



09/02
8 May 2002

FINAL ASSESSMENT REPORT
[INQUIRY – S.17]

APPLICATION A447

MAXIMUM RESIDUE LIMITS

EXECUTIVE SUMMARY

- This Application seeks to amend Maximum Residue Limits (MRLs) for agricultural and veterinary chemicals in the *Food Standards Code*.
- The current Application (A447) is a routine application from the National Registration Authority for Agricultural and Veterinary Chemicals (NRA), to update the *Food Standards Code* in order to reflect current registration status of chemicals in agricultural and veterinary use in Australia.
- On 24 November 2000, the Australia New Zealand Food Standards Council (ANZFSC) adopted the *Australia New Zealand Food Standards Code* (published as Volume 2 of the *Food Standards Code*). Subsequently all applications to amend MRLs will now also be incorporated into Volumes 1 and 2 of the *Food Standards Code* (Standard A14 and Standard 1.4.2 respectively). Consequently all references throughout this document to the *Food Standards Code* are references to both Volumes 1 and 2 of the *Food Standards Code*.
- The *Agreement between the Commonwealth of Australia and the Government of New Zealand to establish a system for the development of Joint Food Standards* (the Treaty) excluded MRLs for agricultural and veterinary chemicals in food. Australia and New Zealand separately and independently develop MRLs for agricultural and veterinary chemicals in food.
- The NRA has assessed appropriate toxicology, residue, animal transfer, processing and metabolism studies, in accordance with the *Guidelines for Registering Agricultural and Veterinary Chemicals, the Agricultural and Veterinary Requirements Series, 1997*, to support the use of chemicals on commodities as outlined in this Application.
- There are no MRLs for antibiotic residues in this Application.
- The Therapeutic Goods Administration (TGA) of the Commonwealth Department of Health and Ageing has undertaken an appropriate toxicological assessment of the chemicals and where appropriate has set an acceptable daily intake (ADI).
- ANZFA is satisfied from the accompanying dietary modelling performed that the residues associated with the proposed MRLs do not represent an unacceptable risk to public health and safety.
- None of ANZFA's section 10 objectives are compromised by the proposed changes. The requested variations to the *Food Standards Code* should commence on gazettal.

- The Regulation Impact Assessment supports the requested MRLs. ANZFA considers that this application raises matters that constitute a potential Sanitary and Phytosanitary matter and raised a World Trade Organization (WTO) notification at Initial/Draft Assessment. No WTO Member has made a submission on this application.

1. ISSUES

The NRA has registered or varied the registration of non-antibiotic agricultural and veterinary chemicals for the uses associated with the MRLs in Application A447 and is now seeking to amend the MRLs in the *Food Standards Code* to:

- include MRLs for the new chemical, carfentrazone-ethyl;
- include MRLs for certain foods for azoxystrobin, bifenthrin, carbendazim, chlorfenvinphos, chlorpyrifos, dimethomorph, diquat, dithiocarbamates, emamectin, endosulfan, fipronil, fluazifop-butyl, fluquinconazole, fluvalinate, glyphosate, haloxyfop, indoxacarb, methomyl, metolachlor, naled, phosphine, pirimicarb, propiconazole, pymetrozine, pyrimethanil, spinosad, sulfosulfuron and tebuconazole;
- change MRLs for certain foods for chlorfenapyr, chlorfenvinphos, chlorpyrifos, endosulfan, glyphosate, haloxyfop, imidacloprid, ivermectin, methidathion, methomyl, pyrimethanil and uniconazole-p;
- amend the residue definitions for disulfoton, emamectin and ivermectin, zinc phosphide; and
- delete some MRLs for bifenthrin, chlorfenvinphos, chlorpyrifos, endosulfan, fenoxycarb, fluazifop-butyl, fluquinconazole, glyphosate, haloxyfop, methidathion, metolachlor, pirimicarb, pyrimethanil and spinosad.

ANZFA has provided specific details of the proposed MRL changes in the Summary of Proposed MRLs' (Attachment 2).

1.1 Antibiotic MRLs

There are no MRLs for antibiotic residues in this Application.

2. BACKGROUND

In Australia, the NRA is responsible for registering agricultural and veterinary chemical products, granting permits for use of chemical products and regulating the sale of agricultural and veterinary chemical products. Following the sale of these products, the use of the chemicals is then regulated by State and Territory 'control of use' legislation.

Before registering such a product, the NRA must be satisfied that the use of the product will not result in residues that would be an undue risk to the safety of people, including people using anything containing its residues.

When a chemical product is registered for use or a permit for use granted, the NRA includes MRLs in their NRA MRL Standard. These MRLs are then adopted into ‘control of use’ legislation in some jurisdictions and assist States and Territories in regulating the use of agricultural and veterinary chemicals.

2.1 Maximum Residue Limits

The MRL is the highest concentration of a chemical residue that is legally permitted or accepted in a food. The MRL does not indicate the amount of chemical that is always present in a treated food but it does indicate the highest residue that could possibly result from the registered conditions of use. The concentration is expressed in milligrams per kilogram (mg/kg) of the food.

MRLs assist in indicating whether an agricultural or veterinary chemical product has been used according to its registered use and if the MRL is exceeded then this indicates a likely misuse of the chemical product. MRLs are also used as standards for the international trade in food. MRLs, while not direct public health limits, act to protect public health and safety by minimising residues in food consistent with the effective control pests and diseases.

As stated above, the NRA includes MRLs in their NRA MRL Standard when it registers a chemical product for use or grants a permit for use. The NRA then notifies ANZFA of these MRLs so that ANZFA may consider them for inclusion into the *Food Standards Code*.

In relation to MRLs, ANZFA’s role is to ensure that the potential residues in treated food do not represent an unacceptable risk to public health and safety. ANZFA will not recommend MRLs for inclusion in the *Food Standards Code* where the dietary exposure to the residues of a chemical could represent an unacceptable risk to public health and safety. In assessing this risk, ANZFA conducts dietary exposure assessments in accordance with internationally accepted practices and procedures.

In summary, the MRLs in the NRA MRL Standard are used in some jurisdictions to assist in regulating the use of agricultural and veterinary chemical products under State and Territory ‘control-of-use’ legislation. Whereas the MRLs in the *Food Standards Code* apply in relation to the sale of food under State and Territory food legislation and the inspection of imported foods by the Australian Quarantine and Inspection Service.

2.2 Maximum Residue Limits applications

After registering the agricultural or veterinary chemical products, based on their scientific evaluations, the NRA makes applications to ANZFA to include MRLs in the *Food Standards Code*. ANZFA reviews the information provided by the NRA and validates whether the dietary exposure is within agreed safety limits. If satisfied that the residues do not represent an unacceptable risk to public health and safety and following consultation, ANZFA makes recommendations to ANZFS to adopt a draft variation to the *Food Standards Code* and include the MRLs in the *Food Standards Code*. The inclusion of the MRLs in the *Food Standards Code* has the effect of allowing treated produce to be legally sold, provided that the residues in the treated produce do not exceed the MRL.

Changes to Australian MRLs reflect the changing patterns of agricultural and veterinary chemicals available to farmers. These changes include both the development of new products and crop uses, and the withdrawal of older products following review.

2.3 Food Standards-Setting in Australia and New Zealand

The Treaty excluded MRLs for agricultural and veterinary chemicals in food from the joint food standards setting system. Australia and New Zealand separately and independently develop MRLs for agricultural and veterinary chemicals in food.

2.4 Trans Tasman Mutual Recognition Arrangement

Following the commencement of the Trans Tasman Mutual Recognition Arrangement (TTMRA) between Australia and New Zealand on 1 May 1998:

- food produced or imported into Australia, which complies with Standard A14 or Standard 1.4.2 of the *Food Standards Code* can be legally sold in New Zealand; and
- food produced or imported into New Zealand, which complies with the *New Zealand (Maximum Residue Limits of Agricultural Compounds) Mandatory Food Standard, 1999* can be legally sold in Australia.

2.5 Food Standards Code

On 24 November 2000, the ANZFSC adopted the *Australia New Zealand Food Standards Code* (published as Volume 2 of the *Food Standards Code*). Subsequently all applications to amend MRLs will now also be incorporated into Volumes 1 and 2 of the *Food Standards Code* (Standard A14 and Standard 1.4.2 respectively). Consequently all references throughout this document to the *Food Standards Code* are references to both Volumes 1 and 2 of the *Food Standards Code*.

2.6 MRLs for Permits

Some of the proposed MRLs in this Application are temporary and are indicated by a 'T' in the Summary of the Requested MRLs for A447 (Attachment 2). These MRLs may include uses associated with:

- the minor use program;
- off-label permits for minor and emergency uses; or
- trial permits for research.

ANZFA does not issue permits or grant permission for the temporary use of agricultural and veterinary chemicals. Further information on MRLs for permits can be found on the website of the NRA at <http://www.nra.gov.au> or by contacting the NRA on +61 2 6272 5158.

2.7 Limit of quantification

Some of the proposed MRLs in this application are at the limit of quantification (LOQ) and are indicated by an * in the Summary of the Requested (Attachment 2). The LOQ is the lowest concentration of an agricultural or veterinary chemical residue that can be identified and quantitatively measured in a specified food, agricultural commodity or animal feed with an acceptable degree of certainty by a regulatory method of analysis.

The inclusion of the MRLs at the LOQ means that no detectable residues of the relevant chemical should occur. ANZFA incorporates MRLs at the LOQ in the *Food Standards Code* to assist in identifying a practical benchmark for enforcement and to allow for future developments in methods of detection that could lead to a lowering of this limit.

3. OBJECTIVE

The objective of the proposed amendment in this application is to allow the legal sale under food legislation of legally treated produce. The NRA has already registered or varied the registration of specific chemical products under the NRA's legislation, and now seeks, by way of this Application to include the relevant MRLs in to the *Food Standards Code*.

4. DIETARY EXPOSURE ASSESSMENT

Before an agricultural or veterinary chemical is registered, the *Agricultural and Veterinary Chemicals Code, 1994* requires the NRA to be satisfied that there will not be any 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. ANZFA's responsibility is to ensure that the residues in food resulting from the use of agricultural and veterinary chemical products do not represent an unacceptable risk to public health and safety.

ANZFA assess the potential public health implications by comparing the dietary exposure with the relevant health standard. There are a number of methods for estimating dietary exposure based on the type of information that is available. The three that were considered in this application were the National Theoretical Maximum Daily Intake (NTMDI), the National Estimated Daily Intake (NEDI) and the National Estimated Short Term Intake (NESTI).

4.1 Acceptable Daily Intake

The Acceptable Daily Intake (ADI) is the daily intake of an agricultural or veterinary chemical, which, during the consumer's entire lifetime, appears to be without appreciable risk to the health of the consumer. This is on the basis of all the known facts at the time of the evaluation of the chemical. It is expressed in milligrams of the chemical per kilogram of body weight.

ANZFA considers that the dietary exposure to the residues of a chemical is acceptable where the best estimate of dietary exposure does not exceed the ADI.

4.2 National Estimated Daily Intake

The NEDI may represent a more realistic estimate of dietary exposure if the data are available and it is the preferred calculation. It may incorporate more refined food consumption data including that for specific sub-groups of the population. The NEDI calculation may take into account such factors as the proportion of the crop or commodity treated; residues in edible portions and the effects of processing and cooking on residue levels; and may use median residue levels from supervised trials rather than the MRL to represent agricultural and veterinary chemical residue levels. When adequate information is available, monitoring and surveillance data or total diet studies, such as the Australian Total Diet Survey (ATDS), may also be used.

