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## *PEI ADAPT Council Agri-Newsletter*

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Agriculture and Agri-Food Canada  
Agriculture et Agroalimentaire Canada



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**Mark Your Calenders and Register Now!**

### **Focus on the Future PEI ADAPT Council Annual General Meeting and Conference Friday, March 13, 2009**

#### **Rodd Charlottetown Hotel, Charlottetown, Prince Edward Island**

Since 1999, the PEI ADAPT Council has been a ‘pathfinder’ for new ideas and sustainability. This conference will feature presentations of successful, innovations that are occurring on Prince Edward Island and across Canada.

It is an opportunity to capture the inspiration of the moment, network with progressive leaders and focus on the emerging issues that will help define the future of agriculture and agri-food on Prince Edward Island.

To Register call: The PEI ADAPT Council: 368-2005

### **Canadian Farm Expert Says Get Out of Debt**

By Nancy Willis, The Guardian

Canadian farmers are way too far in debt, and are paying too much for land and quotas relative to what they earn from them, said a leading expert on farm viability at the PEI Soil and Crop Association’s 28th Annual Conference in Charlottetown Monday.

Dr. George Brinkman professor emeritus at Guelph University, said Canada’s farmers have

to farm smarter and keep their fingers and toes crossed that interest rates stay low for the next four or five years, because low rates are about all that is keeping them on the farm right now.

Although there are many contributing factors, he said the United States' farmers are doing much better than Canadians because their debt loads are smaller and their land prices lower. Their farm debt is in the 19 percent range while Canadian farms owe 200 percent, or 10 times higher.

"In the U.S., farm incomes are increasing, while ours are stagnating or going down, and it will take Canadians 23 years to pay off their average debt, while it will take most Americans about 3.5 years," he said.

He repeated time and again, farmers here pay too much for land and quotas, more than they will generate, and they are now essentially working for nothing. "Farmers here have got to learn to say no collectively to these escalating prices," he said. They have to do it collectively because if not, their neighbour down the road will snap it up and the prices will keep spiraling.

"We will also kill our farm industry if we don't cap our quota prices," he said.

Farmers in P.E.I. should pay attention most of all because they have the largest increase in debt in Canada and are essentially working for nothing. "Islanders be very careful about getting yourselves in debt, because you can't get out of it. Right now it would take 70 years to get out of debt at today's numbers," he warned.

Brinkman said the bottom line is U.S. farmers are doing better because they are marketing well and not spending all their income paying off debt. Contrary to common belief, American farmers are not getting more help from government. "Only 25.8 percent of U.S. farm income comes in the form of government payments, while in Canada 192 percent of income comes from government," he said.

One the plus side for Canada is the weakening Canadian dollar. "This and current low interest rates are what may save our Canadian farms," he said.

He describes those farmers who have made it this far, as the survivors, and predicts that if they can hang on, it shouldn't get any worse. "But again I remind you that long range profitability depends on reasonable capitalization and low debt."

His recommendation to Canadian farmers is switch to survival mode right now and build equity. Put money away during good times, but right now sell unprofitable assets, buy used instead of new machinery, and avoid over capitalization.

## **Long Term Trends Require Farm Adaptation**

By Lorne Small, February 6, 2009

The Christian Farmers Federation of Ontario has always had a strong interest in creating a type of farming that will survive and thrive over the long term. And that perspective means that our members have to struggle with understanding long-term trends in order to find ways to respond.

I recently had the opportunity to listen to a presentation by Gord Miller, Ontario's Environmental Commissioner. He painted a picture of four significant trends for the environment that farmers will need to consider in making plans for the future.

First, climate change for Ontario will mean more frost-free days, more precipitation, more droughts, more extreme weather, more soil erosion and more pest problems.

Second, the world's production of oil and gas peaked in 2006. Even high prices in 2008 could not increase production. Oil fields in several areas of the world are declining at a faster rate

than expected.

Third, loss of biodiversity is a major concern for agriculture. It means the loss of important “pollinators” that work to help our crops grow. As we lose songbirds, we lose a natural way of containing pest populations. In this regard, the Commissioner favours the concept of “ecosystem services” which pay farmers to maintain woodlots, wetlands and fence rows --- not payments for growing farm crops.

Finally, water shortages are becoming a problem. The Commissioner pointed out that some of Ontario’s agricultural competitors, namely Australia and California, are experiencing water problems. However, before we gloat over our competitive advantage, we need to consider that according to Ontario’s growth plans, the City of Guelph is expected to double in size by 2025, but doesn’t have ground or surface water to support a city of that size.

If Ontario’s farmers are to survive and thrive in the future, they have to address the challenges of climate change, diminishing oil reserves, loss of biodiversity and water shortages. The way we farm today, may not be a good indicator of the way we need to farm in 25 years. But if we put our creativity to the task, and partner with government and consumers, there may be a number of opportunities to modify our farming systems to be well suited for the future.

