



Proposals to Amend (No. 2) the New Zealand  
(Maximum Residue Limits of Agricultural  
Compounds) Food Standards 2010

NZFSA Discussion paper series; 08/10

October 2010

ISBN 978-0-478-33733-4 (online)

ISSN 1177-7478 (online)

---

***IMPORTANT DISCLAIMER***

Every effort has been made to ensure the information in this document is accurate.

NZFA does not accept any responsibility or liability whatsoever for any error of fact, omission, interpretation or opinion that may be present, however it may have occurred.

***Further copies***

Requests for further copies should be directed to:

New Zealand Food Safety Authority  
P O Box 2835  
WELLINGTON  
Telephone: (04) 894-2500  
Fax: (04) 894-2583

***Website***

A copy of this document can be found at: <http://www.nzfsa.govt.nz/policy-law/consultation/index.htm>

## Submissions

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; and
- The number(s) of the sections you are commenting on.

**Please submit your response by 5:00pm on Monday 13 December 2010 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)

The Official Information Act 1982 (the OIA) states that information is to be made available unless there are grounds for withholding it. The grounds for withholding information are outlined in the OIA. Submitters may wish to indicate any grounds for withholding information contained in their submission. Reasons for withholding information could include that information is commercially sensitive or that the submitters wish personal information such as names or contact details to be withheld. NZFSA will take such indications into account when determining whether or not to release information. Any decision to withhold information requested under the OIA may be reviewed by the Ombudsman.

# Table of Contents

<b>Table of Contents</b> .....	<b>3</b>
<b>Introduction</b> .....	<b>4</b>
<b>Background</b> .....	<b>4</b>
<b>Summary of Proposed Amendment</b> .....	<b>6</b>
<b>Next Steps</b> .....	<b>7</b>
<b>1 Proposal to set MRL for Chlorantraniliprole</b> .....	<b>8</b>
<b>2 Proposal to set an MRL for Cyprodinil</b> .....	<b>10</b>
<b>3 Proposal to set MRLs for Dichlorprop-P</b> .....	<b>13</b>
<b>4 Proposal to set an MRL for Fludioxonil</b> .....	<b>15</b>
<b>5 Proposal to set an MRL for Fluopicolide</b> .....	<b>18</b>
<b>6 Proposal to set MRLs for Oxyfluorfen</b> .....	<b>20</b>
<b>7 Proposal to set MRL for Prochloraz</b> .....	<b>23</b>
<b>8 Proposal to set an MRL for Propamocarb</b> .....	<b>26</b>
<b>9 Proposal to set an MRL for Propiconazole</b> .....	<b>28</b>
<b>10 Proposal to set MRLs for Spinetoram</b> .....	<b>30</b>
<b>11 Proposal to exempt Boric acid from an MRL</b> .....	<b>33</b>
<b>12 Proposal to exempt Unrefined Plant Extracts from an MRL</b> .....	<b>35</b>

## 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 2010.

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 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 1981, 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; and
- 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; and
- 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 1996 (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.

Note that the MRL Food Standards 2010 have been amended once already in 2010, as is normal practice.

NZFA has reviewed the estimated dietary exposure assessments for the application of the proposals in this discussion paper 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

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

- 0.5mg/kg for chlorantraniliprole in avocados;
- 1mg/kg for cyprodonil in grapes; and
- 0.1mg/kg for dichloroprop-P in mandarins and oranges;
- 1mg/kg for fludioxonil in grapes.
- 0.05mg/kg for fluopicolide in potatoes;
- 0.01mg/kg for oxyfluorfen in brassica vegetables, grapes, kiwifruit, onions, pome fruits and stone fruits;
- 3mg/kg for prochloraz in mushrooms;
- 0.1mg/kg for propamocarb in potatoes;
- 0.01mg//kg for propiconazole in apples;
- 0.02mg/kg for spinetoram in potatoes and tomatoes;

### MRL Exemptions

NZFA proposes to exempt the following MRLs from the Standards

- MRLs for boric acid when used on fruit trees; and
- MRLs for unrefined plant extracts.

