codex Alimentarius Commission for potential distribution as new work to the relevant Codex body.
2. In view of the information provided the Codex Secretariat agreed ¹ to present at the 3rd session of the Task Force an update on related activities of other Codex Committees ², including a presentation of the step status of various levels for contaminants established or under consideration by the CCFAC.
3. This document (CX/AF 02/5) provides updated information on Codex provisions related :
 - contaminants and toxins, established or under consideration by the CCFAC (Appendix I);
 - veterinary drug residues, established or under consideration by the CCRVDF (Appendix II);
 - pesticide residues, established or under consideration by the CCPR (Appendix III)
4. In addition, the document presents updated information on the work carried out by relevant Codex Committees on microbiological specification and on aspects of microbiological risk analysis.

¹ ALINORM 01/38A, para. 15

² Information on the activities of relevant Codex Committees is contained in document CX/AF02/2 "Matters referred to the Task Force from the Codex Alimentarius Commission and other Codex Committees"

EXPLANATORY NOTES ON THE APPENDICES

Appendix I - Food Contaminants and Toxins in Foods (Schedule I of the proposed draft Codex General Standard for Contaminants and Toxins in Foods - GSCTF)

5. Appendix I contains a copy of document CX/FAC 02/16 “Schedule I of the Proposed Draft Codex General Standard for Contaminants and Toxins in Foods - GSFCT” which was prepared by the Netherlands for the 34th Session of the Codex Committee on Food Additives and Contaminants (the Hague, Netherlands, 11-15 March 2002). Schedule I has not yet officially published in the format mentioned in the Annex III of the Preamble to the Codex GSCTF (CODEX STAN 193-1995, Rev. 1-1997). According to the GSFCT, Schedule I should contain the list of Codex standards for individual contaminants and toxins in foods and feeds and all the provisions for food and feed contaminants adopted by the Codex Alimentarius Commission³.

6. Document CX/FAC 02/16 contains a first draft of Schedule I that was presented at the 34th Session of the CCFAC to discuss the format and content and other issues such as maintenance. Due to time constraints, Schedule I, as presented at the 34th Session of the CCFAC, was not complete and for the main part only elaborated regarding the essential standard aspects. Schedule I could in future also contain more explanatory notes and a more or less elaborate general introduction per substance. It was meant to be a dynamic document to be changed/updated regularly on the basis of the development and progress of standards in CCFAC and other Codex Committees.

7. The 34th Session of the CCFAC agreed⁴ that the Netherlands would update and present Schedule I every year. Schedule I would contain two lists: List 1 with Maximum Limits (MLs) for contaminants and toxins already adopted as final text and List 2 with MLs for contaminants and toxins under discussion at different steps of the Codex procedure. It was understood that Schedule I would be used as a working document during the Working Group and the plenary sessions.

Appendix II - Residues of Veterinary Drugs in Foods

8. Appendix II of this document presents updated information on the status of Maximum Residue Limits (MRLs) for veterinary drugs. Data include a list of veterinary drugs (or group of drugs⁵) which are classified by substance, species and tissue. MRLs adopted by the Codex Alimentarius Commission, have indicated the year of adoption and for those MRLs still under consideration by CCRVDF, the step is indicated.

9. Data presented in Appendix II includes the MRLs adopted by the 24th Session of the Codex Alimentarius Commission⁶ and those which have been considered by the 13th Session of the Codex Committee on Veterinary Drugs Residues in Foods⁷ (Charleston, South Carolina, US, 8-12 December 2001).

Appendix III - Pesticide Residues

10. Appendix III of this document presents updated information on the status of Maximum Residue Limits (MRLs) and Extraneous Maximum Residue Limits (EMRLs) for pesticides⁸ for the Class “Primary Animal Feed Commodities” which includes the following groups of commodities:

- legume animal feed (AL);
- straw, fodder and forage of cereal grains and grasses (including buckwheat fodder) (forage) (AF);
- straw, fodder and forage of cereal grains and grasses (including buckwheat fodder)(straw and fodder dry) (AS);

³ The GSC uses the food categorization system which has been developed in the framework of the Codex Committee for Pesticide Residues

⁴ ALINORM 03/12, pars. 103-105

⁵ Some substances such as Chlortetracycline/Oxytetracycline/Tetracycline are grouped together

⁶ ALINORM 01/41, para. 141-142 and ALINORM 01/31, Appendices II and III

⁷ ALINORM 03/31, Appendices II, III, IV and V

⁸ 200 Pesticides Considered by the Commission and 2,433 Maximum Residue Limits for Pesticides)

- miscellaneous fodder and forage crops (fodder) (AM);
- miscellaneous fodder and forage crops (forage) (AV);
- forage crops (green) (AO);
- by-products used for animal feeding purposes, derived from fruits and vegetable (AB).

11. Data presented in Appendix III includes MRLs/EMRLs adopted by the 24th Session of the Codex Alimentarius Commission as final standards and those MRLs/EMRLs under examination by the Codex Committee on Pesticide Residues (up to its 33rd session, 2-7 April 2001) as draft standards with their respective status in the Codex Step procedure.

MICROBIOLOGICAL SPECIFICATIONS

12. The Codex Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997) gives guidance on the establishment and application of microbiological criteria for foods at any point in the food chain from primary production to final consumption.

13. The Codex Alimentarius Commission has not elaborated microbiological specifications that apply in a horizontal way to all foods, nor has elaborated detailed procedures to test for microbiological contamination in feed and food. There are, however, a limited number of Codex documents that contains microbiological specifications. In particular:

- Guide for the Microbiological Quality of Spices and Herbs Used in Processed Meat and Poultry Products (CAC/GL 14-1991);
- Recommended International Code of Hygienic Practice for Egg Products (CAC/RCP 15-1976) (amended in 1978, 1985);
- Recommended International Code of Hygienic Practice for Dried Milk (CAC/RCP 31-1983);
- Code of Hygienic Practice for Spices and Dried Aromatic Plants (CAC/RCP 42-1995);
- Recommended International Code of Practice for Shrimps and Prawns (CAC/RCP 17-1978);
- Codex Standard for Natural Mineral Waters (CODEX STAN 108 - 1981, Rev. 1 - 1997) (amended in 2001).

MICROBIOLOGICAL RISK ANALYSIS

14. In the light of the results of the work jointly carried out by FAO and WHO on risk assessment of microbiological hazards in foods ⁹, the Codex Committee on Food Hygiene is developing the following texts:

- Proposed Draft Guidelines for the Control of *Listeria monocytogens* in Foods” (at Step 2);
- Revision of the Code of Hygienic Practice for Egg Products (CAC/RCP 30-1983) (at Step 2);
- Discussion Paper on Risk Management Strategies for *Salmonella* spp in poultry to be considered at its next Session (October 2002);
- Risk profile for enterohemorrhagic *E. coli* (including sprouts, ground beef and pork).

⁹ Update information on this work can be found at the following website:
<http://www.fao.org/es/ESN/pagerisk/riskpage.htm>

APPENDIX I**SCHEDULE 1 OF THE PROPOSED DRAFT CODEX GENERAL STANDARD FOR
CONTAMINANTS AND TOXINS IN FOOD**

**(WORKING DOCUMENT PRESENTED TO THE 34TH SESSION OF THE CODEX COMMITTEE ON
FOOD ADDITIVES AND CONTAMINANTS AS CX/FAC 02/16)**

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Agenda Item 14b

CX/FAC 02/16

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FOOD ADDITIVES AND CONTAMINANTS

Thirty-fourth Session

Rotterdam, The Netherlands, 11-15 March 2002

SCHEDULE 1 OF THE PROPOSED DRAFT CODEX GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD

A first version of the Schedule 1 is presented by The Netherlands, to discuss the format and content and other issues such as maintenance.

CODEX ALIMENTARIUS - GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD

SCHEDULE I - MAXIMUM AND GUIDELINE LEVELS FOR CONTAMINANTS AND TOXINS IN FOOD

Introduction

Schedule I of the Codex General Standard for Contaminants and Toxins in Food (GSCTF) is the list of Codex Standards for individual contaminants and toxins in foods and feeds. It contains all the provisions for food and feed contaminants adopted by the Codex Alimentarius Commission.

Schedule I is not yet (officially) published in the format mentioned in Annex III of the Preamble to the GSCTF. Schedule I can only be officially published containing adopted standards. Since it is a dynamic document that needs to be changed regularly on the basis of progress in Codex Committees, it is considered necessary to present to all delegates a Working Document in the format of Schedule I, updated annually, on the development and progress of standards in CCFAC and other Codex Committees. This working document shall contain all existing and proposed Codex Standards for contaminants and toxins in foods and feeds, with notes and references regarding relevant Codex decisions and information sources. In this way also the obligations of Annex IV of the GSCTF can be met.

Schedule I can only be read in conjunction with the GSCTF and its annexes. Schedule II is a product-based presentation of the Codex contaminant standards which may come available when these data are assembled in a suitable data base format. Schedule I as presented here is a Working Document provided to the Committee for information purposes; it is a first draft and no guarantees can be given regarding the exact validity of the contents. It is hoped that with the aid of suggestions for improved texts by the participants of the CCFAC and other interested parties, it will become a valuable informatory document to the discussions of the CCFAC. The annually redrafted Schedule I will provide an overview of the situation regarding contaminants to the CCFAC, albeit an unofficial document.

On the next pages a format for a Table of standards with references and remarks is used as it could appear in the Working Document for Schedule I.

The document is due to time constraints now not yet complete and for the main part only elaborated regarding the essential standard aspects; it could in future also contain more explanatory notes and a more or less elaborate general introduction per substance. Some examples (mercury, some mycotoxins) are more fully elaborated with explanatory notes. References to Codes of Practice being developed or established are (or should be) made.

Information contained

The following information will be contained in the Working Document Schedule I, according to the agreed format (Annex III of the GSCTF).

- Name of the contaminant, Codex number and short monograph (synonym; TDI; ref JECFA; definition)
- In the form of a table:
 - Commodity
 - Product code
 - Maximum or Guideline Level in mg/kg or other appropriate expression
 - Suffix to specify the application of the ML/GL
 - Type of standard (ML or GL)
 - Step or other indication of status (adopted by CAC)
 - Reference to official documents, relevant Codex Committee meetings with decisions etc.

- Notes and remarks to the table, including short summaries of decisions, requests for information etc.
- An Index of contaminants in Code order and in alphabetic order will be provided.
- Explanatory notes to the terms used.

**CODEX ALIMENTARIUS - GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD
SCHEDULE I - MAXIMUM AND GUIDELINE LEVELS FOR CONTAMINANTS AND TOXINS IN
FOOD**

INDEX OF CONTAMINANTS IN CODE ORDER

CODE	NAME	CONTENT
1.3	arsenic	short concept
1.6	cadmium	short concept
1.9	copper	
1.10	iron	
1.11	lead	short concept
1.13	mercury	concept with notes
1.16	tin	short concept
1.18	zinc	
3.1.5	monochloromethane (vinylchloride)	
3.4	polychlorobiphenyls	
3.8	chlorinated dibenzodioxins and dibenzofurans	short concept
3.10.1	1,3-dichloro-2-propanol	
3.10.2	3-chloro-1,2-propanediol	
4.9.1	acrylonitrile	
4.11.1	ethylcarbamate	
5.1	aflatoxins	concept with notes
5.2	ochratoxins	concept with notes
5.3.1	T-2 and HT-2-toxin	
5.3.8	deoxynivalenol	
5.4.1	fumonisin	
5.4.3	zearalenone	concept with notes
5.6.1	patulin	concept with notes
8.	radionuclides	

CODEX ALIMENTARIUS - GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD
SCHEDULE I - MAXIMUM AND GUIDELINE LEVELS FOR CONTAMINANTS AND TOXINS IN FOOD

INDEX OF CONTAMINANTS IN ALPHABETIC ORDER

NAME	CODE NR.	PAGE
Acrylonitrile	4.9.1	
Aflatoxins	5.1	9
Arsenic	1.3	1
Cadmium	1.6	2
3-chloro-1,2-propanediol	3.10.2	
Copper	1.9	
1,3-DCP	3.10.1	
Deoxynivalenol	5.3.8	
1,3-dichloro-2-propanol	3.10.1	
Dioxins	3.8	8
Ethylcarbamate	4.11.1	
Fumonisin	5.4.1	
HT-2 toxin	5.3.1	
Iron	1.10	
Lead	1.11	3
3-MCPD	3.10.2	
Mercury	1.13	5
Monochloromethane	3.15	
3-monochloropropane-1,2-diol	3.10.2	
Ochratoxins	5.2	11
Patulin	5.6.1	12
Polychlorobiphenyls	3.4	
Radionuclides	8	
T-2 toxin	5.3.1	
Tin	1.16	7
Vinylchloride	3.1.5	
Zearalenone	5.4.3	13
Zinc	1.18	

CODEX ALIMENTARIUS - GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD
SCHEDULE I - MAXIMUM AND GUIDELINE LEVELS FOR CONTAMINANTS AND TOXINS IN FOOD

EXPLANATORY NOTES

Code nr.:	The codes for food commodities are according to the food and feed categorization system adopted in the GSCTF, as mentioned in Annex V. The codes for substances are derived from the coding system mentioned in Annex IV of the GSCTF.
Definition:	Definition of the contaminant in the form to which the ML applies or which may or should be analysed in commodities.
Reference: (ref.)	references, e.g. to JECFA or CCFAC meetings in which the contaminant was discussed, characterised by the year in which the meeting took place and/or the number of the meeting.
Step:	Step in the Codex Procedure for developing standards; see the Codex Procedural Manual. The term CXL is used for a definitive Codex Standard.
suffix:	Note accompanying a ML or GL, used to specify the application or the future revision of the ML. E.g. specific residue definitions can be mentioned by abbreviations here. See also Qualification of MLs.
synonym:	symbols, synonyms, abbreviations, scientific descriptions and identification codes used to define the contaminant.
Toxicology:	Toxicological advice about the maximum acceptable or tolerable intake level of the contaminant for humans, expressed in milligrammes (mg) or microgrammes (mcg or µg) per kg body weight (bw).
Type:	Refers to type of maximum level, e.g. ML or GL. See the definitions in the preamble of the GSCTF

Qualification of MLs

(*)	At or about the limit of determination
C	In canned products only
F	Fat soluble contaminant (Further provisions about the application of the ML may be necessary)
R	Under review
T	Temporary

**CODEX ALIMENTARIUS - GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD
SCHEDULE 1 - MAXIMUM AND GUIDELINES LEVELS FOR CONTAMINANTS AND TOXINS IN FOOD**

1.3 Arsenic

Synonym: As
 Toxicology: PTWI 15 mcg/kg bw for inorganic arsenic
 Reference: JECFA 1983, 1988
 Definition: arsenic, total (As-tot) when not otherwise mentioned; or inorganic arsenic (As-in), or other specification

Commodity/Product Code	Product Name	Level mg/kg	Suffix	Type	Step/ Status	Committee	Reference, Standard	Notes, remarks
	Cereals*					CPL 94		* Development of MLs discontinued
	Pulses*					CPL 94		* "
	Legumes*					CPL 94		* "
	Edible fats and oils	0.1		ML	CXL			
	Fruit juices and nectars	0.2		ML	CXL			
	Cocoa butters	0.5		ML	CXL			
	Chocolate	0.5		ML	CXL			
	Other cocoa products	1.0		ML	CXL			
	Vinegar	1		ML	CXL		162-87*	* regional European Standard
	Natural mineral water	0.05#		ML	CXL		108-81, rev.1	# to be changed to 0.01

Notes and remarks

General

A position document CX/FAC 99/22 was last discussed in CCFAC 1999; see ALINORM 99/12A, para. 137.