*Lorne Small is a sheep farmer and a Vice President of the Christian Farmers Federation of Ontario. The CFFO Commentary is heard weekly on CFCO Chatham, CKNX Wingham, Ontario and is archived on the CFFO website: [www.christianfarmers.org/index.html](http://www.christianfarmers.org/index.html). CFFO is supported by 4,353 family farmers across Ontario.*

## **Farmers’ Market Sales Surpass \$1 Billion Manitoba Co-operator**

When added up across Canada, the sales of produce, baked goods and other items from tents and booths and off pickups' tailgates have officially become a billion-dollar industry.

That's \$1.03 billion to be exact. Farmers' Markets Canada, which announced at meetings in December that Canadian farmers' markets' direct sales had passed the billion-dollar mark, rolled out more specifics from its national study during its general meeting Monday and Tuesday in St. Catharines, Ont.

According to the national group's 2008 market impact study, farmers' markets provide an economic impact range of \$1.55 billion to \$3.09 billion annually, representing the purchasing power of 28 million shopper-visits at an average of \$32 per visit.

"The study confirmed that consumer demand and interest is closely aligned with support for local farmers and fresh, healthy, food choices," FMC said in a release Wednesday.

"Consumers have expressed a clear desire to return to healthier, fresher, locally produced products," FMC chairman Robert Chorney said. "They have a strong belief in the integrity of shopping within their community."

The study found 62 per cent of shoppers indicated that buying their food directly from a local farmer is "extremely important" to them and "somewhat important" to another 30 per cent.

As for the vendors, the FMC study showed 42 per cent report that they achieve over half of their farm income from market sales -- and over half of vendors created up to five jobs stemming from their farmers' market participation.

Farmers' market vendors, the study said, are typically primary producers (79 per cent), attracted by the supportive social and communal nature of the market experience.

### *Selection*

Vendors want to see more support in the marketing of their locations through signage, advertising and website information to help attract new vendors and increase customer traffic. They also press to extend hours and days of operation for markets and improve physical amenities.

The FMC study also found market vendors "challenged" to provide the selection of fresh products required as primary producers while dealing with labour shortages and rising costs of production inputs.

As well, in some markets, vendors indicate a "growing concern" about the role of "reseller" vendors who offer imported or non-local produce and are "threatening the economic viability of the primary producer vendor," FMC said.

The majority of grocery buyers, non-users of farmers' markets, are, of course, a "target growth sector" who express willingness to visit farmers' markets but don't, "primarily because of convenience and lack-of-awareness issues," FMC said.

"Future growth in the sector will require engaging non-users through increased awareness of benefits, locations and product selection," FMC said.

"Trial usage among non-users will be dependent on making local market hours and locations more accessible to time-challenged, health-conscious consumers."

The 2008 study, prepared for FMC by Toronto-based "customer experience" consultancy Experience Renewal Solutions and by Dr. David Connell, examined 508 farmers' markets across Canada for its data.

## **Cover Crops Can Be Nature's Fumigants**

**by Hugh McElhone**

Fruit and Vegetable Magazine

[http://www.fruitandveggie.com/index.php?option=com\\_content&task=view&id=2174](http://www.fruitandveggie.com/index.php?option=com_content&task=view&id=2174)

There are many benefits to cover crops, such as protecting the soil from wind and water erosion during the winter months when it is most vulnerable, suppressing weeds, plus providing organic matter for the next crop while preventing the leaching of nitrates into groundwater.

There are many benefits to cover crops, such as protecting the soil from wind and water erosion during the winter months when it is most vulnerable, suppressing weeds, plus providing organic matter for the next crop while preventing the leaching of nitrates into groundwater. Researchers have found that certain cover crops can also serve as biological fumigants.

While there are many synthetic fumigants on the market, the residue from plants that produce glucosinolates can act as a natural fumigant, says Dr. Mathieu Ngouajio with the department of horticulture, Michigan State University (MSU).

Glucosinolates are secondary plant metabolites produced by 15 different plant families. More than 120 glucosinolates have been identified to date and are most prevalent among the brassica genus of plants, commonly known as the cole crop or mustard family.

Cover crops, such as oilseed radish, can serve as biological fumigants. The long taproot system of the oilseed radish plant makes the crop ideal as a winter cover crop. Photo courtesy of Anne

Verhallen, Soil Management Specialist, Horticulture, OMAFRA

Most brassica crops, such as mustard, require 45 days after sowing to reach the flowering stage, the ideal time to work down the cover crop and incorporate it into the soil.

Glucosinolates are organic compounds that result when the plant produces one element of glucose and one of sulphur, says Dr. Ngouajio. These substances are responsible for the bitter taste found in Brussels sprouts, horseradish and mustard. They also act as a natural pesticide and deter plant-eating animals.

