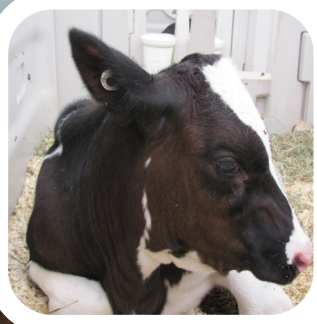

Agriculture Development Branch Resource Guide 2011 – 2012

Ministry of Agriculture,
Food and Rural Affairs

Ontario

Agriculture in Action
Agriculture Development Branch Programs
2011 - 2012

Introduction

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) is the leading source for Ontario-specific production agriculture information. Within OMAFRA, the Agriculture Development Branch (ADB) works to explore and strengthen Ontario agriculture by helping agricultural businesses make informed decisions to improve innovation, competitiveness and sustainability. Branch staff conduct applied research, develop training programs and transfer knowledge to farmers, agri-businesses, agricultural consultants and advisors. Staff identify business and production issues that are facing the agriculture sector and develop programs and conduct research that tests and validates approaches to ensure they can be applied to Ontario conditions. Through collaboration with industry and academia, we promote environmentally sound high quality agriculture production through technology/knowledge transfer. This knowledge is transferred through multiple vehicles including conferences, newsletters, agriculture media, web sites, group presentations, blogs and twitter.

Whether branch staff are teaching farmers how to develop a marketing plan, assisting growers in their planting decisions or researching new methods of livestock feeding, they play a significant role in influencing the adoption of practices that support a thriving and sustainable Ontario agriculture sector.

How to Use this Guide

This resource guide contains summaries of several projects, programs and events conducted by ADB staff during the past year. To make it as convenient as possible to access OMAFRA resources, each summary contains highlights and contact information with links to more in-depth content. Visit www.ontario.ca/omafra, a gateway to Ontario agriculture innovation.

Scott Duff
(Acting) Director, Agriculture Development Branch
Ontario Ministry of Agriculture, Food and Rural Affairs



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Farm Business Development

Growing Forward Business Programs Covered a Variety of Business Needs

Business Development for Farm Businesses programs give producers self-assessment tools, advisory services and learning opportunities that lead to resilient, profitable and sustainable farm business enterprises.

In 2011-12 more than 1,100 producers attended a Growing Your Farm Profits workshop, a free two-day workshop at which producers assessed their operation and then developed an action plan unique to their farm enterprise. Workshops were offered to producers, as well as farm families and their management teams across Ontario.

Based on the needs identified in their action plan, more than 800 producers were able to incorporate beneficial business management practices through a range of cost-share advisory services and skills development opportunities.

The Business Development for Farm Businesses program provided cost-share funding for financial assessments, cost-of-production analysis, specific training and skill development.

Producers may have also worked with a farm business advisor to focus on a fully developed business plan such as a succession plan, an expansion plan or a marketing plan. Eligible farm businesses accessed cost-share funding to support the development of up to three different business plans and were also able to access additional funding to help off-set those business costs associated with a developed plan.

The Business Development for Farm Businesses program was part of the Best Practices suite of initiatives under Growing Forward.

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Hedging Risk to Improve the Bottom Line

OMAFRA offers workshops on strategies to hedge financial risk to help producers improve their bottom line. Hedging is a term used to describe actions taken to help mitigate price volatility. Hedging does not help the producer make more money; rather it is used when there is potential downside risk, and can improve profitability. A good example of this is the price risk associated with many agricultural commodities. Markets lately have been extremely volatile because of the inability to predict future economic and weather events.

These workshops help identify the risks producers may encounter, including: currency, trade, contract default, price, interest rate and commodity demand. Once the risks are identified, attendees go through the process of prioritizing risk, and learning about which mitigation strategies could work best in each situation. Mitigation strategies include contracts, agreements, futures, forward contracts and options. There is also an overview on market signals and how to read them.

Refer to OMAFRA's Managing Commodity Price Risk Using Hedging and Options fact sheet.

Contact: Jennifer Stevenson
jennifer.stevenson@ontario.ca

Study Measures Farm Business Management Planning

At the Growing Forward Business Development National Workshop coordinated and hosted by OMAFRA, the Agricultural Management Institute (AMI) presented their Baseline Study of Business Management Planning Drivers.

A majority (84 per cent) of farmers consider the business of farming as important as lifestyle. Maximizing profits and paying debts are two main business goals, but just 22 per cent of farmers have a formal written business plan to address how they will accomplish these goals.

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The study included a segmentation analysis which categorized farmers with varying attitudes and behaviours. Two groups, the "Planners" and "Developers", are most likely to engage in farm business planning and are also more likely to have reported increased sales during the past five years than other categories of farmers.

AMI commissioned Ipsos Forward Research to conduct this benchmark study of Ontario farmers' involvement in farm business planning. Staff in Agriculture Development Branch worked closely with AMI to deliver the strategic outcomes under Growing Forward.

AMI is funded by the Canada-Ontario bilateral agreement to implement Growing Forward, a federal-provincial-territorial initiative. It is part of the Best Practices Suite of programs for Growing Forward in Ontario.

For more study results please go to www.takeanewapproach.ca/farmers/baseline-study.

Contact: Anne Marie Diotte
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Apple Labour Savings Study Evaluating Orchard Platforms

A study is underway to evaluate labour costs associated with the use of self-propelled platforms for orchard practices.

