



Proposals to Amend the New Zealand  
(Maximum Residue Limits of Agricultural  
Compounds) Food Standards 2008

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NZFSA seeks submissions from all interested parties on any aspect of the document. The following points may be of assistance in preparing comments:

- Wherever possible, comment should be specific to a particular section in the document. All major sections are numbered and these numbers should be used to link comments to the document.
- Omissions should be clearly and separately indicated.
- Comments should be to the point and, where possible, reasons and data to support comment are requested.
- The use of examples to illustrate particular points is encouraged.
- As a number of copies may be made of your comments, please use good quality type, or make sure the comments are clearly hand-written in black or blue ink.

Please include the following information in your submission:

- The title of the discussion document;
- Your name and title (if applicable);
- Your organisation's name (if applicable);
- Your address;
- The number(s) of the sections you are commenting on.

**Please submit your response by 5:00pm on Monday 11 May 2009 to:**

MRL Amendments, Policy Group, New Zealand Food Safety Authority

PO Box 2835, Wellington, fax: (04) 894 2583, or email: [policy@nzfsa.govt.nz](mailto:policy@nzfsa.govt.nz)

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## Introduction

The New Zealand Food Safety Authority (NZFSA) invites public comment on this discussion document which outlines proposals to amend the New Zealand (Maximum Residue Limits of Agricultural Compounds) Food Standards 2008.

Maximum residue limits (MRLs) are the maximum legal limits for residues of agricultural compounds and veterinary medicines in food for sale in New Zealand.

MRLs are primarily a tool for monitoring the use of agricultural compounds in accordance with good agricultural practice (GAP). GAP is not explicitly defined or regulated, but is the generally accepted means for producing safe primary produce in a particular location while taking account of climate, pests or diseases and other environmental factors.

MRLs are used to minimise risks to public health by ensuring that chemical residues in food are as low as practicable, without compromising the ability of the chemical to successfully do what is intended.

## Background

MRLs are set out in the New Zealand (Maximum Residue Limits of Agricultural Compounds) Food Standards. The Standards are amended a number of times each year to reflect changes in the use of agricultural compounds in the production of food. The current MRL Food Standards 2008 are on the NZFSA website at: <http://www.nzfsa.govt.nz/policy-law/legislation/food-standards/index.htm>

NZFSA administers the MRL Standards, but the final decision on any changes to the Standards rests with the Minister for Food Safety. Under section 11E of the Food Act, when amending or issuing the MRL Standards, the Minister must take into account the following:

- the need to protect public health
- the desirability of avoiding unnecessary restrictions on trade
- the desirability of maintaining consistency between New Zealand's food standards and those applying internationally
- New Zealand's obligations under any relevant international treaty, agreement, convention, or protocol, and, in particular, under the Australia-New Zealand Joint Food Standards Agreement
- such other matters as the Minister considers appropriate.

The proposed MRLs have been thoroughly assessed in accordance with international methodologies such as those utilised by the expert committees advising the Codex Alimentarius Commission (Codex). Information on the technical assessment of each proposal is included in this document and covers the following:

- rationale
- chemical information
- good agricultural practice (GAP)
- residues information
- dietary risk assessment
- toxicological / public health assessment
- international MRLs.

Possible implications for public health are considered during the toxicological and dietary risk assessments, by comparing the estimated dietary intake with a Potential Daily Exposure (food) ( $PDE_{\text{food}}$ ) or where there is no  $PDE_{\text{food}}$ , by comparing it with the Acceptable Daily Intake (ADI).  $PDE_{\text{food}}$  and ADI are described below.

A  $PDE_{\text{food}}$  or Potential Daily Exposure (food), is a value determined by a toxicological evaluation by Environmental Risk Management Authority New Zealand (ERMA NZ) as part of its responsibilities under the Hazardous Substances and New Organisms Act (the HSNO Act), which has some responsibility for managing public health.<sup>1</sup> A  $PDE_{\text{food}}$  gives the potential daily exposure a person may be subject to from a substance, via food. NZFSA uses a  $PDE_{\text{food}}$ , rather than the internationally-determined ADI, where a  $PDE_{\text{food}}$  is available, due to the HSNO Act in New Zealand. The ADI and  $PDE_{\text{food}}$  are largely equivalent, as they are determined using the same set of toxicology data and in a very similar scientific process.

An ADI or Acceptable Daily Intake is defined by the World Health Organization (WHO) as: “The daily intake which, during an entire lifetime, appears to be without appreciable risk on the basis of all the known facts at the time”. “Without appreciable risk” has been further defined as: “the practical certainty that injury will not result even after a lifetime of exposure”. ADIs are established by the WHO and Food and Agriculture Organization of the United Nations (FAO) joint expert committees, made up of toxicologists and residue specialists. The ADI information from these joint committees also feeds into the Codex Alimentarius Commission (Codex), which sets international MRLs.

NZFSA has reviewed the estimated dietary exposure assessments for the applications of these proposals and has determined that the residues associated with the proposed MRLs do not present any public health and safety concerns.

## Summary of Proposed Amendment

### New MRLs

NZFSA proposes to add the following new MRLs to the Standards:

- 0.1mg/kg for boscalid in kiwifruit;
- 0.05mg/kg for boscalid in stonefruit;
- 3mg/kg for carbaryl in cabbages and tomatoes as a replacement for 3mg/kg for carbaryl in vegetables;
- 0.01mg/kg for cyprodinil in bulb onions;
- 0.5mg/kg for fenitrothion in cereals as a replacement for 10mg/kg for fenitrothion in cereals;
- 0.01mg/kg for fludioxonil in bulb onions;
- 0.5mg/kg for methomyl in berries and other small fruits, and fruiting vegetables(except cucurbits) as a replacement for 0.3mg/kg in berries and other small fruits, and fruiting vegetables(except cucurbits)
- 0.01mg/kg for propiconazole in olives;
- 0.02mg/kg for pyraclostrobin in kiwifruit and stonefruit;
- 0.1mg/kg for pyriproxyfen in cucumbers;
- 1mg/kg for pyriproxyfen in tomatoes;
- 2mg/kg for spinosad in sheep fat as a replacement for 0.2mg/kg in sheep fat;
- 0.5mg/kg for spinosad in sheep kidneys and liver as a replacement for 0.05mg/kg in sheep kidneys and liver;

### **MRL Deletions**

NZFSA proposes to delete the following MRLs from the Standards:

- MRLs for Bitertanol, Famphur and Parathion-methyl
- MRLs for Endosulfan

### **New MRL Exemptions**

NZFSA proposes to add the following MRL exemption to the Standards:

- Benzalkonium chloride when used as a fungicide on kiwifruit and olives
- Boric acid when used as a fungicide for wound treatment
- Iron-EDTA complex when used as a molluscicide
- Iron Phosphate when used as molluscicide
- Salicylic acid when used on fruit.