CODEX ALIMENTARIUS - GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD
SCHEDULE 1 - MAXIMUM AND GUIDELINES LEVELS FOR CONTAMINANTS AND TOXINS IN FOOD

1.6 Cadmium

Synonym: Cd
 Toxicology: PTWI 7 mcg/kg bw
 Reference: JECFA 1988, 2000 (55)
 Definition: cadmium, total

Commodity/Product Code	Product Name	Level mg/kg	Suffix	Type	Step/ Status	Committee	Reference, Standard	Notes, remarks
	Cereals*	0.1		ML	CXL	CPL, FAC 01		* excl. bran, germ, wheat grain, rice
	Pulses*	0.1		ML	CXL	CPL, FAC 01		* does not include peanut
	Legumes*	0.1		ML	CXL	CPL, FAC 01		* excl. soybean
	Fruit	0.05		ML	5 #	FAC 01		# See Alinorm 03/3, para. 20
	Vegetables, excl. tomatoes and *	0.05		ML	5 #	FAC 01		* see other mentioned vegetables
	Leafy vegetables, fresh herbs,	0.2		ML	5 #	FAC 01		
	Fungi, celeriac	0.2		ML	5 #	FAC 01		
	Potatoes*, stem & root vegetables**0.1			ML	5 #	FAC 01		* peeled ** excl. celeriac
	Wheat grain and rice*	0.2		ML	5 #	FAC 01		* incl. bran and germ
	Soybeand and peanuts	0.2		ML	5 #	FAC 01		
	Meat of cattle, poultry, pig, sheep	0.05		ML	5 #	FAC 01		
	Meat of horse	0.2		ML	5 #	FAC 01		
	Liver of cattle, poultry, pig, sheep	0.5		ML	5 #	FAC 01		
	Kidney of cattle, poultry, pig, sheep	1.0		ML	5 #	FAC 01		
	Crustaceans*	0.5		ML	5 #	FAC 01		*excl. lobster & brown meat from crab
	Molluscs	1.0		ML	5 #	FAC 01		

CODEX ALIMENTARIUS - GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD
SCHEDULE 1 - MAXIMUM AND GUIDELINES LEVELS FOR CONTAMINANTS AND TOXINS IN FOOD

1.11 Lead

Synonym: Pb
 Toxicology: PTWI 25 mcg/kg bw per week
 Reference: JECFA 1972, 1978, 1987, 1993
 Definition: lead, total

Commodity/Product Code	Product Name	Level mg/kg	Suffix	Type	Step/ Status	Committee	Reference, Standard	Notes, remarks
FC1 FP9 FS12 FB18	Fruit, except...	0.1		ML	CXL	FAC 00		
FT26 F130	Small fruit and berries	0.2		ML	CXL	FAC 00		
VA 35 VO50 VC45 VR75	Vegetables, except ...* #	0.1		ML	CXL	FAC 00		* see other mentioned vegetables and product codes # includes potatoes as peeled p.
VB 40	Brassica, except kale	0.3		ML	CXL	FAC 00		
VL 53	Leafy vegetables, except spinach	0.3		ML	CXL	FAC 00		
C 81	Cereal grains	0.2		ML	CXL	FAC 00		
VD 70	Pulses	0.2		ML	CXL	FAC 00		
VP 60	Legume vegetables	0.2		ML	CXL	FAC 00		
MM97 PM100	Meat of cattle, pig, sheep, poultry	0.1		ML	CXL	FAC 00		
MF 97 PF 111	Fat from meat, poultry	0.1		ML	CXL	FAC 00		
MO 97	Edible offal of cattle, pig, poultry	0.5		ML	CXL	FAC 00		
ML 107	Milk* 1) 2)	0.02	R	ML	CXL	FAC 00		* also sec. milk products, as consumed.
FM 183	milk fat 2)	0.1	R	ML	CXL	FAC 00		
FF 269	wine 3)	0.20		ML	CXL	FAC 00		
LM unspec.	Infant formulae	0.02		ML	CXL	FAC 00		
WF115 VD120 WS 125	Fish * #	0.2		ML	6	FAC 01		* as fish muscle # comments asked
WC 143	Crustaceans*	0.5		ML	6	FAC 01		
IM 151	Molluscs	1.0		ML	6	FAC 01		

JF 175	Fruit juices*	0.05	ML	CXL	FAC 01	* ready to drink; includes nectars
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Notes and remarks

Further notes and MLs to be incorporated (e.g. situation regarding lead MLs in commodity standards not covered here yet)

The CAC agreed (ALINORM 01/41, para. 124) that the CCFAC should develop a Code of Practice on the prevention and reduction of lead contamination in food and recommended that the FAO Guidelines on lead-soldered cans could be useful in this regard.

- 1) For dairy products, an appropriate concentration factor should apply.
- 2) The 2001 CAC requests reevaluation of the lead MLs in milk and milk fat (ALINORM 01/41, para. 121)
- 3) The OIV requested special consideration to be given to levels of lead in wines that had been stored for long periods of time (ALINORM 01/41).

**CODEX ALIMENTARIUS - GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD
SCHEDULE 1 - MAXIMUM AND GUIDELINE LEVELS FOR CONTAMINANTS AND TOXINS IN FOOD**

1.13 Mercury

Synonym: Hg
 Toxicology: PTWI 5 mcg/kg bw total mercury, of which no more than 3.3 mcg/kg bw as methylmercury
 Reference: JECFA 1972, 1978, 1988, 1999, (2002?)
 Definition: Specified per product and per standard as total mercury (tm) or methylmercury (mm)

Commodity/Product Code	Product Name	Level mg/kg	Suffix	Type	Step/ Status	Committee	Reference, Standard	Notes, remarks
WF 115, except.) WD 120, except.) WS 125, except.)	Fish, except predatory fish	0.5	mm	GL	CXL	CCFFP CCFAC *	CAC/GL 7-91	(1) (3); *: 92, 94,00
WS 131, 132 WF 865	Predatory fish, such as shark, tuna, swordfish, pike and others (2)	1.0	mm	GL	CXL	CCFFP	CAC/GL 7-91	(1), (2) (3)
DW	Natural mineral water	0.001 mg/l	tm	ML	CXL	CCNMWC-STAN 108-81* * Rev. 1 -1997		

Notes and remarks

General: Mercury is a naturally occurring element which can be present in foodstuffs by natural causes; elevated levels can occur due to e.g. environmental contamination by industrial or other uses of mercury. No CCFAC position document available. See also remark 4.

- (1) The Guideline levels are intended for methylmercury in fresh or processed fish and fish products moving in international trade.
- (2) The CGLs for methylmercury in fish were adopted by the CAC-19 in 1991, on the understanding that the levels would be kept under review by the CCFAC as well as the CCFFP, especially as to the identification of predatory species of fish to which the higher GL applies.
- (3) The 1992 CCFAC informed the CAC and the CCFFP that the recommended GLs for mercury in fish referred to total mercury rather than methylmercury. The 20th CAC (1993) decided to maintain the GLs for methylmercury in fish as previously adopted, while recommending that the establishment of corresponding GLs for total mercury in fish be considered by the CCFAC at its next meeting. The 26th CCFAC (1994) noted that analysis of total mercury was generally adequate to ensure that GLs for methylmercury were not exceeded and decided that the establishment of GLs for total mercury in fish was not necessary. The 29th CCFAC noted that the 43rd CXEXEC had recommended that the CCFAC initiate a new risk analysis on mm. It was decided to defer any decision on the question of GLs based on

mm or tm until JECFA had performed the risk assessment. The 53rd JECFA (1999) maintained the existing PTWI for mm and recommended that mm be re-evaluated in 2002 when a new information on the cohort in one of the studies could be assessed and possibly other new relevant data could be available. The 53rd JECFA also recommended that the nutritional benefits of fish consumption are weighed against the possibility of harm when limits on mm concentrations in fish or on fish consumption are being considered. The 32nd CCFAC(2000) took note of these recommendations.

- (4) The draft Code of Practice for Source Directed Measures to Reduce Contamination of Food with Chemicals (ALINORM 01/12A, Appendix XIII, was adopted by the 24th CAC (2001), with an amendment to paragraph 3 of the introduction.

CODEX ALIMENTARIUS - GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD
SCHEDULE 1 - MAXIMUM AND GUIDELINES LEVELS FOR CONTAMINANTS AND TOXINS IN FOOD

1.16 Tin

Synonym: Sn
 Toxicology: PTWI 14 mg/kg bw per week for inorganic tin
 Reference: JECFA 1988, 2000 (55)
 Definition: tin, total (Sn-tot) when not otherwise mentioned; or inorganic tin (Sn-in), or other specification

Commodity/Product Code	Product Name	Level mg/kg	Suffix	Type	Step/ Status	Committee	Reference, Standard	Notes, remarks
	Liquid canned foods	200	C	ML	5	FAC 99, 01		1)
	Solid canned foods	250	C	ML	5	FAC 99, 01		
	Fruit juices and nectars, except...	200	R	ML	CXL			1)
	Apple, grape, blackcurrant, small fr. j/n	150	R	ML	CXL			1)

Notes and remarks

General

A position document on tin (CX/FAC 98/24) was last discussed in CCFAC 1998; see also ALINORM 99/12A, para. 127-131.

- 1) The 23rd CAC (1999) held the proposed draft MLs at step 5, pending the evaluation by JECFA in 2001. The 55th JECFA maintained the existing PTWI and reiterated that limited human data available indicate that concentrations of 150 mg/kg tin in canned beverages and 250 mg/kg in other canned foods may produce acute manifestations of gastric irritation in certain individuals.

**CODEX ALIMENTARIUS - GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD
SCHEDULE 1 - MAXIMUM AND GUIDELINES LEVELS FOR CONTAMINANTS AND TOXINS IN FOOD**

3.8 Dioxins

Synonym: chlorinated dibenzodioxins and -furans
 Toxicology: PTMI 70 pg TEQ/kg bw/month (including dioxin like PCBs)
 Reference: JECFA, 2001
 Definition: dioxins, total

Commodity/Product Code	Product Name	Level mg/kg	Suffix Type	Step/ Status	Committee	Reference, Standard	Notes, remarks
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Notes and remarks

To be prepared by NL.

CODEX ALIMENTARIUS - GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD
SCHEDULE 1 - MAXIMUM AND GUIDELINES LEVELS FOR CONTAMINANTS AND TOXINS IN FOOD

5.1 Aflatoxins

Synonym: Abbreviations used are AFB, AFG, AFM, with numbers, to designate specific compounds; AF-tot for the total (see def.).
 Toxicology: Aflatoxins are carcinogenic for animals and probably also for humans. Exposure should be restricted to a minimum, without threatening an adequate food supply. The carcinogenic potency has been assessed by the JECFA .
 Reference: JECFA 1987, 1997, 2001
 Definition: Depending on the commodity, the contaminant is defined as aflatoxins total (B1 +B2 + G1 + G2), or (in milk) as the metabolite AFM1.

Commodity/Product Code	Product Name	Level mcg/kg	Suffix	Type	Step/ Status	Committee	Reference, Standard	Notes, remarks
SO 703	Peanuts, raw Peanuts, processed	15	AF-tot	ML	CXL	FAC 88-98	CS 209-99	1 1
TN 675	Pistachio nuts					FAC 02		Discussion Paper CX/FAC 02/22
DF 297 FAC	Figs, dried					FAC 94		Information was asked by the 1994
GC 81 GC 645	Cereals Corn (maize)					FAC 88-91		4
ML 106	Milk	0.5	AFM1	ML	CXL	FAC 88-01		2
	Animal Feedingstuffs					FAC 87-94	RCP 45-97	3

Notes and remarks

General

The 23rd CCFAC (1991) decided to discontinue the development of a ML for aflatoxins in foods in general, and to discuss the problems on a commodity basis.

It is acknowledged that for primary plant products the aflatoxin contamination is often not homogenous and a sampling plan is necessary to assure reasonable application of MLs. A general position paper on aflatoxins in food and feeds (CX/FAC 97/16) was presented to the 1997 CCFAC.

1. The 1994 CCCPL decided not to proceed with the proposed GL for processed peanuts and to advance the proposed GL for raw peanuts (intended for further processing), associated with a specific sampling plan. It is assumed that raw peanuts are the major commodity in international trade. The 49th JECFA (1997) evaluated hypothetical standards of 10 and 20 mcg/kg AFB in peanuts and concluded that the higher standard would not result in any observable difference in rates of liver cancer. As a result of this evaluation, the 1998 CCFAC (discussing about options of 10 and 15 mcg/kg as a ML for AF-total in peanuts), decided to propose 15 mcg/kg as ML.
2. The 24th CCFAC (1993) decided to stop the development of a specific standard for AFM1 in milk destined for use in baby foods. The CCFAC has discussed 2 options for a standard for AFM1 in milk: 0.05 mcg/kg and 0.5 mcg/kg. At the request of the 32nd CCFAC (2000), the 56th JECFA (2001) evaluated the exposures and cancer risks associated with these 2 options and concluded that the additional risks for liver cancer for the higher ML are very small. As a result, 0.5 mcg/kg was forwarded as proposed ML at step 8 by the 2001 CCFAC. The 2001 CAC adopted this proposed draft ML, noting that data supporting the lower level, if and when available, could be examined by the CCFAC at a future meeting when necessary. It is acknowledged that the AFM1 level in milk is related to the AFB1 level in the animal feed. See note 3.
3. The 1994 CCFAC decided to discontinue the establishment of GLs for AFB1 in supplementary feedingstuffs for milk-producing animals (previously proposed at the level of 5 mcg/kg), based on the assumption that the relationship between aflatoxins in milk and feeds is not (completely) clear and that there is not much international trade in (composite) supplementary feedingstuffs. International trade mostly is in the form of individual commodities which can be used as feed components in various quantities, directed to other feed uses than milk producing animals, or to other uses in general, or be decontaminated etc. Therefore, a Code of Practice was developed (and forwarded by the 1997 CCFAC to the CAC for adoption at step 8).
4. Corn was included in a Technical Consultation on sampling plans for aflatoxins in commodities. See FAO Food and nutrition Paper 55 (Rome, 1993).

**CODEX ALIMENTARIUS - GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD
SCHEDULE 1 - MAXIMUM AND GUIDELINES LEVELS FOR CONTAMINANTS AND TOXINS IN FOOD**

5.2 Ochratoxins

Synonym:	Ochratoxins include a number of related mycotoxins (A, B, C and their esters and metabolites), the most important one being ochratoxin A, abbreviated here as OTA.
Toxicology:	PTWI 100 ng/kg bw for OTA
Reference:	JECFA 37 (1990), 44 (1995), 56 (2001), [2004]
Definition:	ochratoxin A (OTA)

Commodity/Product Code	Product Name	Level mcg/kg	Suffix	Type Status	Step/	Committee Standard	Reference,	Notes, remarks
GC 640, 650, 654	Wheat, barley, rye	5	*	ML	5	FAC 91-02		1) * includes derived products

Notes and remarks

General

Ochratoxin A is the major compound of a group of chemically related mycotoxins produced by species of the genera *Aspergillus* and *Penicillium*. OTA contamination is commonly found in various cereals, some pulses, coffee, cocoa, figs, nuts and coconut products. It can also be transferred through the feed to animal products and concentrates especially in the kidney, but may also be found in meat and milk. Most OTA is however converted to the less harmful ochratoxin- α in the rumen of ruminants. OTA is a nephrotoxic mycotoxin, which is carcinogenic to rodents and has also teratogenic, immunotoxic and possibly neurotoxic properties. It has been associated with Balkan Endemic Nephropathy.

The situation regarding ochratoxin has been reviewed in a position paper (last version CX/FAC 99/14).

1. A Code of Practice for the prevention of mycotoxin contamination in cereals is being prepared (CX/FAC 02/21, per nov. 2001 at step 3), which includes an annex on OTA.

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5.6.1 Patulin

Synonym:
 Toxicology: PMTDI 0.4 mcg/kg bw
 Reference: JECFA 44 (1995)
 Definition: patulin

Commodity/Product Code	Product Name	Level mcg/kg	Suffix	Type Status	Step/	Committee Standard	Reference,	Notes, remarks
JF 226 ingredient	Apple juice*	50		ML	6	FAC 97-02		1); 2); * includes apple juice as in other beverages

Notes and remarks

General

Patulin is a low molecular weight hemiacetal lactone mycotoxin produced by species of the genera *Aspergillus*, *Penicillium* and *Byssoschlamys*. The major sources of patulin

15. contamination are apples with brown rot and blue mould. Because patulin does not spread much from spoiled tissue, the main human exposure can be expected from processed products, like apple juice and apple sauce, in which the contamination is not visible. Because fermentation destroys patulin, it is not normally present in cider and perry, unless unfermented apple juice has been added after fermentation.

Patulin may also be a contaminant of soft fruits, some vegetables, barley, wheat and corn.

