

PROPOSAL M1006

MAXIMUM RESIDUE LIMITS (October 2009-March 2010)

EXPLANATORY STATEMENT

**Executive Summary**

**Purpose**

The purpose of this Proposal is to consider incorporating certain limits for residues of agricultural and veterinary chemicals that may legitimately occur in food in the *Australia New Zealand Food Standards Code* (the Code). This includes maximum residue limits (MRLs) gazetted by the Australian Pesticides and Veterinary Medicines Authority (APVMA) from October 2009 to March 2010. This Proposal also includes consideration of limits requested by other parties to further align the Code with international standards and other standards. This will permit the sale of foods containing legitimate residues and protect public health and safety by minimising residues in foods consistent with the effective control of pests and diseases.

Food Standards Australia New Zealand’s (FSANZ’s) role in the regulation of agricultural and veterinary chemicals is to protect public health and safety by ensuring that any potential residues in food are within appropriate safety limits and to support industry and compliance agencies by maintaining limits in the Code that reflect legitimate residues in food.

Dietary exposure assessments indicate that in relation to current health-based guidance values, the approved limits do not present any public health and safety concerns. This Proposal does not include consideration of any MRLs for antibiotic residues in food.

The *Agreement between the Government of Australia and the Government of New Zealand concerning a Joint Food Standards System* (the Treaty), excludes MRLs for residues of agricultural and veterinary chemicals in food from the system setting joint food standards. Australia and New Zealand independently and separately develop MRLs for agricultural and veterinary chemicals in food.

FSANZ made a Sanitary and Phytosanitary notification to the World Trade Organization (WTO). No WTO member nation provided comment on this Proposal.

This Proposal has been assessed under the General Procedure.

**Assessing the Proposal**

In assessing the Proposal and the subsequent development of food regulatory measures, FSANZ has had regard to its statutory objectives in section 18 and the following matters prescribed in section 59 of the *Food Standards Australia New Zealand Act 1991* (FSANZ Act):

* Whether costs that would arise from a food regulatory measure developed or varied as a result of the Proposal outweigh the direct and indirect benefits to the community, Government or industry that would arise from the development or variation of the food regulatory measure
* There are no other measures that would be more cost-effective than a variation to Standard 1.4.2 that could achieve the same end
* Any relevant New Zealand standards
* Any other relevant matters.

Decision

To approve the draft variations to Standard 1.4.2 – Maximum Residue Limits.

**Reasons for Decision**

This Proposal has been assessed against the considerations provided for in section 59 of the FSANZ Act. FSANZ has approved the amended variations to Standard 1.4.2 for the following reasons:

* MRLs serve to protect public health and safety by minimising residues in food consistent with the effective control of pests and diseases.
* Dietary exposure assessments indicate that the variations do not present any public health and safety concerns.
* This approach ensures openness and transparency in relation to the residues that could reasonably occur in food.
* The variations will benefit the community by maintaining public health and safety while permitting the legal sale of food with legitimate residues of agricultural and veterinary chemicals used to control pests and diseases and improve agricultural productivity.
* The APVMA has assessed appropriate residue, animal transfer, processing and metabolism studies, in accordance with *The Manual of Requirements and Guidelines* – *MORAG* – *for Agricultural and Veterinary Chemicals 1 July 2005* to support the use of chemicals on commodities as outlined in this Proposal.
* The Office of Chemical Safety and Environmental Health (OCSEH) has undertaken a toxicological assessment of each chemical and has established an acceptable daily intake(ADI) and, where appropriate, an acute reference dose (ARfD).
* FSANZ has undertaken a preliminary regulation impact assessment and concluded that the variations are necessary, cost-effective and beneficial.
* The variations remove inconsistencies between agricultural and food standards and provide certainty and consistency for producers, importers and Australian, State and Territory compliance agencies.
* The changes are consistent with the FSANZ Act section 18 objectives.

**Consultation**

FSANZ has now completed public consultation and further assessment of Proposal M1006. The Board has approved the amendments to the Code and this decision has been notified to the Australia and New Zealand Food Regulation Ministerial Council (Ministerial Council). If the Ministerial Council does not request that FSANZ review the amendments to the Code, an amendment to the Code will be published in the *Commonwealth Gazette* and the *New Zealand Gazette* and adopted by reference and without amendment under State and Territory food legislation.

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SUPPORTING DOCUMENTS

The following documents are available on the FSANZ website at <http://www.foodstandards.gov.au/foodstandards/proposals/proposalm1006maximum4786.cfm>

SD1: Safety Assessment Methodology

SD2: Background Information

# Introduction

Notifications were received from the Australian Pesticides and Veterinary Medicines Authority (APVMA) on 2 October, 4 November and 8 December 2009 and 5 and 8 February, 10 March and 12 April 2010 seeking to vary the *Australia New Zealand Food Standards Code* (the Code). These notifications include maximum residue limits (MRLs) gazetted by the APVMA from October 2009 to March 2010. The approved variations to the Code align MRLs in the Code for certain agricultural and veterinary chemicals with the APVMA MRLs listed in *The MRL Standard* and permit the sale of relevant foods containing legitimate residues.

This Proposal also included consideration of varying MRLs for bifenazate, buprofezin, carbaryl, chlorpyrifos, cypermethrin, fenbuconazole, fenbutatin oxide, lambda-cyhalothrin, metconazole (new entry), methoxyfenozide, profenofos, spirotetramat, tebuconazole, tebufenozide and trifloxystrobin as a result of information provided by other parties. Anomalies between the Code and international standards may have implications for trade in certain foods. The approved variations would align limits in the Code with Codex and other countries’ standards and permit the sale of relevant foods containing legitimate residues at levels that do not present health or safety concerns.

In summary, this Proposal included consideration of MRL variations for abamectin, benzyladenine, beta-cyfluthrin, bifenazate, bifenthrin, boscalid, bromoxynil, buprofezin, carbaryl, chlorothalonil, chlorpyrifos, clothianidin, cypermethrin, epoxiconazole, etoxazole, fenbuconazole, fenbutatin oxide, fipronil, fluazifop-butyl, flubendiamide, flumetsulam, imazamox, imazapyr, imidacloprid, indoxacarb, iprodione, lambda-cyhalothrin, metalaxyl, metalaxyl-M, metconazole, methomyl, methoxyfenozide, paclobutrazol, pendimethalin, permethrin, phosphorous acid, pirimicarb, profenofos, prothioconazole, pyraclostrobin, pyrimethanil, pyriproxyfen, simazine, spirotetramat, tebuconazole, tebufenozide, terbuthylazine, tolclofos-methyl, triadimenol, trichlorfon, trifloxystrobin, trifluralin and trinexapac-ethyl.

The draft variations to the Code are at **Attachment 1**. An outline of these variations and dietary exposure estimates is at **Attachment 2**. A summary of comments received on the Assessment Report is provided at **Attachment 3**. The safety assessment methodology is outlined in [**Supporting Document 1**](http://www.foodstandards.gov.au/foodstandards/proposals/proposalm1006maximum4786.cfm). This includes an explanation of terminology.

FSANZ’s role in the regulation of agricultural and veterinary chemicals is to protect public health and safety by ensuring that any potential residues in food are within appropriate safety limits and to support producers, importers and compliance agencies by maintaining limits in the Code that reflect legitimate residues in food.

In considering the issues associated with variations to limits in the Code for residues of agricultural and veterinary chemicals in food, it should be noted that the limit is the maximum level of the residues of a chemical that may be in a food, not the level that is usually present in a food. However, incorporating the limit in food legislation means that the residues of a chemical are minimised (i.e. must not exceed the MRL or other limit), irrespective of whether the dietary exposure assessment indicates that higher residues would not risk public health and safety.

Limits and variations to limits in the Code do not permit or prohibit the use of agricultural or veterinary chemicals. Other Australian Government, State and Territory legislation regulates use and control of agricultural and veterinary chemicals.

## 1. The Issue / Problem

Including limits for residues of agricultural and veterinary chemicals in foods in the Code has the effect of allowing the sale of food containing legitimate residues, where any residues do not exceed these limits. Variations in MRLs reflect the changing use patterns of agricultural and veterinary chemicals available to chemical product users including food producers. These changes include both the development of new products and crop uses, and the withdrawal of older products following review. Where residues do not pose health or safety concerns, limits are also varied in line with international standards to reflect requirements for foods containing legitimate residues to be imported. Internationally, farmers face different pest and disease pressures and so agricultural and veterinary chemical use patterns may vary.

## 2. Current Standard

### 2.1 Background

Standard 1.4.2 lists the limits for agricultural and veterinary chemical residues which may occur in foods. If a limit is not listed for a particular agricultural or veterinary chemical/food combination, there must be no detectable residues of that chemical in that food. This general prohibition means that in the absence of the relevant limit in the Code, food may not be sold where there are detectable residues.

Variations to the Code may be required to permit the sale of foods containing legitimate residues. A dietary exposure assessment is conducted before the Code is varied to ensure that proposed limits do not present any public health or safety concerns.

Further background information on MRLs, the regulatory framework for agricultural and veterinary chemicals and the FSANZ assessment process for incorporating limits, including MRLs for antibiotic substances, in the Code is provided at [**Supporting Document 2**](http://www.foodstandards.gov.au/foodstandards/proposals/proposalm1006maximum4786.cfm).

## 3. Objectives

In assessing this Proposal, FSANZ ensured that approving the variations to the Code did not present public health and safety concerns and that the sale of food containing legitimate residues is permitted.

In developing or varying a food standard, FSANZ is required by its legislation to meet three primary objectives which are set out in section 18 of the FSANZ Act. These are:

* the protection of public health and safety; and
* the provision of adequate information relating to food to enable consumers to make informed choices; and
* the prevention of misleading or deceptive conduct.

In developing and varying standards, FSANZ must also have regard to:

* the need for standards to be based on risk analysis using the best available scientific evidence;
* the promotion of consistency between domestic and international food standards;
* the desirability of an efficient and internationally competitive food industry;
* the promotion of fair trading in food; and
* any written policy guidelines formulated by the Australia and New Zealand Food Regulation Ministerial Council (Ministerial Council).

## 4. Assessment Approach

FSANZ’s primary role in developing food regulatory measures for agricultural and veterinary chemicals is to ensure that the potential residues in food are within health-based guidance values. FSANZ conducts and reviews dietary exposure assessments in accordance with internationally accepted practices and procedures.

In assessing the public health and safety implications of chemical residues, FSANZ considers the dietary exposure to chemical residues from potentially treated foods in the diet by comparing the dietary exposure with the relevant health-based guidance value. FSANZ will not approve variations to limits in the Code where dietary exposure to the residues of a chemical could risk public health and safety.

The steps undertaken in conducting a dietary exposure assessment are:

* determining the residues of a chemical in a treated food; and
* calculating dietary exposure to a chemical from relevant foods, using food consumption data from national nutrition surveys and comparing this to the relevant health-based guidance value.

The estimated dietary exposure to a chemical is compared to the relevant health-based guidance value/s for that chemical in food (i.e. the acceptable daily intake(ADI) and/or the acute reference dose (ARfD)). FSANZ considers that dietary exposure to the residues of a chemical is acceptable where the best estimate of this exposure does not exceed the relevant guidance value/s.

The safety assessment methodology is further outlined in[**Supporting Document 1**](http://www.foodstandards.gov.au/foodstandards/proposals/proposalm1006maximum4786.cfm).

# RISK ASSESSMENT

## 5. Risk Assessment Summary

FSANZ has reviewed the dietary exposure assessments conducted by the APVMA and conducted dietary exposure assessments to assess the limits requested by other parties. Using the best available scientific data and internationally recognised risk assessment methodology, FSANZ concluded that in relation to current health-based guidance values, the approved limits do not present any public health and safety concerns.

The additional safety factors inherent in calculation of the ADI and ARfD mean that there is negligible risk to public health and safety when estimated exposures are below these guidance values.

# Risk Management

## 6. Options

The following options are available at the Approval stage:

1. Option 1 – approve the draft variations

2. Option 2 – approve the draft variations subject to such amendments as FSANZ considers necessary

3. Option 3 – reject the draft variations

## 7. Impact Analysis

The impact analysis represents likely impacts based on available information. The impact analysis is designed to assist in the process of identifying affected parties and any alternative options consistent with the objective of the changes. FSANZ sought public comment on the draft variations, and considered the issues raised in further assessment of the proposed changes.

### 7.1 Affected Parties

The sectors of the community potentially affected by the approved amendments include:

* consumers
* growers and producers
* importers of agricultural produce and food products
* the chemical industry
* Australian and New Zealand Government and State and Territory agencies involved in monitoring and regulating the use of agricultural and veterinary chemicals in food and the potential resulting residues

### 7.2 Benefit Cost Analysis

#### 7.2.1 Option 1 – approve the draft variations

This option may contribute to community confidence that regulatory authorities are maintaining standards to minimise residues of agricultural and veterinary chemicals in the food supply. The risk assessment has determined that there are no public health or safety concerns associated with this option. No additional costs to consumers were identified.

This option benefits growers and producers in Australia as agricultural and food standards are further aligned. This means that foods produced in accordance with agricultural Standards and legislation may be sold under food legislation as MRL variations are incorporated in the Code. The variations are unlikely to result in any costs for producers as changes in use patterns are made as required; current proper use results in compliance with these variations already.

Importers may benefit or be disadvantaged by the approval of the variations. Additional or increased MRLs may benefit importers and, consequently, consumers in that this may extend the options to source safe foods. Any MRL deletions or reductions have the potential to restrict importation of foods and could potentially result in higher food prices and a reduced product range available to consumers.

This option benefits Australian Government, State and Territory agencies in that it serves to further harmonise agricultural and food standards. This is of particular assistance to compliance agencies. Achieving further consistency between agricultural and food standards would minimise compliance costs to primary producers and assist in efficient enforcement of regulations. This option is unlikely to result in discernable costs to Government agencies, although an awareness of changes in the standards for residues in food would be needed and there may be minimal impacts associated with slight changes to residue monitoring programs.

Interested parties were invited to comment on any impacts of the proposed variations during the public consultation period. This was to ensure that any adverse consequences of the proposed variations could be addressed. Imported foods and Codex MRLs are addressed in section 9 of this Report.