## Next Steps

Following the closing date for submissions (5:00pm on Monday 11 May 2009 2009), all submissions will be considered and analysed before a recommendation is made to the Minister for Food Safety, the Hon Kate Wilkinson, who makes the final decision on issuing any amendments to the Food Standards.

If an amendment is agreed upon, it will be signed by the Minister for Food Safety and will come into force 28 days after being published in the *New Zealand Gazette*.

# 1 Proposal to set MRLs for Boscalid

It is proposed that MRLs are set for Boscalid when used as a fungicide for kiwifruit and stonefruit. It is proposed that Schedule One of the NZ (MRL) Food Standards 2008 be amended to include:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Boscalid	188425-85-6	Boscalid	Kiwifruit Stonefruit	0.1* 0.05*

NOTE: (\*) indicates that the maximum residue limit has been set at or about the limit of analytical quantification.

The final entry for boscalid in Schedule One of the NZ (MRL) Food Standards 2008 will therefore read:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Boscalid	188425-85-6	Boscalid	Grapes Kiwifruit Pome fruits Stonefruit	3 0.1* 0.05* 0.05*

NOTE: (\*) indicates that the maximum residue limit has been set at or about the limit of analytical quantification.

## Amendment Rationale

The proposed MRLs represent new use patterns in New Zealand for the active ingredient boscalid. The proposed MRLs will manage the use of boscalid as a fungicide on kiwifruit and stone fruit to the application rates and withholding periods that are approved good agricultural practice in New Zealand

## Chemical Information

Common name of compound	Boscalid
Use of compound	Fungicide
Chemical Abstract Services (CAS) Registry number	188425-85-6
Type of compound	Carboxamide
Administration method	Spray

## Good Agricultural Practice

Boscalid is proposed for use as a fungicide for kiwifruit. Application may be once between flowering and 100% bloom, at 252gai/ha with a withholding period of "Do not apply after 100% bloom".

Boscalid is proposed for use as a fungicide for stonefruit. Application may be twice between flowering and 100% petal fall, at 200gai/ha with a withholding period of "Do not apply after 100% petal fall".

## Residues Information

Residue data for kiwifruit supports a limit of quantification MRL of 0.1mg/kg when the last treatment is prior to 100% bloom. An MRL of 0.1mg/kg is therefore proposed to support GAP.

Residue data for stonefruit supports a limit of quantification MRL of 0.05mg/kg when the last treatment is prior to 100% petal fall. An MRL of 0.05mg/kg is therefore proposed to support GAP.

### Animal Transfer

Kiwifruit and stonefruit are not considered a primary animal feed commodity and therefore animal transfer of residues is not expected.

## Dietary Risk Assessment

<b>Acceptable Daily Exposure (ADE)</b>	0.04mg/kg bw/day
<b>ERMA NZ PDE<sub>(food)</sub></b>	0.028mg/kg bw/day

The potential daily exposure via food (PDE<sub>(food)</sub>) is used for dietary intake calculation where a value has been set. An appropriate acceptable daily intake (ADI) is used in the absence of a PDE<sub>(food)</sub>.

The PDE<sub>(food)</sub> is a value set by the Environmental Risk Management Authority (ERMA), which represents the proportion of the acceptable daily exposure (ADE) to a substance via the food route as relevant to the New Zealand population. The methodology for calculation of these values is set out in the Hazardous Substances (classes 6, 8, and 9 controls) regulations 2001 and can be found at [www.legislation.govt.nz](http://www.legislation.govt.nz).

The chronic dietary exposure to boscalid 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 Organisation, 1997].

The NEDI for boscalid is equivalent to 11% of the PDE<sub>(food)</sub>. It is therefore concluded that the chronic dietary exposure is small and the risk is acceptable.

## Toxicological / Public Health Assessment

It has been determined that the use of boscalid as a fungicide for use on kiwifruit and stonefruit, according to the good agricultural practice specified above, is very unlikely to pose any health risks from consumption of the harvested commodity.

### **Other International MRLs**

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures the proposed MRL will be notified to the World Trade Organization. Any country may choose to comment if they believe the proposed MRL represents a barrier to their trade.

## 2 Proposal to set MRLs for Carbaryl

It is proposed that MRLs are set for carbaryl when used as an insecticide for cabbages and tomatoes. It is proposed that Schedule One of the NZ (MRL) Food Standards 2008 be amended by deleting the following MRLs:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Carbaryl	63-25-2	Carbaryl	Potatoes Vegetables (except potatoes)	10 3

As a replacement for the deleted Vegetables MRL, it is proposed that Schedule One of the NZ (MRL) Food Standards 2008 be amended to include the following:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Carbaryl	63-25-2	Carbaryl	Cabbages Tomatoes	3 3

The final entry for Carbaryl in Schedule One of the NZ (MRL) Food Standards 2008 will therefore read:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Carbaryl	63-25-2	Carbaryl	Cabbages Fruit Tomatoes	3 3 3

### Amendment Rationale

The proposed MRLs represent a reassessment of the use patterns for the active ingredient carbaryl. It was indicated that carbaryl was no longer used on potatoes and the majority of vegetable crops, thus these MRLs were redundant and have been revoked. The proposed MRLs will support the continued use of the product on cabbages and tomatoes to the application rates and withholding periods that are approved good agricultural practice in New Zealand.

## Chemical Information

<b>Common name of compound</b>	Carbaryl
<b>Use of compound</b>	Insecticide
<b>Chemical Abstract Services (CAS) Registry number</b>	63-25-2
<b>Type of compound</b>	Carbamate
<b>Administration method</b>	Spray

## Good Agricultural Practice

Carbaryl is currently approved in New Zealand for use as an insecticide on a wide variety of fruit and vegetable crops, and as a fruit thinner on apples.

## Residues Information

The proposed MRLs represents a review of current use patterns which indicates that carbaryl is no longer used on any vegetable crops, other than cabbages and tomatoes. It is thus proposed the redundant potatoes and vegetables MRLs are revoked and replaced with individual crop MRLs for cabbages and tomatoes.