The PMTDI was set by applying a safety factor of 100 from the lowest NOAEL. Potential health problems related to patulin are due to immunotoxic, neurotoxic, mutagenic, carcinogenic and possible adverse gastrointestinal effects observed in animals. Patulin is mostly eliminated within a few days after ingestion.

16. The situation regarding patulin has been reviewed in a position paper (last version CX/FAC 99/14).

1. A Code of Practice for the prevention of patulin contamination in apple juice and apple juice ingredients in other beverages is being developed (last version CX/FAC 02/20).
2. As an alternative ML, a level of 25 mcg/kg has been discussed within the CCFAC and the CAC. Because consensus could not be reached, the 2001 CAC returned the draft ML to step 6 for further consideration by the CCFAC.

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5.4.3 Zearalenone

Synonym: Zearalenone is the most important of a group of related mycotoxins and relevant metabolites. It is abbreviated here as ZEN. A metabolite of ZEN, Zeranol (ZAL) is used as veterinary drug.

Toxicology: PMTDI 0.5 mcg/kg bw

Reference: JECFA 53 (1999)

Definition: Zearalenone for residues of the mycotoxin in plant products;
 zeranol for residues of the veterinary drug in animal products.

Commodity/Product Code	Product Name	Level	Suffix	Type Status	Step/	Committee Standard	Reference,	Notes, remarks
	Cattle liver	1)	10	ZAL	ML*	CXL	RVDF	* based on use as veterinary drug
	Cattle muscle	1)	2	ZAL	ML*	CXL	RVDF	

Notes and remarks

General

Zearalenone is the most important of a group of resorcyclic acid lactone mycotoxins, produced by several species of *Fusarium* moulds. It is found worldwide in a number of cereal crops and also in derived products like beer. It has been implicated in numerous incidents of mycotoxicosis in farm animals, especially pigs. ZEN is rapidly metabolized and excreted in animals; residues of this mycotoxin in animal products are probably not significant from a health point of view. A metabolite of ZEN, α -zearalanol (zeranol, abbreviated here as ZAL) is however relevant relating to its potential use as a veterinary drug. Also β -zearalanol (taleranol) has hormonal activity. Besides these substances which can be used as anabolic growth promoters, also α - and β -zearalenol (ZEL) and zearalanone (ZAN) are mentioned as possibly occurring metabolites of or co-occurring substances with ZEN.

The PMTDI for ZEN was set by applying a safety factor of 100 from the lowest NOAEL, related to the estrogenic effect in pigs. ZAL has an ADI of 0,5 mcg/kg bw (ref. JECFA 26, 27 and 32)

17. The situation regarding ZEN has been reviewed in a position paper (last version CX/FAC 00/19). Preliminary intake calculations indicate values well below the PMTDI. It is mentioned however that further action seems required to reduce the levels of ZEN in risk products (especially maize containing products) for especially children with a high intake of these products. The 31st CCFAC (1999) agreed that, recognizing that there were no identified trade problems with ZEN, a Codex ML was not necessary for the time being.

18.

19. ZEN is incorporated with a specific Annex in the Code of Practice for the prevention of mycotoxin contamination in cereals, which is being developed (CX/FAC 02/21, per nov. 2001 in step 3).

- 1) Residues of ZEN and ZAL together in an animal product may be regarded as evidence that the animal feed was contaminated with ZEN. In order to distinguish between contamination of the feed with mycotoxins of the ZEN group or use of ZAL as veterinary drug, it may be necessary to determine the relative proportions of the different residues, e.g. as ZEN + α - and β -ZEL against ZAL. A ratio of 5 or more probably indicates only contamination by mycotoxins.

APPENDIX II**LIST OF MAXIMUM RESIDUE LIMITS FOR VETERINARY DRUGS IN FOODS**

**(AT SEVERAL STAGES OF EXAMINATION BY THE CCRVDF AND THE CODEX
ALIMENTARIUS COMMISSION FROM CODEX DATABASE
ON RESIDUES FOR VETERINARY DRUGS IN FOODS)**

**STATUS OF MAXIMUM RESIDUE LIMITS FOR
VETERINARY DRUGS IN FOODS**

Abamectin**JECFA Evaluation** 45 (1995), 47 (1996)**ADI** 0-2 µg/kg body weight (1997) Established for the sum of abamectin and (Z)-8,9 isomer**Residue** Avermectin B1a.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Liver	100	8	47	10V, 11IV, 12IV, 13II
Cattle	Kidney	50	8	47	10V, 11IV, 12IV, 13II
Cattle	Fat	100	8	47	10V, 11IV, 12IV, 13II

Albendazole**JECFA Evaluation** 34 (1989)**ADI** 0-50 µg/kg body weight (1989)**Residue** Except milk, 2-aminosulfone metabolite;
Milk, not yet identified.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Not specified	Muscle	100	(1993)	34	
Not specified	Liver	5000	(1993)	34	
Not specified	Kidney	5000	(1993)	34	
Not specified	Fat	100	(1993)	34	
Not specified	Milk	100	(1993)	34	

Azaperone**JECFA Evaluation** 38 (1991), 43 (1994), 50 (1998), 52(1999)**ADI** 0-6 µg/kg body weight (1998)**Residue** Sum of azaperone and azaperol.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Pig	Muscle	60	(1999)	38, 43, 50	
Pig	Liver	100	(1999)	38, 43, 50	
Pig	Kidney	100	(1999)	38, 43, 50	
Pig	Fat	60	(1999)	38, 43, 50	

Benzyloxyphenoxymethylpenicillin/Procaine benzyloxyphenoxymethylpenicillin**JECFA Evaluation** 50 (1998)**ADI** 30 µg-penicillin/person/day (1998) Residues of benzyloxyphenoxymethylpenicillin and procaine**Residue** Benzyloxyphenoxymethylpenicillin.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	50	(1999)	50	
Pig	Muscle	50	(1999)	50	
Chicken	Muscle	50	1/ (1999)	50	
Cattle	Liver	50	(1999)	50	
Pig	Liver	50	(1999)	50	
Chicken	Liver	50	1/ (1999)	50	
Cattle	Kidney	50	(1999)	50	
Pig	Kidney	50	(1999)	50	
Chicken	Kidney	50	1/ (1999)	50	
Cattle	Milk	4 (µg/l)	(1999)	50	

Procaine benzyloxyphenoxymethylpenicillin is also used in horses, sheep, turkeys, rabbits, quail and pheasants.

Due to the lack of

information, the 50th JECFA could not establish MRLs for these species.

1/ Applies to procaine benzyloxyphenoxymethylpenicillin only.

Bovine somatotropins**JECFA Evaluation** 40 (1992), 50 (1998)**ADI** Not specified (1992)**Residue** Not applicable.

Species	Tissue	MRL (µg/kg)		Step	JECFA	ALINORM
Cattle	Muscle	not specified	1/	8	40, 50	
Cattle	Liver	not specified	1/	8	40, 50	
Cattle	Kidney	not specified	1/	8	40, 50	
Cattle	Fat	not specified	1/	8	40, 50	
Cattle	Milk	not specified	1/	8	40, 50	

Consideration of the adoption of all draft MRLs suspended by the 22nd Session of the Codex Alimentarius Commission pending the reevaluation of scientific data by JECFA/CCRVDF and the examination of the application

of "other legitimate factors" in relation to BST by the Codex Committee on General Principles.

The Commission at its 23rd Session decided to hold the MRLs at Step 8 in accordance with the provisions contained in the introductory paragraphs of the Uniform Procedure for the Elaboration of Codex Standards and Related Texts.

ADI "not specified" means that available data on the toxicity and intake of the veterinary drug indicate a large margin of safety for consumption of residues in food when the drug is used according to good practice in the use of veterinary drugs. For that reason, and for the reasons stated in the individual evaluation, the JECFA concluded that use of the veterinary drugs does not represent a hazard to human and that there is no need to specify a numerical ADI.

1/ MRL "not specified" means that available data on the identity and concentration of residues of the veterinary drug in animal tissues indicate a wide margin of safety for consumption of residues in food when the drug is used according to good practice in the use of veterinary drugs. For that reason, and for the reasons stated in the individual evaluation, the JECFA concluded that the presence of drug residues in the named animal product does not present a health concern and that there is no need to specify a numerical MRL.

Carazolol**JECFA Evaluation** 38 (1991), 43 (1994), 52 (1999)**ADI** 0-0.1 µg/kg body weight (1994) ADI based on the acute pharmacological effects of**Residue** Carazolol.

Species	Tissue	MRL (µg/kg)		Step	JECFA	ALINORM
Pig	Muscle	5	1/	8	38, 43, 52	7V,8V,9IV,10II,11IV,12IV,13II
Pig	Liver	25		8	38, 43, 52	7V,8V,9IV,10II,11IV,12IV,13II
Pig	Kidney	25		8	38, 43, 52	7V,8V,9IV,10II,11IV,12IV,13II
Pig	Fat/Skin	5	1/	8	38, 43, 52	7V,8V,9IV,10II,11IV,12IV,13II

All MRLs were returned to Step 7 by the 22nd Session of the Codex Alimentarius Commission due to concerns

that the concentration of residues at the injection site may exceed the ADI.

Recognizing that high level residues at the injection site could pose health risks, the CCRVDF-11 agreed to retain all draft MRLs at Step 7 and to request JECFA to review this issue based on the principles outlined in the paper contained in CL 1998/4-RVDF.

1/ The concentration at the injection site tow hours after treatment may result in an intake that exceeds the acute RfD and therefore, an appropriate withdrawal period should be applied (13th CCRVDF).

Carbadox**JECFA Evaluation** 36 (1990)**ADI** Limited acceptance (1990)**Residue** Quinoxaline-2-carboxylic acid.

Species	Tissue	MRL (µg/kg)		Step	JECFA	ALINORM
Pig	Muscle	5		(1993)	36	
Pig	Liver	30		(1993)	36	

Ceftiofur**JECFA Evaluation** 45 (1995), 48 (1997)**ADI** 0-50 µg/kg body weight (1995)**Residue** Desfuroylceftiofur.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	1000	(1999)	45, 48	
Pig	Muscle	1000	(1999)	45, 48	
Cattle	Liver	2000	(1999)	45, 48	
Pig	Liver	2000	(1999)	45, 48	
Cattle	Kidney	6000	(1999)	45, 48	
Pig	Kidney	6000	(1999)	45, 48	
Cattle	Fat	2000	(1999)	45, 48	
Pig	Fat	2000	(1999)	45, 48	
Cattle	Milk	100	(1999)	45, 48	

(µg/l)

Chlortetracycline/Oxytetracycline/Tetracycline**JECFA Evaluation** 45 (1995), 47 (1996), 50 (1998)**ADI** 0-30 µg/kg body weight (1998) Group ADI for chlortetracycline, oxytetracycline and**Residue** Parent drugs, singly or in combination.

Species	Tissue	MRL (µg/kg)		Step	JECFA	ALINORM
Cattle	Muscle	200		8	45, 47, 50	9V, 10V, 11IV, 12IV, 13II
Pig	Muscle	200		8	45, 47, 50	9V, 10V, 11IV, 12IV, 13II
Sheep	Muscle	200		8	45, 47, 50	9V, 10V, 11IV, 12IV, 13II
Poultry	Muscle	200		8	45, 47, 50	9V, 10V, 11IV, 12IV, 13II
Fish	Muscle	200	T	1/3/ 8	50, 54	11V, 12IV, 13II
Giant prawn	Muscle	200		1/2/ 8	50	11V, 12IV, 13II
Cattle	Liver	600		8	45, 47, 50	9V, 10V, 11IV, 12IV, 13II
Pig	Liver	600		8	45, 47, 50	9V, 10V, 11IV, 12IV, 13II
Sheep	Liver	600		8	45, 47, 50	9V, 10V, 11IV, 12IV, 13II
Poultry	Liver	600		8	45, 47, 50	9V, 10V, 11IV, 12IV, 13II
Cattle	Kidney	1200		8	45, 47, 50	9V, 10V, 11IV, 12IV
Pig	Kidney	1200		8	45, 47, 50	9V, 10V, 11IV, 12IV
Sheep	Kidney	1200		8	45, 47, 50	9V, 10V, 11IV, 12IV
Poultry	Kidney	1200		8	45, 47, 50	9V, 10V, 11IV, 12IV
Cattle	Milk	100		8	45, 47	9V, 10V, 11IV, 12IV, 13II
Sheep	Milk	100		8	45, 47	9V, 10V, 11IV, 12IV, 13II
Poultry	Eggs	400		8	45, 47, 50	9V, 10V, 11IV, 12IV

See also oxytetracycline.

1/ Applies only to oxytetracycline.

2/ *Penaeus monodon*. The current Codex MRL at 100 µg/kg in giant prawn for oxytetracycline adopted in 1997.

3/ The 54th JECFA confirmed the previous recommendation. Residue data and a validated analytical method are required for evaluation in 2002 (54th JECFA). The current Codex MRL at 100 µg/kg in fish for oxytetracycline adopted in 1993.

Clenbuterol**JECFA Evaluation** 47 (1996)

ADI 0-0.004 µg/kg body weight (1996) Due to the potential for abuse of this drug, the MRLs

Residue Clenbuterol.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	0.2	5	47	10VI, 11VI, 12VI, 13V
Horse	Muscle	0.2	5	47	10VI, 11VI, 12VI, 13V
Cattle	Liver	0.6	5	47	10VI, 11VI, 12VI, 13V
Horse	Liver	0.6	5	47	10VI, 11VI, 12VI, 13V
Cattle	Kidney	0.6	5	47	10VI, 11VI, 12VI, 13V
Horse	Kidney	0.6	5	47	10VI, 11VI, 12VI, 13V
Cattle	Fat	0.2	5	47	10VI, 11VI, 12VI, 13V
Horse	Fat	0.2	5	47	10VI, 11VI, 12VI, 13V
Cattle	Milk	0.05	8	47	10VI, 11VI, 12V, 13II

Due to the potential for abuse of this drug, the MRLs are recommended only when associated with the nationally approved therapeutic use, such as for tocolysis or as an adjunct therapy in respiratory disease.

Closantel**JECFA Evaluation** 36 (1990), 40 (1992)**ADI** 0-30 µg/kg body weight (1992)**Residue** Closantel.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	1000	(1993)	36, 40	
Sheep	Muscle	1500	(1993)	36, 40	
Cattle	Liver	1000	(1993)	36, 40	
Sheep	Liver	1500	(1993)	36, 40	
Cattle	Kidney	3000	(1993)	36, 40	
Sheep	Kidney	5000	(1993)	36, 40	
Cattle	Fat	3000	(1993)	36, 40	
Sheep	Fat	2000	(1993)	36, 40	

Cyfluthrin**JECFA Evaluation** 48 (1997)**ADI** 0-20 µg/kg body weight (1997)**Residue** Cyfluthrin.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	20	8	48	11V, 12IV, 13II
Cattle	Liver	20	8	48	11V, 12IV, 13II
Cattle	Kidney	20	8	48	11V, 12IV, 13II
Cattle	Fat	200	8	48	11V, 12IV, 13II
Cattle	Milk	40	8	48	11V, 12IV, 13II

There are a number of MRLs adopted for cyfluthrin in or on both plant and animal products (see Codex

Alimentarius, Volume 2B).

The Codex Committee on Pesticide Residues at its 31st Session agreed to support the Draft MRL in cattle milk at 40

µg/l to replace the Codex MRL at 0.01 mg/kg adopted by the Commission.

The MRLs were advanced to Step 8 with the understanding that when new information becomes available, it should

be sent to JECFA for evaluation (13th CCRVDF).

Cyhalothrin**JECFA Evaluation** 54 (2000)

ADI 0-2 µg/kg body weight (2000) temporary ADI 1/

Residue Cyhalothrin.

Species	Tissue	MRL (µg/kg)		Step	JECFA	ALINORM
Cattle	Muscle	20	T	5/8	54	13III
Pig	Muscle	20	T	5/8	54	13III
Sheep	Muscle	20	T	5/8	54	13III
Cattle	Liver	20	T	5/8	54	13III
Pig	Liver	20	T	5/8	54	13III
Sheep	Liver	20	T	2/ 5/8	54	13III
Cattle	Kidney	20	T	5/8	54	13III
Pig	Kidney	20	T	5/8	54	13III
Sheep	Kidney	20	T	5/8	54	13III
Cattle	Fat	400	T	5/8	54	13III
Pig	Fat	400	T	5/8	54	13III
Sheep	Fat	400	T	5/8	54	13III
Cattle	Milk	30	T	5/8	54	13III

All MRLs are temporary because the ADI is temporary.