## Next Steps

Following the closing date for submissions **5:00pm on Monday 13 December 2010**, 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 MRL for Chlorantraniliprole

It is proposed that an MRL is set for chlorantraniliprole when used on avocados. It is proposed that Schedule One of the NZ (MRL) Food Standards 2010 be amended to include the following:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Chlorantraniliprole	500008-45-7	Chlorantraniliprole	Avocados	0.5

The final entry for chlorantraniliprole in Schedule One of the NZ (MRL) Food Standards 2010 will therefore read:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Chlorantraniliprole	500008-45-7	Chlorantraniliprole	Avocados	0.5
			Brassica vegetables	0.3
			Leafy vegetables	7
			Pome fruits	0.3
			Potatoes	0.01(*)

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 pattern in New Zealand for the active ingredient chlorantraniliprole. The proposed MRL will manage the use of chlorantraniliprole as an insecticide on avocados, to the application rates and withholding periods that are proposed as GAP in New Zealand.

## Chemical Information

<b>Common name of compound</b>	Chlorantraniliprole
<b>Use of compound</b>	Insecticide
<b>Chemical Abstract Services (CAS) Registry number</b>	500008-45-7
<b>Type of compound</b>	Anthranilic diamide
<b>Administration method</b>	Spray

## Good Agricultural Practice (GAP)

Chlorantraniliprole is proposed as an insecticide for control of leaf-roller caterpillars on avocados. Application is as a foliar spray made up to twice a season with an interval of 21-28 days, at a rate of 3.15gai/100L, with a withholding period of 14 days.

## Residues Information

The residue data for avocados supports an MRL of 0.5mg/kg for chlorantraniliprole when the last treatment is made 14 days before harvest. An MRL of 0.5mg/kg is proposed to support GAP.

## Dietary Risk Assessment

<b>Potential daily exposure via food (PDE<sub>(food)</sub>)</b>	1.58mg/kg bw/day
---	------------------

The PDE<sub>(food)</sub> is a value set by the Environmental Risk Management Authority New Zealand (ERMA NZ), 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 chlorantraniliprole 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 chlorantraniliprole is equivalent to less than 1% 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 chlorantraniliprole as an insecticide on avocados according to GAP (specified above), is very unlikely to pose any health risks from consumption of treated produce.

## Other International MRLs

Compound	Food	Maximum Residue Limit (mg/kg)
<b>USA</b>		
Chlorantraniliprole	Avocados	4

Under Provision 6(3)(b) of the NZ (MRL) Food Standards 2010 imported food may contain residues of agricultural compounds no greater than the MRLs specified for that food in the current editions or supplements of the FAO/WHO Codex Alimentarius Commission publications *Pesticide Residues in Food* or *Residues of Veterinary Drugs in Foods*. 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 an MRL for Cyprodinil

It is proposed that an MRL is set for cyprodinil when used as a fungicide for grapes. It is proposed that Schedule One of the NZ (MRL) Food Standards 2010 be amended by deleting the following entry:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Cyprodinil	121552-61-2	Cyprodinil	Grapes	0.2

As a replacement for the deleted entry, is proposed that Schedule One of the NZ (MRL) Food Standards 2010 be amended to include the following entry:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Cyprodinil	121552-61-2	Cypridonil	Grapes	1

The final entry for cyprodinil in Schedule One of the NZ (MRL) Food Standards 2010 will therefore read:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Cyprodinil	121552-61-2	Cyprodinil	Bulb onions	0.01(*)
			Grapes	1
			Pome fruits	0.01
			Stone fruits (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 reassessment of the residue data for the active ingredient cyprodinil. Additional studies have been provided which reviewed cypridonil use on grapes over several seasons. This data indicates that there is potential for significant variation in residues between seasons that could lead to higher levels resulting in grapes from the currently approved New Zealand GAP. It is considered that the current MRL may be underestimating the potential residues that could occur in grapes. It is therefore proposed that the MRL be increased to 1mg/kg to manage the likely residues from the approved New Zealand GAP.

## Chemical Information

<b>Common name of compound</b>	Cyprodinil
<b>Use of compound</b>	Fungicide
<b>Chemical Abstract Services (CAS) Registry number</b>	121552-61-2
<b>Type of compound</b>	Anilinopyrimidine
<b>Administration method</b>	Spray

## Good Agricultural Practice

Cyprodinil is approved as a fungicide on grapes. Application is up to twice a season at key timings for managing botrytis, at a rate of 30gai/100L water, with the last application prior to bunch-closure.

## Residues Information

Residue data for grapes supports an MRL of 1 mg/kg for cyprodinil when the last treatment is made prior to bunch closure (approximately 56 days before harvest). An MRL of 1mg/kg is therefore proposed to support GAP.

## Dietary Risk Assessment

<b>Acceptable Daily Intake</b>	0.027mg/kg bw/day
--------------------------------	-------------------

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 Organization, 1997].

