

codex alimentarius commission E



FOOD AND AGRICULTURE
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Agenda Item 5

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON RESIDUES OF VETERINARY DRUGS IN FOODS

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WORKING DOCUMENT FOR INFORMATION AND SUPPORT TO THE DISCUSSION ON THE MAXIMUM RESIDUES LIMITS FOR VETERINARY DRUGS

prepared by the Codex Secretariat

INTRODUCTION

This working document is in support to the discussion on the residues of veterinary drugs in foods of the 18th Session of the Codex Committee on Residues of Veterinary Drugs in Foods (CCRVDF). The document includes:

- Part 1 - Codex Maximum Residue Limits (MRLs) for Veterinary Drugs as adopted by the Codex Alimentarius Commission as its 31st Session (July 2008)
- Part 2 - Draft and proposed draft MRLs currently under consideration.

Part 1

**CODEX MAXIMUM RESIDUE LIMITS FOR VETERINARY DRUGS IN FOODS
(up to the 31st CAC)**

Updated as at the 31st Session of the Codex Alimentarius Commission (July 2008)

ABAMECTIN (anthelmintic agent)				
JECFA Evaluation: 45 (1995), 47 (1996)				
Acceptable Daily Intake : 0-2 µg/kg body weight (1997) Established for the sum of abamectin and (Z)-8,9 isomer by the 1997 JMPR.				
Residue Definition: Avermectin B1a.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Liver	100	26 th (2003)	
Cattle	Kidney	50	26 th (2003)	
Cattle	Fat	100	26 th (2003)	

ALBENDAZOLE (anthelmintic agent)				
JECFA Evaluation: 34 (1989)				
Acceptable Daily Intake: 0-50 µg/kg body weight (34 th JECFA, 1989).				
Residue Definition: Except milk, 2-aminosulfone metabolite; Milk, not yet identified.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Not specified	Muscle	100	20 th (1993)	
Not specified	Liver	5000	20 th (1993)	
Not specified	Kidney	5000	20 th (1993)	
Not specified	Fat	100	20 th (1993)	
Not specified	Milk (µg/l)	100	20 th (1993)	

AZAPERONE (tranquilizing agent)				
JECFA Evaluation:		38 (1991), 43 (1994), 50 (1998), 52 (1999)		
Acceptable Daily Intake:		0-6 µg/kg body weight (50 th JECFA, 1998).		
Residue Definition:		Sum of azaperone and azaperol.		
Species	Tissue	MRL (µg/kg)	CAC	Notes
Pig	Muscle	60	23 rd (1999)	
Pig	Liver	100	23 rd (1999)	
Pig	Kidney	100	23 rd (1999)	
Pig	Fat	60	23 rd (1999)	

BENZYL PENICILLIN/PROCAINE BENZYL PENICILLIN (antimicrobial agent)				
JECFA Evaluation:		36 (1990); 50 (1998)		
Acceptable Daily Intake:		30 µg-penicillin/person/day (50 th JECFA, 1998). Residues of benzylpenicillin and procaine benzylpenicillin should be kept below this level.		
Residue Definition:		Benzylpenicillin.		
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	50	23 rd (1999)	
Cattle	Liver	50	23 rd (1999)	
Cattle	Kidney	50	23 rd (1999)	
Cattle	Milk (µg/l)	4	23 rd (1999)	
Chicken	Muscle	50	23 rd (1999)	Applies to procaine benzylpenicillin only.
Chicken	Liver	50	23 rd (1999)	Applies to procaine benzylpenicillin only.
Chicken	Kidney	50	23 rd (1999)	Applies to procaine benzylpenicillin only.
Pig	Muscle	50	23 rd (1999)	
Pig	Liver	50	23 rd (1999)	
Pig	Kidney	50	23 rd (1999)	

CARAZOLOL (beta-adreniceptor-blocking agent)				
JECFA Evaluation: 38 (1991), 43 (1994), 52 (1999)				
Acceptable Daily Intake: 0-0.1 µg/kg body weight (43 rd JECFA, 1994). ADI based on the acute pharmacological effects of carazolol.				
Residue Definition: Carazolol.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Pig	Muscle	5	26 th (2003)	The concentration at the injection site two hours after treatment may result in an intake that exceeds the acute RfD and therefore, an appropriate withdrawal period should be applied.
Pig	Liver	25	26 th (2003)	
Pig	Kidney	25	26 th (2003)	
Pig	Fat/Skin	5	26 th (2003)	The concentration at the injection site two hours after treatment may result in an intake that exceeds the acute RfD and therefore, an appropriate withdrawal period should be applied.

CEFTIOFUR (antimicrobial agent)				
JECFA Evaluation: 45 (1995), 48 (1997)				
Acceptable Daily Intake: 0-50 µg/kg body weight (45 th JECFA, 1995).				
Residue Definition: Desfuroylceftiofur.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	1000	23 rd (1999)	
Cattle	Liver	2000	23 rd (1999)	
Cattle	Kidney	6000	23 rd (1999)	
Cattle	Fat	2000	23 rd (1999)	
Cattle	Milk (µg/l)	100	23 rd (1999)	
Pig	Muscle	1000	23 rd (1999)	
Pig	Liver	2000	23 rd (1999)	
Pig	Kidney	6000	23 rd (1999)	
Pig	Fat	2000	23 rd (1999)	

CHLORTETRACYCLINE/OXYTETRACYCLINE/TETRACYCLINE (antimicrobial agent)				
JECFA Evaluation:		45 (1995), 47 (1996), 50 (1998)		
Acceptable Daily Intake:		0-30 µg/kg body weight (50 th JECFA, 1998). Group ADI for chlortetracycline, oxytetracycline and tetracycline.		
Residue Definition:		Parent drugs, singly or in combination.		
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	200	26 th (2003)	
Cattle	Liver	600	26 th (2003)	
Cattle	Kidney	1200	26 th (2003)	
Cattle	Milk (µg/l)	100	26 th (2003)	
Fish	Muscle	200	26 th (2003)	Applies only to oxytetracycline.
Giant prawn (<i>Paeneus monodon</i>)	Muscle	200	26 th (2003)	Applies only to oxytetracycline.
Pig	Muscle	200	26 th (2003)	
Pig	Liver	600	26 th (2003)	
Pig	Kidney	1200	26 th (2003)	
Poultry	Muscle	200	26 th (2003)	
Poultry	Liver	600	26 th (2003)	
Poultry	Kidney	1200	26 th (2003)	
Poultry	Eggs	400	26 th (2003)	
Sheep	Muscle	200	26 th (2003)	
Sheep	Liver	600	26 th (2003)	
Sheep	Kidney	1200	26 th (2003)	
Sheep	Milk (µg/l)	100	26 th (2003)	