Preliminary results from six cooperating growers are seeing significant labour savings. Using the platform to hand-thin the upper portion of trees that could not be reached from the ground saved 41 per cent in the hours of labour required, compared to the use of ladders. Data will continue to be collected in 2012 and 2013. Complete results will be available at the conclusion of the study.

This project, coordinated in co-operation with Ontario Apple Growers and OMAFRA, was funded in part through Growing Forward, a federal-provincial-territorial initiative.

Contacts: John Molenhuis and Leslie Huffman
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Weekly Market Information for Hog Farmers

Hog Market Facts is a weekly newsletter containing current market information that helps hog farmers make production and marketing decisions.

A recent survey of subscribers revealed that 91 per cent read it every week to make decisions for their farm business on such things as financing, predicting future income flow, pricing formulas and market trends. The free newsletter is emailed directly to subscribers. Subscribe through OMAFRA's website.

Contact: John Bancroft
john.bancroft@ontario.ca

Measuring Social Media and Smartphone Use in Ontario Agriculture

An OMAFRA and University of Guelph team worked with Ipsos Reid to survey people working and studying in agriculture about their social media and smartphone use. This was the first survey of its kind in the Ontario agricultural industry and will help agri-businesses and organizations plan communication and technology strategies.

A total of 439 people responded. Highlights include:

- 95% of respondents are online daily
- 62% expect their internet use for agriculture-related purposes will increase; 37% expect it to stay about the same
- Twitter and YouTube are the most popular social media tools for agriculture-related purposes
- 69% of respondents have a smartphone
  65% of those with smartphones have a BlackBerry product, 23% have an Apple product, 8% are using an Android
- 74% of smartphone users have downloaded at least one agricultural application
- 84% of respondents used social media in the past 12 months

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sharing/capturing agriculture information
- 79% listed paper-based farm publications as a main source for new agricultural information; an equal number listed the internet
- 68% of respondents used social media for
- 89% of respondents agreed that government should use social networking tools as part of their communication strategy

This project was funded by Agri-Food and Rural Link through the OMAFRA-University of Guelph partnership. Highlights of the survey results are found here. The raw data is available on request.

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Ontario Bioproducts Listing Adds Value and Helps Identify Opportunity

To meet the interest in Ontario-grown biomass crops for renewable energy and other bioproduct applications, OMAFRA offers the bioproducts Sector Listing of suppliers to connect growers, biomass end-users and entrepreneurs along the value chain.

The new Bioproducts Sector Listing includes the names of biomass seed and planting material suppliers, biomass pellet and equipment manufacturers and biomass fuel pellet suppliers. The Listing gives Ontario farmers the chance to explore new opportunities, diversify market options and become globally competitive. It allows the user to search by supplier or input and can be accessed here:

- Biomass Pelletizing, Heating and Combustion Equipment Manufacturers/Suppliers
- Biomass Crop Seed/Planting Material Suppliers
- Biomass Fuel Pellet Suppliers

Contact: Mahendra Thimmanagari
mahendra.thimmanagri@ontario.ca

Hazelnut Production in Ontario – A Progress Report

Developing a hazelnut industry requires a team effort. In Ontario, that means developing a production plan and cultivars suitable to the environment.

The objective is to develop a basic production plan that will provide a reasonable level of confidence for annual profitability for prospective growers and the entire value chain. A draft hazelnut production guide has been prepared by researchers, extension specialists and growers. A series of fact sheets are available on biology and varieties, pests and growing, harvesting and food safety.

University of Guelph researchers established two hazelnut cultivar trials – one at the Simcoe Research Station and the other at the Vineland Research and Innovation Centre. Hazelnut cultivars, which are known to perform reliably in other countries, are being tested at the research facilities. These cultivars include selections from Oregon State University and Rutgers University, preferred Italian cultivars, and several promising hybrids developed in the United States and Canada.

Research plots are beginning to produce hazelnuts, and various characteristics of nut quality are being assessed such as nut texture, flavour and shape of the kernel. Cultivars with promising qualities will be presented to private industry for evaluation to gain a sense of focus for future cultivar trials. For example, hazelnut cultivars that are suitable for fresh market sales may be different from hazelnuts that are suited to confectionary or food processing products.

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Promoting Lavender Agri-Tourism in Ontario

OMAFRA offers a wide range of resources to assist lavender farmers interested in developing agri-tourism operations in Ontario.

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Agriculture Development Branch has supported the industry from its inception nearly a decade ago, by educating growers, collaborating on research projects, and assisting growers organize into a successful association. The branch works closely with the University of Guelph on research projects to identify varieties that have the quality attributes growers require and can consistently survive Ontario's winters.

Branch staff offer business and farming workshops and a host of resources on the OMAFRA website. Subscribe to Hort Matters. http://www.omafra.gov.on.ca/english/subscribe/index.html an electronic newsletter, Consult the Ontario Lavender Association www.ontariolavenderassociation.com for more information.

Contact: Sean Westerveld
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Fine-Tune Hog Production Targets and Maximize Returns

All pork producers in Ontario can obtain grading data for hogs they marketed in just a few easy steps. OMAFRA created Grading Data Explorer, a point-and-click software program specifically for Ontario pork producers to analyze their hog grading data.

The information available through Grading Data Explorer helps producers see how their hogs were graded and how they can improve the efficiency of swine operations. Based on this information a farmer can adjust production practices to improve revenue.

