



Update of Worldwide Regulatory Limits 1/11

Drugs	Food and Drug Administration			European Union					
	Specifications	Muscle	Liver	Kidney	Fat	Eggs	Milk	Fish	Others
Abamectin		Avermectin B1a residue 20 ppb (ovine)	Avermectin B1a residue 20 ppb (bovine), 25 ppb (ovine)	Avermectin B1a residue 20 ppb (ovine)	Avermectin B1a residue 10 ppb (bovine), 50 ppb (ovine)		Not for use in animals from which milk is produced for human consumption (ovine).		
Acetylsalicylic acid						Not for use in animals from which eggs are produced for human consumption.	Not for use in animals from which milk are produced for human consumption.		
Acetylsalicylic acid DL-lysine						Not for use in animals from which eggs are produced for human consumption.	Not for use in animals from which milk are produced for human consumption.		
Albendazole	Muscle: 0,05 ppm Liver: 0.2 ppm (bovine), 0.25 ppm (ovine), 0.25 ppm (caprine)	Sum of albendazole sulphoxide, albendazole sulphone, and albendazole 2- amino sulphone, expressed as albendazole 100 ppb (all ruminants)	Sum of albendazole sulphoxide, albendazole sulphone, and albendazole 2- amino sulphone, expressed as albendazole 1000 ppb (all ruminants)	Sum of albendazole sulphoxide, albendazole sulphone, and albendazole 2- amino sulphone, expressed as albendazole 500 ppb (all ruminants)	Sum of albendazole sulphoxide, albendazole sulphone, and albendazole 2- amino sulphone, expressed as albendazole 100 ppb (all ruminants)		Sum of albendazole sulphoxide, albendazole sulphone, and albendazole 2- amino sulphone, expressed as albendazole 100 ppb (all ruminants)		
Albendazole oxide		Sum of albendazole oxide, albendazole sulphone, and albendazole 2- amino sulphone, expressed as albendazole 100 ppb (bovine, ovine)	Sum of albendazole oxide, albendazole sulphone, and albendazole 2- amino sulphone, expressed as albendazole 1000 ppb (bovine, ovine)	Sum of albendazole oxide, albendazole sulphone, and albendazole 2- amino sulphone, expressed as albendazole 500 ppb (bovine, ovine)	Sum of albendazole oxide, albendazole sulphone, and albendazole 2- amino sulphone, expressed as albendazole 100 ppb (bovine, ovine)		Sum of albendazole oxide, albendazole sulphone, and albendazole 2- amino sulphone, expressed as albendazole 100 ppb (bovine, ovine)		
Alphacypermethrin		Cypermethrin (sum of isomers) 20 ppb (bovine, ovine)	Cypermethrin (sum of isomers) 20 ppb (bovine, ovine)	Cypermethrin (sum of isomers) 20 ppb (bovine, ovine)	Cypermethrin (sum of isomers) 200 ppb (bovine, ovine)		Cypermethrin (sum of isomers) 20 ppb (bovine, ovine)**		
Altrenogest	Muscle: 1 ppb (swine) Liver: 4 ppb (swine)		2 ppb (swine), 4 ppb (equidae)		4 ppb (equidae, swine, also skin)				
Aluminium salicylate, basic		Salicylic acid, 200 ppb (bovine)	Salicylic acid, 1.5 ppm (equidae)	Salicylic acid, 1.5 ppm (rabbit)	Salicylic acid, 500 ppb (caprine)		9 ppb (bovine, caprine, equidae)		
Amitraz			Sum of amitraz and all metabolites containing the 2,4-DMA moiety, expressed as amitraz - 200 ppb (bovine, porcine), 100 ppb (ovine, caprine)	Sum of amitraz and all metabolites containing the 2,4-DMA moiety, expressed as amitraz - 200 ppb (bovine, porcine, ovine, caprine)	Sum of amitraz and all metabolites containing the 2,4-DMA moiety, expressed as amitraz - 400 ppb (ovine, porcine, also skin), 200 ppb (bovine, caprine)		Sum of amitraz and all metabolites containing the 2,4-DMA moiety, expressed as amitraz - 10 ppb (bovine, ovine, caprine)	Sum of amitraz and all metabolites containing the 2,4- DMA moiety, expressed as amitraz - 200 ppb (bees)	
Amoxicillin	Edible tissues: 0,01 ppm	0.05 ppm (all food producing species)	0.05 ppm (all food producing species)	0.05 ppm (all food producing species)	0.05 ppm (all food producing species)		0.004 ppm (all food producing species)	0.05 ppm (all food producing species)	
Ampicillin	Edible tissues: 0.01 ppm (bovine, swine)	0.05 ppm (all food producing species)	0.05 ppm (all food producing species)	0.05 ppm (all food producing species)	0.05 ppm (all food producing species)		0.004 ppm (all food producing species)	0.05 ppm (all food producing species)	
Amprolium	Muscle: 0.5ppm (bovine), 0.5 ppm (chicken, turkey, pheasants) Liver: 0.5ppm (bovine), 1 ppm (chicken, turkey, pheasants) Kidney: 0.5ppm (bovine), 1 ppm (chicken, turkey) Fat: 2.0 ppm (bovine) Eggs: 8 ppm (egg yolks), 4 ppm (whole eggs)								
Apramycin	Kidney: 0.1 ppm (swine)	1 ppm (bovine)	10 ppm (bovine)	20 ppm (bovine)	1 ppm (bovine)	Not for use in animals from which eggs is produced for human consumption (chicken).	Not for use in animals from which milk is produced for human consumption (bovine, ovine).		
Avilamycin	Edible tissues: Not required (chicken, excluding eggs, swine)	Dichloroisovernic acid, 50 ppb (porcine, poultry, rabbit)	Dichloroisovernic acid, 300 ppb (porcine, poultry, rabbit)	Dichloroisovernic acid, 200 ppb (porcine, poultry, rabbit)	Dichloroisovernic acid, 100 ppb (porcine, poultry, rabbit)	Not for use in animals from which eggs are produced for human consumption.			
Azaperone	Edible tissues: Not required (swine)	Sum of azaperone and azaperol, 100 ppb (swine)	Sum of azaperone and azaperol, 100 ppb (swine)	Sum of azaperone and azaperol, 100 ppb (swine)	Sum of azaperone and azaperol, 100 ppb (swine, and skin)				
Bacitracin	Edible tissues: 0.5 ppm (bovine, chicken, turkey, pheasants, quail, swine)	Sum of bacitracin A, bacitracin B, and bacitracin C, 150 ppb (rabbit)	Sum of bacitracin A, bacitracin B, and bacitracin C, 150 ppb (rabbit)	Sum of bacitracin A, bacitracin B, and bacitracin C, 150 ppb (rabbit)	Sum of bacitracin A, bacitracin B, and bacitracin C, 150 ppb (rabbit)		Sum of bacitracin A, bacitracin B, and bacitracin C, 100 ppb (bovine)		