CLENBUTEROL (adrenoceptor agonist)				
JECFA Evaluation: 47 (1996)				
Acceptable Daily Intake: 0-0.004 µg/kg body weight (47 th JECFA, 1996).				
Residue Definition: Clenbuterol.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	0.2	26 th (2003)	Due to the potential abuse of this drug, the MRLs are recommended only when associated with a nationally approved therapeutic use, such as tocolysis or as an adjunct therapy in respiratory diseases.
Cattle	Liver	0.6	26 th (2003)	Due to the potential abuse of this drug, the MRLs are recommended only when associated with a nationally approved therapeutic use, such as tocolysis or as an adjunct therapy in respiratory diseases.
Cattle	Kidney	0.6	26 th (2003)	Due to the potential abuse of this drug, the MRLs are recommended only when associated with a nationally approved therapeutic use, such as tocolysis or as an adjunct therapy in respiratory diseases.
Cattle	Fat	0.2	26 th (2003)	Due to the potential abuse of this drug, the MRLs are recommended only when associated with a nationally approved therapeutic use, such as tocolysis or as an adjunct therapy in respiratory diseases.
Cattle	Milk (µg/l)	0.05	26 th (2003)	Due to the potential abuse of this drug, the MRLs are recommended only when associated with a nationally approved therapeutic use, such as tocolysis or as an adjunct therapy in respiratory diseases.
Horse	Muscle	0.2	26 th (2003)	Due to the potential abuse of this drug, the MRLs are recommended only when associated with a nationally approved therapeutic use, such as tocolysis or as an adjunct therapy in respiratory diseases.
Horse	Liver	0.6	26 th (2003)	Due to the potential abuse of this drug, the MRLs are recommended only when associated with a nationally approved therapeutic use, such as tocolysis or as an adjunct therapy in respiratory diseases.
Horse	Kidney	0.6	26 th (2003)	Due to the potential abuse of this drug, the MRLs are recommended only when associated with a nationally approved therapeutic use, such as tocolysis or as an adjunct therapy in respiratory diseases.
Horse	Fat	0.2	26 th (2003)	Due to the potential abuse of this drug, the MRLs are recommended only when associated with a nationally approved therapeutic use, such as tocolysis or as an adjunct therapy in respiratory diseases.

CLOSANTEL (anthelmintic agent)				
JECFA Evaluation: 36 (1990), 40 (1992)				
Acceptable Daily Intake: 0-30 µg/kg body weight (40 th JECFA, 1992).				
Residue Definition: Closantel.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	1000	20 th (1993)	
Cattle	Liver	1000	20 th (1993)	
Cattle	Kidney	3000	20 th (1993)	
Cattle	Fat	3000	20 th (1993)	
Sheep	Muscle	1500	20 th (1993)	
Sheep	Liver	1500	20 th (1993)	
Sheep	Kidney	5000	20 th (1993)	
Sheep	Fat	2000	20 th (1993)	

COLISTIN (antimicrobial agent)				
JECFA Evaluation:		66 (2006)		
Acceptable Daily Intake:		0-7 µg/kg body weight (66 th JECFA, 2006).		
Residue Definition:		Sum of colistin A and colistin B.		
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	150	31 st (2008)	
Cattle	Liver	150	31 st (2008)	
Cattle	Kidney	200	31 st (2008)	
Cattle	Fat	150	31 st (2008)	
Cattle	Milk	50	31 st (2008)	
Sheep	Muscle	150	31 st (2008)	
Sheep	Liver	150	31 st (2008)	
Sheep	Kidney	200	31 st (2008)	
Sheep	Fat	150	31 st (2008)	
Sheep	Milk	50	31 st (2008)	
Goat	Muscle	150	31 st (2008)	
Goat	Liver	150	31 st (2008)	
Goat	Kidney	200	31 st (2008)	
Goat	Fat	150	31 st (2008)	
Pig	Muscle	150	31 st (2008)	
Pig	Liver	150	31 st (2008)	
Pig	Kidney	200	31 st (2008)	
Pig	Fat	150	31 st (2008)	The MRL includes skin + fat
Chicken	Muscle	150	31 st (2008)	
Chicken	Liver	150	31 st (2008)	
Chicken	Kidney	200	31 st (2008)	
Chicken	Fat	150	31 st (2008)	The MRL includes skin + fat
Chicken	Eggs	300	31 st (2008)	
Turkey	Muscle	150	31 st (2008)	
Turkey	Liver	150	31 st (2008)	
Turkey	Kidney	200	31 st (2008)	
Turkey	Fat	150	31 st (2008)	The MRL includes skin + fat
Rabbit	Muscle	150	31 st (2008)	
Rabbit	Liver	150	31 st (2008)	
Rabbit	Kidney	200	31 st (2008)	
Rabbit	Fat	150	31 st (2008)	

CYFLUTHRIN (insecticide)				
JECFA Evaluation:		48 (1997)		
Acceptable Daily Intake:		0-20 µg/kg body weight (48 th JECFA, 1997).		
Residue Definition:		Cyfluthrin.		
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	20	26 th (2003)	
Cattle	Liver	20	26 th (2003)	
Cattle	Kidney	20	26 th (2003)	
Cattle	Fat	200	26 th (2003)	
Cattle	Milk (µg/l)	40	26 th (2003)	

CYHALOTHRIN (insecticide)				
JECFA Evaluation:		54 (2000); 62 (2004)		
Acceptable Daily Intake:		0-5 µg/kg body weight (62 nd JECFA, 2004).		
Residue Definition:		Cyhalothrin.		
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	20	28 th (2005)	
Cattle	Liver	20	28 th (2005)	
Cattle	Kidney	20	28 th (2005)	
Cattle	Fat	400	28 th (2005)	
Cattle	Milk	30	28 th (2005)	
Pig	Muscle	20	28 th (2005)	
Pig	Liver	20	28 th (2005)	
Pig	Kidney	20	28 th (2005)	
Pig	Fat	400	28 th (2005)	
Sheep	Muscle	20	28 th (2005)	
Sheep	Liver	50	28 th (2005)	
Sheep	Kidney	20	28 th (2005)	
Sheep	Fat	400	28 th (2005)	

CYPERMETHRIN AND ALPHA-CYPERMETHRIN (insecticide)				
JECFA Evaluation:		62 (2004)		
Acceptable Daily Intake:		JECFA established a common ADI of 0-20 µg/kg bw for both cypermethrin and alpha-cypermethrin.		
Residue Definition:		Total of cypermethrin residues (resulting from the use of cypermethrin or alpha-cypermethrin as veterinary drugs).		
Species	Tissue	MRLs(µg/kg)	CAC	Note
Cattle	Muscle	50	29 th (2006)	
Cattle	Liver	50	29 th (2006)	
Cattle	Kidney	50	29 th (2006)	
Cattle	Fat	1000	29 th (2006)	
Cattle	Milk	100	29 th (2006)	
Sheep	Muscle	50	29 th (2006)	
Sheep	Liver	50	29 th (2006)	
Sheep	Kidney	50	29 th (2006)	
Sheep	Fat	1000	29 th (2006)	