Access to the Grading Data Explorer program and the online database are administered by Ontario Pork. It is available to all pork producers who market hogs in Ontario. Any pork producer interested in using the software should contact Ontario Pork for a username and password that allows them to access their grading data.

Registration is required for this free online service. Visit ontariopork.on.ca/producers.

Contact: Jaydee Smith
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Seminar Promotes the Safe and Effective Use of Liquid Feeds for Swine

Annual liquid swine feeding seminars provide the latest research on the potential performance and health benefits of liquid feeding, and the effective management of various feed ingredients to optimize feed value and maximize pig performance.

At least 20 per cent of hogs finished in Ontario are fed on liquid systems. Producers using liquid feed technology can potentially reduce feed costs by utilizing by-products that are high in moisture such as whey, spent yeast, condensed distiller solubles and steep water.

Producers using this technology and related agri-business personnel, nutritionists in particular, look to this seminar as a source of leading-edge information that is useful in making their operations and their customers' operations more profitable.

The 2012 seminar brought speakers in from near and far. Dr Nuria Canibe, a researcher with the Danish Institute of Agricultural Science, pork producers from Brazil, and a professor from the University of Guelph spoke at the seminar.

OMAFRA partnered with the Swine Liquid Feeding Association and the University of Guelph to deliver this event. Visit the OMAFRA website for swine production information.

Contact: Ron Lackey
ron.lackey@ontario.ca

Production Innovation

Technology Maintains the Crunch

SmartFresh is a compound generally applied to apples within one to five days after harvest to provide delayed ripening benefits during subsequent shelf-life and storage. In 2011 Agriculture Development Branch worked with the Ontario Apple Growers to expand the Canadian SmartFresh label for apples to allow multiple applications. The label states the usage information approved by the Pest Management Regulatory Agency.

Data was collected through research trials and used to support this label expansion. Data showed that multiple SmartFresh treatments significantly reduced firmness loss and slowed ripening and storage disorders in Ontario-grown McIntosh and Empire apples during storage and holding at room temperature.

ADB will continue to work with industry to experiment using SmartFresh on different varieties and at various time points to obtain the best fruit quality possible for the longest storage period.

Contact: Jennifer DeEll
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OMAFRA Field Crop Conferences Encourage Innovation

Southwest Crop Diagnostic Day Focuses on Diagnosis and Advancement

Organized by OMAFRA, the day provides seed, fertilizer and chemical industry personnel and agricultural consultants with training in the diagnosis of crop problems and education in advancements in crop production. The day is designed specifically to hone the problem-solving skills of agri-business representatives through hands-on activities related to the correct identification and treatment of crop problems common to Southern Ontario.

Technology transfer, research and teaching staff from OMAFRA and University of Guelph (Ridgetown Campus) were involved in presenting the sessions.

This event was made possible through the partnership of OMAFRA, University of Guelph and the Southwest Soil and Crop Improvement Associations. More information is available at http://www.diagnosticdays.ca/

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Hands-On Learning Offered at Eastern Ontario Crop Diagnostic Day

The Eastern Ontario Crop Diagnostic Day offered demonstrations and diagnostic challenges to facilitate a hands-on learning experience. Information at this event is timely and localized. Subject matter was specific to Eastern Ontario growing conditions and gave the attendees the trouble-shooting skills necessary to evaluate new and alternative management strategies. Information about future Eastern Ontario Crop Diagnostic Days can be found here.

Contacts: Scott Banks, and Gilles Quesnel
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FarmSmart Expo at University of Guelph Elora Research Station Attracts Innovative Producers and Ag Advisors

The summer FarmSmart Expo exposed producers and their advisors to current field crop production problems, technologies and issues and trained them on management options available to address these situations. The annual event gives producers, advisors, academic and extension people the opportunity to participate in cooperative learning in a practical hands-on and visual manner. The FarmSmart Expo is organized by OMAFRA, the Golden Horseshoe and Heartland Soil and Crop Improvement Associations and the University of Guelph. Timing of the FarmSmart Expo is dependent on the stage of winter wheat and forage harvesting across the region. Learn more at www.uoguelph.ca/farmsmart.

Contact: Ian McDonald
ian.mcdonald@ontario.ca

FarmSmart Conference Attracts a Broad Cross Section of Producers

The FarmSmart Agriculture Conference and Beef Symposium format appealed to all members of the family so the fact the conference was on a Saturday did not deter farmers and their advisors from attending. A broad cross section of sessions addressed crop and livestock production, agriculture business management, soil management and the environment, among many other subjects. With eight sessions offered concurrently, participants built a program that met their individual needs. Sessions were offered in lecture, workshop and tour formats to highlight current issues and expectations for the future. The conference also included a trade show where interested people could discuss new technologies and offerings directly with industry representatives.

The event was organized by a team of staff from OMAFRA, Ontario Cattlemen's Association, Golden Horseshoe and Heartland Regional Soil and Crop Improvement Associations, University of Guelph and agri-business.

Program and registration information for future events is available at www.uoguelph.ca/farmsmart.

Contact: Ian McDonald
ian.mcdonald@ontario.ca

Canadian Greenhouse Conference Bigger Than Ever

The Canadian Greenhouse Conference trade show and education program attracts greenhouse growers from Ontario, the rest of Canada and United States, greenhouse suppliers, manufacturers, irrigation and fertigation suppliers, seed companies and plant suppliers.