The NEDI for cyprodinil is equivalent to less than 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 cyprodinil as a fungicide on grapes according to the GAP specified above, is very unlikely to pose any health risks from consumption of treated produce.

## Other International MRLs

Compound	Food	Maximum Residue Limit (mg/kg)
Australia		

Cyprodinil	Grapes	2
<b>Codex Alimentarius</b>		
Cyprodinil	Grapes	3
<b>European Commission</b>		
Cyprodinil	Table and wine grapes	5
<b>Japan</b>		
Cyprodinil	Grape	5
<b>USA</b>		
Cyprodinil	Grape	2

Under Provision 6(3)(b) of the NZ (MRL) Food Standards 2010 imported food may contain residues of agricultural compounds no greater than the MRLs specified for that food in the current editions or supplements of the FAO/WHO Codex Alimentarius Commission publications *Pesticide Residues in Food* or *Residues of Veterinary Drugs in Foods*.

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 MRLs for Dichlorprop-P

It is proposed that MRLs are set for dichlorprop-P when used as a plant growth regulator on mandarins and oranges. It is proposed that Schedule One of the NZ (MRL) Food Standards 2010 be amended to include the following; and that this will be the resulting entry for dichlorprop-P in Schedule One of the NZ (MRL) Food Standards 2010:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Dichlorprop-P	15165-67-0	<i>Sum of: Dichlorprop acid, its esters and conjugates, expressed as dichlorprop</i>	Mandarins Oranges	0.1 0.1

#### Amendment Rationale

The proposed MRLs represent a new registration in New Zealand for the active ingredient dichlorprop-P. The proposed MRLs will manage the new use of dichlorprop-P as a plant growth regulator on mandarins and oranges, to the application rates and withholding periods that are proposed as GAP in New Zealand.

#### Chemical Information

<b>Common name of compound</b>	Dichlorprop-P
<b>Use of compound</b>	Plant growth regulator
<b>Chemical Abstract Services (CAS) Registry number</b>	15165-67-0
<b>Type of compound</b>	Phenoxypropionic acid
<b>Administration method</b>	Spray

#### Good Agricultural Practice (GAP)

Dichlorprop-P is used as a plant growth regulator for mandarins and oranges. Application is made once when mandarin fruitlets are between 8-20mm in diameter and orange fruitlets are between 12-30mm in diameter, at a rate of 2.5-5gai/100L up to the end of fruit drop.

#### Residues Information

Residue data for mandarins and oranges supports an MRL of 0.1mg/kg for dichlorprop-P when the treatment is made prior to end of fruit drop. An MRL of 0.1mg/kg is therefore proposed to support GAP.

## Dietary Risk Assessment

<b>Acceptable Daily Intake</b>	0.03mg/kg bw/day
--------------------------------	------------------

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 dichlorprop-P 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 dichlorprop-P is equivalent to less than 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 dichlorprop-P as plant growth regulator for mandarins and oranges, according to the GAP specified above, is very unlikely to pose any health risks from consumption of treated produce.

## Other International MRLs

Compound	Food	Maximum Residue Limit (mg/kg)
<b>Australia</b>		
Dichlorprop-P	Citrus fruit	0.2
<b>European Commission</b>		
Dichlorprop, incl. Dichlorprop-P	Citrus fruit	0.05*

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

Under Provision 6(3)(b) of the NZ (MRL) Food Standards 2010 imported food may contain residues of agricultural compounds no greater than the MRLs specified for that food in the current editions or supplements of the FAO/WHO Codex Alimentarius Commission publications *Pesticide Residues in Food* or *Residues of Veterinary Drugs in Foods*.

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.

## 4 Proposal to set an MRL for Fludioxonil

It is proposed that an MRL is set for fludioxonil when used as a fungicide for grapes. It is proposed that Schedule One of the NZ (MRL) Food Standards 2010 be amended by deleting the following entry:

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

As a replacement for the deleted entry, is proposed that Schedule One of the NZ (MRL) Food Standards 2010 be amended to include the following entry:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Fludioxonil	131341-86-1	Fludioxonil	Grapes	1

The final entry for fludioxonil in Schedule One of the NZ (MRL) Food Standards 2010 will therefore read:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Fludioxonil	131341-86-1	Fludioxonil	Bulb onions	0.01(*)
			Grapes	1
			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 reassessment of the residue data for the active ingredient fludioxonil. Additional studies have been provided which reviewed fludioxonil use on grapes over several seasons. This data indicates that there is potential for significant variation in residues between seasons that could lead to higher levels resulting in grapes from the currently approved New Zealand GAP. It is considered that the current MRL may be underestimating the potential residues that could occur in grapes. It is therefore proposed that the MRL be increased to 1mg/kg to manage the likely residues from the approved New Zealand GAP.

