

Quebec takes action on regulating pesticides

Quebec's new pesticide regulations can show the way if the risk management processes are rigorous and transparent, and scientific research stays independent.

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In 1992, Quebec implemented an agricultural pest-management strategy aimed at reducing pesticide use by half by the year 2000. Despite undeniable progress, this objective was not met. The government then adopted a [second strategy](#) in 2011, the Stratégie phytosanitaire québécoise en agriculture, whose goal was a 25 percent decrease in the health and environmental risks posed by pesticides by 2021. Its success depended on the adoption of integrated pest management, an approach that focuses on multiple pest-control strategies to curb farmers' use of pesticides. This strategy will not meet its objectives either, mainly because insufficient resources have been allocated for it. In fact, the [spring 2016 report](#) of the [Quebec Auditor General](#) noted that pesticide sales have continued to rise in Quebec, and that the associated risk indicators had increased in 2014.

Quebec's sustainable development commissioner criticized the effectiveness of the strategies, indicating that the primary aim was to raise awareness among farmer and carry out studies, but that

supports to reduce pesticide use had been limited. He noted that the government's financial assistance to farmers was not contingent upon their adoption of integrated pest management. This is despite the existence of a wide array of pest management strategies that are less dependent on synthetic pesticides and that also produce excellent results, including improved agricultural yields, as Karen Ross describes in her [Policy Options](#) article.

The auditor general's report also stated, "Pesticides that are among those most likely to harm health and the environment are sometimes found in rivers in concentrations that exceed the levels set to protect aquatic life. In addition, this is happening increasingly frequently." The report urged the government to improve its control of pesticide use through regulatory and economic measures aimed at reducing the use and impact of pesticides, and supporting and tracking the adoption of integrated pest-management practices by agricultural producers.

Because of these failures, in February 2018 the Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (MDDELCC) (department of sustainable development, the environment and the fight against climate change) [implemented new regulations](#) governing the use and sale of the most controversial agricultural pesticides, in order to protect health and the environment.

Stricter regulations

These regulatory changes were eagerly anticipated. The new regulations will restrict the use of five pesticides: atrazine (a herbicide); chlorpyrifos (an insecticide); and three neonicotinoids — clothianidin, imidacloprid and thiamethoxam, (also insecticides). Seeds coated with neonicotinoids are also subject to these regulations. According to several scientific assessments, the three neonicotinoids are especially harmful for the environment, including to pollinators. Until recently, little was known about the impact of neonicotinoids on human health. A [2012 study](#) suggests that they could affect brain development, while [a Canadian research paper](#) indicates that they could be acting as endocrine disruptors in humans. Pregnant women are particularly vulnerable: exposure to these contaminants could be associated with newborns' lower birth weight or smaller head circumference.

From now on, farmers will be required to obtain permission from an agronomist before using any of these five pesticides, in the form of an "[agronomist's prescription](#)." The prescription must contain an assessment of the plant health problem in question, an analysis of the nonpesticide control methods that could be taken, as well as a description of the treatment required and a justification for its use.

These regulations are a necessary step towards stricter restrictions and constitute a major advance in North America, especially in the face of Ottawa's lax regulation of these pesticides.

Federal and provincial regulations

In Canada, pesticide regulation is a shared responsibility across jurisdictions. Health Canada's [Pest Management Regulatory Agency \(PMRA\)](#) evaluates the risks of pesticides and authorizes their sale and use in Canada. Each province and territory has the authority to prohibit the sale and use of pesticides approved by the federal government within their jurisdictions. Municipalities also have the right to ban specific uses of pesticides, but not their sale within their jurisdiction.

All the pesticides covered by Quebec's new regulations are currently being subjected to a lengthy and complex risk reassessment process by the PMRA. As I [noted](#) in a *Policy Options* article, it has taken the agency more than eight years to conduct its assessment of neonicotinoids, and this assessment is still ongoing. Regarding atrazine, the PMRA launched special review processes in 2015 and 2017 to address some of the health and environmental concerns that were ignored in the first review. A decision on this is not expected until 2020. [Public consultation](#) on a proposed regulatory decision on chlorpyrifos is scheduled for 2019. Meanwhile, despite the risks these pesticides pose for human health and the environment — some of which the PMRA has already identified — they continue to be sold in Canada.

It was partly in response to this inordinately lengthy federal assessment process that some provinces developed their own regulations restricting the sale and use of pesticides in their territories. For instance, in 2014, Ontario adopted [measures](#) to achieve an 80 percent reduction in the number of corn and soybean acres planted with neonicotinoid-treated seed over three years. But a February 2018 report on the sale of neonicotinoid-treated seeds reveals that corn and soybean acres planted with treated seeds have decreased by only 25 percent since 2014. The reduction targets will likely not be met.

Agronomists' prescriptions

The success of Quebec's regulatory changes will depend on the authenticity of the agronomists' prescriptions, which may be problematic. Many of the agronomists who advise Quebec's farmers work for and receive commissions from the agro-chemical industry, which raises conflict-of-interest concerns. Although the MDDELCC deferred responsibility for the agronomists' prescriptions to the Ordre des agronomes du Québec, it is ultimately the ministry that must address the issue.

What are the MDDELCC's options for resolving this problem? The regulatory changes announced include a requirement that agricultural producers keep a record of their pesticide use. Équiterre and the David Suzuki Foundation advised the MDDELCC to make these records public (as is the practice in California), which would have acted as a regulatory enforcement safeguard. However, the ministry did not adopt this proposal, opting instead for local assessment of retail sale of the pesticides the agronomists' prescriptions covered. It will be crucial to ensure that the agronomists' prescriptions are not the norm but a measure of last resort.

Public research on pesticides

A few weeks after the regulatory amendments were announced, [revelations by](#) Radio-Canada [and](#) *Le Devoir* raised very troubling questions about the independence of scientific research in the pesticides field. A disturbing internal memo from the *ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec* (MAPAQ) and a dozen testimonies by researchers obtained by Radio-Canada brought to light a crisis in public research in agriculture and pesticides.

These reports revealed that the management, including the Board, of the *Centre de recherche sur les grains* (CÉROM), a public institution, sought to muzzle its researchers by discouraging them from disseminating the results of their work. Their research, which was scientifically rigorous in every respect, concluded that the use of neonicotinoid pesticides had only the slightest influence on crop

yields. And these findings were available at the very time the Quebec government was considering whether to adopt the regulations aimed at banning the use of neonicotinoids.

Over two-thirds (68 percent) of CÉROM's funding comes from MAPAQ (so these are public funds), while its board mostly consists of private-sector members. Therein lies the problem.

These revelations led to a flood of reactions by [independent researchers](#), agronomists, public sector unions and civil society organizations, triggering an unprecedented debate on the need for independent research on pesticides.

The problem is not limited to Quebec. The lack of independence in the science behind many pesticides used throughout Canada is equally troubling. Despite the availability of independent data and scientific research, Health Canada continues to [rely primarily on research conducted by the manufacturers of these products](#), which stand to gain the most from reapproval.

The debate in Quebec is opening the public's eyes to the presence and influence of the pesticide industry in research, in agronomists' support and advice, and in the regulatory process itself. It is urgent that public authorities, including the PMRA, ensure that the scientific research used to assess these products is independent, and that the pesticide regulatory process becomes far more transparent than it is.

On the heels of this crisis, Quebec now has the opportunity to point the way forward. It remains to be seen whether the leadership shown by certain provinces will have an impact on how Health Canada goes about doing its job.

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