New Zealand Food Safety
Haumaru Kai Aotearoa

Proposals to Amend the New Zealand Food Notice: Maximum Residue Levels for Agricultural Compounds

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1 Request for submissions

New Zealand Food Safety invites public comment on this discussion document, which outlines proposals to amend the Food Notice: Maximum Residue Levels for Agricultural Compounds (the Notice).

When submitting comments, please clearly answer the following questions:

For each compound you are commenting on:

Do you agree or disagree with the proposed addition or amendment?

Do you agree or disagree with the proposed MRL value(s)?

Please feel free to include with your answers above, any supporting discussion, data or examples that you feel are relevant.

Submissions close at 5pm on **16 May 2025.** Your comments should be sent to:

MRL Amendments
New Zealand Food Safety
Ministry for Primary Industries
PO Box 2526
Wellington 6140

Email: ACVM.Consultation@mpi.govt.nz

When making a submission, please ensure you clearly identify your name and the proposal(s) for which you are providing comment. If you are making comments on behalf of an organisation, include your title and the name of the organisation.

The Official Information Act

The Official Information Act 1982 (the OIA) states that information is to be made available unless there are grounds for withholding it. The grounds for withholding information are outlined in the OIA. Submitters may wish to indicate any grounds for withholding information contained in their submission. Reasons for withholding information could include that information is commercially sensitive or that the submitters wish personal information such as names or contact details to be withheld. The Ministry for Primary Industries will take such indications into account when determining whether to release information. Any decision to withhold information requested under the OIA may be reviewed by the Ombudsman.

2 Introduction

Agricultural compounds are natural or synthetic substances used in the direct management of plants and animals, and include all agricultural chemicals (e.g., fungicides, herbicides, and insecticides), veterinary medicines, and other compounds used to maintain plant and animal health and productivity. Growers and farmers use these agricultural compounds to manage disease in animals and crops, protect the food supply, and maximise the quantity and quality of the food they grow.

Agricultural compound use can leave residues in the food harvested from treated crops and animals. To manage these residues, it is important to ensure that only the lowest amount of an agricultural compound is used to consistently achieve its intended purpose. This will leave the smallest amount of residue practicable without compromising the compound's efficacy. The set of principles and methods used to manage that balance is known as good agricultural practice (GAP). These principles apply to the production of safe and good quality horticultural, agricultural, and animal products. Maximum residue levels (MRLs) are then established for each compound/food commodity combination by evaluating the residues left in food commodities as a result of the highest authorised GAP use (the 'critical GAP'). This value is compared against the health-based guidance value before a maximum level of agricultural compound residue allowable in that food commodity is set. How the MRLs are determined, and how they are used once they have been set, are explained in more detail below.

MRLs are the maximum legal levels for residues of agricultural compounds permitted in food for sale in New Zealand. They are established based on domestic uses of a particular compound and are used to monitor GAP compliance in New Zealand while ensuring food safety. Because they are based on New Zealand authorised uses according to domestic GAP, MRLs may differ from those established overseas for a similar use because their GAP may be different. However, as noted below, imported food can also comply with Codex MRLs.

To meet New Zealand's obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement), proposals for new and amended MRLs are notified to the World Trade Organization. Any country may choose to comment if they believe a proposed MRL represents a barrier to their trade.

2.1 Establishing Maximum Residue Levels

2.1.1 Regulatory Structure

MRLs are the maximum legal levels of agricultural compound residues permitted in food for sale in New Zealand and are set out in the Notice. The Notice is updated up to four times a year to reflect changes in the use of agricultural compounds in the production of food. The Notice is available from the Ministry for Primary Industries (MPI) New Zealand Food Safety website at: https://www.mpi.govt.nz/dmsdocument/19550-maximum-residue-levels-for-agricultural-compounds.

New Zealand Food Safety administers the Notice, with the final decision on any changes to the Notice resting with the Director-General of MPI. The Notice is issued under section 405 of the Food Act 2014. When setting or amending MRLs, the Director-General must follow, as far as practicable, international best practice on dietary intake assessment and setting of maximum residue levels. The requirements for the content of the Notice are set out in Part 6 of the Food Regulations 2015 (the Food Regulations), allowing for the setting of MRLs for agricultural compounds as well as specifying compounds to which no MRL applies.

In addition to establishing the requirements for domestically produced foods, Part 6 of the Food Regulations also outlines the residue level compliance requirements for imported foods.

Regulation 144 states that food must not contain residues of agricultural compounds unless the residue level does not exceed:

- the MRLs specified for that food in a notice set under the Food Act 2014 (regulation 144(1)(a)); or
- the default MRL of 0.1 mg/kg (regulation 144(1)(c)); or
- for imported food, the current editions of either the Maximum Residue Limits (MRLs) and Extraneous Maximum Residue Limits (EMRLs) for Pesticides (Codex Pesticides Residues in Food Online Database), or the Maximum Residue Limits for Veterinary Drugs in Food (Codex Veterinary Drug Residue in Food Online Database) (regulation 144(1)(d)).

These provisions allow for New Zealand Food Safety to set MRLs for imported food commodities when such levels are required. As imported food commodities can comply with either a Codex MRL or a MRL established in the Notice, New Zealand's obligations under the SPS Agreement are met.

On the whole, the Food Regulations allow for the management of residues in all foods consumed in New Zealand.

2.1.2 Determining Maximum Residue Levels

The first step in determining MRLs for an agricultural compound is establishing GAP for the use of the compound in the target species or crop. New Zealand Food Safety establishes GAP by evaluating efficacy, crop safety, and animal health and safety for the range of treatments and use patterns approved and proposed for each compound. Once GAP has been established for an agricultural compound, the residues resulting from the highest authorised dose or application rate and use pattern, which is likely to give rise to the highest residues (the 'critical GAP') is then used to determine the MRLs in food commodities from treated crops and animals.

Although the primary function of MRLs is to ensure conformance with established New Zealand GAP, the MRLs also play a role in managing dietary exposure and risks to trade in food commodities. To ensure the MRLs will effectively manage residues related to those risks, a national estimated daily intake or NEDI calculation is conducted to evaluate consumption risk and a review of all international MRLs for the compound/commodity combinations being considered is completed to evaluate trade risk. If it is found that the MRL being considered may pose a food safety or trade risk, the proposed MRL is not progressed.

Where it has been determined that MRLs can be set, those MRLs are proposed for inclusion in the Notice for approved or proposed agricultural compound uses. For veterinary medicines, MRLs may be proposed for animal products from a specific species (e.g., cattle, chicken) or a species group (e.g., mammalian, poultry) depending on the residue and metabolism profile of the agricultural compound being considered. Similarly, for agricultural chemicals, an MRL may be set for an individual crop or crop product (e.g., avocados, wheat grains) or for a crop grouping (e.g., pome fruits). When it has been determined that assigning an MRL to a crop grouping is appropriate, the grouping used aligns with the Codex classifications of foods and animal feeds.

For agricultural chemicals used on a crop from which both food and animal feed commodities are derived, MRLs are proposed for both the food commodities intended for human consumption from the treated crop, and animal commodities for the species or species group to which the feed commodity is fed. If the compound for which the MRLs are set is also used as a veterinary medicine, all approved veterinary and agricultural chemical uses are considered when setting the animal commodity MRLs. If an agricultural chemical is used on a

crop from which only animal feed is harvested (e.g., pasture, fodder crops), only animal commodity MRLs will be proposed.

2.1.3 Estimating Chronic Dietary Exposure

National estimated daily intake

The objective of the estimated chronic dietary exposure is to determine whether residues in food commodities will pose an unacceptable risk to consumers as a result of the authorised use of an agricultural compound according to established GAP. This exposure is estimated by calculating the national estimated daily intake (NEDI) in accordance with the Guidelines for predicting dietary intake of pesticide residues (revised) [World Health Organization, 1997].