4.3 National Theoretical Maximum Daily Intake

The NTMDI is a prediction of the long-term daily intake of a agricultural and/or veterinary chemical and is calculated by multiplying the MRLs established and proposed for a chemical by the average daily consumption for each food commodity across the whole population and summing the products.

$$\text{NTMDI} = \sum \text{MRL}_1 \times F_1, \text{ where}$$

MRL_1 = Maximum Residue Limit for a given food commodity (mg/kg)
 F_1 = National consumption of that food commodity per person (kg/day)

The NTMDI is calculated in milligrams of residue per person and expressed as a percent of the ADI, adjusting for the average bodyweight of the population.

The NTMDI is an overestimate of the true residue intake because it assumes that the entire national crop is treated with an agricultural chemical and that the entire national crop contains residues equivalent to the MRL. In reality, only a portion of a specific crop is treated with an agricultural chemical; most treated crops contain residues well below the MRL at harvest; and residues are usually reduced during storage, preparation, commercial processing and cooking. It is also unlikely that every food for which an MRL is proposed will have been treated with the same chemical over the lifetime of consumers.

As the NTMDI is a gross overestimate of dietary exposure, it is commonly used as a screening calculation. If the NTMDI does not exceed the ADI, it is highly unlikely that the ADI would ever be exceeded, even for high intake consumers.

4.4 Food Consumption Data

The NRA and ANZFA have agreed that all dietary exposure assessments for agricultural and veterinary chemicals undertaken by the NRA will be based on food consumption data for raw commodities, derived from individual dietary records from the latest 1995 National Nutrition Survey (NNS). The Australian Bureau of Statistics with the Commonwealth Department of Health and Age Care undertook the NNS survey over a 12-month period (1995-early 1996). The sample of 13,858 respondents aged two years and older was a representative sample of the Australian population and, as such, a diversity of food consumption patterns was reported.

A computer program developed by ANZFA derives raw commodity consumption data used in the NRA dietary exposure assessments. The program accesses the 13,858 individual dietary records from the 1995 NNS, and applies recipes to all mixed foods consumed by each individual to enable the total amounts of raw commodity equivalents consumed per individual person to be calculated. Population statistics (mean consumption, all respondents) are then derived from these individual raw commodity totals for use in NRA dietary exposure assessments.

For all new chemicals, review chemicals and those where the initial dietary exposure assessment based on mean consumption data appears to approach or exceed the ADI, the ANZFA computer program is used to calculate the total dietary exposure to a given chemical for each individual in the survey. Population statistics such as mean chemical exposure are then derived, thus taking into account as much as possible, individual dietary patterns from a diverse and representative sample of the Australian population.

This program also enables high consumers of a given chemical to be identified, as well as the major foods contributing to total dietary exposure for that chemical.

4.5 National Estimated Short Term Intake

The NESTI is used to estimate acute dietary exposure. Acute (short term) dietary exposure assessments are undertaken when an acute reference dose (ARfD) has been determined for a chemical.

Acute dietary exposures are normally only estimated based on consumption of raw unprocessed commodities (fruit and vegetables) but may include consideration of meat, offal, cereal, milk or dairy product consumption on a case-by-case basis.

The NESTI calculation incorporates the large portion (97.5 percentile) food consumption data and can take into account such factors as:

- the highest residue on a composite sample of an edible portion;
- the supervised trials median residue (STMR) that represents typical residues in an edible portion resulting from the maximum permitted chemical use pattern;
- processing factors which affect changes from the raw commodity to the consumed food; and
- the variability factor.

ANZFA and the NRA have used ARfDs set by the TGA and Joint FAO/WHO Meeting on Pesticide Residues, the consumption data from the 1995 NNS and the MRL when the STMR is not available to calculate the NESTIs. The ARfD of a chemical is the estimate of the amount of a substance in food, expressed on a body weight basis, that can be ingested over a short period of time, usually during one meal or one day, without appreciable health risk to the consumer, on the basis of all the known facts at the time of evaluation. ANZFA considers that the acute dietary exposure to the residues of a chemical is acceptable where the acute dietary exposure does not exceed the ARfD.

5. EVALUATION OF ISSUES RAISED IN RESPONSE TO THE DRAFT ASSESSMENT REPORT

The submissions made in response to the draft assessment expressed concerns about:

- the timetable for comment; and
- the trade implications of reducing and deleting MRLs for importers of food.

Each of these is examined in turn below.

5.1 Timetable for comment

The submission from the National Council of Women of Australia expressed concerns about the timetable for comment on Application A447. ANZFA has statutory timeframes for progressing applications and these timeframes mean that ANZFA must limit the amount of time for which public comment can be accepted. This means that ANZFA normally allows four weeks for public comment on applications. However, ANZFA recognised that the public consultation for the MRLs associated with this application was undertaken under the Christmas/New Year period and arranged for the public comment period to extend to six weeks.

In addition, ANZFA must progress MRL applications in a timely manner, particularly when it is recognised that the use of the chemical products has already been registered and as a result producers could potentially be producing food containing residues in excess of the existing MRLs.

In summary, the timeframe for comment is a compromise between allowing sufficient time for the community to comment on the MRLs, and ANZFA complying with statutory timeframes and progressing the MRLs in a timely manner to minimise disruption to producers.

5.2 Trade implications of reducing and deleting MRLs for importers of food

The submission from the Food Safety and Surveillance Section of the Commonwealth Department of Health and Ageing expressed concerns about the effect of the reductions and deletions of MRLs and the resultant possible trade implications for importers of food. However, no importer of foods or World Trade Organization member has made a submission or expressed concerns about any proposed MRLs in this application including the deletions and reductions.

6. CHANGES TO RESIDUE DEFINITIONS IN STANDARD 1.4.2

6.1 Amended residue definitions in Standard 1.4.2

The NRA proposed the following changes to the residue definition in Standard 1.4.2:

Disulfoton Sum of disulfoton and demeton-S and their sulfoxides and sulfones, expressed as disulfoton <i>see also Demeton-S-methyl</i>	Delete
Disulfoton Sum of disulfoton and demeton-S and their sulfoxides and sulfones, expressed as disulfoton	Add
Emamectin benzoate no residue definition	Delete
Emamectin EmamectinB _{1a} , plus its 8,9-Z isomer and emamectin B _{1b} , plus its 8,9-Z isomer	Add
Ivermectin Ivermectin, sum of isomers	Delete
Ivermectin H ₂ B _{1a}	Add
Zinc phosphide See Phosphine	Add

7. REGULATION IMPACT ANALYSIS

7.1 Objective

To ensure that the residues associated with the proposed MRLs do not represent an unacceptable risk to public health and safety and to ensure that current standards permit the legal sale of food that has been legally treated.

7.2 Options

Option 1: - to accept the requests made by the NRA and vary the *Food Standards Code*.

Option 2: - to reject the requests and make no changes to the *Food Standards Code*.

7.3 Affected parties

The parties affected by this Application are consumers, government, producers, food manufacturers and importers of primary produce and foods into Australia.

7.4 Costs and benefits

7.4.1 Costs of accepting the Application

- there will be a cost of disposal, replacement and dissemination of information about proscribed agricultural and veterinary chemicals;
- initially enforcement agencies, food manufacturers and importers may have costs associated with compliance and enforcement of MRLs following the proposed amendments;
- importers will no longer be able to rely on existing MRLs; and
- some consumers may consider that any residues of agricultural and veterinary chemicals in food are not in the public interest and may regard the presence of any chemical residues in foods as a cost.

7.4.2 Benefits of accepting the Application

- food producers will be legally able to sell produce legally treated with chemicals intended to improve stock and yields as well as controlling diseases and pests;
- it will ensure consistency between the health and agricultural regulations; and
- consumers may receive the potential benefits of improved crop and stock production through cheaper or better quality produce.

7.4.3 Costs of not accepting the Application

- producers will not be able to sell produce legally treated with chemicals intended to increase productivity and/or control disease and pests. This will have costs for primary producers with consequent potential impacts on regional Australia;

- there may be increased production costs for manufacturers and ultimately increased costs to consumers if commodities which have been legally treated to improve productivity and/or control pests and disease cannot be legally sold; and
- the discrepancies between the *Food Standards Code* and the NRA MRL Standard would become greater leading to confusion for producers, consumers and government agencies.

7.4.4 *Benefits of not accepting the Application*

- importers may potentially benefit by filling a possible domestic production shortfall if domestic agricultural productivity is reduced; and
- products complying with the existing MRLs could continue to be legally sold.

7.5 **Conclusion and recommended option**

The inclusion of the proposed MRLs is consistent with the current registered uses of chemical products. The dietary exposure calculations indicate that the residues associated with the proposed MRLs do not represent an unacceptable risk to public health and safety. The NRA has already registered the chemical products and rejection of the MRLs would result in legally treated food not being able to be legally sold. Therefore the requested changes (Option 1) will benefit all stakeholders by maintaining public health and safety while permitting the legal sale of food treated with agricultural and veterinary chemicals to control pests and diseases and improve agricultural productivity.

8. **CONSIDERATION OF ISSUES UNDER SECTION 13 OF THE AUSTRALIA NEW ZEALAND FOOD AUTHORITY ACT 1991**

Subsection 13(1) of the *Australia New Zealand Food Authority Act 1991* (ANZFA Act) requires ANZFA to make an Initial Assessment (Preliminary Assessment - s.13) of an application. In making that Initial Assessment (Preliminary Assessment - s.13), subsection 13(2) requires ANZFA to have regard to a number of matters set out in paragraphs 13(2)(a) to (e). Each of these matters is discussed below.

8.1 **Paragraph 13(2)(a)**

This application relates to a matter that may warrant a variation to a food regulatory measure, because the application seeks an amendment of a standard. Under the ANZFA Act, a standard, by definition, is a food regulatory measure.

8.2 **Paragraph 13(2)(b)**

This Application is not so similar to a previous application that it ought not be accepted.

8.3 Paragraph 13(2)(c)

The Application does not suggest that the proposed amendment would present any further costs to the community, Government or industry. ANZFA has reviewed the application and has not identified any adverse health effects that would result from the variations being made.

8.4 Paragraph 13(2)(d)

The nature of the Application is such that only an amendment to a standard (i.e. a food regulatory measure) can bring about what the Applicant is seeking. No other measures appear to be available.

8.5 Paragraph 13(2)(e)

Other relevant matters for consideration by ANZFA are as follows.

8.5.1 Consideration of issues under Regulation 12 of the Australia New Zealand Food Authority Regulations 1994 which prescribes matters for the purpose of paragraph 13(2) (e) of the ANZFA Act.

8.5.1.1 Regulation 12(a)

Because it is a simple variation of a food regulatory matter requiring only the updating of a standard set out in the *Food Standards Code* this matter will be in category 2.

8.5.1.2 Regulation 12(b)

ANZFA considers that this Application will not confer an exclusive capturable commercial benefit on the Applicant.

8.5.2 World Trade Organization Notification

As a member of the World Trade Organization (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.

The MRLs prescribed in the *Australia New Zealand Food Standards Code* constitute a mandatory requirement applying to all food products of a particular class whether produced domestically or imported. Food products exceeding their relevant MRL set out in the *Food Standards Code* cannot legally be supplied in Australia.

