

IN TUNE

A first!

The *Le Fleuve* Newsletter is now available on the St. Lawrence Vision 2000 Internet site!

The Agro-environmental Pesticide Reduction Strategy Support Program

The goal of this program is to institute integrated pest management of insects, weeds and diseases that endanger crops.

Health and the St. Lawrence: A Status Report

It is a recently published synthesis of the findings of numerous studies that examined the effects of the St. Lawrence on human health.

ZIP Committees in the Heat of the Action

This chronicle keeps us up to date on the activities and projects of the various ZIP committees around Québec.

The Agro-environmental Pesticide Reduction Strategy Support Program



The intensification and specialization of modern agriculture has greatly increased the pressure this activity exerts on the environment. While favoring higher yields, certain agricultural practices can also affect the quality of the ecosystem. The use of pesticides, for example, has a major impact not only on the soil, air and water but also on the flora, fauna and our health.

Many farmers are aware that a reduction in the use of pesticides is an important factor in improving the quality of the environment and our general health. However, knowing that pests, namely, insects, weeds and disease can ruin their crops as well as cause them to face huge financial losses, farmers are wary of moving away from traditional pest management methods.

The Agro-environmental Pesticide Reduction Strategy Support Program, which was initiated during Phase III of the St. Lawrence Action Plan, is designed to support the efforts of farmers who wish to adopt pest control methods that are less damaging to the environment. By encouraging not only a reduction of pesticides but also improving the way they are used, this program will have a positive impact on objectives set forth to improve the water quality of the major basins that drain into the St. Lawrence.

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What is Pesticide Reduction Strategy?



Pesticide Reduction Strategy (Stratégie phytosanitaire) was launched in 1992 by the ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ) in cooperation with the Union des Producteurs Agricoles (UPA), the ministère de l'Environnement et de la Faune du Québec (MEF) as well as many other partners. Pesticide Reduction Strategy has two main objectives :

- a 50% reduction in the agricultural use of pesticides in Quebec
- secure 70% of farmed lands in integrated pest management methods to reduce the risks related to their use

Integrated Pest Management (IPM) is an agro-environmental approach based on experimentation and observation that applies pest control methods (insects, weeds and disease) that are safe for the environment.

By adopting IPM methods, farmers learn how to identify the allies and enemies of their crops and how to detect the presence of potential threats through regular monitoring of their fields.

Farmers also gain indispensable knowledge as to the choice and application of appropriate intervention methods, be they chemical, biological or other. Mr. Raymond-Marie Duchesne, who coordinates Pesticide Reduction Strategy at the ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec, explains : "The IPM approach does not mean that farmers stop using all pesticides. However, if farmers learn to see nature as an ally, they can apply alternative methods which will allow a progressive reduction of pesticide use. Furthermore, when pesticides are the appropriate alternative, farmers are more selective as to the choice of the product and better informed of the application methods, in which case the consequences are less damaging to the environment."

According to MAPAQ, approximately 15 % of agricultural land is presently being managed using an integrated pest management approach. Farmers who have adopted this approach are not only ensuring protection of the environment but are also contributing to a favorable perception of Quebec's agricultural products both in local and outside markets.

St. Lawrence Vision 2000 allows the creation of new objectives

During the initial implementation of the Pesticide Reduction Strategy between 1992 and 1996, MAPAQ reported positive results. For example, we observed a 38 % decrease in the use of insecticides and fungicides in

the fruit and vegetable sector during this period. Decreases in herbicide use, however, were less encouraging. Herbicides represent over 60 % of the pesticides presently being used in agriculture and are applied primarily to larger crops such as grain, corn and soybean.

Phase III of the St. Lawrence Action Plan steps up efforts made by MAPAQ and its partners within the framework of the Pesticide Reduction Strategy by targeting crops that are treated with large amounts of pesticides. In fact, until 2003, the Agro-environmental Pesticide Reduction Strategy Support Program intends to concentrate its efforts almost entirely on large crops such as grain, corn and soybean as well as apple and potato crops. These crops are treated with over 70 % of the agricultural pesticides presently sold in Quebec. Furthermore, excluding land used to grow animal feed, these crops occupy more than 95 % of the total area used for agriculture.

The Agro-environmental Pesticide Reduction Strategy Support Program will dispose of an annual budget of \$500,000 per year for the next five years. Its primary objectives are to institute integrated pest management methods in 70 % of farms producing targeted crops as well as to reduce pesticide use overall by 50 % before 2003.

Strategical teams: for structured, coherent and precise action

As part of its innovative approach, the Agro-environmental Pesticide Reduction Strategy Support Program is giving a major role to strategical teams. Formed in 1997 and composed of farmers, agro-environmental advisors, environmental consultants, university researchers and MAPAQ advisors, these teams will focus on various crops, including those that are being specifically targeted. They've been given the mandate to determine the most appropriate type of intervention, which actions to recommend and what measures need to be taken to rapidly, effectively and harmoniously achieve the objectives set forth by the Pesticide Reduction Strategy.

