November, 2015

Briefing Note:

Strengthening Canada's legal framework to reduce pesticide exposure

Summary

A suite of federal laws governs the management of toxic substances in Canada, for the purposes of protecting human health as well as the environment. The pillars of this regime include the *Canadian Environmental Protection Act of 1999*, the *Pest Control Products Act,* the *Canada Consumer Product Safety Act,* as well as the Cosmetic Regulations of the *Food and Drugs Act*[1]. Unlike many other federal environmental laws, these acts and their regulations have not been weakened through amendments in recent years. However, human health protection under this regulatory framework has been mixed and improvements are needed to bring these laws up to date.

The new government could dramatically reduce the risk of pesticide exposure early in its mandate through regulatory changes and other measures using existing statutory authority. These "quick fixes" would be an early demonstration of the government's commitment to protecting human health and the environment and signal a long-overdue shift towards safer alternatives and green chemistry.[2] We also propose a package of legislative amendments to strengthen the legal framework for managing toxic substances as a key initiative of a new government on an issue that is important to Canadians.

Pest Control Products Act

Introduction

The *Pest Control Products Act ("PCPA")* is administered by the Pest Management Regulatory Agency (the "PMRA") on behalf of the Minister of Health. The PMRA takes an unduly industry-focused approach to the registration of pesticide products for use in Canada. In that regard, the *Pest Control Products Act* is fundamentally sound, but it is the manner of implementation of the *Act* by the PMRA that is the problem.

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[1] A separate brief is available outlining recommendations to strengthen the *Canadian Environmental Protection Act of 1999*, the *Canadian Consumer Products Safety Act,* and the Cosmetic Regulations of the *Food and Drugs Act.*

[2] An area of chemistry and chemical engineering focused on the design of products and processes that minimize the use and generation of hazardous substances.

Recommended quick fixes

Establish a system for monitoring and responding to pesticide bans in other countries, as contemplated under the Act

When an OECD country bans a pesticide for human health or environmental reasons, subsection 17(2) of the *Act* requires the Minister to automatically review all registered products containing that pesticide to determine if changes to the Canadian registration are needed. To date, this important mechanism has been largely ignored by the Minister. Indeed, subsection 17(2) of the Act has only been implemented on one occasion, after public interest organizations filed a lawsuit to compel the government to initiate a special review of 23 pesticides banned in the EU. No prompting should be required as such reviews are mandatory under the Act. The PMRA needs to establish a system for monitoring pesticide bans by OECD countries for health or environmental reasons and then automatically follow through with meaningful reviews.

Subsection 17(3) of the Act requires the Minister to initiate a special review if, on the basis of information from a federal or provincial department or agency, she believes the health risk posed by a pesticide is unacceptable. We are unaware of any special reviews ever being conducted on the basis of this section. The PMRA should immediately commence the implementation of this part of the Act and report to the public on decisions under s.17(3) to initiate or not initiate a special review.

Improve the Pest Management Review Agency's Public Registry

Section 42 of the *Act* requires the Minister to establish a public registry containing information about pest control products, including information about applications, registrations, re-evaluations and special reviews. Unfortunately s.42 has not been properly implemented. The public registry is poorly organized and confounding to almost all users. Key documents, if posted at all, are difficult or impossible to find. The current design of the public registry renders the work of the PMRA opaque, thus thwarting openness and transparency. The public needs convenient, searchable, and well organized access to information from the PMRA as contemplated under s.42 of the *Act.*

Ban Neonics

The science is clear and unequivocal, neonicotinoid pesticides are profoundly harmful to pollinators and many other animal species, causing widespread contamination due to their environmental persistence and mobility. The PMRA launched a re-evaluation of three neonic pesticides (clothianidin, imidacloprid and thiamethoxam) in June 2012 to assess their risk to pollinators. However, recent events have overtaken this long running re-evaluation, which is no longer needed. Crucially, a review of over 1,200

peer reviewed papers by the *Task Force on Systemic Pesticide* arrived at clear conclusions regarding the negative impact of neonicotinoids on pollinators, and called for substantial reductions in their use.[3]