**For milk MRL further provisions in Commission Directive 98/82/EC are to be observed



Update of Worldwide Regulatory Limits 2/11

Drugs	Food and Drug Administration	European Union							
	Specifications	Muscle	Liver	Kidney	Fat	Eggs	Milk	Fish	Others
Bambermycins	Edible tissues: Not required (bovine, excluding milk, chicken, turkey, excluding eggs, swine)								
Baquiloprim			300 ppb (bovine), 50 ppb (swine)	150 ppb (bovine), 50 ppb (swine)	10 ppb (bovine), 40 ppb (swine, and skin)		30 ppb (bovine)		
Benzylpenicillin		50 ppb (all food producing species)	Not for use in animals from which eggs are produced for human consumption.	4 ppb (all food producing species)	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'.				
Betamethasone		0.75 ppb (bovine, porcine)	2 ppb (bovine, porcine)	0.75 ppb (bovine, porcine)			0.3 ppb (bovine)		
Cabergoline		0.15 ppb (bovine)	0.25 ppb (bovine)	0.5 ppb (bovine)	0.1 ppb (bovine)		0.1 ppb (bovine)		
Carazolol		5 ppb (bovine, porcine)	15 ppb (bovine), 25 ppb (porcine)	15 ppb (bovine), 25 ppb (porcine)	5 ppb (bovine, porcine, and skin)		1 ppb (bovine)		
Carbadox	Liver: 30 ppb (swine)								
Carbomycin	Edible tissues: 0 ppb (chicken, excluding eggs)								
Carprofen		Sum of carprofen and carprofen glucuronide conjugate, 500 ppb (bovine, equidae)	Sum of carprofen and carprofen glucuronide conjugate, 1 ppm (bovine, equidae)	Sum of carprofen and carprofen glucuronide conjugate, 1 ppm (bovine, equidae)	Sum of carprofen and carprofen glucuronide conjugate, 1 ppm (bovine, equidae)				
Cefacetrile							125 ppb (bovine)		
Cefalexin		200 ppb (bovine)	200 ppb (bovine)	1 ppm (bovine)	200 ppb (bovine)		100 ppb (bovine)		
Cefalonium							20 ppb (bovine)		
Cefazolin							50 ppb (bovine, ovine, caprine)		
Cefoperazone							50 ppb (bovine)		
Cefquinone		50 ppb (bovine, porcine, equidae)	100 ppb (bovine, porcine, equidae)	200 ppb (bovine, porcine, equidae)	50 ppb (bovine, porcine, equidae)		20 ppb (bovine)		
Ceftiofur	Edible tissues: Desfuroylceftiofur, marker residue – Not required (chicken, turkey, excluding eggs, ovine, excluding milk) Muscle: Desfuroylceftiofur, marker residue – 1 ppm (caprine), 2 ppm (swine) Liver: Desfuroylceftiofur, marker residue – 1 ppm (bovine), 2 ppm (caprine), 3 ppm (swine) Kidney: Desfuroylceftiofur, marker residue – 2 ppm (bovine), 8 ppm (caprine), 0.25 ppm (swine) Fat: Desfuroylceftiofur, marker residue – 0.4 ppm (bovine) Milk: Desfuroylceftiofur, marker residue – 0.1 ppm (bovine, caprine)	Sum of all residues retaining the betalactam structure expressed as desfuroylceftiofur, 1 ppm (all mammalian food producing species)	Sum of all residues retaining the betalactam structure expressed as desfuroylceftiofur, 2 ppm (all mammalian food producing species)	Sum of all residues retaining the betalactam structure expressed as desfuroylceftiofur, 6 ppm (all mammalian food producing species)	Sum of all residues retaining the betalactam structure expressed as desfuroylceftiofur, 2 ppm (all mammalian food producing species)		Sum of all residues retaining the betalactam structure expressed as desfuroylceftiofur, 100 ppb (all mammalian food producing species)		
Cephapirin	Edible tissues: 0.1 ppm (bovine, excluding milk) Milk: 0.02 ppm (bovine)	Sum of cephalapirin and desacetylcephapirin, 50 ppb (bovine)		Sum of cephalapirin and desacetylcephapirin, 100 ppb (bovine)	Sum of cephalapirin and desacetylcephapirin, 50 ppb (bovine)		Sum of cephalapirin and desacetylcephapirin, 60 ppb (bovine)		
Chloramine-T	Fish: 0.9 ppm (muscle and skin)								
Chlorhexidine	Edible tissues: 0 ppb (bovine, excluding milk)								
Chlormadinone			2 ppb (bovine)		4 ppb (bovine)		2.5 ppb (bovine)		
Chlortetracycline	Muscle: sum of tetracycline, 2 ppm (bovine, chicken, turkey, ducks, ovine, swine) Liver: sum of tetracycline – 6 ppm (bovine, chicken, turkey, ducks, ovine, swine) Kidney: sum of tetracycline, 12 ppm (bovine, chicken and turkey, ducks, ovine, swine) Fat: sum of tetracycline – 12 ppm (bovine, chicken and turkey, ducks, ovine, swine) Eggs: sum of tetracycline – 0.4 ppm for Chlortetracycline only	Sum of parent drug and its 4-epimer, 100 ppb (all food producing species)	Sum of parent drug and its 4-epimer, 300 ppb (all food producing species)	Sum of parent drug and its 4-epimer, 600 ppb (all food producing species)		Sum of parent drug and its 4-epimer, 200 ppb (all food producing species)	Sum of parent drug and its 4-epimer, 100 ppb (all food producing species)	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'	