In administrative terms and consistent with international practice, MRLs assist in regulating the use of agricultural and veterinary chemical products. MRLs indicate whether agricultural and veterinary chemical products have been used in accordance with the registered conditions of use, and it is the registered conditions of use that protect human, animal and plant health and the environment.

MRLs also ensure that the residues of chemicals are minimised consistent with the effective use of chemical products to control pests and diseases, and act as trading standards.

This Application contains variations to MRLs that are included in the international Codex standard. MRLs in this application also relate to chemicals used in the production of heavily traded agricultural commodities that may indirectly have a significant effect on trade of derivative food products between WTO members.

ANZFA made WTO notification at Initial/Draft Assessment. No WTO member has made a submission on this Application.

8.5.3 Codex MRLs

The standards of the Codex Alimentarius Commission are used as the relevant international standards or basis as to whether a new or changed standard requires a WTO notification. The following table sets out the MRLs proposed in the NRA Application that are more restrictive than the relevant Codex MRL.

Chemical Food	Proposed MRL	Codex MRL	Comment
Chlorpyrifos Citrus fruits Eggs Meat (mammalian) (in the fat) Pome fruits	T0.5 T*0.01 T0.5 0.5	1 *0.05 2 1	The proposed MRLs are more restrictive than the Codex MRLs. The Codex MRL is for Cattle meat (in the fat). The Codex MRL is for Apple.
Glyphosate Barley	10	20	The proposed MRL is more restrictive than the Codex MRL.
Pirimicarb Vegetables [except leafy vegetables, lupin (dry)]	1	2	The Codex MRL is for chilli peppers. All other Codex MRLs for vegetables are equal to, or less than the proposed MRL.

No submission was received on the significance of Codex MRLs for the proposed MRL amendments.

8.5.4 Imported Foods

The following are the quantities of foods that have been imported into Australia in 1999 and 2000. This data are for foods for which reductions and deletions of MRLs are proposed.

Chemical Food	1999	2000
Chlorfenapyr Edible offal (Mammalian) Meat (Mammalian) (in the fat) Poultry meat	419 tonnes 2,627 tonnes 14 tonnes	484 tonnes 4,817 tonnes 14 tonnes
Chlorpyrifos Sheep meat (in the fat)	33 tonnes	46 tonnes
Chlorfenvinphos Cauliflower Cattle, Edible offal of Milks	402 kg 146 tonnes 2,345 tonnes	None 184 tonnes 1,805 tonnes
Diquat Lentil	193 tonnes	142 tonnes
Endosulfan Cattle, Edible offal of Garlic Shallot	146 tonnes 613 tonnes 49 tonnes	184 tonnes 813 tonnes 211 tonnes

Fenoxycarb Brassica (cole or cabbage) vegetables, Head cabbages, Flowerhead brassicas	423 kg	1369 kg
Glyphosate Barley	2 tonnes	4 tonnes
Fluazifop-butyl Turmeric root	31 tonnes	27 tonnes
Fluquinconazole Apple Pear	33 tonnes 137 tonnes	16 tonnes 11 tonnes
Haloxyfop Cattle, edible offal of Cattle meat Cattle milk [†] Edible offal (Mammalian) Eggs Poultry, meat and edible offal	146 tonnes 138 tonnes 2,345 tonnes 419 tonnes 67 tonnes 14 tonnes	184 tonnes 111 tonnes 1,805 tonnes 484 tonnes 35 tonnes 14 tonnes
Ivermectin Sheep meat	33 tonnes	46 tonnes
Methidathion Cattle, Edible offal of Edible Offal (mammalian) [except cattle, edible offal of]	146 tonnes 273 tonnes	184 tonnes 300 tonnes
Pyrimethanil Apple Pear	33 tonnes 137 tonnes	16 tonnes 118 tonnes
Spinosad Sweet corn (kernels)	1,375 tonnes	1,291 tonnes

No submission was received on the significance to imported foods for the proposed MRL amendments.

9. CONSIDERATION OF ISSUES UNDER SECTION 15 OF THE *AUSTRALIA NEW ZEALAND FOOD AUTHORITY ACT 1991*

Subsection 15(1) of the ANZFA Act requires ANZFA to make a Draft Assessment (Full Assessment - s.15) of an application. In making that Draft Assessment (Full Assessment - s.15), subsection 15(3) requires ANZFA to have regard to a number of matters set out in paragraphs 15(3)(a) to (e). Each of these matters is discussed below.

9.1 Paragraph 15(3)(a)

As this Application raises issues of minor significance and complexity only, ANZFA has not invited written submissions for the purposes of making the Initial/Draft Assessment. However, ANZFA has invited written submissions for the purpose of the Inquiry under s.17(3)(c) of the ANZFA Act and, in section 5 of this document, has had regard to submissions received.

9.2 Paragraph 15(3)(b)

Section 10 (1), paragraphs (a) to (c) of the ANZFA Act sets out the objectives of food regulatory measures and variations to food regulatory measures. Each of these is discussed below.

[†] data for all milks only was available

9.2.1 *Paragraph 10(1)(a) the protection of public health and safety*

The Chemicals and Non-prescription Medicines Branch of the TGA establish the ADI for the agricultural and veterinary chemicals. The NRA and ANZFA carry out estimations of dietary exposure to agricultural and veterinary chemicals and compare them to the TGA standards. On the basis of the dietary exposure assessments, the residues associated with the proposed MRLs do not represent an unacceptable risk to public health and safety.

9.2.2 *Paragraph 10(1)(b) the provision of adequate information relating to food to enable consumers to make informed choices*

This is not relevant for this Application.

9.2.3 *Paragraph 10(1)(c) the prevention of misleading or deceptive information*

This is not relevant for this Application.

In addition to these objectives, subsection 10(2) requires ANZFA to have regard to a number of matters set out in paragraphs 10(2)(a) to (d). Each of these matters is discussed below.

9.2.4 *Paragraph 10(2)(a) the need for standards to be based on risk analysis using the best available scientific evidence*

The procedures used by ANZFA, the TGA and the NRA rely on the comprehensive examination of detailed scientific information, including a rigorous toxicological assessment. Dietary exposure assessments are undertaken in accordance with international protocols.

9.2.5 *Paragraph 10(2)(b) the promotion of consistency between domestic and international food standards*

This is addressed in section 8.5.3 of this document.

9.2.6 *Paragraph 10(2)(c) the desirability of an efficient and internationally competitive food industry*

The inclusion of the requested MRLs would assist in permitting the legal sale of legally treated food. Varying the *Food Standards Code* to include the proposed MRLs would promote trade and commerce and allow food industries to continue to be efficient and competitive.

9.2.7 *Paragraph 10(2)(d) the promotion of fair trading in food*

As the MRLs in the *Food Standards Code* apply to all food whether produced domestically or imported, the inclusion of the MRLs would benefit all producers equally.

9.3 Paragraph 15(3)(c)

ANZFA has undertaken a regulation impact assessment process, which also fulfils the requirement in New Zealand for an assessment of compliance costs. That process concluded that the amendment to the *Food Standards Code* is necessary, cost effective and of benefit to both producers and consumers.

9.4 Paragraph 15(3)(d)

The nature of the application is such that only an amendment to a standard (i.e. a food regulatory measure) can bring about what the applicant is seeking. No other measures appear to be available.

9.5 Paragraph 15(3)(e)

This is addressed in section 8.5 of this document.

10. NRA EXISTING CHEMICAL REVIEW PROGRAM

The NRA is carrying out reviews of chlorfenvinphos, chlorpyrifos and endosulfan.

The NRA review documents for these chemicals are available at:

<http://www.nra.gov.au/chemrev/chemrev.shtml>

10.1 Chlorfenvinphos

This chemical is an insecticide and acaricide used to control:

- ectoparasites in mammalian livestock;
- a variety of insects which infest pastures, lucerne, mushrooms and potato crops; and
- flies in and around buildings.

The NRA's interim report has proposed cancelling its agricultural use and restricting its veterinary applications. The NRA review of chlorfenvinphos is at the interim stage and in the meantime all MRLs for chlorfenvinphos have been made temporary, pending the presentation to the NRA of satisfactory Australian residue data, or where appropriate scientific argument.

10.2 Chlorpyrifos

The NRA review of chlorpyrifos is at the interim stage and in the meantime all MRLs for chlorpyrifos have been made temporary until specific uses on product labels are supported and the appropriate data generated and assessed. The NRA have advised:

- that the use pattern for chlorpyrifos on food producing crops has not changed in any way that would increase dietary exposure to chlorpyrifos residues;
- that any changes to the MRLs are to facilitate the monitoring of good agricultural practice and prevent unnecessary residue violations;
- that the addition of the MRL for mammalian meat (in the fat) to replace the MRLs for specific meat products is to take into account legitimate grazing of treated pastures by sheep without the fear of causing inadvertent and unnecessary residue violations; and
- a temporary MRL has been proposed to monitor and control the use of this chemical on pome fruits.

The acute dietary exposure for chlorpyrifos will be addressed in a later phase of the review.

10.3 Endosulfan

The NRA review of endosulfan is at the interim stage and in the meantime all MRLs for endosulfan have been made temporary. The NRA have advised:

- that the use pattern for endosulfan on food producing crops has not changed in any way that would increase dietary exposure to endosulfan residues; and
- that changes to the MRL for endosulfan are to facilitate the monitoring of good agricultural practice and prevent unnecessary violations.

The acute dietary exposure for endosulfan will be addressed in a later phase of the review.

11. CONCLUSION

The dietary exposure calculations indicate that the residues associated with the proposed MRLs do not represent an unacceptable risk to public health and safety. The NRA has already registered the chemicals in this application and rejection of the MRLs would result in legally treated food not being able to be legally sold. Therefore the requested changes will benefit all stakeholders by maintaining public health and safety while permitting the legal sale of food treated with agricultural and veterinary chemicals to control pests and diseases and improve agricultural productivity.

12. FURTHER INFORMATION

Submissions

No submissions on this matter are sought as the Authority has completed its assessment and the matter is now with the Australia New Zealand Food Standards Council for consideration.

Further Information

Further information on this and other matters should be addressed to the Standards Liaison Officer at the Australia New Zealand Food Authority at one of the following addresses:

Australia New Zealand Food Authority
PO Box 7186
Canberra BC ACT 2610
AUSTRALIA
Tel (02) 6271 2258
email: slo@anzfa.gov.au

Australia New Zealand Food Authority
PO Box 10559
The Terrace WELLINGTON 6036
NEW ZEALAND
Tel (04) 473 9942
email: anzfa.nz@anzfa.gov.au

Assessment reports are available for viewing and downloading from the ANZFA website www.anzfa.gov.au or alternatively paper copies of reports can be requested from the Authorities Information Officer at info@anzfa.gov.au.

ATTACHMENTS

1. Draft Variation to the *Food Standards Code*.
2. Summary of proposed MRLs for A447
3. Statement of Reasons.
4. Summary of Public Submissions Received at Draft Assessment

DRAFT VARIATIONS TO THE FOOD STANDARDS CODE

APPLICATION A447 – MAXIMUM RESIDUE LIMITS

TO COMMENCE: ON GAZETTAL

[1] *Standard A14 of Volume 1 of the Food Standards Code is varied by –*

[1.1] *inserting in columns 1 and 2 respectively of Schedule 1 each chemical (shown in bold type) and its associated food and maximum residue limit for that food -*

Chemical	
Food	MRL
Carfentrazone-ethyl	
Cereal grains	0.05
Edible offal (mammalian)	0.05
Eggs	0.05
Meat (mammalian)	0.05
Milks	0.025
Poultry, edible offal of	0.05
Poultry meat	0.05

Zinc phosphide

See Phosphine

Explanatory Note: These are new MRLs for new chemicals and foods that are not currently listed.