1/ Results of appropriate studies to establish a no-observed-effect level (NOEL) for neurobehavioral effects in laboratory animals are required for evaluation in 2002 (54th JECFA).

2/ Results of the validation of the analytical method to demonstrate a limit of quantification of 0.01 mg/kg (sheep liver) are required for evaluation in 2002 (54th JECFA).

Danofloxacin**JECFA Evaluation** 48 (1997)**ADI** 0-20 µg/kg body weight (1997)**Residue** Danofloxacin.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	200	(2001)	48	
Pig	Muscle	100	(2001)	48	
Chicken	Muscle	200	(2001)	48	
Cattle	Liver	400	(2001)	48	
Pig	Liver	50	(2001)	48	
Chicken	Liver	400	(2001)	48	
Cattle	Kidney	400	(2001)	48	
Pig	Kidney	200	(2001)	48	
Chicken	Kidney	400	(2001)	48	
Cattle	Fat	100	(2001)	48	
Pig	Fat	100	(2001)	48	
Chicken	Fat	100	1/ (2001)	48	

1/ Fat/skin in normal proportion.

Deltamethrin**JECFA Evaluation** 52 (1999)

ADI 0-10 µg/kg body weight (1982) Established by the 1982 JMPR.

Residue Deltamethrin

Species	Tissue	MRL (µg/kg)		Step	JECFA	ALINORM
Cattle	Muscle	30	1/	5	52	12V, 13V
Sheep	Muscle	30	1/	5	52	12V, 13V
Chicken	Muscle	30	1/	5	52	12V, 13V
Salmon	Muscle	30	1/	5	52	12V, 13V
Cattle	Liver	50		5	52	12V, 13V
Sheep	Liver	50		5	52	12V, 13V
Chicken	Liver	50		5	52	12V, 13V
Cattle	Kidney	50		5	52	12V, 13V
Sheep	Kidney	50		5	52	12V, 13V
Chicken	Kidney	50		5	52	12V, 13V
Cattle	Fat	500		5	52	12V, 13V
Sheep	Fat	500		5	52	12V, 13V
Chicken	Fat	500		5	52	12V, 13V
Cattle	Milk	30	1/	5	52	12V, 13V
Chicken	Eggs	30	1/	5	52	12V, 13V

The MRLs were advanced to Step 5 only, pending the future evaluation of intake by JECFA (13th CCRVDF).

1/ No residues were detected. MRLs are for guidance only and are based on two times the limit of quantification of the analytical method.

Diclazuril**JECFA Evaluation** 45 (1995), 50 (1998)**ADI** 0-30 µg/kg body weight (1998)**Residue** Diclazuril.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Sheep	Muscle	500	(1999)	45, 50	
Rabbit	Muscle	500	(1999)	45, 50	
Poultry	Muscle	500	(1999)	45, 50	
Sheep	Liver	3000	(1999)	45, 50	
Rabbit	Liver	3000	(1999)	45, 50	
Poultry	Liver	3000	(1999)	45, 50	
Sheep	Kidney	2000	(1999)	45, 50	
Rabbit	Kidney	2000	(1999)	45, 50	
Poultry	Kidney	2000	(1999)	45, 50	
Sheep	Fat	1000	(1999)	45, 50	
Rabbit	Fat	1000	(1999)	45, 50	
Poultry	Fat/Skin	1000	(1999)	45, 50	

Dicyclanil**JECFA Evaluation** 54 (2000)**ADI** 0-7 µg/kg body weight (2000)**Residue** Dicyclanil.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Sheep	Muscle	200	5	54	13V
Sheep	Liver	400	5	54	13V
Sheep	Kidney	400	5	54	13V
Sheep	Fat	150	5	54	13V

Dihydrostreptomycin/Streptomycin**JECFA Evaluation** 43 (1994), 48 (1997), 52 (1999)**ADI** 0-50 µg/kg body weight (1997) Group ADI for combined residues of**Residue** Sum of dihydrostreptomycin and streptomycin.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	600	(2001)	52	
Pig	Muscle	600	(2001)	52	
Sheep	Muscle	600	(2001)	52	
Chicken	Muscle	600	(2001)	52	
Cattle	Liver	600	(2001)	52	
Pig	Liver	600	(2001)	52	
Sheep	Liver	600	(2001)	52	
Chicken	Liver	600	(2001)	52	
Cattle	Kidney	1000	(2001)	52	
Pig	Kidney	1000	(2001)	52	
Sheep	Kidney	1000	(2001)	52	
Chicken	Kidney	1000	(2001)	52	
Cattle	Fat	600	(2001)	52	
Pig	Fat	600	(2001)	52	
Sheep	Fat	600	(2001)	52	
Chicken	Fat	600	(2001)	52	
Cattle	Milk	200	T	1/	(2001) 52

1/ A validated analytical method is required for evaluation in 2001 that will quantify both compounds in milk at a low level (52nd JECFA).

Diminazene**JECFA Evaluation** 34 (1989), 42 (1994)**ADI** 0-100 µg/kg body weight (1994)**Residue** Diminazene.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	500	(1997)	34, 42	
Cattle	Liver	12000	(1997)	34, 42	
Cattle	Kidney	6000	(1997)	34, 42	
Cattle	Milk	150 (µg/l)	1/ (1997)	34, 42	

1/ Limit of quantitation of the analytical method.

Doramectin**JECFA Evaluation** 45 (1995), 52 (1999)**ADI** 0-0.5 µg/kg body weight (1995)**Residue** Doramectin.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	10	(1997)	45	
Pig	Muscle	5	1/ (2001)	52	
Cattle	Liver	100	(1997)	45	
Pig	Liver	100	(2001)	52	
Cattle	Kidney	30	(1997)	45	
Pig	Kidney	30	(2001)	52	
Cattle	Fat	150	(1997)	45	
Pig	Fat	150	1/ (2001)	52	

1/ High concentration of residues at the injection sites (52nd JECFA).

Eprinomectin**JECFA Evaluation** 50 (1998)**ADI** 0-10 µg/kg body weight (1998)**Residue** Eprinomectin B1a

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	100	8	50	11V, 12IV, 13II
Cattle	Liver	2000	8	50	11V, 12IV, 13II
Cattle	Kidney	300	8	50	11V, 12IV, 13II
Cattle	Fat	250	8	50	11V, 12IV, 13II
Cattle	Milk	20 (µg/l)	8	50	11V, 12IV, 13II

Estradiol-17beta**JECFA Evaluation** 25 (1981), 32 (1987), 52 (1999)**ADI** 0-0.05 µg/kg body weight (1999)**Residue** Estradiol-17beta.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	unnecessary	(1995)	25, 32	
Cattle	Muscle	not specified	1/ (a)	52	
Cattle	Liver	not specified	1/ (a)	52	
Cattle	Liver	unnecessary	(1995)	25, 32	
Cattle	Kidney	unnecessary	(1995)	25, 32	
Cattle	Kidney	not specified	1/ (a)	52	
Cattle	Fat	unnecessary	(1995)	25, 32	
Cattle	Fat	not specified	1/ (a)	52	

Previous ADI, Unnecessary (1987)

1/ MRL "not specified" means that available data on the identity and concentration of residues of the veterinary

drug in animal tissues indicate a wide margin of safety for consumption of residues in food when the drug is used

according to good practice in the use of veterinary drugs. For that reason, and for the reasons stated in the

individual evaluation, the 52nd JECFA concluded that the presence of drug residues in the named animal product does

not present a health concern and that there is no need to specify a numerical MRL.

The 12th CCRVDF decided not to consider these new recommendations.

Febantel/Fenbendazole/Oxfendazole**JECFA Evaluation** 38(1991), 45(1995), 50 (1998)**ADI** 0-7 µg/kg body weight (1998) Group ADI.**Residue** Sum of fenbendazole, oxfendazole and oxfendazole sulphone, expressed as oxfendazole sulphone equivalents.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	100	(1999)	38, 45, 50	
Pig	Muscle	100	(1999)	38, 45, 50	
Sheep	Muscle	100	(1999)	38, 45, 50	
Goat	Muscle	100	(1999)	50	
Horse	Muscle	100	(1999)	50	
Cattle	Liver	500	(1999)	38, 45, 50	
Pig	Liver	500	(1999)	38, 45, 50	
Sheep	Liver	500	(1999)	38, 45, 50	
Goat	Liver	500	(1999)	50	
Horse	Liver	500	(1999)	50	
Cattle	Kidney	100	(1999)	38, 45, 50	
Pig	Kidney	100	(1999)	38, 45, 50	
Sheep	Kidney	100	(1999)	38, 45, 50	
Goat	Kidney	100	(1999)	50	
Horse	Kidney	100	(1999)	50	
Cattle	Fat	100	(1999)	38, 45, 50	
Pig	Fat	100	(1999)	38, 45, 50	
Sheep	Fat	100	(1999)	38, 45, 50	
Goat	Fat	100	(1999)	50	
Horse	Fat	100	(1999)	50	
Cattle	Milk	100 (µg/l)	(1999)	38, 45, 50	

Sheep Milk 100 (µg/l) (1999) 38, 45, 50

Fluazuron

JECFA Evaluation 48 (1997)

ADI 0-40 µg/kg body weight (1997)

Residue Fluazuron.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	200	(1999)	48	
Cattle	Liver	500	(1999)	48	
Cattle	Kidney	500	(1999)	48	
Cattle	Fat	7000	(1999)	48	

Flubendazole

JECFA Evaluation 40 (1992)

ADI 0-12 µg/kg body weight (1992)

Residue Flubendazole.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Pig	Muscle	10	(1995)	40	
Poultry	Muscle	200	(1995)	40	
Pig	Liver	10	(1995)	40	
Poultry	Liver	500	(1995)	40	
Poultry	Eggs	400	(1995)	40	

Flumequine**JECFA Evaluation** 42 (1994), 48 (1997)**ADI** 0-30 µg/kg body weight (1997)**Residue** Flumequine.

Species	Tissue	MRL (µg/kg)		Step	JECFA	ALINORM
Cattle	Muscle	500	2/	6	42, 48, 54	11V, 12IV, 13IV
Pig	Muscle	500	2/ 3/	6	42, 48, 54	11V, 12IV, 13IV
Sheep	Muscle	500	2/ 3/	6	42, 48, 54	11V, 12IV, 13IV
Chicken	Muscle	500	2/ 3/	6	42, 48, 54	11V, 12IV, 13IV
Trout	Muscle	500	1/ 2/ 3/	6	42, 48, 54	11V, 12IV, 13IV
Cattle	Liver	500	4/	6	42, 48, 54	11V, 12IV, 13IV
Pig	Liver	500	3/ 4/	6	42, 48, 54	11V, 12IV, 13IV
Sheep	Liver	500	3/ 4/	6	42, 48, 54	11V, 12IV, 13IV
Chicken	Liver	500	3/ 4/	6	42, 48, 54	11V, 12IV, 13IV
Cattle	Kidney	3000	2/	6	42, 48, 54	11V, 12IV
Pig	Kidney	3000	2/ 3/	6	42, 48, 54	11V, 12IV, 13IV
Sheep	Kidney	3000	2/ 3/	6	42, 48, 54	11V, 12IV, 13IV
Chicken	Kidney	3000	2/ 3/	6	48, 54	11V, 12IV, 13IV
Cattle	Fat	1000	2/	6	48, 54	11V, 12IV
Pig	Fat	1000	2/ 3/	6	48, 54	11V, 12IV
Sheep	Fat	1000	2/ 3/	6	48, 54	11V, 12IV
Chicken	Fat	1000	2/ 3/	6	48, 54	11V, 12IV

New toxicological data had become available that may affect the ADI since the 12th CCRVDF (13th CCRVDF)

1/ For muscle including skin in natural proportions.

2/ MRL confirmed (54th JECFA).

3/ Coverted from temporary to full status (54th JECFA).

4/ Previous recommendation was 1000 µg/kg by the 48th JECFA.

Gentamicin**JECFA Evaluation** 43 (1994), 48 (1997), 50 (1998)**ADI** 0-20 µg/kg body weight (1998)**Residue** Gentamicin.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	100	(2001)	43, 48, 50	
Pig	Muscle	100	(2001)	43, 48, 50	
Cattle	Liver	2000	(2001)	43, 48, 50	
Pig	Liver	2000	(2001)	43, 48, 50	
Cattle	Kidney	5000	(2001)	43, 48, 50	
Pig	Kidney	5000	(2001)	43, 48, 50	
Cattle	Fat	100	(2001)	43, 48, 50	
Pig	Fat	100	(2001)	43, 48, 50	
Cattle	Milk	200	(2001)	43, 48, 50	

Imidocarb**JECFA Evaluation** 50 (1998)**ADI** 0-10 µg/kg body weight (1998)**Residue** Imidocarb.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	300 T	(2001)	50	
Cattle	Liver	2000 T	(2001)	50	
Cattle	Kidney	1500 T	(2001)	50	
Cattle	Fat	50 T	(2001)	50	
Cattle	Milk	50 T	(2001)	50	

MRLs are temporary. Residue depletion studies in lactating and non-lactating cattle using recommended subcutaneous

doses of unlabelled imidocarb and analyzing samples using the proposed regulatory method with enzymatic digestion

are required for evaluation in 2001. If MRLs are to be recommended for sheep, a residue depletion study using the

recommended does and route of administration would be required.

Isometamidium**JECFA Evaluation** 40 (1992)**ADI** 0-100 µg/kg body weight (1992)**Residue** Isometamidium.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	100	(1995)	40	
Cattle	Liver	500	(1995)	40	
Cattle	Kidney	1000	(1995)	40	
Cattle	Fat	100	(1995)	40	
Cattle	Milk	100	(1995)	40	

Ivermectin**JECFA Evaluation** 36 (1990), 40 (1992)**ADI** 0-1 µg/kg body weight (1992)**Residue** 22,23-Dihydroavermectin B1a (H2B1a).

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Liver	100	(1993)	36, 40	
Pig	Liver	15	(1993)	36, 40	
Sheep	Liver	15	(1993)	36, 40	
Cattle	Fat	40	(1993)	36, 40	
Pig	Fat	20	(1993)	36, 40	
Sheep	Fat	20	(1993)	36, 40	
Cattle	Milk	10	T 1/ 5/8	54	13III

1/ Validation data on the analytical method and information on other routes of application to cattle to evaluate the residues in milk are required for evaluation in 2002 (54th JECFA).

Levamisole**JECFA Evaluation** 36 (1990), 42 (1994)**ADI** 0-6 µg/kg body weight (1994)**Residue** Levamisole.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	10	(1997)	36, 42	
Pig	Muscle	10	(1997)	36, 42	
Sheep	Muscle	10	(1997)	36, 42	
Poultry	Muscle	10	(1997)	36, 42	
Cattle	Liver	100	(1997)	36, 42	
Pig	Liver	100	(1997)	36, 42	
Sheep	Liver	100	(1997)	36, 42	
Poultry	Liver	100	(1997)	36, 42	
Cattle	Kidney	10	(1997)	36, 42	
Pig	Kidney	10	(1997)	36, 42	
Sheep	Kidney	10	(1997)	36, 42	
Poultry	Kidney	10	(1997)	36, 42	
Cattle	Fat	10	(1997)	36, 42	
Pig	Fat	10	(1997)	36, 42	
Sheep	Fat	10	(1997)	36, 42	
Poultry	Fat	10	(1997)	36, 42	

Lincomycin**JECFA Evaluation** 54 (2000)**ADI** 0-30 µg/kg body weight (2000)**Residue** Lincomycin.