The NEDI calculation uses the total residues in food derived from all New Zealand authorised uses of an agricultural compound, including all toxicologically significant residues, and regional dietary consumption data derived from the 1997 National Nutritional Survey for adults and the 1995 National Nutrition Survey of Australia for children. The calculated NEDI is then compared with the Health Based Guidance Value (HBGV) associated with the compound; if the total residues derived from all uses of the agricultural compound is estimated to be less than the HBGV, the dietary exposure is unlikely to pose a health risk to consumers.

Health Based Guidance Values

The health based guidance value (HBGV) used in determining the estimated dietary exposure may be either a Potential Daily Exposure (food) ($PDE_{(food)}$) or an Acceptable Daily Intake (ADI). The ADI and $PDE_{(food)}$ are largely equivalent as they are determined using the same set of toxicology data and through a very similar scientific process. Both values are reported as milligrams of compound per kilogram bodyweight per day (mg/kg bw/d).

A $PDE_{(food)}$ is a value determined by a toxicological evaluation by the New Zealand Environmental Protection Authority (NZ EPA) as part of its responsibility for managing public health under the Hazardous Substances and New Organisms Act 1996. A $PDE_{(food)}$ is the food-specific part of a set of values for different exposure pathways comprising the NZ EPA's assessment of acceptable daily exposure (ADE) for an agricultural compound. It provides the threshold for the potential daily exposure to a substance that a person may be subject to via food.

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

New Zealand Food Safety uses the $PDE_{(food)}$ set by the NZ EPA as the HBGV for the estimation of dietary exposure when one is available. If there is no $PDE_{(food)}$, the estimate is compared with an ADI set by the WHO/FAO joint expert committees, the Australian Pesticides and Veterinary Medicines Authority, the European Food Safety Authority, or another regulatory authority. If none of these are available, the HBGV used will be a New Zealand Food Safety-determined ADI.

2.1.4 International MRLs and Trade

Because New Zealand MRLs are based on domestic GAP, they may differ from the MRLs established overseas for the use of the same compound in the same target species or crop if

the GAP used to set those MRLs are different. To ensure the New Zealand MRLs will not unduly impact trade, the MRLs set by Codex and a selection of other international regulatory bodies are reviewed to evaluate trade risk.

For animal commodities, the MRLs set by Australia, Canada, China, Codex, the European Union, Japan, and the United States of America are commonly reviewed and compared; for horticultural commodities, MRLs set by Codex and Australia are commonly reviewed and compared. Other international MRLs may also be reviewed and compared if there is a particular trade risk to be considered for those regions for any exported commodity.

Where there are relevant international MRLs to be considered in the trade assessment for the proposal, these are included in a table in the "Relevant International MRLs" section of each proposal entry. This table includes all MRLs for the agricultural compound/food commodity combinations for which new or amended New Zealand MRLs are being proposed; international MRLs for other commodities for which New Zealand MRLs already exist are not included. If there are no MRLs set by an international authority for a particular compound/commodity combination, the authority is not listed in the table.

2.1.5 Agricultural Compounds for Which No Maximum Residue Level Applies

Not all agricultural compounds require an MRL to manage their use in crops or animals. This may be because there are no residues present due to the properties of the compound such as rapid elimination from the plant, animal, or their environment, or because there are no food safety or trade risks associated with the residues that are present. Regulation 141 of the Food Regulations allows for the listing of specified compounds that fit these criteria as agricultural chemicals or veterinary medicines for which no MRL applies. These compounds are listed in Schedule 2 and Schedule 3 of the Notice, respectively, and the conditions of listing can be set for a particular use, a particular animal or crop, or general use as an agricultural chemical or veterinary medicine.

Agricultural chemicals and veterinary medicines being considered for listing as compounds for which no MRL applies undergo a similar scientific assessment of their use as that undertaken for MRL assessment. This assessment is done in accordance with international methodologies published by the Organisation for Economic Cooperation and Development (OECD), International Cooperation on Harmonisation of Technical Requirements for Registration of Veterinary Medicinal Products (VICH), or FAO. It includes establishing the GAP use of the compound, the relevant metabolism and residue information, and the potential risks posed to public health and trade. The assessment may also include an assessment of dietary exposure when considered necessary to fully assess the risks.

Where New Zealand Food Safety has determined that an MRL is not required, the compound is proposed for listing in Schedule 2 (for agricultural chemicals) or Schedule 3 (for veterinary medicines) with conditions on their use to ensure the listing applies only to those situations that have been evaluated. If a compound listed in Schedule 2 or 3 is used in a way that does not meet the specified condition, the default MRL of 0.1 mg/kg will apply to food derived from treated plants or animals. Each proposal for inclusion in Schedule 2 or 3 includes a discussion of the rationale behind the considerations for listing, and a discussion of the assessed risks and proposed conditions.

2.2 Summary of Proposed Amendments

The proposed MRLs have been thoroughly assessed in accordance with international methodologies published by the OECD, VICH, or FAO. Information on the technical assessment of each proposal is included in this document (refer section 3) and covers:

- the new or amended entry proposed for inclusion in the Notice;

- the rationale for the new entry or amendment being proposed;
- New Zealand good agricultural practice for the compound and target crop or species;
- the relevant residues information used in determining the proposed MRLs;
- a summary of the dietary risk and public health assessment; and
- the MRLs set by Codex and other authorities that are relevant to the new or amended entry.

Where an existing entry is proposed for revision, new or revised entry content is listed in bold print, and content proposed for removal is identified by a strikethrough.

The MRL compliance and dietary risk assessment residue definitions are included in the residue information section of the proposal. The HBGV used to compare to the NEDI calculation and determine the potential public health risk is included in the dietary risk and public health assessment section of the proposal.

2.2.1 Amendments to Schedule 1: Maximum Residue Levels for Agricultural Compounds

MPI proposes to make the following changes to Schedule 1 of the Notice:

- An amendment to the entry for **acephate**, to change the residue definition and MRLs to account for consequential residues from the acephate metabolite methamidophos;
- A new entry for **acetochlor**, to set MRLs at 0.02(*) mg/kg in eggs, mammalian fat, mammalian meat, mammalian offal, milk, poultry fat, poultry meat, and poultry offal; and 0.04(*) mg/kg in maize and sweetcorn;
- An amendment to the entry for **decoquinate**, to set MRLs at 1 mg/kg in cattle fat, kidney and liver, and 0.5 mg/kg in cattle meat; 1 mg/kg in goat fat, kidney and liver, and 0.5 mg/kg in goat meat; 1 mg/kg in sheep fat, kidney and liver, and 0.5 mg/kg in sheep meat; and 0.8 mg/kg in poultry liver and skin/fat;
- An amendment to the entry for **fenamiphos**, to remove commodity-specific MRLs and set an MRL of 0.01(*) mg/kg for any food, to reflect that fenamiphos can no longer be used in agricultural compounds in New Zealand;
- A new entry for **flupyradifurone**, to set MRLs at 0.1 mg/kg for mammalian meat and fat, 0.4 mg/kg in mammalian offal and 0.05 mg/kg in milk;
- An amendment to the entry for **glyphosate**, to set MRLs at 10 mg/kg in wheat, barley and oat; and 6 mg/kg in field pea (dry);
- An amendment to the entry for **haloxyfop**, to set MRLs at 0.02 mg/kg in mammalian meat and fat, 0.5 mg/kg in mammalian offal, and 0.002(*) mg/kg in milk;
- An amendment to the entry for **maduramicin**, to set MRLs at 0.1 mg/kg in poultry kidney, skin/fat, and meat;
- An amendment to the entry for **methamidophos** to remove commodity-specific MRLs, and refer to the acephate entry to reflect that while methamidophos can no longer be used in agricultural compounds in New Zealand, it may be detected as a result of acephate use;
- An amendment to the entry for **monensin**, to adjust the residue definition to ‘monensin’ and to set MRLs at 0.002(*) mg/kg in milk; 0.05 mg/kg in cattle fat and liver, and 0.01(*) mg/kg in cattle kidney and meat; 0.05 mg/kg in goat fat and liver, and 0.01(*) mg/kg in goat kidney and meat; 0.05 mg/kg in sheep fat and liver, and 0.01(*) mg/kg in sheep kidney and meat; and 0.1 mg/kg in poultry kidney, liver, and skin/fat, and 0.05 mg/kg in poultry meat;
- An amendment to the entry for **narasin**, to set MRLs at 0.015 mg/kg in poultry kidney and meat, and 0.05 mg/kg in poultry liver and skin/fat;

- An amendment to the entry for **oxathiapiprolin**, to set an MRL at 0.01(*) mg/kg in potatoes;
- An amendment to the entry for **salinomycin**, to set MRLs at 0.1 mg/kg in pig fat, kidney, liver, and meat, and 0.1 mg/kg in poultry kidney, skin/fat, and meat; and
- An amendment to the entry for **semduramicin**, to set MRLs at 0.1 mg/kg in poultry kidney, skin/fat, and meat.