[1.2] *omitting from columns 1 and 2 respectively of Schedule 1, in relation to each chemical (shown in bold type), the food and the maximum residue limit for that food -*

Chemical	
Food	MRL
Bifenthrin	
Barley	0.02
Cereal grains [except barley and wheat]	2
Pulses	0.02
Wheat	0.01
Chlorfenvinphos	
Milks (in the fat)	0.2
Chlorpyrifos	
Cattle, edible offal of	2
Cattle meat (in the fat)	2
Pig, edible offal of	0.1
Pig meat (in the fat)	0.1
Sheep, edible offal of	0.1
Sheep meat (in the fat)	0.1

Endosulfan	
Carrot	0.2
Cattle, edible offal of	0.2
Cattle meat (in the fat)	0.2
Common bean (dry) (navy bean)	1
Fruits	2
Goat, edible offal of	0.2
Goat meat (in the fat)	0.2
Lupin (dry)	1
Mung bean (dry)	1
Peanut	1
Potato	0.2
Sheep, edible offal of	0.2
Sheep meat (in the fat)	0.2
Soya bean (dry)	1
Sweet corn (corn-on-the-cob)	0.2
Sweet potato	0.2
Tomato	2
Vegetables [except as otherwise listed under this chemical]	2
Fenoxycarb	
Brassica (cole or cabbage) vegetables, head cabbages, flowerhead brassicas	0.5
Fluazifop-butyl	
Chervil	1
Galangal, rhizomes	1
Kaffir lime leaves	1
Lemon balm	1
Lemon grass	1
Lemon verbena	1
Mizuna	1
Rucola (rocket)	1
Turmeric, root	
FLUQUINCONAZOLE	
Apple	0.5
Pear	0.5
Glyphosate	
Pulses [except as otherwise listed under this chemical]	0.1
Haloxyfop	
Cattle, edible offal of	0.5
Cattle fat	0.1
Cattle meat	0.02
Cattle milk	0.02
Poultry fats	0.5
Poultry meat	0.2
Methidathion	
Cattle meat (in the fat)	0.5
Meat (mammalian)	0.05
Metolachlor	
Cereal grains	0.01

Pirimicarb	
Vegetables [except lupin (dry)]	1
Pyrimethanil	
Apple	1
Pear	1
Spinosad	
Sweet corn (kernels)	0.1

Explanatory Note: Permission for a residue of the specified chemical in these foods is being repealed.

[1.3] *inserting in columns 1 and 2 respectively of Schedule 1, in relation to the chemical (shown in bold type), the food and the maximum residue limit for that food -*

Chemical	
Food	MRL
Azoxystrobin	
Passionfruit	0.5
Bifenthrin	
Cereal grains	2
Pulses [except field pea (dry) and lupin (dry)]	0.02
<i>Carbendazim</i>	
Macadamia nuts	0.1
Chlorfenvinphos	
Cattle milk (in the fat)	0.2
Chlorpyrifos	
Edible offal (mammalian)	0.1
Meat (mammalian) (in the fat)	0.5
Dimethomorph	
<i>Poppy seed</i>	0.02
<i>Diquat</i>	
Lentil (dry)	
Dithiocarbamates (mancozeb, metham, metiram, propineb, thiram, zineb and ziram)	
Lentil	0.5
Poppy seed	0.2
Emamectin	
Grapes	0.002
Endosulfan	
Assorted tropical and sub-tropical fruits - edible peel	2
Assorted tropical and sub-tropical fruits - inedible peel	2
Berries and other small fruits	2

Brassica (cole or cabbage) vegetables, head cabbages, flowerhead brassicas	2
Citrus fruits	2
Edible offal (mammalian)	0.2
Fruiting vegetables, cucurbits	2
Leafy vegetables (including brassica leafy vegetables)	2
Legume vegetables	2
Meat (mammalian) (in the fat)	0.2
Pome fruits	2
Pulses	1
Root and tuber vegetables	2
Shallot	2
Stalk and stem vegetables	2
Stone fruits	2
Fipronil	
Assorted tropical and subtropical fruits – inedible peel [except banana]	0.01
Berries and other small fruits [except wine grapes and strawberry]	0.01
Citrus fruits	0.01
Pome fruits	0.01
Fluazifop-butyl	
Pulses	0.5
Fluquinconazole	
Pome fruits	0.05
Fluvalinate	
<i>Peach</i>	0.1
<i>Plums</i>	0.1
Glyphosate	
<i>Broad bean (dry)</i>	2
<i>Field pea (dry)</i>	5
<i>Hops, dry</i>	0.1
<i>Pulses [except as otherwise listed under this chemical]</i>	0.1
Haloxifop	
<i>Cotton seed oil, crude</i>	0.2
<i>Edible offal (mammalian)</i>	0.5
<i>Meat (mammalian) (in the fat)</i>	0.02
<i>Milks</i>	0.02
<i>Poultry meat (in the fat)</i>	0.01
Methidathion	
Litchi	0.1
Meat (mammalian) (in the fat)	0.5
Methomyl	
Herbs	1

Metolachlor	
Cereal grains [except maize and sorghum]	0.02
Naled	
Cotton seed	0.02
Edible offal (mammalian)	0.05
Meat (mammalian)	0.05
Milk	0.05
Phosphine	
Melons [except watermelon]	0.01
Pulses	0.01
Sugar cane	0.01
Pirimicarb	
Leafy vegetables	3
Vegetables [except leafy vegetables and lupin (dry)]	1
Propiconazole	
Mushrooms	0.05
Pymetrozine	
Pumpkins	0.02
Pyrimethanil	
Pome fruits	0.05
Potato	0.01
Spinosad	
Citrus fruits	0.1
Pulses	0.01
Sorghum	0.01
Strawberry	0.5
Sweet corn (corn-on-the-cob)	0.02
Sulfosulfuron	
Triticale	0.01
Tebuconazole	
Sugar cane	0.1

Explanatory Note: These are new MRLs for existing chemicals but are for foods that are not currently listed.

[1.4] *omitting from column 2 of Schedule 1 the maximum residue limit in relation to each chemical (shown in bold type), substituting the maximum residue -*

Chemical	
Food	MRL
Chlorfenapyr	
Edible offal (mammalian)	0.05
Meat (mammalian) (in the fat)	0.05
Poultry meat (in the fat)	0.01

Chlorfenvinphos	
Cattle, edible offal of	0.1
Goat, edible offal of	0.1
Sheep, edible offal of	0.1
Chlorpyrifos	
Pome fruits	0.5
Endosulfan	
Tree nuts	2
Glyphosate	
Barley	10
Poultry, edible offal of	1
Haloxyfop	
Eggs	0.01
Poultry, edible offal of	0.05
Pulses	0.1
Sugar cane	0.03
Sunflower seed	0.05
Imidacloprid	
Sugar cane	0.05
Ivermectin	
Sheep meat (in the fat)	0.02
Methidathion	
Longan	0.1
Methomyl	
Guava	0.5

Explanatory Note: Permission for a residue of the specified chemical in these foods is being changed.

[2] **Standard 1.4.2 of Volume 2 of the Food Standards Code is varied by -**

[2.1] *inserting in columns 1 and 2 respectively of Schedule 1 each chemical (shown in bold type) and its associated food and maximum residue limit for that food -*

CARFENTRAZONE-ETHYL	
CARFENTRAZONE-ETHYL	
CEREAL GRAINS	*0.05
EDIBLE OFFAL (MAMMALIAN)	*0.05
EGGS	*0.05
MEAT (MAMMALIAN)	*0.05
MILKS	*0.025
POULTRY, EDIBLE OFFAL OF	*0.05
POULTRY MEAT	*0.05
ZINC PHOSPHIDE	
SEE PHOSPHINE	

Explanatory Note: These are new MRLs for new chemicals and foods that are not currently listed

[2.2] omitting from columns 1 and 2 respectively of Schedule 1, in relation to each chemical (shown in bold type), the food and the maximum residue limit for that food -

BIFENTHRIN BIFENTHRIN	
BARLEY	*0.02
CEREAL GRAINS [EXCEPT BARLEY AND WHEAT]	T2
PULSES	*0.02
WHEAT	*0.01
CHLORFENVINPHOS CHLORFENVINPHOS, SUM OF E AND Z ISOMERS	
MILKS (IN THE FAT)	0.2
CHLORPYRIFOS CHLORPYRIFOS	
CATTLE, EDIBLE OFFAL OF	2
CATTLE MEAT (IN THE FAT)	2
PIG, EDIBLE OFFAL OF	0.1
PIG MEAT, IN THE FAT	0.1
SHEEP, EDIBLE OFFAL OF	0.1
SHEEP MEAT (IN THE FAT)	0.1
ENDOSULFAN SUM OF A- AND B- ENDOSULFAN AND ENDOSULFAN SULPHATE	
CARROT	0.2
CATTLE, EDIBLE OFFAL OF	0.2
CATTLE MEAT (IN THE FAT)	0.2
COMMON BEAN (DRY) (NAVY BEAN)	1
FRUITS	2
GOAT, EDIBLE OFFAL OF	0.2
GOAT MEAT (IN THE FAT)	0.2
LUPIN (DRY)	1
MUNG BEAN (DRY)	1
PEANUT	1
POTATO	0.2
SHEEP, EDIBLE OFFAL OF	0.2
SHEEP MEAT (IN THE FAT)	0.2
SOYA BEAN (DRY)	1
SWEET CORN (CORN-ON-THE- COB)	0.2
SWEET POTATO	0.2
TOMATO	2
VEGETABLES [EXCEPT AS OTHERWISE LISTED UNDER THIS CHEMICAL]	2
FENOXYCARB FENOXYCARB	
BRASSICA (COLE OR CABBAGE) VEGETABLES, HEAD CABBAGES, FLOWERHEAD BRASSICAS	T0.5

FLUAZIFOP-BUTYL FLUAZIFOP-BUTYL	
CHERVIL	T1
GALANGAL, RHIZOMES	T1
KAFFIR LIME LEAVES	T1
LEMON BALM	T1
LEMON GRASS	T1
LEMON VERBENA	T1
MIZUNA	T1
RUCOLA (ROCKET)	T1
TURMERIC ROOT	T1
FLUQUINCONAZOLE FLUQUINCONAZOLE	
APPLE	T0.5
PEAR	T0.5
GLYPHOSATE GLYPHOSATE	
PULSES [EXCEPT AS OTHERWISE LISTED UNDER THIS CHEMICAL]	*0.1
HALOXYFOP SUM OF HALOXYFOP, ITS ESTERS AND CONJUGATES, EXPRESSED AS HALOXYFOP	
CATTLE, EDIBLE OFFAL OF	0.5
CATTLE FAT	0.1
CATTLE MEAT	0.02
CATTLE MILK	0.02
POULTRY FATS	0.5
POULTRY MEAT	0.2
METHIDATHION METHIDATHION	
CATTLE MEAT (IN THE FAT)	0.5
MEAT (MAMMALIAN)	*0.05
METOLACHLOR METOLACHLOR	
CEREAL GRAINS	*0.01
PIRIMICARB SUM OF PIRIMICARB, DIMETHYL-PIRIMICARB AND N-FORMYL-(METHYLAMINO) ANALOGUE AND DIMETHYLFORMAMIDO-PIRIMICARB, EXPRESSED AS PIRIMICARB	
VEGETABLES [EXCEPT LUPIN (DRY)]	1
PYRIMETHANIL PYRIMETHANIL	
APPLE	T1
PEAR	T1
SPINOSAD SUM OF SPINOSYN A AND SPINOSYN D	
SWEET CORN (KERNELS)	T0.1

Explanatory Note: Permission for a residue of the specified chemical in these foods is being repealed.