DANOFLOXACIN (antimicrobial agent)				
JECFA Evaluation:		48 (1997)		
Acceptable Daily Intake:		0-20 µg/kg body weight (48 th JECFA, 1997).		
Residue Definition:		Danofloxacin.		
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	200	24 th (2001)	
Cattle	Liver	400	24 th (2001)	
Cattle	Kidney	400	24 th (2001)	
Cattle	Fat	100	24 th (2001)	
Chicken	Muscle	200	24 th (2001)	
Chicken	Liver	400	24 th (2001)	
Chicken	Kidney	400	24 th (2001)	
Chicken	Fat	100	24 th (2001)	Fat/skin in normal proportion.
Pig	Muscle	100	24 th (2001)	
Pig	Liver	50	24 th (2001)	
Pig	Kidney	200	24 th (2001)	
Pig	Fat	100	24 th (2001)	

DELTAMETHRIN (insecticide)				
JECFA Evaluation: 52 (1999), 60 (2003)				
Acceptable Daily Intake: 0-10 µg/kg body weight (1982). Established by the 1982 JMPR.				
Residue Definition: Deltamethrin.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	30	26 th (2003)	
Cattle	Liver	50	26 th (2003)	
Cattle	Kidney	50	26 th (2003)	
Cattle	Fat	500	26 th (2003)	
Cattle	Milk	30	26 th (2003)	
Chicken	Muscle	30	26 th (2003)	
Chicken	Liver	50	26 th (2003)	
Chicken	Kidney	50	26 th (2003)	
Chicken	Fat	500	26 th (2003)	
Chicken	Eggs	30	26 th (2003)	
Salmon	Muscle	30	26 th (2003)	
Sheep	Muscle	30	26 th (2003)	
Sheep	Liver	50	26 th (2003)	
Sheep	Kidney	50	26 th (2003)	
Sheep	Fat	500	26 th (2003)	

DICLAZURIL (antiprotozoal agent)				
JECFA Evaluation: 45 (1995), 50 (1998)				
Acceptable Daily Intake: 0-30 µg/kg body weight (50 th JECFA, 1998).				
Residue Definition: Diclazuril.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Poultry	Muscle	500	23 rd (1999)	
Poultry	Liver	3000	23 rd (1999)	
Poultry	Kidney	2000	23 rd (1999)	
Poultry	Fat/Skin	1000	23 rd (1999)	
Rabbit	Muscle	500	23 rd (1999)	
Rabbit	Liver	3000	23 rd (1999)	
Rabbit	Kidney	2000	23 rd (1999)	
Rabbit	Fat	1000	23 rd (1999)	
Sheep	Muscle	500	23 rd (1999)	
Sheep	Liver	3000	23 rd (1999)	
Sheep	Kidney	2000	23 rd (1999)	
Sheep	Fat	1000	23 rd (1999)	

DICYCLANIL (insecticide)				
JECFA Evaluation: 54 (2000), 60 (2003)				
Acceptable Daily Intake: 0-7 µg/kg body weight (54 th JECFA, 2000).				
Residue Definition: Dicyclanil.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Sheep	Muscle	150	28 th (2005)	
Sheep	Liver	125	28 th (2005)	
Sheep	Kidney	125	28 th (2005)	
Sheep	Fat	200	28 th (2005)	

DIHYDROSTREPTOMYCIN/STREPTOMYCIN (antimicrobial agent)				
JECFA Evaluation:		43 (1994), 48 (1997), 52 (1999), 58 (2002)		
Acceptable Daily Intake:		0-50 µg/kg body weight (48 th JECFA, 1997). Group ADI for combined residues of dihydrostreptomycin and streptomycin.		
Residue Definition:		Sum of dihydrostreptomycin and streptomycin.		
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	600	24 th (2001)	
Cattle	Liver	600	24 th (2001)	
Cattle	Kidney	1000	24 th (2001)	
Cattle	Fat	600	24 th (2001)	
Cattle	Milk	200	26 th (2003)	
Chicken	Muscle	600	24 th (2001)	
Chicken	Liver	600	24 th (2001)	
Chicken	Kidney	1000	24 th (2001)	
Chicken	Fat	600	24 th (2001)	
Pig	Muscle	600	24 th (2001)	
Pig	Liver	600	24 th (2001)	
Pig	Kidney	1000	24 th (2001)	
Pig	Fat	600	24 th (2001)	
Sheep	Muscle	600	24 th (2001)	
Sheep	Liver	600	24 th (2001)	
Sheep	Kidney	1000	24 th (2001)	
Sheep	Fat	600	24 th (2001)	
Sheep	Milk	200	26 th (2003)	

DIMINAZENE (trypanocide)				
JECFA Evaluation:		34 (1989), 42 (1994)		
Acceptable Daily Intake:		0-100 µg/kg body weight (42 nd JECFA, 1994).		
Residue Definition:		Diminazene.		
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	500	22 nd (1997)	
Cattle	Liver	12000	22 nd (1997)	
Cattle	Kidney	6000	22 nd (1997)	
Cattle	Milk (µg/l)	150	22 nd (1997)	Limit of quantitation of the analytical method.

DORAMECTIN (anthelmintic agent)				
JECFA Evaluation: 45 (1995), 52 (1999), 62 (2004)				
Acceptable Daily Intake: 0-0.5 µg/kg body weight (45 th JECFA, 1995).				
Residue Definition: Doramectin.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	10	22 nd (1997)	High concentration of residues at the injection site over a 35 day period after subcutaneous or intramuscular administration of the drug at the recommended dose.
Cattle	Liver	100	22 nd (1997)	
Cattle	Kidney	30	22 nd (1997)	
Cattle	Fat	150	22 nd (1997)	High concentration of residues at the injection site over a 35 day period after subcutaneous or intramuscular administration of the drug at the recommended dose
Cattle	Lait	15	29 th (2006)	Depending on the route and/or time of administration the use of doramectin in dairy cows may result in extended withdrawal periods in milk. This may be addressed in national/regional regulatory programmes.
Pig	Muscle	5	24 th (2001)	
Pig	Liver	100	24 th (2001)	
Pig	Kidney	30	24 th (2001)	
Pig	Fat	150	24 th (2001)	

EPRINOMECTIN (anthelmintic agent)				
JECFA Evaluation: 50 (1998)				
Acceptable Daily Intake: 0-10 µg/kg body weight (50 th JECFA, 1998).				
Residue Definition: Eprinomectin B1a.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	100	26 th (2003)	
Cattle	Liver	2000	26 th (2003)	
Cattle	Kidney	300	26 th (2003)	
Cattle	Fat	250	26 th (2003)	
Cattle	Milk (µg/l)	20	26 th (2003)	

ERYTHROMYCIN (antimicrobial agent)				
JECFA Evaluation:		66 (2006)		
Acceptable Daily Intake:		0-0.7 µg/kg body weight (66 th JECFA, 2006).		
Residue Definition:		Erythromycin A		
Species	Tissue	MRL (µg/kg)	CAC	Notes
Chicken	Muscle	100	31 st (2008)	
Chicken	Liver	100	31 st (2008)	
Chicken	Kidney	100	31 st (2008)	
Chicken	Fat	100	31 st (2008)	The MRL includes skin + fat
Chicken	Eggs	50	31 st (2008)	
Turkey	Muscle	100	31 st (2008)	
Turkey	Liver	100	31 st (2008)	
Turkey	Kidney	100	31 st (2008)	
Turkey	Fat	100	31 st (2008)	The MRL includes skin + fat

