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Proposed Re-evaluation Decision PRVD2017-23, Clothianidin and Its Associated End-use Products: Pollinator Re-evaluation

🔒 This consultation is now closed.

Pest Management Regulatory Agency

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To obtain a full copy of [Proposed Re-evaluation Decision PRVD2017-23, Clothianidin and Its Associated End-use Products: Pollinator Re-evaluation](#) please contact our publications office.

Select the following link for more information on all Health Canada's [Consultations on the Neonicotinoid Pesticides, Clothianidin and Thiamethoxam](#), from 19 December 2017.

Should you require further information please contact the [Pest Management Information Service](#).

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Proposed Re-evaluation Decision

Under the authority of the [Pest Control Products Act](#), Health Canada's Pest Management Regulatory Agency (PMRA) conducted a re-evaluation of all agricultural and turf uses for clothianidin and its associated end-use products, specifically to assess the risk to pollinators. This re-evaluation assessed the potential risk to pollinators in light of international updates to the pollinator risk assessment framework, including additional data requirements. Extensive information obtained from published literature, as well as data received from registrants was considered. Health Canada applied internationally accepted risk assessment methods as well as current risk management approaches and policies. In addition to the pollinator risk assessment, the value of the active ingredient to the various use sectors was assessed.

Health Canada and the [United States Environmental Protection Agency](#) (USEPA) collaborated on this pollinator assessment, based on the jointly developed harmonized Guidance for Assessing Pesticide Risks to Bees. The Agencies have also been working closely with the [California Department of Pesticide Regulation](#) (CDPR).

PRVD2017-23 presents the proposed regulatory decision for the pollinator re-evaluation of clothianidin, including proposed risk mitigation measures to further protect pollinators, as well as the science evaluation on which the proposed decision was based. Most products containing clothianidin registered in Canada are subject to this proposed re-evaluation decision. This proposed decision (PRVD2017-23) is subject to a 90-day public consultation period, during which the public, including manufacturers and stakeholders, may submit written comments and additional information to [Health Canada](#). The final re-evaluation decision will be published taking into consideration any comments and information received.

Additional reviews related to re-evaluations and special reviews previously announced in respect of clothianidin will be published separately at a later date. Anticipated time frames for decisions related to these activities are outlined in: [Update on the Neonicotinoid Pesticides \(December 2017\)](#).

Outcome of Science Evaluation

Clothianidin is an insecticide that is widely used in Canada on a variety of crops. This document (PRVD2017-23) summarizes the potential risks posed by clothianidin to insect pollinators in Canada, such as honey bees and wild bees, as well as proposed strategies to reduce the risks to these pollinators. With over 700 native species in Canada, bees are the most common pollinators. Bees and other insect pollinators are critical to the production of

many crops and play an essential ecological role.

Products containing clothianidin are sold as sprays to be applied to plants and to bare soil. Clothianidin is also used as a coating on crop seeds to prevent insects from eating the seeds when they are planted in the ground and to protect the plants grown from treated seeds. Some uses result in clothianidin being taken up by the plants from the soil or through their leaves, where it then moves into parts of the flower where nectar and pollen are produced. Because bees use nectar and pollen as their primary sources of food, bees may be exposed to clothianidin (and its breakdown products) when they visit certain flowers to collect pollen and nectar. Bees may also be accidentally sprayed or collect water containing clothianidin.

Health Canada examined hundreds of laboratory and outdoor field studies with bees from research conducted around the world. These studies examined possible effects on bees from a wide range of situations including:

- bees contacting clothianidin while visiting flowers;
- bees consuming clothianidin in the pollen and nectar of flowers;
- bees exposed to clothianidin for a short period of time (acute exposure) and for a long period of time (chronic exposure);
- bees exposed to clothianidin in water;
- bees exposed to dust that may be generated while planting seeds that were coated with clothianidin;
- adult bees, developing bees and the whole colony exposed within bee hives; and
- exposure of different species of bees including honey bees (also called Apis bees) and other species of bees, such as bumble bees and solitary bees (also called non-Apis bees).

This risk assessment, conducted according to the [Guidance for Assessing Pesticide Risks to Bees](#), has determined that there are varying degrees of effects on bees. Some current uses of clothianidin are not expected to affect bees; however, there are some uses of clothianidin that may pose a risk of concern to bees. Therefore, mitigation measures are proposed to minimize potential exposure to bees, where necessary. Mitigation measures include cancellation of some uses, changes to the use pattern, and label improvements. [Refer to the Proposed Regulatory Decision for Clothianidin](#) for a list of proposed measures to protect pollinators. When clothianidin is used in accordance with these new proposed risk reduction measures, the reduced environmental exposure is deemed adequate and risks are considered to be acceptable. Label statements informing users of the potential for toxicity to pollinators will be required on product labels.

Bees may be exposed to dust produced during planting of treated seed for certain cereal crops. There are already label statements in place to reduce exposure to dust produced during planting of treated corn and soybean seed; these label statements include best management practices, as well as mandatory use of dust-reducing fluency agents in certain types of planters. Details can be found on Health Canada's Pollinator Protection webpage. In addition, Health Canada will require the addition of label statements for all cereal crops to minimize exposure to dust during planting of treated seed; these statements would include best management practices.

Health Canada also assessed the risks to bees posed by water sources that may be used by pollinators for water collection (for example, water from puddles, streams and plants) in areas where clothianidin is applied, and determined that water sources do not pose risks of concern to bees.

Proposed Regulatory Decision for Clothianidin

Under the authority of the Pest Control Products Act and based on the evaluation of currently available scientific information related to pollinators, products containing clothianidin are being proposed for continued registration in Canada, and risk mitigation measures are required to be in place to further protect pollinators.

Registered pesticide product labels include specific directions for use. Directions include risk mitigation measures that must be followed by law. As a result of this re-evaluation of clothianidin, further risk mitigation measures for product labels are being proposed.

Measures to Protect Pollinators

Certain crops are highly attractive to bees when their flowers are in bloom. Since large numbers of bees are attracted to these crops when they are in bloom and based on an assessment of the risks to bees, the application of pesticides containing clothianidin can lead to effects that may impact the survival of bee colonies or solitary bee species.

In order to protect pollinators, Health Canada is proposing to phase out the following uses of clothianidin:

- Foliar application to orchard trees and strawberries, and
- Foliar application to municipal, industrial and residential turf sites.

In order to protect pollinators, Health Canada is proposing the following change to the conditions of use of clothianidin:

- Reduce maximum number of foliar applications to cucurbit vegetables to one per season.

To minimize bee exposure to dust during planting of treated seed, additional label statements are proposed for the following use:

- Seed treatment of cereal crops.

International Regulatory Context

Clothianidin is under registration review by the United States Environmental Protection Agency (USEPA). PMRA conducted the pollinator risk assessment according to the Guidance for Assessing Pesticide Risks to Bees in collaboration with the USEPA.

The European Food Safety Authority (EFSA) is currently conducting a pollinator risk assessment of clothianidin.

Next Steps

The public, including the registrants and stakeholders, are encouraged to submit additional information that could be used to refine risk assessments during the 90-day public consultation period upon publication of Proposed Re-evaluation Decision PRVD2017-23, Clothianidin and Its Associated End-use Products: Pollinator Re-evaluation.

All comments received during the 90-day public consultation period will be considered in the preparation of the re-evaluation decision document, which could result in revised risk mitigation measures. The re-evaluation decision document will include the final re-evaluation decision, the reasons for it and a summary of comments received on the proposed re-evaluation decision with PMRA's responses.

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