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

3 PROPOSALS

3.1 Proposal to amend the MRLs for Acephate

It is proposed that the MRLs for acephate are consequentially amended to reflect the reassessment by NZ EPA which prohibited use of methamidophos from 1 July 2024.

The revised entry in Schedule 1 of the Notice will read:

Compound Common Name	CAS#	Residue to which the maximum residue level applies	Food	Maximum Residue Level (mg/kg)
Acephate	30560-19-1	Sum of: Acephate **and methamidophos**	Avocados Boysenberries Cabbages Cauliflowers Citrus fruits Lettuce Tamarillos Tomatoes Any other food	0.1 0.1 **3** **3** **6** **3** **0.6** **1.5** 0.01(*)

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

3.1.1 Amendment Rationale

As the use of methamidophos is no longer allowed in New Zealand, it is proposed that the residue definition and MRLs for acephate are changed to account for any residues of methamidophos which result from acephate use due to methamidophos being a breakdown product of acephate. This will replace the previous situation where methamidophos residues were accounted for separately (see proposal 3.9 for the corresponding proposed amendment for the methamidophos entry).

3.1.2 Good Agricultural Practice

Acephate is an organophosphate insecticide used in avocados, boysenberries, cabbages, cauliflowers, citrus fruits, lettuce, tamarillos and tomatoes. Use is restricted to these crops only and remains unchanged.

3.1.3 Residue Information

It is proposed that the residue definition for GAP compliance for acephate is changed to *Sum of acephate and methamidophos* to account for any methamidophos residues above 0.01 mg/kg which may result from authorised acephate use, which were previously controlled under a separate MRL for 'methamidophos'. As methamidophos residues comprise approximately 10% of acephate residues, commodities with MRLs of 0.5 mg/kg or greater have been increased to the next rounding class to account for this in accordance with OECD methodology. This means that the MRLs for tamarillos will increase from 0.5 to 0.6 mg/kg; tomatoes will increase from 1 to 1.5 mg/kg; cabbages, cauliflower and lettuce will increase from 2 to 3 mg/kg; and citrus fruits will increase from 5 to 6 mg/kg. The MRLs for avocados, boysenberries, and 'any other food' will remain unchanged.

There is no effect on dietary intake exposure, as methamidophos residues arising from acephate use were previously included in total estimate calculations. The residue definition for dietary intake estimation for acephate will be retained unchanged from *Sum of acephate and 7.5x methamidophos* in plant and animal commodities as this definition remains appropriate.

3.1.4 Dietary Risk Assessment

The dietary risk assessment remains unchanged, using the HBGV of 0.0012 mg/kg bw/d for acephate. Based on the residue profile expected in approved food crops treated with acephate,

and capturing all acephate and consequential methamidophos residues, the NEDI is estimated to total less than 93% of the HBGV.

MPI has therefore determined that acephate, when used according to the GAP specified above and retaining the restrictions on off-label use, is unlikely to pose health risks from authorised uses.

3.1.5 Relevant International MRLs for Acephate

Authority	Food	Maximum Residue Level (mg/kg)
Codex	Cabbages, head Tomato	2 1
Australia	Brassica vegetabes (except Brassica leafy vegetables) [except Chinese cabbage (Pe-tsai)] Tomato	5 5

Note: The residue definitions for Codex and Australian MRLs is acephate only.

3.2 Proposal to set MRLs for Acetochlor

It is proposed that a new MRL entry for acetochlor is added to the Food Notice to support the GAP use of the compound on crops used as animal feed, as well as the existing uses in maize and sweetcorn.

The new entry in Schedule 1 of the Notice will read:

Compound Common Name	CAS#	Residue to which the maximum residue level applies	Food	Maximum Residue Level (mg/kg)
Acetochlor	**34256-82-1**	***Sum of:* compounds hydrolysable with base to 2-ethyl-6-methylaniline (EMA) and 2-(1-hydroxyethyl)-6-methylaniline (HEMA),** **Expressed as: Acetochlor**	**Eggs** **Maize** **Mammalian fat** **Mammalian meat** **Mammalian offal** **Milk** **Poultry fat** **Poultry meat** **Poultry offal** **Sweetcorn**	**0.02(*)** **0.04(*)** **0.02(*)** **0.02(*)** **0.02(*)** **0.02(*)** **0.02(*)** **0.02(*)** **0.02(*)** **0.04(*)**

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

3.2.1 Amendment Rationale

The proposed MRLs are to support a new use for acetochlor in fodder and sugar beet, and to better support its existing use in maize and sweetcorn according to the application rates and use patterns considered GAP in New Zealand.

3.2.2 Good Agricultural Practice

Acetochlor is a chloroacetanilide selective herbicide used to manage a range of broadleaf weeds in maize and sweetcorn. The proposed new use is in fodder and sugar beet at a rate of 0.76 kg ai/ha before crop emergence, with grazing expected to occur at least 90 days after planting. The existing use in maize and sweetcorn is 2.28 kg ai/ha prior to crop emergence. There is an implied withholding period through the application of the control ‘Use prior to crop emergence’.

3.2.3 Residue Information

The residue data available for the use of acetochlor in maize and sweetcorn as well as fodder and sugar beets were sufficient to conclude that, when used according to the proposed GAP and observing the typical pre-grazing period, quantifiable residues of acetochlor and its metabolites are not expected in any animal commodity. For maize and sweetcorn, when used according to established GAP, residues of acetochlor and its metabolites should not exceed 0.04 mg/kg in those crops.

The proposed residue definition is considered appropriate for GAP compliance and dietary intake estimation in plant and animal commodities and aligns with those set by overseas authorities.

3.2.4 Dietary Risk Assessment

The HBGV of 0.006 mg/kg bw/d was considered appropriate for use in the assessment. Based on the residue profile expected in food crops and animals grazed on or fed crops treated with acetochlor, the NEDI is estimated to total less than 9% of the HBGV.

MPI has therefore determined that acetochlor, when used according to the GAP specified above, is unlikely to pose health risks from authorised uses.

3.2.5 Relevant International MRLs for Acetochlor

Authority	Food	Maximum Residue Level (mg/kg)
Codex	Edible offal Mammalian	0.05
	Eggs	0.02(*)
	Maize	0.02
	Mammalian fats (except milk fats)	0.02(*)
	Meat	0.02(*)
	Milks	0.02(*)
	Poultry meat	0.02(*)
	Poultry, edible offal of	0.02(*)
	Sweet corn (corn-on-the-cob)	0.04
Australia	Edible offal (mammalian)	0.05
United States of America	Cattle, goat, horse, sheep meat byproduct (except kidney)	0.02
	Cattle, goat, horse, sheep fat	0.02
	Cattle, goat, horse, sheep kidney	0.03
	Cattle, goat, horse meat	0.02
	Corn, field, grain	0.05
	Corn, sweet, kernels plus cob with husks removed	0.05
	Milk	0.02

3.3 Proposal to amend the MRLs for Decoquinate

It is proposed that MRLs for decoquinate are amended to better reflect the GAP use of the compound in all target species for which it is approved in New Zealand.

