

Meeting the Challenge

It has been a great year for the Ontario agriculture and food sector and for the Ontario Agricultural College (OAC). The dedicated faculty, staff and students of OAC have been working hard to develop leadership and research capacity to serve the entire sector.

In 2013, we announced a number of new donor-supported chair positions as well as Canada Research Chairs and new administrative leaders for our Ridgeway Campus and the University of Guelph's Arboretum. We also celebrated with students, alumni and faculty when they won prestigious awards, grants and accolades from their peers. This annual newsletter gives you a summary of just some of the accomplishments and highlights of the OAC community throughout 2013.

Although this is a "Year in Review", I also want to take this opportunity to look to the future. In October, Ontario Premier Kathleen Wynne challenged our province's agriculture and food sector to double its growth rate and create more than 120,000 jobs by 2020. I believe the sector is up to the challenge, and OAC is excited by this opportunity. We look forward to working with our partners to meet and exceed these expectations and recognize our important role in developing highly qualified personnel to further support the sector.

Through the challenge she offered, Premier Wynne acknowledged that a bright future for agriculture and food depends on a constant supply of new, educated and motivated leaders. Since 1874, OAC has been training young people to be leaders in agriculture and food like no other institution in Canada. Today this mandate continues with the need for a competent and innovative workforce being stronger than ever.

OAC faculty at our four campuses are dedicated to ensure that graduates from our programs are well informed industry leaders that can fill the widening gap between the number of sector jobs and the number of qualified graduates.

We are meeting this challenge in part by intensifying our recruitment efforts, through financial support from alumni and industry partners, to significantly increase our enrollment through higher application rates. And we are having success. During the past five years, we have increased enrollment across our undergraduate and



▲ Students engaging in true experiential learning

diploma programs by over 30%, including a 35% enrollment increase this past year alone in the Bachelor of Science in Agriculture degree program.

OAC has also re-dedicated itself to the enhancement of its education programs and redesigned curricula for the majority of these programs. Students are now exposed to their area of study sooner and more intensively. These changes also mean our world-renowned OAC faculty are teaching more first year courses than ever before. The program enhancements also further develop students' skills in research and communications and offer them flexibility for exchange programs as well as travel opportunities around the world to enhance experiential learning.

Ensuring that we graduate the best students to grow the agriculture and food sector is the top priority for OAC. Through our certificates, diplomas, undergraduate and graduate programs, we are keen to work to meet the Premier's challenge. But we can't do it alone and we look forward to working with our dedicated alumni, partners in industry and government, high school teachers across the province, and keen future students. Together we will work for a bright future in agriculture and food.



Robert Gordon
Dean, Ontario Agricultural College
Guelph • Alfred • Kemptville • Ridgeway

- > **Dean Reappointed** | With great acclaim and strong support from the alumni and partners of OAC, Prof. Rob Gordon was reappointed Dean of the OAC for a five-year term effective Aug 1, 2013. The decision follows an extensive review by a committee of faculty, students and staff.
- > **New Faculty Member** | Dr. Milad Eskandari was appointed as an Assistant Professor in soybean breeding in the Department of Plant Agriculture. Eskandari began in July and is located at the Ridgetown Campus. He will lead a research program focused on the development of novel soybean varieties for non-food uses.
- > **Tracking a Community's Carbon Footprint** | Students in the School of Environmental Sciences have been partnering with Eden Mills since 2007 to track the community's carbon footprint. The students have recorded a 22-per-cent decrease in emissions since the beginning of the project and determined that the community's efforts have made Eden Mills 75-per-cent carbon neutral.
- > **North American Favourites** | Nine students in OAC agricultural business, science and marketing programs won second place at the National Agri-Marketing Association student marketing competition in Kansas City, Missouri. The Guelph team was also voted "most favourite team" by the 29 competing teams.
- > **A New Leader for the Arboretum** | Professor Shelley Hunt, a forest ecologist and faculty member in the School of Environmental Sciences, was named director of the University of Guelph's Arboretum. The Arboretum is the largest and most comprehensive sanctuary of its kind in Ontario. It is home to more than 18,000 specimens in more than 30 plant collections as well as gardens, wetlands, nature trails and forests. Each year more than 73,000 people visit the Arboretum, and more than 6,000 people participate in workshops, guided tours and special events.
- > **Ridgetown Campus Director Named** | Ken McEwan was named director of the University of Guelph – Ridgetown Campus. McEwan's five-year term began May 1, 2013. As Ridgetown's tenth director, he will oversee 120 faculty and staff and an annual budget worth more than \$18.5 million.
- > **Training Environmental Leaders** | Paul Sibley, a School of Environmental Sciences professor, received nearly \$1.6 million from the Natural Sciences and Engineering Research Council of Canada (CREATE) Program. The program supports unique mentoring, learning and research opportunities that address significant scientific challenges. Sibley is the first U of G professor to receive a CREATE grant, which involves a rigorous application and review process.
- > **Fraser Institute Senior Fellow** | Glenn Fox, a professor in the Department of Food, Agricultural and Resource Economics, was appointed a senior fellow of the Fraser Institute, an independent public policy organization.
- > **A Special Invite** | A pilot program held in conjunction with the Canadian Produce Marketing Association's annual convention gave two OAC undergraduate students in the Department of Food Agriculture and Resource Economics a "taste" of the careers and networking in the produce industry. University of Guelph was one of only three universities selected to participate.
- > **Top Honours for Entomologist** | Prof. Steve Marshall, School of Environmental Sciences, received the 2013 Gold Medal from the Entomological Society of Canada during its joint meeting with the Entomological Society of Ontario in October.
- > **Outstanding Alumni** | Five out of the six finalist couples in the Outstanding Young Farmers Competition included at least one partner who was an OAC graduate. Alumnus Adam Thatcher, Class of '95A, and his wife Dana were named Ontario's Outstanding Young Farmers for 2013.