## Dietary Risk Assessment

<b>Acceptable Daily Intake (ADI)</b>	0.008mg/kg bw/day
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The potential daily exposure via food ( $PDE_{(food)}$ ) is used for dietary intake calculation where a value has been set. An appropriate acceptable daily intake (ADI) is used in the absence of a  $PDE_{(food)}$ .

The chronic dietary exposure to carbaryl 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 Organisation, 1997].

The NEDI for carbaryl is equivalent to 35% of the ADI. It is therefore concluded that the chronic dietary exposure is small and the risk is acceptable.

## Toxicological / Public Health Assessment

The proposed removal of vegetable crop MRLs is not expected to increase the risk to public health

### Other International MRLs

<b>Compound</b>	<b>Food</b>	<b>Maximum Residue Limit (mg/kg)</b>
<b>Codex</b>		
Carbaryl	Tomatoes	5

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures the proposed MRL will be notified to the World Trade Organization. Any country may choose to comment if they believe the proposed MRL represents a barrier to their trade.

### 3 Proposal to set an MRL for Cyprodinil

It is proposed that an MRL is set for cyprodinil when used as a fungicide for bulb onions. It is proposed that Schedule One of the NZ (MRL) Food Standards 2008 be amended to include:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Cyprodinil	121552-61-2	Cyprodinil	Bulb onions	0.01*

NOTE: (\*) indicates that the maximum residue limit has been set at or about the limit of analytical quantification.

The final entry for cyprodinil in Schedule One of the NZ (MRL) Food Standards 2008 will therefore read:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Cyprodinil	121552-61-2	Cyprodinil	Bulb onions	0.01*
			Grapes	0.2
			Pome fruits	0.01
			Stonefruit (except cherries)	0.02*
			Strawberries	1

NOTE: (\*) indicates that the maximum residue limit has been set at or about the limit of analytical quantification.

#### Amendment Rationale

The proposed MRL represents a new use patterns in New Zealand for the active ingredient Cyprodinil. The proposed MRL will manage the new use of cyprodinil as a fungicide on bulb onions to the application rates and withholding periods that are approved good agricultural practice in New Zealand

#### Chemical Information

Common name of compound	Cyprodinil
Use of compound	Fungicide
Chemical Abstract Services (CAS) Registry number	121552-61-2
Type of compound	Pyrimidine
Administration method	Spray

#### Good Agricultural Practice

Cyprodinil is proposed for use as a fungicide for bulb onions. Application may be up to 2 times per season, at 300gai/ha with a withholding period of 7 days.

### **Residues Information**

Residue data for bulb onions supports a limit of quantification MRL of 0.01mg/kg at 7 days after the last treatment. An MRL of 0.01mg/kg is therefore proposed to support GAP.

### **Animal Transfer**

No residues are expected in treated onions thus no animal transfer will occur.

### **Dietary Risk Assessment**

<b>Acceptable Daily Intake (ADI)</b>	0.027mg/kg bw/day
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The potential daily exposure via food ( $PDE_{(food)}$ ) is used for dietary intake calculation where a value has been set. An appropriate acceptable daily intake (ADI) is used in the absence of a  $PDE_{(food)}$ .

The chronic dietary exposure to cyprodinil 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 Organisation, 1997].

The NEDI for cyprodinil is equivalent to 0.3% of the ADI. It is therefore concluded that the chronic dietary exposure is small and the risk is acceptable.

### **Toxicological / Public Health Assessment**

It has been determined that the use of cyprodinil as a fungicide for use on bulb onions, according to the good agricultural practice specified above, is very unlikely to pose any health risks from consumption of the harvested commodity

### **Other International MRLs**

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures the proposed MRLs will be notified to the World Trade Organization. Any country may choose to comment if they believe the proposed MRLs represent a barrier to their trade.

## 4 Proposal to set an MRL for Fenitrothion

It is proposed that an MRL is set for fenitrothion when used as an insecticide for cereals. It is proposed that Schedule One of the NZ (MRL) Food Standards 2008 be amended by deleting the following MRL:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Fenitrothion	122-14-5	Fenitrothion	Cereal grains	10

As a replacement for the deleted cereals MRL, it is proposed that Schedule One of the NZ (MRL) Food Standards 2008 be amended to include the following, this will be the resulting entry for fenitrothion in Schedule One of the NZ (MRL) Food Standards 2008:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Fenitrothion	122-14-5	Fenitrothion	Cereal grains	0.5

### Amendment Rationale

The proposed MRLs represent a reassessment of the residue data available for fenitrothion. With the current good agricultural practice it is not expected that residues will exceed 0.5mg/kg, thus the MRL is proposed to be reduced to better represent good agricultural practice.

### Chemical Information

<b>Common name of compound</b>	Fenitrothion
<b>Use of compound</b>	Insecticide
<b>Chemical Abstract Services (CAS) Registry number</b>	122-14-5
<b>Type of compound</b>	Organophosphate
<b>Administration method</b>	Spray

### Good Agricultural Practice

Fenitrothion is an organophosphate insecticide that is approved for army caterpillar control on cereals and various pests of fodder crops. Crops are not to be grazed or harvested for 14 days after treatment.

### Residues Information

Previously residues have been managed against an MRL of 10mg/kg for cereal grains; this was on the basis of post-harvest control of pests in stored grain. This use is no longer registered, as a result of

this NZFSA has reassessed the current MRL and is proposing a decrease in the MRL to 0.5mg/kg to manage residues solely from pre-harvest use.

### **Animal Transfer**

No residues are expected in any animal tissue following consumption of treated forage crops, grain or pasture

### **Dietary Risk Assessment**

<b>Acceptable Daily Intake (ADI)</b>	0.006mg/kg bw/day
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The potential daily exposure via food ( $PDE_{(food)}$ ) is used for dietary intake calculation where a value has been set. An appropriate acceptable daily intake (ADI) is used in the absence of a  $PDE_{(food)}$ .

The chronic dietary exposure to fenitrothion 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 Organisation, 1997].

The NEDI for fenitrothion is equivalent to 20.5% of the ADI. It is therefore concluded that the chronic dietary exposure is small and the risk is acceptable.

### **Toxicological / Public Health Assessment**

It has been determined that the use of fenitrothion as an insecticide for use on cereals grains, according to the good agricultural practice specified above, remains very unlikely to pose any health risks from consumption of the harvested commodity.

### **Other International MRLs**

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures the proposed MRL will be notified to the World Trade Organization. Any country may choose to comment if they believe the proposed MRL represents a barrier to their trade.

