



Information Note – External Advisory Review Panel Recommendation on the Notice of Objection for RVD2021-05, *Imidacloprid and Its Associated End-use Products*

29 April 2026

Pesticides Regulatory Directorate

Healthy Environments and Consumer Safety Branch

Health Canada

Background

Health Canada is responsible for administering the *Pest Control Products Act*. Under the Act, pesticides must be assessed before they are sold or used in Canada in order to determine that they do not pose unacceptable risks to humans or the environment, and have value when used according to the label instructions. The Act also requires that registered pesticides be re-evaluated to ensure that they continue to meet current health and environmental standards, and continue to have value.

A final re-evaluation decision is published after Health Canada conducts any necessary evaluations and the required public consultation. Once the final decision is made public, anyone can submit a Notice of Objection to the decision as per section 35 of the Act. The Act and the Review Panel Regulations set out requirements concerning the Notice of Objection process. Health Canada must take into account whether the objections raise scientifically founded doubt as to the validity of Health Canada's evaluations on which the decision is based, and whether the advice of expert scientists would assist in addressing the subject matter of the objection. After considering these factors, a panel of one or more individuals can be established to review the decision and to recommend whether the decision should be confirmed, reversed or varied.

Objections to re-evaluation decision for imidacloprid and its associated end-use products

The final re-evaluation decision for Imidacloprid and Its Associated End-use Products (RVD2021-05) was published 19 May 2021. The decision was to continue registration of most products containing imidacloprid. Certain agricultural and turf uses of imidacloprid were cancelled to address potential risks of concern to the environment.

Following the publication of RVD2021-05, Health Canada received three Notices of Objection to this decision: one was denied as the objection was not science-based; one was related to the



human health risk assessment and was closed in January 2025, as no scientifically founded doubt was created by the objection; and the third objection was related to the environmental and value risk assessment. In that third objection, Health Canada determined that scientific doubt was created with respect to the emphasis placed by Health Canada on mesocosm studies when assessing risk to aquatic invertebrates in the environmental risk assessment.

External Advisory Review Panel

Health Canada established a Review Panel, composed of three impartial external scientific experts with complementary expertise in pesticide regulation, mesocosm studies, and environmental risk assessment, to provide objective, science-based advice on questions related to mesocosm studies and their use in the regulatory decision for imidacloprid. The External Advisory Review Panel was convened in October 2025. The panel members were:

- Dr. David Dall, Director of Environment, Science Assessments at the Australian Pesticides and Veterinary Medicines Authority (APVMA);
- Dr. Karen Kidd, Professor and Jarislowsky Chair in Environment and Health at McMaster University; and
- Dr. Ryan Prosser, Associate Professor in the School of Environmental Sciences at the University of Guelph.

Dr. Dall, appointed as Chair of the Review Panel, has experience across multiple areas of environmental and agricultural management. Dr. Kidd is an internationally-renowned researcher in water pollution and its effects on fish and other aquatic life. Dr. Prosser's research is used to characterize the risk of contaminants in aquatic and terrestrial ecosystems, as well as, researching the impacts of chemicals in aquatic invertebrates.

The relevant information was made available to the Review Panel to assist them in developing a recommendation. This information included studies reviewed in the re-evaluation of imidacloprid, Health Canada published documents, as well as a range of scientific and technical literature in the public domain.

The science question for the External Advisory Review Panel was as follows:

Is the effect metric (No Observed Effect Concentration (NOEC) of 0.16 µg time-weighted average/Litre (TWA/L), equivalent to 0.243 µg/L nominal), from the 2015 study, "Outdoor microcosm study to the effects of IMIDACLOPRID SL 200 on the summer generation of the mayfly *Cloeon dipterum*" sufficiently protective of aquatic invertebrate communities? If not, how would you recommend Health Canada approach the effects metric selection from the identified mesocosm studies?

Report by External Advisory Review Panel

The report, which is summarized below, includes the assessment and recommendation from the External Advisory Review Panel. The full report can be found in the Public Registry (Pesticide Product Information Database under Application Number 2025-2565).

After reviewing published documentation, two outdoor microcosm studies, laboratory data, and scientific literature, the Panel determined that the microcosm derived 28-day NOEC of 0.16 µg a.i. (TWA/L), based on effects on the highly sensitive summer cohort of *Cloeon dipterum*, is scientifically sound and sufficiently protective of aquatic invertebrate communities. The study design met accepted standards, the indicator species and life stage were appropriate, and the adopted endpoint was consistent with independent laboratory and mesocosm findings.

The External Advisory Review Panel concluded:

“...that microcosm-based assessment is an acceptable methodology for establishing the relevant metric, that the focal species used in the key microcosm study was appropriate for the purpose, and that the microcosm study was of sufficient reliability to be suitable for use. The Panel also noted that allowance was made by Health Canada of dissipation of imidacloprid over the course of the study in deriving the adopted TWA 28-day NOEC metric of 0.16 µg imidacloprid/L.”

And

“...the adopted chronic aquatic effects metric (NOEC of 0.16 µg a.i. TWA/L) is appropriate for use, and is sufficiently protective of aquatic invertebrate communities.”

In addition, the Panel encouraged Health Canada to promote guidance and quality standards (for example, OECD 2025 *Guidance Document on the Generation, Reporting and Use of Research Data for Regulatory Assessments*; Lahr et al. 2022 *Proposal of critical appraisal tools for the evaluation of ecotoxicology studies*) to improve study quality and data availability for future regulatory assessments. Further, the Panel suggested that Health Canada communicate in public documents, its rationale for community-level protection as an appropriate regulatory setting for aquatic invertebrates. Health Canada has accepted and will implement all of the Panel’s recommendations.

Outcome

The report and recommendation from the External Advisory Review Panel, stating that the aquatic effects metric adopted in RVD2021-05 is sufficiently protective of aquatic invertebrate communities, was presented to the Health Canada’s Pesticides Regulatory Directorate Science Management Committee. Health Canada accepted the External Advisory Review Panel’s recommendation that the aquatic effects metric used in the re-evaluation of imidacloprid is

appropriate for use and sufficiently protective of aquatic invertebrate communities, and that the NOEC of 0.16 µg a.i. TWA/L be retained.

Decision

As per subsection 39(1) of the Act, after considering the recommendation of the External Advisory Review Panel, Health Canada, on behalf of the Minister, confirms the re-evaluation decision for imidacloprid supporting the continued registration of most products containing imidacloprid as stated in RVD2021-05. There are no changes to the labels of the currently registered products as a result of this decisions.

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