



Enquiries to: Food Safety Standards and
Regulation,
Health Protection Unit
Department of Health
Telephone: (07) 3328 9310
Facsimile: (07) 3328 9354
Email: foodsafety@health.qld.gov.au
File Ref: [REDACTED]

10 February 2015

Standards Management Officer
Food Standards Australia New Zealand
PO Box 7186
Canberra BC ACT 2610

Dear Sir / Madam

Submission – Proposal P1027 – Managing Low-level Ag and Vet Chemicals without Maximum Residue Limits

Thank you for the opportunity to provide a submission on the consultation paper for Proposal P1027.

This submission provides technical advice and comments related to this issue. It was prepared with the advice of officers from Queensland Department of Agriculture, Fisheries and Forestry (DAFF) and Safe Food Production Queensland (SFPQ). The submission does not represent a Queensland Government position, which will be a matter for the Queensland Government should notification be made by the FSANZ Board to the Australia and New Zealand Ministerial Forum on Food Regulation.

Within the Queensland Government, the Department of Agriculture, Fisheries and Forestry (DAFF), Safe Food Production Queensland and the Department of Health have roles in the regulation of agricultural and veterinary chemicals and their residues in food. DAFF regulates the use of agvet chemicals during primary production as well as regulates and monitors agvet chemical residues. SFPQ regulates the production and processing of food under meat, seafood, egg, horticulture (sprouts only) and milk food safety schemes, and where necessary work with their accreditation holders to ensure their products comply with legislated maximum residue limits (MRLs). The Department of Health is responsible for enforcement and compliance activities in relation to the food sold to consumers, including MRLs. Comments from officers of each agency are presented below.

Office
Health Protection Unit
Queensland Health
Level 3, 15 Butterfield Street
Herston QLD 4006

Postal
PO Box 2368
Fortitude Valley BC QLD
4006

Phone
(07) 3328 9310

Fax
(07) 3328 9354

COMMENTS FROM DAFF

The Department of Agriculture, Fisheries and Forestry (DAFF) welcomes FSANZ's proposal to manage the presence of low-level residues of agvet chemicals without Maximum Residue Limits (MRLs). The approach being taken in this proposal appears sound as it effectively manages residues according to their risk. However, there is insufficient detail in the proposal to appreciate how the proposal would operate in practice and how it might impact on the regulation of food, and the implications in terms of international trade.

In terms of establishing priorities for determining 'all other foods' MRLs, DAFF would be very willing to provide suggestions regarding high priority agvet chemicals, and would welcome the opportunity to discuss these further with FSANZ.

Key areas of concern in the proposal that need to be clarified are as follows.

Clarify the lowest 'all other foods' MRL that would be set

It is expected that, for typical laboratory analysis requests, analytical laboratories would set detection limits that are at least as low as the 'all other foods' MRLs. The cost associated with analytical testing is inversely proportional to the detection limit required. Accordingly, if an 'all other foods' MRL was set at a very low level, then it would increase the costs of analyses (this point relates to FSANZ's request for information on page 9). In determining an appropriate 'all other foods' MRL, the analytical capability will therefore need to be considered.

In general, it would not be desirable to set 'all other foods' MRLs below 0.001 mg/kg because of the testing costs. Furthermore, the uncertainty in measurement is also inversely proportional to the detection limit. The article by Horwitz *et al*, Quality assurance in the analysis of foods and trace constituents, J AOAC 1980 63(6): 1344-1354 provides excellent guidance on analytical uncertainty as detection limits decrease.

Clarify how naturally occurring residues will be managed

In some cases, residues can be naturally occurring in some commodities. For example, dithiocarbamates are collectively analysed as carbon disulfide (CS₂). However, CS₂ occurs naturally in a number of commodities, particularly brassicas. The concentration of CS₂ in brassicas is often higher than the current non-brassica MRLs. It would not be desirable to set an 'all other foods' MRL at the concentration of CS₂ found in brassicas because of the potential for impact on control of use functionality, nor would it be desirable to set a low 'all other foods' MRL when it is less than the concentration found in brassicas

Clarify the effect of the proposal on chronic dietary risk assessment

Some agricultural chemicals, such as dithiocarbamates, have already theoretically exceeded the Acceptable Daily Intake (ADI) and will require review by the Australian Pesticides and Veterinary Medicines Authority (APVMA). When chronic dietary risk assessment is conducted, it considers the sum of all foods consumed. Will the APVMA have to assume that all foods have a residue at or slightly below the 'all other foods' MRL, thereby contributing to the theoretical total dietary exposure? If that is the case, it is queried if this will impact on the approved uses during a chemical review.

Examples of inadvertent or unexpected residues

In response to FSANZ's request for information on page 8, DAFF notes that the ever increasing detection capabilities of analytical methods have to some degree resulted in technical non-compliance with the Food Standards Code. The following are a few examples of inadvertent residues:

- In 2013, the National Produce Monitoring System analysed stone fruit from Queensland and found that in some cases this contained residues of thiabendazole and diphenylamine at ~0.01-0.05mg/kg. Thiabendazole and diphenylamine do not have approved uses in

stone fruit and do not have MRLs set. A traceback investigation determined that the produce was packed on the same packing lines as apples on which the pesticides are approved, and it is highly probable that there was a residue transfer during packing. It is important to note that typically it takes several weeks for a laboratory to report residues, and the produce is all consumed before the results are received. For this reason, Queensland regulators seldom need to make judgements about residues in food as it is no longer in the marketplace.