#### 7.2.2 Option 2 – approve the draft variations subject to such amendments as FSANZ considers necessary

This option has similar costs and benefits to option 1. FSANZ did not consider it necessary to amend the draft variations consulted on at Assessment. The approved draft variations are provided at **Attachment 1.** Issues raised in submissions are discussed in section 9.1 of this Report and the summary of submissions is at **Attachment 3**.

#### 7.2.3 Option 3 – reject the draft variations

This option would allow inconsistencies between agricultural and food legislation to perpetuate as the Code would not reflect residues that may be present in foods following legitimate use of chemical products in Australia as determined by the APVMA. This may result in foods legitimately treated during production not being permitted for sale. Producers would incur significant costs. This may also create uncertainty, inefficiency and confusion in the enforcement of regulations. Importers and consequently consumers may be disadvantaged where proposed MRL variations are not progressed as this may unnecessarily limit sources of certain foods.

In addition, the inconsistencies between the Code and international standards identified by industry and other interested parties would remain and may have implications for trade in certain foods. This would impact negatively on all affected parties and producers, industry and compliance agencies in particular.

#### 7.2.4 Summary

FSANZ conducted a Best Practice Regulation Preliminary Assessment and concluded that business compliance costs and other impacts on business, individuals, regulatory agencies and the economy are low or nil. The regulatory proposal does not impose impacts on business, individuals, regulatory agencies or the economy that warrant further analysis. The changes to regulation are machinery in nature involving technical variations to the Standard which will not have appreciable impacts and are consistent with existing policy.

FSANZ consulted with the Office of Best Practice Regulation (OBPR) on the need for the preparation of a regulation impact statement (RIS) under the Council of Australian Governments’ requirements. The OBPR concluded that the proposed changes are minor and do not substantially alter existing arrangements. The OBPR advised that a RIS is therefore not required.

### 7.3 Comparison of Options

In assessing proposed variations to the Code, FSANZ considers the impact of various regulatory and non-regulatory options on all sectors of the community, including consumers, food industries and governments in Australia.

For the following reasons, FSANZ approved option 1 – approve the draft variations:

* There are no public health and safety concerns associated with the variations.
* This approach ensures openness and transparency in relation to the residues that could reasonably occur in food.
* The changes would minimise potential costs to primary producers, rural and regional communities and importers in terms of permitting the sale of food containing legitimate residues.
* The changes would minimise residues in food consistent with the effective use of agricultural and veterinary chemicals to control pests and diseases.
* The changes would further align the Code with international standards.
* The changes would remove inconsistencies between agricultural and food standards and assist compliance agencies.

Option 2 was not recommended at the Approval stage as the need to amend the proposed draft variations was not identified through consultation and further assessment. This is discussed in section 9.1 of this Report.

Option 3 is an undesirable option because potential substantial costs to primary producers may result. Additional costs may impact negatively on their viability and, in turn, the viability of the rural and regional communities that depend upon the sale of agricultural produce. This option may restrict the opportunity for importers to source safe produce or foods internationally and potentially impact consumers through higher food prices and limited choice. Also, consequent inconsistencies between agricultural and food legislation could have negative impacts on compliance costs for producers, perception problems in export markets and undermine the efficient enforcement of standards for chemical residues.

The benefits of progressing option 1 outweigh any associated costs.

# Communication and Consultation Strategy

## 8. Communication

Consideration of amending limits in the Code for residues of agricultural or veterinary chemicals in food does not normally generate public interest. FSANZ adopts a basic communication strategy, with a focus on alerting the community that changes to the Code are being contemplated.

FSANZ publishes the details of proposed changes and subsequent reports on its website (<http://www.foodstandards.gov.au/foodstandards/changingthecode/>), alerts subscribers (over 5000) via email of the availability of these reports for comment, and issues media releases drawing attention to proposed Code amendments.

Interested parties and submitters are notified at each stage of the assessment process. FSANZ notifies decisions made by the FSANZ Board to approve draft variations to the Code to the Ministerial Council. Stakeholders, including the public, will be notified of the gazetted changes to the Code in the national press and on the FSANZ website.

Once the Code has been amended, FSANZ incorporates the changes in the website version of the Code and, through its email and telephone information service, responds to community enquiries.

Should the media show an interest in any of the assessed chemicals, FSANZ or the APVMA can provide background information as required.

## 9. Consultation

FSANZ sought public comment to assist in finalising the assessment of the changes to the Code proposed in the Assessment Report. The changes proposed at Assessment are provided at **Attachment 1** to this Report. Comments were invited on, but not limited to, any impacts (costs/benefits) of the proposed variations, in particular the likely impacts on importation of food if specific variations are advanced; any public health and safety considerations associated with the proposed changes; and any other affected parties to this Proposal.

Submissions were received from Mr Leo Adler, Dynamic Organic, the Food and Beverage Importers Association (FBIA), The Food Technology Association of Australia (FTAA), the United States Northwest Horticultural Council (NHC) and the Queensland Government.

Submissions from the FBIA, FTAA and the Queensland Government support approving the proposed draft variations.

FSANZ thanks all submitters for their comments. A summary of comments is provided at **Attachment 3**.

### 9.1 Issues raised in submissions

Mr Leo Adler and Dynamic Organic raised concerns about the safety of residues in food, particularly in relation to potential implications of chronic exposure. The FBIA endorsed the proposed MRLs that align with trading partner standards in recognition of residues that may occur in imported foods. The NHC specifically supported the proposed cherry and stone fruit MRLs and requested that FSANZ consider cherry MRLs for certain chemicals in a future assessment to minimise potential trade disruption. Queensland provided a comment on the proposed cypermethrin MRL for durian and raised some analytical and stylistic issues concerning Standard 1.4.2.

#### 9.1.1 Safety of residues in food

Mr Leo Adler raised concern that residue limits be kept to an absolute minimum because of public concern and awareness of the possible health and environmental risks and the increasing demand by major retailers, especially in Europe, for low-residue foods. He noted concern that the studies carried out to date do not show the real safety of the chemicals in food on a long-term basis and considers that the studies do not prove non-detrimental impact on human, animal, plant and environmental health when combined with other residues found in the diet.

Dynamic Organic considers there is no acceptable safe level of residues in food and states that bioaccumulation of such chemicals has never been tested and residues should not be permitted until adequate testing is undertaken.

##### 9.1.1.1 FSANZ evaluation

FSANZ’s role is to protect the health and safety of people in Australia and New Zealand through the maintenance of a safe food supply. FSANZ’s decision in relation to approving MRL variations is based on ensuring that there are no health and safety concerns and that the sale of legally treated food is permitted. In assessing the public health and safety implications of chemical residues in food, FSANZ considers the dietary exposure over a lifetime from all potentially treated foods by comparing estimated exposure to the relevant health standard. FSANZ will not approve MRLs for inclusion in the Code where dietary exposure to residues of a chemical could risk public health or safety. The additional safety factors inherent in the health-based guidance values mean that there is negligible risk when estimated exposures are below these standards.

The Office of Chemical Safety and Environmental Health (OCSEH) and the APVMA have reviewed scientific studies including toxicology, residue, animal transfer, processing and metabolism studies in relation to the chemicals for which MRL variations have been considered in this Proposal. The OCSEH and the APVMA data requirements include stringent criteria concerning rigor and independence of studies evaluated in their assessments. To protect public health and safety, the OCSEH evaluates the toxicological hazards of chemicals and establishes health-based guidance values. These standards establish a level of intake which would be without appreciable risk to consumers. The APVMA independently evaluates the safety and performance of chemicals before registering chemical products. The APVMA must be satisfied that there will be no appreciable risk to the consumer, to the person handling, applying or administering the chemical, to the environment, to the target crop or animal or to trade in an agricultural commodity.

MRLs are not direct public health limits and are set at levels well below those that would cause an adverse health effect. An MRL indicates the highest legally permitted level of a chemical residue in a food but does not indicate the amount of a chemical that is always present. In summary, MRLs protect public health and safety by ensuring that the use of agricultural and veterinary chemicals is no greater than necessary for effective control of pests, weeds and plant and animal diseases. In regard to produce, across national agricultural production only a portion of a specific commodity is treated with a pesticide; most treated commodities contain residues well below the MRL before appearing on the market; and residues are usually reduced during storage, washing, preparation, commercial processing and cooking.

The Australian Total Diet Study (ATDS), an ongoing monitoring program, estimates the level of dietary exposure of the Australian population to a range of pesticide residues, contaminants and other substances through testing food samples representative of the total diet. Studies have consistently shown that Australian dietary exposures to pesticide residues and contaminants are well below Australian or international health-based guidance values and do not represent a public health and safety risk. Surveys of foods such as the Australian Government Department of Agriculture, Fisheries and Forestry’s National Residue Survey, State Departments of Agriculture/Primary Industries monitoring programs and surveys by major supermarket chains indicate that the vast majority of foods do not contain residues.

FSANZ considers that the low levels of residues present in food are unlikely to have any significant effect on metabolism or toxicity of other chemicals. The data indicate very little scientific evidence of synergy between pesticide residues in relation to potential toxicity. The United Kingdom Committee on Toxicity of Chemicals in Foods, Consumer Products and the Environment (COT) considered the risk assessment of multiple residues of pesticides and veterinary medicines in food and of multiple sources of exposure to these substances. The COT report is available at: <http://cot.food.gov.uk/cotreports/cotwgreports/cocktailreport> FSANZ undertakes ongoing monitoring and surveillance of the food supply and consumption patterns to ensure that food regulatory measures protect public health and safety. If there is credible evidence that indicates a safety concern, then FSANZ will take appropriate regulatory action.

FSANZ has not identified any health or safety concerns in relation to the approved variations. The dietary exposure estimates are provided at **Attachment 2** and further information on the safety assessment methodology is provided at [**Supporting Document 1**](http://www.foodstandards.gov.au/foodstandards/proposals/proposalm1006maximum4786.cfm).

#### 9.1.2 Fenpropathrin and metconazole MRLs requested for cherries

The NHC requested that FSANZ consider cherry MRLs for fenpropathrin and metconazole harmonised with United States limits in a future assessment.

The NHC made this request on the basis that Australia is a top seven trading partner for cherries from the United States Pacific Northwest. In 2010 cherry shipments to Australia increased by approximately 5% from the previous year and the estimated value was $US10.8 million. The requested MRLs will assist growers in providing high quality fruit to the Australian market with the least trade disruption.

##### 9.1.2.1 FSANZ evaluation

FSANZ is committed to maintaining limits in the Code that reflect residues that may occur in food; this ensures that such food may be sold. The safety of the residues in the context of the Australian diet is a key consideration. FSANZ will only approve variations to limits in the Code where the risk assessment concludes that dietary exposure is within health-based guidance values. FSANZ may consider including MRLs in the Code harmonised with those established by a trading partner in certain circumstances, including that the residues are likely to occur in food available in Australia, do not present safety concerns and are associated with the controlled use of chemical products. FSANZ notes that Australia is an important market for United States cherries and that harmonised standards reduce the potential for trade disruption.

A fenpropathrin MRL for residues that may occur in cherries was not considered as part of the current Proposal. Provided there is an established legitimate use of this chemical on cherries and there are no public health and safety concerns, FSANZ will consider the NHC request for the MRL for cherries in a future assessment. This will allow for public consultation to occur. FSANZ is liaising with the NHC in this regard.

At Assessment, FSANZ consulted on including an MRL of 0.2 mg/kg for metconazole residues that may occur in stone fruits in the Code. The stone fruits category includes cherries. The proposed MRL, harmonised with the corresponding United States limit, was requested by the NHC to minimise potential trade disruption. FSANZ requested comment on any possible ramifications of approving the proposed MRL; no adverse impacts were identified. FSANZ decided to include an MRL of 0.2 mg/kg for metconazole residues in stone fruits in the Code as proposed at Assessment. The dietary exposure estimate and further detail is provided at **Attachment 2**.

#### 9.1.3 Consideration of a cypermethrin MRL for durian

Queensland commented that the Codex MRL for cypermethrin for durian is \*1, not 1.

##### 9.1.3.1 FSANZ evaluation

FSANZ consulted on including a cypermethrin MRL for durian in the Code of 1 mg/kg harmonised with the corresponding Thai MRL. The Thailand National Bureau of Agricultural Commodity and Food Standards requested the MRL as residues may occur in fruit exported to Australia. FSANZ noted in Section 9.2 of the Assessment Report that the Codex cypermethrin durian MRL is \*1. FSANZ does not have a role in determining limits of detection for analytical methodology.

FSANZ decided to include an MRL of 1 mg/kg for cypermethrin residues in durian in the Code as proposed at Assessment. The dietary exposure estimate and further detail is provided at **Attachment 2**.

#### 9.1.4 Analytical and stylistic issues

Queensland provided the following comments on analytical issues and stylistic considerations in Standard 1.4.2 contributed by the Queensland Government Department of Employment, Economic Development and Innovation:

* FSANZ should standardise the use of brackets following the same conventions used by the APVMA
* The Codex residue definition should be the same as that used by the APVMA / FSANZ, otherwise the numerical values cannot be directly compared
* Consideration should be given to adopting the interpretive notes as per the APVMA *MRL Standard* and including commentary on when an analytical result exceeds an MRL, significant figures, analytical uncertainty and rounding
* Uncertainty in measurement of residues raises the cost of the analysis and provides no overall reduction in the uncertainties in any risk assessment

##### 9.1.4.1 FSANZ evaluation

FSANZ acknowledges the comments provided and notes that detailed evaluation of these issues is beyond the scope of this Proposal to vary certain MRLs in the Standard. FSANZ has contacted the submitter and referred the comments to the APVMA for consideration.

There are a number of differences in conventions for how commodity descriptors appear in Standard 1.4.2 and the APVMA *MRL Standard*, including in relation to the use of brackets. This is a topic of ongoing liaison between FSANZ and the APVMA. As noted in the M1005 Approval Report in relation to comment from Queensland, the APVMA has advised that it plans to initiate a process to comprehensively rationalise a number of identified commodity name issues across the *MRL Standard*. Both agencies anticipate some change as a result of this process. FSANZ will consult with interested parties on any proposed changes.

The APVMA determines appropriate residue definitions for chemicals in relation to setting MRLs. A number of factors are taken into consideration and regulatory approaches to setting residue definitions may differ internationally, this may account for some differences in metabolites or other substances included in residue definitions.