### 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 approved as a fungicide on grapes. Application is up to twice a season at key timings for managing botrytis, at a rate of 20gai/100L water, with the last application prior to bunch-closure.

## Residues Information

Residue data for grapes supports an MRL of 1mg/kg for fludioxonil when the last treatment is made prior to bunch closure (approximately 56 days before harvest). An MRL of 1mg/kg is therefore proposed to support GAP.

## Dietary Risk Assessment

<b>Acceptable Daily Intake</b>	0.4mg/kg bw/day
--------------------------------	-----------------

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 Organization, 1997].

The NEDI for fludioxonil is equivalent to less than 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 fludioxonil as a fungicide on grapes according to the GAP specified above, is very unlikely to pose any health risks from consumption of treated produce.

## Other International MRLs

Compound	Food	Maximum Residue Limit (mg/kg)
<b>Australia</b>		
Fludioxonil	Grapes	2
<b>Codex Alimentarius</b>		
Fludioxonil	Grapes	2
<b>European Commission</b>		
Fludioxonil	Table and wine grapes	2
<b>Japan</b>		
Fludioxonil	Grape	5
<b>USA</b>		
Fludioxonil	Grape	1

Under Provision 6(3)(b) of the NZ (MRL) Food Standards 2010 imported food may contain residues of agricultural compounds no greater than the MRLs specified for that food in the current editions or supplements of the FAO/WHO Codex Alimentarius Commission publications *Pesticide Residues in Food* or *Residues of Veterinary Drugs in Foods*.

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 Fluopicolide

It is proposed that an MRL is set for fluopicolide when used as a fungicide on potatoes. It is proposed that Schedule One of the NZ (MRL) Food Standards 2010 be amended to include the following; and that this will be the resulting entry for fluopicolide in Schedule One of the NZ (MRL) Food Standards 2010:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Fluopicolide	239110-15-7	Fluopicolide	Potatoes	0.05

### Amendment Rationale

The proposed MRL represents a new registration in New Zealand for the active ingredient fluopicolide. The proposed MRL will manage the new use of fluopicolide when used as a fungicide for control of late blight, to the application rates and withholding periods that are proposed as GAP in New Zealand.

### Chemical Information

Common name of compound	Fluopicolide
Use of compound	Fungicide
Chemical Abstract Services (CAS) Registry number	239110-15-7
Type of compound	Benzamide/pyridine
Administration method	Foliar spray

### Good Agricultural Practice

Fluopicolide is proposed as a fungicide on potatoes. Application is made up to three times a season at 10-14 day intervals using a rate of 75-100gai/ha, with a withholding period of 14 days.

### Residues Information

Residue data for potatoes supports an MRL of 0.05mg/kg for fluopicolide when the last treatment is 14 days prior to harvest. An MRL of 0.05mg/kg is therefore proposed to support GAP.

### Dietary Risk Assessment

Potential daily exposure via food ( $PDE_{(food)}$ )	0.059mg/kg bw/day
--	-------------------

The  $PDE_{(food)}$  is a value set by the Environmental Risk Management Authority New Zealand (ERMA NZ), 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 fluopicolide 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 fluopicolide is equivalent to less than 1% 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 fluopicolide as a fungicide on potatoes according to the GAP specified above, is very unlikely to pose any health risks from consumption of treated produce.

### Other International MRLs

Compound	Food	Maximum Residue Limit (mg/kg)
<b>European Commission</b>		
Fluopicolide	Potatoes	0.02
<b>Japan</b>		
Fluopicolide	Potatoes	0.05

Under Provision 6(3)(b) of the NZ (MRL) Food Standards 2010 imported food may contain residues of agricultural compounds no greater than the MRLs specified for that food in the current editions or supplements of the FAO/WHO Codex Alimentarius Commission publications *Pesticide Residues in Food* or *Residues of Veterinary Drugs in Foods*.