[2.3] inserting in columns 1 and 2 respectively of Schedule 1, in relation to the chemical (shown in bold type), the food and the maximum residue limit for that food -

AZOXYSTROBIN AZOXYSTROBIN	
PASSIONFRUIT	T0.5
BIFENTHRIN BIFENTHRIN	
CEREAL GRAINS	T2
PULSES [EXCEPT FIELD PEA (DRY) AND LUPIN (DRY)]	*0.02
CARBENDAZIM SUM OF CARBENDAZIM AND 2- AMINOENZIMIDAZOLE, EXPRESSED AS CARBENDAZIM	
MACADAMIA NUTS	T0.1
CHLORFENVINPHOS CHLORFENVINPHOS, SUM OF E AND Z ISOMERS	
CATTLE MILK (IN THE FAT)	T0.2
CHLORPYRIFOS CHLORPYRIFOS	
EDIBLE OFFAL (MAMMALIAN)	T0.1
MEAT MAMMALIAN (IN THE FAT)	T0.5
DIMETHOMORPH SUM OF E AND Z ISOMERS OF DIMETHOMORPH	
POPPY SEED	*0.02
DIQUAT DIQUAT CATION	
LENTIL (DRY)	T0.5
DITHIOCARBAMATES TOTAL DITHIOCARBAMATES, DETERMINED AS CARBON DISULPHIDE EVOLVED DURING ACID DIGESTION AND EXPRESSED AS MILLIGRAMS OF CARBON DISULPHIDE PER KILOGRAM OF FOOD	
LENTIL (DRY)	T0.5
POPPY SEED	*0.2
EMAMECTIN EMAMECTIN B _{1A} , PLUS ITS 8,9-Z ISOMER AND EMAMECTIN B _{1B} , PLUS ITS 8,9-Z ISOMER	
GRAPES	T*0.002

ENDOSULFAN	
SUM OF A- AND B- ENDOSULFAN AND ENDOSULFAN SULPHATE	
ASSORTED TROPICAL AND SUB-TROPICAL FRUITS - EDIBLE PEEL	T2
ASSORTED TROPICAL AND SUB-TROPICAL FRUITS - INEDIBLE PEEL	T2
BERRIES AND OTHER SMALL FRUITS	T2
BRASSICA (COLE OR CABBAGE) VEGETABLES, HEAD CABBAGES, FLOWERHEAD BRASSICAS	T2
CITRUS FRUITS	T2
EDIBLE OFFAL (MAMMALIAN)	T0.2
FRUITING VEGETABLES, CUCURBITS	T2
LEAFY VEGETABLES (INCLUDING BRASSICA LEAFY VEGETABLES)	T2
LEGUME VEGETABLES	T2
MEAT (MAMMALIAN) (IN THE FAT)	0.2
POME FRUITS	T2
PULSES	T1
ROOT AND TUBER VEGETABLES	T2
SHALLOT	T2
STALK AND STEM VEGETABLES	T2
STONE FRUITS	T2
FIPRONIL	
SUM OF FIPRONIL, THE SULPHENYL METABOLITE (5-AMINO-1-[2,6-DICHLORO-4-(TRIFLUOROMETHYL)PHENYL]-4-[(TRIFLUOROMETHYL)SULPHENYL]-1H-PYRAZOLE-3-CARBONITRILE), THE SULPHONYL METABOLITE (5-AMINO-1-[2,6-DICHLORO-4-(TRIFLUOROMETHYL)PHENYL]-4-[(TRIFLUOROMETHYL)SULPHONYL]-1H-PYRAZOLE-3-CARBONITRILE), AND THE TRIFLUOROMETHYL METABOLITE (5-AMINO-4-TRIFLUOROMETHYL-1-[2,6-DICHLORO-4-(TRIFLUOROMETHYL)PHENYL]-1H-PYRAZOLE-3-CARBONITRILE)	
ASSORTED TROPICAL AND SUB-TROPICAL FRUIT - INEDIBLE PEEL [EXCEPT BANANA]	T*0.01
BERRIES AND OTHER SMALL FRUITS [EXCEPT WINE GRAPES AND STRAWBERRY]	T*0.01
CITRUS FRUITS	T*0.01
POME FRUITS	T*0.01

FLUAZIFOP-BUTYL FLUAZIFOP-BUTYL	
PULSES	0.5
FLUQUINCONAZOLE FLUQUINCONAZOLE	
POME FRUITS	*0.05
FLUVALINATE FLUVALINATE, SUM OF ISOMERS	
PEACH	T0.1
PLUMS (INCLUDING PRUNES)	T0.1
GLYPHOSATE GLYPHOSATE	
BROAD BEAN (DRY)	2
FIELD PEA (DRY)	5
HOPS, DRY	*0.1
PULSES [EXCEPT AS OTHERWISE LISTED UNDER THIS CHEMICAL]	*0.1
HALOXYFOP SUM OF HALOXYFOP, ITS ESTERS AND CONJUGATES, EXPRESSED AS HALOXYFOP	
COTTON SEED OIL, CRUDE	0.2
EDIBLE OFFAL (MAMMALIAN)	0.5
MEAT (MAMMALIAN) (IN THE FAT)	0.02
MILKS	0.02
POULTRY MEAT (IN THE FAT)	*0.01
INDOXACARB INDOXACARB	
CHICK-PEA (DRY)	T0.2
METHIDATHION METHIDATHION	
LITCHI	T0.1
MEAT (MAMMALIAN) (IN THE FAT)	0.5
METHOMYL SUM OF METHOMYL AND METHYL HYDROXYTHIOACETIMIDATE ('METHOMYL OXIME'), EXPRESSED AS METHOMYL <i>SEE ALSO THIODICARB</i>	
HERBS	T1
METOLACHLOR METOLACHLOR	
CEREAL GRAINS [EXCEPT MAIZE AND SORGHUM]	*0.02
NALED SUM OF NALED AND DICHLORVOS, EXPRESSED AS NALED	
COTTON SEED	T*0.02
EDIBLE OFFAL (MAMMALIAN)	T*0.05
MEAT (MAMMALIAN)	T*0.05
MILKS	T*0.05

PHOSPHINE	
ALL PHOSPHIDES, EXPRESSED AS HYDROGEN PHOSPHIDE (PHOSPHINE)	
MELONS [EXCEPT WATERMELON]	T*0.01
PULSES	*0.01
SUGAR CANE	T*0.01
PIRIMICARB	
SUM OF PIRIMICARB, DIMETHYL-PIRIMICARB AND N-FORMYL-(METHYLAMINO) ANALOGUE AND DIMETHYLFORMAMIDO-PIRIMICARB, EXPRESSED AS PIRIMICARB	
LEAFY VEGETABLES	T3
VEGETABLES [EXCEPT LEAFY VEGETABLES AND LUPIN (DRY)]	1
PROPICONAZOLE	
PROPICONAZOLE	
MUSHROOMS	*0.05
PYMETROZINE	
PYMETROZINE	
PUMPKINS	T0.02
PYRIMETHANIL	
PYRIMETHANIL	
POME FRUITS	*0.05
POTATO	T*0.01
SPINOSAD	
SUM OF SPINOSYN A AND SPINOSYN D	
CITRUS FRUITS	T0.1
PULSES	T*0.01
SORGHUM	T*0.01
STRAWBERRY	T0.5
SWEET CORN (CORN-ON-THE-COB)	0.02
SULPHOSULFURON	
SUM OF THE SULFOSULFURON AND ITS METABOLITES WHICH CAN BE HYDROLYSED TO 2-(ETHYLSULFONYL)IMIDAZO[1,2-A]PYRIDINE, EXPRESSED AS SULFOSULFURON	
TRITICALE	*0.01
TEBUCONAZOLE	
TEBUCONAZOLE	
SUGAR CANE	T0.1

Explanatory Note: These are new MRLs for existing chemicals but for foods that are not currently listed.

[2.4] *omitting from column 2 of Schedule 1 the maximum residue limit in relation to each chemical (shown in bold type), substituting the maximum residue -*

CHLORFENAPYR CHLORFENAPYR	
COTTON SEED	0.5
EDIBLE OFFAL (MAMMALIAN)	*0.05
EGGS	*0.01
MEAT (MAMMALIAN) (IN THE FAT)	0.05
MILKS	*0.01
POULTRY, EDIBLE OFFAL OF	*0.01
POULTRY MEAT (IN THE FAT)	*0.01
CHLORFENVINPHOS CHLORFENVINPHOS, SUM OF E AND Z ISOMERS	
BROCCOLI	T0.05
BRUSSELS SPROUTS	T0.05
CABBAGES, HEAD	T0.05
CARROT	T0.4
CATTLE, EDIBLE OFFAL OF	T*0.1
CATTLE MEAT (IN THE FAT)	T0.2
CAULIFLOWER	T0.1
CELERY	T0.4
COTTON SEED	T0.05
EGG PLANT (AUBERGINE)	T0.05
GOAT, EDIBLE OFFAL OF	T*0.1
GOAT MEAT (IN THE FAT)	T0.2
HORSERADISH	T0.1
LEEK	T0.05
MAIZE	T0.05
MUSHROOMS	T0.05
ONION, BULB	T0.05
PEANUT	T0.05
POTATO	T0.05
RADISH	T0.1
RICE	T0.05
SHEEP, EDIBLE OFFAL OF	T*0.1
SHEEP MEAT (IN THE FAT)	T0.2
SWEDE	T0.05
SWEET POTATO	T0.05
TOMATO	T0.1
TURNIP, GARDEN	T0.05
WHEAT	T0.05
CHLORPYRIFOS CHLORPYRIFOS	
ASPARAGUS	T0.5
BRASSICA (COLE OR CABBAGE) VEGETABLES, HEAD CABBAGES, FLOWERHEAD BRASSICAS	T0.5
CASSAVA	T*0.02
CEREAL GRAINS [EXCEPT SORGHUM]	T0.1
CITRUS FRUITS	T0.5
DRIED FRUITS	T2
EGGS	T*0.01
GRAPES	T1
MILKS (IN THE FAT)	T0.2
OILSEED	T0.01
PINEAPPLE	T0.5