## 5 Proposal to set an MRL for Fludioxonil

It is proposed that an MRL is set for Fludioxonil when used as a fungicide for bulb onions.

It is proposed that Schedule One of the NZ (MRL) Food Standards 2008 be amended to include the following:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Fludioxonil	131341-86-1	Fludioxonil	Bulb onions	0.01*

NOTE: (\*) indicates that the maximum residue limit has been set at or about the limit of analytical quantification.

The final entry for fludioxonil in Schedule One of the NZ (MRL) Food Standards 2008 will therefore read:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Fludioxonil	131341-86-1	Fludioxonil	Bulb onions	0.01*
			Grapes	0.05
			Strawberries	1

NOTE: (\*) indicates that the maximum residue limit has been set at or about the limit of analytical quantification.

### Amendment Rationale

The proposed MRL represents a new use patterns in New Zealand for the active ingredient fludioxonil. The proposed MRL will manage the new use of fludioxonil as a fungicide on bulb onions to the application rates and withholding periods that are approved good agricultural practice in New Zealand

### Chemical Information

Common name of compound	Fludioxonil
Use of compound	Fungicide
Chemical Abstract Services (CAS) Registry number	131341-86-1
Type of compound	Phenylpyrrole
Administration method	Spray

### Good Agricultural Practice

Fludioxonil is proposed for use as a fungicide for bulb onions. Application may be up to 2 times per season, at 200gai/ha with a withholding period of 7 days.

### Residues Information

Residue data for bulb onions supports a limit of quantification MRL of 0.01mg/kg at 7 days after the last treatment. An MRL of 0.01mg/kg is therefore proposed to support GAP.

### Dietary Risk Assessment

<b>Acceptable Daily Intake (ADI)</b>	0.033mg/kg bw/day
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The potential daily exposure via food ( $PDE_{(food)}$ ) is used for dietary intake calculation where a value has been set. An appropriate acceptable daily intake (ADI) is used in the absence of a  $PDE_{(food)}$ .

The chronic dietary exposure to fludioxonil 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 Organisation, 1997].

The current NEDI for fludioxonil is equivalent to 0.7% of the ADI. It is therefore concluded that the chronic dietary exposure is small and the risk is acceptable.

### Toxicological / Public Health Assessment

It has been determined that the use of fludioxonil as a fungicide for use on bulb onions, according to the good agricultural practice specified above, is very unlikely to pose any health risks from consumption of the harvested commodity.

### Other International MRLs

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures the proposed MRL will be notified to the World Trade Organization. Any country may choose to comment if they believe the proposed MRL represents a barrier to their trade.

## 6 Proposal to set MRLs for Methomyl

It is proposed that an MRL is set for methomyl when used as an insecticide for berries and fruiting vegetables (except cucurbits). It is proposed that Schedule One of the NZ (MRL) Food Standards 2008 be amended by deleting the following MRL:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Methomyl	16752-77-5	<i>Sum of:</i> Methomyl Thiodicarb <i>Expressed as:</i> Methomyl	Berries and other small fruits	0.3
			Fruiting vegetables (except cucurbits)	0.3

As a replacement for the deleted MRLs, it is proposed that Schedule One of the NZ (MRL) Food Standards 2008 be amended to include the following:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Methomyl	16752-77-5	<i>Sum of:</i> Methomyl Thiodicarb <i>Expressed as:</i> Methomyl	Berries and other small fruits	0.5
			Fruiting vegetables (except cucurbits)	0.5

The final entry for methomyl in Schedule One of the NZ (MRL) Food Standards 2008 will therefore read:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Methomyl	16752-77-5	<i>Sum of:</i> Methomyl Thiodicarb <i>Expressed as:</i> Methomyl	Beans	0.2
			Berries and other small fruits	0.5
			Brassica vegetables	0.2
			Cereal grains	0.2
			Fruiting vegetables (cucurbits)	0.2
			Fruiting vegetables (except cucurbits)	0.5
			Lettuce	0.2
			Pome fruits	1

## **Amendment Rationale**

The proposed MRLs represent an administrative correction to the MRL standard. It was noted that an error had occurred whilst the standard was in transition from its previous format to the current version, this error being that the entries for methomyl in berries and fruiting vegetables had dropped from 0.5mg/kg to 0.3mg/kg in 2005. The GAP for the use of methomyl has not changed and there remains the potential that its use could leave residues upto 0.5mg/kg. As such reinstating the correct entries is necessary to correctly regulate the GAP.

## 7 Proposal to set an MRL for Propiconazole

It is proposed that an MRL is set for propiconazole when used as a fungicide for olives. It is proposed that Schedule One of the NZ (MRL) Food Standards 2008 be amended to include:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Propiconazole	60207-90-1	Propiconazole	Olives	0.01*

The final entry for propiconazole in Schedule One of the NZ (MRL) Food Standards 2008 will therefore read:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Propiconazole	60207-90-1	Propiconazole	Barley Mushrooms Oats Olives Wheat	0.02* 0.05* 0.02* 0.01* 0.02*

### Amendment Rationale

The proposed MRL represents a new use pattern in New Zealand for the active ingredient propiconazole. The proposed MRL will manage the new use of propiconazole as a fungicide on olives to the application rates and withholding periods that are approved good agricultural practice in New Zealand (see below).

### Chemical Information

<b>Common name of compound</b>	Propiconazole
<b>Use of compound</b>	Fungicide
<b>Chemical Abstract Services (CAS) Registry number</b>	60207-90-1
<b>Type of compound</b>	Carboxylic acid amide
<b>Administration method</b>	Spray

### Good Agricultural Practice

Propiconazole is proposed for use as a fungicide for olives. Application may be throughout the period following harvest up until flowering at 5.25-7gai/100L with a withholding period of "do not apply after flowering".

## Residues Information

Residue data for olives supports a limit of quantification MRL of 0.01 mg/kg when the last treatment is made prior to the end of flowering. An MRL of 0.01mg/kg is therefore proposed to support GAP.

## Animal Transfer

Olives are not considered primary animal feed crops thus no residue transfer to animals is expected.

## Dietary Risk Assessment

<b>Acceptable Daily Intake (ADI)</b>	0.04mg/kg bw/day
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The potential daily exposure via food ( $PDE_{(food)}$ ) is used for dietary intake calculation where a value has been set. An appropriate acceptable daily intake (ADI) is used in the absence of a  $PDE_{(food)}$ .

