

THE BUZZ



News about the OMAF and MRA – University of Guelph Partnership

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IN THE NEWS

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Welcome Readers!

Welcome to spring and sunny days ahead! This issue of The Buzz showcases a diverse cross-section of OMAF (Ontario Ministry of Agriculture and Food) and MRA (Ministry of Rural Affairs)- University of Guelph Partnership research and innovation, and highlights upcoming Partnership-related events.

RESEARCH and INNOVATION

Helping tomatoes fight disease, naturally



Tomatoes are highly susceptible to bacterial diseases, and few options are available to control the problem. Currently, copper bactericides are used, but these may fail if the diseases become too severe, or if the bacteria can tolerate copper. Soon, though, tomato plants may be able to protect themselves against bacterial diseases such as speck and spot - without the help of conventional pesticides. A team from the University of Guelph, including Prof. Paul

Goodwin, plant pathologist Cheryl Trueman and Master's student Rochelle Tazhoor, are testing how different plant defense activators improve the management of bacterial diseases. "Our goal is to develop a comprehensive package for producers to efficiently use defense activators to control speck and spot under Ontario's growing conditions," says Goodwin. "Boosting the plant's own resistance will provide all tomato farmers, especially organic farmers, with a new approach to controlling bacterial speck and spot." So far, results indicate that defense activators may be a promising alternative to pesticides. Also encouraging is the fact that no reductions in tomato yield or quality have been observed. Support for this project was provided by the OMAF and MRA- University of Guelph Partnership, Syngenta Crop Protection Canada and the Ontario Tomato Research Institute.

Got milk?

University of Guelph researchers have developed milk enriched with the anti-oxidant mineral selenium, by feeding its organic form to dairy cows. This value-added dairy product can provide a safe and organic source of antioxidants to consumers and may help prevent major diseases such as cancer and diabetes. Animal and Poultry Science Prof.

John Cant and his team have found that feeding various doses of "selenized-milk proteins" to mouse animal models reduced the size and progression of breast cancer tumours. The more selenium enriched milk the mouse consumed, the smaller the tumour size. Mice fed the highest level of selenium had the smallest tumours. Interestingly, adding selenium to dairy cows' diets can also improve the overall health of the cow. The mineral protects the milk producing cells in a cow's mammary glands, reducing the drop in milk production that usually occurs about 10 weeks after giving birth. "Supplementing with selenium is a simple and inexpensive way for dairy producers to improve their animals' health and milk production," says Cieslar. "And it may even create a unique new dairy product that provides significant health benefits to consumers". Funding for this research is provided by the OMAF and MRA- U of G Partnership, the Dairy Farmers of Ontario, the Natural Sciences and Engineering Research Council and Alltech.



AGRI-FOOD AND RURAL LINK

KTt funding program expands understanding of effective KTT and builds capacity

Funding is provided through the [Agri-Food and Rural Link](#) knowledge translation and transfer (KTT) program to help move OMAF and MRA- U of G Partnership research knowledge into use. Considerable momentum was built through the past three calls for proposals, as well as events and other activities organized by Agri-Food and Rural Link staff. In order to continue to build capacity and expand our understanding of effective KTT methods and tools, a fourth call was launched during the summer of 2012. The fourth call included two priority areas: Innovative Methods and Tools, and Increasing Capacity for KTT with the agri-food and rural sectors. The call was met with a high level of interest from the University of Guelph community and resulted in 16 funded projects. Many of the projects funded in this round were focused on technology-based KTT, including smartphone apps, use of social media and website development. Click [here](#) for more information on the Agri-Food and Rural Link fourth call, including executive summaries of the funded projects.

Education and outreach to support dairy cattle welfare



The first *Dairy Cattle Welfare Symposium* hosted by the University of Guelph was a resounding success! Between October 24 and 26, 2012, over 300 delegates from 18 different countries came together in Guelph to discuss the latest research in dairy cattle welfare. There was a diverse representation of people from academic institutions, producers, and industry. This symposium was an outreach effort under the OMAF and MRA- U of G Partnership Knowledge Translation and Transfer (KTT) program and the project Principal Investigator, Dr. Ken Leslie, is

enthusiastic about the level of knowledge transfer that happened during the 3-day symposium. Welfare is becoming increasingly important in the dairy cattle industry and through events such as this one, producers and researchers are able to work together to share important information on best practices and leading edge research. The emphasis on real solutions for real problems was noted and appreciated by symposium delegates. For more information click [here](#).