Species	Tissue	MRL (µg/kg)		Step	JECFA	ALINORM	
Cattle	Muscle	100	T	1/	5/8	54	13III
Pig	Muscle	100			5/8	54	13III
Sheep	Muscle	100	T	1/	5/8	54	13III
Chicken	Muscle	100	T	1/	5/8	54	13III
Cattle	Liver	500	T	1/	5/8	54	13III
Pig	Liver	500			5/8	54	13III
Sheep	Liver	500	T	1/	5/8	54	13III
Chicken	Liver	500	T	1/	5/8	54	13III
Cattle	Kidney	1500	T	1/	5/8	54	13III
Pig	Kidney	1500			5/8	54	13III
Sheep	Kidney	1500	T	1/	5/8	54	13III
Chicken	Kidney	1500	T	1/	5/8	54	13III
Cattle	Fat	100	T	1/	5/8	54	13III
Pig	Fat	100			5/8	54	13III
Sheep	Fat	100	T	1/	5/8	54	13III
Chicken	Fat	100	T	1/	5/8	54	13III
Cattle	Milk	150			5/8	54	13III

1/ Data comparable to those provided for tissues of pigs, which show that lincomycin is the major component with significant microbiological activity in tissues of cattle, sheep, and chickens, are required for evaluation in 2002 (54th JECFA).

Melengestrol acetate**JECFA Evaluation** 54 (2000)**ADI** 0-0.03 µg/kg body weight (2000)**Residue** Melengestrol acetate.

Species	Tissue	MRL (µg/kg)		Step	JECFA	ALINORM
Cattle	Liver	2	T	5	54	
Cattle	Fat	5	T	5	54	

All MRLs are temporary. A practical analytical method for monitoring residues of melengestrol acetate at the

recommended MRL is required for evaluation in 2002 (54th JECFA).

Scheduled for reevaluation by the 58th JECFA for a practical analytical method for monitoring residues at the

recommended MRLs (13th CCRVDF).

Moxidectin**JECFA Evaluation** 45 (1995), 47 (1996), 48 (1997), 50 (1998)**ADI** 0-2 µg/kg body weight (1995)**Residue** Moxidectin.

Species	Tissue	MRL (µg/kg)		Step	JECFA	ALINORM
Cattle	Muscle	20	1/ 2/	(1997)	45, 47, 48	
Sheep	Muscle	50		(1997)	47, 48	
Deer	Muscle	20		(1999)	45, 47, 48, 50	
Cattle	Liver	100		(1997)	45, 47, 48	
Sheep	Liver	100		(1997)	45, 47, 48	
Deer	Liver	100		(1999)	45, 47, 48, 50	
Cattle	Kidney	50		(1997)	45, 47, 48	
Sheep	Kidney	50		(1997)	45, 47, 48	
Deer	Kidney	50		(1999)	45, 47, 48, 50	
Cattle	Fat	500		(1997)	45, 47, 48	
Sheep	Fat	500		(1997)	45, 47, 48	
Deer	Fat	500		(1999)	45, 47, 48, 50	

1/ Very high concentration and great variation in the level of residues at the injection site in cattle over a 49 day period after dosing.

2/ The 48th JECFA reconsidered the MRL but, based on the available data, maintained it.

Neomycin**JECFA Evaluation** 43 (1994), 47 (1996)**ADI** 0-60 µg/kg body weight (1996)**Residue** Neomycin.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	500	(1999)	43, 47	
Pig	Muscle	500	(1999)	43, 47	
Sheep	Muscle	500	(1999)	43, 47	
Goat	Muscle	500	(1999)	43, 47	
Chicken	Muscle	500	(1999)	43, 47	
Turkey	Muscle	500	(1999)	43, 47	
Duck	Muscle	500	(1999)	43, 47	
Cattle	Liver	15000	6(r)	52	12V, 13IV
Cattle	Liver	500	(1999)	43, 47	
Pig	Liver	500	(1999)	43, 47	
Sheep	Liver	500	(1999)	43, 47	
Goat	Liver	500	(1999)	43, 47	
Chicken	Liver	500	(1999)	43, 47	
Turkey	Liver	500	(1999)	43, 47	
Duck	Liver	500	(1999)	43, 47	
Cattle	Kidney	10000	(1999)	43, 47	
Cattle	Kidney	20000	6(r)	52	12V, 13IV
Pig	Kidney	10000	(1999)	43, 47	
Sheep	Kidney	10000	(1999)	43, 47	
Goat	Kidney	10000	(1999)	43, 47	
Chicken	Kidney	10000	(1999)	43, 47	

Turkey	Kidney	10000		(1999)	43, 47	
Duck	Kidney	10000		(1999)	43, 47	
Cattle	Fat	500		(1999)	43, 47	
Pig	Fat	500		(1999)	43, 47	
Sheep	Fat	500		(1999)	43, 47	
Goat	Fat	500		(1999)	43, 47	
Chicken	Fat	500		(1999)	43, 47	
Turkey	Fat	500		(1999)	43, 47	
Duck	Fat	500		(1999)	43, 47	
Cattle	Milk	500		6(a)	52	12V, 13IV
Cattle	Milk	500	(µg/l)	(1999)	43, 47	
Chicken	Eggs	500		(1999)	43, 47	

New toxicological information became available since the ADI had been established. The 58th JECFA will evaluate information on the registration of injectable neomycin products and how they were used with regard to GPVD. (13th CCRVDF)

Nicarbazin

JECFA Evaluation 50 (1998)

ADI 0-400 µg/kg body weight (1998)

Residue N,N'-bis(4-nitrophenyl)urea.

Species	Tissue	MRL (µg/kg)		Step	JECFA	ALINORM
Chicken	Muscle	200	1/	(1999)	50	
Chicken	Liver	200	1/	(1999)	50	
Chicken	Kidney	200	1/	(1999)	50	
Chicken	Fat/Skin	200	1/	(1999)	50	

1/ Broilers.

Oxytetracycline**JECFA Evaluation** 12 (1968), 36 (1990), 45 (1995), 47 (1996)**ADI** 0-30 µg/kg body weight (1998) Group ADI for chlortetracycline, oxytetracycline and**Residue** Oxytetracycline.

Species	Tissue	MRL (µg/kg)		Step	JECFA	ALINORM
Cattle	Muscle	100	2/	(1993)	12, 36	
Pig	Muscle	100	2/	(1993)	12, 36	
Sheep	Muscle	100	2/	(1993)	12, 36	
Chicken	Muscle	100	2/	(1993)	12, 36	
Turkey	Muscle	100	2/	(1993)	12, 36	
Fish	Muscle	100	2/	(1993)	12, 36	
Cattle	Liver	300	2/	(1993)	12, 36	
Pig	Liver	300	2/	(1993)	12, 36	
Sheep	Liver	300	2/	(1993)	12, 36	
Chicken	Liver	300	2/	(1993)	12, 36	
Turkey	Liver	300	2/	(1993)	12, 36	
Cattle	Kidney	600	2/	(1993)	12, 36	
Pig	Kidney	600	2/	(1993)	12, 36	
Sheep	Kidney	600	2/	(1993)	12, 36	
Chicken	Kidney	600	2/	(1993)	12, 36	
Turkey	Kidney	600	2/	(1993)	12, 36	
Cattle	Milk	100	2/	(1993)	12, 36	
Chicken	Eggs	200	2/	(1993)	12, 36	
Giant prawn	Not specified	100	1/ 2/	(1997)	45, 47	

1/ *Penaeus monodon*.

2/ Will be replaced by the relevant MRL for chlortetracycline/oxytetracycline/tetracycline.

Phoxim**JECFA Evaluation** 52 (1999)**ADI** 0-4 µg/kg body weight (1999)**Residue** Phoxim

Species	Tissue	MRL (µg/kg)		Step	JECFA	ALINORM
Cattle	Muscle	50	T	8	52	12V, 13II
Pig	Muscle	50	T	8	52	12V, 13II
Sheep	Muscle	50	T	8	52	12V, 13II
Goat	Muscle	50	T	8	52	12V, 13II
Cattle	Liver	50	T	8	52	12V, 13II
Pig	Liver	50	T	8	52	12V, 13II
Sheep	Liver	50	T	8	52	12V, 13II
Goat	Liver	50	T	8	52	12V, 13II
Cattle	Kidney	50	T	8	52	12V, 13II
Pig	Kidney	50	T	8	52	12V, 13II
Sheep	Kidney	50	T	8	52	12V, 13II
Goat	Kidney	50	T	8	52	12V, 13II
Cattle	Fat	400	T	8	52	12V, 13II
Pig	Fat	400	T	8	52	12V, 13II
Sheep	Fat	400	T	8	52	12V, 13II
Goat	Fat	400	T	8	52	12V, 13II
Cattle	Milk	10	T	8	52	12V, 13II

Porcine somatotropin**JECFA Evaluation** 52 (1999)**ADI** Not Specified (1999)**Residue** Not applicable

Species	Tissue	MRL (µg/kg)		Step	JECFA	ALINORM
Pig	Muscle	not specified	1/	8	52	12V, 13II
Pig	Liver	not specified	1/	8	52	12V, 13II
Pig	Kidney	not specified	1/	8	52	12V, 13II
Pig	Fat	not specified	1/	8	52	12V, 13II

The ADI applies only to three specific compounds.

ADI "not specified" means that available data on the toxicity and intake of the veterinary drug indicate a large

margin of safety for consumption of residues in food when the drug is used according to good practice in the use of

veterinary drugs. For that reason, and for the reasons stated in the individual evaluation, the 52nd JECFA concluded

that use of the veterinary drug does not represent a hazard to human health and that there is no need to specify a

numerical ADI.

1/ MRL "not specified" means that available data on the identity and concentration of residues of the veterinary

drug in animal tissues indicate a wide margin of safety for consumption of residues in food when the drug is used

according to good practice in the use of veterinary drugs. For that reason, and for the reasons stated in the

individual evaluation, the 52nd JECFA concluded that the presence of drug residues in the named animal product does

not present a health concern and that there is no need to specify a numerical MRL.

Progesterone**JECFA Evaluation** 25 (1981), 32 (1987), 52 (1999)**ADI** 0-30 µg/kg body weight (1999)**Residue** Progesterone.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	unnecessary	(1995)	25, 32	
Cattle	Muscle	not specified	1/ (a)	52	
Cattle	Liver	not specified	1/ (a)	52	
Cattle	Liver	unnecessary	(1995)	25, 32	
Cattle	Kidney	unnecessary	(1995)	25, 32	
Cattle	Kidney	not specified	1/ (a)	52	
Cattle	Fat	not specified	1/ (a)	52	
Cattle	Fat	unnecessary	(1995)	25, 32	

Previous ADI, Unnecessary (1987)

1/ MRL "not specified" means that available data on the identity and concentration of residues of the veterinary

drug in animal tissues indicate a wide margin of safety for consumption of residues in food when the drug is used

according to good practice in the use of veterinary drugs. For that reason, and for the reasons stated in the

individual evaluation, the 52nd JECFA concluded that the presence of drug residues in the named animal product does

not present a health concern and that there is no need to specify a numerical MRL.

The 12th CCRVDF decided not to consider these MRLs.

Sarafloxacin**JECFA Evaluation** 50 (1998)**ADI** 0-0.3 µg/kg body weight (1998)**Residue** Sarafloxacin.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Chicken	Muscle	10	(2001)	50	
Turkey	Muscle	10	(2001)	50	
Chicken	Liver	80	(2001)	50	
Turkey	Liver	80	(2001)	50	
Chicken	Kidney	80	(2001)	50	
Turkey	Kidney	80	(2001)	50	
Chicken	Fat	20	(2001)	50	
Turkey	Fat	20	(2001)	50	

Spectinomycin**JECFA Evaluation** 42 (1994), 50 (1998)**ADI** 0-40 µg/kg body weight (1994)**Residue** Spectinomycin.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	500	(1999)	42, 50	
Pig	Muscle	500	(1999)	42, 50	
Sheep	Muscle	500	(1999)	50	
Chicken	Muscle	500	(1999)	42, 50	
Cattle	Liver	2000	(1999)	42, 50	
Pig	Liver	2000	(1999)	42, 50	
Sheep	Liver	2000	(1999)	50	
Chicken	Liver	2000	(1999)	42, 50	
Cattle	Kidney	5000	(1999)	42, 50	
Pig	Kidney	5000	(1999)	42, 50	
Sheep	Kidney	5000	(1999)	50	
Chicken	Kidney	5000	(1999)	42, 50	
Cattle	Fat	2000	(1999)	42, 50	
Pig	Fat	2000	(1999)	42, 50	
Sheep	Fat	2000	(1999)	50	
Chicken	Fat	2000	(1999)	42, 50	
Cattle	Milk	200 (µg/l)	(1999)	42, 50	
Chicken	Eggs	2000	(1999)	50	

Spiramycin**JECFA Evaluation** 38 (1991), 43 (1994), 47 (1996), 48 (1997)**ADI** 0-50 µg/kg body weight (1994)**Residue** Cattle & chickens, Sum of spiramycin and neospiramycin;
Pigs, Spiramycin equivalents (antimicrobially active residues).

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	200	(1997)	38, 43, 47, 48	
Pig	Muscle	200	(1997)	38, 43, 47, 48	
Chicken	Muscle	200	(1997)	38, 43, 47, 48	
Cattle	Liver	600	(1997)	38, 43, 47, 48	
Pig	Liver	600	(1997)	38, 43, 47, 48	
Chicken	Liver	600	(1997)	38, 43, 47, 48	
Cattle	Kidney	300	(1997)	38, 43, 47, 48	
Pig	Kidney	300	(1997)	38, 43, 47, 48	
Chicken	Kidney	800	(1997)	38, 43, 47, 48	
Cattle	Fat	300	(1997)	38, 43, 47, 48	
Pig	Fat	300	(1997)	38, 43, 47, 48	
Chicken	Fat	300	(1997)	38, 43, 47, 48	
Cattle	Milk	200	(1997)	38, 43, 47, 48	

(µg/l)

Sulfadimidine**JECFA Evaluation** 34 (1989), 38 (1991), 42 (1994)**ADI** 0-50 µg/kg body weight (1994)**Residue** Sulfadimidine.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Not specified	Muscle	100	(1995)	34, 38, 42	
Not specified	Liver	100	(1995)	34, 38, 42	
Not specified	Kidney	100	(1995)	34, 38, 42	
Not specified	Fat	100	(1995)	34, 38, 42	
Cattle	Milk	25 (µg/l)	(1995)	34, 38, 42	

Testosterone**JECFA Evaluation** 25 (1982), 32 (1987), 52 (1999)**ADI** 0-2 µg/kg body weight (1999)**Residue** Testosterone.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	unnecessary	(1995)	25, 32	
Cattle	Muscle	not specified	1/ (a)	52	
Cattle	Liver	unnecessary	(1995)	25, 32	
Cattle	Liver	not specified	1/ (a)	52	
Cattle	Kidney	unnecessary	(1995)	25, 32	
Cattle	Kidney	not specified	1/ (a)	52	
Cattle	Fat	not specified	1/ (a)	52	
Cattle	Fat	unnecessary	(1995)	25, 32	

Previous ADI, Unnecessary (1987).

1/ MRL "not specified" means that available data on the identity and concentration of residues of the veterinary

drug in animal tissues indicate a wide margin of safety for consumption of residues in food when the drug is used

according to good practice in the use of veterinary drugs. For that reason, and for the reasons stated in the

individual evaluation, the 52nd JECFA concluded that the presence of drug residues in the named animal product does

not present a health concern and that there is no need to specify a numerical MRL.

The 12th CCRVDF decided not to consider these MRLs.

Thiabendazole**JECFA Evaluation** 40 (1992), 48 (1997)**ADI** 0-100 µg/kg body weight (1992)**Residue** Sum of thiabendazole and 5-hydroxythiabendazole.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	100	(1995)	40	
Pig	Muscle	100	(1995)	40	
Sheep	Muscle	100	(1995)	40	
Goat	Muscle	100	(1995)	40	
Cattle	Liver	100	(1995)	40	
Pig	Liver	100	(1995)	40	
Sheep	Liver	100	(1995)	40	
Goat	Liver	100	(1995)	40	
Cattle	Kidney	100	(1995)	40	
Pig	Kidney	100	(1995)	40	
Sheep	Kidney	100	(1995)	40	
Goat	Kidney	100	(1995)	40	
Cattle	Fat	100	(1995)	40	
Pig	Fat	100	(1995)	40	
Sheep	Fat	100	(1995)	40	
Goat	Fat	100	(1995)	40	
Cattle	Milk	100	(1995)	40	
Goat	Milk	100	(1995)	40	

These MRLs also cover residues derived from feed containing the residues resulted from agricultural use. there are a number of MRLs established for plant products (see also Codex Alimentarius, Volume 2B).