FSANZ acknowledges that MRL variations may present potential trade implications, a difference in a residue definition may factor in a trade issue as numerical MRL values may not be directly comparable. FSANZ lists Codex MRLs where relevant to proposed MRL variations and also lists proposed MRL reductions in consultation documents. This is done as a starting point to assist interested parties identify possible impacts of proposed changes; it is not intended as a comprehensive comparison of standards and no conclusions are drawn in this regard. Interested parties are invited to comment on any ramifications of approving the proposed MRLs. Also, it is incumbent on any interested party requesting an MRL for inclusion in the Code to ensure that the MRL requested, i.e. the numerical value of the limit, commodity descriptor and the residue definition, is adequate for the residues that may be expected to occur in the food.

In making the comments on comparability of residue definitions, Queensland gave specific examples of the residue definitions for imidacloprid and triadimenol. FSANZ consulted on various imidacloprid and triadimenol MRL variations in this Proposal. These variations were all requested by the APVMA. Details are provided at **Attachment 2**. Amending the residue definitions for these actives was not a consideration in this Proposal.

Consideration of varying Standard 1.4.2 to adopt the interpretive notes to the *MRL Standard* and include provisions prescribing how analytical results are to be interpreted was not part of this Proposal. Analytical methods and guidance on interpretation of results are generally not included in the Code. These issues have been considered as matters for compliance agencies.

### 9.2 World Trade Organization (WTO)

As a member of the WTO, Australia is obligated to notify WTO member nations where proposed mandatory regulatory measures are inconsistent with any existing or imminent international standards and the proposed measure may have a significant effect on trade.

Limits prescribed in the Code constitute a mandatory requirement applying to all food products of a particular class whether produced domestically or imported. Food products with residues exceeding the relevant limit listed in the Code cannot legally be supplied in Australia.

This Proposal included consideration of varying limits in the Code for residues of agricultural and veterinary chemicals in food that are addressed in the international Codex standard. Limits in the Proposal relate to chemical residues that may occur in heavily traded agricultural commodities that may indirectly have a significant effect on trade of derivative food products between WTO members.

FSANZ made a notification to the WTO for this Proposal in accordance with the WTO Agreement on the Application of Sanitary and Phytosanitary Measures. No WTO member nation provided comment on this Proposal.

### 9.3 Codex Alimentarius Commission Standards

Codex standards are used as the relevant international standard or basis as to whether a new or changed standard requires a WTO notification.

Australian and Codex MRLs may differ for a number of legitimate reasons including differences in the timing of regulatory processes to consider MRL variations and because MRLs for a particular chemical/food combination may relate to different use patterns.

FSANZ may consider varying limits for residues of agricultural or veterinary chemicals in food in a Proposal where interested parties have identified anomalies between the Code and Codex or other standards that may result in adverse impacts. FSANZ must have regard to its WTO obligations; the promotion of consistency between domestic and international food standards; and the promotion of fair trading in food. These matters encompass consideration of international standards and trade issues. The assessment gives careful consideration to public health and safety. In some cases the Australian MRL may exceed a Codex MRL due to different use patterns from those considered at the time the Codex MRL was set. In these cases, as for the consideration of any MRL, the assessment process ensures that the levels of residues in food are safe.

Interested parties provided information that specific anomalies between the Code and Codex or other standards may present barriers to trade in certain foods. This Proposal included consideration of limits for bifenazate, buprofezin, carbaryl, chlorpyrifos, cypermethrin, fenbuconazole, fenbutatin oxide, lambda-cyhalothrin, metconazole, methoxyfenozide, profenofos, spirotetramat, tebuconazole, tebufenozide and trifloxystrobin to address these issues. Further detail is provided at **Attachment 2**. The approved variations to the Code would align limits in the Code with international standards or standards in producer or other importing countries and permit the sale of food containing legitimate residues that do not present health or safety concerns.

As a starting point to assist interested parties in identifying possible impacts, FSANZ compiled a table of proposed MRLs with corresponding Codex limits and sought comment on any ramifications. No comments were received requesting any changes to proposed MRLs. The following table lists limits approved in this Proposal where there is a corresponding Codex limit. Note that numerical MRL values may not be directly comparable as residue definitions may differ.

| **Chemical**Food | **Approved limit†**‡**mg/kg** | **Codex limit****mg/kg** |
| --- | --- | --- |
| **Bifenazate**Stone fruits [except plums] | 2.5 | Stone fruits 2 |
| **Boscalid**Edible offal (mammalian)Brassica leafy vegetablesLettuce, headLettuce leafMeat (mammalian) (in the fat)Milks | 0.3T30T15T150.30.1 | 0.2Leafy vegetables 30Meat (from mammals other than marine mammals) (fat) 0.70.1 |
| **Carbaryl**Cranberry | 3 | 5 |
| **Chlorothalonil**HerbsPulses | T203 | Celery leaves 3Parsley 3Beans (dry) 0.2 |
| **Chlorpyrifos**Cranberry | 1 | 1 |
| **Cyhalothrin**Stone fruits | 0.5 | Apricot 0.5Cherries 0.3Nectarine 0.5Peach 0.50.2 Plums (including prunes) |
| **Cypermethrin**DurianLonganPeppers, Chili | 111 | \*11Peppers, Chili, dried 2 |
| **Fenbuconazole**Edible offal (mammalian)Stone fruits [except nectarine]Wheat | 0.051\*0.01 | 0.1Apricot 0.5Cherries 1Peach 0.50.1 |
| **Fenbutatin oxide**Cherries | 6 | 10 |
| **Fipronil**Sweet potato | \*0.01 | Potato 0.02 |
| **Imidacloprid**Field pea (dry)Leafy vegetables [except lettuce, head]Lettuce, headPotatoSweet potato | T\*0.052050.30.3 | Peas (dry) 2Radish leaves (including radish tops) 52Root and tuber vegetables 0.5 |
| **Indoxacarb**Peanut | T0.02 | \*0.02 |
| **Methoxyfenozide**CranberryStone fruits [except plums] | 0.53 | 0.7Stone fruits 2 |
| **Pirimicarb**Adzuki bean (dry)Mung bean (dry)Leafy vegetables [except chervil; mizuna; rucola (rocket)] | T0.5T0.5T7 | Pulses 0.2Kale 0.3Lettuce, Head 5Lettuce, Leaf 5 |
| **Profenofos**Mangosteen | 5 | 10 |
| **Prothioconazole**BarleyEdible offal (mammalian)OatsWheat | 0.30.1\*0.050.3 | 0.20.50.050.1 |
| **Pyraclostrobin**Cereal grainsPapaya (pawpaw) | \*0.01T0.5 | Barley 0.5Maize \*0.02Oats 0.5Spelt 0.2Wheat 0.2Papaya \*0.05 |
| **Pyrimethanil**Leafy vegetables | T5 | Lettuce, Head 3 |
| **Spirotetramat**Citrus fruitsDried grapesFruiting vegetables, other than cucurbitsFruiting vegetables, cucurbits [except melons]GrapesMelons, except watermelonWatermelonLeafy vegetables [except lettuce, head]Lettuce, headPotato | 147220.50.5535 | 0.5Dried grapes (=currants, raisins and sultanas) 41Fruiting vegetables, Cucurbits 0.22Fruiting vegetables, Cucurbits 0.2Fruiting vegetables, Cucurbits 0.2Leafy vegetables 70.8 |
| **Tebuconazole**Cherries | 5 | 5 |
| **Tebufenozide**Cranberry | 0.5 | 0.5 |
| **Triadimenol**PeppersPeppers, Sweet | T1T1 | Fruiting vegetables other than cucurbits 1Peppers, Sweet (including pimento or pimiento) 0.1 |
| **Trifloxystrobin**CeleryStone fruits | T12 | 13 |

† Note that a ‘T’ indicates that the limit is temporary.

‡ An asterisk indicates that the limit is at or about the limit of analytical quantification.

### 9.4 New Zealand Standards

All imported and domestically produced food sold in New Zealand (except for food imported from Australia) must comply with the New Zealand (Maximum Residue Limits of Agricultural Compounds) Food Standards 2010 and amendments (the New Zealand MRL Standards).

Under the New Zealand MRL Standards, agricultural chemical residues in food must comply with the specific MRLs listed in the Standards. The New Zealand MRL Standards also include a provision for residues of up to 0.1 mg/kg for agricultural chemical / commodity combinations not specifically listed. If the food is imported, it may comply with Codex MRLs. Further information about the New Zealand MRL Standards is available on the New Zealand Food Safety Authority website at <http://www.nzfsa.govt.nz/acvm/registers-lists/nz-mrl/index.htm>.

Limits in the Code and in the New Zealand MRL Standards may differ for a number of legitimate reasons including differing use patterns for chemical products as a result of varying pest and disease pressures and varying climatic conditions.

The following table lists the MRLs approved in this Proposal where there is a corresponding limit in the New Zealand MRL Standards.

| **Chemical**Food | **Approved MRL†****mg/kg** | **NZ MRL**‡**mg/kg** |
| --- | --- | --- |
| **Bifenthrin**Fruiting vegetables, cucurbits [except cucumber] | 0.1 | Pumpkins \*0.001Squash \*0.001 |
| **Carbaryl**Cranberry | 3 | Fruits 3 |
| **Chlorothalonil**Leafy vegetables [except chard (silver beet); spinach] | T10 | Lettuce 10 |
| **Chlorpyrifos**BlueberriesCherriesCranberryStone fruits [except cherries] | \*0.0111T1 | Fruits (except bananas, grapes, kiwifruit and stone fruits) 0.2Stone fruits 1 |
| **Epoxiconazole**Cereal grains | 0.05 | Barley \*0.05Wheat \*0.05 |
| **Fenbutatin oxide**Cherries | 6 | Stone fruits 1 |
| **Imidacloprid**Lettuce, headPotatoSweet potato | 50.30.3 | Lettuce 1Potatoes \*0.02 |
| **Pirimicarb**Adzuki bean (dry)Mung bean(dry)Leafy vegetables [except chervil; mizuna; rucola (rocket)] | T0.5T0.5T7 | Legume vegetables 0.5Leafy vegetables 1 |
| **Prothioconazole**BarleyCereal bran, unprocessedOatsWheatWheat germ | 0.30.5\*0.050.30.5 | Cereal grains \*0.02 |
| **Pyraclostrobin**Cereal grains | \*0.01 | Barley \*0.02Wheat \*0.02 |
| **Spirotetramat**PotatoSweet potato | 55 | Potatoes 0.5 |
| **Tebuconazole**Cherries | 5 | Stone fruits 1 |
| **Trifloxystrobin**Stone fruits | 2 | Stone fruits (except cherries) \*0.02 |
| **Trinexapac-ethyl**BarleyWheat | T0.3T0.3 | Cereal grains \*0.05 |

† Note that a ‘T’ indicates that the limit is temporary.

‡ An asterisk indicates that the limit is at or about the limit of analytical quantification.

### 9.5 Imported Foods

Internationally, countries set MRLs according to good agricultural practice (GAP) or good veterinary practice (GVP). Agricultural and veterinary chemicals are used differently in different countries around the world as pests, diseases and environmental factors differ and because product use patterns may differ. This means that residues in imported foods may legitimately differ from those in domestically produced foods.

Deletions or reductions of MRLs may impact imported foods that may comply with existing MRLs even though these existing MRLs are no longer required for domestically produced food. This is because imported foods may contain residues consistent with the MRLs proposed for deletion or reduction.

FSANZ is committed to ensuring that the implications of MRL variations are considered. Under the current process for considering variations to the Code, FSANZ encourages submissions including specific data demonstrating a need for certain MRLs to be varied. FSANZ will consider amending proposed MRL variations to continue to allow the sale of safe food where such MRLs are supported by adequate data or information demonstrating that the residues are legitimate and likely to occur. The assessment will consider dietary exposure in the context of the Australian diet. Further information on data requirements may be obtained from FSANZ.

To assist in identifying possible impacts on imported foods, FSANZ compiled the following table of foods where MRLs were proposed for deletion or reduction and sought comment on any ramifications for imported foods. No comments were received in relation to these variations. The approved draft variations to the Code are at **Attachment 1** and the recommended changes are outlined in **Attachment 2**.

| **Chemical**Food |
| --- |
| **Chlorothalonil**Pulses |
| **Chlorpyrifos**Blueberries |
| **Imidacloprid**Potato |
| **Iprodione**Brussels sprouts |
| **Metalaxyl**Papaya (pawpaw) |
| **Pirimicarb**Adzuki bean (dry)Mung bean (dry) |
| **Spirotetramat**Lettuce, headLettuce, leafMelons, except watermelonWatermelon |
| **Tolclofos-methyl**Beetroot |

# Conclusion

## 10. Conclusion and Decision

This Proposal was assessed against the considerations provided for in section 59 of the FSANZ Act.

Decision

To approve the draft variations to Standard 1.4.2 – Maximum Residue Limits.

### 10.1 Reasons for Decision

FSANZ approved the amended variations to Standard 1.4.2 for the following reasons:

* MRLs serve to protect public health and safety by minimising residues in food consistent with the effective control of pests and diseases.
* Dietary exposure assessments indicate that the variations do not present any public health and safety concerns.
* This approach ensures openness and transparency in relation to the residues that could reasonably occur in food.
* The variations will benefit the community by maintaining public health and safety while permitting the legal sale of food with legitimate residues of agricultural and veterinary chemicals used to control pests and diseases and improve agricultural productivity.
* The APVMA has assessed appropriate residue, animal transfer, processing and metabolism studies, in accordance with *The Manual of Requirements and Guidelines* – *MORAG* – *for Agricultural and Veterinary Chemicals 1 July 2005* to support the use of chemicals on commodities as outlined in this Proposal.
* The OCSEH has undertaken a toxicological assessment of each chemical and has established an ADI and, where appropriate, an ARfD.
* FSANZ has undertaken a preliminary regulation impact assessment and concluded that the variations are necessary, cost-effective and beneficial.
* The variations remove inconsistencies between agricultural and food standards and provide certainty and consistency for producers, importers and Australian, State and Territory compliance agencies.
* The changes are consistent with the FSANZ Act section 18 objectives.

## 11. Implementation and Review

The use of chemical products and MRLs are under constant review as part of the APVMA Chemical Review Program. In addition, regulatory agencies continue to monitor health, agricultural and environmental issues associated with chemical product use. Residues in food are also monitored through:

* State and Territory residue monitoring programs
* Australian Government programs such as the National Residue Survey
* dietary exposure studies such as the Australian Total Diet Study.