Partnership research results at your finger tips

The Research Link is an online search tool to help you learn more about OMAF and MRA- U of G Partnership research. You will find many different formats including videos, clear language research snapshots, and detailed information about specific research projects and their results. You can search by keyword or researcher name, and can filter projects by research theme and date. Click [here](#) to use the Research Link.

CATALYST CENTRE (BUSINESS DEVELOPMENT)

The IP Academy - Learning Series

Intellectual Property (IP) is becoming increasingly dominant and embedded in research and business models. With funding from the OMAF and MRA- U of G Partnership KTT program, the Catalyst Centre has now created the 'IP Academy' to integrate IP knowledge into the University's academic and research activities. Over the past semester, the IP Academy has rolled out a targeted presentation about IP as a career choice for computer science students, a case study discussion on IP Ethics, a workshop on IP and research proposals, and has celebrated the International Open Access Week with several IP professionals as key note speakers. Classroom lectures and tailored workshops and discussions on IP are now a few clicks away. Please click [here](#) for the resources you need to maximize your IP opportunities.



RESEARCH STATIONS

Simcoe Research Station receives award for innovative research



The Simcoe Research Station was proud to receive the [Bell Communication Innovation Award](#). This award was presented by the Simcoe and District Chamber of Commerce at their annual awards evening for the Station's contribution to leading edge research conducted by the research teams at the Simcoe Station. It was presented to the Simcoe Research Station, University of Guelph and the OMAF and MRA Resource Centre. Wally Andres was on hand to receive the award on behalf of the University and

Nick Kinkel was there on behalf of OMAF and MRA. Congratulations to the [Simcoe Research Station](#)!

AGRICULTURE & FOOD LABORATORY

DNA fingerprinting and beyond

Traditionally, identification of microorganisms is based on physical characteristics such as growth appearance, microscopic appearance, and biochemical reactions. DNA sequencing, based on genetic codes contained in microorganisms, has now become the method of choice for microbial species identification. The Agriculture and Food Laboratory (AFL) also utilizes the Next Generation Sequencing (NGS) technologies to analyze microbial communities in very complex samples. Hundreds of different genus and species of microorganisms, or a "microbial profile", which would otherwise be very difficult to analyze, can now be identified simultaneously from a single sample in a single experiment. The AFL also plans to develop new methods using these NGS technologies for food safety diagnostics in near future.

STAFF AND STUDENT NEWS

Dr. Peter Sikkema awarded Fellow of the Canadian Weed Science Society

At this year's Canadian Weed Science Society meeting, Dr. Peter Sikkema was awarded with the highest honour the society can grant to one of its members. The Fellow Award is intended to honour members of the society who have made outstanding contributions to weed science throughout their careers. Peter has made many significant contributions to weed science research, extension and education over his career. His work is applied and directly applicable to solving on-farm grower issues in a manner that fits with grower practices and always addresses the bottom line. More information on Peter's research and work with Ridgetown Campus is available [here](#).

Awards for Office of Research

The Office of Research, Research Communications supports the University of Guelph's research accomplishments through publications and news articles. Research Communications manages SPARK (Students Promoting Awareness of Research Knowledge), an award-winning program that allows students to develop journalism and communication skills while producing news stories. SPARK contributes to many OMAF and MRA- U of G Partnership-related communication materials including the [Agri-Food Yearbook](#), [SPARK articles](#) and [videos](#). Recently Owen Roberts, Director of Communications, attended the 2012 Canadian Farm Writers' Federation (CFWF) Awards banquet and returned with three awards. Owen took home the Gold Prize for the [2011-2012 Agri-Food Yearbook](#), Joey Sabljic took home a Silver Prize for his reporting in the video 'Higher Oil Soybeans, a Bigger Bottom Line' and Natalie Osborne took home a Bronze Prize for her reporting in the video 'Sugar Particles from Corn'. Congratulations to the Research Communications team!



Natalie Osborne



Joey Sajlic

COMING EVENTS

- Aquaculture Canada 2013 will be held in Guelph Ontario, in association with the [University of Guelph, Aquaculture Centre](#), from June 2-5. For more information about the event, click [here](#).
- Have an event you would like included in the next *Buzz*? Contact Melissa MacKay at mackaym@uoguelph.ca.

Look for the next issue of The Buzz late Spring 2013!

About The Buzz

The Buzz is the electronic community news vehicle for the OMAF and MRA- University of Guelph Partnership. Click [here](#) to view previous issues of the Buzz.

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Find out more about the OMAF and MRA- U of G Partnership at:

http://www.uoguelph.ca/omafra_partnership
<http://www.omafra.gov.on.ca/english/about/uofg/>