The revised entry in Schedule 1 of the Notice will read:

Compound Common Name	CAS#	Residue to which the maximum residue level applies	Food	Maximum Residue Level (mg/kg)
Decoquinate	18507-89-6	Decoquinate	**Cattle fat** **Cattle kidney** **Cattle liver** **Cattle meat** **Goat fat** **Goat kidney** **Goat liver** **Goat meat** **Sheep fat** **Sheep kidney** **Sheep liver** **Sheep meat** **Chicken kidney** **Chicken liver** ~~**Poultry**~~ **Chicken** meat ~~**Poultry offal**~~ ~~**Poultry**~~ **Chicken** skin/fat	**1** **1** **1** **0.5** **1** **1** **1** **0.5** **1** **1** **1** **0.5** **0.8** **0.8** 0.2 ~~**0.8**~~ 0.4

3.3.1 Amendment Rationale

The new and revised MRLs are being proposed to better support the existing use of decoquinate in accordance with the dose rates and use patterns considered GAP in New Zealand.

It is noted that the only poultry species for which decoquinate use is approved in New Zealand is chickens, prompting the refinement of the existing 'poultry' MRLs to be species specific. This will allow for better GAP management and international alignment. Further, while the MRL value previously applied to 'poultry offal' has not changed, the MRL has been stratified into separate liver and kidney values to ensure clarity and international alignment on MRL setting practices.

Finally, it is noted that MRLs have not been proposed for decoquinate in milk or eggs because the use of the compound in lactating ruminants and layer hens is not authorised in New Zealand.

3.3.2 Good Agricultural Practice

Decoquinate is a hydroxyquinolone coccidiostat used in cattle, goats, sheep, and chickens for the management of coccidiosis at 0.5-1mg ai/kg in ruminant species and 30mg ai/kg in poultry. Use of decoquinate is restricted to meat-producing animals only, with no meat withholding period required when used as directed.

The actual use of decoquinate has not changed; the MRLs are being amended to ensure sufficient GAP management while providing for greater transparency of New Zealand regulatory residue controls.

3.3.3 Residue Information

The residue data for the use of decoquinate in the target species were sufficient to conclude that, when used according to established GAP, residues of the compound in tissue commodities will not exceed 1 mg/kg in ruminant fat, kidney, or liver, 0.5 mg/kg in ruminant

meat, 0.8 mg/kg in chicken kidney and liver, 0.2 mg/kg in chicken meat, and 0.4 mg/kg in chicken skin/fat.

The existing residue definition *Decoquinate* is considered appropriate to apply to commodities from all species for both MRL compliance and dietary exposure.

3.3.4 Dietary Risk Assessment

An HBGV of 0.0375 mg/kg bw/d was considered appropriate for use in the dietary risk assessment. Based on the residue profile expected in commodities from all target species treated with decoquinate according to New Zealand GAP, the NEDI is estimated to total less than 5% of the HBGV.

MPI has therefore determined that decoquinate, when used according to GAP, is unlikely to pose health risks from authorised use.

3.3.5 Relevant International MRLs for Decoquinate

Authority	Food	Maximum Residue Level (mg/kg)
Australia	Chicken fat/skin Chicken meat Chicken kidney Chicken liver	1 0.5 0.8 1
Canada	Fat of cattle, goats and sheep Kidney of cattle, goats, and sheep Liver of cattle, goats, and sheep Muscle of cattle, goats, and sheep Kidney of chickens Liver of chickens Muscle of chickens Skin and fat of chickens	2 2 2 1 2 2 1 2
China	Chicken muscle Chicken edible tissues	1 2
European Union	Bovine, ovine	No MRL required; for oral use only; not for use in animals from which milk is produced for human consumption
Japan	Cattle and other terrestrial mammals, muscle Cattle and other terrestrial mammals, fat Cattle and other terrestrial mammals, liver Cattle and other terrestrial mammals, kidney Cattle and other terrestrial mammals, edible offal Chicken muscle Chicken fat Chicken liver Chicken kidney Chicken edible offal	1 2 2 2 2 0.1 2 0.1 0.1 0.1
United States of America	Cattle and goat fat Cattle and goat kidney Cattle and goat liver Cattle and goat muscle Chicken fat Chicken kidney Chicken liver Chicken muscle Chicken skin	2 2 2 1 2 2 2 1 2

3.4 Proposal to amend the MRLs for Fenamiphos

It is proposed that MRLs for fenamiphos are set to the limit of quantification to reflect the reassessment by NZ EPA which prohibited use of this active ingredient from 1 July 2024.

The revised entry in Schedule 1 of the Notice will read:

Compound Common Name	CAS#	Residue to which the maximum residue level applies	Food	Maximum Residue Level (mg/kg)
Fenamiphos	22224-92-6	*Sum of:* Fenamiphos and its sulphoxide and sulphone *Expressed as:* Fenamiphos	~~**Carrots**~~ ~~**Parsnips**~~ ~~**Potatoes**~~ **Any ~~other~~ food**	~~**0.2**~~ ~~**0.2**~~ ~~**0.2**~~ 0.01(*)

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

3.4.1 Amendment Rationale

The MRLs are being proposed to support the ban on use of fenamiphos notified in the Hazardous Substances (Fenamiphos-Containing and Methamidophos-Containing Substances Direction Prohibiting Use and Controlling Storage and Disposal) Notice 2023. Accordingly, no quantifiable residues should be present in food crops due to the use of fenamiphos.

3.5 Proposal to set MRLs for Flupyradifurone

It is proposed that MRLs are set for flupyradifurone in animal commodities to support the GAP use of this novel insecticide in forage brassicas and fodder beets.

The new entry in Schedule 1 of the Notice will read:

Compound Common Name	CAS#	Residue to which the maximum residue level applies	Food	Maximum Residue Level (mg/kg)
Flupyradifurone	**951659-40-8**	**Plant commodities** **Flupyradifurone** **Animal commodities** ***Sum of:* Flupyradifurone and difluoroacetic acid** ***Expressed as:* Flupyradifurone equivalents**	**Mammalian fat** **Mammalian meat** **Mammalian offal** **Milk**	**0.1** **0.1** **0.4** **0.05**

3.5.1 Amendment Rationale

The MRLs are being proposed to support use of a novel insecticide flupyradifurone for control of springtails, Nysius, and green peach aphid in forage brassicas and fodder beets in accordance with the application rate and use patterns considered GAP in New Zealand.

3.5.2 Good Agricultural Practice

Flupyradifurone is a butanolide systemic insecticide that acts as an insect nicotinic acetylcholine receptor agonist. The proposed use is to control springtails, Nysius, and green peach aphid, in forage brassicas and fodder beets with a maximum application rate of 75 g ai/ha. The compound is applied from the cotyledon stage once insect damage is observed and can be used for up to two applications at least 21 days apart. Treated crops must not be grazed or harvested for animal feed for 21 and 42 days after the last application for forage brassicas and fodder beet, respectively.

3.5.3 Residue Information

The proposed New Zealand residue definitions for plant commodities are *Flupyradifurone* for MRL compliance and *Sum of flupyradifurone, difluoroacetic acid and 6-chloronicotinic acid, expressed as parent equivalents* for dietary exposure. For animal commodities, the proposed residue definition is *Sum of flupyradifurone and difluoroacetic acid, expressed as parent equivalents* for both MRL compliance and dietary exposure.

The residue data assessed for the use of flupyradifurone in forage brassicas and fodder beets were sufficient to conclude that, when used according to the proposed GAP, residues of the compound in animal commodities will not be higher than 0.05 mg/kg in milk, 0.1 mg/kg in mammalian meat or fat, and 0.4 mg/kg in mammalian offal.

