New Zealand Food Safety Authority
New Zealand (Maximum Residue Limits of Agricultural Compounds) Food Standards 2005
WTO Consultation: Amendment Two: May/June 2005

NZFSA proposes to amend the New Zealand (Maximum Residue Limits of Agricultural Compounds) Food Standards 2005 in the following ways:

- to change the format of the Food Standards tables to contain new information (the residue definition and Chemical Abstracts Service (CAS) number for each compound);
- to reflect a reassessment of 40 compounds currently at the MRL default of 0.1 mg/kg, to set more applicable MRLs for each compound;
- to remove three compounds that have not been registered for use in New Zealand for five years; and
- to set three new MRLs and one new MRL exemption.

The 40 compounds for reassessment are as follows:

1. 1,3-Dichloropropene
2. Abamectin
3. Amitrole
4. Benalaxyl
5. Bromoxynil
6. Cymoxanil
7. Deltamethrin
8. Diquat
9. Epoxiconazole
10. Fenamidone
11. Fipronil
12. Glufosinate-ammonium
13. Glyphosate
14. Haloxyfop
15. Imidacloprid
16. Kresoxim-methyl
17. Lambda-cyhalothrin
18. Lufenuron
19. MCPA
20. MCPB
21. Mecoprop
22. Metalaxyl
23. Methamidophos
24. Methiocarb
25. Metolachlor
26. N6-Benzyladenine
27. Nicosulfuron
28. Novaluron
29. Oxadiazon
30. Paraquat
31. Pendimethalin
32. Propachlor
33. Propazine
34. Prothiofos
35. Pymetrozine
36. Quinzalofop-P-ethyl
37. Streptomycin
38. Terbufos
39. Trifloxystrobin
40. Trinexpac-ethyl

The three compounds for deletion are as follows:

- demeton-S-methyl;
- isazophos; and
- vinclozolin.

The three proposed new MRLs are as follows:

- 0.5 mg/kg for indoxacarb when used as an insecticide on grapes;
- 0.001 mg/kg for bromadiolone, when used as a rodenticide near food; and
- 0.001 mg/kg for flocoumafen, when used as a rodenticide near food;

The proposed MRL exemption is as follows:

- exempt ketamine for use as a sedative and an anaesthetic, in all species, other than in deer when used for develvetting.

This documents contains the following sections:
Section One: New Zealand (Maximum Residue Limits of Agricultural Compounds) Food Standards 2005: Draft table: April 2005
Section Two: Proposed MRLs to replace default MRLs for inclusions in Table One of the NZ (MRL) Food Standards 2005
Section Three: Proposed new and exempt MRLs for inclusions in the NZ (MRL) Food Standards 2005

First table

Compound Common Name	CAS#	Residue Definition	Food	MRL (mg/kg)
Abamectin	71751-42-2	*Sum of :* avermectin B1a avermectin B1b (Z)-8,9 avermectin B1a (Z)-8,9 avermectin B1b	Liver Mammalian fats Meat	0.015 0.02 0.01
Acephate	30560-19-1	Acephate	Brassica vegetables Citrus fruits Fruiting vegetables Leafy vegetables Tamarillos	2 5 1 6 0.5
Albendazole	54965-21-8	*Sum of:* Albendazole Albendazole sulphoxide Albendazole sulphone Albendazole sulphone amine *expressed as:* Albendazole sulphone amine	Edible offal of sheep Sheep meat	3 0.2
Amoxicillin	26787-78-0	Amoxicillin	Meat Edible offal	0.05 0.05
Ampicillin	69-53-4	Ampicillin	Meat Edible offal	0.05 0.05
Amprolium	121-25-5	Amprolium	Eggs Poultry meat	4 0.5
Apramycin	37321-09-8	Apramycin	Edible offal of poultry Poultry meat	0.5 0.05
Azinphos-methyl	85-50-0	Azinphos-methyl	Fruits (except kiwifruit) Kiwifruit Vegetables	2 4 2
Azocyclotin	41083-11-8	*Sum of:* Azocyclotin Cyhexatin *expressed as:* Cyhexatin	Fruits	2
Azoxystrobin	131860-33-8	Azoxystrobin	Cereal grains Grapes	0.2 1

Baquiloprim	102280-35-3	Baquiloprim	Cattle fat Cattle kidney Cattle liver Cattle milk	0.15 0.01 0.3 0.03
Benalaxyl	71626-11-4	Benalaxyl	Grapes Tomatoes	0.5 0.5
Bioallethrin	584-79-2	Bioallethrin, sum of isomers	Vegetables	2
Bioresmethrin	28434-01-7	Bioresmethrin	Vegetables	3
Bitertanol	55179-31-2	Bitertanol	Pome fruits	1
Brodifacoum	56073-10-0	Brodifacoum	Any food	0.001(*)
Bromopropylate	18181-80-1	Bromopropylate	Berries and other small fruits (except grapes) Citrus fruits Pome fruits Stone fruits	3 3 3 3
Bupirimate	41483-43-6	Bupirimate	Pome fruits	0.5
Buprofezin	69327-76-0	Buprofezin	Citrus fruits Fruiting vegetables	0.5 0.5
Sec-Butylamine	13952-84-6	*Sum of :* Butylamine salts and base *expressed as:* Butylamine	Citrus fruits	30
Captan	133-06-2	Captan	Fruit Vegetables	10 10
Carbadox	6804-07-5	Quinoxaline-2-carboxylic acid	Pig liver Pig meat Any other food	0.03 0.005 0.001(*)
Carbaryl	63-25-2	Carbaryl	Fruits Potatoes Vegetables (except potatoes)	3 10 3
Carbendazim	10605-21-7	*Sum of:* Benomyl, Carbendazim, and Thiophanate methyl *expressed as:* Carbendazim	Avocados Beans Berries and other small fruits Cereal grains Citrus fruits Fruiting vegetables Lettuce Pome fruits Tomatoes	0.5 2 5 0.2 5 0.5 2 2 2

