

## **The Dugré's of Pointe du Lac, Québec**

**Still trying hard to be number one!**

by Chantal Foulds

When driving between Montreal and Quebec City along the north shore of the St. Lawrence River, you'll likely take notice of the Dugré's farm. It suddenly appears, out of the woods, revealing strips of sweet corn, strawberries, asparagus and, for the keen of eye, green manure galore!

The Dugrž farm is renowned locally for the quality of its produce and the family's concern for the environment. Beno"t and Clément Dugré and their families cultivate 55 acres of sweet corn, 10 acres of strawberries, 4 acres of asparagus and a few of acres of vegetables. All the produce is sold directly to the consumer at the farm through a store perched over a little stream.

The importance of quality produce dates back to the days of the Dugrž brothers' father. He was a dairy farmer who grew a small acreage of horticultural crops as a sideline, from which he would sell only number one quality produce. Since that time, the farm has gone through many changes; when bulk tanks became mandatory, their father decided to get out of dairy production and for several years pork and beef were the main source of revenue. In 1977, due to the cyclical nature of the livestock markets, and the evident demand for fresh horticultural produce, the Dugrž's decided to specialize in market gardening.

### **No attention**

Until that point, the strawberries and sweet corn had been grown with little attention to fertilization or pest control. No inputs except for manure were used. But as the Dugrž's put more land into row crops, they witnessed effects that had never happened on the farm before: wind and water erosion. Without wasting time, they re-established grass strips along the ditches and between fields, planted windbreaks and changed the tillage system to leave more residues on the surface. Buckwheat and rye are now customarily grown for their green manure and additional windbreak value.

Beno"t, if he felt it was possible, would like to stop all chemical use on the farm, but he and Clément are stuck for the moment. Since they market all produce directly to the consumer, they have to have an "attraction" to bring customers to the farm gate: strawberries early in the season and sweet corn later on. They have to have lots of each and all of the produce has to be number one quality.

Consequently, some of the acreage has to grow corn for more than one year, which is a big barrier to cutting all chemical fertilizer and pesticide use. However, by adopting practices that nourish the soil, they have managed to reduce many inputs and pesticide use on the farm is minimal in comparison with farms of the same size and production.

### **Mechanical weeding**

In the strawberries, a Lely weeder is used every week to control annual weeds up until the time the runners start developing. A herbicide is applied only in the fall. Straw is used on the crop row for winter protection, and then as a mulch between the rows during the season.

Weed control in sweet corn is done for the most part with the Lely weeder, pre- and post-emergent for a total of 3 to 4 times. However, because such a major portion of the fields stay in corn several years in a row, the use of herbicides is necessary on about half of the corn fields. In these fields the herbicide is band applied on the crop row.

In the asparagus, mechanical weed control is used in the year of establishment, being very effective; but in the ensuing years, it is difficult to carry out. As the spears are harvested in the spring, no mechanical intervention is possible before or during the harvest. Once the ferns develop, it is also impossible to pass with a machine.

Beno"t would like to experiment more with cover crops, such as winter rye or white clover. He believes that without a cold treatment during the winter, spring planted rye would remain low and compete with germinating weeds.

(??? does this mean planting winter rye in the spring ???)

White clover could be established as a living mulch, which would have to be mowed periodically to control competition.

**No more 'just in case'**

The Dugrž's strategy with insecticides is not to spray against pests the minute their arrival is announced, rather to wait until insect population levels begin to threaten quality.

In the strawberries, integrated pest management (IPM) is used to detect stink bug levels. IPM scouts walk the fields tapping flowers and catching the insects that fall out. Generally speaking, a catch of 12 stink bugs per 100 taps is enough for a scout to signal the use of an insecticide. The Dugrž's prefer to wait for the next count a few days later. If it increases to 30, then they intervene with a spray and they have found that berry quality does not suffer from the delay.

Up until 1992, the sweet corn had never been sprayed for corn borer. All cobs were inspected and culled if any damage was found. But in 1991, damage was getting too high, affecting nearly half the crop and something had to be done. So, in 1992, an IPM scout inspected corn leaves for borer eggs and, using this approach, only 50% of the fields had to be sprayed, and these only once.

No insecticides are used on the asparagus. Asparagus beetles are present but cause no damage to the spears or reduce the yield.

The Dugrž's are an example of how a conventional farming system can be pushed to the limit in pursuit of chemical input reduction. By exploiting every niche where a non-chemical alternative can be substituted, whether mechanical weed control or always questioning whether a pest is really causing damage, they have managed to maintain maximize the quality of their produce while minimizing the environmental consequences of their farming practices.

Copyright © 1993 *REAP Canada*