

Neonicotinoids in New Zealand

Thiacloprid and Acetamiprid

February 2021

Background

On 27 January 2020 the EPA announced our intention to reassess the five neonicotinoid insecticides currently approved for use in New Zealand. They are imidacloprid, clothianidin, thiamethoxam, thiacloprid and acetamiprid.

Our reassessment is planned to run at the same time as the Australian Pesticides and Veterinary Medicines Authority (APVMA) review of neonicotinoids. Our two agencies will look at opportunities to work together on some technical aspects of the reassessment and review processes. The announcement followed the decision that grounds exist to reassess neonicotinoids, which was made based on significant new information relating to their environmental and human health impacts. New information included published reports from international regulatory agencies including the European Food Safety Authority (EFSA), European Chemicals Agency Committee for Risk Assessment and Health Canada Pest Management Regulatory Agency.

Previous call for information

In August 2018, we asked for information on three of the five neonicotinoids being reassessed, clothianidin, imidacloprid and thiamethoxam. This followed the publication of EFSA's updated risk assessments on these neonicotinoids in 2018. The 2018 call for information was open until the end of that year.

Read our [summary of responses received](#).

Purpose of the second call for information

In order to understand potential risks in the New Zealand context, we require up-to-date and accurate information about the use of all neonicotinoids here. We can then consider which aspects of the overseas risk assessments may be of relevance to use patterns in New Zealand, and which aspects require further analysis.

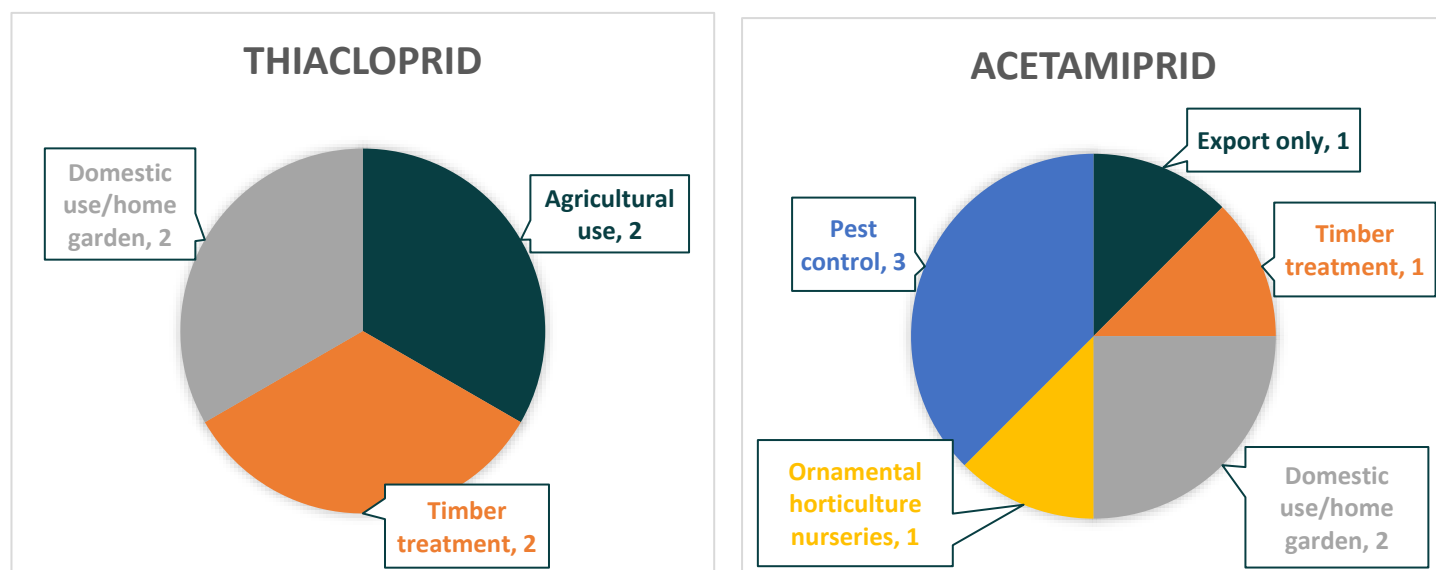
The second call for information focused on the two neonicotinoids not covered by the first call for information, thiacloprid and acetamiprid, and their use in New Zealand. We also welcomed any new information on clothianidin, imidacloprid and thiamethoxam (that has become available since 30 December 2018, and was not submitted in the earlier call for information during 2018).