> *Non-target species are contaminated through direct exposure, insects consuming nectar from treated plants, and indirect exposure through polluted water and dust.*
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> *The evidence is also clear that neonics pose a serious risk of harm to honey bees and other pollinators.*
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> *In bees, field-realistic concentrations adversely affect individual navigation, learning, food collection, longevity, resistance to disease and fecundity. For bumblebees, irrefutable colony-level effects have been found, with exposed colonies growing more slowly and producing significantly fewer queens.*

Automatic application of an additional margin-of-safety factor of 10 as a matter of policy in risk assessments of pesticide products if they are used around homes or schools to protect children and women of child bearing age

In certain cases the PCPA requires the application of an additional 10 fold margin-of-safety to protect against pre and postnatal toxicity and toxicity to children from exposure to pesticides used around homes and schools. The PCPA factor is presumptively set at 10, unless the Minister determines another factor would be appropriate. The PMRA frequently reduces the PCPA factor to far less than 10, even when a pesticide is used around homes or schools and there is evidence of effects on women, children, infants or fetuses.

Eliminate so-called "conditional registration" of pesticides

Conditional registrations under the Act have been exploited by industry to bring pesticides to market without providing the requisite health and environmental risk studies. A conditional registration should compel the registrant to provide specific data to fill in any gaps pertaining to environmental or health assessments, before a product can be sold in Canada. However, the PMRA has "conditionally" approved dozens of pesticides despite extensive health and environmental data gaps. In theory these registrations are conditional on the registrant providing additional data, but in many cases this data has been outstanding years or even decades, while the conditional registration is routinely renewed by the PMRA.

Neonicotinoid pesticides have been conditionally registered for many years, with studies outstanding on the impact of neonicotinoid use on pollinators. The House of Commons Standing Committee on Health (and the Senate Agricultural Committee) have called for the review of the PMRA's use of conditional registrations, especially in the context of neonicotinoids. In late 2015 the federal Auditor General's office is expected to release a follow up to its 2008 audit raising serious concerns about the use of conditional registrations by industry and the PMRA.

[3] Task Force on Systemic Pesticides. World Integrated Assessment. Of the Impact of Systemic Pesticides on Biodiversity and Ecosystems. 2015.

Priority legislative amendments

A consideration of safer alternatives should be a mandatory under the Act, not discretionary

Subsections 7(9) and 19(4) of the Act stipulate that in determining the health and environmental risks and value associated with a pest control product, the Minister *may* take into account the risk and the value of other pest control products registered for the same use. We recommend that this alternatives assessment be mandatory rather than discretionary.

The Act should discourage the registration and use of systemic and broad spectrum pesticides

Systemic pesticides, unlike pesticides applied to plant surfaces, are taken up by the plant and carried to all plant tissue (leaves, flowers, roots, stems, pollen and nectar). These pesticides are now the most commonly used insecticides globally. They present a unique challenge to regulators because beneficial insect that feeds off the plant, such as bees and other pollinators, can be affected by the pesticide. Widespread use of neonicotinoids, the most common class of systemic pesticides, has seriously impacted pollinators in this way (see above).

Broad spectrum pesticides work by attacking systems common to many animals (e.g. the nervous system) and therefore kill indiscriminately without regard to species. Neonicotinoids, in addition to being systemic pesticides, are also broad spectrum pesticides. Broad spectrum pesticide kill non-target, beneficial insects and broad spectrum herbicides kill non-target, beneficial plants.

Ban the cosmetic use of pesticides

Several provinces have already banned the cosmetic use of pesticides, recognizing that the spraying of pesticides for purely aesthetic purposes is undesirable given the human health risks and environmental toll of pesticides, especially around schools, homes, and parks. A nation-wide ban on the cosmetic use of pesticides would fill in the gaps left by the provincial patchwork of legislation and improve Canadians' and children's health.

Prescribe under the PCPA the assessment of environmental effects

Subsections 7(7)(b)(i) and 19(2)(b)(i) of the PCPA require the Minister to systematically consider aggregate and cumulative exposure in assessing the risk a given pest control product poses to human health. These sections of the Act should be expanded to include a parallel requirement for the Minister to systematically consider aggregate and cumulative effects on the environment, in addition to human health, in the risk assessment of pest control products.

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