Update of Worldwide Regulatory Limits 3/11

Drugs	Food and Drug Administration	European Union							
	Specifications	Muscle	Liver	Kidney	Fat	Eggs	Milk	Fish	Others
Clavulanic acid		100 ppb (bovine, swine)	200 ppb (bovine, swine)	400 ppb (bovine, swine)	100 ppb (bovine, swine, and skin)		200 ppb (bovine, swine)		
Clenbuterol hydrochloride		Clenbuterol, 0.1 ppb (bovine, equidae)	Clenbuterol, 0.5 ppb (bovine, equidae)	Clenbuterol, 0.5 ppb (bovine, equidae)			Clenbuterol, 0.05 ppb (bovine, equidae)		
Clopidol	Muscle: 5 ppm (chicken, turkey) Liver: 15 ppm (chicken, turkey) Kidney: 15 ppm (chicken and turkey)								
Clorsulon	Muscle: 0.1 ppm (bovine) Kidney: 1.0 ppm (bovine)	35 ppb (bovine)	100 ppb (bovine)	200 ppb (bovine)			16 ppb (bovine)		
Closantel		1 ppm (bovine), 1.5 ppm (ovine)	1 ppm (bovine), 1.5 ppm (ovine)	3 ppm (bovine), 5 ppm (ovine)	3 ppm (bovine), 2 ppm (ovine)		45 ppb (bovine, ovine)		
Cloxacillin	Edible tissues: 0.01 ppm (bovine)	300 ppb (all food producing species)	300 ppb (all food producing species)	300 ppb (all food producing species)	300 ppb (all food producing species, swine, and skin)		30 ppb (all food producing species)	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'	
Colistimethate	Edible tissues: Not required (chicken, excluding eggs)								
Colistin		150 ppb (all food producing species)	150 ppb (all food producing species)	200 ppb (all food producing species)	150 ppb (all food producing species, swine, and skin)	300 ppb (all food producing species)	50 ppb (all food producing species)	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'.	
Coumaphos	Edible tissues: Coumpaphos and O,0-diethyl-0-3-chloro-4-methyl-2-oxo-2-H-1-benzopyran-7-yl phosphate - 1 ppm (bovine, excluding milk, chicken, excluding eggs) Eggs: coumpaphos and O,0-diethyl-0-3-chloro-4-methyl-2-oxo-2-H-1-benzopyran-7-yl phosphate -0.1 ppm Milk: coumpaphos and O,0-diethyl-0-3-chloro-4-methyl-2-oxo-2-H-1-benzopyran-7-yl phosphate - 0.5 ppm (milk fat)								Honey: 100 ppb (bees)
Cyfluthrin		Cyfluthrin (sum of isomers), 10 ppb (bovine, caprine)	Cyfluthrin (sum of isomers), 10 ppb (bovine, caprine)	Cyfluthrin (sum of isomers), 10 ppb (bovine, caprine)	Cyfluthrin (sum of isomers), 50 ppb (bovine, caprine)		Cyfluthrin (sum of isomers), 20 ppb (bovine, caprine)		
Cyhalothrin				Cyhalothrin (sum of isomers), 50 ppb (bovine)	Cyhalothrin (sum of isomers), 500 ppb (bovine)		Cyhalothrin (sum of isomers), 50 ppb (bovine)		
Cypermethrin		Cypermethrin (sum of isomers), 20 ppb (all ruminants), 50 ppb (salmonidae, and skin)	Cypermethrin (sum of isomers), 20 ppb (all ruminants)	Cypermethrin (sum of isomers), 20 ppb (all ruminants)	Cypermethrin (sum of isomers), 200 ppb (all ruminants)		Cypermethrin (sum of isomers), 20 ppb (all ruminants)		
Cyromazine		300 ppb (ovine)	300 ppb (ovine)	300 ppb (ovine)	300 ppb (ovine)		Not for use in animals from which milk is produced for human consumption		
Danofloxacin	Muscle: 0.2 ppm (bovine) Liver: 0.2 ppm (bovine)	200 ppb (bovine, ovine, caprine, poultry), 100 ppb (all other food producing species)	400 ppb (bovine, ovine, caprine, poultry), 200 ppb (all other food producing species)	400 ppb (bovine, ovine, caprine, poultry), 200 ppb (all other food producing species)	100 ppb (bovine, ovine, caprine, poultry), 50 ppb (all other food producing species, swine and poultry, also skin)		30 ppb (bovine, ovine, caprine)	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'	
Decoquinatate	Edible tissues: 2 ppm (bovine, excluding milk), 2 ppm (chicken, excluding eggs), 2 ppm (caprine, excluding milk) Muscle: 1 ppm (bovine, chicken, caprine)								
Deltamethrin		10 ppb (all ruminants, fin fish)	10 ppb (all ruminants)	10 ppb (all ruminants)	50 ppb (all ruminants)		20 ppb (all ruminants)		
Dexamethasone		0.75 ppb (bovine, caprine, porcine, equidae)	2 ppb (bovine, caprine, porcine, equidae)	0.75 ppb (bovine, caprine, porcine, equidae)					
Diazinon		20 ppb (bovine, ovine, caprine, swine)	20 ppb (bovine, ovine, caprine, swine)	20 ppb (bovine, ovine, caprine, swine)	700 ppb (bovine, ovine, caprine, swine)		20 ppb (bovine, ovine, caprine)		
Dichlorvos	Edible tissues: 0.1 ppm (swine)	2 ppb (ovine)	20 ppb (ovine)	5 ppb (ovine)	40 ppb (ovine)		Not for use in animals from which milk is produced for human consumption.		