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 Oxyfluorfen

It is proposed that MRLs are set for oxyfluorfen when used as a herbicide for control of weeds around brassica vegetables, grapes, kiwifruit, onions, pome fruits and stone fruits. It is proposed that Schedule One of the NZ (MRL) Food Standards 2010 be amended to include the following, and that this will be the resulting entry for oxyfluorfen in Schedule One of the NZ (MRL) Food Standards 2010:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Oxyfluorfen	42874-03-3	Oxyfluorfen	Brassica vegetables	0.01(*)
			Grapes	0.01(*)
			Kiwifruit	0.01(*)
			Onions	0.01(*)
			Pome fruits	0.01(*)
			Stone fruits	0.01(*)

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

### Amendment Rationale

The proposed MRLs represent a reassessment of the residue data held for the active ingredient oxyfluorfen. MRLs of 0.01mg/kg are deemed appropriate to manage the uses of oxyfluorfen as a herbicide for post-transplanting use on brassica vegetables, post-emergence use on onions and for use within dormant pome fruit and stone fruit orchards, and grape and kiwifruit vineyards, to the application rates and withholding periods that are currently approved GAP in New Zealand.

### Chemical Information

<b>Common name of compound</b>	Oxyfluorfen
<b>Use of compound</b>	Herbicide
<b>Chemical Abstract Services (CAS) Registry number</b>	42874-03-3
<b>Type of compound</b>	Nitrophenyl ether
<b>Administration method</b>	Spray

### Good Agricultural Practice (GAP)

Oxyfluorfen is approved as a herbicide for use on and around vegetable brassicas, grapes, kiwifruit, onions, pome fruits and stone fruits. Application is at various rates dependant on cropping situation with a withholding period of 42 days set for onions and an implied withholding period of 42 days for brassica vegetables. Use in orchards and vineyards is made whilst trees and vines are dormant.

## Residues Information

The residue data for onions and brassicas support a limit of quantification MRL of 0.01mg/kg for oxyfluorfen when the last treatment is made 42 prior to harvest. An MRL of 0.01mg/kg is therefore proposed to support GAP.

The residue data for grapes, kiwifruit, pome fruits and stone fruits support a limit of quantification MRL of 0.01mg/kg for oxyfluorfen when treatment is made during dormancy. An MRL of 0.01mg/kg is therefore proposed to support GAP.

## Dietary Risk Assessment

<b>Acceptable Daily Intake (ADI)</b>	0.025mg/kg bw/day
--------------------------------------	-------------------

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 oxyfluorfen 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 oxyfluorfen is less than 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 oxyfluorfen when used as a herbicide for control of weeds around vegetable brassicas, grapes, kiwifruit, onions, pome fruits and stone fruits according to the GAP specified above, is very unlikely to pose any health risks from consumption of treated produce.

## Other International MRLs

Compound	Food	Maximum Residue Limit (mg/kg)
<b>Australia</b>		
Oxyfluorfen	Brassica (cole or cabbage) vegetables, Head cabbages, Flowerhead brassicas	0.05*
	Bulb vegetables	0.05*
	Grapes	0.05
	Pome fruits	0.05
<b>European Commission</b>		
Oxyfluorfen	Pome fruit	0.1
	Apricots	0.1

	Cherries (sweet cherries, sour cherries )	0.1
	Peaches (Nectarines and similar hybrids)	0.1
	Plums (Damson, greengage, mirabelle, sloe)	0.05*
	Table and wine grapes	0.1
	Kiwi	0.05*
	Bulb vegetables	0.05*
	Brassica vegetables	0.05*
<b>Japan</b>		
Oxyfluorfen	Broccoli	0.05
	Brussels sprouts	0.05
	Cabbage	0.05
	Cauliflower	0.05
	Onion	0.05
	Apple	0.05
	Pear	0.05
	Quince	0.05
	Loquats	0.05
	Apricot	0.05
	Cherry	0.05
	Peach	0.05
	Nectarines	0.05
Grape	0.05	
Kiwifruit	0.03	
<b>USA</b>		
Oxyfluorfen	Broccoli	0.05
	Cabbage	0.05
	Cauliflower	0.05
	Fruit, pome, group 11	0.05
	Fruit, stone, group 12	0.05
	Grape	0.05
	Kiwifruit	0.05
	Onion, bulb	0.05

Under Provision 6(3)(b) of the NZ (MRL) Food Standards 2010 imported food may contain residues of agricultural compounds no greater than the MRLs specified for that food in the current editions or supplements of the FAO/WHO Codex Alimentarius Commission publications *Pesticide Residues in Food* or *Residues of Veterinary Drugs in Foods*.

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.