3.5.4 Dietary Risk Assessment

The HBGV of 0.0546 mg/kg bw/d was considered appropriate for use in the assessment. Based on the residue profile expected in animal commodities fed with crops treated with flupyradifurone according to New Zealand GAP, the NEDI is estimated to total less than 1% of the HBGV.

MPI has therefore determined that flupyradifurone, when used according to GAP, is unlikely to pose health risks from authorised use.

3.5.5 Relevant International MRLs for Flupyradifurone

Authority	Food	Maximum Residue Level (mg/kg)
Codex	Edible offal (mammalian) Mammalian fats (except milk fats) Meat (from mammals other than marine mammals) Milks	0.4 1 1.5 0.7
Australia	Edible offal (mammalian) Meat (mammalian) Milks	0.5 0.1 0.7
Canada	Fat of cattle, goats, horses, and sheep Meat byproducts of cattle, goats, horses, and sheep Meat of cattle, goats, horses, and sheep Milk	0.1 0.5 0.15 0.07
European Union	Cattle, goat, horse, and sheep muscle Cattle, goat, horse, and sheep fat Cattle, goat, horse, and sheep liver Cattle, goat, horse, and sheep kidney Cattle, goat, horse, and sheep edible offals (other than liver/kidney) Milks	0.3 0.2 1 1 1 0.15
Japan	Cattle and other terrestrial mammals, muscle Cattle and other terrestrial mammals, fat Cattle and other terrestrial mammals, liver Cattle and other terrestrial mammals, kidney Cattle and other terrestrial mammals, edible offal Milk	2 1 4 4 4 0.7
United States of America	Cattle, goat, horse, and sheep meat Cattle, goat horse, and sheep fat Cattle, goat, horse, and sheep offal Milk	0.3 0.2 1 0.15

3.6 Proposal to amend the MRLs for Glyphosate

It is proposed that new MRLs are set for glyphosate in wheat grain, barley grain, oat grain, and dried peas to support the existing GAP use of the compound in wheat, barley, oat, and threshing pea crops.

The revised entry in Schedule 1 of the Notice will read:

Compound Common Name	CAS#	Residue to which the maximum residue level applies	Food	Maximum Residue Level (mg/kg)
Glyphosate	1071-83-6	Glyphosate	**Barley** **Field peas (dry)** Fruits **Oats** **Wheat**	**10** **6** 0.01(*) **10** **10**

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

3.6.1 Amendment Rationale

The MRLs are being proposed to support existing use as a preharvest herbicide in wheat, barley, oats, and threshing peas, and as a preharvest desiccant in threshing peas, in accordance with the application rate and use patterns considered GAP in New Zealand.

3.6.2 Good Agricultural Practice

Glyphosate is a phosphonate which acts by inhibiting the plant enzyme 5-enolpyruvylshikimate-3-phosphate synthase (EPSP). It is currently approved in New Zealand as a herbicide for use in a wide range of use situations, and as a preharvest desiccant for use in threshing peas. The use pattern in wheat, barley, oat and threshing peas for preharvest weed control is a single application of 1.44 kg ai/ha 7-14 days before harvest, and in threshing peas as a preharvest desiccant a single application of glyphosate is made at 1.35 kg ai/ha 10-14 days before harvest. These uses were re-examined due to monitoring information which suggested that residues of over the default MRL of 0.1 mg/kg could result in the grain and dried pea commodities from these use patterns.

3.6.3 Residue Information

The residue data on the existing preharvest uses in grains and seeds were sufficient to conclude that, when used according to the proposed GAP, residues of glyphosate in wheat, barley and oat grain should not exceed 10 mg/kg, or 6 mg/kg in field peas (dry). Residues in animal commodities were not reconsidered as they remain unchanged, and the default MRL will continue to apply.

The existing residue definitions of ‘glyphosate’ for GAP compliance and ‘Sum of glyphosate and AMPA, expressed as glyphosate’ for dietary risk assessment, remain appropriate to apply to both plant and animal commodities, noting that genetically modified crops are not grown in New Zealand.

3.6.4 Dietary Risk Assessment

The HBGV of 0.27 mg/kg bw/d was considered appropriate for use in the assessment.

Based on the residue profile expected in food from crops treated with glyphosate, and using the default MRL of 0.1 mg/kg for animal commodities, the NEDI is estimated to total less than 3% of the HBGV.

MPI has therefore determined that the use of glyphosate on or around crops in accordance with the established GAP and complying with the applicable MRLs is unlikely to pose any health risks from authorised use.

3.6.5 Relevant International MRLs for Glyphosate

Authority	Food	Maximum Residue Level (mg/kg)
Codex	Cereal grains (except maize and rice)	30
	Dry peas (subgroup)	10
	Maize grain	5
	Wheat bran, unprocessed	20
Australia	Barley	20
	Cereal grains [except barley; maize; popcorn; sorghum grain; sweet corns; wheat]	0.1
	Dry peas	10
	Maize	5
	Wheat	5
	Wheat bran, unprocessed	20

3.7 Proposal to amend the MRLs for Haloxyfop

It is proposed that the Notice entry for haloxyfop is amended to set MRLs for the compound in animal commodities to support its GAP use in forage brassicas and fodder beets.

The revised entry in Schedule 1 of the Notice will read:

Compound Common Name	CAS#	Residue to which the maximum residue level applies	Food	Maximum Residue Level (mg/kg)
Haloxyfop	72619-32-0	*Sum of:* Haloxyfop esters, haloxyfop, and its conjugates *Expressed as:* Haloxyfop	Citrus fruits **Mammalian meat (in the fat)** **Mammalian offal** **Milk** Pome fruits	0.05(*) **0.02** **0.5** **0.002(*)** 0.05(*)

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

3.7.1 Amendment Rationale

The MRLs are being proposed to support a new use of haloxyfop for weed control in forage brassicas and fodder beets in accordance with the application rate and use patterns considered GAP in New Zealand. MRLs have not been proposed for milk as the use of treated crops as feed for lactating animals is not authorised in New Zealand.

3.7.2 Good Agricultural Practice

Haloxyfop is an aryloxyphenoxy propionate herbicide that acts as an acetyl CoA carboxylase inhibitor to selectively disrupt plant growth in weeds. The proposed use is to control storksbill and grass weeds in fodder beets and forage brassicas at up to 150g ai/ha in the early stages of growth. This use attracts pre-grazing intervals of 8-12 weeks and a restriction that treated crops are not to be fed to lactating animals producing milk for human consumption.

Haloxyfop is also used as a selective herbicide in several fruit and vegetable crops in New Zealand; these uses remain unchanged and are not impacted by this proposal.

3.7.3 Residue Information

The residue data assessed for the use of haloxyfop in forage brassicas and fodder beets were sufficient to conclude that, when used according to the proposed GAP, residues of the compound in animal commodities will not be higher than 0.02 mg/kg in mammalian meat and fat, and 0.5 mg/kg in mammalian offal. The milk MRL is being set at the limit of quantification to enforce the restriction that treated feed must not be fed to lactating animals.

The existing residue definition for plant commodities is appropriate to apply to animal commodities.

3.7.4 Dietary Risk Assessment

The HBGV of 0.00024 mg/kg bw/d was considered appropriate for use in the assessment. Based on the residue profile expected in animal commodities fed with crops treated with haloxyfop according to New Zealand GAP, the NEDI is estimated to total less than 67% of the HBGV.

MPI has therefore determined that haloxyfop, when used according to GAP, is unlikely to pose health risks from authorised use.

3.7.5 Relevant International MRLs for Haloxyfop

Authority	Food	Maximum Residue Level (mg/kg)
Codex	Edible offal (mammalian) Meat (from mammals other than marine mammals) [in fat]	2 0.5
Australia	Edible offal (mammalian) Meat (mammalian) [in the fat]	0.5 0.02
European Union	Mammalian muscle Mammalian fat Mammalian liver Pig kidney Cattle, sheep, goat, and horse kidney Pig edible offals (other than liver and kidney) Cattle, sheep, goat, and horse edible offals (other than liver and kidney)	0.01 0.01 0.01 0.01 0.01 0.01 0.01
Japan	Mammalian muscle Mammalian fat Mammalian liver Mammalian kidney Mammalian edible offal	0.02 0.02 0.5 0.5 0.5

3.8 Proposal to amend the MRLs for Maduramicin

It is proposed that MRLs for maduramicin are amended to better reflect the GAP use of the compound in chickens in New Zealand.