ESTRADIOL-17BETA (production aid)				
JECFA Evaluation:		25 (1981), 32 (1987), 52 (1999)		
Acceptable Daily Intake:		unnecessary (32 nd JECFA, 1987); 0-0.05 µg/kg body weight (52 nd JECFA, 1999).		
Residue Definition:		Estradiol-17beta.		
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	unnecessary	21 st (1995)	Residues resulting from the use of this substances as a growth promoter in accordance with good animal husbandry practice are unlikely to pose a hazard to human health.
Cattle	Liver	unnecessary	21 st (1995)	Residues resulting from the use of this substances as a growth promoter in accordance with good animal husbandry practice are unlikely to pose a hazard to human health.
Cattle	Kidney	unnecessary	21 st (1995)	Residues resulting from the use of this substances as a growth promoter in accordance with good animal husbandry practice are unlikely to pose a hazard to human health.
Cattle	Fat	unnecessary	21 st (1995)	Residues resulting from the use of this substances as a growth promoter in accordance with good animal husbandry practice are unlikely to pose a hazard to human health.

FEBANTEL/FENBENDAZOLE/OXFENDAZOLE (anthelmintic agent)				
JECFA Evaluation:		38 (1991), 45 (1995), 50 (1998)		
Acceptable Daily Intake:		0-7 µg/kg body weight (50 th JECFA, 1998). Group ADI		
Residue Definition:		Sum of fenbendazole, oxfendazole and oxfendazole sulphone, expressed as oxfendazole sulphone equivalents.		
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	100	23 rd (1999)	
Cattle	Liver	500	23 rd (1999)	
Cattle	Kidney	100	23 rd (1999)	
Cattle	Fat	100	23 rd (1999)	
Cattle	Milk (µg/l)	100	23 rd (1999)	
Goat	Muscle	100	23 rd (1999)	
Goat	Liver	500	23 rd (1999)	
Goat	Kidney	100	23 rd (1999)	
Goat	Fat	100	23 rd (1999)	
Horse	Muscle	100	23 rd (1999)	
Horse	Liver	500	23 rd (1999)	
Horse	Kidney	100	23 rd (1999)	
Horse	Fat	100	23 rd (1999)	
Pig	Muscle	100	23 rd (1999)	
Pig	Liver	500	23 rd (1999)	
Pig	Kidney	100	23 rd (1999)	
Pig	Fat	100	23 rd (1999)	
Sheep	Muscle	100	23 rd (1999)	
Sheep	Liver	500	23 rd (1999)	
Sheep	Kidney	100	23 rd (1999)	
Sheep	Fat	100	23 rd (1999)	
Sheep	Milk (µg/l)	100	23 rd (1999)	

FLUAZURON (insecticide)				
JECFA Evaluation:		48 (1997)		
Acceptable Daily Intake:		0-40 µg/kg body weight (48 th JECFA, 1997).		
Residue Definition:		Fluazuron.		
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	200	23 rd (1999)	
Cattle	Liver	500	23 rd (1999)	
Cattle	Kidney	500	23 rd (1999)	
Cattle	Fat	7000	23 rd (1999)	

FLUBENDAZOLE (anthelmintic agent)				
JECFA Evaluation:		40 (1992)		
Acceptable Daily Intake:		0-12 µg/kg body weight (40 th JECFA, 1992).		
Residue Definition:		Flubendazole.		
Species	Tissue	MRL (µg/kg)	CAC	Notes
Pig	Muscle	10	21 st (1995)	
Pig	Liver	10	21 st (1995)	
Poultry	Muscle	200	21 st (1995)	
Poultry	Liver	500	21 st (1995)	
Poultry	Eggs	400	21 st (1995)	

FLUMEQUINE (antimicrobial agent)				
JECFA Evaluation: 42 (1994), 48 (1997), 54 (2000), 60 (2002), 62 (2004), 66 (2006)				
Acceptable Daily Intake: 0-30 µg/kg body weight (62 nd JECFA, 2004).				
Residue Definition: Flumequine.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	500	28 th (2005)	
Cattle	Liver	500	28 th (2005)	
Cattle	Kidney	3000	28 th (2005)	
Cattle	Fat	1000	28 th (2005)	
Chicken	Muscle	500	28 th (2005)	
Chicken	Liver	500	28 th (2005)	
Chicken	Kidney	3000	28 th (2005)	
Chicken	Fat	1000	28 th (2005)	
Pig	Muscle	500	28 th (2005)	
Pig	Liver	500	28 th (2005)	
Pig	Kidney	3000	28 th (2005)	
Pig	Fat	1000	28 th (2005)	
Sheep	Muscle	500	28 th (2005)	
Sheep	Liver	500	28 th (2005)	
Sheep	Kidney	3000	28 th (2005)	
Sheep	Fat	1000	28 th (2005)	
Trout	Muscle	500	28 th (2005)	Muscle including normal proportion of skin

GENTAMICIN (antimicrobial agent)				
JECFA Evaluation: 43 (1994), 48 (1997), 50 (1998)				
Acceptable Daily Intake: 0-20 µg/kg body weight (50 th JECFA, 1998).				
Residue Definition: Gentamicin.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	100	24 th (2001)	
Cattle	Liver	2000	24 th (2001)	
Cattle	Kidney	5000	24 th (2001)	
Cattle	Fat	100	24 th (2001)	
Cattle	Milk (µg/l)	200	24 th (2001)	
Pig	Muscle	100	24 th (2001)	
Pig	Liver	2000	24 th (2001)	
Pig	Kidney	5000	24 th (2001)	
Pig	Fat	100	24 th (2001)	

IMIDOCARB (antiprotozoal agent)				
JECFA Evaluation: 50 (1998), 60 (2003)				
Acceptable Daily Intake: 0-10 µg/kg body weight (50 th JECFA, 1998).				
Residue Definition: Imidocarb.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	300	28 th (2005)	
Cattle	Liver	1500	28 th (2005)	
Cattle	Kidney	2000	28 th (2005)	
Cattle	Fat	50	28 th (2005)	
Cattle	Milk	50	28 th (2005)	

ISOMETAMIDIUM (trypanocide)				
JECFA Evaluation: 34 (1989); 40 (1992)				
Acceptable Daily Intake: 0-100 µg/kg body weight (40 th JECFA, 1992).				
Residue Definition: Isometamidium.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	100	21 st (1995)	
Cattle	Liver	500	21 st (1995)	
Cattle	Kidney	1000	21 st (1995)	
Cattle	Fat	100	21 st (1995)	
Cattle	Milk (µg/l)	100	21 st (1995)	