Cefquinome	84957-30-2	Cefquinome	Cattle fat Cattle kidney Cattle liver Cattle meat Cattle milk Pig fat Pig kidney Pig liver Pig meat	0.05 0.2 0.1 0.05 0.03 0.05 0.2 0.1 0.05
Ceftiofur	80370-57-6	Desfuroylceftiofur	Cattle fat Cattle kidney Cattle liver Cattle meat Cattle milk Pig fat Pig kidney Pig liver Pig meat	2 6 2 1 0.1 2 6 2 1
Cephapirin	21593-23-7	*Sum of:* Cephapirin Des-acetylcephapirin *expressed as:* Cephapirin	Cattle fat Cattle meat Cattle milk Edible offal of cattle	0.1 0.1 0.01 0.1
Chlorethephon	16672-87-0	2-chloroethylphosphonic acid	Pome fruits Tomatoes	2 1
Chlormequat	7003-89-6	Chlormequat cation	Oats Wheat	5 1
Chlorothalonil	1897-45-6	Chlorothalonil	Beans Berries and other small fruits (except grapes) Brassica vegetables Celery Fruiting vegetables Grapes Lettuce Onions Peaches Stone fruits (except peaches)	5 10 5 15 5 5 10 5 30 10
Chlorpropham	101-21-3	Chlopropham	Potatoes	50

Chlorpyrifos	2921-88-2	Chlorpyrifos	Bananas Fruits (except bananas, grapes, kiwifruit, stone fruits) Grapes Kiwifruit Sheep fat Stone fruits Tomatoes	2 0.2 1 2 1.5 1 0.2
Clethodim	99129-21-2	*Sum of:* Clethodim *and its metabolites containing* 5-(2-ethylthiopropyl)cyclohexene-3-one and 5-(2-ethylthiopropyl)-5-hydroxycyclohexene-3-one moieties and their sulphoxides and sulphones *expressed as:* Clethodim	Brassica vegetables Fruiting vegetables Leafy vegetables Legume vegetables Stem vegetables	1 1 1 1 1
Clofentezine	74115-24-5	Clofentezine	Citrus fruits Pome fruits	0.5 0.5
Clopidol	2971-90-6	Clopidol	Edible offal of poultry Poultry meat	5 2
Closantel	57808-65-8	Closantel	Edible offal of sheep Sheep meat	5 2
Coumaphos	56-72-4	*Sum of:* coumaphos and its oxygen analogue *expressed as:* coumaphos	Cattle fat Horse fat Milk fats Pig fat Sheep fat	0.5 0.5 0.1 0.5 0.5
Cyfluthrin	68359-37-5	Cyfluthrin, sum of isomers	Brassica vegetables	0.5
Cyhalothrin	68085-85-8	Cyhalothrin, sum of isomers	Brassica vegetables	0.2
Cypermethrin	52315-07-8	Cypermethrin, sum of isomers	Brassica vegetables Kiwifruit Pome fruits	1 2 1
Cyprodinil	121552-61-2	Cyprodinil	Grapes Nectarines Peaches Pome fruits	0.2 0.02 0.02 0.01
Cyromazine	66215-27-8	*Sum of:* Cyromazine Melamine	Eggs Poultry meat	0.15 0.15

2,4-D	94-75-7	2,4-D	Citrus fruits Stone fruits	5 1
DDT	50-29-3	*Sum of:* *p,p'*-DDT *o,p'*-DDT *p,p'*-DDE *p,p'*-TDE(DDD)	Eggs Fats (except milk fats) Milk fats	0.5 5 1.25
Demeton-s-methyl	919-86-8	Calculated as oxydemeton-S-methyl	Fruits, vegetables, cereal grains	0.4
Dexamethasone	50-02-2	*Sum of:* Dexamethasone Dexamethasone glucuronide *expressed as:* Dexamethasone	Edible offal Meat	0.01 0.01
Diazinon	333-41-5	Diazinon	Fats (except milk fats) Fruits Vegetables	0.7 0.5 0.5
Dichlofluanid	1085-98-9	Dichlofluanid	Berries and other small fruits Vegetables	10 5
Dichlorvos	62-73-7	Dichlorvos	Cereal grains Fruits Vegetable	2 2 2
Dicloran	99-30-9	Dicloran	Berries and other small fruits Kumara Stone fruits	10 5 10
Dicofol	115-32-2	*Sum of:* *o,p'* -Dicofol isomer *p,p'* -Dicofol isomer	Fruits Vegetables	3 3
Dicyclanil	112636-83-6	*Sum of:* Dicyclanil 2,4,6- triamino-pyrimidine- 5-carbonitrile	Sheep fat Sheep kidney Sheep liver Sheep meat	0.15 0.4 0.4 0.2
Dieldrin and aldrin	60-57-1 and 309-00-2	*Sum of:* HHDN HEOD (MRLs cover dieldrin and aldrin singly or in combination)	Cereal grains Citrus fruits Fats (except milk fats) Milk fats Any other food	0.02 0.05 0.2 0.15 0.1
Difenoconazole	119446-68-3	Difenoconazole	Brassica vegetables	0.2

Diflubenzuron	385-00-2	2,6-diflurobenzoic acid	Mushrooms	1
Dihydrostreptomycin and streptomycin	128-46-1 and 57-92-1	Streptomycin or dihydrostreptomycin (MRLs cover streptomycin and dihydrostreptomycin singly or in combination)	Cattle fat Cattle kidney Cattle liver Cattle meat Cattle milk Pig fat Pig kidney Pig liver Pig meat Poultry fat Poultry kidney Poultry liver Poultry meat Sheep fat Sheep kidney Sheep liver Sheep meat	0.5 1 0.5 0.5 0.2 0.5 1 0.5 0.5 0.5 1 0.5 0.5 0.5 1 0.5 0.5
Dimethoate and omethoate	60-51-5 and 1113-02-6	*Sum of:* Dimethoate Omethoate *expressed as:* Dimethoate (MRLs cover dimethoate and omethoate singly or in combination)	Fruits Tomatoes Vegetables (except tomatoes)	2 1 2
Dimethomorph	110488-70-5	Dimethomorph, sum of isomers	Grapes	0.5
Dimetridazole	551-92-8	*Sum of:* dimetridazole 1-methyl 2-hydroxymethyl 5-nitroimidazole	Pig meat	0.1
3, 5-dinitro-o-toluamide	148-01-6	3,5-dinitro benzoic acid	Poultry meat	3
Diphenylamine	122-39-4	Diphenylamine	Apples	10
Diquat	2764-72-9	Diquat cation	Barley Wheat	5 2
Dithianon	3347-22-6	Dithianon	Grapes Pome fruits Stone fruits	2 2 2

