

URBAN PESTICIDE MANAGEMENT IN QUEBEC

by

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ABSTRACT

In Canada, the regulation of pesticides is a jurisdiction shared between federal, provincial and municipal governments. In Quebec, the sale of household insecticides increased close to 600% between 1970 and 1990. The government adopted a code in April 2003 respecting pesticide management in urban environments. This article focuses on the factors that influenced policy-makers when adopting these green regulations. The data were gathered during a four-month observation period at the Quebec Ministère du Développement durable, de l'Environnement et des Parcs. More than 200 documents were analyzed and four key individuals were interviewed. In Quebec, pesticide management in urban settings represents a case in which decision-making was largely based on the precautionary principle. Thus, the potentially harmful effects of pesticides on human health and the environment took precedence over impacts on the economy. A number of pesticide manufacturers recently launched a challenge to these regulations, basing their claims on NAFTA. Nevertheless, other Canadian provinces have decided to adopt legislation governing the use of pesticides for aesthetic purposes.

INTRODUCTION

Since World War II, pesticides have been widely used to control or destroy organisms considered as being harmful and to protect health. During the last several decades, the vogue for ornamental horticulture and landscape maintenance was accompanied by an upswing in the use of pesticides in urban environments. In Quebec, the sale of household pesticides – i.e., products used by individuals – purportedly increased nearly 600% during the period stretching from the late 1970s to the early 1990s (INSPQ, 2005). In order to supervise the sale and use of these products, the Government of Quebec in March 2003 adopted a new regulatory framework that banned the application of harmful or potentially harmful products on public, semi-public and municipal grounds (MENV, 2003). So doing, Quebec became the first North American jurisdiction to ban the use of certain products in urban environments.

The new statute and regulations were based on the precautionary principle, which draws on the German concept of *Vorsorgeprinzip*. Developed in the 1970s for the purpose of studying the impacts of environmental policies (Tickner and Geiser, 2004; Kriebel and al. 2001), this principle gained international recognition at the 1992 Rio Earth Summit. The precautionary principle encourages policy-makers to institute preventive measures whenever there is reason to believe that a product or activity risks causing irreversible harm to the environment or human populations. This principle is referred to whenever a full assessment of risk cannot be made on the basis of the existing scientific data. In accordance with this conception of the decision-making process in the environmental sector, the burden of proof concerning the harmlessness of a product or activity is transferred to the proponent (Kriebel and al. 2001).

The objective of this paper is to identify the factors that influenced policy-makers in the adoption of Quebec's *Pesticides Management Code*. To begin with, a description of the process leading to the adoption of this regulatory code is set out. Thereafter, the different factors and their consequences on the decision-making process are discussed. Finally, trends in household pesticide sales and the increase in the number of households using these products since this code was adopted are presented. Special focus will be accorded to the benefits and impacts of this green measure.

METHODOLOGY

The data used in this study were gathered in winter 2006 over a four-month observation period at the Quebec Ministère du Développement durable, de l'Environnement et des Parcs du Québec. In order to identify the internal and external factors that influenced the decision-making process, a review of the grey literature and the print media was conducted, with close to 200 documents being analyzed. Subsequently, 4 key individuals at the ministry were interviewed with a view to enriching and validating certain elements of the analysis. The case description is based on a research report by Turgeon and Talbot (2007).

RESULTS

Description of the regulatory adoption process

In Canada, pesticide regulation is a jurisdiction shared between federal and provincial governments as well as the municipal authorities. As in the other provinces, Quebec may regulate the use of federally registered products (Turgeon and Talbot, 2007).