IVERMECTIN (anthelmintic agent)				
JECFA Evaluation: 36 (1990), 40 (1992), 54 (2000), 58 (2002)				
Acceptable Daily Intake: 0-1 µg/kg body weight (40 th JECFA, 1992).				
Residue Definition: 22,23-Dihydroavermectin B1a (H2B1a).				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Liver	100	20 th (1993)	
Cattle	Fat	40	20 th (1993)	
Cattle	Milk	10	26 th (2003)	
Pig	Liver	15	20 th (1993)	
Pig	Fat	20	20 th (1993)	
Sheep	Liver	15	20 th (1993)	
Sheep	Fat	20	20 th (1993)	

LEVAMISOLE (anthelmintic agent)				
JECFA Evaluation: 36 (1990), 42 (1994)				
Acceptable Daily Intake: 0-6 µg/kg body weight (42 nd JECFA, 1994).				
Residue Definition: Levamisole.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	10	22 nd (1997)	
Cattle	Liver	100	22 nd (1997)	
Cattle	Kidney	10	22 nd (1997)	
Cattle	Fat	10	22 nd (1997)	
Pig	Muscle	10	22 nd (1997)	
Pig	Liver	100	22 nd (1997)	
Pig	Kidney	10	22 nd (1997)	
Pig	Fat	10	22 nd (1997)	
Poultry	Muscle	10	22 nd (1997)	
Poultry	Liver	100	22 nd (1997)	
Poultry	Kidney	10	22 nd (1997)	
Poultry	Fat	10	22 nd (1997)	
Sheep	Muscle	10	22 nd (1997)	
Sheep	Liver	100	22 nd (1997)	
Sheep	Kidney	10	22 nd (1997)	
Sheep	Fat	10	22 nd (1997)	

LINCOMYCIN (antimicrobial agent)				
JECFA Evaluation: 54 (2000), 58 (2002); 62 (2004)				
Acceptable Daily Intake: 0-30 µg/kg body weight (54 th JECFA, 2000).				
Residue Definition: Lincomycin.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Milk	150	26 th (2003)	
Chicken	Muscle	200	26 th (2003)	
Chicken	Liver	500	26 th (2003)	
Chicken	Kidney	500	26 th (2003)	
Chicken	Fat	100	26 th (2003)	Additional MRL for skin with adhering fat of 300 µg/kg.
Pig	Muscle	200	26 th (2003)	
Pig	Liver	500	26 th (2003)	
Pig	Kidney	1500	26 th (2003)	
Pig	Fat	100	26 th (2003)	Additional MRL for skin with adhering fat of 300 µg/kg.

MOXIDECTIN (anthelmintic agent)				
JECFA Evaluation: 45 (1995), 47 (1996), 48 (1998), 50 (1998)				
Acceptable Daily Intake: 0-2 µg/kg body weight (45 th JECFA, 1995).				
Residue Definition: Moxidectin.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	20	22 nd (1997)	Very high concentration and great variation in the level of residues at the injection site in cattle over a 49 day period after dosing.
Cattle	Liver	100	22 nd (1997)	
Cattle	Kidney	50	22 nd (1997)	
Cattle	Fat	500	22 nd (1997)	
Deer	Muscle	20	23 rd (1999)	
Deer	Liver	100	23 rd (1999)	
Deer	Kidney	50	23 rd (1999)	
Deer	Fat	500	23 rd (1999)	
Sheep	Muscle	50	22 nd (1997)	
Sheep	Liver	100	22 nd (1997)	
Sheep	Kidney	50	22 nd (1997)	
Sheep	Fat	500	22 nd (1997)	

NEOMYCIN (antimicrobial agent)				
JECFA Evaluation: 43 (1994), 47 (1996), 52 (1999); 58 (2002); 60 (2003)				
Acceptable Daily Intake: 0-60 µg/kg body weight (47 th JECFA, 1996).				
Residue Definition: Neomycin.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	500	23 rd (1999)	
Cattle	Liver	500	28 th (2005)	
Cattle	Kidney	10000	28 th (2005)	
Cattle	Fat	500	23 rd (1999)	
Cattle	Milk	1500	28 th (2005)	
Chicken	Muscle	500	23 rd (1999)	
Chicken	Liver	500	23 rd (1999)	
Chicken	Kidney	10000	23 rd (1999)	
Chicken	Fat	500	23 rd (1999)	
Chicken	Eggs	500	23 rd (1999)	
Duck	Muscle	500	23 rd (1999)	
Duck	Liver	500	23 rd (1999)	
Duck	Kidney	10000	23 rd (1999)	
Duck	Fat	500	23 rd (1999)	
Goat	Muscle	500	23 rd (1999)	
Goat	Liver	500	23 rd (1999)	
Goat	Kidney	10000	23 rd (1999)	
Goat	Fat	500	23 rd (1999)	
Pig	Muscle	500	23 rd (1999)	
Pig	Liver	500	23 rd (1999)	
Pig	Kidney	10000	23 rd (1999)	
Pig	Fat	500	23 rd (1999)	
Sheep	Muscle	500	23 rd (1999)	
Sheep	Liver	500	23 rd (1999)	
Sheep	Kidney	10000	23 rd (1999)	
Sheep	Fat	500	23 rd (1999)	
Turkey	Muscle	500	23 rd (1999)	
Turkey	Liver	500	23 rd (1999)	
Turkey	Kidney	10000	23 rd (1999)	
Turkey	Fat	500	23 rd (1999)	

NICARBAZIN (antiprotozoal agent)				
JECFA Evaluation:		50 (1998)		
Acceptable Daily Intake:		0-400 µg/kg body weight (50 th JECFA, 1998).		
Residue Definition:		N,N'-bis(4-nitropheyl)urea.		
Species	Tissue	MRL (µg/kg)	CAC	Notes
Chicken	Muscle	200	23 rd (1999)	Broilers.
Chicken	Liver	200	23 rd (1999)	Broilers.
Chicken	Kidney	200	23 rd (1999)	Broilers.
Chicken	Fat/Skin	200	23 rd (1999)	Broilers.

PHOXIM (insecticide)				
JECFA Evaluation:		52 (1999), 62 (2004)		
Acceptable Daily Intake:		0-4 µg/kg body weight (52 nd JECFA, 1999).		
Residue Definition:		Phoxim		
Species	Tissue	MRL (µg/kg)	CAC	Notes
Goat	Muscle	50	26 th (2003)	
Goat	Liver	50	26 th (2003)	
Goat	Kidney	50	26 th (2003)	
Goat	Fat	400	26 th (2003)	
Pig	Muscle	50	26 th (2003)	
Pig	Liver	50	26 th (2003)	
Pig	Kidney	50	26 th (2003)	
Pig	Fat	400	26 th (2003)	
Sheep	Muscle	50	26 th (2003)	
Sheep	Liver	50	26 th (2003)	
Sheep	Kidney	50	26 th (2003)	
Sheep	Fat	400	26 th (2003)	

PIRLIMYCIN (antimicrobial agent)				
JECFA Evaluation: 62 (2004)				
Acceptable Daily Intake: 0-8 µg/kg bw (62 nd JECFA, 2004).				
Residue Definition: Pirlimycin.				
Species	Tissue	MRLs(µg/kg)	CAC	Note
Cattle	Muscle	100	29 th (2006)	
Cattle	Liver	1000	29 th (2006)	
Cattle	Kidney	400	29 th (2006)	
Cattle	Fat	100	29 th (2006)	
Cattle	Milk	100	29 th (2006)	JECFA evaluated the effect of pirlimycin residues on starter cultures and for this reason recommended an MRL of 100 µg/kg of milk. Codex Members may therefore adapt national/regional MRLs in order to address this technological aspect for trade of fresh liquid milk intended for processing using starter culture.