In order to ensure that projects being considered have a significant impact in the agricultural sector, the activities undertaken within the framework of the Agro-environmental Pesticide Reduction Strategy Support Program will be prioritized by the strategical teams. This type of approach has been used successfully in the past by the ZIP committees in the implementation of their Ecological Rehabilitation Action Plan(s) (ERAP).

Adaptation and promotion of new methods

According to information compiled by MAPAQ, almost 2,000 hectares of corn and soybean are presently being cultivated without relying on chemical pesticides. "This shows that it is possible to produce these

crops and respect both our resources and the environment" says Mr. Duchesne.

Many new pest management techniques have already proved their worth. According to strategical team members, it is essential to adapt these techniques to the realities of the farm and to ensure the promotion of these methods within the sector. The activities contained within the Agro-environmental Pesticide Reduction Strategy Support Program's framework will be designed to allow farmers to adapt and experiment with intervention methods aimed at reducing not only the quantities of pesticides being used but also the environmental risks attached to their use. In order to ensure the integration of these new techniques within the daily practices of farmers, informational, educational and promotional tools will be developed.

The Agro-environmental Pesticide Reduction Strategy Support Program is already generating much interest in the agricultural sector and several projects are presently being considered for financing. Only projects that show a potential for adaptation or application to a wide variety of crops will be considered. For this reason, all applicants must be associated with or a member of either a production, technical support or agro-environmental group, a recognized farmers association, a research center (parapublic or private) or a legitimate organization.

The challenge of sustainable agriculture

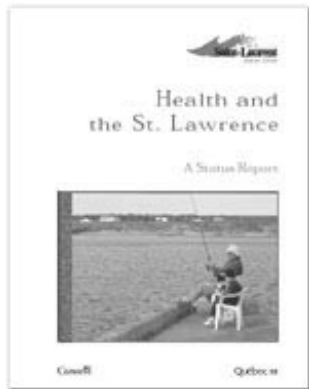
Farmers who benefit from the Agro-environmental Pesticide Reduction Strategy Support Program will be contributing to the development and promotion of efficient pest management methods that will allow them to save time and money. By their involvement, they are also showing that it is possible to foster sustainable agricultural methods that favor the protection of aquatic life as well as the water quality of the St. Lawrence and its tributaries.

For additional information, contact:

Raymond-Marie Duchesne
Co-ordinator, Pesticide Reduction Strategy, MAPAQ
Tel.: (418) 643-2450
Courriel: *raymond-marie.duchesne@agr.gouv.qc.ca*

Photos contain in this article are courtesy of the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ).

“Health and the St. Lawrence: A Status Report”



The St. Lawrence is, in every sense, the central fact of Quebec life. Yet because of its poor reputation, over the years many people have stopped using the river in one way or another because of concerns about their health. They have come to shun the river either because they are constrained to or out of distrust, in response to erroneous information or out of plain ignorance.

Whether suspicious or simply concerned, the public is worried and is asking questions. The paper entitled **Health and the St. Lawrence: A Status Report** sets the record straight on the risks associated with use of the St. Lawrence and its resources. It is broken down according to the three channels for exposure to contamination from the river and summarizes the present state of our knowledge of the effects on human health.

Exposure by consumption of products from the St Lawrence — Are these resources good or bad?



André Bourque, Château Madelinot

Eating fish and other products from the St. Lawrence (shellfish, seaweed, seals) is the chief vector for exposure to the chemical contaminants in the waterway. Though many fishermen throw back the fish they catch, nearly 260,000 shoreline residents practice sports fishing in the river, and about half of them eat the fish they catch. In general,

however, sports fishermen do not eat much St. Lawrence fish, in most cases fewer than five meals in the course of a year.

Studies done on sports fishermen in the Montreal and Lac St. Pierre areas and on members of the Mohawk community of Akwesasne have shown that the degrees of exposure to contaminants in these populations is relatively low and within limits deemed tolerable by health authorities.

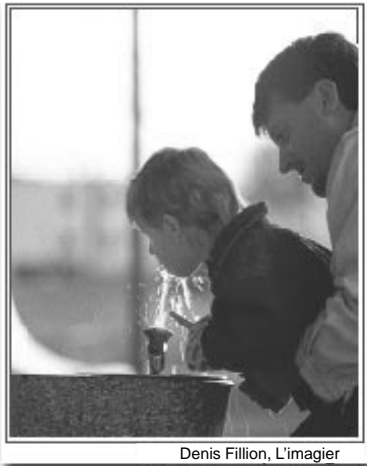
Exposure through activities involving contact with the water — Are there places where the water quality is good enough for bathing?



Gaston Cadrin

The great majority of shoreline residents feel that the health risks associated with bathing in the St Lawrence are high, sufficiently so to discourage most people from bathing there. In spite of this, in 1995 nearly 200,000 people age 15 and over swam in the St Lawrence. This figure also included people indulging in other activities involving contact with the water, such as windsurfing, seadoo riding, water skiing and scuba diving. **Health and the St. Lawrence: A Status Report** reports that there are many spots along the St. Lawrence where the water quality is excellent for bathing and other contact activities.

