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The National Beekeepers'
Association of New Zealand

16th September, 2014

Submissions
Environmental Protection Authority of NZ
Private Bag 63002
Wellington 6140

Dear Sir, Madam

SUBMISSION for APP202142 – MODIFIED REASSESSMENT OPCs

1. Introduction

The Technical Committee of the National Beekeepers Association of NZ (NBA) supports the modified reassessment of Organophosphates and Carbamates, application APP202142.

2. Grounds for Reassessment.

The Technical Committee of the NBA became aware that the original reassessment of organophosphate and carbamate plant protection substances, APP201045, did not include the non- contact periods designed to prevent exposure of toxic substances to bees. These controls were previously in place for these pesticides and appear to have been omitted.

After the decision was released for APP201045 NBA correspondence with Dr Richard Mohan of the EPA between October and December 2013, discussing our concerns resulted we believe in this EPA driven reassessment.

We acknowledge the concern of the EPA with respect to ensuring that these chemicals can be used safely with bees and other pollinators.

We support this application APP202142 as a reassessment of organophosphates and carbamates as a pathway to reinstate the appropriate non-contact periods that were previously applied to the substances. We believe it was an omission of the original reassessment APP201045 and this is the appropriate mechanism to reinstate them.

We agree with the committee's view that setting the non-contact periods is appropriate in the spirit of the HSNO Act, in particular for the safety of bees and other pollinators.

3. Identification of Substances under Review.

NBA accepts the inclusion of the named products as being suitable for this reassessment.



4. Identification of Controls on the Substances.

The NBA accepts the provisions of E3¹ controls that are designed to give protection to bees as well as providing for crop protection for the growers. In general it appears that the approval of chemicals, subject to controls relating to safety of the product is widely accepted by the chemical manufacturers and users. The compliance with the controls has also been endorsed by responsible users and industry groups.

The controls on the products under review, relating to non-contact periods for bee safety have been accepted limiting use of the products to times when the target plant is not flowering. The non-contact period also covers a period before the plant flowers to ensure a reduction in the chemical toxins within the plant as a result of the systemic nature of the product.

The original reassessment, APP201045 removed the non-contact periods that previously applied to the products.

NBA considers that the removal of the non-contact periods posed significant risk to bees simply because the products are systemic and specifically designed to provide an extended killing period to chewing and sucking insects.

5. Methamidophos

The NBA is concerned about the EPA's reasoning to have a zero days non-contact period for methamidophos compared with the previous 7 day period under the original controls².

The applicant has not provided any evidence that this systemic product has been altered to provide less than 12 hours systemic activity which would reduce the non-contact period significantly.

The NBA supports the retention of the 7 day non-contact period.

The NBA wishes to point out that the answer to the lack of information as stated by the EPA is in fact in the EPA's discussion about acephate and is available from data on acephate.

- 5.1 Acephate breaks down to methamidophos when it is in the plant. "Methamidophos was more persistent in plant tissue than acephate (i.e. acephate was degrading to methamidophos faster than methamidophos was degrading to another compound)³".
- 5.2 The EPA as applicant in Table 4.2, of Appendix B, clearly shows that methamidophos is a metabolite of acephate. The table also supplies DT₅₀ data from 4.6 days to 11 days for surface residues of methamidophos as a result of the degradation of acephate.
- 5.3 It is important to note that in Table 4.2, Appendix B, the rates of application a.i. basis are higher than the application rate of 0.56 a.i. kg/ha as detailed in the European Commission Review Report⁴. Higher rates of application should lead we believe to a longer non contact period than zero days as proposed by the EPA.

¹ Regulation 49 of the Hazardous Substances (Classes 6, 8, and 9 Controls) Regulations 2001

² Section 1.2, Table in Appendix B, APP202142.

³ <http://extoxnet.orst.edu/pips/acephate.htm> A Pesticide Information Project of Cooperative Extension Offices of Cornell University, Oregon State University, the University of Idaho, and the University of California at Davis and the Institute for Environmental Toxicology, Michigan State University.



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5.4 The extoxnet file on methamidophos identifies that it has the following half lives in tomato fruit 4.8 – 5.1 days, and tomato leaves 5.5 – 5.9 days.⁵
This suggests that the 7 day non-contact period is appropriate.