- Since 2010, DAFF has been aware of approximately 10 detections of carbendazim in a range of produce including mangoes, cucumbers, stone fruit, sorghum and strawberries. The vast majority of the residues arose due to the contamination of post harvest equipment with carbendazim dating from a time before the APVMA regulatory decision to remove the use on those crops. In particular, the mango industry has struggled to satisfactorily clean its equipment. The residues have been between 0.05 and 0.5 mg/kg. It is understood one business had mangoes rejected by a trading partner due to carbendazim residues.

COMMENTS FROM SFPQ

It is SFPQ's view that the rule of general application can not apply in relation to unexpected/unintended low level detections of agvet chemicals (i.e. a default level). Therefore it is SFPQ's preference that the Code be amended to clearly indicate that, unless permitted by the relevant authority, there must be no detectable residue of an agvet chemical in a food commodity (based on the best testing methodology) for which a MRL has not been stipulated in the Code. In scenarios where such a detection does occur a case-by-case assessment by the relevant authority needs to be undertaken, as noted on pages 4 and 5 of the FSANZ report.

COMMENTS FROM THE DEPARTMENT OF HEALTH

The Department of Health periodically has to determine whether detections of agvet chemicals in food comply with the Food Standards Code and assess the risk to human health. Cases have occurred where agvet chemicals detected in food did not comply with the Food Standards Code and the food could not legally be sold even though it but did not present a health risk. As such it is acknowledged that a more pragmatic approach than the current MRL requirements may be desirable to legally permit the sale of commodities containing low levels of agvet chemicals that do not present a health risk.

The proposed approach of setting MRLs in 'all other foods' for specific chemicals appears to have a number of advantages over the status quo and the alternative of setting a general low level default MRL for all agvet chemicals. However, it would be undesirable for any changes to encourage the deliberate off-label use and misuse of agvet chemicals, that is, condone breaches of other legislation. Similarly it would be undesirable for any changes to the Food Standards Code to encourage poor agricultural practices involving agvet chemicals. As such, it is assumed that the MRLs for 'all other foods' would need to be set well below the generally expected levels for intentional off-label use but sufficient to legally permit the sale of foods containing trace amounts of agvet chemicals from unintended cross contamination events (such as spray drift) that do not present a health risk.

It also appears desirable to exclude certain types of chemicals such as those that are highly toxic and those which do not have a legitimate use during primary production, and those that may have potential impacts on human medicine (e.g. antibiotic use in live fish production/harvesting).

Consideration should be given to the following issues:

- Whether MRLs in 'all other foods' would be listed for chemicals not permitted for use in Australia but which may be present in imported foods.

- Whether MRLs in 'all other foods' would be listed for agvet chemicals that are persistent in the environment, including those that are not currently be permitted to be used.
- Whether there may need to be different categories of 'all other foods' or exclusions to accommodate differences in food types, for example animal products vs fruit and vegetables, and foods that may naturally be higher in agvet chemicals, such as fatty foods, offal, seafood higher up the food chain such as predatory fish, bivalve molluscs etc. For example, 'all other fruit and vegetables'.
- Whether it would need to be indicated in the Food Standards Code which MRLs have been set to permit inadvertent low levels of residues where the chemical is not permitted to be used on the commodity (which would assist enforcement agencies). For example, they could be indicated with a symbol such as an asterix.
- Whether an 'all other foods' category would include only single commodities similar to what is currently listed in the Schedule 1 of Standard 1.4.2 or include mixed foods, that is, include foods containing different ingredients. If it were to include foods containing different ingredients, the Standard may inadvertently capture or permit the contamination of foods with chemicals used in premises used to manufacture and process foods, e.g. contamination with pesticides in restaurants.
- Whether the proposal would intentionally capture the contamination of animal products such as meat and milk where the animals have been exposed via a feed to agricultural chemicals used on plants and grain.
- The consultation paper suggests limiting the chemical categories to herbicides, fungicides and insecticides. However, it is unclear if this includes these classes of chemicals when used in the production of animals, e.g. as dips and drenches. It is also assumed that the term insecticides has been used broadly and is intended to capture chemicals used on arachnids such as ticks, mites etc.
- The proposed regulatory option may potentially viewed by the public as increasing the use of agvet chemicals on food and consideration may need to be given to managing the public's perception of the matter.

It would be helpful if future consultation papers on this proposal describe the intended process for setting the proposed 'all other foods' MRLs. For example, would they be all assessed together in a single proposal, or would each be assessed individually on a case-by-case basis, or would assessments be based on individual applications for an 'all other foods' category.

Following the current round of consultation, if case-by-case risk assessment by relevant authorities is further examined, the responsible agencies and resources in jurisdictions would need to be clarified.

Should you require further information in relation to this matter, please contact Food Safety Standards and Regulation, Health Protection Unit, Department of Health on (07) 3328 9310 or at foodsafety@health.qld.gov.au

Food Safety Standards and Regulation
Health Protection Unit
Department of Health
Queensland Government