PORCINE SOMATOTROPIN (production aid)				
JECFA Evaluation: 52 (1999)				
Acceptable Daily Intake: Not Specified (52 nd JECFA, 1999).				
Residue Definition: Not applicable.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Pig	Muscle	not specified	26 th (2003)	
Pig	Liver	not specified	26 th (2003)	
Pig	Kidney	not specified	26 th (2003)	
Pig	Fat	not specified	26 th (2003)	

PROGESTERONE (production aid)				
JECFA Evaluation: 25 (1981), 32 (1987), 52 (1999)				
Acceptable Daily Intake: 0-30 µg/kg body weight (52 nd JECFA, 1999).				
Residue Definition: Progesterone.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	unnecessary	21 st (2005)	Residues resulting from the use of this substances as a growth promoter in accordance with good animal husbandry practice are unlikely to pose a hazard to human health
Cattle	Liver	unnecessary	21 st (2005)	Residues resulting from the use of this substances as a growth promoter in accordance with good animal husbandry practice are unlikely to pose a hazard to human health
Cattle	Kidney	unnecessary	21 st (2005)	Residues resulting from the use of this substances as a growth promoter in accordance with good animal husbandry practice are unlikely to pose a hazard to human health
Cattle	Fat	unnecessary	21 st (2005)	Residues resulting from the use of this substances as a growth promoter in accordance with good animal husbandry practice are unlikely to pose a hazard to human health

SARAFLOXACIN (antimicrobial agent)				
JECFA Evaluation: 50 (1998)				
Acceptable Daily Intake: 0-0.3 µg/kg body weight (50 th JECFA, 1998).				
Residue Definition: Sarafloxacin.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Chicken	Muscle	10	24 th (2001)	
Chicken	Liver	80	24 th (2001)	
Chicken	Kidney	80	24 th (2001)	
Chicken	Fat	20	24 th (2001)	
Turkey	Muscle	10	24 th (2001)	
Turkey	Liver	80	24 th (2001)	
Turkey	Kidney	80	24 th (2001)	
Turkey	Fat	20	24 th (2001)	

SPECTINOMYCIN (antimicrobial agent)				
JECFA Evaluation: 42 (1994), 50 (1998)				
Acceptable Daily Intake: 0-40 µg/kg body weight (42 nd JECFA, 1994).				
Residue Definition: Spectinomycin.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	500	23 rd (1999)	
Cattle	Liver	2000	23 rd (1999)	
Cattle	Kidney	5000	23 rd (1999)	
Cattle	Fat	2000	23 rd (1999)	
Cattle	Milk (µg/l)	200	23 rd (1999)	
Chicken	Muscle	500	23 rd (1999)	
Chicken	Liver	2000	23 rd (1999)	
Chicken	Kidney	5000	23 rd (1999)	
Chicken	Fat	2000	23 rd (1999)	
Chicken	Eggs	2000	23 rd (1999)	
Pig	Muscle	500	23 rd (1999)	
Pig	Liver	2000	23 rd (1999)	
Pig	Kidney	5000	23 rd (1999)	
Pig	Fat	2000	23 rd (1999)	
Sheep	Muscle	500	23 rd (1999)	
Sheep	Liver	2000	23 rd (1999)	
Sheep	Kidney	5000	23 rd (1999)	
Sheep	Fat	2000	23 rd (1999)	

SPIRAMYCIN (antimicrobial agent)				
JECFA Evaluation: 38 (1991), 43 (1994), 47 (1996), 48 (1997)				
Acceptable Daily Intake: 0-50 µg/kg body weight (43 rd JECFA, 1994).				
Residue Definition: Cattle and chickens, sum of spiramycin and neospiramycin; Pigs, spiramycin equivalents (antimicrobially active residues).				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	200	22 nd (1997)	
Cattle	Liver	600	22 nd (1997)	
Cattle	Kidney	300	22 nd (1997)	
Cattle	Fat	300	22 nd (1997)	
Cattle	Milk (µg/l)	200	22 nd (1997)	
Chicken	Muscle	200	22 nd (1997)	
Chicken	Liver	600	22 nd (1997)	
Chicken	Kidney	800	22 nd (1997)	
Chicken	Fat	300	22 nd (1997)	
Pig	Muscle	200	22 nd (1997)	
Pig	Liver	600	22 nd (1997)	
Pig	Kidney	300	22 nd (1997)	
Pig	Fat	300	22 nd (1997)	

SULFADIMIDINE (antimicrobial agent)				
JECFA Evaluation: 34 (1989), 38 (1991), 42 (1994)				
Acceptable Daily Intake: 0-50 µg/kg body weight (42 nd JECFA, 1994).				
Residue Definition: Sulfadimidine.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Milk (µg/l)	25	21 st (1995)	
Not specified	Muscle	100	21 st (1995)	
Not specified	Liver	100	21 st (1995)	
Not specified	Kidney	100	21 st (1995)	
Not specified	Fat	100	21 st (1995)	

TESTOSTERONE (production aid)				
JECFA Evaluation: 25 (1981), 32 (1987), 52 (1999)				
Acceptable Daily Intake: 0-2 µg/kg body weight (52 nd JECFA, 1999).				
Residue Definition: Testosterone.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	unnecessary	21 st (1995)	Residues resulting from the use of this substances as a growth promoter in accordance with good animal husbandry practice are unlikely to pose a hazard to human health.
Cattle	Liver	unnecessary	21 st (1995)	Residues resulting from the use of this substances as a growth promoter in accordance with good animal husbandry practice are unlikely to pose a hazard to human health.
Cattle	Kidney	unnecessary	21 st (1995)	Residues resulting from the use of this substances as a growth promoter in accordance with good animal husbandry practice are unlikely to pose a hazard to human health.
Cattle	Fat	unnecessary	21 st (1995)	Residues resulting from the use of this substances as a growth promoter in accordance with good animal husbandry practice are unlikely to pose a hazard to human health.

THIABENDAZOLE (anthelmintic agent)				
JECFA Evaluation: 40 (1992), 48 (1997); 58 (2002)				
Acceptable Daily Intake: 0-100 µg/kg body weight (40 th JECFA, 1992).				
Residue Definition: Sum of thiabendazole and 5-hydroxythiabendazole.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Cattle	Liver	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Cattle	Kidney	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Cattle	Fat	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Cattle	Milk (µg/l)	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Goat	Muscle	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Goat	Liver	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Goat	Kidney	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Goat	Fat	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Goat	Milk (µg/l)	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Pig	Muscle	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Pig	Liver	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Pig	Kidney	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Pig	Fat	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Sheep	Muscle	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Sheep	Liver	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Sheep	Kidney	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.
Sheep	Fat	100	21 st (1995)	The MRL also covers residues derived from feed containing the residues resulted from agricultural use.

