



## Food safety from ground to table

**A**gricultural economist Dr. Andreas Boecker from the University of Guelph is at the social sciences end of food safety and authenticity research. While his natural scientist colleagues at Universities of Guelph and Saskatchewan develop molecular tags for tracing foods and natural health products, he studies consumer acceptance and supply chain impacts of this innovation.

In another project, now in the planning stages, he will look into combining this technology with electronic traceability systems and tamper-proof packaging to ensure the legality of fresh caught sturgeon from Lake Huron. Half a province away in Ottawa, the Canadian Horticultural Council is guaranteeing the safety and traceability of Ontario's food from a different direction. The council, which represents 25,000 growers who raise 120 different types of fruits and vegetables, has been tackling on-farm and processing plant safety and traceability since 1999, points out executive vice-president Anne Fowlie.

Today, it runs eight different such programs under the banner, On-Farm Food Safety. Each is directed toward a specific fruit or vegetable type – potatoes, bulb and root vegetables, asparagus, sweet corn and legumes, small fruit, tree and vine fruit, greenhouse production, fruiting vegetables such as peppers and cucumbers, and leafy vegetables and cruciferae such as broccoli and cabbage.

The programs offer not only templates for farmers and processors to follow to ensure safety but also third-party audits that lead to certification, independent proof that buyers and consumers can count on where food safety is concerned.

"It is an ongoing process," Ms. Fowlie says. "We already have high standards for food safety but there will always be ways to make them a bit better, a bit more cost-effective, a bit more precise." And the uptake among both farmers and processors is rewarding, she adds.

"Companies such as McCain's were among the first to join the program to ensure and track the safety of its potatoes," she says. "As an added benefit, the certification program provides great support for our farmers and processors in an increasingly global market for Canadian foods." One of the challenges is in finding new, safe, cost-effective ways to provide traceability – to be able to easily track the path foods taken from fishery or farm gate to grocers' shelves, Dr. Boecker says. Molecular tags do have this potential. They can be inserted into foods by processors and then tracked at any stage of their journey to the consumer.

For his proposed work with sturgeons, both industry and government look for complete traceability to battle poaching of high-value fish; criminals, he points out, have limited concern for conservation, quality or safety.

"The Ontario commercial fisheries point out that by 2010, the European Union will mandate that all imports of fish must come from safe, sustainable operations," he says. "They want to ensure that Lake Huron sturgeon remain sustainable and among the safest high-value fish in the world."

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