Update of Worldwide Regulatory Limits 4/11

Drugs	Food and Drug Administration	European Union							
	Specifications	Muscle	Liver	Kidney	Fat	Eggs	Milk	Fish	Others
Diclazuril	Muscle: 0.5 ppm (chicken, turkey) Liver: 3 ppm (chicken and turkey) Fat: 1 ppm (chicken and turkey, also skin)	500 ppb (poultry), 150 ppb (rabbit)	1.5 ppm (poultry), 2.5 ppm (rabbit)	1 ppm (poultry, rabbit)	500 ppb (poultry, and skin), 300 ppb (rabbit)	Not for use in animals from which eggs are produced for human consumption			
Diclofenac		5 ppb (bovine, swine)	5 ppb (bovine, swine)	10 ppb (bovine, swine)	1 ppb (bovine, swine, and skin)		0.1 ppb (bovine)		
Dicloxacillin		300 ppb (all food producing species)	300 ppb (all food producing species)	300 ppb (all food producing species)	300 ppb (all food producing species, for poultry and swine, and skin)	Not for use in animals from which eggs are produced for human consumption.	30 ppb (all food producing species)	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'	
Dicyclanil		Sum of dicyclanil and 2,4,6-triamino-pyrimidine-5-carbonitrile, 200 ppb (ovine)	Sum of dicyclanil and 2,4,6-triamino-pyrimidine-5-carbonitrile, 400 ppb (ovine)	Sum of dicyclanil and 2,4,6-triamino-pyrimidine-5-carbonitrile, 400 ppb (ovine)	Sum of dicyclanil and 2,4,6-triamino-pyrimidine-5-carbonitrile, 150 ppb (ovine)		Not for use in animals from which milk is produced for human consumption.		
Dihydrostreptomycin	Edible tissues: 0.5 ppm (bovine, excluding milk, swine) Kidney: 2.0 ppm (bovine, swine) Milk: 0.125 ppm (bovine)								
Difloxacin		400 ppb (bovine, ovine, caprine, swine), 300 ppb (poultry, all other food producing species)	1.4 ppm (bovine, ovine, caprine), 800 ppb (swine), 1.9 ppm (poultry), 800 ppb (all other food producing species)	800 ppb (bovine, ovine, caprine), 800 ppb (swine), 600 ppb (poultry), 600 ppb (all other food producing species)	100 ppb (bovine, ovine, caprine), 100 ppb (swine, and skin), 400 ppb (poultry, and skin), 100 ppb (all other food producing species)	Not for use in animals from which eggs are produced for human consumption	Not for use in animals from which milk is produced for human consumption.	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'	
Doramectin	Muscle: 30 ppb (bovine) Liver: 100 ppb (bovine), 160 ppb (swine)	300 ppb (poultry, all other food producing species)	100 ppb (all mammalian food producing species)	60 ppb (all mammalian food producing species)	150 ppb (all mammalian food producing species, swine, and skin)		Not for use in animals from which milk is produced for human consumption		
Doxycycline		100 ppb (all food producing species)	300 ppb (all food producing species)	600 ppb (all food producing species)	300 ppb (all food producing species, swine and poultry, also skin)	Not for use in animals from which eggs are produced for human consumption.	Not for use in animals from which milk is produced for human consumption.	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'	
Efrotomycin	Edible tissues: Not required (swine)								
Emamectin								Emamectin B1a, 100 ppb (fin fish, and skin)	
Enrofloxacin	Liver: 0.1 ppm desethylene ciprofloxacin, marker residue (bovine), 0.5 ppm enrofloxacin, marker residue (swine)	Sum of enrofloxacin and ciprofloxacin, 100 ppb (bovine, ovine, caprine, swine, rabbit, poultry, all other food producing species)	Sum of enrofloxacin and ciprofloxacin, 300 ppb (bovine, ovine, caprine), 200 ppb (swine, rabbit, poultry, all other food producing species)	Sum of enrofloxacin and ciprofloxacin, 200 ppb (bovine, ovine, caprine), 300 ppb swine, rabbit), 200 ppb (poultry, all other food producing species)	Sum of enrofloxacin and ciprofloxacin, 100 ppb (bovine, ovine, caprine, swine, also skin, rabbit, poultry, also skin, all other food producing species)		Not for use in animals from which eggs are produced for human consumption.	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'.	
Eprinomectin	Muscle: 100 ppb (bovine) Milk: 12 ppb (bovine) Liver: 1.5 ppm (bovine)	Eprinomectin B1a, 50 ppb (all ruminants, equidae, fin fish, rabbit)	Eprinomectin B1a, 1.5 ppm (all ruminants, rabbit)	Eprinomectin B1a, 300 ppb (all ruminants, equidae, fin fish, rabbit)	Eprinomectin B1a, 250 ppb (all ruminants, rabbit)				
Erythromycin	Edible tissues: 0.1 ppm (bovine, excluding milk, swine), 0.125 (chicken, turkey, excluding eggs) Eggs: 0.025 ppm (chicken, turkey) Milk: 0 ppb (bovine)	Erythromycin A, 200 ppb (all food producing species)	Erythromycin A, 200 ppb (all food producing species)	Erythromycin A, 200 ppb (all food producing species)	Erythromycin A, 200 ppb (all food producing species, poultry, swine, also skin)	Erythromycin A, 150 ppb (all food producing species)	Erythromycin A, 40 ppb (all food producing species)	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'.	
Estradiol and related esters	Muscle: 120 ppt (bovine) Liver: 240 ppt (bovine) Kidney: 360 ppt (bovine) Fat: 480 ppt (bovine)								
Ethropabate	Muscle: 0.5 ppm (chicken) Liver: 1.5 ppm (chicken) Kidney: 1.5 ppm (chicken)								
Famphur	Edible tissues: 0.1 ppm (bovine, excluding milk)								
Febantel		Sum of extractable residues which may be oxidised to oxfendazole sulphone, 50 ppb (all ruminants, swine, equidae)	Sum of extractable residues which may be oxidised to oxfendazole sulphone, 500 ppb (all ruminants, swine, equidae)	Sum of extractable residues which may be oxidised to oxfendazole sulphone, 50 ppb (all ruminants, swine, equidae)	Sum of extractable residues which may be oxidised to oxfendazole sulphone, 50 ppb (all ruminants, swine, and skin, equidae)		Sum of extractable residues which may be oxidised to oxfendazole sulphone, 10 ppb (all ruminants)		