The revised entry in Schedule 1 of the Notice will read:

Compound Common Name	CAS#	Residue to which the maximum residue level applies	Food	Maximum Residue Level (mg/kg)
Maduramicin	61991-54-6	Maduramicin	**Chicken kidney** **Chicken ~~Poultry~~** liver **Chicken skin/fat** **Chicken meat**	**0.1** 0.5 **0.1** **0.1**

3.8.1 Amendment Rationale

The new and revised MRLs are being proposed to better support the existing use of maduramicin in accordance with the dose rate and use pattern considered GAP in New Zealand.

It is noted that the approved use of maduramicin is limited to chickens in New Zealand, prompting the refinement of the existing 'poultry' MRLs to be species specific. This will allow for better GAP management and international alignment. MRLs have not been proposed for maduramicin in eggs because the use of the compound in hens in lay is not authorised in New Zealand.

3.8.2 Good Agricultural Practice

Maduramicin is a carboxylic ionophore used in chickens for the management of coccidiosis at a dose rate of 5g ai/tonne of feed. Use of maduramicin is restricted to meat-producing animals only, with no meat withholding period required when used as directed.

The actual use of maduramicin has not changed; the MRLs are being amended to ensure sufficient GAP management while providing for greater transparency of New Zealand regulatory residue controls.

3.8.3 Residue Information

The residue data for the use of maduramicin in chickens were sufficient to conclude that, when used according to established GAP, residues of the compound in tissue commodities will not exceed 0.1 mg/kg in meat, kidney, or skin/fat, and 0.5 mg/kg in liver. The existing residue definition *maduramicin*, applicable to MRL compliance and dietary exposure, is still considered appropriate.

3.8.4 Dietary Risk Assessment

An HBGV of 0.0005 mg/kg bw/d was considered appropriate for use in the dietary risk assessment. Based on the residue profile expected in animals treated with maduramicin according to New Zealand GAP, the NEDI is estimated to total less than 30% of the HBGV.

MPI has therefore determined that maduramicin, when used according to GAP, is unlikely to pose health risks from authorised use.

3.8.5 Relevant International MRLs for Maduramicin

Authority	Food	Maximum Residue Level (mg/kg)
Australia	Poultry meat Poultry, edible offal of	0.1 1
Canada	Kidney of chickens Liver of chickens Muscle of chickens Skin and fat of chickens	1 0.5 0.1 0.4
China	Chicken muscle Chicken fat Chicken skin Chicken liver	0.24 0.48 0.48 0.72
Japan	Chicken muscle Chicken fat Chicken liver Chicken kidney Chicken edible offal	0.1 0.4 0.8 1 1
United States of America	Chicken fat	0.38

3.9 Proposal to amend the MRLs for Methamidophos

It is proposed that the entry for methamidophos is amended to refer to acephate, to reflect the reassessment by NZ EPA which prohibited use of this active ingredient from 1 July 2024.

The revised entry in Schedule 1 of the Notice will read:

Compound Common Name	CAS#	Residue to which the maximum residue level applies	Food	Maximum Residue Level (mg/kg)
Methamidophos	10265-92-6	~~**Methamidophos**~~ ***See Acephate.***	~~**Broccoli**~~ ~~**Brussels sprouts**~~ ~~**Cabbages**~~ ~~**Cauliflowers**~~ ~~**Citrus fruits**~~ ~~**Kumara**~~ ~~**Lettuce**~~ ~~**Maize**~~ ~~**Onions**~~ ~~**Potatoes**~~ ~~**Sweetcorn**~~ ~~**Tamarillo**~~ ~~**Tomatoes**~~ ~~**Any other food**~~	~~**1**~~ ~~**1**~~ ~~**1**~~ ~~**1**~~ ~~**0.5**~~ ~~**0.01(*)**~~ ~~**0.2**~~ ~~**0.1**~~ ~~**0.05**~~ ~~**0.01(*)**~~ ~~**0.1**~~ ~~**0.05**~~ ~~**0.1**~~ ~~**0.01(*)**~~

3.9.1 Amendment Rationale

It is proposed that methamidophos will no longer have a stand-alone entry but will instead refer to the entry for acephate. This is in order to support the ban on use of methamidophos notified in the Hazardous Substances (Fenamiphos-Containing and Methamidophos-Containing Substances Direction Prohibiting Use and Controlling Storage and Disposal) Notice 2023. Because methamidophos is a breakdown product of acephate, some methamidophos residues may still be observed due to authorised uses of that compound. Accordingly, it is proposed that the residue definition and MRLs of acephate are amended to account for methamidophos residues that occur as a result of authorised acephate use (See proposal 3.1 for details of the corresponding proposed change for acephate).

3.10 Proposal to amend the MRLs for Monensin

It is proposed that MRLs for monensin are amended to better reflect the GAP use of the compound in all target species for which it is approved in New Zealand.

The revised entry in Schedule 1 of the Notice will read:

Compound Common Name	CAS#	Residue to which the maximum residue level applies	Food	Maximum Residue Level (mg/kg)
Monensin	17090-79-8	Monensin ~~free acid~~	~~**Mammalian fats**~~ **Cattle fat** **Cattle kidney** **Cattle liver** **Cattle meat** **Goat fat** **Goat kidney** **Goat liver** **Goat meat** **Milk** **Sheep fat** **Sheep kidney** **Sheep liver** **Sheep meat** **Poultry kidney** **Poultry liver** **Poultry skin/fat** **Poultry meat**	~~**0.05**~~ **0.05** **0.01(*)** **0.05** **0.01(*)** **0.05** **0.01(*)** **0.02** **0.01(*)** **0.002(*)** **0.05** **0.01(*)** **0.02** **0.01(*)** **0.1** **0.1** **0.1** **0.05**

3.10.1 Amendment Rationale

The MRLs are being proposed to better support the existing uses of monensin in accordance with the application rates and use patterns considered GAP in New Zealand. The replacement of the 'mammalian fats' MRL with stratified cattle, goat, and sheep fat MRLs will provide for greater clarity regarding the target species to which these MRLs apply; the value of the fat MRLs remain unchanged from that applied to 'mammalian fats'.

It is noted that MRLs have not been proposed for eggs because use in birds in lay is not authorised in New Zealand.

3.10.2 Good Agricultural Practice

Monensin is a carboxylic ionophore administered orally to ruminants and poultry, and is indicated for cattle to manage of coccidiosis, ketosis, and bloat, and in goats, sheep, and poultry for the management of coccidiosis. Dose rates vary according to the formulation type and disease to be managed, ranging from 100-360mg ai/animal/day in cattle, 38-200mg ai/animal/day in sheep and goats, and 300-600g ai/tonne of feed in poultry. For these uses, milk from treated cattle and meat from all animals do not attract a withholding period, while milk from sheep and goats attract a 35-day withholding period.

The actual use of monensin has not changed; the new and revised MRLs are being amended to ensure sufficient GAP management while providing for greater transparency of New Zealand regulatory residue controls.

3.10.3 Residue Information

The residue data for the use of monensin in the target species were sufficient to conclude that, when used according to the established GAP, residues will not exceed any of the proposed MRLs. The differential between the cattle liver MRLs compared to the sheep and goat liver MRLs is due to there being a controlled release intraruminal bolus presentation designed for cattle that presents a different GAP than standard in-feed and in-water formulations used in the other species. This intraruminal bolus presentation results in residues that conform to a

cattle liver MRL of 0.1 mg/kg but would exceed a 0.02 mg/kg MRL; this aligns with the Codex evaluation of similar data for intraruminal monensin formulations and is considered appropriate to manage New Zealand GAP. The existing residue definition *monensin* can be retained for all commodities for both MRL compliance and dietary exposure.