Dithiocarbamates (except propineb)		Total dithiocarbamates, determined as CS_2, evolved during acid digestion and expressed as mg CS_2/kg (MRLs apply to total residues from the use of any or each of the groups of dithiocarbamates alone or in combination, excluding propineb)	Fruits Vegetables	7 7
Dodine	2439-10-3	Dodine	Pome fruits	2
Doramectin	117704-25-3	Doramectin	Cattle fat Cattle kidney Cattle liver Cattle meat Milk Pig fat Pig kidney Pig liver Pig meat Sheep fat Sheep kidney Sheep liver Sheep meat	0.15 0.03 0.1 0.01 0.003 0.15 0.03 0.1 0.01 0.15 0.03 0.1 0.01
Emamectin benzoate	155569-91-8	*Sum of:* emamectin B1a emamectin B1b (Z)-8,9 emamectin B1a (Z)-8,9 emamectin B1b *expressed as:* emamectin	Kiwifruit Pome fruit	0.002(*) 0.001(*)
Endosulfan	115-29-7	*Sum of:* alpha-endosulfan beta-endosulfan endosulfan sulphate	Berries and other small fruits (except grapes) Vegetables	2 2
Eprinomectin	123997-26-2	Eprinomectin B1a	Cattle fat Cattle kidney Cattle liver Cattle meat Cattle milk	0.25 0.3 1.5 0.05 0.02
Ethyl formate	109-94-4	Ethyl formate	Breakfast cereals Dried fruits	250 250
Famphur	52-85-7	Famphur	Meat	0.1

Febantel	58306-30-2	*Sum of:* Fenbenzole Oxfendazole Fenbendazole sulphone *expressed as:* Fenbendazole sulphone	Eggs Liver Meat	0.5 0.5 0.01
Fenamiphos	22224-92-6	*Sum of:* fenamiphos and its sulphoxide and sulphone *expressed as:* fenamiphos	Root vegetables Tuber vegetables	0.2 0.2
Fenarimol	60168-88-9	Fenarimol	Grapes Pome fruits	0.1 0.1
Fenbendazole	43210-67-9	*Sum of:* Fenbenzole Oxfendazole Fenbendazole sulphone *expressed as:* Fenbendazole sulphone	Liver Meat	0.5 0.01
Fenbutatin oxide	13356-08-6	Fenbutatin oxide	Pome fruits Stone fruits	1 1
Fenhexamid	126833-17-8	Fenhexamid	Grapes Strawberries	1 3
Fenitrothion	122-14-5	Fenitrothion	Cereal grains	10
Fenpropimorph	67564-91-4	Fenpropimorph	Cereal grains	0.5
Fenvalerate	51630-58-1	Fenvalerate, sum of isomers	Brassica vegetables Kiwifruit Legume vegetables Pome fruits Tomatoes	5 3 1 1 0.2

Florfenicol	73231-34-2	*Sum of the free and tissue bound forms of:* florfenicol alcohol monochloro-florfenicol florfenicol oxamic acid florfenicol amine, *expressed as:* total florfenicol amine	Cattle fat Cattle kidney Cattle liver Cattle meat Deer fat Deer kidney Deer liver Deer meat Pig fat Pig kidney Pig liver Pig meat Poultry fat Poultry kidney Poultry liver Poultry meat	0.3 0.3 3 0.1 0.3 0.3 3 0.1 0.3 0.3 3 0.1 0.3 0.3 3 0.1
Fluazinam	79622-59-6	Fluazinam	Grapes	1
Flubendazole	31430-15-6	*Sum of:* Flubendazole (2-amino-1 H-benzimidazole-5-yl)-(4-fluorophenyl methanone)	Edible offal of poultry Eggs	0.5 0.4
Fludioxonil	131341-86-1	Fludioxonil	Grapes	0.05
Flumethrin	69770-45-2	Flumethrin, sum of trans Z isomers	Cattle fat Cattle kidney Cattle liver Cattle meat Cattle milk Sheep fat Sheep kidney Sheep liver Sheep meat	0.15 0.01 0.02 0.01 0.03 0.15 0.01 0.02 0.01
Folpet	133-07-3	Folpet	Apples Berries and other small fruits (except grapes, currants (black, red, white)) Citrus fruits Currants (black, red, white) Grapes	10 15 10 30 25
Hexythiazox	78587-05-0	Hexythiazox	Mandarins Peaches	0.2 0.5
Imazalil	35554-44-0	Imazalil	Citrus fruits	5

Indoxacarb	173584-44-6	Indoxacarb, sum of isomers	Brassica vegetables Head lettuce Pome fruits	0.5 1 0.5
Iprodione	36734-19-7	Iprodione	Berries and other small fruits Kiwifruit Leafy vegetables Stone fruits Tangelos Tomatoes	10 5 5 10 2 5
Isazophos	42509-80-8	Isazophos	Carrots	0.2
Ivermectin	70288-86-7	Ivermectin B1a	Cattle fat Cattle liver Meat Milk Other fat (except milk fats) Other liver (except cattle liver)	0.04 0.1 0.01 0.01 0.02 0.015
Lasalocid or it free sodium salt	25999-31-9	Lasalocid reported as free acid equivalents	Edible offal of poultry Poultry fat Poultry meat	5 0.2 0.2
Levamisole	14769-73-4	Levamisole as a free base	Edible offal (except liver) Fat Liver Meat	0.01 0.01 0.1 0.01
Lignocaine (lidocaine)	137-58-6	*Sum of:* Lignocaine 2,6-dimethylaniline, *expressed as:* 2,6-dimethylaniline	Deer velvet	0.1
Lindane	58-89-9	Lindane	Fats (except milk fats)	2
Maduramycin	61991-54-6	Maduramycin	Poultry liver	0.5
Maldison	121-75-5	Maldison	Cattle fat Cereal grains Eggs Fruits Horse fat Pig fat Vegetables Any other food	1 8 1 8 1 1 8 0.5