▲ Department of Plant Agriculture
Professor Milad Eskandari



▲ The 2013 University of Guelph
Canadian Agri-Marketing Association
student team members



▲ Professor Shelley Hunt is the new
director of the Arboretum

Research



^ **Signing of the agreement between the Department of Plant Agriculture, Grain Farmers of Ontario and SeCan**



^ **Prof. Jay Subramanian showcases his research to Frank Valeriote, Member of Parliament for Guelph, and Lois Brown, Parliamentary Secretary to the Minister of International Development**

- > **Poultry Nutrition** | A \$1-million gift from James and Brenda McIntosh, owners of McIntosh Poultry Farms Ltd. in Seaforth, Ont., announced in late 2013, will establish a new professorship through the Department of Animal and Poultry Science. The McIntosh Family Professorship in Poultry Nutrition position will further improve poultry nutrition research, training and outreach.
- > **Improving Vision through Corn & Eggs** | Corn could offer a solution to vision problems that many people face as they age, according to a new study by Prof. Elizabeth Lee. Department of Plant Agriculture researchers bred a new strain of corn to contain the antioxidants lutein and zeaxanthin, which protect eyes. The corn was then fed to chickens that laid eggs rich in these helpful carotenoids. The carotenoids in the egg yolks are more concentrated and absorbed better than those ingested directly from corn.
- > **Saving Endangered Trees** | A cryopreservation facility will be created at the Gosling Research Institute for Plant Preservation (GRIPP) using a new \$2-million donation from its founders. The investment will also allow the novel research institute to put down permanent roots on the U of G campus.
- > **Rural Internet Access** | Researchers in the School of Environmental Design and Rural Development partnered with Western Ontario Wardens' Caucus to survey public-sector organizations, businesses, farmers and residents in Southwestern Ontario on their needs for scalable, ultra-high-speed broadband and the availability of network infrastructure. The feasibility study led by Prof. Helen Hambly-Odame has demonstrated a critical need for a regional broadband network in Southwestern Ontario.
- > **Wheat** | A new Grain Farmers of Ontario Professorship in Wheat Breeding has been established in the Department of Plant Agriculture. Supported by a \$1-million investment and involving the Grain Farmers of Ontario, SeCan and OAC, the position will help meet a growing need for cereal breeding, especially winter wheat breeding, in Ontario.
- > **Heat Resistant Chocolate** | Terri Stortz, a PhD student in the Department of Food Science is working with Prof. Alejandro Marangoni to develop a heat-resistant chocolate. The goal is to create a chocolate that will not melt in hot climates during transportation, while still tasting delicious.
- > **Dairy Microbiology** | A new permanent faculty position in dairy microbiology has been created in the Department of Food Science through a \$2-million gift by the Dairy Farmers of Ontario. The professorship will be supported for 10 years.
- > **Eco-friendly Consumer Products** | In November, Phase 2 of the Bioproducts Discovery and Development Centre officially opened. Known as the BMO Bioproducts Innovation Extension, it includes new cutting-edge research equipment and commercialization facilities. The centre aims to reduce dependency on petroleum-based products in manufacturing and consumer goods by developing renewable, eco-friendly alternatives.
- > **Environmental Microbiology of Agro-ecosystems** | School of Environmental Sciences professor, Kari Dunfield, now holds the new Tier 2 Environmental Microbiology of Agro-ecosystems Canadian Research Chair. Tier 2 chairs are considered potential world leaders in their fields and receive \$100,000 a year for five years.
- > **Safe Hand Lotion** | 80-per-cent of traditional cosmetics contain harmful chemicals, but not a new lotion being developed by Department of Food Science master's student Fan (Cendy) Wang and Prof. Alejandro Marangoni. The lotion Wang is developing uses food-grade oil that is processed into an emulsion with the oil encapsulated in water and scented with natural fragrances making it safe enough to eat.
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- > **Recognized as the Best** | The Canadian International Development Agency and Canada's International Development Research Centre recognized the research of two Department of Plant Agriculture researchers as examples of effective initiatives supported by Phase 1 of the Canadian International Food Security Research Fund. Prof. Jayasankar Subramanian developed innovative packaging to reduce post-harvest losses in mangoes, the second largest fruit crop in India and third in Sri Lanka. Prof. Manish Raizada introduced "tool kits" to more than 2,000 marginalized farmers in Nepal, Sri Lanka and India to help boost millet production.