Update of Worldwide Regulatory Limits 5/11

Drugs	Food and Drug Administration	European Union							
	Specifications	Muscle	Liver	Kidney	Fat	Eggs	Milk	Fish	Others
Fenbendazole	Muscle: 0.4 ppm fenbendazole (bovine, caprine), 2 ppm fenbendazole (swine), 2 ppm fenbendazole sulfone (turkey) Liver: 0.8 ppm fenbendazole, marker residue (bovine), 5.2 ppm fenbendazole sulfone, marker residue (chicken), 0.8 ppm fenbendazole, marker residue (caprine), 3.2 ppm fenbendazole, marker residue (swine), 6 ppm fenbendazole sulfone, marker residue (turkey) Eggs: 1.8 ppm fenbendazole sulfone (marker residue) Milk: 0.6 ppm fenbendazole sulfoxide (bovine)	Sum of extractable residues which may be oxidised to oxfendazole sulfone, 50 ppb (all food producing species except fin fish)	Sum of extractable residues which may be oxidised to oxfendazole sulfone, 500 ppb (all food producing species except fin fish)	Sum of extractable residues which may be oxidised to oxfendazole sulfone, 50 ppb (all food producing species except fin fish)	Sum of extractable residues which may be oxidised to oxfendazole sulfone, 50 ppb (all food producing species except fin fish, for swine and poultry, also skin)	Sum of extractable residues which may be oxidised to oxfendazole sulfone, 1.3 ppm (all food producing species except fin fish)	Sum of extractable residues which may be oxidised to oxfendazole sulfone, 10 ppb (all food producing species except fin fish)		
Fenprostalene	Edible tissues: Not required (bovine, excluding milk, swine)								
Fenthion	Edible tissues: 0.1 ppm (bovine, excluding milk)								
Fenvalerate		Fenvalerate (sum of RR, SS, RS and SR isomers), 25 ppb (bovine)	Fenvalerate (sum of RR, SS, RS and SR isomers), 25 ppb (bovine)	Fenvalerate (sum of RR, SS, RS and SR isomers), 25 ppb (bovine)	Fenvalerate (sum of RR, SS, RS and SR isomers), 250 ppb (bovine)		Fenvalerate (sum of RR, SS, RS and SR isomers), 40 ppb (bovine)		
Firocoxib		10 ppb (equidae)	60 ppb (equidae)	10 ppb (equidae)	15 ppb (equidae)				
Florfenicol	Muscle: 0.3 ppm (bovine), 0.2 ppm (swine) Liver: 3.7 ppm (bovine), 2.5 ppm (swine) Fish: 1 ppm (catfish muscle), 1ppm (freshwater-reared warmwater finfish and salmonidae, muscle/skin)	Sum of florfenicol and its metabolites measured as florfenil-col-amine, 200 ppb (bovine, ovine, caprine), 300 ppb (swine), 100 ppb (poultry), 100 ppb (all other food producing species)	Sum of florfenicol and its metabolites measured as florfenil-col-amine, 3 ppm (bovine, ovine, caprine), 2 ppm (swine), 2.5 ppm (poultry), 2 ppm (all other food producing species)	Sum of florfenicol and its metabolites measured as florfenil-col-amine, 300 ppb (bovine, ovine, caprine), 500 ppb (swine), 750 ppb (poultry), 300 ppb (all other food producing species)	Sum of florfenicol and its metabolites measured as florfenil-col-amine, 500 ppb (swine, and skin), 200 ppb (poultry, and skin), 200 ppb (all other food producing species)			Sum of florfenicol and its metabolites measured as florfenil-col-amine, 1 ppm (fin fish, and skin)	
Fluazuron		200 ppb (all ruminants except ovine)	500 ppb (all ruminants except ovine)	500 ppb (all ruminants except ovine)	7 ppm (all ruminants except ovine)			200 ppb (fin fish, and skin)	
Flubendazole		Sum of flubendazole and (2-amino-1H-benzimidazol-5-yl)(4fluorophenyl)methanone, 50 ppb (poultry, swine)	Sum of flubendazole and (2-amino-1H-benzimidazol-5-yl)(4fluorophenyl)methanone, 400 ppb (poultry, swine)	Sum of flubendazole and (2-amino-1H-benzimidazol-5-yl)(4fluorophenyl)methanone, 300 ppb (poultry, swine)"	Sum of flubendazole(2-amino-1H-benzimidazol-5-yl)(4fluorophenyl)methanone, 50 ppb (poultry, swine, and skin)	Flubendazole, 400 ppb (poultry)			
Flugestone acetate		0.5 ppb (ovine, caprine)	0.5 ppb (ovine, caprine)	0.5 ppb (ovine, caprine)	0.5 ppb (ovine, caprine)		1 ppb (ovine, caprine)		
Flumequine		200 ppb (bovine, ovine, caprine, porcine), 400 ppb (poultry), 200 ppb (all other food producing species)"	500 ppb (bovine, ovine, caprine, porcine), 800 ppb (poultry), 500 ppb (all other food producing species)	1.5 ppm (bovine, ovine, caprine, porcine), 1 ppm (poultry), 1 ppm (all other food producing species)	300 ppb (bovine, ovine, caprine, porcine), 250 ppb (poultry, and skin), 250 ppb (all other food producing species, for swine also skin)	Not for use in animals from which eggs are produced for human consumption.		600 ppb (fin fish, and skin)	
Flumethrin		Flumethrin (sum of trans-Z-isomers), 10 ppb (bovine, ovine)	Flumethrin (sum of trans-Z-isomers), 20 ppb (bovine, ovine)	Flumethrin (sum of trans-Z-isomers), 10 ppb (bovine, ovine)	Flumethrin (sum of trans-Z-isomers), 150 ppb (bovine, ovine)		30 ppb (bovine), not for use in animals from which milk is produced for human consumption (ovine)		
Flunixin	Muscle: 25 ppb flunixin free acid (bovine, swine) Liver: 125 ppb flunixin free acid, marker residue (bovine), 30 ppb flunixin free acid, marker residue (swine) Milk: 2 ppb 5-hydroxy flunixin, marker residue (bovine)	20 ppb (bovine), 50 ppb (swine), 10 ppb (equidae)	300 ppb (bovine), 200 ppb (swine), 100 ppb (equidae)	100 ppb (bovine), 30 ppb (swine), 200 ppb (equidae)	30 ppb (bovine), 10 ppb (swine, and skin), 20 ppb (equidae)		5-Hydroxy-flunixin, 40 ppb (bovine)		
Fluralaner		65 ppb (poultry)	650 ppb (poultry)	420 ppb (poultry)	650 ppb (poultry, also skin in natural proportions)	1.3 ppm (poultry)			
Gamithromycin	Muscle: 150 ppb (bovine) Liver: 500 ppb (bovine)	50 ppb (all ruminants except bovine), 100 ppb (porcine)	300 ppb (all ruminants except bovine), 100 ppb (porcine), 200 ppb (bovine)	200 ppb (all ruminants except bovine), 300 ppb (porcine), 200 ppb (bovine)	50 ppb (all ruminants except bovine), 100 ppb (porcine, also skin in natural proportions), 20 ppb (bovine)				
Gentamicin	Edible tissues: 0.1 ppm (chicken and turkey, excluding eggs) Muscle: 0.1 ppm (Muscle) Liver: 0.3 ppm (swine) Kidney: 0.4 ppm gentamicin, marker residue (swine) Fat: 0.4 ppm (swine)	Sum of gentamicin C1, gentamicin C1a, gentamicin C2 and gentamicin C2a, 50 ppb (all mammalian food producing species and fin fish)	Sum of gentamicin C1, gentamicin C1a, gentamicin C2 and gentamicin C2a, 200 ppb (all mammalian food producing species and fin fish)	Sum of gentamicin C1, gentamicin C1a, gentamicin C2 and gentamicin C2a, 750 ppb (all mammalian food producing species and fin fish)	Sum of gentamicin C1, gentamicin C1a, gentamicin C2 and gentamicin C2a, 50 ppb (all mammalian food producing species and fin fish, for swine, skin and fat in natural proportions)		Sum of gentamicin C1, gentamicin C1a, gentamicin C2 and gentamicin C2a, 100 ppb (all mammalian food producing species and fin fish)	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'	