TILMICOSIN (antimicrobial agent)				
JECFA Evaluation: 47 (1996), 54 (2000)				
Acceptable Daily Intake: 0-40 µg/kg body weight (47 th JECFA, 1996).				
Residue Definition: Tilmicosin.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	100	23 rd (1999)	
Cattle	Liver	1000	23 rd (1999)	
Cattle	Kidney	300	23 rd (1999)	
Cattle	Fat	100	23 rd (1999)	
Pig	Muscle	100	23 rd (1999)	
Pig	Liver	1500	23 rd (1999)	
Pig	Kidney	1000	23 rd (1999)	
Pig	Fat	100	23 rd (1999)	
Sheep	Muscle	100	23 rd (1999)	
Sheep	Liver	1000	23 rd (1999)	
Sheep	Kidney	300	23 rd (1999)	
Sheep	Fat	100	23 rd (1999)	
Sheep	Milk (µg/l)	50T	23 rd (1999)	The 54 th JECFA did not extend the temporary MRL for tilmicosin in ewes' milk recommended at its 47 th meeting because the requested information on the results of a study with radiolabelled drug in lactating ewes to determine the relationship between total residues and parent drug in milk, was not submitted.

TRENBOLONE ACETATE (growth promoter)				
JECFA Evaluation: 26 (1982), 27 (1983), 32 (1987), 34 (1989)				
Acceptable Daily Intake: 0-0.02 µg/kg body weight (34 th JECFA, 1989).				
Residue Definition: Cattle muscle, beta-Trenbolone; Cattle liver, alpha-Trenbolone.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	2	21 st (1995)	
Cattle	Liver	10	21 st (1995)	

TRICLABENDAZOLE (anthelmintic agent)				
JECFA Evaluation: 40 (1992); 66 (2006)				
Acceptable Daily Intake: 0-3 µg/kg body weight (40 th JECFA, 1992).				
Residue Definition: 5-Chloro-6-(2',3'-dichlorophenoxy)-benzimidazole-2-one.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	200	22 nd (1997)	
Cattle	Liver	300	22 nd (1997)	
Cattle	Kidney	300	22 nd (1997)	
Cattle	Fat	100	22 nd (1997)	
Sheep	Muscle	100	22 nd (1997)	
Sheep	Liver	100	22 nd (1997)	
Sheep	Kidney	100	22 nd (1997)	
Sheep	Fat	100	22 nd (1997)	

TRICHLORFON (METRIFONATE) (insecticide)				
JECFA Evaluation: 54 (2000); 60 (2003)				
Acceptable Daily Intake: 0-2 µg/kg bw (60 th JECFA, 2003)				
Residue Definition: JECFA confirmed the MRL for cows's milk and the guidance levels for muscle, liver, kidney and fat of cattle recommended at the 54 th meeting (WHO TRS 900, 2001)				
Species	Tissue	MRLs(µg/kg)	CAC	Notes
Cattle	Milk	50	29 th (2006)	

ZERANOL (growth promoter)				
JECFA Evaluation: 26 (1982), 27 (1983), 32 (1987)				
Acceptable Daily Intake : 0-0.5 µg/kg body weight (32 nd JECFA, 1987).				
Residue Definition: Zeranol.				
Species	Tissue	MRL (µg/kg)	CAC	Notes
Cattle	Muscle	2	21 st (1995)	
Cattle	Liver	10	21 st (1995)	

Draft and Proposed Draft Maximum Residue Limits for Veterinary Drugs in Food***(currently under consideration)***

AVILAMYCIN (antimicrobial agent)				
JECFA Evaluation:		70 (2008)		
Acceptable Daily Intake:		0-2 mg/kg body weight on the basis of a NOAEL of 150 mg avilamycin activity/kg body weight per day and a safety factor of 100 and rounding to one significant figure (70 th JECFA, 2008).		
Residue Definition:		Dichloroisoverminic acid (DIA).		
Species	Tissue	MRLs(µg/kg) recommended by the 70th JECFA	Step	JECFA
Pigs	Muscle	200	3	70
Pigs	Liver	300	3	70
Pigs	Kidney	200	3	70
Pigs	Skin/Fat	200	3	70
Chicken	Muscle	200	3	70
Chicken	Liver	300	3	70
Chicken	Kidney	200	3	70
Chicken	Skin/Fat	200	3	70
Turkey	Muscle	200	3	70
Turkey	Liver	300	3	70
Turkey	Kidney	200	3	70
Turkey	Skin/Fat	200	3	70
Rabbits	Muscle	200	3	70
Rabbits	Liver	300	3	70
Rabbits	Kidney	200	3	70
Rabbits	Skin/Fat	200	3	70

Keys for List of MRLs for Veterinary Drugs

Step: (r), revised MRL; (a), amended MRL.

JECFA: Meeting number of the Joint FAO/WHO Expert Committee on Food Additives where the MRL recommended/considered.

CCRVDF: Session number of the CCRVDF where the MRL was considered and Appendix number of its report where the MRL is contained.

DEXAMETHASONE (glucocorticosteroid)				
JECFA Evaluation:		70 (2008)		
Acceptable Daily Intake:		0-0.015 µg/kg body weight (42 nd JECFA, 1995).		
Residue Definition:		Dexamethasone.		
Species	Tissue	MRLs(µg/kg) recommended by the 70 th JECFA	Step	JECFA
Cattle	Muscle	1.0	3	70
Cattle	Liver	2.0	3	70
Cattle	Kidney	1.0	3	70
Cattle	Milk	0.3	3	70
Pigs	Muscle	1.0	3	70
Pigs	Liver	2.0	3	70
Pigs	Kidney	1.0	3	70
Horses	Muscle	1.0	3	70
Horses	Liver	2.0	3	70
Horses	Kidney	1.0	3	70

MELENGESTROL ACETATE (production aid)					
JECFA Evaluation:		54 (2000); 66 (2006)			
Acceptable Daily Intake:		ADI of 0-0.03 µg/kg body weight.			
Residue Definition:		Melengestrol acetate.			
Species	Tissue	MRLs(µg/kg)	Step ¹	JECFA	ALINORM
Cattle	Muscle	1	7	66	16III, 17IV
Cattle	Liver	10	7	54, 58, 66	13V, 14IV, 16III, 17IV
Cattle	Kidney	2	7	66	16III, 7IV
Cattle	Fat	18	7	54, 58, 66	13V, 14IV, 16III, 7IV

¹ The 17th Session of CCRVDF agreed to retain the draft MRLs for MGA in cattle's tissues at Step 7 with the understanding that the European Community would provide new data for a re-evaluation of MGA by JECFA. If JECFA reaffirm its decision, MGA would be advanced to Step 8 at its next Session (ALINORM 08/31/31, para. 43).