Maleic hydrazide	123-33-1	*Sum of:* Free maleic hydrazide Conjugated maleic hydrazide, *expressed as:* maleic hydrazide	Onions Potatoes	15 50
Marbofloxacin	115550-35-1	Marbofloxacin	Cattle fat Cattle kidney Cattle liver Cattle meat Cattle milk	0.05 0.15 0.15 0.15 0.075
Meloxicam	71125-38-7	Meloxicam	Cattle kidney Cattle liver Cattle meat Milk Pig kidney Pig liver Pig meat	0.035 0.05 0.025 0.015 0.2 0.1 0.01
Mepiquat chloride	24307-26-4	Mepiquat	Cereal grains	2
Metalaxyl and metalaxyl-M	57837-19-1 and 70630-17-0	Metalaxyl, sum of isomers	Asparagus Berries and other small fruits Fruiting vegetables	0.2 2 0.2
Methamidophos	10265-92-6	Methamidophos	Brassica vegetables Citrus fruits Fruiting vegetables (except tomatoes) Leafy vegetables	1 0.5 0.2 0.5
Methidathion	950-37-8	Methidathion	Citrus fruits	2
Methomyl	16752-77-5	*Sum of:* Methomyl Thiodicarb *expressed as:* Methomyl	Beans Berries and other small fruits Brassica vegetables Cereal grains Fruiting vegetables (cucurbits) Fruiting vegetables (except cucurbits) Lettuce Pome fruits	0.2 0.3 0.2 0.2 0.2 0.3 0.2 1
Methoxyfenozide	161050-58-4	Methoxyfenozide	Kiwifruit Pome fruit	0.5 0.5
Methyl Bromide	74-83-9	Considered as inorganic bromide and calculated as total bromide	Nuts Spices Any other food	200 400 50
Methylene chloride	75-09-2	Methylene chloride	Spices	30

Milbemectin	51596-10-2 and 51596-11-3	*Sum of:* milbemycin A3 milbemycin A4 (Z)-8,9 milbemycin A3 (Z)-8,9 milbemycin A4 *expressed as:* Milbemectin	Apples Avocados	0.005 0.005
Monensin	17090-79-8	Monensin free acid	Mammalian fats	0.05
Moxidectin	113507-06-5	Moxidectin	Cattle fat Cattle kidney Cattle liver Cattle meat Deer fat Deer kidney Deer liver Deer meat Milk fats Sheep fat Sheep kidney Sheep liver Sheep meat	0.5 0.05 0.1 0.02 0.5 0.05 0.1 0.02 1 0.5 0.05 0.1 0.05
Myclobutanil	88671-89-0	Myclobutanil	Grapes	0.2
Naled	300-76-5	Naled, expressed as dichlorvos	Berries and other small fruits, Vegetables	2 2
Narasin	55134-13-9	Narasin	Edible offal of poultry	0.5
Neomycin	1404-04-2	Neomycin	Cattle milk Mammalian fat Mammalian kidney Mammalian liver Mammalian meat Poultry eggs Poultry fat Poultry liver Poultry meat	0.5 0.5 5 0.5 0.5 0.5 0.5 0.5 0.5
Nicarbazim	330-95-0	1,3-N,N'-bis (4 nitrophenyl) urea as nicarbazin	Edible offal of poultry Poultry fat Poultry meat	0.5 0.5 0.5
Nitrothal-isopropyl	10552-74-6	Nitrothal-isopropyl	Pome fruit	0.2
Nitroxynil	1689-89-0	Nitroxynil	Fats (except milk fats)	1

Oxfendazole	53716-50-0	*Sum of:* Fenbenzole Oxfendazole Fenbendazole sulphone *expressed as:* Fenbendazole sulphone	Edible offal (except liver) Liver Meat	0.01 0.5 0.01
Parathion-methyl	298-00-0	Parathion-methyl	Fruits Vegetables	0.5 0.5
Permethrin	52645-53-1	Permethrin, sum of isomers	Berries and other small fruits (except grapes) Brassica vegetables Grapes Fruiting vegetables Kiwifruit Kumara Legume vegetables Pome fruits	1 1 0.5 0.5 2 1 0.5 1
Phosmet	732-11-6	Phosmet	Kiwifruit Other fruit	15 10
Phosphine	7803-51-2	All phosphides, expressed as hydrogen phosphide	Any food (except cereal grains)	0.01
Phosphorus acid	10294-56-1 / 13598-36-2	Phosphorus acid	Apples Avocados Legume vegetables	75 100 5
Pindone	83-26-1	Pindone	Any food	0.001(*)
Piperonyl butoxide	51-03-6	Piperonyl butoxide	Fruits Vegetables	8 8
Pirimicarb	23103-98-2	*Sum of:* Pirimicarb demethyl-pirimicarb demethylformamido-pirimicarb *expressed as:* pirimicarb	Berries and other small fruits (except grapes) Brassica vegetables Cereal grains Citrus fruits Fruiting vegetables Leafy vegetables Legume vegetables Pome fruits Stone fruits	1 0.5 0.5 1 1 1 0.5 0.5 1