The  $PDE_{(food)}$  is a value set by the Environmental Risk Management Authority (ERMA), which represents the proportion of the acceptable daily exposure (ADE) to a substance via the food route as relevant to the New Zealand population. The methodology for calculation of these values is set out in the Hazardous Substances (classes 6, 8, and 9 controls) regulations 2001 and can be found at [www.legislation.govt.nz](http://www.legislation.govt.nz).

The chronic dietary exposure to propiconazole 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 Organisation, 1997].

The NEDI for propiconazole is equivalent to 0.1% of the ADI. It is therefore concluded that the chronic dietary exposure is small and the risk is acceptable.

## Toxicological / Public Health Assessment

It has been determined that the use of propiconazole as a fungicide for use on olives, according to the good agricultural practice specified above, is very unlikely to pose any health risks from consumption of the harvested commodity.

## Other International MRLs

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures the proposed MRL will be notified to the World Trade Organization. Any country may choose to comment if they believe the proposed MRL represents a barrier to their trade.

## 8 Proposal to set MRLs for Pyraclostrobin

It is proposed that an MRL is set for Pyraclostrobin when used as a fungicide for kiwifruit and stonefruit. It is proposed that Schedule One of the NZ (MRL) Food Standards 2008 be amended to include:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Pyraclostrobin	175013-18-0	Pyraclostrobin	Kiwifruit	0.02(*)
			Stonefruit	0.02(*)

NOTE: (\*) indicates that the maximum residue limit has been set at or about the limit of analytical quantification.

The final entry for pyraclostrobin in Schedule One of the NZ (MRL) Food Standards 2008 will therefore read:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Pyraclostrobin	175013-18-0	Pyraclostrobin	Apples	0.02(*)
			Barley	0.02(*)
			Grapes	3
			Kiwifruit	0.02(*)
			Mammalian fat	0.02(*)
			Mammalian kidney	0.02(*)
			Mammalian liver	0.02(*)
			Mammalian meat	0.02(*)
			Milk	0.02(*)
			Pears	0.02(*)
			Stonefruit	0.02(*)
Wheat	0.02(*)			

NOTE: (\*) indicates that the maximum residue limit has been set at or about the limit of analytical quantification.

### Amendment Rationale

The proposed MRLs represent new use patterns in New Zealand for the active ingredient pyraclostrobin. The proposed MRLs will manage the new uses of pyraclostrobin as a fungicide on kiwifruit and stonefruit to the application rates and withholding periods that are approved good agricultural practice in New Zealand. In addition to ensure harmonisation with overseas testing regimes for this active ingredient it is proposed the current residue definition for pyraclostrobin (Plant commodities: Sum of: Pyraclostrobin and its desmethoxy metabolite, Expressed as: Pyraclostrobin, Animal commodities: Sum of: Pyraclostrobin and metabolites hydrolysed to: 1-(4-chloro-phenyl)- 1H-

pyrazol- 3-ol, Expressed as: Pyraclostrobin); be replaced by the residue definition of the parent compound (pyraclostrobin) only

### Chemical Information

<b>Common name of compound</b>	Pyraclostrobin
<b>Use of compound</b>	Fungicide
<b>Chemical Abstract Services (CAS) Registry number</b>	175013-18-0
<b>Type of compound</b>	Strobilurin
<b>Administration method</b>	Spray

### Good Agricultural Practice

Pyraclostrobin is proposed for use as a fungicide for kiwifruit. Application may be throughout flowering, at a rate of 128gai/ha with a withholding period of “do not apply after 100% bloom”.

Pyraclostrobin is proposed for use as a fungicide for stonefruit. Application may be throughout flowering, at a rate of 102gai/ha with a withholding period of “do not apply after 100% petal fall”.

### Residues Information

Residue data for kiwifruit supports a limit of quantification MRL of 0.02 mg/kg when the last treatment is prior to 100% bloom. An MRL of 0.02mg/kg is therefore proposed to support GAP.

Residue data for stonefruit supports a limit of quantification MRL of 0.02 mg/kg when the last treatment is prior to 100% petal fall. An MRL of 0.02mg/kg is therefore proposed to support GAP.

### Animal Transfer

Kiwifruit and stonefruit are not considered a primary animal feed commodity and therefore animal transfer of residues is not expected.

### Dietary Risk Assessment

<b>Acceptable Daily Intake (ADI)</b>	0.03 mg/kg bw/day
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The potential daily exposure via food ( $PDE_{(food)}$ ) is used for dietary intake calculation where a value has been set. An appropriate acceptable daily intake (ADI) is used in the absence of a  $PDE_{(food)}$ .

The chronic dietary exposure to pyraclostrobin 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 Organisation, 1997].

The NEDI for pyraclostrobin is equivalent to 1.5% of the ADI. It is therefore concluded that the chronic dietary exposure is small and the risk is acceptable.

### **Toxicological / Public Health Assessment**

It has been determined that the use of pyraclostrobin as a fungicide for use on kiwifruit and stonefruit, according to the good agricultural practice specified above, is very unlikely to pose any health risks from consumption of the harvested commodity.

### **Other International MRLs**

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures the proposed MRL will be notified to the World Trade Organization. Any country may choose to comment if they believe the proposed MRL represents a barrier to their trade.

## 9 Proposal to set MRLs for Pyriproxyfen

It is proposed that an MRL is set for Pyriproxyfen when used as an insecticide for tomatoes and cucumbers. It is proposed that Schedule One of the NZ (MRL) Food Standards 2008 be amended to include the following; this will be the resulting entry for pyriproxyfen in Schedule One of the NZ (MRL) Food Standards 2008:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Pyriproxyfen	95737-68-1	Pyriproxyfen	Cucumbers Tomatoes	0.1 1

### Amendment Rationale

The proposed MRLs represent new use patterns in New Zealand for the active ingredient pyriproxyfen. The proposed MRLs will manage the new uses of pyriproxyfen as an insecticide on cucumbers and tomatoes to the application rates and withholding periods that are approved good agricultural practice in New Zealand.

### Chemical Information

Common name of compound	Pyriproxyfen
Use of compound	Insecticide
Chemical Abstract Services (CAS) Registry number	95737-68-1
Type of compound	Juvenile hormone mimic
Administration method	Spray

### Good Agricultural Practice

Pyriproxyfen is proposed for use as an insecticide for glasshouse cucumbers. Application may be throughout crop growth, at a rate of 5gai/100L with a withholding period of 1 day.