Update of Worldwide Regulatory Limits 6/11

Drugs	Food and Drug Administration	European Union							
	Specifications	Muscle	Liver	Kidney	Fat	Eggs	Milk	Fish	Others
Gonadotropin	Edible tissues: Not required (bovine, excluding milk), Not required (fish, swine)								
Halofuginone	Liver: 0.16 ppm (chicken), 0.13 ppm (turkey)	10 ppb (bovine)	30 ppb (bovine)	30 ppb (bovine)	25 ppb (bovine)		Not for use in animals from which milk is produced for human consumption		
Haloxon	Edible tissues: 0.1 ppm (bovine, excluding milk)								
Hexaflumuron								500 ppb (fin fish, muscle and skin in natural proportions)	
Hydrocortisone aceponate							Sum of hydrocortisone and its esters after alkaline hydrolysis expressed as hydrocortisone, 10 ppb (all ruminants, equidae)		
Hygromycin B	Edible tissues: 0 ppb (chicken, swine)								
Imidocarb		300 ppb (bovine, ovine)	2 ppm (bovine, ovine)	1.5 ppm (bovine, ovine)	50 ppb (bovine, ovine)		50 ppb (bovine), not for use in animals from which milk is produced for human consumption		
Isoeugenol								6 ppm (fin fish, muscle and skin in natural proportions)	
Ivermectin	Muscle: 10 ppb (bovine), 20 ppb (swine) Liver: 15 ppb (American bison, Reindeer), 100 ppb (bovine), 30 ppb (ovine), 20 ppb (swine)	22, 23-Dihydroavermectin B1a, 30 ppb (all mammalian food producing species)	22, 23-Dihydroavermectin B1a, 100 ppb (all mammalian food producing species)	22, 23-Dihydroavermectin B1a, 30 ppb (all mammalian food producing species)	22, 23-Dihydroavermectin B1a, 100 ppb (all mammalian food producing species, for swine, also skin). Not for use in animals from which milk is produced for human consumption		Not for use in animals from which milk is produced for human consumption		
Kanamycin		Kanamycin A, 100 ppb (all food producing species except fin fish)	Kanamycin A, 600 ppb (all food producing species except fin fish)	Kanamycin A, 2.5 ppm (all food producing species except fin fish)	Kanamycin A, 100 ppb (all food producing species except fin fish, swine and poultry, also skin)	Not for use in animals from which eggs are produced for human consumption.	Kanamycin A, 150 ppb (all food producing species except fin fish)		
Laidlomycin	Liver: 0.2 ppm (bovine)								
Lasalocid	Liver: 0.7 ppm (bovine, rabbit), 0.4 ppm (chicken and turkey), 1.0 ppm (ovine) Fat: 1.2 ppm (chicken, skin with adering fat), 0.4 ppm (turkey, skin with adering fat)	Lasalocid A, 60 ppb (poultry), 10 ppb (bovine)	Lasalocid A, 300 ppb (poultry), 100 ppb (bovine)	Lasalocid A, 150 ppb (poultry), 20 ppb (bovine)	Lasalocid A, 300 ppb (poultry, also skin), 20 ppb (bovine)	Lasalocid A, 150 ppb (poultry)			
Levamisole	Edible tissues: 0.1 ppm (bovine, excluding milk, ovine, excluding milk, swine)	10 ppb (bovine, ovine, porcine, country)	100 ppb (bovine, ovine, porcine, country)	10 ppb (bovine, ovine, porcine, country)	10 ppb (bovine, ovine, porcine, also skin, poultry)	Not for use in animals from which eggs are produced for human consumption.	Not for use in animals from which milk is produced for human consumption.		
Lincomycin	Edible tissues: Not required (chicken, excluding eggs) Muscle: 0.1 ppm (swine) Liver: 0.6 ppm (swine)	100 ppb (all food producing species)	500 ppb (all food producing species)	1.5 ppm (all food producing species)	50 ppb (all food producing species, for swine and poultur, also skin)	50 ppb (all food producing species)	150 ppb (all food producing species)	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'	
Lubabegron	Liver: 10 ppb (bovine)								
Lufenoron (RS-isomers)								1.35 ppm (muscle and skin)	
Maduramicin	Fat: 0.38 ppm (chicken)								
Marbofloxacin		150 ppb (bovine, porcine)	150 ppb (bovine, porcine)	150 ppb (bovine, porcine)	50 ppb (bovine, porcine, and skin)				