The 2011 conference was held in a new, larger location than in the past and attracted 2,300 people in the greenhouse industry, making it a sold out event.

OMAFRA staff helped develop and deliver the conference program, tours and tradeshow. As an example, OMAFRA staff discussed greenhouse nutrient solutions, bio-control in greenhouse vegetables and partnered to facilitate an integrated pest management workshop with Flowers Canada (Ontario) and Vineland Research and Innovation Centre.

For information about the 2012 conference go to http://www.canadiangreenhouseconference.com/.

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Celebrating the Past...Growing the Future: The First Fifty Years of the Simcoe Research Station

More than 300 people came together for an open house on July 14, 2011 to celebrate the first fifty years of the Simcoe Research Station. Attendees included current and former staff of the station, industry representatives, government and university personnel, and interested members of the community. The open house featured a speaker program, wagon tours of research plots, the unveiling of a commemorative quilt, displays, self guided tours of the OMAFRA Herb Demonstration Garden and a barbecue.

Agriculture Development Branch staff supported the open house in many ways. Staff served on the planning committee, assisted in the development of a commemorative book, organized the static displays, served as tour guides and organized the self-guided tours of the OMAFRA Herb Demonstration Garden. The wagon tours featured many research projects that ADB staff lead or collaborate on, including Vineland Research and Innovation Centre ethnic vegetable variety trials, sweet potato chilling injury and row cover trials, lavender variety trials, Jerusalem artichoke variety trials, bio-energy crop evaluation trials, Russian dandelion trials and tree nut variety trials.

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The Simcoe Research Station was officially opened on August 8, 1961, as a sub-station of the Vineland Research Station under the Horticultural Research Institute of Ontario (HRIO). During the next two decades, significant development at the station resulted in gradual autonomy from the Vineland Station. In 1977, after a major addition to the building, ministry specialists who had been located in downtown Simcoe, were moved to the Simcoe Research Station. In 1997, under the OMAFRA/ University of Guelph Enhanced Partnership, HRIO was amalgamated with the Departments of Crop Science and Horticultural Science at the University of Guelph, eventually becoming the Department of Plant Agriculture. Currently, the station houses staff from four branches of OMAFRA, the University of Guelph, the Ontario Ginseng Growers Association, the Ontario Asparagus Grower's Marketing Board, Erie Innovation and Commercialization and the Ontario Ministry of Natural Resources. University of Guelph and OMAFRA staff have collaborated on numerous projects over the years to advance agriculture in the Erie Sand Plains and all of Ontario. Staff look forward to building on the reputation of the Simcoe Research Station in the development of new crops and new technologies over the next 50 years.

Contact: Sean Westerveld
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Annual Sheep Seminars Cover a Range of Subjects

Every year, Agriculture Development Branch hosts a series of sheep seminars to give producers the latest in production information. Sponsored by the Ontario Sheep Marketing Agency, the seminars give producers the tools they need to evaluate new management techniques and technologies that can increase flock productivity.

The seminars are designed to reach a broad range of clientele, from those just beginning in sheep production to those who have been in the business for many years. The OMAFRA sheep team and guest speakers from industry speak on a variety of subjects. Sheep seminars usually take place in November. Look for information about future seminars, business and production information at Ontario.ca\livestock.

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Beef Symposium Expanded to Include WebEx

The January 2012 Beef Symposium was the largest in its history. Each of the six sessions attracted 150 beef farmers interested in learning about how to manage increased operating costs and improve profits. Another 16 from the far north joined via video conferencing, a new addition to the program.

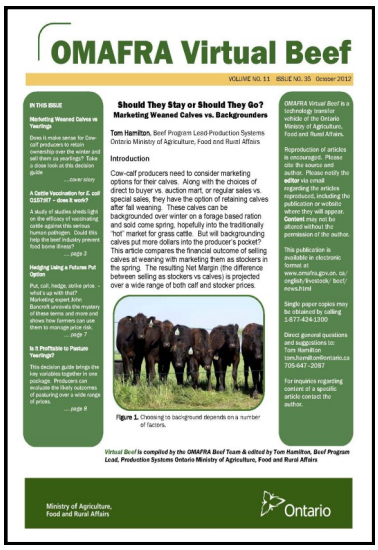
Speakers showed the audience how they can save money through efficiency such as selecting cattle for feed conversion and profit, marketing cattle at the best times and adding value through niche markets. Presentations gave beef farmers information they could apply right away, or at least when the timing is correct, and food-for-thought in terms of research updates which may not have an application right away but may in a few years.

Staff in Agriculture Development Branch worked with the Ontario Cattlemen's Association and the University of Guelph to establish the beef speaker program.

The Beef Symposium is part of FarmSmart which offered Symposium attendees additional training programs. Beef presentations were published on the FarmSmart website.

Contact: Brian Pogue
brian.pogue@ontario.ca

Read OMAFRA's Virtual Beef e-Newsletter for Technical Information


OMAFRA Virtual Beef

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Should They Stay or Should They Go? Marketing Weaned Calves vs. Backgrounders

Tom Hamilton, Beef Program Lead-Production Systems Ontario Ministry of Agriculture, Food and Rural Affairs

Introduction

Cow-calf producers need to consider marketing options for their calves. Along with the choices of direct to buyer vs. auction mart, or regular sales vs. special sales, they have the option of retaining calves after fall weaning. These calves can be backgrounded over winter on a forage based ration and sold come spring, hopefully into the traditionally 'hot' market for grass cattle. But will backgrounding calves put more dollars into the producer's pocket? This article compares the financial outcome of selling calves at weaning with marketing them as stockers in the spring. The resulting Net Margin (the difference between selling as stockers vs calves) is projected over a wide range of both calf and stocker prices.