These monitoring programs and the continual review of the use of agricultural and veterinary chemicals mean that there is considerable scope to review limits in the Code.

The variations in this Proposal take effect on gazettal and the limits are subject to existing monitoring arrangements.

**ATTACHMENTS**

1. Draft variations to the *Australia New Zealand Food Standards Code*

2. Summary of approved MRLs and technical amendments in Proposal M1006

3. Summary of Submissions

## Attachment 1

## Draft variations to the *Australia New Zealand Food Standards Code*

*Subsection 94 of the FSANZ Act provides that standards or variations to standards are legislative instruments, but are not subject to disallowance or sunsetting*

**To commence: on gazettal**

**[1]** ***Standard 1.4.2*** of the *Australia New Zealand Food Standards Code is varied by –*

[1.1] *omitting from* Schedule 1 *the chemical residue definition for the chemical appearing in* Column 1 *of the Table to this sub-item, substituting the chemical residue definition appearing in* Column 2 –

|  |  |
| --- | --- |
| **Column 1** | **Column 2** |
| Chlorothalonil | *Commodities of plant origin:* Chlorothalonil*Commodities of animal origin:* 4-hydroxy-2,5,6-trichloroisophthalonitrile metabolite, expressed as chlorothalonil |

[1.2] *inserting in* Schedule 1 –

|  |
| --- |
| Metconazole |
| Metconazole |
| Stone fruits | 0.2 |
|  |  |

[1.3] *omitting from* Schedule 1 *the foods and associated MRLs for each of the following chemicals* –

|  |
| --- |
| Bifenthrin |
| Bifenthrin |
| Fruiting vegetables, cucurbits | 0.1 |
|  |  |
| Chlorothalonil |
| *Commodities of plant origin*: Chlorothalonil*Commodities of animal origin*: Sum of chlorothalonil and 4-hydroxy-2, 5, 6-trichloroisophthalonitrile metabolite, expressed as chlorothalonil |
| Leafy vegetables | T7 |
| Vegetables [except as otherwise listed under this chemical] | T7 |
|  |  |
| ChlorpyrifosChlorpyrifos |
| Stone fruits | T1 |
|  |  |
| Epoxiconazole |
| Epoxiconazole |
| Barley | 0.05 |
| Wheat | 0.05 |
|  |  |
| Imidacloprid |
| Sum of imidacloprid and metabolites containing the 6-chloropyridinylmethylene moiety, expressed as imidacloprid |
| Leafy vegetables [except lettuce, leaf] | T5 |
| Lettuce, leaf | T20 |
|  |  |
| Permethrin |
| Permethrin, sum of isomers |
| Coriander (leaves and stems) | T10 |
|  |  |
| Pirimicarb |
| Sum of pirimicarb, demethyl-pirimicarb and the *N*-formyl-(methylamino) analogue (demethylformamido-pirimicarb), expressed as pirimicarb |
| Leafy vegetables [except chervil; mizuna; rucola] | T5 |
| Vegetables [except leafy vegetables; lupin (dry); soya bean (dry); sweet corn (corn-on-the-cob)] | 1 |
|  |  |
| Spirotetramat |
| Sum of spirotetramat, and cis-3-(2,5-dimethylphenyl)-4-hydroxy-8-methoxy-1-azaspiro[4.5]dec-3-en-2-one, expressed as spirotetramat |
| Fruiting vegetables, cucurbits | T2 |
| Lettuce, leaf | T10 |
| Peppers, Sweet | T5 |
| Tomato | T7 |
|  |  |
| Triadimenol |
| Triadimenol*see also* Triadimefon |
| Peppers, Sweet | T1 |
|  |  |
| Trichlorfon |
| Trichlorfon |
| Fruit [except as otherwise listed under this chemical] | 0.1 |
| Vegetables [except as otherwise listed under this chemical] | 0.1 |
|  |  |

[1.4] *inserting in alphabetical order in* Schedule 1, *the foods and associated MRLs for each of the following chemicals –*

|  |
| --- |
| Abamectin |
| Sum of avermectin B1a, avermectin B1b and (Z)-8,9 avermectin B1a, and (Z)-8,9 avermectin B1b |
| Sweet corn (corn-on-the-cob) | T\*0.01 |
|  |  |
| Benzyladenine |
| Benzyladenine |
| Pistachio nut | T\*0.05 |
|  |  |
| Bifenazate |
| Sum of bifenazate and bifenazate diazene (diazenecarboxylic acid, 2-(4-methoxy-[1,1’-biphenyl-3-yl] 1-methylethyl ester), expressed as bifenazate |
| Cherries | 2.5 |
| Lettuce, head | T5 |
| Lettuce, leaf | T5 |
|  |  |
| Bifenthrin |
| Bifenthrin |
| Cucumber | T0.3 |
| Fruiting vegetables, cucurbits [except cucumber] | 0.1 |
| Pineapple | T\*0.01 |
|  |  |
| Boscalid |
| *Commodities of plant origin*: Boscalid*Commodities of animal origin*: Sum of boscalid, 2-chloro-N-(4’-chloro-5-hydroxybiphenyl-2-yl) nicotinamide and the glucuronide conjugate of 2-chloro-N-(4’-chloro-5-hydroxybiphenyl-2-yl) nicotinamide, expressed as boscalid equivalents |
| All other foods | 0.5 |
| Milk fats | 0.7 |
|  |  |
| Buprofezin |
| Buprofezin |
| Stone fruits [except apricot; peach] | 1.9 |
|  |  |
| Carbaryl |
| Carbaryl |
| Cranberry | 3 |
|  |  |
| Chlorothalonil |
| *Commodities of plant origin*: Chlorothalonil*Commodities of animal origin*: Sum of chlorothalonil and 4-hydroxy-2, 5, 6-trichloroisophthalonitrile metabolite, expressed as chlorothalonil |
| Chard (silver beet) | T50 |
| Coriander (leaves, stem, roots) | T20 |
| Leafy vegetables [except chard (silver beet); spinach] | T10 |
| Poultry, edible offal of | \*0.05 |
| Poultry meat | \*0.05 |
| Spinach | T100 |
| Vegetables [except asparagus; Brussels sprouts; carrot; celery; chard (silver beet); fennel, bulb; fruiting vegetables, cucurbits; garlic; leafy vegetables; leek; onion, bulb; peas (pods and succulent, immature seeds); potato; pulses; spinach; spring onion; tomato] | T7 |
|  |  |
| Chlorpyrifos |
| Chlorpyrifos |
| Cherries | 1 |
| Cranberry | 1 |
| Stone fruits [except cherries] | T1 |
|  |  |
| Clothianidin |
| Clothianidin |
| Dried grapes | 10 |
| Grapes [except wine grapes] | 3 |
| Wine grapes | \*0.02 |
|  |  |
| Cyfluthrin |
| Cyfluthrin, sum of isomers |
| Chia | T0.5 |
| Papaya (pawpaw) | T0.2 |
|  |  |
| Cyhalothrin |
| Cyhalothrin, sum of isomers |
| Stone fruits | 0.5 |
|  |  |
| Cypermethrin |
| Cypermethrin, sum of isomers |
| Durian | 1 |
| Longan | 1 |
| Peppers, Chili | 1 |
|  |  |
| Epoxiconazole |
| Epoxiconazole |
| Cereal grains | 0.05 |
|  |  |
| Etoxazole |
| Etoxazole |
| Podded pea (young pods) (snow and sugar snap) | T\*0.02 |
|  |  |
| Fenbuconazole |
| Fenbuconazole |
| Wheat | \*0.01 |
|  |  |
| Fenbutatin oxide |
| Bis[tris(2-methyl-2-phenylpropyl)tin]-oxide |
| Cherries | 6 |
|  |  |
| Fluazifop-butyl |
| Fluazifop-butyl |
| Chia | T2 |
| Onion, Welsh | 0.05 |
|  |  |
| Flubendiamide |
| *Commodities of plant origin*: Flubendiamide*Commodities of animal origin*: Sum of flubendiamide and 3-iodo-*N*-(2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl)phthalimide, expressed as flubendiamide |
| Edible offal (mammalian) | 0.03 |
| Meat (mammalian) (in the fat) | 0.05 |
| Milk fats | 0.05 |
| Milks | \*0.01 |
|  |  |
| **Imazamox** |
| Imazamox |
| Poppy seed | T\*0.05 |
|  |  |
| Imazapyr |
| Imazapyr |
| Poppy seed | T\*0.05 |
|  |  |
| Imidacloprid |
| Sum of imidacloprid and metabolites containing the 6-chloropyridinylmethylene moiety, expressed as imidacloprid |
| Broad bean (dry) | \*0.05 |
| Field pea (dry) | \*0.05 |
| Leafy vegetables [except lettuce, head] | 20 |
| Lentil (dry) | 0.2 |
| Lettuce, head | 5 |
|  |  |
| Indoxacarb |
| Sum of indoxacarb and its *R*-isomer |
| Peanut | T0.02 |
|  |  |
| Iprodione |
| Iprodione |
| Peppers | T2 |
|  |  |
| Metalaxyl |
| Metalaxyl |
| Ginger, root | T0.5 |
|  |  |
| Methomyl |
| Sum of methomyl and methyl hydroxythioacetimidate (‘methomyl oxime’), expressed as methomyl*see also* thiodicarb |
| Chia | T0.5 |
|  |  |
| Methoxyfenozide |
| Methoxyfenozide |
| Coriander (leaves, stem, roots) | T20 |
| Cranberry | 0.5 |
| Herbs | T20 |
| Mexican tarragon | T20 |
| Rucola (rocket) | T20 |
| Stone fruits [except plums (including prunes)] | 3 |
|  |  |
| Paclobutrazol |
| Paclobutrazol |
| Barley | T0.1 |
| Wheat | T0.1 |
|  |  |
| Pendimethalin |
| Pendimethalin |
| Herbs | \*0.05 |
|  |  |
| Permethrin |
| Permethrin, sum of isomers |
| Coriander (leaves, stem, roots) | 30 |
| Lemon balm | 30 |
|  |  |
| Phosphorous acid |
| Phosphorous acid |
| Ginger, root | T100 |
| Tomato | T100 |
|  |  |
| Pirimicarb |
| Sum of pirimicarb, demethyl-pirimicarb and the *N*-formyl-(methylamino) analogue (demethylformamido-pirimicarb), expressed as pirimicarb |
| Adzuki bean (dry) | T0.5 |
| Leafy vegetables [except chervil; mizuna; rucola (rocket)] | T7 |
| Mung bean (dry) | T0.5 |
| Onion, Welsh | T3 |
| Shallot | T3 |
| Spring onion | T3 |
| Vegetables [except adzuki bean (dry); leafy vegetables; lupin (dry); mung bean (dry); onion, Welsh; shallot; soya bean (dry); spring onion; sweet corn (corn-on-the-cob)] | 1 |
|  |  |
| Profenofos |
| Profenofos |
| Mangosteen | 5 |
|  |  |
| Prothioconazole |
| *Commodities of plant origin*: Sum of prothioconazole and prothioconazole desthio (2-(1-chlorocyclopropyl)-1-(2-chlorophenyl)-3-(1*H-*1,2,4-triazol-1-yl)-propan-2-ol), expressed as prothioconazole*Commodities of animal origin:* Sum of prothioconazole, prothioconazole desthio (2-(1-chlorocyclopropyl)-1-(2-chlorophenyl)-3-(1*H*-1,2,4-triazol-1-yl)-propan-2-ol), prothioconazole-3-hydroxy-desthio (2-(1-chlorocyclopropyl)-1-(2-chloro-3-hydroxyphenyl)-3-(1*H*-1,2,4-triazol-1-yl)-propan-2-ol) and prothioconazole-4-hydroxy-desthio (2-(1-chlorocyclopropyl)-1-(2-chloro-4-hydroxyphenyl)-3-(1*H*-1,2,4-triazol-1-yl)-propan-2-ol), expressed as prothioconazole  |
| Cereal bran, unprocessed | 0.5 |
| Oats | \*0.05 |
| Wheat germ | 0.5 |
|  |  |
| Pyraclostrobin |
| *Commodities of plant origin*: Pyraclostrobin*Commodities of animal origin*: Sum of pyraclostrobin and metabolites hydrolysed to 1-(4-chloro-phenyl)-1H-pyrazol-3-ol, expressed as pyraclostrobin |
| Cereal grains | \*0.01 |
| Custard apple | T3 |
| Papaya (pawpaw) | T0.5 |
|  |  |
| Pyrimethanil |
| Pyrimethanil |
| Leafy vegetables | T5 |
|  |  |
| Spirotetramat |
| Sum of spirotetramat, and cis-3-(2,5-dimethylphenyl)-4-hydroxy-8-methoxy-1-azaspiro[4.5]dec-3-en-2-one, expressed as spirotetramat |
| Dried grapes | 4 |
| Fruiting vegetables, cucurbits [except melons] | 2 |
| Fruiting vegetables, other than cucurbits | 7 |
| Grapes | 2 |
| Leafy vegetables [except lettuce, head] | 5 |
| Legume vegetables | T2 |
| Melons, except watermelon | 0.5 |
| Potato | 5 |
| Sweet potato | 5 |
| Watermelon | 0.5 |
|  |  |
| Tebuconazole |
| Tebuconazole |
| Cherries | 5 |
|  |  |
| Tebufenozide |
| Tebufenozide |
| Cranberry | 0.5 |
|  |  |
| Terbuthylazine |
| Terbuthylazine |
| Maize | T\*0.02 |
| Sorghum | T\*0.02 |
| Sweet corn (corn-on-the-cob) | T\*0.02 |
|  |  |
| Triadimenol |
| Triadimenol*see also* Triadimefon |
| Peppers | T1 |
|  |  |
| Trichlorfon |
| Trichlorfon |
| Fish muscle | T\*0.01 |
| Fruit [except banana; dried fruits; peach] | 0.1 |
| Vegetables [except beetroot; Brussels sprouts; cauliflower; celery; kale; peppers; pulses; sugar beet; sweet corn (corn-on-the-cob)] | 0.1 |
|  |  |
| Trifloxystrobin |
| Sum of trifloxystrobin and its acid metabolite ((E,E)-methoxyimino-[2-[1-(3-trifluoromethylphenyl)-ethylideneaminooxymethyl]phenyl] acetic acid), expressed as trifloxystrobin equivalents |
| Celery | T1 |
| Chard (silver beet) | T0.7 |
| Chicory leaves | T0.7 |
| Endive | T0.7 |
| Spinach | T0.7 |
| Stone fruits | 2 |
|  |  |
| Trifluralin |
| Trifluralin |
| Chia | T\*0.01 |
|  |  |
| Trinexapac-ethyl |
| 4-(cyclopropyl-α-hydroxy-methylene)-3,5-dioxo-cyclohexanecarboxylic acid |
| Barley | T0.3 |
| Wheat | T0.3 |
|  |  |