>forward

Knowledge Translation & Extension



^ **Chief Robert Louie addresses the Exploring Rural Land Use Conference audience**



^ **Northern Chefs Alliance members prepare dishes in support of honey bee research**

- > **The Great Bee Debate** | Professor Ernesto Guzman, who heads Guelph's Honey Bee Research Centre, and Peter Kevan, an environmental sciences emeritus professor, were named as experts to the Bee Health Working Group by the Ontario Ministry of Agriculture and Food. The provincial working group is working toward protecting honeybees and, ultimately, Ontario's food and environment.
- > **Rural Land Use** | From First Nations to farmers, the second annual conference of the Institute for the Advanced Study of Food and Agricultural Policy explored issues for a range of stakeholders. "Exploring Rural Land Use: Issues, institutions and change" was held in Guelph in May and featured fifteen speakers who discussed farmland, governance and property rights. Chief Robert Louie of the Westbank First Nation and Chairman of the First Nations Land Advisory Board was the conference's keynote speaker.
- > **Foodies Dine in Support of Bees** | The Northern Chefs Alliance – a culinary think tank of top chefs – hosted a one-night fundraiser at Toronto's Buca Osteria and Enoteca. The event brought together 10 celebrated chefs from Canada, the United States and England to cook a 10-course dinner in support of the Honey Bee Research Centre. The event raised \$9,000 in support of the Centre's community outreach and research. Two private donors then matched the funds raised, increasing the donation to a fantastic \$27,000.
- > **Tomatoes in Space** | The Tomatosphere Project received a 2012 Natural Sciences and Engineering Research Council of Canada (NSERC) Award for Science Promotion worth \$25,000. School of Environmental Sciences Prof. Mike Dixon and former Canadian Space Agency astronaut Robert Thirsk created the project in 2001.
- > **Breaking Ground** | Construction began this summer on the \$25 million Livestock Research and Innovation Centre – Dairy Facility located at the Elora Research Station of the University of Guelph. This joint project between the Agricultural Research Institute of Ontario, the University of Guelph, and the Ontario dairy industry will see a state-of-the-art world-class dairy research facility built to address the research, education and training needs and priorities of the Ontario and Canadian dairy sectors.
- > **Industry Partnership for Learning** | The Department of Food Science teamed up with Loblaw Companies Limited to develop an innovative online food safety course for Loblaw's suppliers. The new online food-safety training program, called the Loblaw's Academy, saw its first 85 participants complete the training in June. The second session of the Academy began in September with an astounding 400 participants from every continent.
- > **A New Tradition in Animal Welfare** | On May 25 researchers from the Department of Animal and Poultry Science and the Ontario Veterinary College presented their current projects and findings at the 6th Annual Animal Welfare Symposium at the University of Guelph. Presentations were made to an audience onsite and an audience abroad that could stream the day's events online.
- > **Water Management** | Rene Van Acker, Department of Plant Agriculture professor, was one of 15 experts who contributed to an expert panel on the management of water resources in Canadian agriculture convened by the Council of Canadian Academies on the sustainable management of water and land resources in Canada.

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Agriculture
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Guelph • Alfred • Kemptville • Ridgetown

Associate Dean, External Relations
Rene Van Acker > vanacker@uoguelph.ca

Communications Manager
Stephanie Craig > sraig02@uoguelph.ca

Design > Deuce Design

Website: www.oac.uoguelph.ca

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For your free subscription, or any inquires contact Stephanie Craig at sraig02@uoguelph.ca or 519-824-4120 ext 56832

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