Thiamphenicol**JECFA Evaluation** 47 (1996), 52 (1999)**ADI** 0-5 µg/kg body weight (1999)**Residue** Sum of thiamphenicol and thiamphenicol conjugates, measured as thiamphenicol.

Species	Tissue	MRL (µg/kg)		Step	JECFA	ALINORM
Pig	Muscle	50	T	6	52	12V, 13IV
Fish	Muscle	50	T	6	52	12V, 13IV
Pig	Liver	100	T	6	52	12V, 13IV
Pig	Kidney	500	T	6	52	12V, 13IV
Pig	Fat	50	T	6	52	12V, 13IV

The 52nd JECFA changed the residue definition.

The 58th JECFA will evaluate residue data (proportions of the total residues accounted for by free thiamphenicol

and thiamphenicol conjugates in all tissues) and validated analytical method for use with all animal tissues.

Tilmicosin**JECFA Evaluation** 47 (1996)**ADI** 0-40 µg/kg body weight (1996)**Residue** Tilmicosin.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	100	(1999)	47	
Pig	Muscle	100	(1999)	47	
Sheep	Muscle	100	(1999)	47	
Cattle	Liver	1000	(1999)	47	
Pig	Liver	1500	(1999)	47	
Sheep	Liver	1000	(1999)	47	
Cattle	Kidney	300	(1999)	47	
Pig	Kidney	1000	(1999)	47	
Sheep	Kidney	300	(1999)	47	
Cattle	Fat	100	(1999)	47	
Pig	Fat	100	(1999)	47	
Sheep	Fat	100	(1999)	47	
Sheep	Milk	50	(µg/l) T 1/	(1999)	47

1/ The 54th JECFA did not extend the temporary MRL as results of a a study with radiolabelled drug in lactating sheep to determine the relationship between total residues and parent drug in milk were not available. The CCRVDF should consider whether to recommend revocation of the temporary MRL.

Trenbolone acetate**JECFA Evaluation** 26 (1982), 27 (1983), 32 (1987), 34 (1989)**ADI** 0-0.02 µg/kg body weight (1989)**Residue** Cattle muscle, beta-Trenbolone;
Cattle liver, alpha-Trenbolone.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	2	(1995)	26, 27, 32, 34	
Cattle	Liver	10	(1995)	26, 27, 32, 34	

Trichlorfon**JECFA Evaluation** 54 (2000)**ADI** 0-20 µg/kg body weight (200)**Residue** Trichlorfon.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Milk	50	T 5	54	

(Metrifonate)

MRLs were not recommended by 54th JECFA for muscle, liver, kidney or fat in cattle considering that no detectable

residues should be present in tissues from animals treated with trichlorfon when used in accordance with good

practice in the use of veterinary drugs. The limit of quantification may be used as guideline maximum residue

concentrations in muscle, liver, kidney and fat of cattle (50 µg/kg).

Three studies were published after the 54th JECFA, which may affect the ADI. The CCRVDF requested JECFA to

review these new data during its 60th meeting (2003) (13th CCRVDF).

Triclabendazole**JECFA Evaluation** 40 (1992)**ADI** 0-3 µg/kg body weight (1992)**Residue** 5-Chloro-6-(2',3'-dichlorophenoxy)-benzimidazole-2-one.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	200	(1997)	40	
Sheep	Muscle	100	(1997)	40	
Cattle	Liver	300	(1997)	40	
Sheep	Liver	100	(1997)	40	
Cattle	Kidney	300	(1997)	40	
Sheep	Kidney	100	(1997)	40	
Cattle	Fat	100	(1997)	40	
Sheep	Fat	100	(1997)	40	

Zeranol**JECFA Evaluation** 26 (1982), 27 (1983), 32 (1987)**ADI** 0-0.5 µg/kg body weight (1987)**Residue** Zeranol.

Species	Tissue	MRL (µg/kg)	Step	JECFA	ALINORM
Cattle	Muscle	2	(1995)	26, 27, 32	
Cattle	Liver	10	(1995)	26, 27, 32	

APPENDIX III

**LIST OF MAXIMUM RESIDUE LIMITS FOR PESTICIDES IN FOOD
ADOPTED BY THE CODEX ALIMENTARIUS COMMISSION**

(EXTRACT FROM CODEX DATABASE ON PESTICIDE RESIDUES)

**STATUS OF CODEX MAXIMUM RESIDUE LIMITS (MRLs) AND EXTRANEOUS
MAXIMUM RESIDUE LIMITS (EMRLs) FOR THE CLASS
"PRIMARY ANIMAL FEED COMMODITIES"**

PRIMARY ANIMAL FEED COMMODITIES

PRODUITS PRIMAIRES DESTINÉS À L'ALIMENTATION ANIMALE

PRODUCTOS FORRAJEROS PRIMARIOS

***PRIMARY FEED COMMODITIES OF PLANT ORIGIN / PRODUITS PRIMAIRES
D'ORIGINE VEGETALE DESTINES A L'ALIMENTATION ANIMALE / PRODUCTOS
FORRAJEROS PRIMARIOS DE ORIGEN VEGETAL***

**AL LEGUME ANIMAL FEEDS
LEGUMINEUSES FOURRAGERES
FORRAJES DE LEGUMINOSAS**

AL 0061 Bean fodder / Fourrage de haricots / Forraje seco de frijoles

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
94 METHOMYL	MRL 10	
MÉTHOMYL	Step: 3	
METOMILO		
187 CLETHODIM	MRL 10	
CLÉTHODIME	Step: 6	
CLETODIM		

AL 0072 Pea hay or pea fodder (dry) / Fourrage (sec) de pois / Heno o forraje seco de guisantes (arvejas)

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
59 PARATHION-METHYL	MRL 70	
PARATHION-MÉTHYL	Step: 3	
PARATHION-METILO		
62 PIPERONYL BUTOXIDE	MRL 200	
BUTOXYDE DE PIPÉRONYLE	Step: 3	
PIPERONIL BUTÓXIDO		
63 PYRETHRINS	MRL 1	
PYRÉTHRINES	Step: 3	
PIRETRINAS		
64 QUINTOZENE	MRL 0.05	
QUINTOZÈNE	Step: 6	
QUINTOCENO		

AL 0157 Legume animal feeds / Légumineuses fourragères / Leguminosas forrajeras

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
75 PROPOXUR	MRL 1 fresh wt	
PROPOXUR	Step: CXL	
PROPOXUR		
135 DELTAMETHRIN	MRL 0.5 dry wt	
DELTAMÉTHRINE	Step: CXL	
DELTAMETRIN		

AL 0528 Pea vines (green) / Pois fourrager (en vert) / Parras verdes de guisantes (arvejas)

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
8 CARBARYL	MRL 100 T fresh wt	1999-2003
CARBARYL	Step: CXL	1999-2003
CARBARILO		1999-2003
17 CHLORPYRIFOS	MRL 1	
CHLORPYRIPHOS	Step: 3	
CLOPPIRIFOS		
59 PARATHION-METHYL	MRL 40	
PARATHION-MÉTHYL	Step: 3	
PARATION-METILO		
62 PIPERONYL BUTOXIDE	MRL 400	
BUTOXYDE DE PIPÉRONYLE	Step: 3	
PIPERONIL BUTÓXIDO		
63 PYRETHRINS	MRL 10 dry wt	
PYRÉTHRINES	Step: 3	
PIRETRINAS		
94 METHOMYL	MRL 40	
MÉTHOMYL	Step: 3(a)	
METOMILO		
94 METHOMYL	MRL 10 fresh wt	
MÉTHOMYL	Step: CXL	
METOMILO		

AL 0541 Soya bean fodder / Fourrage de soja / Forraje seco de soja

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
20 2,4-D	MRL 0.01 (*)	
2,4-D	Step: 6	
2,4-D		

58	PARATHION PARATHION PARATION	MRL 2 Step: 3	
64	QUINTOZENE QUINTOZÈNE QUINTOCENO	MRL 0.01 (*) Step: 6	
72	CARBENDAZIM CARBENDAZIME carbendazime CARBENDAZIM	MRL 0.1 (*) Step:	Source of data: carbendazim cxl Bases de données: Base de datos: carbendazim
94	METHOMYL MÉTHOMYL METOMILO	MRL 0.2 Step: 3	
120	PERMETHRIN PERMÉTHRINE PERMETRIN	MRL 50 Step: cxl	dry wt
149	ETHOPROPHOS ETHOPROPHOS ETOPROFOS	MRL 0.02 (*) Step: cxl	
158	GLYPHOSATE GLYPHOSATE GLIFOSATO	MRL 200 Step: cxl	

AL 0697 Peanut fodder / Fourrage d'arachide / Forraje seco de maní

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota	
8	CARBARYL CARBARYL CARBARILO	MRL 100 T Step:	1999-2003 cxl 1999-2003 1999-2003
105	DITHIOCARBAMATES DITHIOCARBAMATES DITIOCARBAMATOS	MRL 5 Step: cxl	Source of data: mancozeb Bases de données: mancozèbe Base de datos: mancozeb
113	PROPARGITE PROPARGITE PROPARGITA	MRL 10 Step: cxl	
126	OXAMYL OXAMYL OXAMILO	MRL 2 Step: cxl	
149	ETHOPROPHOS ETHOPROPHOS ETOPROFOS	MRL 0.02 (*) Step: cxl	
167	TERBUFOS TERBUFOS TERBUFOS	MRL 1 Step: cxl	

189	TEBUCONAZOLE	MRL	30	
	TEBUCONAZOLE	Step:		CXL
	TEBUCONAZOL			

AL 1020 Alfalfa fodder / Fourrage de luzerne / Forraje seco de alfalfa

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
2	AZINPHOS-METHYL	MRL 10
	AZINPHOS-MÉTHYL	Step:
	AZINFOS-METILO	CXL
17	CHLORPYRIFOS	MRL 5
	CHLORPYRIPHOS	Step:
	CLOPPIRIFOS	3
31	DIQUAT	MRL 100
	DIQUAT	Step:
	DIQUAT	CXL
49	MALATHION	MRL 200
	MALATHION	Step:
	MALATION	6
59	PARATHION-METHYL	MRL 70
	PARATHION-MÉTHYL	Step:
	PARATION-METILO	3
74	DISULFOTON	MRL 5 (dry wt)
	DISULFOTON	Step:
	DISULFOTON	CXL
94	METHOMYL	MRL 20
	MÉTHOMYL	Step:
	METOMILO	3
96	CARBOFURAN	MRL 10
	CARBOFURAN	Step:
	CARBOFURAN	CXL
101	PIRIMICARB	MRL 20 dry wt
	PIRIMICARBE	Step:
	PIRIMICARB	CXL
113	PROPARGITE	MRL 75
	PROPARGITE	Step:
	PROPARGITA	CXL
119	FENVALERATE	MRL 20 dry wt
	FENVALÉRATE	Step:
	FENVALERATO	CXL
120	PERMETHRIN	MRL 100 dry wt
	PERMÉTHRINE	Step:
	PERMETRIN	CXL

187 CLETHODIM MRL 10
 CLÉTHODIME Step: 6
 CLETODIM

AL 1021 Alfalfa forage (green) / Luzerne fourragère (en vert) / Alfalfa, forraje verde

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
2 AZINPHOS-METHYL AZINPHOS-MÉTHYL AZINFOS-METILO	MRL 5 Step: CXL	
8 CARBARYL CARBARYL CARBARILO	MRL 100 T Step:	1999-2003 CXL 1999-2003 1999-2003
17 CHLORPYRIFOS CHLORPYRIPHOS CLORPIRIFOS	MRL 20 Step: 3	
32 ENDOSULFAN ENDOSULFAN ENDOSULFAN	MRL 1 Step: CXL	
49 MALATHION MALATHION MALATION	MRL 500 dry wt Step: 6	
51 METHIDATHION MÉTHIDATHION METIDATION	MRL 10 Step: CXL	
59 PARATHION-METHYL PARATHION-MÉTHYL PARATION-METILO	MRL 70 Step: 3	
94 METHOMYL MÉTHOMYL METOMILO	MRL 25 Step: 3(a)	
94 METHOMYL MÉTHOMYL METOMILO	MRL 10 fresh wt Step: CXL	
95 ACEPHATE ACÉPHATE ACEFATO	MRL 10 fresh wt Step: CXL	
96 CARBOFURAN CARBOFURAN CARBOFURAN	MRL 10 Step: CXL	
100 METHAMIDOPHOS MÉTHAMIDOPHOS METAMIDOFOS	MRL 2 Step: CXL	Based on treatment with acephate. Sur la base de traitements à l'acéphate. Basado en tratamiento con acefato.

101	PIRIMICARB PIRIMICARBE PIRIMICARB	MRL 50 Step:	dry wt CXL
113	PROPARGITE PROPARGITE PROPARGITA	MRL 50 Step:	CXL
118	CYPERMETHRIN CYPERMÉTHRINE CIPERMETRIN	MRL 5 Step:	dry wt CXL
172	BENTAZONE BENTAZONE BENTAZONA	MRL 2 Step:	CXL
194	HALOXYFOP HALOXYFOP HALOXIFOP	MRL 5 Step:	fresh wt 3

AL 1023 Clover / Trèfle / Trebol

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
8	CARBARYL CARBARYL CARBARILO	MRL 100 T fresh wt Step: CXL 1999-2003 1999-2003 1999-2003
31	DIQUAT DIQUAT DIQUAT	MRL 50 Step: CXL
32	ENDOSULFAN ENDOSULFAN ENDOSULFAN	MRL 1 Step: CXL
49	MALATHION MALATHION MALATION	MRL 500 dry wt Step: 6
59	PARATHION-METHYL PARATHION-MÉTHYL PARATION-METILO	MRL 10 Step: 6

AL 1028 Trefoil / Lotier des prés / Loto de los prados

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
32	ENDOSULFAN ENDOSULFAN ENDOSULFAN	MRL 1 Step: CXL

AL 1030 Bean forage (green) / Haricots fourragers (en vert) / Forraje verde de frijoles

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
8 CARBARYL	MRL 100 T	1999-2003
CARBARYL	Step: CXL	1999-2003
CARBARILO		1999-2003
59 PARATHION-METHYL	MRL 1 fresh wt	
PARATHION-MÉTHYL	Step: 6	
PARATION-METILO		
187 CLETHODIM	MRL 5	
CLÉTHODIME	Step: 6	
CLETODIM		

AL 1031 Clover hay or fodder / Fourrage de trèfle / Forraje de trebol

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
2 AZINPHOS-METHYL	MRL 5	
AZINPHOS-MÉTHYL	Step: CXL	
AZINFOS-METILO		
49 MALATHION	MRL 150	
MALATHION	Step: 6	
MALATION		
74 DISULFOTON	MRL 10	
DISULFOTON	Step: CXL	
DISULFOTON		

AL 1265 Soya bean forage (green) / Soja fourrager (en vert) / Forraje verde de soja

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
8 CARBARYL	MRL 100 T fresh wt	1999-2003
CARBARYL	Step: CXL	1999-2003
CARBARILO		1999-2003
20 2,4-D	MRL 0.01 (*)	
2,4-D	Step: 6	
2,4-D		
64 QUINTOZENE	MRL 0.01 (*)	
QUINTOZÈNE	Step: 6	
QUINTOCENO		
94 METHOMYL	MRL 10	
MÉTHOMYL	Step: CXL	
METOMILO		

94 METHOMYL	MRL 40	
MÉTHOMYL	Step:	3(a)
METOMILO		
158 GLYPHOSATE	MRL 5	
GLYPHOSATE	Step:	CXL
GLIFOSATO		

AL 1270 Peanut forage (green) / Arachide fourragère (en vert) / Forraje verde de maní

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
94 METHOMYL	MRL 5	
MÉTHOMYL	Step:	CXL
METOMILO		
113 PROPARGITE	MRL 10	fresh wt
PROPARGITE	Step:	CXL
PROPARGITA		
167 TERBUFOS	MRL 1	
TERBUFOS	Step:	CXL
TERBUFOS		

AF STRAW, FODDER AND FORAGE OF CEREAL GRAINS AND GRASSES (INCLUDING BUCKWHEAT FODDER) (FORAGE)
PAILLE ET FOURRAGES DE GRAINES CEREALIERES ET DE GRAMINEES (Y COMPRIS LE FOURRAGE DE SARRASIN)(FOURRAGE VERT)
PAJA, FORRAJE SECO Y FORRAJE VERDE DE CEREALES EN GRANO Y PLANTAS