POME FRUITS	T0.5
POULTRY, EDIBLE OFFAL OF	T0.1
POULTRY MEAT (IN THE FAT)	T0.1
SORGHUM	T3
STONE FRUIT	T1
SUGAR CANE	T0.1
TOMATO	T0.5
VEGETABLES [EXCEPT AS OTHERWISE LISTED UNDER THIS CHEMICAL]	T*0.01
ENDOSULFAN SUM OF A- AND B- ENDOSULFAN AND ENDOSULFAN SULPHATE	
CEREAL GRAINS	T0.2
COTTON SEED OIL, CRUDE	T0.5
EGGS	T*0.05
FRUITING VEGETABLES, OTHER THAN CUCURBITS	T2
MILKS (IN THE FAT)	T0.5
OILSEED	T1
ONION, BULB	T0.2
RICE	T0.1
TEA, GREEN, BLACK	T30
TREE NUTS	T2
GLYPHOSATE GLYPHOSATE	
BARLEY	10
EDIBLE OFFAL (MAMMALIAN)	2
POULTRY, EDIBLE OFFAL OF	1
WHEAT	5
WHEAT BRAN, UNPROCESSED	20
HALOXYFOP SUM OF HALOXYFOP, ITS ESTERS AND CONJUGATES, EXPRESSED AS HALOXYFOP	
EGGS	*0.01
POULTRY, EDIBLE OFFAL OF	0.05
PULSES	0.1
SUGAR CANE	T0.03
SUNFLOWER SEED	*0.05
IMIDACLOPRID SUM OF IMIDACLOPRID AND METABOLITES CONTAINING THE 6- CHLOROPYRIDINYMETHYLENE MOIETY, EXPRESSED AS IMIDACLOPRID	
SUGAR CANE	T*0.05
IVERMECTIN H ₂ B _{1A}	
SHEEP MEAT (IN THE FAT)	0.02
METHIDATHION METHIDATHION	
LONGAN	0.1

METHOMYL SUM OF METHOMYL AND METHYL HYDROXYTHIOACETIMIDATE ('METHOMYL OXIME') EXPRESSED AS METHOMYL <i>SEE ALSO THIODICARB</i>	
GUAVA	T0.5
PYRIMETHANIL PYRIMETHANIL	
STRAWBERRY	5
UNICONAZOLE-P SUM OF UNICONAZOLE-P AND ITS Z-ISOMER EXPRESSED AS UNICONAZOLE-P	
AVOCADO	*0.02

Explanatory Note: Permission for a residue of the specified chemical in these foods is being changed.

[2.5] *omitting from Schedule 1, the chemical name and residue definition -*

DISULFOTON SUM OF DISULFOTON AND DEMETON-S AND THEIR SULFOXIDES AND SULFONES, EXPRESSED AS DISULFOTON <i>SEE ALSO DEMETON-S-METHYL</i>	
EMAMECTIN BENZOATE NO RESIDUE DEFINITION	
IVERMECTIN IVERMECTIN, SUM OF ISOMERS	

substituting -

DISULFOTON SUM OF DISULFOTON AND DEMETON-S AND THEIR SULFOXIDES AND SULFONES, EXPRESSED AS DISULFOTON	
EMAMECTIN EMAMECTIN B _{1A} , PLUS ITS 8,9-Z ISOMER AND EMAMECTIN B _{1B} , PLUS ITS 8,9-Z ISOMER	
IVERMECTIN H ₂ B _{1A}	

Explanatory Note: The name of the chemical and its residue definition is being changed.

**A SUMMARY OF THE REQUESTED MRLS FOR EACH CHEMICAL AND AN
OUTLINE OF THE INFORMATION SUPPORTING THE REQUESTED CHANGES
TO THE *FOOD STANDARDS CODE*.**

The Full Evaluation Reports for individual chemicals / MRLs are available upon request from the Project Manager at ANZFA.

NOTES ON TERMS USED IN THE TABLE

ADI - Acceptable Daily Intake (ADI) is the daily intake of an agricultural or veterinary chemical, which, during the consumer's entire lifetime, appears to be without appreciable risk to the health of the consumer. This is on the basis of all the known facts at the time of the evaluation of the chemical. It is expressed in milligrams of the chemical per kilogram of body weight.

LOQ – Limit of Quantification – The LOQ is the lowest concentration of a chemical residue contaminant than can be identified and quantitatively measured in a specified food, agricultural commodity or animal feed with an acceptable degree of certainty by a regulatory method of analysis

NTMDI - National Theoretical Maximum Dietary Intake - The NTMDI is a prediction of the long-term daily intake of an agricultural or veterinary chemical and is calculated by multiplying the MRLs established and proposed for a chemical by the average daily consumption for each food commodity across the whole population and summing the products. While a useful screening tool, the NTMDI is an overestimate of the true chemical residue intake because it assumes that the entire national crop is treated with a chemical and that all the treated produce contains residues equivalent to the MRL.

NEDI - National Estimated Dietary Intake - The NEDI represents a more realistic estimate of dietary exposure and is the preferred calculation. It may incorporate more refined food consumption data including that for specific sub-groups of the population. The NEDI calculation may take into account such factors as the proportion of the crop or commodity treated; residues in edible portions; the effects of processing and cooking on residue levels; and may use median residue levels from supervised trials other than the MRL to represent chemical residue levels. In most cases the NEDI is still an overestimation because the above data is often not available and in these cases the MRL is used.

NESTI - National Estimated Short Term Intake – The NESTI is used to estimate acute dietary exposure. Acute (short term) dietary exposure assessments are undertaken when an acute reference dose (ARfD) has been determined for a chemical. Acute dietary exposures are normally only estimated based on consumption of raw unprocessed commodities (fruit and vegetables) but may include consideration of meat, offal, cereal, milk or dairy product consumption on a case-by-case basis.

The NESTI calculation incorporates the large portion (97.5 percentile) food consumption data and can take into account such factors as:

- the highest residue on a composite sample of an edible portion;

- the supervised trials median residue (STMR) that represents typical residues in an edible portion resulting from the maximum permitted agricultural or veterinary chemical use pattern;
- processing factors which affect changes from the raw commodity to the consumed food; and
- the variability factor.

ANZFA and the NRA have used the ARfDs set by the TGA and Joint FAO/WHO Meeting on Pesticide Residues, the consumption data from the 1995 NNS and the MRL when the STMR is not available to calculate the NESTIs. The ARfD of a chemical is the estimate of the amount of a substance in food, expressed on a body weight basis, that can be ingested over a short period of time, usually during one meal or one day, without appreciable health risk to the consumer, on the basis of all the known facts at the time of evaluation. ANZFA considers that the acute dietary exposure to the residues of a chemical is acceptable where the acute dietary exposure is less than the ARfD.

The following are examples of entries and the proposed MRLs listed are not part of this application:

Fipronil			
Berries and other small fruits [except grapes and strawberry]	Delete	T*0.01	The NRA has extended the trial permit for this chemical to control Western Flower Thrip in strawberry. An MRL for fipronil on strawberry is required to accommodate the use as a bait for fruit fly. This use is not expected to result in residues as so the MRL is proposed at the LOQ. NESTI = <1% of ARfD for berries NEDI = 60% of ADI
Berries and other small fruits [except wine grapes]	Add	T*0.01	
Strawberry	Delete	T0.5	

Name of the Chemical (in bold)

Food for which the proposed MRL is to apply.

Whether the proposed MRL is being added or deleted.

The 'T' means the MRL is temporary and under review.

The '*' means that the MRL is at the limit of quantification and detectable residues should not occur.

The NESTI is an assessment of the acute exposure which is compared to the acute reference dose (ARfD). More information is in the glossary on the NESTI and the ARfD. To be acceptable to ANZFA, the NESTI must be less than 100% of the ARfD because the ARfD is considered the 'safe' level.

Acute Reference Dose (ARfD) more information on this term is in the glossary

The NEDI is an assessment of the chronic exposure which is compared to the acceptable daily intake (ADI). More information is in the glossary on the NEDI and the ADI. To be acceptable to ANZFA, the NEDI must be less than 100% of the ADI because the ADI is considered the 'safe' level.

Acceptable Daily Intake (ADI) more information on this term is in the glossary

Information about the use of the chemical is provided so consumers can see the reason why the residues may occur in food.

Data from the Australian Total Diet Survey (ATDS) is provided when available because it provides an indication of the typical exposure to chemicals in table ready foods. The ATDS results are more realistic because the NEDI and NESTI calculations are theoretical calculations that conservatively overestimate exposure.

Chlorpyrifos Coffee beans	Add T0.5	<i>NRA extension of use</i> for the control of pests. The 18 th ATDS (1996) dietary exposure estimate for chlorpyrifos, as a percentage of the ADI is equivalent to 0.53% of ADI for adult males and up to 1.42% for 2 year olds. The 19 th ATDS (1998) dietary exposure estimate for chlorpyrifos, as a percentage of the ADI is equivalent to 0.51% of ADI for adult males and up to 2.55% of ADI for 2 year olds. NEDI = 83% of ADI
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Small variations may be noted in the exposure assessment between different ATDSs. These variations are minor and typically result because of the different range of foods in the individual surveys.

SUMMARY OF REQUESTED MRLS FOR APPLICATION A447

Glossary of Acronyms:

1. ADI Acceptable Daily Intake.
2. ATDS Australian Total Diet Survey.
3. ARfD Acute Reference Dose.
4. LOQ Limit of Quantification.
5. NEDI National Estimated Dietary Intake.
6. NNS National Nutritional Survey.
7. NESTI National Estimated Short Term Intake.
8. NTMDI National Theoretical Maximum Daily Intake.
9. * MRL is set at or about the limit of quantification.
10. T Indicates the MRL is temporary for a period of time and subject to revision following review of additional data.
11. WHP Withholding Period

Chemical Food	MRL (mg/kg)	Information
Azoxystrobin Passion fruit	Add T0.5	The NRA has granted an emergency permit for the control of Scab disease. NEDI = 1% of ADI

Bifenthrin Barley Cereal grains Cereal grains [except barley and wheat] Pulses Pulses [except field pea (dry) and lupin (dry)] Wheat	Delete *0.02 Add T2 Delete T2 Delete *0.02 Add *0.02 Delete *0.01	The chemical is used to control various insect pests in cereal grains, pulses and lupin. NEDI = 87.28% of ADI.
Carbendazim Macadamia nuts	Add T0.1	The chemical is used to control various fungal diseases. This is a request for a renewal of an off- label permit. In the 19 th (1998) ATDS the estimated dietary exposure to Benomyl/carbendazim was less than 1% of the ADI for the whole population. On the basis of the level of consumption of macadamia nuts, the results from the 1998 ATDS and that this is an off the label permit, ANZFA considers that the residues associated with the MRL would not represent an unacceptable risk to public health and safety. NEDI = 73.17% of ADI
Carfentrazone-ethyl Cereal grains Edible offal (Mammalian) Eggs Meat (mammalian) Milks Poultry meat Poultry, Edible offal of	Add *0.05 Add *0.05 Add *0.05 Add *0.05 Add *0.025 Add *0.05 Add *0.05	The chemical is used to control annual broad leaf weeds in cereal crops and rice. NEDI = 1.5% ADI
Chlorfenapyr Cotton seed Edible offal (Mammalian) Eggs Meat (mammalian) (in the fat) Milks Poultry, Edible offal of Poultry meat (in the fat)	Delete T0.5 Substitute 0.5 Delete T0.1 Substitute *0.05 Delete T*0.01 Substitute *0.01 Delete T0.1 Substitute 0.05 Delete T*0.01 Substitute *0.01 Delete T*0.01 Substitute *0.01 Delete T0.02 Substitute *0.01	The chemical is used to control <i>Heliothis</i> spp on cotton. NEDI = 2.37% of ADI