Pirimiphos-methyl	29232-93-7	Pirimiphos-methyl	Beans Berries and other small fruits Brassica vegetables Cereal grains Citrus fruits Fruiting vegetables Kiwifruit Leafy vegetables Persimmons Pome fruits	0.2 1 2 5 1 1 2 10 0.5 1
Pirlimycin	78822-40-9	*Sum of:* Pirlimycin Pirlimycin sulphoxide Pirlimycin sulphone	Cattle fat Cattle kidney Cattle liver Cattle meat Cattle milk	0.05 0.1 0.5 0.05 0.1
Prochloraz	67747-09-5	*Sum of :* Prochloraz Any metabolites containing the 2,4,6-trichlorophenol moiety *expressed as:* Prochloraz	Avocados Bananas Cereal grains Mushrooms Papaya	5 5 0.3 0.5 2
Procymidone	32809-16-8	Procymidone	Beans Cucurbits Grapes Leafy vegetables Stone fruits Strawberries Tomatoes	2 1 5 1 3 0.5 1
Propargite	2312-35-8	Propargite	Berries and other small fruits Citrus fruits Pome fruits Stone fruits	3 3 3 3
Propham	122-42-9	Propham	Potatoes	50
Propineb	12071-83-9	Total dithiocarbamates, determined as CS_2, evolved during acid digestion and expressed as mg CS_2/kg	Onions	0.5
Propyzamide	23950-58-5	Propyzamide	Leafy vegetables	1
Pymetrozine	123312-89-0	Pymetrozine	Lettuce Tomatoes	3 0.5

Pyrethrins	8003-34-7	Total pyrethrins, calculated as the sum of pyrethrins I and II, cinerins I and II and jasmolins I and II, determined after calibration with the World Standard pyrethrum extract.	Fruits Vegetables	1 1
Pyrimethanil	53112-28-0	Pyrimethanil	Grapes	5
Robenidine	25875-51-8	Robenidine	Poultry meat	2
Salinomycin	53003-10-4	Salinomycin	Poultry liver	0.5
Semduramicin	113378-31-7	Semduramicin	Poultry liver	0.5
Sodium mono-fluroacetate	62-74-8	Monofluoroacetic acid anion	Any food	0.001(*)
Spectinomycin	1695-77-8	Spectinomycin	Sheep fat Sheep kidney Sheep liver Sheep meat	2 5 2 0.5
Spinosad	168316-95-8	*Sum of:* spinosyn A spinosyn D	Kiwifruit Sheep fat Sheep kidney Sheep liver Sheep meat Stone fruits	0.2 0.2 0.05 0.05 0.05 0.2
Tebuconazole	107534-96-3	Tebuconazole	Bulb vegetables Cereal grains Peas Stone fruits	0.2 0.05(*) 0.2 1
Tebufenozide	112410-23-8	Tebufenozide	Avocados Grapes Kiwifruit Pome fruits Stone fruits (except cherries)	0.2 0.5 0.5 0.5 0.5
Temephos	3383-96-8	*Sum of:* Temephos Temephos sulphoxide *expressed as:* Temephos	Cattle fat	2

Tetracyclines	60-54-8	MRLs cover Oxytetracycline, Tetracycline, Chlortetracycline, or Doxycycline singly or in combination	Cattle kidney Cattle liver Cattle meat Cattle milk Fish meat Pig kidney Pig liver Pig meat Poultry eggs Poultry kidney Poultry liver Poultry meat Sheep kidney Sheep liver Sheep meat	0.6 0.3 0.1 0.1 0.1 0.6 0.3 0.1 0.2 0.6 0.3 0.1 0.6 0.3 0.1
Thiabendazole	148-79-8	Thiabendazole	Bananas Citrus fruits Meat Potatoes	3 3 0.1 10
Thiamethoxam	153719-23-4	Thiamethoxam	Kiwifruit Pome Fruit	1 0.1
Thiodicarb	59669-26-0	*Sum of:* Thiodicarb Methomyl Methomyl oxime *expressed as:* Thiodicarb	Brassica vegetables Leafy vegetables Legume vegetables Stem vegetables	1 1 1 1
Tilmicosin	108050-54-0	Tilmicosin	Pig fat Pig kidney Pig liver Pig meat	0.1 1 1.5 0.1
Toltrazuril	69004-03-1	*Sum of:* Toltrazuril Toltrazuril sulphoxide Toltrazuril sulphone *expressed as* Toltrazuril	Edible offal of poultry Pig fat Pig kidney Pig liver Pig meat Poultry meat	1 0.5 2 2 0.5 0.5
Tolyfluanid	731-27-1	Tolyfluanid	Pome fruits	1

Triadimefon	43121-43-3	*Sum of:* triadimefon triadimenol *expressed as:* triadimefon	Garden peas (shelled succulent seeds) Garden peas (young pods succulent seeds)	0.2 0.2
Triadimenol	55219-65-3	Triadimenol	Bulb vegetables Cereal grains Peas	0.2 1 0.2
Trichlorfon	52-68-6	*Sum of:* Trichlorfon Dichlorvos *expressed as:* Dichlorvos	Milk Sugarbeet	0.05 0.05
Triclabendazole	68786-66-3	*Sum of:* Triclabendazole Triclabendazole sulphoxide Triclabendazole sulphone *expressed as:* Triclabendazole	Cattle fat Cattle meat Edible offal of cattle Edible offal of sheep Sheep fat Sheep meat	0.1 0.2 0.3 0.1 0.1 0.1
Triflumuron	64628-44-0	Triflumuron	Edible offal of sheep Sheep meat	0.05 0.05
Triforine	26644-46-2	Triforine	Berries and other small fruits (except grapes) Brassica vegetables Celery Cereal grains Grapes Fruiting vegetables (except tomatoes) Pome fruits Stone fruits Tomatoes	10 0.5 10 0.5 3 0.5 0.5 3 2
Vinclozolin	50471-44-8	Sum of vinclozolin and all metabolites containing the 3,5-dichloroaniline moiety, expressed as vinclozolin	Grapes, Kiwifruit, strawberries Tomatoes Beans	5 3 0.5
Warfarin	81-81-2	Warfarin	Any food	0.001(*)
Xylazine	7361-61-7	*Sum of:* Xylazine 2,6-dimethylaniline *expressed as:* 2,6-dimethylaniline	Deer velvet	0.5

NOTE: (*) indicates that the maximum residue limit has been set at or about the limit of analytical determination.
NOTE: Grey text indicates compounds proposed for removal from the table