AF 0162 Grass forage / Graminées fourragères / Forraje verde de gramíneas

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
49 MALATHION	MRL 200	
MALATHION	Step:	6
MALATION		

AF 0645 Maize forage / Maïs fourrager / Forraje verde de maíz

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
8 CARBARYL	MRL 100	T fresh wt 1999-2003
CARBARYL	Step:	CXL 1999-2003
CARBARILO		1999-2003
15 CHLORMEQUAT	MRL 15	dry wt
CHLORMÉQUAT	Step:	3
CLORMEQUAT		
17 CHLORPYRIFOS	MRL 20	
CHLORPYRIPHOS	Step:	3
CLORPIRIFOS		

20	2,4-D 2,4-D 2,4-D	MRL Step:	10 CXL	
22	DIAZINON DIAZINON DIAZINON	MRL Step:	10 CXL	
49	MALATHION MALATHION MALATION	MRL Step:	10 6	dry wt
58	PARATHION PARATHION PARATION	MRL Step:	10 3	
64	QUINTOZENE QUINTOZÈNE QUINTOCENO	MRL Step:	0.01 6	(*)
74	DISULFOTON DISULFOTON DISULFOTON	MRL Step:	1 CXL	
94	METHOMYL MÉTHOMYL METOMILO	MRL Step:	50 3(a)	
94	METHOMYL MÉTHOMYL METOMILO	MRL Step:	50 CXL	fresh wt Based on thiodicarb use Correspondant à l'emploi de thiodicarbe Basados en usos de tiodicarb
112	PHORATE PHORATE FORATO	MRL Step:	0.2 CXL	fresh wt
113	PROPARGITE PROPARGITE PROPARGITA	MRL Step:	10 CXL	
117	ALDICARB ALDICARBE ALDICARB	MRL Step:	0.5 CXL	
137	BENDIOCARB BENDIOCARBE BENDIOCARB	MRL Step:	0.05 CXL	(*)
149	ETHOPROPHOS ETHOPROPHOS ETOPROFOS	MRL Step:	0.02 CXL	(*)
158	GLYPHOSATE GLYPHOSATE GLIFOSATO	MRL Step:	1 CXL	
167	TERBUFOS TERBUFOS TERBUFOS	MRL Step:	1 CXL	
175	GLUFOSINATE-AMMONIUM	MRL	5	

	GLUFOSINATE-AMMONIUM GLUFOSINATO-AMONIO	Step:	6(a)
175	GLUFOSINATE-AMMONIUM GLUFOSINATO-AMONIO	MRL	0.2
		Step:	CXL
178	BIFENTHRIN BIFENTHRINE BIFENTRIN	MRL	0.05 (*)
		Step:	CXL
202	FIPRONIL	MRL	0.1 dry wt
		Step:	3
203	SPINOSAD	MRL	5 dry wt
		Step:	3

AF 0647 Oat forage (green) / Avoine fourragère (en vert) / Forraje verde de avena

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
15	CHLORMEQUAT CHLORMÉQUAT CLORMEQUAT	MRL 100 dry wt
	Step:	6
74	DISULFOTON DISULFOTON DISULFOTON	MRL 0.5
	Step:	6(a)
144	BITERTANOL BITERTANOL BITERTANOL	MRL 0.05 (*) dry wt.
	Step:	CXL

AF 0650 Rye forage (green) / Seigle fourrager (en vert) / Forraje verde de centeno

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
15	CHLORMEQUAT CHLORMÉQUAT CLORMEQUAT	MRL 100 dry wt
	Step:	6
144	BITERTANOL BITERTANOL BITERTANOL	MRL 0.05 (*) dry wt
	Step:	CXL

AF 0651 Sorghum forage (green) / Sorgho fourrager (en vert) / Forraje verde de sorgo

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
8	CARBARYL CARBARYL CARBARILO	MRL 100 T fresh wt
	Step:	CXL
		1999-2003
		1999-2003
		1999-2003
20	2,4-D 2,4-D 2,4-D	MRL 0.2
	Step:	CXL

58	PARATHION PARATHION PARATION	MRL 10 Step: 3	
94	METHOMYL MÉTHOMYL METOMILO	MRL 1 Step: CXL	
96	CARBOFURAN CARBOFURAN CARBOFURAN	MRL 2 Step: CXL	
113	PROPARGITE PROPARGITE PROPARGITA	MRL 10 Step: CXL	fresh wt

AF 0654 Wheat forage (whole plant) / Blé fourrager (plante entière) / Forraje verde de trigo (planta entera)

Pesticide/Plaguicida	MRL/LMR (mg/kg) Step:	Note/Nota
49 MALATHION MALATHION MALATION	MRL 20 Step: 6	dry wt
74 DISULFOTON DISULFOTON DISULFOTON	MRL 1 Step: 6(a)	
178 BIFENTHRIN BIFENTHRINE BIFENTRIN	MRL 0.2 Step: CXL	

**AS STRAW, FODDER AND FORAGE OF CEREAL GRAINS AND GRASSES (INCLUDING BUCKWHEAT FODDER) (STRAWS AND FODDER DRY)
PAILLE ET FOURRAGES DE GRAINES CEREALIERES ET DE GRAMINEES (Y COMPRIS LE FOURRAGE DE SARRASIN)(PAILLES ET FOURRAGES SECS)
PAJA, FORRAJE SECO Y FORRAJE VERDE DE CEREALES EN GRANO Y PLANTAS**

AS 0081 Straw and fodder (dry) of cereal grains / Paille et fourrage (sec) de céréales / Paja y forraje seco de cereales

Pesticide/Plaguicida	MRL/LMR (mg/kg) Step:	Note/Nota
15 CHLORMEQUAT CHLORMÉQUAT CLORMEQUAT	MRL 30 Step: 3(a)	dry wt
135 DELTAMETHRIN DELTAMÉTHRINE DELTAMETRIN	MRL 0.5 Step: CXL	
158 GLYPHOSATE GLYPHOSATE GLIFOSATO	MRL 100 Step: CXL	

167	TERBUFOS	MRL	1	
	TERBUFOS	Step:		CXL
	TERBUFOS			

199	KRESOXIM-METHYL	MRL	5	
	KRÉSOXIM-MÉTHYL	Step:		CXL
	KRESOXIM-METILO			

AS 0162 Hay or fodder (dry) of grasses / Foin ou fourrage (sec) de graminées / Heno o forraje seco de gramíneas

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
8	CARBARYL	MRL 100 T
	CARBARYL	Step: CXL
	CARBARILO	1999-2003
		1999-2003
20	2,4-D	MRL 400
	2,4-D	Step: 6
	2,4-D	
49	MALATHION	MRL 300
	MALATHION	Step: 6
	MALATION	
59	PARATHION-METHYL	MRL 5
	PARATHION-MÉTHYL	Step: 6
	PARATION-METILO	
158	GLYPHOSATE	MRL 50
	GLYPHOSATE	Step: CXL
	GLIFOSATO	

AS 0640 Barley straw and fodder, Dry / Paille et fourrage sec d'orge / Paja y forraje seco de cebada

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
15	CHLORMEQUAT	MRL 50
	CHLORMÉQUAT	Step: CXL
	CLORMEQUAT	
15	CHLORMEQUAT	MRL 20
	CHLORMÉQUAT	Step: 6(a)
	CLORMEQUAT	
58	PARATHION	MRL 30
	PARATHION	Step: 3
	PARATION	
64	QUINTOZENE	MRL 0.01 (*)
	QUINTOZÈNE	Step: 6
	QUINTOCENO	
72	CARBENDAZIM	MRL 2
	CARBENDAZIME	Step: 6(a)
	CARBENDAZIM	

72	CARBENDAZIM CARBENDAZIME CARBENDAZIM	MRL 2 Step:	2 CXL	Source of data: benomyl Bases de données: bénomyl Base de datos: benomilo
74	DISULFOTON DISULFOTON DISULFOTON	MRL 3 Step:	3 CXL	
81	CHLOROTHALONIL CHLOROTHALONIL CLOROTALONILO	MRL 20 Step:	20 CXL	
94	METHOMYL MÉTHOMYL METOMILO	MRL 5 Step:	5 CXL	
105	DITHIOCARBAMATES DITHIOCARBAMATES DITIOCARBAMATOS	MRL 25 Step:	25 CXL	Source of data: mancozeb, maneb Bases de données: mancozèbe, manèbe Base de datos: mancozeb, maneb
106	ETHEPHON ÉTHÉPHON ETEFON	MRL 5 Step:	5 CXL	
117	ALDICARB ALDICARBE ALDICARB	MRL 0.05 Step:	0.05 CXL	
133	TRIADIMEFON TRIADIMÉFON TRIADIMEFON	MRL 2 Step:	2 CXL	
142	PROCHLORAZ PROCHLORAZE PROCLORAZ	MRL 15 Step:	15 CXL	
144	BITERTANOL BITERTANOL BITERTANOL	MRL 0.05 Step:	0.05 (*) CXL	
163	ANILAZINE ANILAZINE ANILAZINA	MRL 10 Step:	10 CXL	
165	FLUSILAZOLE FLUSILAZOL FLUSILAZOL	MRL 2 Step:	2 CXL	
166	OXYDEMETON-METHYL OXYDÉMÉTON-MÉTHYL OXIDEMETÓN-METILO	MRL 2 Step:	2 6	
168	TRIADIMENOL TRIADIMÉNOL TRIADIMENOL	MRL 5 Step:	5 CXL	Source of data: triadimefon, triadimenol Bases de données: triadiméfon, triadiménol Base de datos: triadimefón, triadimenol
178	BIFENTHRIN BIFENTHRINE BIFENTRIN	MRL 0.5 Step:	0.5 CXL	

188	FENPROPIMORPH FENPROPIMORPHE FENPROPIMORF	MRL 5 Step:	CXL
189	TEBUCONAZOLE TEBUCONAZOLE TEBUCONAZOL	MRL 10 Step:	CXL
197	FENBUCONAZOLE FENBUCONAZOLE FENBUCONAZOL	MRL 3 Step:	CXL

AS 0645 Maize fodder / Fourrage de maïs / Forraje seco de maíz

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota	
15	CHLORMEQUAT CHLORMÉQUAT CLORMEQUAT	MRL 7 dry wt Step: 3	
17	CHLORPYRIFOS CHLORPYRIPHOS CLORPIRIFOS	MRL 10 Step: 3	
20	2,4-D 2,4-D 2,4-D	MRL 40 Step: CXL	
49	MALATHION MALATHION MALATION	MRL 50 Step: 6	
58	PARATHION PARATHION PARATION	MRL 30 Step: 3	
64	QUINTOZENE QUINTOZÈNE QUINTOCENO	MRL 0.01 Step: 6	
74	DISULFOTON DISULFOTON DISULFOTON	MRL 3 Step: CXL	
94	METHOMYL MÉTHOMYL METOMILO	MRL 50 fresh wt Step: CXL	Based on thiodicarb use Correspondant à l'emploi de thiodicarbe Basados en usos de thiodicarb
96	CARBOFURAN CARBOFURAN CARBOFURAN	MRL 5 fresh wt Step: CXL	
105	DITHIOCARBAMATES DITHIOCARBAMATES DITIOCARBAMATOS	MRL 2 Step: CXL	Source of data: mancozeb Bases de données: mancozèbe, Base de datos: mancozeb

112 PHORATE PHORATE FORATO	MRL 0.2 Step:	fresh wt CXL
113 PROPARGITE PROPARGITE PROPARGITA	MRL 10 Step:	CXL
117 ALDICARB ALDICARBE ALDICARB	MRL 0.5 Step:	CXL
118 CYPERMETHRIN CYPERMÉTHRINE CIPERMETRIN	MRL 5 Step:	dry wt CXL
120 PERMETHRIN PERMÉTHRINE PERMETRIN	MRL 100 Step:	dry wt CXL
137 BENDIOCARB BENDIOCARBE BENDIOCARB	MRL 0.05 Step:	(*) CXL
149 ETHOPROPHOS ETHOPROPHOS ETOPROFOS	MRL 0.02 Step:	(*) CXL
172 BENTAZONE BENTAZONE BENTAZONA	MRL 0.2 Step:	CXL
175 GLUFOSINATE-AMMONIUM GLUFOSINATE-AMMONIUM GLUFOSINATO-AMONIO	MRL 10 Step:	(*) 6
178 BIFENTHRIN BIFENTHRINE BIFENTRIN	MRL 0.2 Step:	CXL
202 FIPRONIL	MRL 0.1 Step:	dry wt 3
203 SPINOSAD	MRL 5 Step:	3

AS 0647 Oat straw and fodder, Dry / Paille et fourrage sec d'avoine / Paja y forraje seco de avena

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
15 CHLORMEQUAT CHLORMÉQUAT CLORMEQUAT	MRL 50 Step:	CXL
15 CHLORMEQUAT CHLORMÉQUAT CLORMEQUAT	MRL 20 Step:	6(a)

74	DISULFOTON DISULFOTON DISULFOTON	MRL 0.05 Step: 6	
94	METHOMYL MÉTHOMYL METOMILO	MRL 5 Step: CXL	
133	TRIADIMEFON TRIADIMÉFON TRIADIMEFON	MRL 2 Step: CXL	
142	PROCHLORAZ PROCHLORAZE PROCLORAZ	MRL 15 Step: CXL	
144	BITERTANOL BITERTANOL BITERTANOL	MRL 0.05 (*) Step: CXL	
168	TRIADIMENOL TRIADIMÉNOL TRIADIMENOL	MRL 5 Step: CXL	Source of data: triadimefon, triadimenol Bases de données: triadiméfon, triadiménol Base de datos: triadimefón, triadimenol
188	FENPROPIMORPH FENPROPIMORPHE FENPROPIMORF	MRL 5 Step: CXL	

AS 0649 Rice straw and fodder, Dry / Paille et fourrage de riz secs / Paja y forraje seco de arroz

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
20 2,4-D 2,4-D 2,4-D	MRL 10 Step: CXL	
59 PARATHION-METHYL PARATHION-MÉTHYL PARATION-METILO	MRL 10 Step: 6	
72 CARBENDAZIM CARBENDAZIME CARBENDAZIM	MRL 15 Step: CXL	Source of data: benomyl, carbendazim, thiophanate-methyl Bases de données: bénomyl, carbendazime, thiophanate-méthyle Base de datos: benomilo, carbendazim, tiofanato-metilo
72 CARBENDAZIM CARBENDAZIME CARBENDAZIM	MRL 15 Step: 6(a)	
202 FIPRONIL	MRL 0.2 Step: 3	dry wt

AS 0650 Rye straw and fodder, Dry / Paille et fourrage sec de seigle / Paja y forraje seco de centeno

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
15 CHLORMEQUAT	MRL 20	
CHLORMÉQUAT	Step:	
CLORMEQUAT	Step: 6(a)	
15 CHLORMEQUAT	MRL 50	
CHLORMÉQUAT	Step:	CXL
CLORMEQUAT		
106 ETHEPHON	MRL 5	
ÉTHÉPHON	Step:	CXL
ETEFON		
133 TRIADIMEFON	MRL 2	
TRIADIMÉFON	Step:	CXL
TRIADIMEFON		
142 PROCHLORAZ	MRL 15	
PROCHLORAZE	Step:	CXL
PROCLORAZ		
144 BITERTANOL	MRL 0.05 (*)	
BITERTANOL	Step:	CXL
BITERTANOL		
165 FLUSILAZOLE	MRL 2	
FLUSILAZOL	Step:	CXL
FLUSILAZOL		
166 OXYDEMETON-METHYL	MRL 2	
OXYDÉMÉTON-MÉTHYL	Step:	6
OXIDEMETÓN-METILO		
168 TRIADIMENOL	MRL 5	Source of data: triadimefon, triadimenol
TRIADIMÉNOL	Step:	CXL
TRIADIMENOL		Bases de données: triadiméfon, triadiménol
		Base de datos: triadimefón, triadimenol
188 FENPROPIMORPH	MRL 5	
FENPROPIMORPHE	Step:	CXL
FENPROPIMORF		
189 TEBUCONAZOLE	MRL 5	
TEBUCONAZOLE	Step:	CXL
TEBUCONAZOL		