The idea of banning the use of certain pesticides employed for aesthetic purposes emerged in political circles in the early 2000s. On October 25, 2001, the Quebec Ministère de l'Environnement announced the creation of a policy group on the use of pesticides in urban environments. Organizations from various sectors were invited to present briefs and take part in public consultations in order to stimulate reflection about

the use and prohibition of pesticides in residential areas. Two main options were put forward by the various stakeholders – namely, a ban on certain active ingredients or the adoption of an approach based on integrated pest management (IPM). In a report filed with the ministry on March 27, 2002, the policy group recommended banning pesticides on public, semi-public and municipal grounds in urban environments (Groupe de réflexion sur les pesticides en milieu urbain, 2002). In addition, it advocated maintaining municipalities' jurisdiction over the prohibition of pesticide application by citizens and restricting access to pesticides at points of sale. The reflections of this group were shaped by two main principles – namely the precautionary principle and the principle of “exemplariness” or “exemplarity” (Groupe de réflexion sur les pesticides en milieu urbain, 2002). This proposal stood out in contrast from the regulations then current in the other Canadian provinces and in US States and that were limited to informing the public about places where treatments are performed.

On July 3, 2002, the government published a draft version of the *Pesticides Management Code* in the *Gazette officielle du Québec* for public consultation. This regulatory proposal contained specific measures to regulate the sale and use of these products in residential areas. Furthermore, it prescribed, upon coming into force, a ban on the application of the most hazardous pesticides on the lawns of public, semi-public and municipal grounds (MENV, 2002). In addition, this ban was to be extended to all private and commercial grounds within three years of its coming into force. The draft version of the Code also contained provisions for more fully supervising the sale of pesticides, in accordance with the reflections of the policy group. Another provision stipulated a ban on residential sales of pesticide-fertilizer mixtures one year later. Finally, the sale of certain pesticides for residential lawn maintenance was to be fully banned three years after the adoption of the Code (MENV, 2002). This draft set of regulations met with virulent criticism by pesticide manufacturers and distributors as well as lawn and grounds maintenance companies. In their view, any ban on the use of pesticides should be founded on scientific data and comply with Canada's registration system (Turgeon and Talbot, 2007). Notwithstanding these criticisms, the Government of Quebec went forward with its bill and, on March 5, 2003, adopted the *Pesticides Management Code*.

Factors facilitating the emergence of new regulations

Four main factors can be discerned as having facilitated the adoption of this green measure. First of all, the Minister of the Environment demonstrated a strong political will to ban the use of pesticides in urban environments. The Minister spearheaded the creation of the policy group and the inclusion of this area of concern in the government's policy agenda (Corbeil, 2001). Secondly, in 1994, the Government of Quebec had adopted the *Forest Protection Strategy*, under which, among other things, the use of chemical pesticides in public forests was abandoned by 2001. Thus, the Code did not mark the first time that the government subscribed to certain elements of the precautionary principle in order to protect human health and the environment. Further, it is important to recall that exposure to pesticides in residential areas was a problem of growing concern to public health authorities (INSPQ, 2005). Thirdly, there was the ruling of the Supreme Court of Canada in the lawsuit brought by the lawn care companies ChemLawn and Spraytech against the town of Hudson (Quebec) concerning the validity of this municipality's by-

law restricting the use of pesticides on its territory. On June 28, 2001, the Court confirmed the regulatory power of municipalities to safeguard the welfare of their citizens by eliminating the use of certain pesticides in lawn and garden care. Fourthly, this Code was adopted in the midst of a campaign season, scarcely one month prior to the date scheduled for provincial elections. Taking advantage of this window of opportunity to secure approval for the bill, the Minister of the Environment effectively sought to prevent the *Pesticides Management Code* from being shelved in the event of a post-election transfer of power.

Sales and use of pesticides: figures that speak for themselves

In Canada, the proportion of households using pesticides changed little during the last decade, dropping from 31% in 1994 to 29% in 2005 (Lynch and Hofmann, 2007). However, the situation in Quebec is considerably brighter, since during the same period the proportion of users fell by half, settling at 15% (Lynch and Hofmann, 2007). A plausible explanation for this decrease is to be found in the regulation of pesticides in urban environments.