Second Table

Substance	CAS#	Condition
9,10-anthraquinone	84-65-1	Used as a bird repellent for grapes
Bacillus thuringiensis	68038-71-1	Used as an insecticide
Canola Oil	120962-03-0	Used as an insecticide
Chitosan	9012-76-4	No condition of use applies
Copper and its salts	7440-50-8	Used in plant compounds
Fatty acids of 8 carbons or more in their chains, and their salts	n/a	Used as herbicides, insecticides or fungicides
Gibberellic acid (gibberillins GA3, GA4 and GA7 and potassium gibberellate)	77-06-5	Used as a plant regulator applied at <200g ai/ha/year
Sulphur	7704-34-9	Used in plant compounds

Third Table

Substance	CAS#	Condition
Bismuth and its salts	7440-69-9	Oral use as a gastrointestinal antacid agent
Buserelin	57982-77-1	Use as a treatment of fertility disorders of ovarian origin, anoestrus, to induce ovulation, increase conception rate.
Cloprostenol and R-Cloprostenol	40665-92-7	Used for luteolysis of functional corpora lutea in farmed mammals, manipulation of oestrus cycles in farmed mammals, treatment of retained foetal membranes, pyometra or chronic endometriosis, induction of abortion and parturition in farmed animals.
Copper and its salts	7440-50-8	Used as a treatment for and prevention of copper deficiency in animals or as a topical treatment of hoof and skin infections
Dembrexine	83200-09-3	Used in Horse species
Dinoprost and its salts	551-11-1	For luteolysis of functional corpora lutea in cattle, pigs and horses
Etamiphylline camsylate	19326-29-5	No condition of use applies
Hydrocortisone	50-23-7	Use as a topical anti-inflammatory
Iodine (organic and inorganic)	7553-56-2	Used for topical treatment of wounds, for footrot, ringworm or as a topical bacteriocide in food producing animal species
Isoxsuprine and its esters	395-28-8	Used for relaxation of uterine muscles in food producing animal species
Medroxyprogesterone acetate	71-58-9	For intravaginal use in sheep
Oestradiol-17 beta and its esters or conjugates	50-28-2	Used for treatment of suboestrus, dystocia, metritis, pyometra, retained placenta, anoestrus in mares or growth promotion in cattle.
Pentosan polysulphate	37300-21-3	Used as a treatment aid for non-infectious inflammatory joint disease, traumatic arthritis, degenerative cartilaginous joint disease, osteoarthritis
Salicylic acid and its salts and esters	69-72-7	All food of animal origin except fish For topical use only
Thiopental sodium	71-73-8	No condition of use applies.
Zinc and its salts	7440-66-6	Use in all food producing animals

40 MRLs proposed for inclusion into Table 1 of the NZ (MRL) Food Standards to replace default MRLs

Compound Common Name	CAS#	Residue Definition	Food	Proposed MRL
1,3-Dichloropropene	542-75-6	1,3-Dichloropropene (sum of isomers)	Vegetables Fruit	0.01mg/kg* 0.01mg/kg*
Abamectin	71751-41-2	Sum of: avermectin B1a avermectin B1b (Z)-8,9 avermectin B1a (Z)-8,9 avermectin B1b	Avocados Kiwifruit Pomefruit Strawberries Tomatoes	0.02mg/kg* 0.02mg/kg* 0.02mg/kg* 0.02mg/kg* 0.02mg/kg*
Amitrole	61-82-5	Amitrole	Pomefruit Stonefruit Asparagus Other Fruit	0.01mg/kg* 0.01mg/kg* 0.05mg/kg* 0.05mg/kg*
Benalaxyl	71626-11-4	Benalaxyl (sum of isomers)	Potatoes	0.02mg/kg*
Bromoxynil	1689-84-5	Bromoxynil octenoate ester	Cereal grains	0.01mg/kg*
Cymoxanil	57966-95-7	Cymoxanil	Peas	0.05mg/kg*
Deltamethrin	52918-63-5	Sum of: deltamethrin α–R-deltamethrin trans-deltamethrin Expressed as deltamethrin	Grapes Kiwifruit Onions Pomefruit Potatoes Sweetcorn Stonefruit Avocados Tomatoes Beans Brassicas Tamarillos	0.01mg/kg* 0.01mg/kg* 0.01mg/kg* 0.01mg/kg* 0.01mg/kg* 0.01mg/kg* 0.02mg/kg* 0.05mg/kg* 0.05mg/kg* 0.05mg/kg* 0.05mg/kg* 0.02mg/kg
Diquat	2764-72-9	Diquat cation	Fruit Vegetables (except beans, onions & peas) Onions Peas	0.05mg/kg* 0.05mg/kg* 0.1mg/kg 0.1mg/kg
Epoxiconazole	135319-73-2	Epoxiconazole	Barley Wheat	0.05mg/kg* 0.05mg/kg*
Fenamidone	161326-34-7	Sum of: Fenamidone and its desmethylthio metabolites	Onions Potatoes	0.05mg/kg* 0.05mg/kg*