AS 0651 Sorghum straw and fodder, Dry / Paille et fourrage sec de sorgho / Paja y forraje seco de sorgho

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
17 CHLORPYRIFOS	MRL 2	
CHLORPYRIPHOS CLORPIRIFOS	Step: 3	
58 PARATHION	MRL 15	
PARATHION PARATION	Step: 3	
96 CARBOFURAN	MRL 0.5	
CARBOFURAN CARBOFURAN	Step: CXL	
113 PROPARGITE	MRL 10	
PROPARGITE PROPARGITA	Step: CXL	
117 ALDICARB	MRL 0.5	
ALDICARBE ALDICARB	Step: CXL	
118 CYPERMETHRIN	MRL 5	
CYPERMÉTHRINE CIPERMETRIN	Step: CXL	
120 PERMETHRIN	MRL 20	
PERMÉTHRINE PERMETRIN	Step: CXL	

AS 0653 Triticale straw and fodder, Dry / Paille et fourrage (sec) de triticale / Paja y forraje seco de triticale

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
144 BITERTANOL	MRL 0.05 (*)	
BITERTANOL BITERTANOL	Step: CXL	

AS 0654 Wheat straw and fodder, Dry / Paille et fourrage sec de blé / Paja y forraje seco de trigo

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
15 CHLORMEQUAT	MRL 50	
CHLORMÉQUAT CLORMEQUAT	Step: CXL	
15 CHLORMEQUAT	MRL 20	
CHLORMÉQUAT CLORMEQUAT	Step: 6(a)	
17 CHLORPYRIFOS	MRL 5	
CHLORPYRIPHOS CLORPIRIFOS	Step: 3	

20	2,4-D 2,4-D 2,4-D	MRL 100 Step: CXL	
27	DIMETHOATE DIMÉTHOATE DIMETOATO	MRL 10 Step: 6	
49	MALATHION MALATHION MALATION	MRL 50 Step: 6	
58	PARATHION PARATHION PARATION	MRL 20 Step: 3	
59	PARATHION-METHYL PARATHION-MÉTHYL PARATION-METILO	MRL 10 Step: 6	
64	QUINTOZENE QUINTOZÈNE QUINTOCENO	MRL 0.03 Step: 6	
72	CARBENDAZIM CARBENDAZIME CARBENDAZIM	MRL 5 Step: CXL	Source of data: benomyl Bases de données: bénomyll Base de datos: benomilo
72	CARBENDAZIM CARBENDAZIME CARBENDAZIM	MRL 1 Step: 6(a)	
74	DISULFOTON DISULFOTON DISULFOTON	MRL 5 Step: 6	
81	CHLOROTHALONIL CHLOROTHALONIL CLOROTALONILO	MRL 20 Step: CXL	
82	DICHOFLUANID DICHOFLUANIDE DICHOFLUANIDA	MRL 0.5 Step: CXL	
94	METHOMYL MÉTHOMYL METOMILO	MRL 5 Step: CXL	
105	DITHIOCARBAMATES DITHIOCARBAMATES DITIOCARBAMATOS	MRL 25 Step: CXL	Source of data: mancozeb, maneb, metiram Bases de données: mancozèbe, manèbe, métrame Base de datos: mancozeb, maneb, metiram
106	ETHEPHON ÉTHÉPHON ETEFON	MRL 5 Step: CXL	
110	IMAZALIL IMAZALIL IMAZALIL	MRL 0.1 Step: CXL	

117	ALDICARB ALDICARBE ALDICARB	MRL 0.05 Step:	CXL
118	CYPERMETHRIN CYPERMÉTHRINE CIPERMETRIN	MRL 5 Step:	CXL
133	TRIADIMEFON TRIADIMÉFON TRIADIMEFON	MRL 2 Step:	CXL
142	PROCHLORAZ PROCHLORAZE PROCLORAZ	MRL 15 Step:	CXL
144	BITERTANOL BITERTANOL BITERTANOL	MRL 0.05 Step:	(*) CXL
163	ANILAZINE ANILAZINE ANILAZINA	MRL 10 Step:	CXL
165	FLUSILAZOLE FLUSILAZOL FLUSILAZOL	MRL 2 Step:	CXL
166	OXYDEMETON-METHYL OXYDÉMÉTON-MÉTHYL OXIDEMETÓN-METILO	MRL 2 Step:	6
168	TRIADIMENOL TRIADIMÉNOL TRIADIMENOL	MRL 5 Step:	CXL
170	HEXACONAZOLE HEXACONAZOLE HEXACONAZOL	MRL 0.5 Step:	CXL
178	BIFENTHRIN BIFENTHRINE BIFENTRIN	MRL 0.5 Step:	CXL
188	FENPROPIMORPH FENPROPIMORPHE FENPROPIMORF	MRL 5 Step:	CXL
189	TEBUCONAZOLE TEBUCONAZOLE TEBUCONAZOL	MRL 10 Step:	CXL
197	FENBUCONAZOLE FENBUCONAZOLE FENBUCONAZOL	MRL 3 Step:	CXL
203	SPINOSAD	MRL 1 Step:	3

Source of data: triadimefon, triadimenol
Bases de données: triadiméfon, triadiménol
Base de datos: triadimefón, triadimenol

**AM MESCELLANEOUS FODDER AND FORAGE CROPS (FODDER)
CULTURES FOURRAGERES DIVERSES (FOURRAGE SEC)
CULTIVOS VARIOS DE FORRAJE SECO Y FORRAJE VERDE (FORRAJE SECO)**

AM 0353 Pineapple fodder / Fourrage d'ananas / Forraje seco de piña

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
149 ETHOPROPHOS	MRL 0.02 (*)	
ETHOPROPHOS	Step: CXL	
ETOPROFOS		

AM 0659 Sugar cane fodder / Fourrage de canne à sucre / Forraje seco de caña de azúcar

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
149 ETHOPROPHOS	MRL 0.02 (*)	
ETHOPROPHOS	Step: CXL	
ETOPROFOS		

AM 0660 Almond hulls / Coques d'amandes / Cáscara de almendras

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
2 AZINPHOS-METHYL	MRL 5	
AZINPHOS-MÉTHYL	Step: CXL	
AZINFOS-METILO		
22 DIAZINON	MRL 5	
DIAZINON	Step: CXL	
DIAZINON		
105 DITHIOCARBAMATES	MRL 20	Source of data: maneb, ziram
DITHIOCARBAMATES	Step: CXL	Bases de données: manèbe, zirame
DITIOCARBAMATOS		Base de datos: maneb, ziram
175 GLUFOSINATE-AMMONIUM	MRL 0.5	
GLUFOSINATE-AMMONIUM	Step: 6	
GLUFOSINATO-AMONIO		
177 ABAMECTIN	MRL 0.1	
ABAMECTINE	Step: CXL	
ABAMECTIN		
196 TEBUFENOZIDE	MRL 30	
TÉBUFÉNOZIDE	Step: 3	
TEBUFENOZIDA		
203 SPINOSAD	MRL 2	
	Step: 3	

AM 0738 Mint hay / Fourrage de menthe / Heno de menta

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
94 METHOMYL	MRL 2	
MÉTHOMYL	Step: CXL	
METOMILO		
113 PROPARGITE	MRL 50	
PROPARGITE	Step: CXL	
PROPARGITA		

AM 1051 Fodder beet / Betterave fourragère / Forraje seco de remolacha

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
112 PHORATE	MRL 0.05	
PHORATE	Step: CXL	
FORATO		
133 TRIADIMEFON	MRL 0.05 (*)	
TRIADIMÉFON	Step: CXL	
TRIADIMEFON		
168 TRIADIMENOL	MRL 0.05 (*)	Source of data: triadimefon
TRIADIMÉNOL	Step: CXL	Bases de données: triadiméfon
TRIADIMENOL		Base de datos: triadimefón
187 CLETHODIM	MRL 0.1 (*)	
CLÉTHODIME	Step: 6	
CLETODIM		
194 HALOXYFOP	MRL 0.3	
HALOXYFOP	Step: 6	
HALOXIFOP		

**AV MISCELLANEOUS FODDER AND FORAGE CROPS (FORAGE)
CULTURES FOURRAGERES DIVERSES (FOURRAGES VERTS)
CULTIVOS VARIOS DE FORRAJE SECO Y FORRAJE VERDE (FORRAJE SECO)**

AV 0353 Pineapple forage / Fourrage d'ananas / Forraje verde de piña

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
149 ETHOPROPHOS	MRL 0.02 (*)	
ETHOPROPHOS	Step: CXL	
ETOPROFOS		

AV 0596 Sugar beet leaves or tops / Fanes ou verts de betterave sucrière / Hojas o coronas de remolacha azucarera

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
8 CARBARYL	MRL 100 T	1999-2003
CARBARYL	Step: CXL	1999-2003
CARBARILO		1999-2003
17 CHLORPYRIFOS	MRL 40	
CHLORPYRIPHOS	Step: 3	
CLOPPIRIFOS		
22 DIAZINON	MRL 5	
DIAZINON	Step: CXL	
DIAZINON		
27 DIMETHOATE	MRL 0.1	
DIMÉTHOATE	Step: 6(a)	
DIMETOATO		
27 DIMETHOATE	MRL 1	
DIMÉTHOATE	Step: CXL	
DIMETOATO		
32 ENDOSULFAN	MRL 1	
ENDOSULFAN	Step: CXL	
ENDOSULFAN		
48 LINDANE	MRL 0.1	
LINDANE	Step: CXL	
LINDANO		
55 OMETHOATE	MRL 1 T	
OMÉTHOATE	Step: 6	
OMETOATO		
59 PARATHION-METHYL	MRL 0.05 (*) fresh wt	
PARATHION-MÉTHYL	Step: 6	
PARATION-METILO		

74	DISULFOTON DISULFOTON DISULFOTON	MRL 2 Step:	CXL	
77	THIOPHANATE-METHYL THIOPHANATE-MÉTHYL TIOFANATO-METILO	MRL 5 Step:	CXL	
81	CHLOROTHALONIL CHLOROTHALONIL CLOROTALONILO	MRL 20 Step:	CXL	
95	ACEPHATE ACÉPHATE ACEFATO	MRL 10 Step:	CXL	
96	CARBOFURAN CARBOFURAN CARBOFURAN	MRL 0.2 Step:	CXL	
100	METHAMIDOPHOS MÉTHAMIDOPHOS METAMIDOFOS	MRL 1 Step:	CXL	
105	DITHIOCARBAMATES DITHIOCARBAMATES manèbe DITIOCARBAMATOS	MRL 20 Step:	CXL	Source of data: mancozeb, maneb Bases de données: mancozèbe, Base de datos: mancozeb, maneb
112	PHORATE PHORATE FORATO	MRL 1 Step:	CXL	
117	ALDICARB ALDICARBE ALDICARB	MRL 1 Step:	CXL	
133	TRIADIMEFON TRIADIMÉFON TRIADIMEFON	MRL 2 Step:	CXL	
137	BENDIOCARB BENDIOCARBE BENDIOCARB	MRL 0.05 Step:	(*) CXL	
160	PROPICONAZOLE PROPICONAZOLE PROPICONAZOL	MRL 0.5 Step:	CXL	
166	OXYDEMÉTAN-METHYL OXYDÉMÉTAN-MÉTHYL OXIDEMETÓN-METILO	MRL 0.05 Step:	(*) 6	
168	TRIADIMENOL TRIADIMÉNOL TRIADIMENOL	MRL 1 Step:	CXL	Source of data: triadimefon, triadimenol Bases de données: triadiméfon, triadiménol Base de datos: triadimefón, triadimenol
175	GLUFOSINATE-AMMONIUM GLUFOSINATE-AMMONIUM GLUFOSINATO-AMONIO	MRL 0.1 Step:	CXL	

179	CYCLOXYDIM CYCLOXYDIME CICLOXIDIM	MRL 1 Step: CXL
188	FENPROPIMORPH FENPROPIMORPHE FENPROPIMORF	MRL 1 Step: CXL
194	HALOXYFOP HALOXYFOP HALOXIFOP	MRL 0.3 fresh wt Step: 3
202	FIPRONIL	MRL 0.2 dry wt Step: 3

AV 0659 Sugar cane forage / Canne à sucre fourragère / Forraje verde de caña de azúcar

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
20 2,4-D 2,4-D 2,4-D	Step: MRL 0.2 Step: CXL	
149 ETHOPROPHOS ETHOPROPHOS ETOPROFOS	MRL 0.02 (*) Step: CXL	

AV 1051 Fodder beet leaves or tops / Fanes ou verts de betterave fourragère / Hojas o coronas de remolacha forrajera

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
133 TRIADIMEFON TRIADIMÉFON TRIADIMEFON	Step: MRL 0.05 (*) Step: CXL	
167 TERBUFOS TERBUFOS TERBUFOS	MRL 1 Step: CXL	
168 TRIADIMENOL TRIADIMÉNOL TRIADIMENOL	MRL 0.2 Step: CXL	Source of data: triadimefon Bases de données: triadiméfon Base de datos: triadimefón
188 FENPROPIMORPH FENPROPIMORPHE FENPROPIMORF	MRL 1 Step: CXL	

194 HALOXYFOP	MRL 0.3	fresh wt
HALOXYFOP	Step:	3
HALOXIFOP		

AO3 FORAGE CROPS (GREEN)
CULTURES FORRAGERES (EN VERT)
CULTIVOS FORRAJEROS (EN VERDE)

AO3 1600 Forage crops (green) / Cultures fourragères (en vert) / Cultivos forrajeros (en verde)

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
74 DISULFOTON	MRL 5	Except maize forage.
DISULFOTON	Step: CXL	Sauf maïs fourrager.
DISULFOTON		Excepto forrage verde de maïs.

AB BY-PRODUCTS, USED FOR ANIMAL FEEDING PURPOSES, DERIVED FROM FRUIT AND

VEGETABLES

SOUS-PRODUITS, UTILISES POUR L'ALIMENTATION ANIMALE, DE LA TRANSFORMATION DES FRUITS ET LEGUMES

PRODUCTOS SECUNDARIOS UTILIZADOS PARA LA ELEBORACION DE PIENSOS,

AB 0001 Citrus pulp, Dry / Pulpe d'agrumes sèche / Pulpa de cítricos desecada

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
56 2-PHENYLPHENOL	MRL 60 PoP	
PHÉNYL-2 PHÉNOL	Step: 6	
2-FENILFENOL		
94 METHOMYL	MRL 3	
MÉTHOMYL	Step: 3	
METOMILO		
96 CARBOFURAN	MRL 2	Based on the use of carbosulfan.
CARBOFURAN	Step: CXL	Correspondant à l'emploi de carbosulfan.
CARBOFURAN		Basado en los usos de carbosulfan.
109 FENBUTATIN OXIDE	MRL 25	
FENBUTATIN-OXYDE	Step: CXL	
FENBUTATIN ÓXIDO		
113 PROPARGITE	MRL 40	
PROPARGITE	Step: CXL	
PROPARGITA		
145 CARBOSULFAN	MRL 0.1	
CARBOSULFAN	Step: 6	
CARBOSULFAN		

AB 0226 Apple pomace, Dry / Marc de pomme sec / Pulpa de manzana, seca

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
7 CAPTAN	MRL 2	
CAPTANE	Step: 6	
CAPTAN		
109 FENBUTATIN OXIDE	MRL 40	
FENBUTATIN-OXYDE	Step: CXL	
FENBUTATIN ÓXIDO		
113 PROPARGITE	MRL 80	
PROPARGITE	Step: CXL	
PROPARGITA		
120 PERMETHRIN	MRL 50	
PERMÉTHRINE	Step: CXL	
PERMETRIN		
192 FENARIMOL	MRL 5	
FÉNARIMOL	Step: CXL	
FENARIMOL		

AB 0269 Grape pomace, Dry / Marc de raisin sec / Orujo de uva, desecado

Pesticide/Plaguicida	MRL/LMR (mg/kg)	Note/Nota
	Step:	
109 FENBUTATIN OXIDE	MRL 100	
FENBUTATIN-OXYDE	Step: CXL	
FENBUTATIN ÓXIDO		
113 PROPARGITE	MRL 40	
PROPARGITE	Step: CXL	
PROPARGITA		