Update of Worldwide Regulatory Limits 7/11

Drugs	Food and Drug Administration				European Union				
	Specifications	Muscle	Liver	Kidney	Fat	Eggs	Milk	Fish	Others
Mebendazole		Sum of mebendazole methyl (5-(1-hydroxy,1-phenyl methyl-1H-benzimidazol-2-yl) carbamate and (2-amino-1H-benzi-midazol-5-yl) phenylmethanon, expressed as mebendazole equivalents, 60 ppb (ovine, caprine, equidae)	Sum of mebendazole methyl (5-(1-hydroxy,1-phenyl) methyl-1H-benzimidazol-2-yl) carbamate and (2-amino-1H-benzi-midazol-5-yl) phenylmethanon, expressed as mebendazole equivalents, 400 ppb (ovine, caprine, equidae)	Sum of mebendazole methyl (5-(1-hydroxy,1-phenyl) methyl-1H-benzimidazol-2-yl) carbamate and (2-amino-1H-benzi-midazol-5-yl) phenylmethanon, expressed as mebendazole equivalents, 60 ppb (ovine, caprine, equidae)	Sum of mebendazole methyl (5-(1-hydroxy,1-phenyl)methyl-1H-benzimidazol-2-yl)carbamate and (2-amino-1H-benzi-midazol-5-yl)phenylmethanon, expressed as mebendazole equivalents, 60 ppb (ovine, caprine, equidae)				
Melengestrol	Fat: 25 ppb (bovine)								
Meloxicam		20 ppb (bovine, caprine, swine, rabbit, equidae)	65 ppb (bovine, caprine, swine, rabbit, equidae)	65 ppb (bovine, caprine, swine, rabbit, equidae)			15 ppb (bovine, caprine)		
Metamizole		4-Methylaminoantipyrin, 100 ppb (bovine, swine, equidae)	4-Methylaminoantipyrin, 100 ppb (bovine, swine, equidae)	4-Methylaminoantipyrin, 100 ppb (bovine, swine, equidae)	4-Methylaminoantipyrin, 100 ppb (bovine, swine, and skin, equidae)		50 ppb (bovine)		
Methylprednisolone		10 ppb (equidae, bovine)	10 ppb (equidae, bovine)	10 ppb (equidae, bovine)	10 ppb (equidae, bovine)		2 ppb (equidae, bovine)		
Metoserpate	Edible tissues: 0.02 ppm (chicken, excluding eggs)								
Monensin	Edible tissues: Not required (chicken, turkey, excluding eggs, Quail, excluding eggs), 0.05 ppm (caprine, excluding milk) Muscle: 0.05 ppm (bovine) Liver: 0.10 ppm (bovine) Kidney: 0.05 ppm (bovine) Fat: 0.05 ppm (bovine) Milk: Not required (bovine)	Monensin A, 2 ppb (bovine)	Monensin A, 50 ppb (bovine)	Monensin A, 10 ppb (bovine)	Monensin A, 10 ppb (bovine)		Monensin A, 2 ppb (bovine)		
Monepantel		Monepantel sulfone, 700 ppb (ovine, caprine), 300 ppb (bovine)	Monepantel sulfone, 5 ppm (ovine, caprine), 2 ppm (bovine)	Monepantel sulfone, 2 ppm (ovine, caprine), 1 ppm (bovine)	Monepantel sulfone, 7 ppm (ovine, caprine, bovine)		170 ppb (ovine, caprine), not for use in animals producing milk for human consumption		
Morantel	Liver: 0.7 ppm (bovine, caprine) Milk: Not required (bovine, caprine)	Sum of residues which may be hydrolysed to N-methyl-1,3-propanediamine and expressed as morantel equivalents, 100 ppb (all ruminants)	Sum of residues which may be hydrolysed to N-methyl-1,3-propanediamine and expressed as morantel equivalents, 800 ppb (all ruminants)	Sum of residues which may be hydrolysed to N-methyl-1,3-propanediamine and expressed as morantel equivalents, 200 ppb (all ruminants)	Sum of residues which may be hydrolysed to N-methyl-1,3-propanediamine and expressed as morantel equivalents, 100 ppb (all ruminants)		Sum of residues which may be hydrolysed to N-methyl-1,3-propanediamine and expressed as morantel equivalents, 50 ppb (all ruminants)		
Moxidectin	Muscle: 50 ppb (bovine, ovine) Liver: 200 ppb (bovine, ovine) Fat: 900 ppb (bovine, ovine) Milk: 40 ppb (bovine)	50 ppb (bovine, ovine, equidae)	100 ppb (bovine, ovine, equidae)	50 ppb (bovine, ovine, equidae)	500 ppb (bovine, ovine, equidae)		40 ppb (bovine, ovine)		
Nafcillin		300 ppb (all ruminants)	300 ppb (all ruminants)	300 ppb (all ruminants)	300 ppb (all ruminants)		30 ppb (all ruminants)		
Narasin	Fat: 480 ppb (chicken, abdominal fat)								
Neomycin (including framycetin)	Muscle: 1.2 ppm (bovine, ovine and caprine, swine, turkey) Liver: 3.6 ppm (bovine, ovine and caprine, swine, turkey) Kidney: 7.2 ppm (bovine, ovine and caprine, swine) Fat: 7.2 ppm (bovine, ovine and caprine, swine, turkey skin with adhering fat)	500 ppb (all food producing species)	5.5 ppm (all food producing species)	9 ppm (all food producing species)	500 ppb (all food producing species, swine and poultry also skin)	500 ppb (all food producing species)	1.5 ppm (all food producing species)	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'	
Netobimin		Sum of albendazole oxide, albendazole sulphone, and albendazole 2-amino sulphone, expressed as albendazole, 100 ppb (bovine, ovine)	Sum of albendazole oxide, albendazole sulphone, and albendazole 2-amino sulphone, expressed as albendazole, 1 ppm (bovine, ovine)	Sum of albendazole oxide, albendazole sulphone, and albendazole 2-amino sulphone, expressed as albendazole, 500 ppb (bovine, ovine)	Sum of albendazole oxide, albendazole sulphone, and albendazole 2-amino sulphone, expressed as albendazole, 100 ppb (bovine, ovine)		Sum of albendazole oxide, albendazole sulphone, and albendazole 2-amino sulphone, expressed as albendazole, 100 ppb (bovine, ovine)		
Nicarbazin	Liver: 52 ppm 4,4'-dinitrocarbanilide, marker residue (chicken)								
Nitroximil		400 ppb (bovine, ovine)	20 ppb (bovine, ovine)	400 ppb (bovine, ovine)	200 ppb (bovine, ovine)		20 ppb (bovine, ovine)		
Norgestomet		0.2 ppb (bovine)	0.2 ppb (bovine)	0.2 ppb (bovine)	0.2 ppb (bovine)		0.12 ppb (bovine)		
Novobiocin	Edible tissues: 1 ppm (bovine, excluding milk, chicken, turkey, and ducks, excluding eggs) Milk: 0.1 ppm (bovine)						50 ppb (bovine)		



Update of Worldwide Regulatory Limits 8/11

Drugs	Food and Drug Administration	European Union							
	Specifications	Muscle	Liver	Kidney	Fat	Eggs	Milk	Fish	Others
Nystatin	Edible tissues: 0 ppb (bovine, excluding milk, chicken and turkey)								
Ormetoprim	Edible tissues: 0.1 ppm (chicken, turkey, ducks and chukar partridges, excluding eggs) Fish: 0.1 ppm (salmonidae and catfish)								
Oxacillin		300 ppb (all food producing species)	300 ppb (all food producing species)	300 ppb (all food producing species)	300 ppb (all food producing species, for swine and poultry, also skin)	Not for use in animals from which eggs are produced for human consumption.	30 ppb (all food producing species)	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'	
Oxfendazole	Liver: 0.8 ppm fenbendazole, marker residue (bovine)	Sum of extractable residues which may be oxidised to oxfendazole sulphone, 50 ppb (all ruminants, swine, equidae)	Sum of extractable residues which may be oxidised to oxfendazole sulphone, 500 ppb (all ruminants, swine, equidae)	Sum of extractable residues which may be oxidised to oxfendazole sulphone, 50 ppb (all ruminants, swine, equidae)	Sum of extractable residues which may be oxidised to oxfendazole sulphone, 50 ppb (all ruminants, swine, also skin, equidae)		Sum of extractable residues which may be oxidised to oxfendazole sulphone, 10 ppb (all ruminants)		
Oxibendazole		100 ppb (swine)	200 ppb (swine)	100 ppb (swine)	500 ppb (swine, also skin)				
Oxolinic acid		100 ppb (all food producing species)	150 ppb (all food producing species)	150 ppb (all food producing species)	50 ppb (all food producing species, for swine and poultry also skin)*	Not for use in animals from which eggs are produced for human consumption	Not for use in animals from which milk is produced for human consumption.	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'	
Oxyclozanide		20 ppb (all ruminants)	500 ppb (all ruminants)	100 ppb (all ruminants)	20 ppb (all ruminants)		10 ppb (all ruminants)		
Oxytetracycline	Muscle: 2 ppm (bovine, chicken, turkey, swine and ovine) Liver: 6 ppm (bovine, chicken, turkey, ovine, swine) Kidney: 12 ppm (bovine, chicken and turkey, ovine, swine) Fat: 12 ppm (bovine, chicken, turkey, ovine, swine) Milk: 0.3 ppm (bovine) Fish: 2 ppm (Finfish, muscle with adhering skin when edible, Lobster)	Sum of parent drug and its 4-epimer, 100 ppb (all food producing species)	Sum of parent drug and its 4-epimer, 300 ppb (all food producing species)	Sum of parent drug and its 4-epimer, 600 ppb (all food producing species)		Sum of parent drug and its 4-epimer, 200 ppb (all food producing species)	Sum of parent drug and its 4-epimer, 100 ppb (all food producing species)	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'.	
Paromomycin		500 ppb (all food producing species)	1.5 ppm (all food producing species)	1.5 ppm (all food producing species)		200 ppb (all food producing species)	Not for use in animals from which milk is produced for human consumption.	For fin fish the muscle MRL relates to 'muscle and skin in natural proportions'.	
Penethamate		50 ppb (all mammalian food producing species)	50 ppb (all mammalian food producing species)	50 ppb (all mammalian food producing species)	50 ppb (all mammalian food producing species, for swine, also skin)	4 ppb (all mammalian food producing species)			
Penicillin	Edible tissues: 0.05 ppm (bovine, excluding milk), 0.01 ppm (turkey, excluding eggs), 0 ppb (chicken, pheasants and quail, ovine and swine) Milk: 0 ppb (bovine)								
Permethrin		Permethrin (sum of isomers), 50 ppb (bovine)	Permethrin (sum of isomers), 50 ppb (bovine)	Permethrin (sum of isomers), 50 ppb (bovine)	Permethrin (sum of isomers), 500 ppb (bovine)		Permethrin (sum of isomers), 50 ppb (bovine) **		
Phenoxymethylpenicillin		25 ppb (swine, poultry)	25 ppb (swine, poultry)	25 ppb (swine, poultry)	25 ppb (poultry, also skin)	25 ppb (poultry)			
Phoxim		25 ppb (all food producing species except fin fish)	50 ppb (all food producing species except fin fish)	30 ppb (all food producing species except fin fish)	550 ppb (all food producing species except fin fish, for poultry and swine, also skin)	60 ppb (all food producing species except fin fish)	Not for use in animals from which milk is produced for human consumption.		
Piperazine	Edible tissues: 0.1 ppm (chicken and turkey, excluding eggs, swine)	400 ppb (swine)	2 ppm (swine)	1 ppm (swine)	800 ppb (swine, also skin)	2 ppm (chicken)			
Pirlimycin	Muscle: 0.3 ppm (bovine) Liver: 0.5 ppm (bovine) Milk: 0.4 ppm (bovine)	100 ppb (bovine)	1 ppm (bovine)	400 ppb (bovine)	100 ppb (bovine)		100 ppb (bovine)		
Poloxalene	Edible tissues: Not required (bovine, excluding milk)								
Prednisolone		4 ppb (bovine, equidae)	10 ppb (bovine), 6 ppb (equidae)	10 ppb (bovine), 15 ppb (equidae)	4 ppb (bovine), 8 ppb (equidae)		6 ppb (bovine)		
Progesterone	Muscle: 5 ppb (bovine and ovine) Liver: 15 ppb (bovine and ovine) Kidney: 30 ppb (bovine and ovine) Fat: 30 ppb (bovine and ovine)								