Fipronil	120068-37-3	Sum of: Fipronil fipronil-desulfinyl fipronil sulfone fipronil thioether. Expressed as: fipronil	Citrus Fruit Mushrooms Brassicas	0.01mg/kg* 0.01mg/kg* 0.02mg/kg*
Glufosinate-ammonium	51276-47-2	Sum of: glufosinate-ammonium 3-[hydroxy(methyl)phosphinoyl]propionic acid. Expressed as: glufosinate (free acid)	Citrus fruit Canefruit Pomefruit Kiwifruit Grapes Stonefruit	0.05mg/kg* 0.05mg/kg* 0.05mg/kg* 0.05mg/kg* 0.05mg/kg* 0.05mg/kg*
Glyphosate	1071-83-6	Glyphosate	Fruit	0.01mg/kg*
Haloxyfop	72619-32-0	Sum of: Haloxyfop esters haloxyfop and its conjugates Expressed as: haloxyfop	Citrus fruit Pomefruit	0.05mg/kg* 0.05mg/kg*
Imidacloprid	138261-41-3	Imidacloprid	Cereal grains Brassicas Potatoes Onions Sweetcorn	0.02mg/kg* 0.02mg/kg* 0.02mg/kg* 0.02mg/kg* 0.02mg/kg*
Kresoxim-methyl	143390-89-0	Kresoxim-methyl	Apples Wheat grain Barley grain	0.01mg/kg* 0.05mg/kg* 0.05mg/kg*
Lambda-cyhalothrin	91465-08-6	Lambda-cyhalothrin	Citrus Grapes Onions Maize Potatoes Sweetcorn	0.01mg/kg* 0.01mg/kg* 0.01mg/kg* 0.01mg/kg* 0.01mg/kg* 0.01mg/kg*
Lufenuron	103055-07-8	Lufenuron	Pome fruits Pears	0.02mg/kg* 0.05mg/kg
MCPA	94-74-6	MCPA	Cereal grains	0.02mg/kg*
MCPB	94-81-5	MCPB	Cereal grains	0.02mg/kg*
Mecoprop	7085-19-0	Mecoprop (sum of isomers). Expressed as : Mecoprop-P	Cereal grains	0.05mg/kg*

Metalaxyl	70630-17-0	Metalaxyl (sum of isomers). Expressed as: Metalaxyl	Onions Brassicas Potatoes Tomatoes Avocados	0.05mg/kg* 0.05mg/kg* 0.05mg/kg* 0.05mg/kg* 0.05mg/kg*
Methamidophos	10265-92-6	Methamidophos	Potatoes	0.05mg/kg*
Methiocarb	2032-65-7	Methiocarb	Cereal grains	0.05mg/kg*
Metolachlor	51218-45-2	Metolachlor	Asparagus Sweetcorn Summer Squash Winter Squash Pumpkin	0.05mg/kg* 0.05mg/kg* 0.05mg/kg* 0.05mg/kg* 0.05mg/kg*
N6-Benzyladenine	1214-39-7	N6-Benzyladenine	Apples Cherries	0.01mg/kg* 0.01mg/kg*
Nicosulfuron	111991-09-4	Nicosulfuron	Maize	0.01mg/kg*
Novaluron	116714-46-6	Novaluron	Pomefruit	0.05mg/kg*
Oxadiazon	19666-30-9	Oxadiazon	Canefruit Onions Grapes Pomefruit Stonefruit	0.01mg/kg* 0.01mg/kg* 0.01mg/kg* 0.01mg/kg* 0.01mg/kg*
Paraquat	4685-14-7	Paraquat cation	Fruit Vegetables	0.05mg/kg* 0.05mg/kg*
Pendimethalin	40487-42-1	Pendimethalin	Fruit Peas Lettuce Onions Carrots Sweetcorn	0.05mg/kg* 0.05mg/kg* 0.05mg/kg* 0.05mg/kg* 0.05mg/kg* 0.05mg/kg*
Propachlor	1918-16-7	Propachlor	Vegetables	0.05mg/kg*
Propazine	139-40-2	Propazine	Carrots Parsnips	0.05mg/kg* 0.05mg/kg*
Prothiofos	34643-46-4	Prothiofos	Pomefruit Grapes	0.02mg/kg* 0.02mg/kg*
Pymetrozine	123312-89-0	Pymetrozine	Potatoes Tamarillos Stonefruit	0.02mg/kg* 0.02mg/kg* 0.05mg/kg

Quinzalofop-P-ethyl	100646-51-3	Sum of : quizalofop-ethyl quizalofop acid and other esters. Expressed as: quizalofop-ethyl	Beans Cucurbits Potatoes Tomatoes	0.02mg/kg* 0.02mg/kg* 0.02mg/kg* 0.02mg/kg*
Streptomycin	57-92-1	Streptomycin	Pomefruit Stonefruit	0.1mg/kg* 0.1mg/kg*
Terbufos	13071-79-9	Sum of: terbufos its oxygen analogue and their sulfoxides and sulfones. Expressed as: terbufos	Cereal grains	0.01mg/kg*
Trifloxystrobin	141517-21-7	Sum of: trifloxystrobin and its free acid metabolite. Expressed as: trifloxystrobin equivalents	Pomefruit, Cucurbits (inedible peel) Cereals	0.02mg/kg* 0.02mg/kg* 0.05mg/kg*
Trinexpac-ethyl	104273-73-6	4-(cyclopropyl-α-hydroxy-methylene)-3,5-dioxo-cyclohexanecarboxylic acid	Cereal grains	0.05mg/kg*

Proposed Amendment to the New Zealand (Maximum Residue Limits of Agricultural Compounds) Food Standards 2005

Proposal to set a MRL for indoxacarb

It is proposed that a MRL of 0.5 mg/kg is set for indoxacarb when used as an insecticide on grapes.

It is proposed that Table One of the NZ (MRL) Food Standards 2005 be amended to include:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Indoxacarb	173584-44-6	Indoxacarb (sum of isomers)	Grapes	0.5

Chemical Information

Common name of compound:	Indoxacarb
Chemical Abstracts Service (CAS) Registry number	173584-44-6
Use of compound:	Insecticide
Type of compound:	Oxadiazine
Administration method:	Ground sprayed

Residues Information

Application may be throughout grape cap fall up until pre bunch closure, at 5.1 gai/100 litres, with a withholding period of 56 days. Residue data for grapes supports an MRL of 0.5 mg/kg at 56 days after the last treatment. No animal commodity MRLs have been set, as grapes are not classed as a primary animal feed commodity.

Residues in wine made from treated grapes are not likely to exceed 0.01mg/kg.

The Residue Definition for compliance is indoxacarb (sum of isomers).

Dietary Risk Assessment

Acceptable Daily Intake (ADI)	0.02mg/kg bw/day

The chronic dietary exposure to indoxacarb is estimated by the National Estimated Dietary Intake (NEDI) calculation encompassing all registered uses of the chemical and food consumption data based upon the 1997 National Nutritional Survey for adults and the 1995 National Nutrition Survey of Australia, for children. The NEDI calculation is made in accordance with *Guidelines for predicting dietary intake of pesticide residues (revised)* [World Health Organization, 1997].