[1.5] *omitting from* Schedule 1*, under the entries for the following chemicals, the Maximum Residue Limit for the food, substituting* –

|  |
| --- |
| Bifenthrin |
| Bifenthrin |
| Peas (pods and succulent, immature seeds) | \*0.01 |
|  |  |
| Boscalid |
| *Commodities of plant origin*: Boscalid*Commodities of animal origin*: Sum of boscalid, 2-chloro-N-(4’-chloro-5-hydroxybiphenyl-2-yl) nicotinamide and the glucuronide conjugate of 2-chloro-N-(4’-chloro-5-hydroxybiphenyl-2-yl) nicotinamide, expressed as boscalid equivalents |
| Brassica leafy vegetables | T30 |
| Edible offal (mammalian) | 0.3 |
| Lettuce, head | T15 |
| Lettuce, leaf | T15 |
| Meat (mammalian) (in the fat) | 0.3 |
| Milks | 0.1 |
|  |  |
| Bromoxynil |
| Bromoxynil |
| Edible offal (mammalian) | T3 |
| Meat (mammalian) (in the fat) | T1 |
| Milks | T0.1 |
|  |  |
| Chlorothalonil |
| *Commodities of plant origin*: Chlorothalonil*Commodities of animal origin*: Sum of chlorothalonil and 4-hydroxy-2, 5, 6-trichloroisophthalonitrile metabolite, expressed as chlorothalonil |
| Edible offal (mammalian) | 7 |
| Herbs [except fennel, leaf] | T20 |
| Meat (mammalian) (in the fat) | 2 |
| Milks | 0.05 |
| Pulses | 3 |
|  |  |
| Chlorpyrifos |
| Chlorpyrifos |
| Blueberries | \*0.01 |
|  |  |
| Fenbuconazole |
| Fenbuconazole |
| Edible offal (mammalian) | 0.05 |
| Stone fruits [except nectarine] | 1 |
|  |  |
| Fipronil |
| Sum of fipronil, the sulphenyl metabolite (5-amino-1-[2,6-dichloro-4-(trifluoromethyl)phenyl]-4-[(trifluoromethyl) sulphenyl]-1*H*-pyrazole-3-carbonitrile), the sulphonyl metabolite (5-amino-1-[2,6-dichloro-4-(trifluoromethyl)phenyl]-4-[(trifluoromethyl)sulphonyl]-1*H*-pyrazole-3-carbonitrile), and the trifluoromethyl metabolite (5-amino-4-trifluoromethyl-1-[2,6-dichloro-4-(trifluoromethyl)phenyl]-1*H*-pyrazole-3-carbonitrile) |
| Sweet potato | \*0.01 |
|  |  |
| Fluazifop-butyl |
| Fluazifop-butyl |
| Parsnip | 0.1 |
|  |  |
| Flubendiamide |
| *Commodities of plant origin*: Flubendiamide*Commodities of animal origin*: Sum of flubendiamide and 3-iodo-*N*-(2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl)phthalimide, expressed as flubendiamide |
| Lettuce, head | 5 |
| Lettuce, leaf | 7 |
| Peppers, Sweet | 1 |
| Tomato | 2 |
|  |  |
| Flumetsulam |
| Flumetsulam |
| Edible offal (mammalian) | 0.3 |
|  |  |
| Imidacloprid |
| Sum of imidacloprid and metabolites containing the 6-chloropyridinylmethylene moiety, expressed as imidacloprid |
| Lupin (dry) | 0.2 |
| Potato | 0.3 |
| Sweet potato | 0.3 |
|  |  |
| Iprodione |
| Iprodione |
| Brussels sprouts | 0.5 |
|  |  |
| Metalaxyl |
| Metalaxyl |
| Papaya (pawpaw) | \*0.01 |
|  |  |
| Permethrin |
| Permethrin, sum of isomers |
| Herbs | 30 |
| Kaffir lime leaves | 30 |
| Lemon grass | 30 |
|  |  |
| Prothioconazole |
| *Commodities of plant origin*: Sum of prothioconazole and prothioconazole desthio (2-(1-chlorocyclopropyl)-1-(2-chlorophenyl)-3-(1*H-*1,2,4-triazol-1-yl)-propan-2-ol), expressed as prothioconazole*Commodities of animal origin:* Sum of prothioconazole, prothioconazole desthio (2-(1-chlorocyclopropyl)-1-(2-chlorophenyl)-3-(1*H*-1,2,4-triazol-1-yl)-propan-2-ol), prothioconazole-3-hydroxy-desthio (2-(1-chlorocyclopropyl)-1-(2-chloro-3-hydroxyphenyl)-3-(1*H*-1,2,4-triazol-1-yl)-propan-2-ol) and prothioconazole-4-hydroxy-desthio (2-(1-chlorocyclopropyl)-1-(2-chloro-4-hydroxyphenyl)-3-(1*H*-1,2,4-triazol-1-yl)-propan-2-ol), expressed as prothioconazole  |
| Barley | 0.3 |
| Edible offal (mammalian) | 0.1 |
| Wheat | 0.3 |
|  |  |
| Pyriproxyfen |
| Pyriproxyfen |
| Mango | 0.05 |
|  |  |
| Simazine |
| Simazine |
| Edible offal (mammalian) | \*0.05 |
| Meat (mammalian) | \*0.05 |
| Milks | \*0.02 |
|  |  |
| Spirotetramat |
| Sum of spirotetramat, and cis-3-(2,5-dimethylphenyl)-4-hydroxy-8-methoxy-1-azaspiro[4.5]dec-3-en-2-one, expressed as spirotetramat |
| Citrus fruits | 1 |
| Lettuce, head | 3 |
| Mango | 0.3 |
| Onion, bulb | 0.5 |
|  |  |
| Terbuthylazine |
| Terbuthylazine |
| Edible offal (mammalian) | \*0.01 |
| Eggs | \*0.01 |
| Meat (mammalian) | \*0.01 |
| Milks | \*0.01 |
| Poultry, edible offal of | \*0.01 |
| Poultry meat | \*0.01 |
| Pulses | \*0.02 |
| Rape seed (canola) | \*0.02 |
|  |  |
| Tolclofos-methyl |
| Tolclofos-methyl |
| Beetroot | \*0.01 |
|  |  |

## Attachment 2

## Summary of proposed MRLs and technical amendments in Proposal M1006

**INTERPRETIVE GUIDE TO THE SUMMARY TABLE OF MRLS**

The following is an example of an entry and the proposed MRL is not being considered in this Proposal. Further information on calculating dietary exposure is provided at [**Supporting Document 1**](http://www.foodstandards.gov.au/foodstandards/proposals/proposalm1006maximum4786.cfm).

Data from the 19th and 20th ATDS are provided when available because they provide an indication of the typical exposure to chemicals in table ready foods. The ATDS results are more realistic because analysed concentrations of the chemical in foods as consumed are used. The National Estimated Daily Intake (NEDI) and National Estimated Short Term Intake (NESTI) calculations are theoretical calculations that protectively overestimate exposure. Small variations may be noted in the exposure assessment between different ATDSs. These variations are minor and are typically due to the different range of foods in the individual studies.

Chemical name The NEDI is an assessment of the chronic

exposure which is compared to the

acceptable daily intake (ADI).

Information about the chemical is provided so
the community can see what it is and why
residues may occur in food.

|  |  |
| --- | --- |
| ChlorpyrifosChlorpyrifos is a broad spectrum non-systemic insecticide with contact, stomach, and respiratory action. It is a cholinesterase inhibitor. It is used to control a broad range of insect pests in many crops.The APVMA has approved an extension of its use to control certain pests in coffee crops. | NEDI = 93% of the ADIMean estimated daily dietary exposure based on mean analytical results:20th ATDS: <1% of the ADI for all population groups assessed19th ATDS: 3% of the ADI for toddlers 2 years and <1% of ADI for other population groups assessedNESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Coffee beans | Insert | T\*0.5 | 8 | <1 |

Food/s for which the The NESTI is an assessment of the proposed MRL is to apply. acute exposure which is compared

to the acute reference dose (ARfD).

How the MRL is

proposed to be varied. The ‘\*’ means that the MRL is at the limit of

 quantification and detectable residues

 should not occur in the food.

The ‘T’ means the MRL is

temporary and under review.