One glucosinolate of particular interest is called isothiocyanate, the active ingredient in the fumigant Vorlex Plus, which is effective against nematodes and other soil parasites.

As is the case with mustard, the glucosinolates and enzymes produced are not toxic to the plant because it stores them in “separate rooms,” explains Dr. Ngouajio. When the plant is shredded or crushed, the tissue damage allows the compounds to leave their “rooms” and form a liquid chemical that turns into a toxic vapour or “mustard bomb.” It is this action that makes brassicas ideal as a biological fumigant, he says.

While Dr. Ngouajio promotes brassicas in general as a cover crop, he believes some are more ideally suited to certain field crops than others. “You need to select the appropriate species, the seeding rate and the growing time, plus determine your fertilizer needs,” he says, adding the brassica crop chosen must have enough time to grow to the flowering stage but be incorporated before seed heads form.

If the cover crop seed is broadcast, it should be worked into the soil to a depth of one to two inches. A seed drill can also be used if covering a large amount of acres. “We’ve found no difference in either production method. It’s just whatever is easiest for you,” says Dr. Ngouajio. Some of the optimal seeding rates found by Dr. Ngouajio and his research team include 7 to 10 pounds per acre for the oilseed radish varieties Defender and Diakon. For brown mustard and oriental mustard, six pounds per acre provides adequate biomass, while eight pounds per acre works best for yellow mustard.

“Biomass production varies with the variety and the seeding rate,” he says, adding that if the seeding rate is too high, there is too much competition and less biomass produced. “More is not always better.”

The next step is to crush the tissue at flowering time and incorporate it into the soil. Most brassica crops require 45 days after sowing to reach this stage.

If the end of June is too late for growers who want their transplants in the ground by mid-May, Dr. Ngouajio suggests they plant oilseed radish. With its large taproot system, the crop can be used as a winter cover crop. While optimal levels are not achieved this way, as the taproot rots, some biofumigants are slowly released into the soil, he explains.

In their small research plots, the biomass was incorporated with four passes of a rototiller. For larger acreages, a flail-type mower and disc can be used. “The key is to incorporate it immediately, otherwise you’ll lose its value.”

Dr. Ngouajio says his team has found good long-term control results for soil-borne phytophthora and fusarium, with populations kept in check throughout the growing season. This compares well with synthetic fumigants that tend to knock down all organisms in the soil, good and bad alike, with an increase in disease populations generally occurring one month after applying, he says. In one biofumigant trial, onions were grown following a cover crop of oilseed radish. “Onions need 120 days to grow so both couldn’t be planted in the same year. The oilseed radish was planted the fall before,” he explains.

For onions, the researchers found oilseed radish left the most beneficial organisms in the soil,

which led to a significant increase in onion production with one small problem: “We had more bulbs but they were smaller than the control plot which had fewer bulbs but they were bigger,” Dr. Ngouajio says.

He concludes the oilseed radish did too good a job and, with nearly all the onions surviving, there was too much competition, which led to smaller bulbs. To test this theory, the trial was repeated four times on 60 research plots using different seeding rates for oilseed radish.

From these trials, Dr. Ngouajio found the optimal seeding rate to be 172,000 seeds per acre, down from the industry standard of 225,000. At this rate, they achieved a 15.4 per cent increase in onion yield while decreasing seed costs by 24 per cent. The latter is significant, he explains, because oilseed radish seed can be difficult to find and expensive to buy.

As mentioned earlier, not all brassica crops work equally well with all field crops, as Dr. Ngouajio discovered with oilseed radish and celery. From their trials, researchers found that celery fared much better following a cover crop of oriental mustard. “Some 60 per cent of Michigan (celery) growers now use this in their rotation,” he notes.

Among their other findings, Dr. Ngouajio’s team found nematodes were best controlled by oilseed radish compared to oriental mustard, yellow mustard or rapeseed.

His team also found that melon crops, in particular muskmelon, are sensitive to mulched brassica crops and it is best to wait two weeks after soil incorporation before planting.

This research is ongoing and continues to find natural ways to improve vegetable production and reduce costs. “I really like working with the growers and I’m happy if we can earn them one more cent,” says Dr. Ngouajio.

## **UN Calls for Green Revolution to Prevent Food Crisis**

By Sarah Hills, 19-Feb-2009

A major change is needed in the way food is produced, handled and disposed of in order to feed the world's rising population and protect the environment as prices are expected to remain volatile, according to a new UN report.

The factors blamed for the current food crisis - drought, biofuels, high oil prices, low grain stocks and in particular speculation in food stocks - may worsen substantially in the coming decades unless more intelligent and creative management is brought to the world's agricultural systems, said the United Nations Environment Programme (UNEP) study.