**For milk MRL further provisions in Commission Directive 98/82/EC are to be observed



Update of Worldwide Regulatory Limits 11/11

Drugs	Food and Drug Administration	European Union							
	Specifications	Muscle	Liver	Kidney	Fat	Eggs	Milk	Fish	Others
Tulathromycin	<u>Liver</u> : 5.5 ppm CP-60,300, marker residue (bovine) <u>Kidney</u> : 15 ppm CP-60,300, marker residue (swine)	450 ppb (ovine, caprine), 300 ppb (bovine), 800 ppb (swine)	5.4 ppm (ovine, caprine), 4.5 ppm (bovine), 4 ppm (swine)	1.8 ppm (ovine, caprine), 3 ppm (bovine), 8 ppm (swine)	250 ppb (ovine, caprine), 200 ppb (bovine), 300 ppb (swine, also skin)		Not for use in animals from which milk is produced for human consumption		Edible tissues: (2R, 3S, 4R, 5R, 8R, 10R, 11R, 12S, 14R)-2-ethyl-3,4,10,13-tetrahydroxy-3,5,8,10,12,14-hexamethyl-11-[[[3,4,6-trideoxy-3-(dimethylamino)-D-xylo-hexopyranosyl]oxy]-1-oxa-6-azacyclopentdecane-15-one expressed as tulathromycin equivalents
Tylosin	<u>Muscle</u> : 0.2 ppm (bovine, chicken and turkey, swine) <u>Liver</u> : 0.2 ppm (bovine, chicken and turkey, swine) <u>Kidney</u> : 0.2 ppm (bovine, chicken and turkey, swine) <u>Fat</u> : 0.2 ppm (bovine, chicken and turkey, swine)	Sum of tylvalosin and 3-O-acetyl-tylosin, 50 ppb (swine)	Sum of tylvalosin and 3-O-acetyl-tylosin, 50 ppb (swine, poultry)	Sum of tylvalosin and 3-O-acetyl-tylosin, 50 ppb (swine)	Sum of tylvalosin and 3-O-acetyl-tylosin, 50 ppb (swine, poultry, and skin)			Tylvalosin, 200 ppb (poultry)	
Tylvalosin	<u>Edible tissues</u> : Not required (swine)								
Valnemulin		50 ppb (swine, rabbit)	500 ppb (swine, rabbit)	100 ppb (swine, rabbit)					
Vedaprofen		50 ppb (equidae)	100 ppb (equidae)	1 ppm (equidae)	20 ppb (equidae)				
Virginiamycin	<u>Edible tissues</u> : Not required (bovine, excluding milk, chicken and turkey, excluding eggs) <u>Muscle</u> : 0.1 ppm (swine) <u>Liver</u> : 0.3 ppm (swine) <u>Kidney</u> : 0.4 ppm (swine) <u>Fat</u> : 0.4 ppm (swine, and skin)	Virginiamycin factor S1, 0 ppb (poultry)	Virginiamycin factor S1, 10 ppb (poultry)	Virginiamycin factor S1, 60 ppb (poultry)	Virginiamycin factor S1, 30 ppb (poultry, and skin)			Not for use in animals from which eggs are produced for human consumption	
Zeranol	<u>Edible tissues</u> : Not required (bovine, excluding milk), 20 ppb (ovine, excluding milk)								
Zilpaterol	<u>Liver</u> : 12 ppb zilpaterol freebase, marker residue (bovine)								
Zoalene	<u>Muscle</u> : 3 ppm zoalene and its metabolite 3-amino-5-nitro-o-toluamide (chicken, and turkey) <u>Liver</u> : 3 ppm zoalene and its metabolite 3-amino-5-nitro-o-toluamide (turkey), 6 ppm zoalene and its metabolite 3-amino-5-nitro-o-toluamide (chicken) <u>Kidney</u> : 6 ppm zoalene and its metabolite, 3-amino-5-nitro-o-toluamide (chicken) <u>Fat</u> : 2 ppm zoalene and its metabolite, 3-amino-5-nitro-o-toluamide (chicken)								