Ministry for Primary Industries
Manatū Ahu Matua

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Project Officer Proposal P1029
Food Standards Australia New Zealand
PO Box 10559
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WELLINGTON 6036

[redacted]

Dear Sir/Madam

Proposal P1029 Maximum Level for Tutin in Honey – Call for Submissions

Thank you for the opportunity to comment on this proposal.

MPI has been involved in the development of the proposal and is supportive of the overall approach taken by FSANZ, including the draft variation to reduce the MLs of tutin in honey. MPI does however recognise some potential challenges in implementing the standard in New Zealand. MPI has more detailed comments to make on relevant areas of the proposal below.

Risk Assessment

MPI supports the draft variation to reduce the maximum limits (MLs) for tutin in honey from 2mg/kg to 0.7mg/kg and in comb honey from 0.1mg/kg to 0.01mg/kg. MPI has had considerable involvement in the process of establishing the toxicity profile of tutin and considers the research to be of sufficient detail for a robust risk assessment.

The human pharmacokinetic study provides good data to indicate that adverse effects may begin to be seen in high consumers of honey that has tutin residues at the temporary ML of 2mg/kg. Therefore, a reduction of the ML by a safety factor of 3 is supported as a suitable mechanism for managing the risk of acute toxicity in honey consumers to an acceptable level.

Because tutin distribution can vary widely across honey comb and 'hot spots' may occur in combs, the risk management mechanism of reducing the ML in comb honey to 0.01mg/kg is supported as being appropriate to protect human health. MPI does however suggest that this limit is linked to a sampling plan (comments are contained in this submission).

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Implementation of the standard

Implementation of the current temporary tutin limits in the Food Standard Code is carried out by MPI under the Food (Tutin in Honey) Standard 2010 and its 2011 amendment. This Standard, which provides a number of compliance options for the honey industry to meet the tutin limits, is currently under review. Compliance options include testing of honey, harvesting before 1 January each season, surveying areas around beehives for tutu, building a compliance history through testing or placing beehives outside risk areas (below 42 degrees South). This review will take account of the proposed new tutin limits.

MPI notes that the honey industry will be impacted because of the lower limits proposed in this standard and some current compliance options may be less viable. This is explained further below.

There is evidence that early season honey harvested before 1 January may still contain toxic honeydew, albeit in lower levels than later season honey. The 2008 MPI survey work which looked at tutin levels and distribution, found that some honey harvested prior to 1 January contained detectable levels of tutin (<1mg/kg which was the then limit of quantification). As levels found were low it was decided at that time to exclude honey harvested before 1 January from needing specific controls imposed.

Scolypopa nymphs hatch around October in warmer areas and the nymphs feed on sap and excrete honeydew as do the adults. The lower levels found in honey produced prior to January are likely to be because of dilution from more abundant floral sources in spring and because the nymphs, being physically much smaller than the adults, are likely to produce less honeydew. It is therefore possible that some early season extracted honey could exceed the proposed 0.7mg/kg limit in some circumstances. MPI is looking to undertake further survey work on early season honey to ascertain whether tutin levels are sufficiently high to warrant review of the extracted honey harvest date control measure.

MPI notes that increased blending and testing of extracted honey would need to occur under the proposed change to the limit. Sellers of comb honey who harvest honey within risk areas are likely to be disproportionately impacted, as most current measures used to minimise risk of comb honey containing tutin are unlikely to be effective for ensuring the proposed 0.01mg/kg ML is met.

<u>*Comb honey*</u>
Current compliance options available to comb honey producers will clearly need to be reconsidered in light of a reduced limit. The presence of detectable tutin in early season honey suggests that comb honey, in any area where both *Scolypopa* and tutu are present, could contain tutin at a level that exceeds the limit at any time of year.

The best way to ensure that comb honey does not exceed the limit would be to test all comb honey harvests on an apiary by apiary basis. It is noted, however, that this may still not ensure any particular portion of comb honey would not exceed the proposed 0.01mg/kg limit from an apiary (as discussed under section 2.2.2 of the call for submissions document). In spite of this, testing and finding no tutin in homogenised leftover comb honey and drip from cut comb tested on an apiary by apiary basis should ensure that no individual portion of comb honey from that apiary would have tutin exceeding 0.7mg/kg, ie that it would be unsafe to consume.

MPI notes that in practical terms it is likely that future New Zealand regulatory controls will continue to permit such testing to remain as a compliance option, because the extreme alternative would be to cease all comb honey production across much of New Zealand. It is therefore important that the drafting in the Food Standard Code does not create any apparent conflict with the New Zealand implementation Standard. MPI recommends FSANZ consider whether the proposed drafting be revised so that there would be no apparent conflict between the MLs and the implementation of these MLs through testing. This is because the goal of both regulatory instruments is to ensure no comb honey consumed would exceed the extracted honey limit.

MPI also suggests further consideration be given to the drafting of the comb honey ML to clarify that it should apply to an average tested value across the honeycomb from an apiary rather than (for example) a single tested portion tested at retail. Such an approach has a precedent in the contaminant standards in the Food Standards Code. The mercury in fish MLs (which are mean values in the context of a sampling plan) appear to provide a useful model that could be considered.

MPI notes the potential net effect of the lower limit, even with a testing option, could result in a cessation of comb honey production in risk areas in favour of extracted honey. This will mainly impact small beekeepers that do not have extraction plants. Comb honey production can be an attractive option, because there is no need for capital outlay to extract and pack honey.

Transitional provisions

MPI supports there being no transitional provisions, provided product already packed for retail sale is subject to the limits that applied at the time it was packed.

Yours sincerely,

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Manager Food Science and Risk Assessment