



National Farmers Union
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**Comments submitted by the National Farmers Union on the
Proposed Re-evaluation Decision PRVD2016-20, Imidacloprid**

The National Farmers Union (NFU) is Canada's largest voluntary direct membership farm organization representing family farmers from across the country in all sectors of agriculture. We believe that family farms should be the primary food producers in Canada. We work to promote a food system that is built on a foundation of financially viable family farms that produce high quality, healthy, safe food; encourage environmentally-sensitive practices that will protect our precious soil, water, biodiversity and other natural resources; and promote social and economic justice for food producers and all citizens.

Imidacloprid is a neonicotinoid insecticide currently registered as a seed treatment, foliar spray and a granular formulation to kill a variety of insect pests. It is most commonly used on field and greenhouse vegetables, fruit, horticultural, sweet corn and potato crops, as a seed treatment on potato seed pieces and in sod production and turf maintenance. While it is registered for use as a seed treatment for field corn, soybeans, pulse and cereal crops, the seed of these crops is more commonly treated with other neonicotinoids. Imidacloprid is sold as agricultural formulations under the brand names Admire, Gaucho, Merit, Genesis, Intercept, Alias, Grapple, Quali-Pro Imidacloprid, Stress Shield, Concept, Sombrero, Sepresto, and Acceleron. Most are registered by Bayer Cropscience; a few are owned by Adama and FMC Corporation.

Imidacloprid is highly water soluble, which is a quality that allows it to be easily absorbed by plant roots then distributed throughout the plant's tissues via its vascular system. This same quality makes it very problematic in the environment: only a small portion of applied imidacloprid is absorbed by the plant while the rest stays in the soil where water dissolves and moves it through normal drainage and leaching. Since it does not break down quickly or easily, imidacloprid remains toxic to insects, birds and other life forms such as arthropods as it moves through the environment and kills, weakens or impairs non-target organisms.

Imidacloprid moves with water in the soil and only a small amount of the chemical is absorbed into target plants. This makes it impossible for the grower to avoid applying more than is needed for pest management. The grower cannot control the movement of the chemical following application. PRMA must phase out imidacloprid for agriculture use rather than attempt to regulate its use by amount, timing, location and crop.

The evidence from scientific studies referenced by the PRMA in its consultation document show both high concentrations and a high incidence of imidacloprid in water samples (in some cases 100%) from areas where there is a lot of row crop and greenhouse vegetable and fruit production and/or potato and sweet corn field crop production. The concentration of imidacloprid in water samples is highest in areas with most intensive production.

While the public has become quite concerned about neonicotinoid impacts on bees and pollinators, the proposed regulatory change focuses on the effects of imidacloprid on birds, aquatic insects, and the birds that depend on aquatic insects for their food supply. The kind of insects most vulnerable to imidacloprid toxicity are the midges, mayflies and larvae of flying insects that are near the bottom of the ecological food chain – the base of the food pyramid which supports the diversity of life. The PRMA also cites evidence that predatory insects such as wasp species that consume agricultural insect pests like aphids that attack soybeans, are also killed by imidacloprid. Both birds and predatory insects provide ecosystem services by consuming insect pests when they are abundant, among other things. The continued use of imidacloprid threatens the biodiversity of Canada's countryside, weakening this natural biological control system.

The NFU calls for the precautionary principle to be applied in the regulation of farm chemicals to protect biodiversity, the long-term productivity of the soil, and the safety and purity of surface and ground water. The *Pest Control Products Act*, Section 20, empowers the Minister to amend or rescind the registration of a pesticide based on the precautionary principle. The *Act's* definition of the precautionary principle is: "Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent adverse health impact or environmental degradation."

The NFU also promotes using Food Sovereignty - *the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems* - as the framework for Canada's agriculture and food policies. One of the seven pillars of Food Sovereignty is to work with nature by optimizing the contributions of ecosystems and as a way to improve the resilience of our food system.

The proposed regulatory decision would phase out over three to five years, all outdoor agricultural, ornamental, turf, and tree uses (except tree injection uses) and greenhouse uses of imidacloprid insecticide and would restrict its use to very limited applications such as flea treatment for pets and injection of trees for control of emerald-ash borer. The decision would also implement additional precautionary measures to protect human and ecosystem health during the phase-out period. We believe this proposed decision is a positive step and we fully support it.

We also urge the PMRA to implement effective monitoring and enforcement to ensure compliance with the new label restrictions during the phase-out period. We urge Health Canada to work with Environment Canada and Agriculture and Agri-Food Canada to promote alternative, less toxic insecticides and non-chemical agriculture techniques for the management of insect pests in general, with a focus on the crops currently using imidacloprid. We strongly encourage federal and provincial governments to assist farmers in adopting such products and methods in order to reduce the quantity of toxic agricultural chemicals being applied to our farmland.

Respectfully submitted by

The National Farmers Union