NBA asks the EPA to consider that due to the lack of additional bee safety data to support reduction of non-contact period this product is treated in a similar manner to the other products and non-contact periods restored to the conditions that existed when the product was initially approved. We therefore request that the EPA reinstates the 7 day non-contact period of the previous controls.

A further concern is that we consider the non-contact control more effective than the proposed spray at evening or night spraying control.

The evening or night spraying control means that residues are left on the flower and foliage that can be visited by foraging bees. Please note the DT₅₀ periods, see items 5.2 to 5.4 above, means that a toxic residue of methamidophos can remain on the plant presenting an unnecessary risk to bees and other pollinators.

The 7 day non-contact period starts before flowering of the plant, which means that there is no attraction from the plant for the bee to forage there.

6 Potential impacts of proposed controls on users.

These pesticides have, for a considerable time been accepted with a non-contact period for bee safety. Removal of these controls was possibly an oversight that was not considered at the time of reassessment. A return to the former conditions should not impact the growers any greater than when the conditions were previously imposed.

There are no greater limitations on the use than previous; however by highlighting the non-contact period required for products users may be more aware of the extended killing power of the product. The awareness may prompt different considerations by the users who may consider other chemicals more suited to the required crop protection task.

7 Potential impacts of proposed controls on bees/beekeepers

The proposed controls should provide a level of protection for beekeepers so that their bees will not be exposed to the risks these systemic insecticides present.

⁴ EUROPEAN COMMISSION HEALTH & CONSUMER PROTECTION DIRECTORATE-GENERAL. SANCO/4341/2000 - rev. 5 14 December 2006. Review report for the active substance methamidophos

⁵ <http://pmep.cce.cornell.edu/profiles/extoxnet/haloxyfop-methylparathion/methamidophos-ext.html> A Pesticide Information Project of Cooperative Extension Offices of Cornell University, Oregon State University, the University of Idaho, and the University of California at Davis and the Institute for Environmental Toxicology, Michigan State University.



8. Potential impacts on bees/beekeepers if controls not imposed.

Beekeepers are aware that from time to time their bees will be weakened or killed by agrichemicals because of inappropriate use or 'misuse' of chemicals. Investigations can be both inconclusive and time consuming and the beekeeper gets on with beekeeping and considers the incident a 'one off' that has caused damage and may not be repeated.

The HSNO Act provides only one control for where applicators use systemic insecticides, E3⁶. This control is clear with respect to the actions a grower must put in place.

The APP201045 decision, was to introduce the controls to these products on July 1st 2015. Our research has shown that these controls have already been introduced by the pesticide industry. The NBA would ask the EPA to review the MPI registered labels for the two ACVM registered products, Metafort 60SL (P5629) and Methafos 600 (P5915).

Trade Name	Product Owner	ACVM Registration and label date approved by MPI	Non-contact period for bees
Metafort 60SL	Adria New Zealand Ltd	P5629 June 2013	None
Metahafos 600	Agricultural Imports Direct NZ Ltd	P 5915 October 2010	7 days

The dates of the approved labels as shown on the MPI website register for approved pesticides show that the Metafort 60SL label was changed soon after the APP201045 decision was made by the EPA and no effort was made to wait until July 1st 2015.

Our concern is that there are players in the pesticide industry that cannot follow EPA controls correctly and their behaviour is reinforced by the MPI when approving labels.

This makes it extremely risky for beekeepers and others wanting to protect bees.

Accordingly the NBA supports the continued use of the precautionary principle when introducing appropriate controls to protect bees and other pollinators from the hazards of pesticides.

9. Summary

The National Beekeepers Association Technical Committee supports this application for reassessment of carbamates and organophosphates to include non-contact periods for the protection of bees.

The Technical Committee also considers that there is no additional information to suggest relaxation of the non-contact period for Methamidophos and considers the non-contact period be maintained at 7 days, consistent with the original controls for this substance.

⁶ Regulation 49 of the Hazardous Substances (Classes 6, 8, and 9 Controls) Regulations 2001



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The NBA Technical and Submissions Committee would like to have the opportunity to be heard at a public hearing on this application if one is held.
Attendance will be confirmed after the NBA has reviewed the Evaluation and Review Report from the EPA.

Thank you for considering our submission.

Yours faithfully

Roger Bray
Barry Foster
Don MacLeod
Dr John McLean