Chlorfenvinphos			Please see the heading NRA Existing Chemical Review Program in the Assessment Report.
Broccoli	Delete Substitute	0.05 T0.05	
Brussels sprouts	Delete Substitute	0.05 T0.05	
Cabbages, Head	Delete Substitute	0.05 T0.05	
Carrot	Delete Substitute	0.4 T0.4	
Cattle, Edible offal of	Delete Substitute	0.2 T*0.1	
Cattle meat (in the fat)	Delete Substitute	0.2 T0.2	
Cattle milk (in the fat)	Add	T0.2	
Cauliflower	Delete Substitute	0.1 T0.1	
Celery	Delete Substitute	0.4 T0.4	
Cotton seed	Delete Substitute	0.05 T0.05	
Egg plant (aubergine)	Delete Substitute	0.05 T0.05	

Chlorfenvinphos (Cont)			Please see the heading NRA Existing Chemical Review Program in the Assessment Report.
Goat meat (in the fat)	Delete	0.2	
	Substitute	T0.2	
Goat, Edible offal of	Delete	0.2	
	Substitute	T*0.1	
Horseradish	Delete	0.1	
	Substitute	T0.1	
Leek	Delete	0.05	
	Substitute	T0.05	
Maize	Delete	0.05	
	Substitute	T0.05	
Milks (in the fat)	Delete	0.2	
Mushrooms	Delete	0.05	
	Substitute	T0.05	
Onion, Bulb	Delete	0.05	
	Substitute	T0.05	
Peanut	Delete	0.05	
	Substitute	T0.05	
Potato	Delete	0.05	
	Substitute	T0.05	
Radish	Delete	0.1	
	Substitute	T0.1	
Rice	Delete	0.05	
	Substitute	T0.05	
Sheep, Edible offal of	Delete	0.2	
	Substitute	T*0.1	
Sheep meat (in the fat)	Delete	0.2	
	Substitute	T0.2	
Swede	Delete	0.05	
	Substitute	T0.05	
Sweet potato	Delete	0.05	
	Substitute	T0.05	
Tomato	Delete	0.1	
	Substitute	T0.1	
Turnip, Garden	Delete	0.05	
	Substitute	T0.05	
Wheat	Delete	0.05	
	Substitute	T0.05	
			NEDI = 15.4% of ADI

Chlorpyrifos			Please see the heading NRA Existing Chemical Review Program in the Assessment Report.
Asparagus	Delete	0.5	
	Substitute	T0.5	
Brassica (cole or cabbage) vegetables, Head cabbages, Flowerhead brassicas	Delete	0.5	
	Substitute	T0.5	
Cassava	Delete	*0.02	
	Substitute	T*0.02	
Cattle, Edible offal of Cattle meat (in the fat) Cereal grains [except sorghum]	Delete	2	
	Delete	2	
	Delete	0.1	
	Substitute	T0.1	
Citrus Fruits	Delete	0.5	
	Substitute	T0.5	
Dried fruits	Delete	2	
	Substitute	T2	
Edible offal (Mammalian) Eggs	Add	T0.1	
	Delete	*0.01	
	Substitute	T*0.01	
Grapes	Delete	1	
	Substitute	T1	
Meat (Mammalian) (in the fat) Milks (in the fat)	Add	T0.5	
	Delete	0.2	
	Substitute	T0.2	
Oilseed	Delete	0.01	
	Substitute	T0.01	
Pig, Edible offal of Pig meat (in the fat) Pineapple	Delete	0.1	
	Delete	0.1	
	Delete	0.5	
	Substitute	T0.5	
Pome fruits	Delete	0.2	
	Substitute	T0.5	
Poultry, Edible offal of	Delete	0.1	
	Substitute	T0.1	
Poultry meat (in the fat)	Delete	0.1	
	Substitute	T0.1	
Sheep, Edible offal of Sheep meat (in the fat) Sorghum	Delete	0.1	
	Delete	0.1	
	Delete	3	
	Substitute	T3	
Stone fruits	Delete	1	
	Substitute	T1	

<p>Chlorpyrifos (Cont) Sugar cane</p> <p>Tomato</p> <p>Vegetables [except asparagus, brassica vegetables, cassava, celery, leek, potato and tomato]</p>	<p>Delete 0.1 Substitute T0.1</p> <p>Delete 0.5 Substitute T0.5</p> <p>Delete *0.01 Substitute T*0.01</p>	<p>Please see the heading NRA Existing Chemical Review Program in the Assessment Report.</p>
<p>Dimethomorph Poppy seed</p>	<p>Add *0.02</p>	<p>The chemical is used in combination with mancozeb to control downy mildew in poppy seed. NTMDI = 3.32% of ADI</p>
<p>Diquat Lentil (dry)</p>	<p>Add T0.5</p>	<p>The NRA has granted a minor use permit for the use of diquat on lentils for pre-harvest desiccation and weed control. Sunset date: 1 November 2002 NEDI = 49% of ADI</p>
<p>Disulfoton Sum of disulfoton and demeton-S and their sulfoxides and sulfones, expressed as disulfoton <i>see also Demeton-S-methyl</i> Disulfoton Sum of disulfoton and demeton-S and their sulfoxides and sulfones, expressed as disulfoton</p>	<p>Delete</p> <p>Add</p>	<p>This is a change to the residue definition</p>
<p>Dithiocarbamates (mancozeb, metham, metiram, propineb, thiram, zineb and ziram) Lentil (dry)</p>	<p>Add T0.5</p>	<p>Trial for mancozeb to be used to control a variety of fungal diseases in pulse crops. In the 19th (1998) ATDS the estimated dietary exposure to thiram (the dithiocarbamate with the lowest ADI) was at 63% of the ADI. This MRL is for the use of the dithiocarbamate mancozeb, which has a higher ADI than thiram. Given the consumption of lentils, the results from the 1998 ATDS, the fact that the trial permit is for the chemical mancozeb and data from several Australian trials, the additional exposure to dithiocarbamates from lentil (dry) seed would not result in an unacceptable risk to public health.</p>

Dithiocarbamates (cont) Poppy seed	Add	*0.2	Mancozeb is used in combination with dimethomorph to control downy mildew in poppy seed for trial purposes. The intake from poppy seed is equivalent to < 0.005% of the ADI, using an intake figure of 0.1g/kg bw/day. On the basis of data from previous ATDS and Tasmanian field trials where no residues of mancozeb were found above the LOQ of 0.2 mg/kg in poppy seeds, the additional exposure to dithiocarbamates from poppy seed would not result in an unacceptable risk to public health.
Emamectin benzoate no residue definition	Delete		This is a change to the residue definition
Emamectin EmamectinB _{1a} , plus its 8,9-Z isomer and emamectin B _{1b} , plus its 8,9-Z isomer	Add		
Emamectin Grapes	Add	T*0.002	The NRA has granted a permit for a large scale field trial for the use of emamectin for the control of light brown apple moth in grapes. NEDI = 3% of ADI
Endosulfan Assorted tropical and sub-tropical fruits – edible peel	Add	T2	Please see the heading NRA Existing Chemical Review Program in the Assessment Report.
Assorted tropical and sub-tropical fruits – inedible peel	Add	T2	
Berries and other small fruits	Add	T2	
Brassicas (cole or cabbage) vegetables, Head cabbages, Flowerhead brassicas	Add	T2	
Carrot	Delete	0.2	
Cattle, Edible offal of	Delete	0.2	
Cattle meat (in the fat)	Delete	0.2	
Cereal grains	Delete	0.2	
	Substitute	T0.2	
Citrus fruits	Add	T2	
Common bean (dry) (navy bean)	Delete	1	
Cotton seed oil, crude	Delete	0.5	
	Substitute	T0.5	
Edible offal (Mammalian)	Add	T0.2	
Eggs	Delete	*0.05	
	Substitute	T*0.05	
Fruits	Delete	T2	
Fruiting vegetables, Cucurbits	Add	2	
Fruiting vegetables, other than Cucurbits	Delete	T2	
	Substitute		

Endosulfan (Cont)			
Goat, Edible offal of	Delete	0.2	Please see the heading NRA Existing Chemical Review Program in the Assessment Report.
Goat meat (in the fat)	Delete	0.2	
Leafy vegetables (including Brassica leafy vegetables)	Add	T2	
Legume vegetables	Add	T2	
Lupin (dry)	Delete	1	
Meat (mammalian) (in the fat)	Add	0.2	
Milks (in the fat)	Delete	0.5	
	Substitute	T0.5	
Mung bean (dry)	Delete	1	
Oilseed	Delete	1	
	Substitute	T1	
Onion, Bulb	Delete	0.2	
	Substitute	T0.2	
Peanut	Delete	1	
Pome fruits	Add	T2	
Potato	Delete	0.2	
Pulses	Add	T1	
Rice	Delete	0.1	
	Substitute	T0.1	
Root and tuber vegetables	Add	T2	
Sheep, Edible offal of	Delete	0.2	
Sheep meat (in the fat)	Delete	0.2	
Shallot	Add	T2	
Soya bean (dry)	Delete	1	
Stalk and stem vegetables	Add	T2	
Stone fruits	Add	T2	
Sweet corn (corn-on-the-cob)	Delete	0.2	
Sweet potato	Delete	0.2	
Tea, Green, Black	Delete	30	
	Substitute	T30	
Tree nuts	Delete	0.2	
	Substitute	T2	
Tomato	Delete	2	
Vegetables [except carrot, common bean, lupin (dry), mung bean (dry), onion bulb, potato, soya bean (dry); sweet corn (corn-on-the-cob) and sweet potato]	Delete	2	
Fenoxycarb			
Brassica (cole or cabbage) vegetables, Head cabbages, Flowerhead brassicas	Delete	T0.5	The permit has expired.

<p>Fipronil Assorted tropical and sub-tropical fruit - inedible peel [except banana] Berries and other small fruits [except wine-grapes and strawberry] Citrus fruits Pome fruits</p>	<p>Add T*0.01 Add T*0.01 Add T*0.01 Add T*0.01</p>	<p>The NRA has granted a permit for a field trial to evaluate the efficacy of fipronil as a bait spray for the control of fruit fly on berry row crops, and on citrus, tropical and pome fruit trees. The acute dietary exposure assessments are for less than 2% of the ARfD for adults and less than 5% of ARfD for children from 2 to 6 years old. The MRLs are at the LOQ and are effectively continuing the existing standard requirements that no detectable residues should occur. NEDI = 65.61% of ADI</p>
<p>Fluazifop-butyl Chervil Galangal, rhizomes Kaffir lime leaves Lemon balm Lemon grass Lemon Verbena Mizuna Pulses Rucola (rocket) Turmeric root</p>	<p>Delete T1 Delete T1 Delete T1 Delete T1 Delete T1 Delete T1 Delete T1 Add 0.5 Delete T1 Delete T1</p>	<p>This chemical used for the control of volunteer sugar cane and couch in mung beans. The deletions are to take into account the expiration of a permit NEDI = 68% of ADI.</p>
<p>Fluquinconazole Apple Pear Pome fruits</p>	<p>Delete T0.5 Delete T0.5 Add *0.05</p>	<p>The chemical is used for the control of black spot in apples and pears and powdery mildew in apples. NEDI = 30.5% of ADI.</p>
<p>Fluvalinate Peach Plums (including Prunes)</p>	<p>Add T0.1 Add T0.1</p>	<p>Temporary permit for the control of plague thrips. NEDI = 14.54% of ADI</p>
<p>Glyphosate Barley Broad bean (dry) Edible offal (Mammalian) Field pea (dry) Hops, dry Pulses [except adzuki bean, chick-pea and mung bean] Pulses [except adzuki bean, chick-pea, broad bean (dry), field pea (dry) and mung bean]</p>	<p>Delete T20 Substitute 10 Add 2 Delete T2 Substitute 2 Add 5 Add *0.1 Delete *0.1 Add *0.1</p>	<p>The chemical is used to control weeds. NEDI = 4.3% of ADI.</p>