## 7 Proposal to set MRL for Prochloraz

It is proposed that an MRL is set for prochloraz when used as a fungicide on mushrooms. It is proposed that Schedule One of the NZ (MRL) Food Standards 2010 be amended by deleting the following entry:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Prochloraz	67747-09-5	<i>Sum of:</i> Prochloraz Any metabolites containing the 2,4,6-trichlorophenol moiety <i>expressed as:</i> Prochloraz	Mushrooms	0.5

As a replacement for the deleted entry, it is proposed that Schedule One of the NZ (MRL) Food Standards 2010 be amended to include the following entry:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Prochloraz	67747-09-5	<i>Sum of:</i> Prochloraz Any metabolites containing the 2,4,6-trichlorophenol moiety <i>expressed as:</i> Prochloraz	Mushrooms	3

The final entry for prochloraz in Schedule One of the NZ (MRL) Food Standards 2010 will therefore read:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Prochloraz	67747-09-5	<i>Sum of:</i> Prochloraz Any metabolites containing the 2,4,6-trichlorophenol moiety <i>expressed as:</i> Prochloraz	Avocados Bananas Cereal grains Mushrooms Papaya	5 5 0.3 3 2

## Amendment Rationale

The proposed MRL represents a change in the proposed use pattern in New Zealand for the active ingredient prochloraz. The proposed MRL will manage the new use of prochloraz as a fungicide for edible mushrooms, to the application rates and withholding periods that are approved GAP in New Zealand.

## Chemical Information

<b>Common name of compound</b>	Prochloraz
<b>Use of compound</b>	Fungicide
<b>Chemical Abstract Services (CAS) Registry number</b>	67747-09-5
<b>Type of compound</b>	DMI fungicide
<b>Administration method</b>	Spray

## Good Agricultural Practice

The use pattern for prochloraz on mushrooms is proposed to be extended to allow a second application to be made between casings.

## Residues Information

Residue data for prochloraz supports an MRL of 3mg/kg for mushrooms. An MRL of 3mg/kg is therefore proposed to support GAP.

## Dietary Risk Assessment

<b>Acceptable Daily Intake</b>	0.01mg/kg bw/day
--------------------------------	------------------

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 prochloraz 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 prochloraz is equivalent to less than 10% 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 prochloraz as a fungicide on mushrooms according to the GAP specified above, is very unlikely to pose any health risks from consumption of treated produce.

### Other International MRLs

Compound	Food	Maximum Residue Limit (mg/kg)
<b>Australia</b>		
Prochloraz	Mushrooms	3
<b>Codex Alimentarius</b>		
Prochloraz	Mushrooms	3
<b>European Commission</b>		
Prochloraz	Fungi- Cultivated (Common mushroom, Oyster mushroom, Shi-take)	2
<b>Japan</b>		
Prochloraz	Button Mushrooms, Shitake mushrooms, other mushrooms	2

Under Provision 6(3)(b) of the NZ (MRL) Food Standards 2010 imported food may contain residues of agricultural compounds no greater than the MRLs specified for that food in the current editions or supplements of the FAO/WHO Codex Alimentarius Commission publications *Pesticide Residues in Food* or *Residues of Veterinary Drugs in Foods*.

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 an MRL for Propamocarb

It is proposed that an MRL is set for propamocarb when used as a fungicide on potatoes. It is proposed that Schedule One of the NZ (MRL) Food Standards 2010 be amended to include the following; and that this will be the resulting entry for propamocarb in Schedule One of the NZ (MRL) Food Standards 2010:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Propamocarb	24579-73-5	Propamocarb	Potatoes	0.1

### Amendment Rationale

The proposed MRL represents a new registration in New Zealand for the active ingredient propamocarb. The proposed MRL will manage the new use of propamocarb when used as a fungicide for control of late blight, to the application rates and withholding periods that are proposed as GAP in New Zealand.

### Chemical Information

Common name of compound	Propamocarb
Use of compound	Fungicide
Chemical Abstract Services (CAS) Registry number	24579-73-5
Type of compound	Carbamate
Administration method	Foliar spray

### Good Agricultural Practice (GAP)

Propamocarb is proposed as a fungicide on potatoes. Application is made up to three times a season at 10-14 day intervals using a rate of 0.75-1kgai/ha, with a withholding period of 14 days.

### Residues Information

Residue data for potatoes supports an MRL of 0.1mg/kg for propamocarb when the last treatment is 14 days prior to harvest. An MRL of 0.1mg/kg is therefore proposed to support GAP.