MONENSIN (antimicrobial agent and production aid)				
JECFA Evaluation:		70 (2008)		
Acceptable Daily Intake:		0–10 µg/kg body weight on the basis of a NOAEL of 1.14 mg/kg body weight per day and a safety factor of 100 and rounding to one significant figure (70 th JECFA, 2008).		
Residue Definition:		Monensin.		
Species	Tissue	MRLs(µg/kg) recommended by the 70th JECFA	Step	JECFA
Cattle	Muscle	10	3	70
Cattle	Liver	20	3	70
Cattle	Kidney	10	3	70
Cattle	Fat	100	3	70
Cattle	Milk	2	3	70
Sheep	Muscle	10	3	70
Sheep	Liver	20	3	70
Sheep	Kidney	10	3	70
Sheep	Fat	100	3	70
Goats	Muscle	10	3	70
Goats	Liver	20	3	70
Goats	Kidney	10	3	70
Goats	Fat	100	3	70
Chicken	Muscle	10	3	70
Chicken	Liver	10	3	70
Chicken	Kidney	10	3	70
Chicken	Fat	100	3	70
Turkey	Muscle	10	3	70
Turkey	Liver	10	3	70
Turkey	Kidney	10	3	70
Turkey	Fat	100	3	70
Quail	Muscle	10	3	70
Quail	Liver	10	3	70
Quail	Kidney	10	3	70
Quail	Fat	100	3	70

NARASIN (antimicrobial agent and production aid)				
JECFA Evaluation:		70 (2008)		
Acceptable Daily Intake:		0-5 µg/kg body weight on the basis of a NOAEL of 0.5 mg/kg body weight per day and a safety factor of 100 (70 th JECFA, 2008).		
Residue Definition:		Narasin A.		
Species	Tissue	MRLs(µg/kg) recommended by the 70 th JECFA	Step	JECFA
Cattle	Muscle	15 T ^a	3	70
Cattle	Liver	50 T ^a	3	70
Cattle	Kidney	15 T ^a	3	70
Cattle	Fat	50 T ^a	3	70
Chicken	Muscle	15	3	70
Chicken	Liver	50	3	70
Chicken	Kidney	15	3	70
Chicken	Fat	50	3	70
Pigs	Muscle	15	3	70
Pigs	Liver	50	3	70
Pigs	Kidney	15	3	70
Pigs	Fat	50	3	70

^a The MRL is temporary. Before re-evaluation of narasin with the aim of recommending MRLs in tissues of cattle, the Committee would require a detailed description of a regulatory method, including its performance characteristics and validation data. This information is required by the end of 2010.

RACTOPAMINE (production aid)					
JECFA Evaluation:		40 (1992); 62 (2004); 66 (2006)			
Acceptable Daily Intake:		0-1 µg/kg body weight			
Residue Definition:		Ractopamine			
Species	Tissue	MRLs(µg/kg)	Step ²	JECFA	ALINORM
Cattle	Muscle	10	8	62, 66	15VI, 16IV, 17II
Cattle	Liver	40	8	62, 66	15VI, 16IV, 17II
Cattle	Kidney	90	8	62, 66	15VI, 16IV, 17II
Cattle	Fat	10	8	62, 66	15VI, 16IV, 17II
Pig	Muscle	10	8	62, 66	15VI, 16IV, 17II
Pig	Liver	40	8	62, 66	15VI, 16IV, 17II
Pig	Kidney	90	8	62, 66	15VI, 16IV, 17II
Pig	Fat	10 ^a	8	62, 66	15VI, 16IV, 17II

² The 31st Session of the Commission agreed to **hold** the MRLs for ractopamine at Step 8 for further discussion at its 32nd Session. It requested Members to submit relevant information on the availability of scientific data to the 18th Session of the Committee on Residues of Veterinary Drugs in Foods (May 2009) thus allowing for a decision by the Committee regarding the inclusion of ractopamine in the priority list of substances for evaluation / re-evaluation by JECFA. The Commission further agreed that at its 32nd Session, it would decide on the adoption of the MRLs for ractopamine based on the report of the 18th Session of the Committee on Residues of Veterinary Drugs in Foods (ALINORM 08/31/REP, para. 58).

TILMICOSIN (antimicrobial agent)				
JECFA Evaluation:		70 (2008)		
Acceptable Daily Intake:		0–40 µg/kg body weight (47 th JECFA, 1998).		
Residue Definition:		Tilmicosin.		
Species	Tissue	MRLs(µg/kg) recommended by the 70 th JECFA	Step	JECFA
Chicken	Muscle	150	3	70
Chicken	Liver	2400	3	70
Chicken	Kidney	600	3	70
Chicken	Skin/Fat	250	3	70
Turkey	Muscle	100	3	70
Turkey	Liver	1400	3	70
Turkey	Kidney	1200	3	70
Turkey	Skin/Fat	250	3	70

TRICLABENDAZOLE (anthelmintic)							
JECFA Evaluation:		40 (1993); 66 (2006); 70 (2008)					
Acceptable Daily Intake:		0-3 µg/kg body weight (40 th JECFA, 1993).					
Residue Definition:		Ketotriclabendazole.					
Species	Tissue	Current MRL (µg/kg)	JECFA	MRLs(µg/kg) recommended by the 70 th JECFA	Step	JECFA	
Cattle	Muscle	200	22 nd CAC (1997)	40	250	3	70
Cattle	Liver	300	22 nd CAC (1997)	40	850	3	70
Cattle	Kidney	300	22 nd CAC (1997)	40	400	3	70
Cattle	Fat	100	22 nd CAC (1997)	40	100	3	70
Sheep	Muscle	100	22 nd CAC (1997)	40	200	3	70
Sheep	Liver	100	22 nd CAC (1997)	40	300	3	70
Sheep	Kidney	100	22 nd CAC (1997)	40	200	3	70
Sheep	Fat	100	22 nd CAC (1997)	40	100	3	70

TYLOSIN (antimicrobial agent)				
JECFA Evaluation:		70 (2008)		
Acceptable Daily Intake:		0–30 µg/kg body weight based on a microbiological end-point derived from in vitro MIC susceptibility testing and faecal binding data (MIC _{calc} = 1.698) (70 th JECFA, 2008).		
Residue Definition:		Tylosin A.		
Species	Tissue	MRLs(µg/kg) recommended by the 70th JECFA	Step	JECFA
Cattle	Muscle	100	3	70
Cattle	Liver	100	3	70
Cattle	Kidney	100	3	70
Cattle	Fat	100	3	70
Cattle	Milk	100	3	70
Pigs	Muscle	100	3	70
Pigs	Liver	100	3	70
Pigs	Kidney	100	3	70
Pigs	Fat	100	3	70
Chicken	Muscle	100	3	70
Chicken	Liver	100	3	70
Chicken	Kidney	100	3	70
Chicken	Skin/Fat	100	3	70
Chicken	Eggs	300	3	70