

Substances Under Attack
Managing Product Ingredients in a Hostile Environment

**Quebec Pesticides Management Code:
A Scientific Odyssey**

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Introduction

- As a consultant to a number of pesticide research Task Forces, have worked on the Quebec pesticides file since 2001. What follows is a chronology of the major events.
- Any opinions expressed in the following presentation are personal and do not represent the views of any clients.
- Now, on to the Scientific Odyssey:
 - In July 2002, the draft Quebec Pesticide Management Code (Code de gestion) placed a number of pesticides on a prohibited list (Annex I)
 - Included in Annex I are two active ingredients commonly found in lawn care herbicides (mecoprop and 2,4-D)
 - The regulations came into effect April 2006: lawn care herbicides containing mecoprop and 2,4-D are no longer sold in Quebec.
 - Consumers still value the benefits of the products; witness media reports of cross-border shopping.

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Beginning of the Odyssey

- After requests from industry, Quebec released a background report titled "Methodology for Establishing the List of Prohibited Active Ingredients (Annex I)". This report is dated August 2002.
- In determining the sources relied upon for inclusion in Annex I, the report states:
 - "The reference sources consulted for the cancer risk assessment are the International Agency for Research on Cancer (IARC), the United States Environment Protection Agency (EPA), the United States National Toxicology Program (NTP) and the California Environmental Protection Agency."
- Based on the government's interpretation of the IARC classification, mecoprop and 2,4-D were included in Annex I.

IARC: Wrong Criteria

- The report's conclusions drawn from the IARC review in 1986 are unfounded.
- The IARC 1986 review classified phenoxy herbicides as Group 2B. Phenoxy herbicides are a family of ingredients which includes 2,4,5-T. The registration of 2,4,5-T was withdrawn in the early 1980s, due to possible contamination with dioxins.
- The 1987 IARC monograph states that its "evaluation applies to the group of chemicals as a whole and not necessarily to all individual chemicals within the group".
- The wrong scientific criteria was used by government.

What are the Scientific Facts?

- With respect to 2,4-D, the 1986 IARC monograph found that there was "inadequate" data to classify for carcinogenicity in animals or genetic activity in short-term tests. In the 1987 monograph, 2,4-D was classified separately with no classification for human carcinogenicity and "I" (inadequate evidence) for animal carcinogenicity.
- Contrary to the implication from the August 2002 background report, mecoprop and 2,4-D have never been found by IARC to be "possible" carcinogens.
- With respect to other sources referenced in the August 2002 background report, no NAFTA or OECD pesticide regulatory agency has classified mecoprop or 2,4-D as a "known", "probable" or "possible" human carcinogen.

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Lack Scientific Evidence? Change the Criteria

- March 5, 2003, Quebec announced that it was adopting the Code, and the accompanying Annex I.
- Issued a revised "Methodology for Establishing the List of Prohibited Active Ingredients".
- The March 2003 report continued to recognize IARC as its basis for inclusion of the Active Ingredients in Annex I. However, the government changed its criteria:
 - "In all, the IARC identified 11 of the active ingredients on our list of 38 active ingredients registered for lawn use as possible carcinogens (Group 2B). These are chlorothalonil and chlorophenoxy herbicides which include the various chemical forms of 2,4-D, Mecoprop and MCPA. However, since the IARC list does not classify each active ingredient individually, but rather the entire chemical family of chlorophenoxy herbicides, and since epidemiological and clinical studies on each active ingredient taken individually are not sufficient to assess the carcinogenicity potential to man, it is preferable to wait for the reassessment of these active ingredients in order to classify them individually. In fact, it is currently difficult to justify scientifically the introduction of these active ingredients taken individually, on the basis of this criterion. Given the doubt that persists, they are maintained on the list pending the outcome of the reassessments in progress."

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Quebec buys time: how much?

- The background report recognizes the absence of a scientific basis for the ban.
- Quebec stated that because of the "doubt that persists", mecoprop and 2,4-D will be prohibited pending the outcome of the re-evaluations by the PMRA and EPA in progress.
- March 5, 2003 news release announcing the Code stated:
 - "Due to the continuing uncertainty about their harmfulness herbicides made up of active ingredients, 2,4-D, MCPA and Mecoprop will continue to be prohibited for precautionary reasons until the availability of the products' re-evaluation results by recognized organizations."

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Facts Revealed

- "Fiche pour information – Code de Gestion des Pesticides" dated September 23, 2002:
 - "Certain herbicides in Annex I (2,4-D, MCPA, Mecoprop) cannot be prohibited on a scientific basis (carcinogenic risk and others). Briefs from companies producing these active ingredients emphasized this. These are active ingredients commonly used on lawns, and the prohibition of them has raised many objections and comments. However, we must rethink our position on this or base our argument on other items."
- Within one month after comments were received from industry, Quebec had acknowledged that it did not have a scientific basis to support the ban.
- As documented in reports obtained under Access to Information, Quebec was even considering removing the Active Ingredients from the list, but was concerned about the reaction of environmental groups.

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Facts Revealed

- "Fiche Synthèse pour information", dated October 20, 2002, confirms the absence of a scientific basis for the ban:
 - "Certain herbicides in Annex I (2,4-D, MCPA, Mecoprop) cannot currently be prohibited on the scientific basis of the carcinogenic risk. Briefs from companies producing these active ingredients emphasized this. This is also the opinion of the INSPQ."
- The absence of a scientific basis for the ban was confirmed by the INSPQ, the National Public Health Institute of Quebec.
- October 31, 2002, another Quebec government document states:
 - "For the herbicides 2,4-D, Mecoprop and MCPA: the weight of scientific evidence is not great but there is doubt; the INRS could not defend the prohibition of chlorophenoxys."
- This document states that the INRS, the National Scientific Research Institute at the University of Quebec, could also not defend the prohibition of mecoprop and 2,4-D.

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Facts Revealed

- Yet another Quebec government document titled "Code de Gestion des Pesticides – Etat de situation a la consultation de l'été" dated January 2003 recognizes that the Active Ingredients are on the banned list due to "lingering doubt" and in light of the "re-evaluation process under way at registration organizations (EPA, PMRA)":
 - "Amendments have been made to the list of active ingredients in Annex I taking into account the use of pesticides on lawns, that no active ingredients are currently prohibited based on the endocrine disruption criterion and certain products whose registration has been withdrawn. However, the herbicides 2,4-D, MCPA and Mecoprop remain on the list due to lingering doubt and in the light of the re-evaluation process under way at registration organizations (EPA, PMRA)."

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Facts Revealed

- Finally, in a Memorandum to Cabinet dated February 4, 2003, from Environment Minister André Boisclair, the government declares:
 - "There have been comments to the effect that the various 2,4-D, MCPA and Mecoprop molecules cannot be retained in Annex I because of the reference used, that of the International Agency for Research on Cancer (IARC) assessed the product family (chlorophenoxy) and not the products individually. The prohibition cannot be scientifically defended on the basis of the criteria put forward."

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Lessons Learned

- Nurture relationships over the long term.
- Play to your strengths: science and the rule of law.
- Form alliances with those with shared values for science and due process.
- Never under-estimate the political strength of your opponents.
- If you can find political leverage, deploy it.
- If you can, find a politically acceptable solution.
- If you can't, make a choice about the long term implications of the regulatory action as it affects other markets in North America.
- Use Access to Information laws.
- Know the law, hold government accountable.
- Tenacity.

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