It is noted that the proposed change in residue definition from *monensin free acid* to *monensin* does not constitute a technical change, as all authorised products in New Zealand contain monensin sodium and therefore *monensin free acid* and *monensin* are equivalent for New Zealand risk assessment and risk management purposes. This change to the residue definition has been proposed to simplify the New Zealand residue definition and align it with that used by Codex and other authorities.

3.10.4 Dietary Risk Assessment

An HBGV of 0.005 mg/kg bw/d was considered appropriate for use in the dietary risk assessment. Based on the residue profile expected in commodities from all target species treated with monensin according to New Zealand GAP, the NEDI is estimated to total less than 2% of the HBGV.

MPI has therefore determined that monensin, when used according to GAP, is unlikely to pose health risks from authorised use.

3.10.5 Relevant International MRLs for Monensin

Authority	Food	Maximum Residue Level (mg/kg)
Codex	Cattle, sheep, and goat muscle	0.01
	Cattle liver	0.1
	Sheep and goat liver	0.02
	Cattle, sheep, and goat kidney	0.01
	Cattle milk	0.002
	Cattle, sheep, and goat fat	0.1
	Poultry kidney, liver, and muscle	0.01
	Poultry fat	0.1
Australia	Cattle and goat meat	0.05
	Cattle milk	0.01
	Cattle and goat edible offal	0.05
	Poultry meat (in the fat)	0.5
	Poultry edible offal	0.5
	Sheep fat	0.07
	Sheep muscle	0.005
	Sheep kidney	0.015
	Sheep liver	0.2
Canada	Fat of cattle, goats	0.05
	Kidney of cattle, goats, and sheep	0.05
	Liver of cattle, goats, and sheep	0.1
	Muscle of cattle, goats, and sheep	0.05
	Poultry kidney, liver, muscle, skin, and fat	0.05
	Milk of cattle	0.01
China	Cattle and sheep muscle	0.01
	Cattle and sheep fat	0.1
	Cattle and sheep kidney	0.01
	Sheep liver	0.02
	Cattle liver	0.1
	Cattle milk	0.002
	Poultry muscle	0.01
	Poultry fat	0.1
	Poultry liver	0.01
	Poultry kidney	0.01

Authority	Food	Maximum Residue Level (mg/kg)
European Union	Bovine muscle	0.002
	Bovine fat	0.01
	Bovine liver	0.05
	Bovine kidney	0.01
	Bovine milk	0.002
Japan	Cattle and other terrestrial mammals, muscle	0.01
	Cattle and other terrestrial mammals, fat	0.1
	Cattle liver	0.1
	Other terrestrial mammals, liver	0.02
	Cattle and other terrestrial mammals, kidney	0.01
	Cattle edible offal	0.1
	Other terrestrial mammals, edible offal	0.02
	Milk	0.002
	Chicken and other poultry, muscle	0.01
	Chicken and other poultry, fat	0.1
	Chicken and other poultry, liver	0.01
	Chicken and other poultry, kidney	0.01
	Chicken and other poultry, edible offal	0.01
United States of America	Cattle and goat fat	0.05
	Cattle and goat kidney	0.05
	Cattle liver	0.1
	Goat liver	0.05
	Cattle and goat muscle	0.05
	Poultry fat, kidney, liver, muscle and skin	Exempt
	Cattle milk	Exempt
	Sheep fat	0.1
	Sheep kidney	0.01
	Sheep liver	0.02
	Sheep muscle	0.01

3.11 Proposal to amend the MRLs for Narasin

It is proposed that MRLs for narasin are amended to better reflect the GAP use of the compound in chickens in New Zealand.

The revised entry in Schedule 1 of the Notice will read:

Compound Common Name	CAS#	Residue to which the maximum residue level applies	Food	Maximum Residue Level (mg/kg)
Narasin	55134-13-9	Narasin	~~Edible offal of poultry~~ **Chicken kidney** **Chicken liver** **Chicken skin/fat** **Chicken meat**	~~0.5~~ **0.015** **0.05** **0.05** **0.015**

3.11.1 Amendment Rationale

The new and revised MRLs are being proposed to better support the existing use of narasin in accordance with the dose rate and use pattern considered GAP in New Zealand.

It is noted that the approved use of narasin is limited to chickens in New Zealand, prompting the refinement of the existing 'poultry' MRL to be species specific. This will allow for better GAP management and international alignment. Further, the MRL has been stratified into separate liver and kidney values to ensure clarity and international alignment on MRL setting practices; stratification will also enable a more representative MRL for chicken kidney. Finally, MRLs have not been proposed for narasin in eggs because the use of the compound in hens in lay is not authorised in New Zealand.

3.11.2 Good Agricultural Practice

Narasin is a carboxylic ionophore used in broiler chickens for the management of coccidiosis at a dose rate of 40-80g ai/tonne of feed. Use of narasin is restricted to meat-producing animals only, with no meat withholding period required when used as directed.

The actual use of narasin has not changed; the MRLs are being amended to ensure sufficient GAP management while providing for greater transparency of New Zealand regulatory residue controls.

3.11.3 Residue Information

The residue data for the use of narasin in chickens were sufficient to conclude that, when used according to established GAP, residues of the compound in tissue commodities will not exceed 0.015 mg/kg in meat or kidneys, and 0.05 mg/kg in skin/fat and liver. The existing residue definition *narasin*, applicable to MRL compliance and dietary exposure, is still considered appropriate.

3.11.4 Dietary Risk Assessment

An HBGV of 0.005 mg/kg bw/d was considered appropriate for use in the dietary risk assessment. Based on the residue profile expected in animals treated with narasin according to New Zealand GAP, the NEDI is estimated to total less than 0.5% of the HBGV.

MPI has therefore determined that narasin, when used according to GAP, is unlikely to pose health risks from authorised use.

3.11.5 Relevant International MRLs for Narasin

Authority	Food	Maximum Residue Level (mg/kg)
Codex	Chicken kidney Chicken muscle Chicken liver Chicken fat	0.015 0.015 0.05 0.05
Australia	Poultry meat Poultry edible offal	0.1 0.1
Canada	Kidney of chickens Liver of chickens Muscle of chickens Skin and fat of chickens	0.05 0.05 0.05 0.5
China	Chicken muscle Chicken skin with fat Chicken liver Chicken kidney	0.015 0.05 0.05 0.015
Japan	Chicken and other poultry, muscle Chicken and other poultry, fat Chicken and other poultry, liver Chicken and other poultry, kidney Chicken and other poultry, edible offal	0.02 0.05 0.05 0.02 0.05
United States of America	Chicken fat	0.480

3.12 Proposal to amend the MRLs for Oxathiapiprolin

It is proposed that new MRLs are set for oxathiapiprolin in potatoes to support the GAP use of the compound.

The revised entry in Schedule 1 of the Notice will read:

Compound Common Name	CAS#	Residue to which the maximum residue level applies	Food	Maximum Residue Level (mg/kg)
Oxathiapiprolin	1003318-67-9	Oxathiapiprolin	Bulb onions **Potatoes**	0.01(*) **0.01(*)**

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

3.12.1 Amendment Rationale

The MRLs are being proposed to support a new use of oxathiapiprolin for control of late blight in potatoes in accordance with the application rate and use patterns considered GAP in New Zealand.

3.12.2 Good Agricultural Practice

Oxathiapiprolin is a piperidinyl thiazole isoxazoline fungicide, acting by inhibiting mycelial growth and zoospore release, encystment and mobility. It is currently approved in New Zealand for use to control downy mildew in bulb onions, in combination with the active ingredient cyazofamid. The proposed new use is to control late blight in potatoes at an application rate of 12 g ai/ha in combination with cyazofamid, with two non-consecutive applications 10 days apart. Application should be made when conditions favour disease development, with a withholding period of 7 days.