**SUMMARY OF MRLS APPROVED IN PROPOSAL M1006
APVMA MRLS – OCTOBER 2009 – MARCH 2010 AND OTHER REQUESTS**

| **Requested MRLs expressed in milligrams of the chemical per kilogram of the food (mg/kg)** | **Dietary Exposure Assessment** |
| --- | --- |
| **Abamectin**Abamectin is an insecticide and acaricide with contact and stomach action. It inhibits stimulation of neurons by binding to gamma-aminobutyric acid regulated chloride channels and allowing free passage of chloride ions into the neuron. It is used to control mites on cotton and various fruits and vegetables.The APVMA has issued a permit for its use to control two-spotted mite (*Tetranychus urticae*) on sweet corn. The recommended temporary MRL is at the limit of analytical quantification (LOQ). | NEDI: 89% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Sweet corn (corn-on-the-cob) | Insert | T\*0.01 | 6 |  | 2 |
| **Benzyladenine**Benzyladenine is a plant growth regulator. It stimulates protein synthesis. It is a synthetic cytokinin. Its limited translocation is utilised to restrict effects to the target part of the plant. It is used to regulate bud emergence and fruit set, increase fruit size and stimulate flower bud formation and regular bearing in fruit trees.The APVMA has issued a permit for its use to reduce alternate bearing in pistachios. The recommended temporary MRL is at the LOQ. | NEDI: 1% of the ADI |
|
| Pistachio nut | Insert | T\*0.05 |
| **Beta-cyfluthrin**Beta-cyfluthrin is a non-systemic pyrethroid insecticide with contact and stomach action. It acts on the nervous system of insects and disturbs the function of neurons by interaction with the sodium channel. It is used to control a range of pests including Lepidoptera and Homoptera on many crops.The APVMA has issued permits for its use to control heliothis in chia and fruit-spotting bug (*Amblypelta nitida*) and banana-spotting bug (*Amblypelta lutescens lutescens*) in pawpaw.Note: Beta-cyfluthrin MRLs are listed under cyfluthrin. | NEDI: 68% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| ChiaPapaya (pawpaw) | InsertInsert | T0.5T0.2 | <118 | <15 |
| **Bifenazate**Bifenazate is a non-systemic acaricide. It is a neuronal inhibitor with predominantly contact action and long residual action. It is used to control the egg and motile stages of phytophagous mites on various crops.The APVMA has issued a permit for its use to control two-spotted mite (*Tetranychus urticae*) on leafy and head lettuce varieties grown in protected situations.The United States Northwest Horticultural Council (NHC) requested that FSANZ include an MRL in the Code harmonised with the United States limit for bifenazate residues in cherries. Bifenazate residues may occur in cherries imported from the United States. The MRL may minimise potential trade disruption and extend consumer choice. | NEDI: 24% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| CherriesLettuce, headLettuce, leaf | InsertInsertInsert | 2.5T5T5 | 1441 | 122<1 |
| **Bifenthrin**Bifenthrin is a synthetic pyrethroid insecticide. It kills insects by affecting the salt balance (sodium channels) in nerve cells. It has a broad spectrum of activity against insects with the main toxic effect on the nervous system. It is used to control a broad range of foliar pests on cereal, fruit and vegetable crops.The APVMA has issued permits for its use to control symphylids, ground dwelling insects, (*Hanseniella* spp.) in pineapple, silverleaf whitefly on cucumbers and red-legged earth mite and blue oat mite in peas. The recommended MRLs for pineapple and peas are at the LOQ. | NEDI: 76% of the ADIMean estimated daily dietary exposure based on mean analytical results:20th ATDS: <1% of the ADI for all population groups assessedNESTI as % of the ARfD |
| 2-6 years | 2+ years |
| CucumberFruiting vegetables, cucurbitsFruiting vegetables, cucurbits [except cucumber]Peas (pods and succulent, immature seeds)Pineapple | InsertOmitInsertOmitSubstituteInsert | T0.30.10.1T\*0.01\*0.01T\*0.01 | 4860<110 | 1716<13 |
| **Boscalid**Boscalid is a fungicide. It inhibits spore germination, germ tube elongation, mycelial growth and sporulation by inhibition of succinate ubiquinone reductase (complex II) in the mitochondrial electron transport chain. It is used to control powdery mildew on a range of fruit and vegetables.The APVMA has approved its use to control early blight on potatoes, tomatoes, capsicum, eggplant and peppers.Rotational crop studies indicate that residues may be taken up by following crops. An MRL is recommended for all other foods as residues may occur in rotational situations. All other foods includes the following rotational crops: Cereal grain fractions, early milling products, cereal grains, berries and other small fruit, herbs, oilseeds, cucurbits, pulses, legume vegetables, root and tuber vegetables and stalk and stem vegetables.The APVMA has issued a permit for its use to control Sclerotinia rot (*Sclerotinia* spp.) on certain leafy brassica vegetables and lettuce. | NEDI: 20% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| All other foodsBrassica leafy vegetablesEdible offal (mammalian)Lettuce, headLettuce, leafMeat (mammalian) (in the fat)Milk fatsMilks | InsertOmitSubstituteOmitSubstituteOmitSubstituteOmitSubstituteOmitSubstituteInsertOmitSubstitute | 0.5T10T300.050.3T2T15T2T150.10.30.7\*0.020.1 | <111<155<1<1<1 | (As listed above) | <16<133<1<1<1 |
| **Bromoxynil**Bromoxynil is a selective contact herbicide. It inhibits photosynthetic electron transport and also uncouples oxidative phosphorylation. It is used to control various weeds in cereals, pasture and horticultural situations.The APVMA has evaluated further residue data for bromoxynil on animal feed commodities and recommended the MRL variations below. | NEDI: 56% of the ADI |
|
| Edible offal (mammalian)Meat (mammalian) (in the fat)Milks | OmitSubstituteOmitSubstituteOmitSubstitute | T0.5T3T0.05T1\*0.02T0.1 |
| **Buprofezin**Buprofezin is an insecticide and acaricide with contact and stomach action. It inhibits the moulting of nymphs and larvae by suppressing ecdysis. It is used to control various pests in cotton, fruit and vegetable situations.The NHC requested in its submission on MRL Proposal M1005 that FSANZ include an MRL in the Code harmonised with the United States limit for buprofezin residues in stone fruit. Bifenazate residues may occur in cherries imported from the United States. The MRL may minimise potential trade disruption and extend consumer choice. | NEDI: 37% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Stone fruits [except apricot; peach] | Insert | 1.9 | 666 | CherriesNectarinePlums (including prunes) | 132 |
| **Carbaryl**Carbaryl is an n‐methyl carbamate insecticide. It is a weak cholinesterase inhibitor. It has contact and stomach action with slight systemic properties. It is used to control Lepidoptera, Coleoptera and other chewing and sucking insects on a broad range of crops including fruits, nuts, vegetables, cereals, cotton, sugar cane and rice.The United States Cranberry Marketing Committee (CMC) requested that FSANZ include an MRL in the Code harmonised with the United States limit for carbaryl residues in cranberries. Carbaryl residues may occur in cranberries imported from the United States. The MRL may minimise potential trade disruption and extend consumer choice. | NEDI: 12% of the ADIMean estimated daily dietary exposure based on mean analytical results:20th ATDS: 5% of the ADI for toddlers 2 years; 4% of the ADI for infants 9 months; <1% of the ADI for adult males 25 – 34 years and <1% of the ADI for other population groups assessed19th ATDS: 15% of the ADI for toddlers 2 years; 10% of the ADI for infants 9 months; 5% of the ADI for adult females 25 – 34 years; 4% of the ADI for girls 12 years and 3% of the ADI for other population groups assessedNESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Cranberry | Insert | 3 | 21 | 5 |
| **Chlorothalonil**Chlorothalonil is a non-systemic foliar fungicide with protective action. It conjugates with and depletes thiols, particularly glutathione, in germinating fungal cells leading to disruption of glycolysis and energy production. It is used to control fungal diseases in a broad range of crops and horticultural situations.The APVMA has approved an extension of use of chlorothalonil to include chickpeas and lentils and a use pattern for silverbeet and spinach. The APVMA has also issued permits for its use to control downy mildew, Alternaria, Botrytis and Cercospora on certain culinary herbs; and with pyrimethanil to controlAlternaria and Botrytis on chickory, endive, radicchio, silverbeet and spinach.Amendment to residue definitionOmit: Commodities of plant origin: ChlorothalonilCommodities of animal origin: Sum of chlorothalonil and 4-hydroxy-2,5,6-trichloroisophthalonitrile metabolite, expressed as chlorothalonilSubstitute: Commodities of plant origin: ChlorothalonilCommodities of animal origin: 4-hydroxy-2,5,6-trichloroisophthalonitrile metabolite, expressed as chlorothalonil | NEDI: 88% of the ADIMean estimated daily dietary exposure based on mean analytical results:20th ATDS: <1% of the ADI for all population groups assessed19th ATDS: <1% of the ADI for all population groups assessedNote that the proposed vegetables MRL variation is a technical amendment only. NESTI calculations are not required.NESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Chard (silver beet)Coriander (leaves, stem, roots)Edible offal (mammalian)Herbs [except fennel, leaf]Leafy vegetablesLeafy vegetables [except chard (silver beet); spinach]Meat (mammalian) (in the fat)MilksPoultry, edible offal ofPoultry meatPulsesSpinachVegetables [except as otherwise listed under this chemical]Vegetables [except asparagus; Brussels sprouts; carrot; celery; chard (silver beet); fennel, bulb; fruiting vegetables, cucurbits; garlic; leafy vegetables; leek; onion, bulb; peas (pods and succulent, immature seeds); potato; pulses; spinach; spring onion; tomato] | InsertInsertOmitSubstituteOmitSubstituteOmitInsertOmitSubstituteOmitSubstituteInsertInsertOmitSubstituteInsertOmitInsert | T50T20T37T7T20T7T10T22T0.050.05\*0.05\*0.05T73T100T7T7 | 1921215<11<1338 | 111218<11<1154 |
| **Chlorpyrifos**Chlorpyrifos is a broad spectrum non-systemic insecticide with contact, stomach, and respiratory action. It is a cholinesterase inhibitor. It is used to control a broad range of insect pests in many crops including cotton, sugarcane, vegetables, pome and stone fruit, pastures, turf and ornamental crops.The APVMA has evaluated trial data in relation to an existing permit to use chlorpyrifos to control scarab beetles (*Scarabaeidae*) on blueberries. The recommended MRL is at the LOQ.The NHC requested that FSANZ consider including a chlorpyrifos MRL in the Code harmonised with the United States MRL for chlorpyrifos residues in cherries.The CMC requested that FSANZ include an MRL in the Code harmonised with the Codex limit for chlorpyrifos residues in cranberries.Chlorpyrifos residues may occur in cherries and cranberries imported from the United States. The proposed MRLs may minimise potential trade disruption and extend consumer choice.Chlorpyrifos is currently under review by the APVMA. FSANZ notes that the conclusion of the review is imminent and that upon finalisation, the APVMA may vary chlorpyrifos MRLs. Following the anticipated recommended changes to use patterns, the estimated dietary exposures will be reassessed as part of finalisation of the Review. Further information about the review is available on the APVMA website at: [www.apvma.gov.au/products/review/current/chlorpyrifos.php](http://www.apvma.gov.au/products/review/current/chlorpyrifos.php) | NEDI: 75% of the ADIMean estimated daily dietary exposure based on mean analytical results:20th ATDS: <1% of the ADI for all population groups assessed19th ATDS: 3% of the ADI for toddlers 2 years; 1% of the ADI for boys 12 years and <1% of the ADI for other population groups assessedNote that the proposed stone fruits MRL variation is a technical amendment only. NESTI calculations are not required.NESTI as % of the ARfD |
| 2-6 years | 2+ years |
| BlueberriesCherriesCranberryStone fruitsStone fruits [except cherries] | OmitSubstituteInsertInsertOmitInsert | T1\*0.0111T1T1 | <116<1 | <13<1 |
| **Clothianidin**Clothianidin is an insecticide. It is an agonist of the nicotinic acetylcholine receptor, affecting the synapses in the insect central nervous system. It exhibits translaminar and root systemic activity. It is used to control various pests in pome and stone fruits, bananas and cotton.The APVMA has approved an extension of its use to control long tail mealybug in grapes. The recommended MRL for wine grapes is at the LOQ. | NEDI: 4% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Dried grapesGrapes [except wine grapes]Wine grapes | InsertInsertInsert | 103\*0.02 | 1227<1 | 311<1 |
| **Cypermethrin**Cypermethrin is a pyrethroid, non-systemic insecticide with contact and stomach action. It acts on the central and peripheral nervous system of insects in very low doses. It is used to control a wide range of chewing and sucking insect pests in cereal, legume and oilseed crops and horticultural situations.The Thailand National Bureau of Agricultural Commodity and Food Standards has requested that FSANZ consider including MRLs in the Code harmonised with the Thai MRLs for cypermethrin residues in durians, longans and chillies. Cypermethrin residues may occur in imported fruits. The proposed MRLs may minimise potential trade disruption and extend consumer choice.The commodity name ‘Peppers, Chili’ is used for chillies consistent with the Codex classification of foods and animal feeds. | NEDI: 12% of the ADIMean estimated daily dietary exposure based on mean analytical results:20th ATDS: not detected in any foods sampled19th ATDS: <1% of the ADI for all population groups assessedNESTI as % of the ARfD |
| 2-6 years | 2+ years |
| DurianLonganPeppers, Chili | InsertInsertInsert | 111 | 797924 | Tropical fruit inedible peelTropical fruit inedible peelPeppers group | 202010 |
| **Epoxiconazole**Epoxiconazole is a broad spectrum contact and systemic fungicide. It inhibits C-14 demethylase in sterol biosynethsis. It is used to control various fungal diseases in a range of crops and horticultural situations.The APVMA has approved its use with pyraclostrobin to control various diseases in wheat, barley and oats. | NEDI: 2% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| BarleyCereal grainsWheat | OmitInsertOmit | 0.050.050.05 | <1 | <1 |
| **Etoxazole**Etoxazole is a contact acaricide and insect growth regulator. It inhibits the moulting process of mites and aphids by disrupting the cell wall. It is used to control various mites on pome fruit, stone fruit, table grapes and cotton.The APVMA has issued a permit for its use to control two-spotted mite (*Tetranychus urticae*) on snow peas and sugar snap peas. The recommended MRL is at the LOQ. | NEDI: 2% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Podded pea (young pods) (snow and sugar snap) | Insert | T\*0.02 | <1 |  | <1 |
| **Fenbuconazole**Fenbuconazole is a systemic fungicide with protectant, curative and eradicant properties. It inhibits steroid demethylation. It is used to control certain diseases in bananas, nectarines and wheat.The APVMA has issued a permit for its use to control fungal disease in wheat. The recommended MRL is at the LOQ. An increased offal MRL is recommended as residues may occur in liver.The NHC requested that FSANZ consider including a fenbuconazole MRL in the Code harmonised with the United States MRL for fenbuconazole residues in cherries. Residues may occur in cherries imported from the United States. The proposed MRL may minimise potential trade disruption and extend consumer choice. | NEDI: 3% of the ADINote that the proposed stone fruits MRL variation is a technical amendment only. NESTI calculations are not required.NESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Edible offal (mammalian)Stone fruits [except nectarine]Wheat | OmitSubstituteOmitSubstituteInsert | \*0.010.05T11\*0.01 | <1<1 | <1<1 |
| **Fenbutatin oxide**Fenbutatin oxide is a non-systemic acaricide with contact and stomach action. It inhibits oxidative phosphorylation. It is used to control phytophagous mites in various horticultural situations.The NHC requested that FSANZ include an MRL in the Code harmonised with the United States limit for fenbutatin oxide residues in cherries. Residues may occur in cherries imported from the United States. The MRL may minimise potential trade disruption and extend consumer choice. | NEDI: 82% of the ADI |
|
| Cherries | Insert | 6 |
| **Fipronil**Fipronil is a phenylpyrazole insecticide. It blocks the GABA regulated chloride channel. This disrupts central nervous system activity. It is used to control pests in a wide range of crops and horticultural situations.The APVMA has approved a use pattern to control various pests on sweet potatoes. Residues data indicate that detectable residues are not expected to occur. The data are sufficient to remove the temporary status of the MRL. | NEDI: 77% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Sweet potato | OmitSubstitute | T\*0.01\*0.01 | 2 | <1 |
| **Fluazifop-butyl**Fluazifop-butyl (fluazifop) is a selective systemic herbicide absorbed by the leaves. It inhibits acetyl-coA carboxylase. It is used to control grass weeds in broad leaf crops.The APVMA has issued permits for its use to control certain grass weeds in chia, parsnip and various onions. | NEDI: 69% of the ADI |
|
| ChiaOnion, WelshParsnip | InsertInsertOmitSubstitute | T20.05T0.10.1 |
| **Flubendiamide**Flubendiamide is an insecticide. It has larvicidal activity, when orally ingested it results in rapid cessation of feeding. It is a ryanodine receptor agonist. It is used to control insect pests in various vegetables.The APVMA has evaluated further data in relation to the approved use of flubendiamide in certain vegetables. The data are sufficient to remove the temporary status of the recommended vegetable MRLs. Residues may occur in certain stock feed following the approved use of flubendiamide. Animal commodity MRLs are recommended as data indicate residues may occur in these foods. The recommended milk MRL is at the LOQ. | NEDI: 46% of the ADI |
|
| Edible offal (mammalian)Lettuce, headLettuce, leafMeat (mammalian) (in the fat)Milk fatsMilksPeppers, SweetTomato | InsertOmitSubstituteOmitSubstituteInsertInsertInsertOmitSubstitute OmitSubstitute | 0.03T55T570.050.05\*0.01T11T22 |
| **Flumetsulam**Flumetsulam is a systemic herbicide. It is absorbed by roots and leaves of plants and translocated to growth points. It is used to control various weeds in cereals and pasture.The APVMA has approved a use pattern to control various weeds in pastures and cereal crops. No changes are proposed for cereal MRLs. | NEDI: <1% of the ADI |
|
| Edible offal (mammalian) | OmitSubstitute | \*0.20.3 |
| **Imazamox**Imazamox is a imidazolinone herbicide. It is an acetolactate synthase (ALS) (also known as acetohydroxyacid synthase (AHAS)) inhibitor. It is absorbed through both foliage and roots and is translocated to growing points causing plants to wilt and turn brown. It is used for the early post emergent control of annual grass and broad leaf weeds in various crops.The APVMA has issued a permit for its use with imazapyr to control annual grass and broad leaf weeds in oilseed poppy. The recommended MRL is at the LOQ. | NEDI: <1% of the ADI |
|
| Poppy seed | Insert | T\*0.05 |
| **Imazapyr**Imazapyr is a systemic, contact and residual herbicide. It is absorbed by the foliage and roots and translocated via the xylem and phloem to the meristematic regions where it accumulates. It is used to control annual grass and broad leaf weeds in various crops.The APVMA has issued a permit for its use with imazamox to control annual grass and broad leaf weeds in oilseed poppy. The recommended MRL is at the LOQ. | NEDI: <1% of the ADI |
|
| Poppy seed | Insert | T\*0.05 |
| **Imidacloprid**Imidacloprid is a systemic insecticide with contact and stomach action. It acts on the central nervous system of insects causing blockage of postsynaptic nicotinic acetylcholine receptors. It is used as a seed dressing, or soil or foliar treatment to control sucking insects including aphids, thrips and whitefly in cereals, oilseeds, fruits and vegetables.The APVMA has approved its use as an in-furrow soil treatment to control green peach aphid and silverleaf whitefly on potatoes and sweet potatoes. The APVMA has evaluated further data in relation to the use of imidacloprid as a seedling or soil drench in certain leafy vegetables; and as a seed dressing to control aphids in broad beans, field peas and lentils. The data are sufficient to remove the temporary status of the recommended leafy vegetables MRLs. A lupin MRL is also recommended. | NEDI: 19% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Broad bean (dry)Field pea (dry)Leafy vegetables [except lettuce, head]Leafy vegetables [except lettuce, leaf]Lentil (dry)Lettuce, headLettuce, leafLupin (dry)PotatoSweet potato | InsertInsertInsertOmitInsertInsertOmitOmitSubstituteOmitSubstituteOmitSubstitute | \*0.05\*0.0520T50.25T20\*0.050.2T0.50.30.50.3 | <1<150<112<1<1<1 | <1<136<17<1<1<1 |
| **Indoxacarb**Indoxacarb is a foliar insecticide. It is active by contact and ingestion. It blocks sodium ion channels in nerve cells causing cessation of feeding, poor coordination, paralysis and death. It is used to control Lepidoptera in cotton, fruit and vegetables.The APVMA has issued a permit for its use to control Heliothis (*Helicoverpa armigera* and *Helicoverpa punctigera*) on peanuts. | NEDI: 21% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Peanut | Insert | T0.02 | <1 | <1 |
| **Iprodione**Iprodione is a foliar fungicide with contact, protective and curative action. It inhibits spore germination and growth of fungal mycelium. It is used to control various moulds and rots including Sclerotinia (*Sclerotinia sclerotiorum*), grey mould (*Botrytis cinerea*) and Alternaria leaf spot (*Alternaria brassicae*) in cereals, oilseeds, pulses, nuts, fruits and vegetables.The APVMA has issued permits for its use to control sclerotinia rot in peppers and grey mould in Brussels sprouts. The data are sufficient to remove the temporary status of the Brussels sprouts MRL. | NEDI: 44% of the ADIMean estimated daily dietary exposure based on mean analytical results:20th ATDS: 1% of the ADI for adult males 25 – 34 years and toddlers 2 years and <1% of the ADI for other population groups assessed19th ATDS: 1% of the ADI for toddlers 2 years and <1% of the ADI for other population groups assessed |
|
| Brussels sproutsPeppers | OmitSubstituteInsert | T10.5T2 |