Pyriproxyfen is proposed for use as an insecticide for glasshouse tomatoes. Application may be throughout crop growth, at a rate of 5gai/100L with a withholding period of 1 day.

### Residues Information

Residue data for cucumbers supports an MRL of 0.1 mg/kg at 1 day after the last treatment. An MRL of 0.1mg/kg is therefore proposed to support GAP.

Residue data for tomatoes supports an MRL of 1mg/kg at 1 day after the last treatment. An MRL of 1mg/kg is therefore proposed to support GAP.

## Animal Transfer

Cucumbers and tomatoes are not considered a primary animal feed commodity and therefore animal transfer of residues is not expected.

## Dietary Risk Assessment

<b>Acceptable Daily Intake (ADI)</b>	0.1 mg/kg bw/day
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The potential daily exposure via food ( $PDE_{(food)}$ ) is used for dietary intake calculation where a value has been set. An appropriate acceptable daily intake (ADI) is used in the absence of a  $PDE_{(food)}$ .

The chronic dietary exposure to pyriproxyfen 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 Organisation, 1997].

The NEDI for pyriproxyfen is equivalent to 0.5% of the ADI. It is therefore concluded that the chronic dietary exposure is small and the risk is acceptable.

## Toxicological / Public Health Assessment

It has been determined that the use of pyriproxyfen as an insecticide for use on cucumbers and tomatoes, according to the good agricultural practice specified above, is very unlikely to pose any health risks from consumption of the harvested commodity.

## Other International MRLs

Compound	Food	Maximum Residue Limit (mg/kg)
<b>Australia</b>		
Pyriproxyfen	Cucurbits Fruiting vegetables	0.2 1
<b>EU</b>		
Pyriproxyfen	Cucumbers Tomatoes	0.1 1

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures the proposed MRL will be notified to the World Trade Organization. Any country may choose to comment if they believe the proposed MRL represents a barrier to their trade.

## 10 Proposal to set MRLs for Spinosad

It is proposed that MRLs are set for Spinosad when used as an ectoparasiticide for sheep. It is proposed that Schedule One of the NZ (MRL) Food Standards 2008 be amended by deleting the following entries:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Spinosad	168316-95-8 (131929-60-7 + 131929-63-0)	<i>Sum of:</i> spinosyn A spinosyn D <i>Expressed as:</i> Spinosad	Sheep fat Sheep kidney Sheep liver	0.2 0.05 0.05

As a replacement for the deleted entry it is proposed that Schedule One of the NZ (MRL) Food Standards 2008 be amended to include the following:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Spinosad	168316-95-8 (131929-60-7 + 131929-63-0)	<i>Sum of:</i> spinosyn A spinosyn D <i>Expressed as:</i> Spinosad	Sheep fat Sheep kidney Sheep liver	2 0.5 0.5

The final entry for Spinosad in Schedule One of the NZ (MRL) Food Standards 2008 will therefore read:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Spinosad	168316-95-8 (131929-60-7 + 131929-63-0)	<i>Sum of:</i> spinosyn A spinosyn D <i>Expressed as:</i> Spinosad	Citrus fruits Kiwifruit Potatoes Sheep fat Sheep kidney Sheep liver Sheep meat Stone fruits Tomatoes	0.05 0.2 0.01(*) 2 0.5 0.5 0.05 1 0.05

NOTE: (\*) indicates that the maximum residue limit has been set at or about the limit of analytical quantification.

## Amendment Rationale

The proposed MRL represents the setting of a New Zealand MRL for spinosad in sheep offal and fat that will be harmonised with MRLs set internationally by Australia, the European Union and by the Codex Alimentarius Commission.

## Chemical Information

<b>Common name of compound</b>	Spinosad
<b>Use of compound</b>	Insecticide
<b>Chemical Abstract Services (CAS) Registry number</b>	168316-95-8
<b>Type of compound</b>	Spinosyn
<b>Administration method</b>	Spray

## Good Agricultural Practice

Spinosad is currently approved for use as a topical ectoparasiticide for sheep for treatment of lice and flystrike. No change to the current good agricultural practice is proposed however the incorporation of the proposed MRLs may allow a reduction in the withholding period allowing greater flexibility in the use of the product.

## Residues Information

The proposed MRL has been determined by Codex to represent a suitable international standard for residues

## Dietary Risk Assessment

<b>Acceptable Daily Exposure (ADI)</b>	0.02mg/kg bw/day
<b>ERMA NZ PDE<sub>(food)</sub></b>	0.028mg/kg bw/day

The potential daily exposure via food (PDE<sub>(food)</sub>) is used for dietary intake calculation where a value has been set. An appropriate acceptable daily intake (ADI) is used in the absence of a PDE<sub>(food)</sub>.

The PDE<sub>(food)</sub> is a value set by the Environmental Risk Management Authority (ERMA), which represents the proportion of the acceptable daily exposure (ADE) to a substance via the food route as relevant to the New Zealand population. The methodology for calculation of these values is set out in the Hazardous Substances (classes 6, 8, and 9 controls) regulations 2001 and can be found at [www.legislation.govt.nz](http://www.legislation.govt.nz).

The chronic dietary exposure to spinosad 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 Organisation, 1997].

The NEDI for spinosad is equivalent to 3.8% of the ADI. It is therefore concluded that the chronic dietary exposure is small and the risk is acceptable.

### **Toxicological / Public Health Assessment**

It has been determined that the use of spinosad as an ectoparasiticide for use on sheep is very unlikely to pose any health risks from consumption of the harvested commodity.

### **Other International MRLs**

<b>Compound</b>	<b>Food</b>	<b>Maximum Residue Limit (mg/kg)</b>
<b>Australia</b>		
Spinosad	Edible offal Meat (mammalian){in the fat}	0.5 2
<b>Codex Alimentarius</b>		
Spinosad	Sheep Fat Sheep Kidney Sheep Liver	2 0.2 0.2
<b>EU</b>		
Spinosad	Sheep Fat Sheep Kidney Sheep Liver	2 0.2 0.2

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures the proposed MRL will be notified to the World Trade Organization. Any country may choose to comment if they believe the proposed MRL represents a barrier to their trade.