The call for information opened on 14 April 2020 and closed on 12 July 2020. This document summarises key information from the eight responses that were received.

What types of products containing thiacloprid and acetamiprid are present in New Zealand?

There are 14 approved substances that contain thiacloprid and acetamiprid, of which seven are intended for use as plant protection products. The others are timber treatment products (three approvals), pest control products (three approvals), and one is an insecticide manufactured for export only.

Of the plant protection substances, four are for domestic use in home gardens, two are for wide dispersive agricultural use (spraying of crops including apples, avocados, kiwifruit, onions, potatoes, peaches and nectarines), and one is for use in ornamental horticulture production nurseries.



How are plant protection products containing thiacloprid and acetamiprid used in New Zealand?

Based on information received on the plant protection uses of thiacloprid and acetamiprid, treatment is solely by foliar spraying; there are no seed treatments or seedling/soil drenches. The main plant/crop types on which these substances are used are listed on ACVM registered product labels and shown in the Table below.

Application method	Active Ingredient	
	Thiacloprid	Acetamiprid
Foliar spray	Apples Avocado Kiwifruit Nectarine Peach Potato Onion	Ornamental plants

We also received some information on off-label uses of thiacloprid; these generally represent uses on minor crop types and have similar application rates and timing as for an equivalent label crop type. Acetamiprid is generally used only on ornamental plants that are not intended for human or animal consumption. However, some information noted that either active ingredient may be useful for protection of various crop types in the event of a biosecurity incursion of a new insect pest.

What new scientific data is available?

We received scientific information from the key manufacturers of thiacloprid and acetamiprid active ingredients. This information includes toxicological and eco-toxicological studies, end point values, and relevant scientific literature, which will assist EPA in any risk assessments we conduct during the reassessment process.

Where are neonicotinoids found in the New Zealand environment?

No additional scientific information relating to the presence of neonicotinoids in the New Zealand environment was received in this call for information. The EPA proposes to evaluate the scientific literature received in the first call for information relating to the presence of neonicotinoids in the New Zealand environment during the next stage of the reassessments process.

What environmental risk mitigation measures are used?

We were informed about various environmental risk assessment mitigation measures used when applying substances containing thiacloprid or acetamiprid. For the plant protection products which tend to be applied as foliar sprays, including high or low volume spraying, boom spraying, or airblast spray methods, the following mitigation measures relating to pesticide spraying were frequently mentioned:

- Using drift reducing nozzles, air induction nozzles
- Using appropriate spray droplet sizes, spray pressures, and water rates
- Using adjuvants or drift retardants
- Monitoring environmental conditions / timing for favourable wind conditions
- Growsafe accreditation of applicators
- Site-specific buffer zones
- Shelterbelts surrounding treated areas

Additional mitigation measures to reduce the impact of exposure to honey bees include - clearing flowering weeds from spray areas, timing of the application (after petal fall), not spraying when bees are foraging, avoiding high wind conditions to reduce spray drift and coordinating with local bee keepers.

For the pest control products, used in and around buildings as a surface or crack and crevice application, or incorporated into baits, mitigation measures included the low quantities used, restriction to use within buildings and label statements warning of environmental impacts.

Next steps

We intend to proceed with a reassessment of the neonicotinoids: clothianidin, imidacloprid, thiamethoxam, acetamiprid and thiacloprid, working collaboratively with our counterparts at the Australian Pesticides and Veterinary Medicines Authority (APVMA) on some technical aspects of the reassessment and review processes.