3.12.3 Residue Information

The proposed New Zealand residue definition for plant and animal commodities for GAP compliance is *Oxathiapiprolin*. For dietary risk assessment, the proposed residue definition in plant and animal commodities is *Sum of parent oxathiapiprolin and its metabolites IN-E8S72 and IN-SXS67.*

The residue data for the use of oxathiapiprolin in potatoes were sufficient to conclude that, when used according to the proposed GAP, residues of the compound in potato tubers should not exceed 0.01 mg/kg. As potatoes are not considered to be a primary animal feed in New Zealand, animal transfer data were not required. Additionally, the product contains a label statement ‘Do not graze or feed treated crops to livestock’.

3.12.4 Dietary Risk Assessment

The HBGV of 0.728 mg/kg bw/d was considered appropriate for use in the assessment. Based on the residue profile expected in food from crops treated with oxathiapiprolin according to New Zealand GAP, the NEDI is estimated to total less than 0.01% of the HBGV.

MPI has therefore determined that oxathiapiprolin, when used according to GAP, is unlikely to pose health risks from authorised use.

3.12.5 Relevant International MRLs for Oxathiapiprolin

Authority	Food	Maximum Residue Level (mg/kg)
Codex	Tuberous and corm vegetables (subgroup)	0.04
Australia	Potato	0.04

3.13 Proposal to amend the MRLs for Salinomycin

It is proposed that MRLs for salinomycin are amended to better reflect the GAP use of the compound in both target species for which the compound is approved in New Zealand.

The revised entry in Schedule 1 of the Notice will read:

Compound Common Name	CAS#	Residue to which the maximum residue level applies	Food	Maximum Residue Level (mg/kg)
Salinomycin	53003-10-4	Salinomycin	**Chicken kidney** Chicken ~~**Poultry**~~ liver **Chicken skin/fat** **Chicken meat** **Pig fat** **Pig kidney** **Pig liver** **Pig meat**	**0.1** 0.5 **0.1** **0.1** **0.1** **0.1** **0.1** **0.1**

3.13.1 Amendment Rationale

The MRLs are being proposed to better support the existing uses of salinomycin in accordance with the application rates and use patterns considered GAP in pigs and chickens in New Zealand.

It is noted that the only poultry species for which salinomycin use is approved in New Zealand is chickens, prompting the amendment of the existing 'poultry liver' MRL to be refined to 'chicken liver' for better GAP management and international alignment. The new kidney, skin/fat, and meat MRLs being proposed have also been applied to 'chicken' rather than 'poultry' commodities. MRLs have not been proposed for salinomycin in eggs because use of the compound in hens in lay is not authorised in New Zealand.

3.13.2 Good Agricultural Practice

Salinomycin is a carboxylic ionophore used in pigs and broiler chickens for the management of coccidiosis. In pigs, the compound is used at a dose rate of 15-60g ai/tonne of feed, depending on the age of the animal at treatment and severity of disease. In poultry, salinomycin is administered at a rate of 60g ai/tonne of feed. Use of salinomycin is restricted to meat-producing animals only, with no meat withholding period required when used as directed.

The actual use of salinomycin has not changed; the MRLs are being amended to ensure sufficient GAP management while providing for greater transparency of New Zealand regulatory residue controls.

3.13.3 Residue Information

The residue data for the use of salinomycin in pigs and chickens were sufficient to conclude that, when used according to the proposed GAP, residues of the compound will not exceed 0.5 mg/kg in chicken liver or 0.1 mg/kg in any other chicken or pig tissues. The existing residue definition *salinomycin*, applicable to MRL compliance and dietary exposure, is still considered appropriate.

3.13.4 Dietary Risk Assessment

An HBGV of 0.005 mg/kg bw/d was considered appropriate for use in the dietary risk assessment. Based on the residue profile expected in animals treated with salinomycin according to New Zealand GAP, the NEDI is estimated to total less than 4% of the HBGV.

MPI has therefore determined that salinomycin, when used according to GAP, is unlikely to pose health risks from authorised use.

3.13.5 Relevant International MRLs for Salinomycin

Authority	Food	Maximum Residue Level [1] (mg/kg)
Australia	Pig meat	0.1
	Pig edible offal	0.1
	Poultry meat	0.1
	Poultry edible offal	0.5
Canada	Kidney of chickens	0.2
	Liver of chickens	0.2
	Muscle of chickens	0.2
	Skin and fat of chickens	0.2
	Kidney of swine	0.2
	Liver of swine	0.2
	Muscle of swine	0.2
	Skin and fat of swine	0.2
China	Chicken muscle	0.6
	Chicken skin with fat	1.2
	Chicken liver	1.8
Japan	Pig muscle	0.1
	Pig fat	0.1
	Pig liver	0.1
	Pig kidney	0.1
	Pig edible offal	0.1
	Chicken muscle	0.02
	Chicken fat	0.2
	Chicken liver	0.2
	Chicken kidney	0.04
	Chicken edible offal	0.2
United States of America	Chicken fat, kidney, liver, muscle, and skin	Exempt

3.14 Proposal to amend the MRLs for Semduramicin

It is proposed that MRLs for semduramicin are amended to better reflect the GAP use of the compound in chickens in New Zealand.

The revised entry in Schedule 1 of the Notice will read:

Compound Common Name	CAS#	Residue to which the maximum residue level applies	Food	Maximum Residue Level (mg/kg)
Semduramicin	113378-31-7	Semduramicin	**Chicken kidney** Chicken ~~**Poultry**~~ liver **Chicken skin/fat** **Chicken meat**	**0.1** 0.5 **0.1** **0.1**

3.14.1 Amendment Rationale

The MRLs are being proposed to better support the existing use of semduramicin in accordance with the application rates and use pattern considered GAP in chickens in New Zealand.

It is noted that the approved use of semduramicin is limited to chickens in New Zealand, prompting the amendment of the existing 'poultry liver' MRL to be refined to 'chicken liver' for better GAP management and international alignment. MRLs have not been proposed for semduramicin in eggs because use of the compound in hens in lay is not authorised in New Zealand.

3.14.2 Good Agricultural Practice

Semduramicin is a carboxylic ionophore used in broiler chickens for the management of coccidiosis. The compound is administered at a rate of 25g ai/tonne of feed. Use of semduramicin is restricted to meat-producing animals only, with no meat withholding period required when used as directed.

The actual use of semduramicin has not changed; the MRLs are being amended to ensure sufficient GAP management while providing for greater transparency of New Zealand regulatory residue controls.

3.14.3 Residue Information

The residue data for the use of semduramicin in broiler chickens were sufficient to conclude that, when used according to the proposed GAP, residues of the compound will not exceed 0.5 mg/kg in liver and 0.1 mg/kg in other tissues. The existing residue definition *semduramicin*, applicable to MRL compliance and dietary exposure, is still considered appropriate.

3.14.4 Dietary Risk Assessment

An HBGV of 0.0015 mg/kg bw/d was considered appropriate for use in the dietary risk assessment. Based on the residue profile expected in animals treated with semduramicin according to New Zealand GAP, the NEDI is estimated to total less than 10% of the HBGV.

MPI has therefore determined that semduramicin, when used according to GAP, is unlikely to pose health risks from authorised use.

3.14.5 Relevant International MRLs for Semduramicin

Authority	Food	Maximum Residue Level [1] (mg/kg)
Australia	Chicken fat/skin	0.5
	Chicken meat	0.05
	Chicken kidney	0.2
	Chicken liver	0.5
Canada	Kidney of chickens	0.2
	Liver of chickens	0.4
	Muscle of chickens	0.13
	Skin and fat of chickens	0.5
China	Chicken muscle	0.13
	Chicken liver	0.4
Japan	Chicken muscle	0.05
	Chicken fat	0.4
	Chicken liver	0.6
	Chicken kidney	0.2
	Chicken edible offal	0.6
United States of America	Chicken liver	0.4
	Chicken muscle	0.13