# 11 Proposal to delete MRLs for Bitertanol, Famphur and Parathion-methyl

It is proposed that Schedule One of the NZ (MRL) Food Standards 2008 be amended by deleting the following MRLs:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Bitertanol	55179-31-2	Bitertanol	Pome fruit	1
Famphur	52-85-7	Famphur	Meat	0.1
Parathion-methyl	298-00-0	Parathion-methyl	Fruit Vegetables	0.5 0.5

## Amendment Rationale

No remaining entries for bitertanol, famphur and parathion-methyl will be present in Schedule One of the NZ (MRL) Food Standards 2008. The above MRLs are proposed to be deleted as the use patterns for each active ingredient are no longer considered to be in-use within New Zealand. This has been determined to be the situation, given that no agricultural compound trade name products have been registered under the Agricultural Compounds and Veterinary Medicines Act 1997 with the above label use patterns over the last five years.

## International MRLs

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures the proposed MRL will be notified to the World Trade Organization. Any country may choose to comment if they believe the proposed MRL represents a barrier to their trade.

## 12 Proposal to delete MRLs for Endosulfan

It is proposed that Schedule One of the NZ (MRL) Food Standards 2008 be amended by deleting the following MRLs:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Endosulfan	115-29-7	<i>Sum of:</i> alpha-endosulfan beta-endosulfan endosulfan sulphate	Berries and other small fruits (except grapes)	2
			Vegetables	2

### Amendment Rationale

No remaining entries for Endosulfan will be present in Schedule One of the NZ (MRL) Food Standards 2008. The above MRLs are proposed to be deleted following the revoking of all approvals for the active ingredient and products containing it under the Hazardous Substances and New Organisms Act 1996. This revoking prevents use of any endosulfan products, thus MRLs to support the use of endosulfan are no longer required.

### International MRLs

Residues in imported food may comply with the following CODEX Alimentarius MRLs:

Compound	Food	Maximum Residue Limit (mg/kg)
Endosulfan	Avocado	0.5
	Broccoli	0.5
	Cacao beans	0.2
	Celery	2
	Cherries	2
	Coffee beans	0.2
	Cotton seed	0.3
	Cucumber	1
	Custard Apple	0.5
	Egg plant	0.1
	Eggs	0.03
	Hazelnuts	0.02
	Kidney of cattle, goats, pigs & sheep	0.03
	Litchi	2
	Liver of cattle, goats, pigs & sheep	0.1
	Macadamia nuts	0.02
	Mango	0.5
	Meat (from mammals other than marine mammals)	0.2

	Melons, except watermelon	2
	Milk fats	0.1
	Milks	0.01
	Papaya	0.5
	Persimmon	2
	Potato	0.05
	Poultry meat	0.03
	Poultry, Edible offal of	0.03
	Soya bean (dry)	1
	Soya bean oil, Crude	2
	Squash, Summer	0.5
	Sweet potato	0.05
	Tea, Green, Black	30
	Tomato	1

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures the proposed MRL will be notified to the World Trade Organization. Any country may choose to comment if they believe the proposed MRL represents a barrier to their trade.

# 13 Proposal to exempt Benzalkonium chloride from an MRL

It is proposed that an MRL exemption is set for benzalkonium chloride when used as a fungicide for kiwifruit and olives. It is proposed that Schedule Two of the NZ (MRL) Food Standards 2008 be amended to include the following, this will be the resulting entry for benzalkonium chloride in Schedule Two of the NZ (MRL) Food Standards 2008.

Compound	CAS#	Condition
Benzalkonium Chloride	8001-54-5	When applied as a fungicide prior to the end of flowering on kiwifruit and olives

## Amendment Rationale

The proposed MRL exemption represents a new use pattern for benzalkonium chloride, the rapid chemical breakdown of this compound means it is not suitable to be managed against a concentration limit, and therefore it can be exempted from the requirement of an MRL.

## Chemical Information

Common name of compound	Benzalkonium chloride
Use of compound	Sanitiser
Chemical Abstract Services (CAS) Registry number	8001-54-5
Type of compound	Quaternary ammonium
Administration method	Spray

## Good Agricultural Practice

Benzalkonium chloride is proposed for use as a fungicide for kiwifruit and olives. Application may be at a 17.5-23gai/ha up until the end of flowering.

## Dietary Risk Assessment

No ADI has been set for benzalkonium chloride however it is used safely in many cleaning products and medicinal products such as eye drops and mouth washes. Trace amounts of benzalkonium may be consumed with no incident through accidental contamination of food and water with surface cleaners and dishwashing liquids. No dietary risk is expected through the use of benzalkonium on kiwifruit and olives.

## Toxicological / Public Health Assessment

The exemption of benzalkonium chloride from an MRL to the conditions specified above is very unlikely to pose any health risks from consumption of the harvested commodity.

### **Other International MRLs**

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures the proposed MRL will be notified to the World Trade Organization. Any country may choose to comment if they believe the proposed MRL represents a barrier to their trade.

# 14 Proposal to exempt Boric acid from an MRL

It is proposed that an MRL exemption is set for Boric acid when used as a fungicide. It is proposed that Schedule Two of the NZ (MRL) Food Standards 2008 be amended to include:

Compound	CAS#	Condition
Boric acid	10043-35-3	When applied as a fungicide for pruning wound treatment of fruit

## Amendment Rationale

The proposed MRL exemption represents a new use pattern in New Zealand for the active ingredient boric acid. The indigenous nature of this compound in the environment and in food crops coupled with its low toxicity mean it is not suitable to be managed against a chemical concentration limit.

## Chemical Information

Common name of compound	Boric acid
Use of compound	Fungicide
Chemical Abstract Services (CAS) Registry number	10043-35-3
Type of compound	Boron derivative
Administration method	Wound sealant

## Good Agricultural Practice

Boric acid is proposed for use as a fungicide for treatment of pruning wounds for fruit. No further GAP is required.

## Residues Information

Boric acid is naturally present in levels within crop plants, any residues resulting from its use as an agricultural compound may also degrade to provide the essential element boron. Given residue of boric acid and boron occurring in the plant as a result of agricultural compound use would be indistinguishable from background levels it is not appropriate to be regulated against an MRL.

## Dietary Risk Assessment

Boron is a naturally occurring element in the diet and is present in significant levels in crops such as pome fruit, stonefruit and grapes. Levels occurring from use of boric acid will not cause any increased risk through dietary exposure

### **Toxicological / Public Health Assessment**

Boron naturally occurs in the diet and may also be present in human medicinal preparations, levels present in crops are unlikely to exceed natural background levels, thus the proposed MRL exemption for boric acid represents no public health risk.