Glyphosate (cont) Poultry, Edible offal of	Delete *0.1 Substitute 1	The chemical is used to control weeds. NEDI = 4.3% of ADI.
Wheat	Delete T5 Substitute 5	
Wheat bran, unprocessed	Delete T20 Substitute 20	
Haloxypop Cattle, Edible offal of Cattle fat Cattle meat Cattle milk Cotton seed oil, crude Edible offal (Mammalian) Eggs Meat (mammalian) (in the fat) Milks Poultry, Edible offal of Poultry fats Poultry meat Poultry meat (in the fat) Pulses Sugar cane Sunflower seed	Delete 0.5 Delete 0.1 Delete 0.02 Delete 0.02 Add 0.2 Add 0.5 Delete 0.05 Substitute *0.01 Add 0.02 Add 0.02 Delete 0.5 Substitute 0.05 Delete 0.5 Delete 0.2 Add *0.01 Delete 0.05 Substitute 0.1 Delete T*0.01 Substitute T0.03 Delete *0.02 Substitute *0.05	Chemical used to control annual and perennial weeds. Animal MRLs amended subsequent to new studies submitted for beef and dairy cattle and revision of poultry studies in view of new crop data. Pulse MRLs adjusted to account for late applications in the growing season. Increased MRL in sugar cane for commercial scale trial of a reduced WHP from 70 days to 28 days. The use of haloxypop is for a trial permit and given that the proportion of the treated cane is estimated to be <10% of the total milled cane on any given day, the human dietary exposure will be considerably less than that calculated. NEDI = 89.6% of ADI
Imidacloprid Sugar cane	Delete T*0.02 Substitute T*0.05	The NRA has granted a permit to control Greyback Grub in sugar cane. NEDI = 3.56% of ADI
Indoxacarb Chick-pea (dry)	Add T0.2	Trial of the chemical to control moths NEDI = 59.42% of ADI

Ivermectin Ivermectin, sum of isomers	Delete		This is a change to the residue definition.
Ivermectin H₂B_{1a}	Insert		
Ivermectin Sheep meat (in the fat)	Delete Substitute	0.05 0.02	The chemical is used to control intestinal worm infestations, nasal bot (<i>Oestrus ovis</i>) and itch mite in sheep NEDI = 45.6% of ADI
Methidathion Cattle meat (in the fat)	Delete	0.5	The chemical is used to control a wide range of sucking and chewing insects.
Litchi	Add	T0.1	The NRA has granted a permit for methidathion to control scale insects on litchi. Litchis were not recorded as being consumed in the 1995 NNS. The consumption figure for rambutan was used as an estimate for litchi consumption. As the consumption figure for fat is 10% of the consumption of meat the increase in the MRL for the 'in the fat' entry effectively means that there is little change to the dietary exposure to this chemical. NEDI = 63% of ADI
Longan	Delete Substitute	T0.5 0.1	
Meat (mammalian)	Delete	*0.05	
Meat (mammalian) (in the fat)	Add	0.5	
Methomyl Guava	Delete Substitute	T0.1 T0.5	The NRA has granted a permit to control various insect pests on guava.
Herbs	Add	T1	The NRA has granted a permit to control western flower thrip in herbs. NEDI = 69.2% ADI
Metolachlor Cereal grains Cereal grains [except maize and sorghum]	Delete Add	*0.01 *0.02	The chemical is used to suppress annual rye grass in barley and oat crops. NEDI = 0.86% of ADI
Naled Cotton seed Edible offal (Mammalian) Meat (mammalian) Milks	Add Add Add Add	T*0.02 T*0.05 T*0.05 T*0.05	Temporary MRL for the control of insects on cotton. NEDI = 26.84% of ADI

Phosphine (zinc phosphide) Melons, except Watermelon Pulses Sugar cane	Add Add Add	T*0.01 *0.01 T*0.01	The NRA has granted a permit to control heavy infestations of mice and rats in agricultural situations. Trial data showed residues to be below the LOQ of 0.01 mg/kg. The risk to human health from the use of zinc phosphide is considered to be small. Zinc phosphide is converted into phosphine and no residues are expected in food. The NRA has stated that an ADI has not been deemed necessary on the basis of that there will be no residues in food. The Therapeutic Goods Administration, Codex Alimentarius Commission and the United States Environmental Protection Agency have not set an ADI.
Pirimicarb Leafy vegetables Vegetables [except lupin (dry)] Vegetables [except leafy vegetables, lupin (dry)]	Add Delete Add	T3 1 1	The chemical is used to control aphids on vegetables. In the 19 th (1998) ATDS the estimated dietary exposure to pirimicarb was at less than 1% of the ADI. NEDI = 86% of ADI
Propiconazole Mushrooms	Add	*0.05	The chemical is used for the treatment of timber trays used for mushroom production. NEDI = 4.7% of ADI
Pymetrozine Pumpkins	Add	T0.02	The NRA has granted a permit to control of plant-sucking insects. NEDI = 3% of ADI
Pyrimethanil Apple Pear Pome fruits Potato Strawberry	Delete Delete Add Add Delete Substitute	T1 T1 *0.05 T*0.01 T5 5	The chemical is used to control black spot in apples and pears, powdery mildew in apples and grey mould in strawberry. The NRA has granted a trial permit to control the fungus Target spot in potato. NTMDI = 3% ADI NEDI = 3% of ADI

Spinosad Citrus fruits	Add	T0.1	<p>The NRA has granted a trial permit to control fruit flies on citrus, <i>Heliothis</i> spp, lucerne leaf roller, bean fly and sorghum midge in pulses and sorghum.</p> <p>The NRA has granted an off-label permit to control Western flower thrip on strawberries. This chemical is used to control caterpillar pests in sweet corn. The MRL for sweet corn (kernels) was deleted following new residue trials. The new trials, conducted in the field, resulted in reduction of the MRL for this chemical at 0.02 mg/kg in sweet corn (corn-on-the-cob). NEDI = 10.81% of the ADI</p>
Pulses	Add	T*0.01	
Sorghum	Add	T*0.01	
Strawberry	Add	T0.5	
Sweet corn (corn-on-the-cob)	Add	0.02	
Sweet corn (kernels)	Delete	T0.1	
Sulfosulfuron Triticale	Add	*0.01	<p>The chemical is used to control weeds. NEDI = 0.04% ADI</p>
Tebuconazole Sugar cane	Add	T0.1	<p>Emergency permit to allow the chemical to be used to control fungus on sugar cane. NEDI = 15% of ADI</p>
Uniconazole-p Avocado	Delete Substitute	T*0.02 *0.02	<p>The chemical is to be used to reduce vegetative growth and enhance and improve the fruit shape of avocados. NEDI = 0.003% of ADI</p>
Zinc Phosphide See Phosphine			<p>This is a new chemical and residue definition.</p>

STATEMENT OF REASONS**APPLICATION A447 – MAXIMUM RESIDUE LIMITS****FOR RECOMMENDING A VARIATION TO THE *FOOD STANDARDS CODE***

On 18 July 2001, ANZFA received an application from the National Registration Authority for Agricultural and Veterinary Chemicals (NRA) seeking to amend Standards A14 and 1.4.2 for the *Food Standards Code*. The proposed amendments would align the Maximum Residue Limits (MRLs) for agricultural and veterinary chemicals in the *Food Standards Code* with the MRLs in the NRA MRL Standard.

This Application (A447) is a routine application from the NRA, to update the *Food Standards Code* to reflect the current registration status of agricultural and veterinary chemical use in Australia.

The *Agreement between the Commonwealth of Australia and the Government of New Zealand to establish a system for the development of joint food standards*, excluded MRLs for agricultural and veterinary chemicals in food from the joint food standards setting system. Australia and New Zealand separately and independently develop MRLs for agricultural and veterinary chemicals in food.

ANZFA has completed a Draft Assessment (Full Assessment s15) of the Application, and prepared draft variations to Standard A14 of Volume 1 and Standard 1.4.2 of Volume 2 of the *Food Standards Code*.

ANZFA recommends progressing the Application for the following reasons:

- The dietary exposure assessments indicate that the residues associated with the MRLs do not represent an unacceptable risk to public health and safety. The NRA has already registered the chemical products in this application and the rejection of the MRLs would result in legally treated food not being able to be legally sold. Therefore, the requested changes will benefit all stakeholders by maintaining public health and safety while permitting the legal sale of food treated with agricultural and veterinary chemicals to control pests and diseases and improve agricultural productivity.
- The NRA have assessed appropriate toxicology, residue, animal transfer, processing and metabolism studies, in accordance with the *Guidelines for Registering Agricultural and Veterinary Chemicals, the Agricultural and Veterinary Requirements Series, 1997*, to support the use of chemicals on commodities as outlined in this application.
- The Therapeutic Goods Administration (TGA) of the Commonwealth Department of Health and Ageing has undertaken an appropriate toxicological assessment of the chemical products and has established relevant acceptable daily intakes (ADI).
- None of ANZFA's section 10 objectives of food regulatory measures are compromised by the proposed changes.

- ANZFA has undertaken a regulation impact assessment process, which also fulfils the requirement in New Zealand for an assessment of compliance costs. That process concluded that the amendment to the *Food Standards Code* is necessary, cost effective and of benefit to both producers and consumers.

SUMMARY OF PROPOSED MRLS FOR A447

Please see Attachment 2 of the Final Assessment Report.

WORLD TRADE ORGANIZATION (WTO) NOTIFICATION

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.

MRLs prescribed in the *Food Standards Code* constitute a mandatory requirement applying to all food products of a particular class whether produced domestically or imported. Food products exceeding their relevant MRL set out in the *Food Standards Code* cannot legally be supplied in Australia.

In administrative terms and consistent with international practice, MRLs assist in regulating the use of agricultural and veterinary chemical products. MRLs indicate whether agricultural and veterinary chemical products have been used in accordance with the registered conditions of use, and it is the registered conditions of use that protect human, animal and plant health and the environment. MRLs also ensure that the residues of chemicals are minimised consistent with the effective use of chemical products to control pests and diseases and MRLs also act as trading standards.

This Application contains variations to MRLs that are included in the international Codex standard. MRLs in this application also relate to chemicals used in the production of heavily traded agricultural commodities that may indirectly have a significant effect on trade of derivative food products between WTO members.

ANZFA made a WTO notification at Initial/Draft Assessment. No WTO member has made a submission on this application.

DRAFT VARIATIONS TO THE *FOOD STANDARDS CODE*

Please see Attachment 1 of the Final Assessment Report.

SUMMARY OF PUBLIC SUBMISSIONS RECEIVED AT DRAFT ASSESSMENT

Submitter	Comments raised
Commonwealth Department of Health and Ageing	The Department supported the Application and had some concerns about the effect of adopting MRLs that are lower than Codex Alimentarius Commission MRLs.
Department of Agriculture Fisheries and Forestry - Australia	The Department supported the Application
Food Technology Association	The Technical Sub-committee of the Association accepted this Application without further comment
National Council of Women of Australia	The Council was unable to supply a submission due to their offices being closed.