Exposure by drinking — Can we drink water drawn from the river?



Denis Fillion, L'imagier

In the greater Montreal area alone, the river is the main source of drinking water for some two million people. Citizens whose water is drawn from the river are more likely than others to see a high risk in drinking tap water. However, their leading criteria for deciding whether or not to drink from the tap are taste and odour rather than the degree of risk. **Health and the St. Lawrence: A Status Report** endeavours to answer the public's questions and concerns about chemical contamination, micro-organisms and chlorination.

Health and the St. Lawrence: A Status Report wraps up the operations of the "Health" component undertaken between 1993 and 1998 during the second phase of the St. Lawrence Action Plan. Over these five years, close to 80 public health researchers, financed by the "Health" component, strove to address the public's chief concerns. On June 8, a memorandum of understanding between the federal and provincial

governments was signed to implement a third action plan in which health will remain a priority area of activity. Thanks to the efforts of all those working for a better understanding of the health of the river and thus of the population it serves, this generation and those coming after will be able to embrace the St. Lawrence again in all the ways they used to.

Health and the St. Lawrence: A Status Report can be consulted at SLV 2000's web page www.slv2000.qc.ec.gc.ca, and free copies can be ordered from mtl_communications@hc-sc.gc.ca

Natalie Howson
St. Lawrence Vision 2000
(514) 283-2046

Chronicle

ZIP Committees in
the Heat of the Action

ZIP Committees in the Heat of the Action

The Priority Intervention Zones Program (Zones d'intervention prioritaires or ZIP) was created during Phase II of the St. Lawrence Action Plan. Between 1993 and 1998, ten ZIP committees were formed, covering as many areas up and down the St. Lawrence. With Phase III now coming into effect, ZIP committees will be active as ever since the period between 1998-2003 will be mainly spent implementing the Ecological Rehabilitation Action Plan(s) (ERAP) elaborated by their communities. Three additional ZIP committees are in the process of being created and a fourth will probably follow during the course of Phase III. The purpose of this chronicle is to inform the public of what ZIP committees all over Quebec have accomplished in order to protect, conserve and enhance the St. Lawrence.

In our first edition, we would like to introduce you to a project being carried out by the Upper St. Lawrence ZIP Committee.

The Upper St. Lawrence ZIP Committee

Classification of Sediments in Lake St. Louis



The Upper St. Lawrence ZIP Committee covers the region extending from the Ontario border to the Mercier Bridge. This extremely dynamic committee recently held a third round of public consultations which will lead to the elaboration of a new Ecological Rehabilitation Action Plan for their area.

The committee is also planning to achieve one of twenty-one objectives prioritized by the first ERAP adopted in 1994. Claire Lachance, who coordinates the Upper St. Lawrence ZIP Committee explains : "One of the concerns expressed by the hundred or so people attending this initial consultation was industrial pollution, and more specifically, the contamination of sediments in the St. Louis lake and river. In view of the complexities of this issue, we began by setting up a sub-committee whose mandate was to focus on sediments. This committee included Stratégies Saint-Laurent, Crivert (an ecological group), Action Poissons Plus, la Société pour vaincre la pollution, Environment Canada, the ministère de

l'Environnement et de la Faune du Québec, Hydro-Québec, the Alcan plant in Beauharnois, PPG Canada, Noranda-CEZinc as well as other local organizations."



A strategy to coordinate efforts was successfully put into place. One year after it began consultations, the sub-committee presented a technical chart listing numerous measures to be taken in order to evaluate sediment contamination in this sector of the St. Lawrence.



The first step was to determine the actual degree of sediment contamination, especially in areas where previous studies had revealed significant levels. In September 1998, waterside residents could observe scientific vessels taking samples in the area extending from the mouth of the St. Louis River to upriver of the industrial sector. The samples are being subjected to many different types of analyses and focus not only on the sediments but also on the benthic wildlife it contains.

The final report is expected to be ready by spring 1999 and is a much anticipated document since its conclusions will be central in determining which actions the Upper St. Lawrence ZIP Committee will take. "In view of the highly technical and scientific nature of committee discussions on the subject of sediments, the public became somewhat dissociated with the technical aspects of the consultations. However, once the results are in, the ZIP Committee will see to it that the public is informed of the conclusions and will encourage their renewed participation in the following step which, assisted by government and industry specialists, will consist in planning what type of action will be taken with regards to sediments " concludes Mrs. Lachance.

For additional information:

Claire Lachance
Co-ordinator
Upper St. Lawrence ZIP Committee
Tel. : (450) 371-2492
E-mail : ziphsl@rocler.qc.ca



Photos contain in this article are courtesy of the Upper St. Lawrence ZIP Committee.

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Administration and coordination
Clément Dugas and *Raymonde Goupil*, Co-chairs Communications

Suzanne Bourget, Institutional Communications

Text
Gaétane Tardif, Environmental Consultant

Realization
Françoise Lapointe, Editor, SLV 2000

Translation from French to English
PWGSC–Translation Bureau

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