| **Lambda-cyhalothrin**Lambda-cyhalothrin is a synthetic pyrethroid insecticide. It is a sodium channel modulator. It causes excessive stimulation of neurons by preventing the closure of voltage sensitive sodium channels. It is used to control a wide range of insect pests in cereal, fruit and vegetable crops.The NHC requested in its submission on MRL Proposal M1005 that FSANZ consider including an MRL for lambda-cyhalothrin residues in cherries in the Code harmonised with the United States MRL. Residues may occur in cherries imported from the United States. The MRL may minimise potential trade disruption and extend consumer choice.Note: Lambda-cyhalothrin MRLs are listed under cyhalothrin. | NEDI: 92% of the ADIMean estimated daily dietary exposure based on mean analytical results for cyhalothrin:20th ATDS: not detected in any foods sampled19th ATDS: <1% of the ADI for all population groups assessedNESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Stone fruits | Insert | 0.5 | 8541414041 | ApricotCherriesNectarinePeachPlum (including prunes) | 107231615 |
| **Metalaxyl**Metalaxyl is a systemic fungicide with protective and curative action. It is absorbed through the leaves, stems and roots. It inhibits protein synthesis by interfering with the synthesis of ribosomal RNA. It is used to control various fungal blights and mildews on a range of crops.The APVMA has issued a permit for its use to control Pythium rhizome rot (*Pythium myriotylum*) in ginger. Metalaxyl-M may also be used under the permit. | NEDI: 6% of the ADIMean estimated daily dietary exposure based on mean analytical results:20th ATDS: <1% of the ADI for all population groups assessed |
|
| Ginger, root | Insert | T0.5 |
| **Metalaxyl-M**Metalaxyl-M is the active D-isomer of metalaxyl. It is a systemic fungicide with protective and curative action. It is absorbed through the leaves, stems and roots. It inhibits protein synthesis by interfering with the synthesis of ribosomal RNA. It is widely used to control various fungal diseases in horticultural situations.The APVMA has issued a permit for its use to control Phytophthora root rot (*Phytophthora palmivora*) and Pythium (*Pythium* spp.) on pawpaw. Metalaxyl may also be used under the permit. The data are sufficient to remove the temporary status of the MRL. Residues data from the use of metalaxyl-M on pawpaw show no detectable residues. The recommended MRL is at the LOQ.Note: Metalaxyl-M MRLs are listed under metalaxyl. | Metalaxyl NEDI: 6% of the ADI |
|
| Papaya (pawpaw) | OmitSubstitute | T\*0.05\*0.01 |
| **Metconazole**Metconazole is a systemic fungicide. It inhibits steroid demethylation (ergosterol biosysnthesis). It is used to control a wide range of foliar diseases on cereals and other crops.The NHC requested that FSANZ consider including an MRL for metconazole residues in cherries in the Code harmonised with the United States MRL. Residues may occur in cherries imported from the United States. The MRL may minimise potential trade disruption and extend consumer choice.New entryInsert chemical name:MetconazoleInsert residue definition:Metconazole | NEDI: 5% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Stone fruits | Insert | 0.2 | 73554 | ApricotCherriesNectarinePeachPlum | 1<1211 |
| **Methomyl**Methomyl is a carbamate insecticide and acaricide with contact and stomach action. It is a cholinesterase inhibitor. It is used to control a wide range of pests on cereals, oilseeds, nuts, fruits and vegetables.The APVMA has issued a permit for its use to control Heliothis in chia. | NEDI: 74% of the ADIMean estimated daily dietary exposure based on mean analytical results:19th ATDS: not detected in any foods sampledNESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Chia | Insert | T0.5 | <1 | <1 |
| **Methoxyfenozide**Methoxyfenozide is an insecticide. It is a second generation ecdysone agonist. It causes cessation of feeding and premature lethal moult. It is primarily active by ingestion, but also with contact and ovicidal activity. It does not have translaminar or phloem-systemic properties. It is used to control various insect pests in cotton, tomato, apples, pears, citrus, grapevines, avocado, custard apple, kiwifruit, longan, lychee, macadamia, coffee, blueberries, eggplant, capsicum and chillies.The APVMA has issued a permit for its use to control native bud worm (*Helicoverpa* spp.) and cluster caterpillar (*Spodoptera* *litura*) in basil, chives, coriander, dill, marjoram, mint, oregano, parsley, rocket, sage, French tarragon, Mexican tarragon, thyme and water cress grown as annuals.The CMC requested that FSANZ include an MRL in the Code harmonised with the United States limit for methoxyfenozide residues in cranberries.The NHC requested that FSANZ consider including a MRL in the Code harmonised with the United States MRL for methoxyfenozide residues in cherries.Residues may occur in cranberries and cherries imported from the United States. The proposed MRLs may minimise potential trade disruption and extend consumer choice. | NEDI: 9% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Coriander (leaves, stem, roots)CranberryHerbsMexican tarragonRucola (rocket)Stone fruits [except plums (including prunes)] | InsertInsertInsertInsertInsertInsert | T200.5T20T20T203 | <1<111711589 | ApricotCherriesNectarinePeach | <1<1<1<152143 |
| **Paclobutrazol**Paclobutrazol is a plant growth regulator. It inhibits gibberellin and sterol synthesis. It is used on fruit trees to produce more compact plants (inhibit vegetative growth) and improve fruit set.The APVMA has issued a permit for its use on barley and wheat to reduce lodging. | NEDI: 15% of the ADI |
|
| BarleyWheat | InsertInsert | T0.1T0.1 |
| **Pendimethalin**Pendimethalin is a selective herbicide. It is absorbed by the roots and leaves. It inhibits microtubule assembly. It is used to control annual grasses and broad leaf weeds in a wide range of crops.The APVMA has issued a permit for its use to control weeds in basil, bay trees, borage, chives, coriander, dill, fennel, lemon balm, lemon grass, kaffir lime, marigold, marjoram, oregano, mints, nasturtium, parsley, rosemary, sage, Burnet salad, sorrel, tarragon, savoury and thyme prior to transplanting. The data are sufficient to recommended an MRL at the LOQ. | NEDI: <1% of the ADIMean estimated daily dietary exposure based on mean analytical results:20th ATDS: not detected in any foods sampled |
|
| Herbs | Insert | \*0.05 |
| **Permethrin**Permethrin is a non-systemic synthetic pyrethroid insecticide. It has contact and stomach action and a slight repellent effect. It acts on the nervous system of insects, disturbing the function of neurons by interaction with the sodium channel. It is used to control pests on a wide range of crops.The APVMA has issued a permit for its use to control Lepidopteran pests (including cabbage moth (*Helicoverpa* spp.), cluster caterpillar and cabbage white butterfly) on field grown basil, bay trees, borage, chives, coriander, dill, fennel, lemon balm, lemon grass, kaffir lime, marigold, marjoram, oregano, mints, nasturtium, parsley, rosemary, sage, Burnet salad, sorrel, tarragon, savoury and thyme. | NEDI: 17% of the ADIMean estimated daily dietary exposure based on mean analytical results:20th ATDS: <1% of the ADI for all population groups assessed19th ATDS: <1% of the ADI for all population groups assessedNESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Coriander (leaves and stems)Coriander (leaves, stem, roots)HerbsKaffir lime leavesLemon balmLemon grass | OmitInsertOmitSubstituteOmitSubstituteInsertOmitSubstitute | T1030T1030T103030T1030 | <1<1<1<1<1 | <1<1<1<1<1 |
| **Phosphorous acid**Phosphorous acid is a selective systemic phosphonate fungicide with multi-site activity. It creates an immune response within the host plant and also has direct antifungal activity. It is used to control fungal diseases on fruits and vegetables.The APVMA has issued permits for its use to control Pythium rhizome rot (*Pythium myriotylum*) in ginger and Phytophthora root rot (*Phytophthora nicotianae var. nicotianae*) in field grown tomatoes grown for processing purposes. | NEDI: 7% of the ADI |
|
| Ginger, rootTomato | InsertInsert | T100T100 |
| **Pirimicarb**Pirimicarb is a selective systemic insecticide. It has contact, stomach and respiratory action. It is an anticholinesterase inhibitor. It is used to control aphids on crops and pastures.The APVMA has issued permits for its use to control aphid, including green aphids and cabbage aphids on leafy vegetables; aphids on spring onions; and cowpea aphid (*Aphis craccivora*) and soya bean aphid (*Aphis glycines*) on adzuki bean, mung bean and soy bean. MRLs are also recommended for shallots and Welsh onions. Shallots may be harvested green and referred to as spring onions and Welsh onions may be considered to be spring onions. The current soy bean MRL remains appropriate. | NEDI: 89% of the ADIMean estimated daily dietary exposure based on mean analytical results:20th ATDS: <1% of the ADI for all population groups assessed19th ATDS: <1% of the ADI for all population groups assessedNote that the proposed vegetables MRL variation is a technical amendment only. NESTI calculations are not required.NESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Adzuki bean (dry)Leafy vegetables [except chervil; mizuna; rucola]Leafy vegetables [except chervil; mizuna; rucola (rocket)]Mung bean (dry)Onion, WelshShallotSpring onionVegetables [except leafy vegetables; lupin (dry); soya bean (dry); sweet corn (corn-on-the-cob)]Vegetables [except adzuki bean (dry); leafy vegetables; lupin (dry); mung bean (dry); onion, Welsh; shallot; soya bean (dry); spring onion; sweet corn (corn-on-the-cob)] | InsertOmitInsertInsertInsertInsertInsertOmitInsert | T0.5T5T7T0.5T3T3T311 | 10641015117 |  | 2332322 |
| **Profenofos**Profenofos is a non-systemic insecticide and acaricide with contact and stomach action. It has ovicidal properties. It is a cholinesterase inhibitor. It is used to control Lepidoptera and mites on vegetables and other crops.The Thailand National Bureau of Agricultural Commodity and Food Standards has requested that FSANZ consider including an MRL in the Code harmonised with the Thai MRL for profenofos residues in mangosteen. Residues may occur in imported fruit. The proposed MRL may minimise potential trade disruption and extend consumer choice. | NEDI: 39% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Mangosteen | Insert | 5 | 16 | 4 |
| **Prothioconazole**Prothioconazole is a systemic fungicide with protective, curative, eradicative and long-lasting activity. It inhibits steroid demethylation in the biosynthesis of ergosterol. It is used to control various foliar diseases in wheat and barley.The APVMA has approved an extension of its use in barley and wheat. An offal MRL is recommended. Other established prothioconazole animal commodity MRLs remain appropriate. The APVMA has also issued a permit for prothioconazole use as a seed treatment to control various fungal diseases in wheat barley and oats. | NEDI: 7% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| BarleyCereal bran, unprocessedEdible offal (mammalian)OatsWheatWheat germ | OmitSubstituteInsertOmitSubstituteInsertOmitSubstituteInsert | T\*0.050.30.5\*0.050.1\*0.05\*0.050.30.5 | <11<1<1<11810 | Beer onlyCereal grain fractionsEarly milling products | <18<1<1<1<195 |
| **Pyraclostrobin**Pyraclostrobin is a strobiluran fungicide with protectant, curative and translaminar properties. It inhibits mitochondrial respiration by blocking electron transfer within the respiratory chain; this severely disrupts cellular biochemical processes and results in cessation of fungal growth. It is used to control major plant pathogens in fruit and vegetables.The APVMA has issued permits for its use to control black spot (*Asperisporium caricae*) and brown spot (*Corynespora cassiicola*) on pawpaw and Pseudocerocospora leaf spot (*P. Anonicola*) on custard apple. The APVMA has also approved its use with epoxiconazole to control various diseases in wheat, barley and oats. The recommended cereal grains MRL is at the LOQ. | NEDI: 3% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Cereal grainsCustard applePapaya (pawpaw) | InsertInsertInsert | \*0.01T3T0.5 | <14811 | Tropical fruit inedible peelPineapple | <1134 |
| **Pyrimethanil**Pyrimethanil is a foliar fungicide with protectant action. It inhibits fungal enzymes necessary for infection. It is used to control fungal diseases in a range of horticultural situations.The APVMA has issued a permit for its use with chlorothalonil to control Alternaria andBotrytis on chickory, endive, radicchio, silverbeet and spinach. | NEDI: 5% of the ADIMean estimated daily dietary exposure based on mean analytical results:20th ATDS: <1% of the ADI for all population groups assessedNESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Leafy vegetables | Insert | T5 | 5 |  | 3 |
| **Pyriproxifen**Pyriproxyfen is an insecticide. It is an insect growth regulator, which inhibits metamorphosis and reproduction. It is used to control silverleaf whitefly in cotton; silverleaf whitefly and greenhouse whitefly in cucurbits, tomatoes and eggplant; and various scale insects in citrus fruit, mangoes, olives, coffee and passionfruit.The APVMA has approved a use pattern to control pests in mango. | NEDI: 2% of the ADI |
|
| Mango | OmitSubstitute | \*0.010.05 |
| **Simazine**Simazine is a selective systemic herbicide. It is absorbed principally through the roots but also through foliage, with translocation acropetally in the xylem accumulating in the apical meristems and leaves. It inhibits photosynthetic electron transport.The APVMA has issued a permit for its use to control blue green algae in dams, tanks and troughs for livestock watering. The recommended MRLs are at the LOQ. | NEDI: 16% of the ADI |
|
| Edible offal (mammalian)Meat (mammalian)Milks | OmitSubstituteOmitSubstituteOmitSubstitute | \*0.01\*0.05\*0.01\*0.05\*0.01\*0.02 |
| **Spirotetramat**Spirotetramat is a cyclic ketoenole insecticide. It is a tetramic acid derivative. It inhibits acetyl CoA carboxylase, a key enzyme in fatty acid biosynthesis. It is active against a wide spectrum of sucking insects including aphids, scales, mealybugs, whiteflies, psyllids and certain thrips.The APVMA has approved an extension of its use to control various pests in brassicas, cucurbits, eggplant, capsicum, chillies, tomatoes, potatoes, sweet potatoes and leafy vegetables. The APVMA has evaluated further trial data in relation to use of spirotetramat to control pests in citrus fruits, mango and onion. The data are sufficient to remove the temporary status of the MRLs. The APVMA has also issued a permit for use of spirotetramat to control various pests on beans and peas.Bayer requested MRLs in the Code harmonised with the Codex MRLs for spirotetramat residues in grapes and raisins. Residues may occur in imported grapes and raisins. The MRL may minimise potential trade disruption and extend consumer choice. | NEDI: 12% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Citrus fruitsDried grapesFruiting vegetables, cucurbitsFruiting vegetables, cucurbits [except melons]Fruiting vegetables, other than cucurbitsGrapesLeafy vegetables [except lettuce, head]Legume vegetablesLettuce, headLettuce, leafMangoMelons, except watermelonOnion, bulb Peppers, SweetPotatoSweet potatoTomatoWatermelon | OmitSubstituteInsertOmitInsertInsertInsertInsertInsertOmitSubstituteOmitOmitSubstituteInsertOmitSubstituteOmitInsertInsertOmitInsert | T114T22725T2T53T10T0.30.30.5T0.50.5T555T70.5 | 5<12<1121432<1<111<1621 | ZucchiniCucumberLettuce, leafSpinach | 2<1<1<17322<1<1<1<1<1221 |
| **Tebuconazole**Tebuconazole is a non-systemic foliar triazole fungicide. It has protective action. It inhibits steroid demethylation leading to inhibition of ergosterol biosynthesis. It is used to control various fungal diseases in many crops.The NHC requested in its submission on MRL Proposal M1005 that FSANZ consider including an MRL for tebuconazole residues in cherries in the Code harmonised with the United States MRL. Residues may occur in cherries imported from the United States. The MRL may minimise potential trade disruption and extend consumer choice. | NEDI: 24% of the ADIMean estimated daily dietary exposure based on mean analytical results:20th ATDS: not detected in any foods sampled |
|
| Cherries | Insert | 5 |
| **Tebufenozide**Tebufenozide is an ecdysone agonist insecticide. It binds to the receptor site of the insect moulting hormone ecdysone. It lethally accelerates the moulting process. It is used to control Lepidopteran larvae on fruits nuts and other crops.The CMC requested that FSANZ include an MRL in the Code harmonised with the Codex limit for tebufenozide residues in cranberries. Residues may occur in cranberries imported from the United States. The MRL may minimise potential trade disruption and extend consumer choice. | NEDI: 32% of the ADINESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Cranberry | Insert | 0.5 | <1 | <1 |
| **Terbuthylazine**Terbuthylazine is a herbicide. It is absorbed mainly by the roots. It inhibits photosynthetic electron transport at the photosystem II receptor site.The APVMA has evaluated further data in relation to the approved use of spirotetramat to control a wide variety of weeds in pre-emergent lupins, chickpeas, field peas, fava beans and certain canola varieties. The data are sufficient to confirm the MRLs. The APVMA has also issued a permit for use of spirotetramat to control various weeds in sorghum, maize and sweet corn. The recommended MRLs are at the LOQ. | NEDI: 4% of the ADI |
|
| Edible offal (mammalian)EggsMaizeMeat (mammalian)MilksPoultry, edible offal ofPoultry meatPulsesRape seed (canola)Sorghum Sweet corn (corn-on-the-cob) | OmitSubstituteOmitSubstituteInsertOmitSubstituteOmitSubstituteOmitSubstituteOmitSubstituteOmitSubstituteOmitSubstituteInsertInsert | T\*0.01\*0.01T\*0.01\*0.01T\*0.02T\*0.01\*0.01T\*0.01\*0.01T\*0.01\*0.01T\*0.01\*0.01T\*0.02\*0.02T\*0.02\*0.02T\*0.02T\*0.02 |
| **Tolclofos-methyl**Tolclofos-methyl is a non-systemic nitrophenyl fungicide with contact, protective and curative action. It is used as a seed or in-furrow treatment to control fungal diseases in beetroot, cotton and potatoes.The APVMA has issued a permit for its use to control *Rhizoctonia* fungi in beetroot and potato. The established potato MRL remains appropriate. The recommended MRL is at the LOQ. | NEDI: <1% of the ADI |
|
| Beetroot | OmitSubstitute | T0.5\*0.01 |
| **Triadimenol**Triadimenol is a systemic fungicide with protective, curative and eradicant action. It is absorbed by roots and leaves, with ready translocation in young growing tissues, but less ready translocation in older, woody tissues. It inhibits gibberellin and ergosterol biosynthesis and hence the rate of cell division. It is used to control various fungal diseases in a range of crops.The APVMA has issued a permit for its use to control fungal diseases on tomatoes, eggplant, capsicums and chillies. Established MRLs for capsicum, tomato and eggplant remain appropriate. A temporary MRL is recommended for peppers, this group includes capsicum (sweet peppers) and chillies. | NEDI: 2% of the ADIMean estimated daily dietary exposure based on mean analytical results:20th ATDS: not detected in any foods sampled19th ATDS: not detected in any foods sampledNESTI as % of the ARfD |
| 2-6 years | 2+ years |
| Peppers, SweetPeppers | OmitInsert | T1T1 | 1210† | CapsicumChillies | 51 |
|  | † Calculated using consumption data for capsicum as there is insufficient chilli consumption data for this age group. |
| **Trichlorfon**Trichlorfon is an organophosphate insecticide. It binds irreversibly to the active site of acetylcholinesterase. Acetylcholinesterase is inactivated and therefore normal nerve impulse transmission is affected and the insect is paralysed. Trichlorfon is used to control pests in agriculture, horticulture, aquaculture and livestock.The APVMA has issued a permit for its use to control and treat skin and gill flukes, anchor worm (*Lernaea* spp.) and gill maggots (*Ergasilus* spp.) in farmed silver perch. Detectable residues are not expected to occur. The recommended MRL is at the LOQ.The proposed fruit and vegetables MRL variations are technical amendments. | NEDI: 99% of the ADIMean estimated daily dietary exposure based on mean analytical results:20th ATDS: not detected in any foods sampled |
|
| Fish muscleFruit [except as otherwise listed under this chemical]Fruit [except banana; dried fruits; peach]Vegetables [except as otherwise listed under this chemical]Vegetables [except beetroot; Brussels sprouts; cauliflower; celery; kale; peppers; pulses; sugar beet; sweet corn (corn-on-the-cob)] | InsertOmitInsertOmitInsert | T\*0.010.10.10.10.1 |
| **Trifloxystrobin**Trifloxystrobin is a mesostematic, broad-spectrum fungicide with preventative and specific curative action. It inhibits mitochondrial respiration by blocking electron transfer at the Qo centre of cytochrome bc1. It is used to control powdery mildew, leaf spot and rust in horticultural situations.The APVMA has issued permits for its use to control Cercospora leaf spot (*Cercospora apii*) and Septoria spot (*Septoria apiicola*) in celery and powdery mildew in field grown silver beet, chicory, spinach and endive.The NHC requested that FSANZ consider including an MRL for trifloxystrobin residues in cherries in the Code harmonised with the United States MRL. Residues may occur in cherries imported from the United States. The MRL may minimise potential trade disruption and extend consumer choice. | NEDI: 4% of the ADI |
|
| CeleryChard (silver beet)Chicory leavesEndiveSpinachStone fruits | InsertInsertInsertInsertInsertInsert | T1T0.7T0.7T0.7T0.72 |
| **Trifluralin**Trifluralin is a selective soil herbicide. It disrupts cell division and root development. It is applied to the soil and enters the seedling in the hypocotyl region. It is used for the pre-emergent control of broad leaf and annual grass weeds in a wide range of crops and horticultural situations.The APVMA has issued a permit for its use, pre-planting, to control certain weeds in chia. The recommended MRL is at the LOQ. | NEDI: 7% of the ADI |
|
| Chia | Insert | T\*0.01 |
| **Trinexapac-ethyl**Trinexapac-ethyl is a plant growth regulator and retardant. It is an internode elongation disruptor. It is absorbed by the foliage and translocated to the growing shoot. It is used to increase seed set, alkaloid levels and yield; and prevent lodging and stem elongation in sugar cane.The APVMA has issued a permit for its use in barley and wheat to reduce lodging. | NEDI: 3% of the ADI |
|
| BarleyWheat | InsertInsert | T0.3T0.3 |