Figure 1. Choosing to background depends on a number of factors.

Virtual Beef is compiled by the OMAFRA Beef Team & edited by Tom Hamilton, Beef Program Lead, Production Systems Ontario Ministry of Agriculture, Food and Rural Affairs

OMAFRA Virtual Beef is a technology transfer vehicle of the Ontario Ministry of Agriculture, Food and Rural Affairs.

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This publication is available in electronic format at www.omafra.gov.on.ca/english/livestock/ beef/news.html

Single paper copies may be obtained by calling 1-877-424-1300

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For inquiries regarding content of a specific article contact the author.

Ministry of Agriculture, Food and Rural Affairs

Ontario

Launched in 2003, *Virtual Beef* is a quarterly newsletter that links producers to leading-edge technical information and relevant research. Easy -to-read articles combined with colour images, graphs and diagrams keep readers up-to-date on current challenges and opportunities the industry is facing. Written by the OMAFRA Beef Team with occasional guest authors, *Virtual Beef* provides producers with unbiased information that works for Ontario conditions.

The free magazine is sent via email to subscribers. Farmers can view recent editions and subscribe to Virtual Beef at http://ontario.ca/n803.

Contact: Tom Hamilton
tom.hamilton@ontario.ca

Ultrasound Technology Helps Beef Farmers Save Money

Beef farmers had the opportunity to see first-hand how ultrasound technology can help them estimate marbling and the timing to reach optimum finish on feeder cattle. Correct market timing can save beef farmers money. This new technology can save producers nearly $40 a head in corn costs by reducing the feeding period. As the cost of corn increases so will the savings.

For example, during a 14-day feeding period, at 25lbs of corn/head/day, that is 350lbs of corn/head. A 56lb/bushel costing $6.12/bushel translates into a saving of $38.25/head. For a business with 50 cattle that is $2,000 in savings. A large operation of 2,000 cattle can save $80,000.

One beef farmer of a 2,000 head operation shared his experience using the technology. He told those at the event that he soon came to realize that scan predictions were more accurate than his eye for deciding when to ship.

The ultrasound event took place in October 2011. More than 20 producers attended, representing both large commercial operations and smaller direct or branded operations.

The educational event was collaboratively organized by OMAFRA, Regional Municipality of Durham, Beef Improvement Ontario, Ontario Corn Fed Beef Program and the Ontario Cattlemen's Association's Research Committee.

Contact: Nancy Noecker
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Swine Nutrition e-Course can be Done When it's Most Convenient for the Client

To address a knowledge gap in the industry, OMAFRA and partners created a swine nutrition e-learning course that allows clients to complete learning modules at a time convenient for them.

Industry and academia have recognized the value of the Swine Nutrition e-Learning course launched in March 2011. The modules are being used as the nutrition component of the swine production course at the University of Guelph, Ridgetown College and a feed company is using the modules as part of its training for new swine feed sales representatives.

The free course can be accessed here.

Funding for the project was provided through the Ontario Pork Industry Council and the Agricultural Management Institute. Course content was developed by an OMAFRA nutritionist and a professor at the University of Guelph, Ridgetown College.

Contact: Jaydee Smith
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Ruminations Column Valued Among Milk Producer Magazine Readers

The Ruminations column first appeared in 1999 in *Milk Producer* magazine. Since then, members of OMAFRA's dairy team have written more than 130 articles focusing on various topics related to dairy production. The articles featured in the column are peer-reviewed extension papers based on recently published research projects conducted throughout the world. The results discussed can be readily applied on the farm to improve management, production, profitability and animal welfare. Since its inception, *Ruminations* has become one of the most valued columns in the magazine according to a readership survey conducted last year.

Milk Producer magazine is published monthly by the Dairy Farmers of Ontario. Every month, 10,000 copies are printed and distributed to every milk producer in the province as well as many libraries, specialists and industry people in Ontario and abroad. Each issue is available on the Dairy Farmers of Ontario website.

Articles are placed on OMAFRA's website and catalogued according to the subject matter.

Contact: Mario Mongeon
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Bilingual Conference for Eastern Ontario Poultry Producers

The fourth annual bilingual Eastern Ontario Poultry Conference was held in St. Isidore on April 5, 2012. The conference provided poultry producers with current information on poultry production practices, farm business management and new challenges facing the industry.

Proceedings were fully bilingual and simultaneous translation was available to all participants. Presentations were shown on two screens in both official languages.

Presentation topics included: biosecurity and pest management, decision-making tree for loading birds, animal welfare, public perception of the industry, market outlook, grain prices and light-emitting diode lighting.

This annual event is organized by OMAFRA staff from both Agriculture Development Branch and the Regional Economic Development Branch and supported financially by a dozen sponsors, including commodity organizations, financial organizations and industry partners. Proceedings from the last conference are available through the contact below.