### Dietary Risk Assessment

Potential daily exposure via food ( $PDE_{(food)}$ )	0.203mg/kg bw/day
--	-------------------

The  $PDE_{(food)}$  is a value set by the Environmental Risk Management Authority New Zealand (ERMA NZ), 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 propamocarb 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 propmocarb is less than 0.1% 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 propamocarb as a fungicide on potatoes according to the GAP specified above, is very unlikely to pose any health risks from consumption of treated produce.

### Other International MRLs

Compound	Food	Maximum Residue Limit (mg/kg)
<b>Codex Alimentarius</b>		
Propamocarb	Potatoes	0.3
<b>European Commission</b>		
Propamocarb	Potatoes	0.5
<b>Japan</b>		
Propamocarb	Potatoes	0.5
<b>USA</b>		
Propamocarb hydrochloride	Potatoes	0.06

Under Provision 6(3)(b) of the NZ (MRL) Food Standards 2010 imported food may contain residues of agricultural compounds no greater than the MRLs specified for that food in the current editions or supplements of the FAO/WHO Codex Alimentarius Commission publications *Pesticide Residues in Food* or *Residues of Veterinary Drugs in Foods*.

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 an MRL for Propiconazole

It is proposed that an MRL is set for propiconazole when used as a fungicide on apples. It is proposed that Schedule One of the NZ (MRL) Food Standards 2010 be amended to include the following:

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

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

The final entry for propiconazole in Schedule One of the NZ (MRL) Food Standards 2010 will therefore read:

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

### Amendment Rationale

The proposed MRL represents a new use pattern for the fungicide propiconazole to cover use for control of blackspot and powdery mildew on apples. The proposed MRL will manage the use of propiconazole to GAP in New Zealand.

### 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 on apples with up to four applications at 14 day intervals from the period of 75% petal fall up until the end of December at a rate of 7.5gai/100L with a withholding period of "do not apply after the end of December or 60 days before harvest".

## Residues Information

Residue data for apples supports a limit of quantification MRL of 0.01mg/kg at harvest following application of propiconazole 60 days before harvest. An MRL of 0.01mg/kg is therefore proposed to support GAP.

## Dietary Risk Assessment

<b>Acceptable Daily Intake (ADI)</b>	0.07mg/kg bw/day
--------------------------------------	------------------

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 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 Organization, 1997].

The NEDI for propiconazole is equivalent to less than 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 apples according to the GAP 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>European Commission</b>		
Propiconazole	Pome fruits	0.05*
<b>Japan</b>		
Propiconazole	Apple	0.05

Under Provision 6(3)(b) of the NZ (MRL) Food Standards 2010 imported food may contain residues of agricultural compounds no greater than the MRLs specified for that food in the current editions or supplements of the FAO/WHO Codex Alimentarius Commission publications *Pesticide Residues in Food* or *Residues of Veterinary Drugs in Foods*.

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 Spinetoram

It is proposed that MRLs are set for spinetoram when used as an insecticide for potatoes and tomatoes. It is proposed that Schedule One of the NZ (MRL) Food Standards 2010 be amended to include the following:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Spinetoram	187166-40-1 + 187166-15-0	<i>Sum of:</i> XDE-175-J XDE-175-L <i>expressed as:</i> Spinetoram	Potatoes Tomatoes	0.02(*) 0.02(*)

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

The final entry for spinetoram in Schedule One of the NZ (MRL) Food Standards 2010 will therefore read:

Compound	CAS#	Residue definition	Food	Maximum Residue Limit (mg/kg)
Spinetoram	187166-40-1 + 187166-15-0	<i>Sum of:</i> XDE-175-J XDE-175-L <i>expressed as:</i> Spinetoram	Apples Pears Potatoes Tomatoes	0.05 0.05 0.02(*) 0.02(*)

### Amendment Rationale

The proposed MRL represents a new use pattern for the active ingredient spinetoram. MRLs of 0.02 mg/kg are deemed appropriate to manage the use of spinetoram as an insecticide for control of on potatoes and tomatoes, to the application rates and withholding periods that are proposed as GAP in New Zealand.

### Chemical Information

<b>Common name of compound</b>	Spinetoram
<b>Use of compound</b>	Insecticide
<b>Chemical Abstract Services (CAS) Registry number</b>	187166-40-1 + 187166-15-0
<b>Type of compound</b>	Spinosyn derivative
<b>Administration method</b>	Foliar spray

### Good Agricultural Practice (GAP)

Spinetoram is proposed as an insecticide for control of psyllid on potatoes and tomatoes. Application is as a full coverage spray made up to a maximum of four times a season with intervals of seven days, at a rate of 45-60gai/100L, with a withholding period of seven days.