### **Other International MRLs**

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures the proposed MRL will be notified to the World Trade Organization. Any country may choose to comment if they believe the proposed MRL represents a barrier to their trade.

# 15 Proposal to exempt Iron-EDTA complex from an MRL

It is proposed that an MRL exemption is set for Iron-EDTA complex when used as a molluscicide around food crops.

It is proposed that Schedule Two of the NZ (MRL) Food Standards 2008 be amended to include the following, this will be the resulting entry for Iron-EDTA complex in Schedule Two of the NZ (MRL) Food Standards 2008:

Compound	CAS#	Condition
Iron-EDTA complex	15275-07-7	When used in pellet form as a molluscicide

## Amendment Rationale

The proposed MRL exemption represents a reassessment of the use pattern for Iron-EDTA complex, the breakdown of this compound into a trace element means it is not suitable to be managed against a concentration limit, and therefore it can be exempted from the requirement of an MRL.

## Chemical Information

Common name of compound	Iron-EDTA
Use of compound	Molluscicide
Chemical Abstract Services (CAS) Registry number	15275-07-7
Type of compound	Transition metal-ligand complex
Administration method	Ground bait

## Good Agricultural Practice

Iron-EDTA complex is applied in the form of a bait pellet to agricultural and horticultural land areas, as the pellets represent a very low risk use no specific good agricultural practice is required.

## Residues Information

Iron-EDTA pellets undergo environmental degradation and may release available Iron in to soil, iron however naturally occurs in the soil and is absorbed into crops, levels in the crop are unlikely to exceed natural levels however.

### **Dietary Risk Assessment**

Iron is an essential trace element for humans; levels occurring in crops grown on treated areas are unlikely to exceed normal dietary iron levels.

### **Toxicological / Public Health Assessment**

Iron-EDTA may be used as a dietary supplement and has been assessed to be of no risk to public health in levels considerably higher than those likely to occur through use as a molluscicide. It is considered that the proposed MRL exemption for Iron-EDTA complex represents no risk to public health.

### **Other International MRLs**

<b>Compound</b>	<b>Food</b>	<b>Maximum Residue Limit (mg/kg)</b>
<b>Australia</b>		
Iron-EDTA Complex	All foods	Exempt

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures the proposed MRL will be notified to the World Trade Organization. Any country may choose to comment if they believe the proposed MRL represents a barrier to their trade.

# 16 Proposal to exempt Iron phosphate from an MRL

It is proposed that an MRL exemption is set for Iron phosphate when used as a molluscicide around food crops.

It is proposed that Schedule Two of the NZ (MRL) Food Standards 2008 be amended to include the following, this will be the resulting entry for iron phosphate in Schedule Two of the NZ (MRL) Food Standards 2008:

Compound	CAS#	Condition
Iron phosphate	10045-86-0	When used in pellet form as a molluscicide

## Amendment Rationale

The proposed MRL exemption represents a reassessment of the use pattern for Iron phosphate, the breakdown of this compound into trace elements means it is not suitable to be managed against a concentration limit, and therefore it can be exempted from the requirement of an MRL.

## Chemical Information

Common name of compound	Iron phosphate
Use of compound	Molluscicide
Chemical Abstract Services (CAS) Registry number	10045-86-0
Type of compound	Metal salt
Administration method	Ground bait

## Good Agricultural Practice

Iron phosphate is applied in the form of a bait pellet to agricultural and horticultural land areas, as the pellets represent a very low risk use no specific good agricultural practice is required.

## Residues Information

Iron phosphate pellets undergo environmental degradation and may release available Iron and phosphate in to soil, iron and phosphate however naturally occur in the soil and are absorbed into crops, levels in the crop are unlikely to exceed natural levels however.

### **Dietary Risk Assessment**

Iron and phosphate are essential trace elements for humans; levels occurring in crops grown on treated areas are unlikely to exceed normal dietary levels.

### **Toxicological / Public Health Assessment**

Given the natural occurrence of iron and phosphate in the diet it is considered that the proposed MRL exemption for iron phosphate represents no risk to public health.

### **Other International MRLs**

<b>Compound</b>	<b>Food</b>	<b>Maximum Residue Limit (mg/kg)</b>
<b>Australia</b>		
Iron phosphate	All foods	Exempt

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures the proposed MRL will be notified to the World Trade Organization. Any country may choose to comment if they believe the proposed MRL represents a barrier to their trade.

# 17 Proposal to exempt Salicylic acid from an MRL

It is proposed that an MRL exemption is set for salicylic acid when used as an agricultural compound.

It is proposed that Schedule Two of the NZ (MRL) Food Standards 2008 be amended to include the following, this will be the resulting entry for salicylic acid in Schedule Two of the NZ (MRL) Food Standards 2008:

Compound	CAS#	Condition
Salicylic acid	69-72-7	When used on any fruit

*Note: Salicylic acid currently appears in Schedule Three as it is exempt from an MRL when used as a veterinary medicine*

## Amendment Rationale

The proposed MRL exemption represents a reassessment of the use patterns for salicylic acid, the endogenous nature of this compound in plants means it is not suitable to be managed against a concentration limit, and therefore it can be exempted from the requirement of an MRL.

## Chemical Information

Common name of compound	Salicylic acid
Use of compound	Fungicide, bactericide
Chemical Abstract Services (CAS) Registry number	69-72-7
Type of compound	Plant extract
Administration method	Spray, wound sealant

## Good Agricultural Practice

Salicylic acid may be applied in the form of a spray or a wound sealant to fruit vines or trees, application rates may vary with the proposed use, it is considered however that a specific withholding is unnecessary.

## Residues Information

Salicylic acid is naturally present in plants and may be present at significant background levels. Studies on pome fruit, grapes and kiwifruit indicates endogenous levels are not affected by application of salicylic acid as an agricultural compound. Therefore it is inappropriate to manage use of salicylic against a chemical concentration limit.

### **Dietary Risk Assessment**

As levels of salicylic acid are not expected to exceed background levels there is no dietary risk.

### **Toxicological / Public Health Assessment**

Salicylic acid naturally occurs in the diet thus its use as an agricultural compound represents no public health risk.

### **Other International MRLs**

<b>Compound</b>	<b>Food</b>	<b>Maximum Residue Limit (mg/kg)</b>
<b>Australia</b>		
Salicylic acid	Pome fruit and stonefruit	Exempt

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures the proposed MRL will be notified to the World Trade Organization. Any country may choose to comment if they believe the proposed MRL represents a barrier to their trade.