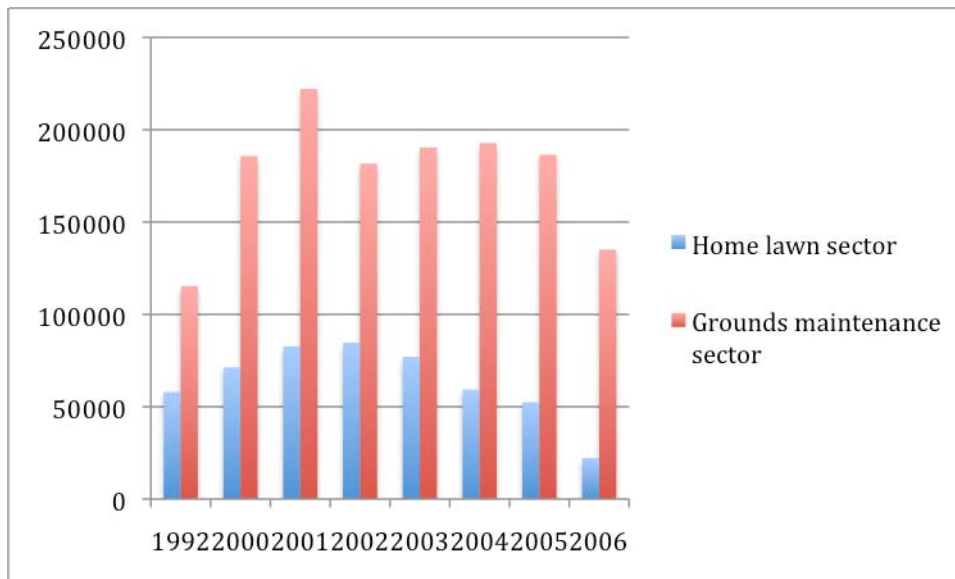
Table 1: Trends in household use of pesticides for lawn or garden (1994-2005)

Provinces	1994	2005
Newfoundland and Labrador	9	21
Prince Edward Island	12	14
Nova Scotia	19	18
New Brunswick	20	17
Quebec	30	15
Ontario	34	34
Manitoba	30	44
Saskatchewan	37	43
Alberta	36	39
British Columbia	30	29
Canada	31	29

Source: Statistics Canada, Households and the Environment Survey, 1994 and 2006

Quebec also provides evidence of a significant decrease in the purchase of pesticides for use on lawns. In 2006, the grounds maintenance sector posted a 29% drop in sales compared to the level reported in 2003 (Gorse and Dion, 2009). An even sharper decrease appeared in the private home sector, where sales plummeted 57.7% between 2005 and 2006 (Gorse and Dion, 2009). There is good reason to think that this decrease stems directly from the ban on the sale of certain products containing active ingredients proscribed under the Code.

Table 2: Trends in the sale of pesticides (in kg) for use on lawns (1992-2006)



Source: Gorse and Dion (2009), *An assessment of pesticide sales in Quebec in 2006*

CONCLUSION

This study shows the potential contribution of the application of the precautionary principle as a means of reducing the impact of pesticides on human health and the environment. In contrast with what has been reported in most studies referring to this concept, Quebec's politicians decided to ban certain active ingredients (Løkke and Christensen, 2008). The adoption of this policy contributed to a decrease in the use of pesticides by Quebec households. Certain factors, such as the support of political authorities and the Supreme Court ruling, appear to have played a decisive role in this regulatory overhaul based on the precautionary principle. Shifting the onus of proof of product harmlessness has, however, come in for strong criticism by the chemical industry. For example, the US manufacturer Dow AgroSciences LLC is currently challenging Quebec's regulations on the basis of article 11 of the North American Free Trade Agreement (NAFTA). Nonetheless, the *Pesticides Management Code* has garnered growing recognition across Canada, to the extent, even, that in April 2009, the province of Ontario adopted a policy that resembles Quebec's. Thus it would be worthwhile to dedicate future research to the applicability of Quebec's regulations to other contexts. Certain factors such as the dynamism of the policymaking process could influence the adoption of new regulations. On that score, one need only compare the weight accorded to various special interest groups in the American political system with that observed in Canada's parliamentary regime.

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