## Attachment 3

## Summary of Submissions

| Submitter | Comments |
| --- | --- |
| Mr Leo Adler | Notes in his submission that he is a New Zealand citizen.Supports reductions but not increases in MRLs.Supports having a Standard regulating residues of agricutural and veterinary chemicals in food, noting increasing public interest in the possible health and environmental risks associated with chemical residues.Notes his main concern is that residue limits be kept to an absolute minimum because of public concern and awareness of the possible health and environmental risks and the increasing demand by major retailers, especially in Europe, for low-residue foods.Notes concern that the studies carried out to date do not show the real safety of the chemicals added to food on a long-term basis.Considers that the studies do not prove non-detrimental impact on human, animal, plant and environmental health when combined with other residues found in the diet.Notes that increased limits could add costs to producers if application levels are increased. |
| Dynamic Organic | Considers there is no acceptable safe level of residues in food.States that bioaccumulation of such chemicals has never been tested and considers that residues should not be permitted until adequate testing is undertaken. |
| Food and Beverage Importers Association (FBIA) | Supports the preferred approach.Specifically endorses the proposed MRLs for stone fruits/cherries, cranberries, various other fruits and chillies.This is on the basis that these foods are imported from the United States and Thailand and the use of the relevant pesticides has been approved in producing countries; the proposed limits would align with limits permitted in the United States and Thailand; the FSANZ safety assessment concluded that the proposed variations do not present safety concerns; due recognition should be given to agricultural practices of producing countries and international standards to provide for legitimate and safe trade; and setting the proposed limits would be in line with the Ministerial Council Policy Guideline on the Regulation of Residues of Agricultural and Veterinary Chemicals in Food, in particular it would be consistent with the effective regulation of the registration, permission and use of agricultural and veterinary chemicals, promote a consistent approach to MRLs for both domestic and imported foods and be consistent with Australia’s WTO SPS Agreement obligations. |
| Food Technology Association of Australia (FTAA) | The FTAA supports approval of the draft variations. |
| Northwest Horticultural Council (NHC) | Represents United States’ States of Idaho, Oregon and Washington apple, pear and cherry growers on policy, phytosanitary and food safety issues.Notes that Australia is a top seven trading partner for cherries from the region. Commends action taken by FSANZ to move quickly and include many chemicals important to Pacific Northwest pome and stone fruit growers in the Code. Significantly appreciates stone fruits MRLs approved through M1004 and M1005.Specifically endorses proposed cherry/stone fruit MRLs.Requests cherry MRLs be considered in future assessments for metconazole and fenpropathrin.Notes that in 2010 cherry shipments to Australia increased by approximately 5% from the previous year and the estimated value was $US10.8 million; and that the requested MRLs will assist growers in providing high quality fruit to the Australian market with the least trade disruption. |
| Queensland Government | Queensland Health is the lead agency in Queensland coordinating policy advice relative to national policy on food regulation. Submission made by Queensland Health in consultation with other relevant Queensland Government agencies on behalf of the Queensland Government.Supports approving the proposed draft variations to the Code.Notes that the dietary exposure assessments indicate that the proposed variations do not present public health or safety concerns.Acknowledges that the proposed variations will benefit stakeholders by maintaining public health and safety while permitting the legal sale of food containing legitimate residues of agricultural and veterinary chemicals used to control pests and diseases and improve agricultural productivity.Notes that the changes will remove inconsistencies between agricultural and food standards and provide certainty and consistency for producers, importers and Australian and State and Territory compliance agencies.Provides the following points contributed by the Queensland Government Department of Employment, Economic Development and Innovation for consideration:* FSANZ should standardise the use of brackets following the same conventions used by the APVMA.
* The Codex cypermethrin/durian MRL is \*1 not 1.
* It is necessary that the Codex residue definition is the same as that used by the APVMA/FSANZ, otherwise the numerical values cannot be directly compared. Imidacloprid and triadimenol are examples where definitions vary. Due to the same analytical methods, the standards may be comparable on a technical but not a legal basis.
* FSANZ should give consideration to adopting the interpretive notes as per the APVMA MRL Standard and include commentary on when an analytical result exceeds an MRL, significant figures, analytical uncertainty and rounding.
* It should be noted that setting an MRL at 2.5 implies that the anaytical methods should be able to distinguish between 2.5 and 2.6. The required reduction in the uncertainty in measurement in the analytical methods inherently raises the cost of the analysis and provides no overall reduction in the uncertainties in any risk assessment.
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