## Residues Information

The residue data for potatoes and tomatoes support an MRL of 0.02mg/kg for spinetoram when the last treatment is made seven days before harvest. MRLs of 0.02mg/kg are therefore proposed to support GAP.

## Dietary Risk Assessment

<b>Potential daily exposure via food (PDE<sub>(food)</sub>)</b>	0.024mg/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. The PDE<sub>(food)</sub> is a value set by the Environmental Risk Management Authority New Zealand (ERMA NZ), 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 spinetoram 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 spinetoram is equivalent to less than 1% 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 spinetoram as an insecticide for use on potatoes and tomatoes according to the GAP specified above, is very unlikely to pose any health risks from consumption of treated produce.

## Other International MRLs

Compound	Food	Maximum Residue Limit (mg/kg)
<b>European Commission</b>		
Spinetoram	Potatoes Tomatoes (Cherry tomatoes, tree tomato, <i>Physalis</i> , gojiberry, wolfberry ( <i>Lycium barbarum</i> and <i>L. chinense</i> ))	0.05* 0.5
<b>USA</b>		
Spinetoram	Vegetable, fruiting, group 8 Vegetable, root and tuber, group 1	0.4 0.1

Under Provision 6(3)(b) of the NZ (MRL) Food Standards 2010 imported food may contain residues of agricultural compounds no greater than the MRLs specified for that food in the current editions or supplements of the FAO/WHO Codex Alimentarius Commission publications *Pesticide Residues in Food* or *Residues of Veterinary Drugs in Foods*.

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.

# 11 Proposal to exempt Boric acid from an MRL

It is proposed that the current MRL exemption for boric acid be extended to cover use as a fungicide for prevention of canker in apple orchards.

It is proposed that Schedule Two of the NZ (MRL) Food Standards 2010 be amended by deleting the following entry:

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

It is proposed that Schedule Two of the NZ (MRL) Food Standards 2010 be amended to include the following; and that this will be the resulting entry for boric acid in Schedule Two of the NZ (MRL) Food Standards 2010:

Compound	CAS#	Condition
Boric acid	10043-35-3	When applied as a fungicide for pruning wound treatment of fruit and control of canker in apple orchards

## Amendment Rationale

The proposed MRL exemption represents a new use pattern in New Zealand for the active ingredient boric acid, extending its use to allow for an orchard spray during dormancy for management of canker. 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

<b>Common name of compound</b>	Boric acid
<b>Use of compound</b>	Fungicide
<b>Chemical Abstract Services (CAS) Registry number</b>	10043-35-3
<b>Type of compound</b>	Boron derivative
<b>Administration method</b>	Spray and wound sealant

## Good Agricultural Practice

Boric acid is approved for use on apples for control of canker (*neonectria galligena*). Application is up to two sprays made at 40% and 80% leaf fall at a rate of up to 7.5gai/100L. No withholding period is necessary.

## **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.

## 12 Proposal to exempt Unrefined Plant Extracts from an MRL

It is proposed that an MRL exemption be set for unrefined plant extracts from specified species when used on food-producing crops.

It is proposed that Schedule Two of the NZ (MRL) Food Standards 2010 be amended to include the following; and that this will be the resulting entry for unrefined plant extracts in Schedule Two of the NZ (MRL) Food Standards 2010:

Compound	CAS#	Condition
Plant extracts (unrefined)	n/a	<p>Except where otherwise stated in this standard Where the extract is registered under the Agricultural Compounds and Veterinary Medicines Act 1997 and intended for use as an agricultural chemical, and;</p> <p>Where the extract is derived from plants of the following species:</p> <p><i>Optuntia linheimeri</i> (Texas prickly pear),  <i>Quercus falcate</i> (Southern red oak),  <i>Rhus aromatica</i> (Fragrant surmac),  <i>Rhizophoria mangle</i> (Red mangrove)</p>

### Amendment Rationale

The proposed MRL exemption represents the establishment of a generic exemption for unrefined plant extracts derived from species specified in the conditions. The nature of these extracts is such that they are composed of numerous plant derived compounds that can differ, dependant on the growing conditions of the plant, and the plant tissues that the extract is obtained from. A number of the compounds in the extract may also be present naturally at significant levels within crop plants and the environment. On this basis regulating the use of these extracts through compliance with a chemical concentration limit is not appropriate.