Contact: Mario S. Mongeon
mario.mongeon@ontario.ca

OMAFRA Event Geared to Ruminant Feed Specialists

OMAFRA's fourth annual Ruminant Feed Industry Day presented timely information about the feeding and management of ruminant livestock for feed industry sales staff, nutritionists and affiliated professionals.

The event provided valuable leading-edge information on current feed crop issues, managing in a high-cost feed environment, and transferring nutritional management information needed to better service their clients. Issues that were addressed this year included the mycotoxin status of the 2011 corn crop, dairy calf management, use of lower-starch ingredients in diets to offset higher feed costs and other timely topics.

Presenters included OMAFRA staff and personnel from the University of Guelph, Grober Nutrition and Ohio State University. The afternoon program for this event was held at the Grootendorst Farm in Maryhill, a modern 600 cow dairy farm.

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The the most recent event was hosted on Wednesday, November 7, 2012. This event was held in cooperation with the Ontario Agri-Business Association.

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Cornerstone Swine Education Events Attract Strong Attendance and Evaluations

50th Annual South Western Ontario Pork Conference

The South Western Ontario Pork Conference (SWOPC) is the longest-running pork conference in North America. The most recent event was the 50th annual conference held on February 22, 2012 at the University of Guelph, Ridgetown Campus. The 139 attendees were exposed to a technical program along with 17 industry exhibits. The program included presentations about a swine operation at a Hutterite colony, A Premier's Award for Agri-Food Innovation Excellence 2010 winner, industry experts on animal and disease management skills, manure gas safety, an overview of the conference's past, and an outlook to the future of the Ontario pork industry.

The OMAFRA swine team has been involved with this conference since the beginning through their participation and input on the SWOPC Planning Committee and as presenters.

31st Annual Centralia Swine Research Update

Since 1982 the Centralia Swine Research Update (CSRU) has provided the platform for many hundreds of oral and written presentations. This annual event, held every January, provides the Ontario pork industry with timely research information dealing with disease, nutrition, economics, reproduction, animal welfare and a host of other swine-related areas.

The event provides a venue for the sharing of current swine research results, with a majority of the projects funded by OMAFRA and Ontario Pork.

The 2012 CSRU proceedings were posted on the Centralia website.
The full text of the proceedings for 2002-2010 were uploaded to the Centre for Agricultural Bioscience International's (CABI) life sciences databases on CAB Direct (www.cabdirect.org). CABI is a not-for-profit international organization that provides information and applies scientific expertise to solve problems in

agriculture and the environment.

For more information about swine production and upcoming educational opportunities visit ontario.ca\livestock.

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Plant Health

Solutions to a Garlic Pest Affecting Production and Trade

The demand for Ontario garlic has never been higher. Unfortunately the Bulb and Stem Nematode, a pest of garlic, onion, and leek, is causing significant damage to Ontario's garlic crop. The microscopic worm-like pest infects fields through infested garlic cloves used for seed. Farmers need clean garlic seed to reduce the pest's impact on quality and yield.

OMAFRA, the University of Guelph and the Garlic Growers of Ontario surveyed garlic growers to determine how widespread the problem is, to develop a 'clean' nematode-free garlic seed program for the industry, and to train garlic growers to diagnose symptoms of Bulb and Stem Nematode. The Agriculture Adaptation Council funded the project.

Results from the survey and a new "clean garlic seed" program will help expand garlic production in Ontario.

Results of the survey along with biology, symptoms and management options were presented at various workshops in 2011 and 2012. OMAFRA staff continue to work with Ontario garlic growers to identify organic and conventional solutions to help growers manage Bulb and Stem Nematodes.

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Improving Phosphorus Management in Onion and Carrot Crops Growing in Muck Soils

Due to their physical characteristics and water retention, muck soils are ideal for vegetable production, generating approximately $100 million annually in farm revenue. Phosphorus adsorption in muck soils is much less than in mineral soils because of their high organic matter content (35-85 per cent). This limited adsorption means that phosphorus not taken up by the crop remains in the soil solution either as soluble phosphorus or it reacts with other minerals in the soil. Soluble phosphorus is at risk of leaching into drainage waters and contributing to the nutrient enrichment of surface water.

OMAFRA and the University of Guelph conducted phosphorus response trials funded by the *Lake Simcoe Clean Up Fund* (Environment Canada), *Nutrient Management Best Management Practices Grant* (Ontario Soil and Crop Improvement Association) and Horticulture Crops Ontario from 2008 to 2011. Research and on-farm demonstrations were conducted at the Muck Crops Research Station, University of Guelph, and in the Bradford, Holland, Colbar and Keswick marshes. The research evaluated onion and carrot yield response and storage quality to varying rates of applied phosphorus fertilizer.

The project demonstrated that current OMAFRA phosphorus recommendations for onions and carrots grown on muck soils provide a good guide in making decisions whether or not additional phosphorus fertilizer is required prior to planting. No impact on agronomic production or onion quality after storage was observed. Subsurface water collected from tile drains showed soluble phosphorus was present in the soil and leaching risk.

Muck research reports are published on the University of Guelph website.

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Apple Scab and Powdery Mildew Resistance Survey

OMAFRA initiated and organized a national apple scab and powdery mildew survey to develop baseline information on the level of fungicide resistance in the various apple- growing provinces of Canada. This project will help growers adapt to fungicide resistance

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and reduce yield losses, allowing them to remain competitive in a global market. The information gained will also assist provincial specialists in making spray and production recommendations for growers, as well as result in the development of facilities where apple scab and powdery mildew fungicide resistance can be tested.