The NEDI for indoxacarb is equivalent to 6% of the ADI. It is concluded that the chronic dietary exposure is small and the risk is acceptable.

Toxicological Assessment

The use of indoxacarb when applied to grapes presents no acute or chronic dietary concern from the residues that may be present at the time of consumption of grape commodities.

Current MRLs

Compound	Food	Maximum Residue Limit (mg/kg)
Indoxacarb	Brassicas	0.5
	Lettuce	1
	Pome fruit	0.5
	Kiwifruit	0.1

International MRLs

Compound	Food	Maximum Residue Limit (mg/kg)
Australia		
Indoxacarb	Grapes	1
Germany		
Indoxacarb	Grapes	0.5
France		
Indoxacarb	Grapes	0.2

Proposed amendment to the New Zealand (Maximum Residue Limits of Agricultural Compounds) Food Standards 2005

Proposal to set a MRL for bromadiolone

It is proposed that a MRL of 0.001mg/kg is set for bromadiolone, when used as a rodenticide near food.

It is proposed that Table One of the NZ (MRL) Food Standards 2005 be amended to include:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Bromadiolone	28772-56-7	Bromadiolone	Any food	0.001*

Chemical Information

Common name of compound	Bromadiolone
Use of compound	Veterbrate Toxic Agent
Chemical Abstract Services (CAS) Registry number	28772-56-7
Type of compound	Anti-Coagulant
Administration method	Baits

Residues Information

Any bromadiolone that can enter food is through incidental routes as it is not applied directly to plants or animals, but stored as mammalian baits where mammalian pest species are a problem. It is, however, unacceptable that any food should contain residues of bromadiolone, as it is a powerful toxic agent.

Dietary Risk Assessment

Acceptable Daily Intake (ADI)	None recommended

No ADI has been set for bromadiolone as it is a strong acute toxin and therefore any dietary burden is unacceptable.

Toxicological Assessment

Bromadiolone is a highly toxic agent and it is in the interest of food safety that any residues of it are limited in food crops. This MRL supports this by making any food that contains residues of bromadiolone incompliant with the Food Standards.

Current MRLs

Compound	Food	Maximum Residue Limit (mg/kg)
Bromadiolone	Any food	0.1(default)

Proposed amendment to the New Zealand (Maximum Residue Limits of Agricultural Compounds) Food Standards 2005

Proposal to set a MRL for flocoumafen

It is proposed that a MRL of 0.001mg/kg is set for flocoumafen, when used as a rodenticide near food.

It is proposed that Table One of the NZ (MRL) Food Standards 2005 be amended to include:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Flocoumafen	90035-08-8	Flocoumafen	Any foods	0.001*

Chemical Information

Common name of compound	Flocoumafen
Use of compound	Vertebrate Toxic Agent
Chemical Abstract Services (CAS) Registry number	90035-08-8
Type of compound	Anti-Coagulant
Administration method	Baits

Residues Information

Any flocoumfen that can enter food is through incidental routes as it is not applied directly to plants or animals, but stored as mammalian baits where mammalian pest species are a problem. It is, however, unacceptable that any food should contain residues of flocoumafen, as it is a powerful toxic agent.

Dietary Risk Assessment

Acceptable Daily Intake (ADI)	None recommended

No ADI has been set for flocoumafen as it is a strong acute toxin and any dietary burden is unacceptable.

Toxicological Assessment

Flocoumafen is a highly toxic agent and it is in the interests of food safety that any residues of it are limited in food crops. This MRL supports this by making any food that contains residues of flocoumafen incompliant with the Food Standards.

Current MRLs

Compound	Food	Maximum Residue Limit (mg/kg)
Flocoumafen	Any foods	0.1(default)

Proposed Amendment to the New Zealand (Maximum Residue Limits of Agricultural Compounds) Food Standards 2005

Proposal to exempt ketamine

It is proposed that ketamine be exempt from the NZ (MRL) Food Standards 2005 for use as a sedative and an anaesthetic, in all species, other than in deer for develvetting.

It is proposed that Table Three of the NZ (MRL) Food Standards 2005 be amended to include the exemption:

Substance	CAS#	Condition
Ketamine	6740-88-1	For use in all species for sedative and anaesthetic purposes, other than in deer for develvetting

Chemical Information

Common name of compound:	Ketamine
Use of compound:	Anaesthetic
Chemical Abstracts Service (CAS) Registry number	6740-88-1
Type of compound:	Dissociative anaesthetic
Administration method:	Intravenous injection and intra-orally

Residues Information

Ketamine has a very short half-life in animal tissue, with residues, regardless of administration method, being below 1.0 mg/kg within 7 hours. The GAP for ketamine means that it is unlikely animals will be slaughtered during or immediately after treatment.

At this time it has not been considered suitable to exempt ketamine from a MRL when used for deer develvetting due to the very short withholding period, leaving potential for residues to enter the diet.

Dietary Risk Assessment

As ketamine is rapidly absorbed and excreted, and as animals are unlikely to be slaughtered before this has occurred within the animal, residues are unlikely to remain in animal products, therefore presenting no dietary burden of ketamine.

Toxicological Assessment

Ketamine is very unlikely to enter the diet through consumption of treated animal commodities; therefore it presents no significant acute or chronic health risk.

Current MRLs

Compound	Food	Maximum Residue Limit (mg/kg)
Ketamine	All food producing animal species	0.1(default)

International MRLs

Compound	Food	Maximum Residue Limit (mg/kg)
European Union		
Ketamine	All food producing animal species	exempt

Summary

In summary, ketamine is suitable for exemption from an MRL for the following reasons:

- it is used only infrequently for treatment of individual animals;
- it has a short tissue half life with significant residues being totally excreted within one-two days; and
- treated animals are unlikely to be sent for slaughter before any residues have been metabolised and excreted.