Achim Steiner, UN Under-Secretary-General and UNEP Executive Director, said: “We need a Green revolution in a Green Economy but one with a capital G.”

Green revolution, with a lower-case g, is a term that usually refers to the spread of new agricultural technologies since World War Two.

However Steiner has a different idea in mind:

“We need to deal with not only the way the world produces food but the way it is distributed, sold and consumed, and we need a revolution that can boost yields by working with rather than against nature.”

He added: “Over half of the food produced today is either lost, wasted or discarded as a result of inefficiency in the human-managed food chain.

“There is evidence within the report that the world could feed the entire projected population growth alone by becoming more efficient.”

Last year food manufacturers faced soaring commodity costs, as prices for key raw materials

such as corn and wheat reach unprecedented figures, putting intense pressure on company balance sheets.

The report called: “The Environmental Food crises: Environment's role in averting future food crises” warned that food prices may increase by 30-50 per cent within decades. At the same time, 25 per cent of the world’s food production may become lost due to 'environmental breakdowns' by 2050 unless action is taken.

### **Recommendations**

To reduce the risk of hunger and rising food insecurity, it recommends a seven point plan

In the short-term it suggests re-organizing the food market infrastructure to regulate prices and generate food safety nets for those at risk. This would be backed by a global, micro-financing fund to boost small-scale farmer productivity in developing countries.

It also suggests the removal of agricultural subsidies and the promotion of second generation biofuels based on wastes rather than primary crops.

In the medium-term it recommends reducing trade barriers and improving infrastructure to increase trade and improve market access.

It also suggests replacing the use of cereals and food fish in animal feed with post-harvest losses and waste and offering support for more diversified and ecologically-friendly farming systems.

Long term recommendations include steps to limit global warming with climate-friendly agriculture production systems and raising awareness of the pressures that consumption and population trends put on sustainable ecosystems.

### **Opportunities and markets**

Last week another UN report said that despite the economic crisis, the organic market will grow so countries such as Africa need to grow and export more organic produce to help tackle issues of food security and sustainability.

However, this latest UNEP report said that increasing growth and power of international food corporations is affecting the opportunities of small agricultural producers in developing countries.

### **Upcoming Events:**

**March 11 Soil Workshop with Gary Zimmer: hosted by ACORN and COPC Farm Centre in Charlottetown.**

Please register at the door. Cost is \$20 for COPC and ACORN members, and \$30 for

non-members. Please bring your own lunch, but refreshments will be provided. For more information call 902-894-9999 or email [email@organicpei.com](mailto:email@organicpei.com)

**March 12 Canadian Organic Standards Workshop in PEI  
Farm Centre in Charlottetown, 8:30am-4:30pm**

The Canadian Organic Growers are offering a workshop covering everything that farmers need to prepare for the new federal organic rules that come into effect on June 30th, 2009. The workshop is designed for certified organic farmers, farmers in transition or considering a transition, and farmers using organic methods who have decided not to certify. It will be held at the. Cost is \$25 + GST and includes lunch.

To register for the workshop, please contact COG at 1-888-375-7383

**March 17 Marketing Intelligence - How Market Knowledge Can Lead You to Profitability.  
Charlottetown Farm Centre, 9-4pm.**

The design and positioning of a new product, getting it to market, and maintaining its service relevance on an ongoing basis requires an array of market intelligence, including information on pricing, product competition, supply channels, and customer preference. Your product and its development may not be the best place to start. So what is the best place to start? This module is designed to assist producers, farm groups, and entrepreneurs to identify product and market opportunities and create successful product positioning in growing value added markets. For more information or to register please contact: Barb MacLeod, Value Chain Coordinator, 902 367-4410 or [valuechain@eastlink.ca](mailto:valuechain@eastlink.ca)

**March 18 How to Approach Retailers - Collaboration and Planning.  
Charlottetown Farm Centre, 9-4pm.**

This module has two objectives: the first is to develop an understanding of the strategic challenges facing food retailers so that organizations and chains can develop partnerships with food brokers. The second objective is to assist firms to develop actual proposals that can be presented to retailers. For more information or to register please contact: Barb MacLeod, Value Chain Coordinator, 902 367-4410 or [valuechain@eastlink.ca](mailto:valuechain@eastlink.ca)

**March 26 Creating a Successful Farm Apprenticeship Program.  
Location: Charlottetown, 1-4pm.**

Workshop will feature Rowena Hopkins, an educator and farmer, who will discuss how to recruit and train apprentices, deal with the unexpected and unpleasant, stay sane and maximize the value of apprentices on your farm. Cost is \$10. Please pre-register by calling ACORN at 1-866-322-2676 or email [admin@acornorganic.org](mailto:admin@acornorganic.org).