The two-year apple scab survey was launched in 2011 and is being completed in 2012. After one year of data collection, analysis has shown that the majority of the 49 orchards surveyed across Canada in 2011 have apple scab populations that are shifting towards resistance or are resistant to products from two important chemical families, sterol inhibitors and strobilurin fungicides. Growers will have to be careful in their choices when managing apple scab. The powdery mildew survey was launched this year to investigate the resistance to the same sterol inhibitors and strobilurin fungicides tested for apple scab. Through this project, the University of Guelph Pest Diagnostic Lab has developed a fungicide resistance testing service for apple scab.

For more information on this national survey see the OMAFRA article "Update on Apple Scab Resistance Survey".

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Airblast Education for Apple Growers

OMAFRA and the Ontario Apple Grower's created a workshop series on advanced airblast sprayer techniques. Techniques demonstrated through the workshop included how to: improve effectiveness of pesticide application for improved yield; optimize spray output to match the target (so less pesticide and water are used); and how to reduce run-off and overall pesticide load.

Three leaders in the industry volunteered to change their operations and adopt the techniques demonstrated in the airblast workshops. The operations reported to the Ontario Apple Growers at the 2012 Ontario Fruit and Vegetable Convention to share their experiences of this new method with other growers.

One grower, with 200 acres of fruit trees, corrected several sprayer and tractor issues, reduced drift, fuel consumption and noise by half, and reduced sprayer output by 15 per cent.

The second grower, a 150 acre operation, also corrected sprayer and tractor issues to improve spray coverage.

The third grower, farming 90 acres, corrected sprayer and tractor issues which improved spray coverage.

The airblast workshop is an ideal place to learn more. Participants can then take the airblast course which demonstrates the theories of the workshop. To learn more about the workshop and course, clients can contact the specialist noted below. They can also refer to OMAFRA's Calibrating Airblast Sprayer fact sheet and its Airblast 101 Online training.

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Pest Alert! Get to Know the Spotted Wing Drosophila

Spotted wing drosophila (SWD) is an invasive vinegar fly that can cause extensive damage to soft-skinned fruit crops. While most vinegar flies will only attack over-ripe, damaged or decaying fruit, SWD is able to attack healthy ripening fruit.

Surveys coordinated by OMAFRA in 2011 indicate SWD has spread to most fruit producing regions. Early detection is the key to limiting economic damage. Susceptible crops are only at risk when they begin to ripen through to harvest if SWD flies are present. OMAFRA staff are working with more than 10 crop consultants to coordinate a SWD monitoring program in 2012 at more than 100 sites to learn more about the

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build-up and distribution of this pest in Ontario. Funding has been obtained by industry to hire a coordinator, cover the cost of diagnostics and build capacity at the University of Guelph Pest Diagnostic Clinic. Results from sample collections are being reported weekly in OMAFRA newsletters and bulletins, and posted online at ontario.ca/spottedwing. OMAFRA staff are involved in three research projects and have coordinated the development of a communications network of colleagues across Canada and the United States. In addition, OMAFRA staff have worked with other affected provinces to secure six emergency use registrations for use in 2012.

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Spray Drift Videos Demonstrate Pesticide Application Best Practices

Even extremely low amounts of pesticide drift can be damaging to sensitive crops, areas of human habitat, and environmentally sensitive areas such as open water. Pesticide drift is the aerial movement and unintentional deposit of pesticide outside the target area.

OMAFRA and CropLife Canada partnered and created two videos showing the newest and best practices in pesticide application. Watch drift happening during night spraying under high powered lights, see air induction nozzles prevent drift on a boom sprayer and learn about how spray particles behave from unique computer-animated segments.

These videos are available in French and English for educators, pesticide safety organizations, sprayer manufacturers and retailers, individual producers, agrichemical companies, and agricultural associations across Canada and the United States.

The first video, *What is Spray Drift?*, highlights the various causes of spray drift. The second video, *Equipment and Methods to Reduce Spray Drift*, focuses on how applicators can modify equipment to reduce spray drift. Watch the videos at www.ontario.ca/spraydrift.

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New Grape Integrated Pest Management Tool

Grape growers have a comprehensive suite of resources about biology, monitoring and management of diseases, insects and weeds found in Ontario vineyards in a module recently added to Ontario CropIPM. Agriculture Development Branch specialists integrated information from many sources to provide the most current recommendations for pest management in vineyards in an easy-to-use format. An extensive photo gallery provides a valuable aid for identifying pests and disorders.

This module features a link between the management section of each page and the appropriate growth stage in OMAFRA's *Fruit Production Recommendations* (publication 360) so that once a grower identifies the pest and appropriate threshold for control, they can find the suitable options for management. Additional pages provide symptoms of nutrient deficiencies, abiotic disorders and herbicide injury. You can find the grape module here.

The development of this module was supported by a Farm Innovation Program grant to the Grape Growers of Ontario.

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Assessing the Prevalence of Leek Moth

The leek moth is an invasive pest of allium crops and is currently a significant pest issue for both commercial and organic allium growers in eastern Ontario. To track the spread across the province, OMAFRA staff undertook a project to determine the extent of leek moth in southwestern Ontario. The last survey was conducted in 2007. In 2010, there were unconfirmed reports of leek moth in new areas. A monitoring program was established in southwestern Ontario during the 2011 season to determine the spread of leek moth further south and west of established populations in the eastern parts of the province.

In 2011, leek moth was confirmed in southwestern Ontario in the Waterloo Region. This work confirms the spread of leek moth into new areas. OMAFRA and Agriculture and Agri-Food Canada continue to educate

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growers about leek moth biology and management at Garlic Integrated Pest Management update meetings.

Growers can access basic information on leek moth from OMAFRA fact sheet titled "Leek Moth – A Pest of Allium Crops". Current, up-to-date information on leek moth is also available on the ONvegetables.com blog.

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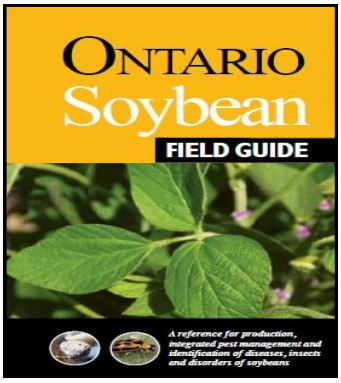
Ontario Soybean Field Guide Now Available



Soybean producers and agronomists have a new field guide to help identify soybean diseases, insects, nutrient problems, and herbicide injury. Colour photos and basic information on soybean management issues are presented in a durable, pocket-sized guide that is weather-safe.

This publication is the result of a cooperative effort between the Iowa Soybean Association and the College of Agriculture and Life Sciences and Extension at Iowa State University, OMAFRA, University of Guelph Ridgetown Campus and the Grain Farmers of Ontario. The project was funded by the SMART Soybean project (Strategic Management Adding Revenue Today) and through Agriculture and Agri-Food Canada's CanAdvance Program which is administered by the Agricultural Adaptation Council in Guelph.

Copies of the guide may be obtained by calling the OMAFRA Ridgetown Resource Centre at 519-674-1690.

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Survey Alerts Industry to Presence of Vomitoxin

In late September 2011 increased attention was given to the potential for ear moulds in the corn crop and the mycotoxins potentially associated with these moulds. These mycotoxins, particularly vomitoxin (DON) can be disruptive when fed to livestock, especially hogs.

OMAFRA field crop staff conducted a survey of Ontario corn fields. In this survey, 99 corn fields were selected from across the province, and samples were gathered by hand, processed and taken to Agri-Food Labs in Guelph for vomitoxin (DON) analysis.

The survey allowed OMAFRA staff to alert the industry to a pending problem and provide management suggestions. For example, some producers with on-farm storage may need to segregate corn by DON levels to allow them to more easily match market demands.

Corn farmers can learn more about current DON levels on OMAFRA's website.

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Latest in Weed Prevention and Control Discussed at Annual Conference

Every April municipal workers, bylaw enforcement officers and weed inspectors from various locations across Ontario attend OMAFRA's Weed Inspector's Conference. It is an annual event to educate and train people responsible for implementing the government's Weed Control Act. Training includes noxious weed detection, reporting requirements and management.

The 2011 Weed Inspector's Conference showcased the proactive approach used by the City of Brampton in the prevention and control of the poisonous Giant Hogweed which was added to the Noxious Weed List in August 2010. Other topics were discussed, including managing turf grass without conventional herbicides and managing new and emerging noxious weeds.

Information on the 2013 Weed Inspector's Conference will be distributed to municipalities in the spring of 2013.

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Animal Health

No Chronic Wasting Disease Found in Ontario Farmed Deer and Elk

Ontario's Voluntary Chronic Wasting Disease (CWD) Surveillance Project in Farmed Deer and Elk celebrated its sixth anniversary in 2011. All 1,831 farmed cervids tested were negative for CWD. Surveillance encompassed 62 herds in 28 counties, districts and regions. The survey helped cervid farmers meet certification requirements of the National Voluntary CWD Herd Certification Program and assisted them in accessing value-added export markets for 137 farmed cervids in 2011-12, worth at least $327,000.

The project was launched in April 2006 to ensure CWD was not present in Ontario farmed cervids and to detect CWD early if it was present so timely control measures could be implemented.

OMAFRA's project partners included cervid farmers, abattoir operators, the Animal Health Laboratory (AHL) and the Canadian Sheep Federation which administered sampling allowance payments and laboratory fees to participating producers and AHL respectively.

Funding is still available to test an additional 400 samples. Cervid producers who might be interested in participating should contact the specialist below.

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Calf Housing Workshops Added to 19th Annual Dairy Housing Design Seminars

Two dairy calf housing and management seminars were added to the annual OMAFRA dairy housing seminar series this year for the first time in response to strong producer interest in the topic.

In 2012 two free stall and one tie stall workshops focused on the fundamentals of dairy cattle housing design. The two workshops provided practical information needed to build a modern, economical, labour efficient facility that is comfortable for cattle. Topics included: farmstead planning and regulations; cow behaviour and comfort; layout options and housing alternatives; building environment and ventilation; feed storage and delivery; feeding and watering systems; manure collection, handling and storage; milking systems; treatment, maternity, handling facilities and biosecurity; robotic milking options; cow traffic; biosecurity; milking centre design; a case study; with an optional farm tour.

The dairy housing seminars are a joint effort of Agriculture Development Branch, Environmental Management Branch and Animal Health and Welfare Branch. Dairy housing seminar information is available at www.ontario.ca/dairyhousing.

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