

THE BUZZ



News about the Ontario Ministry of Agriculture, Food and Rural Affairs – University of Guelph Partnership

August 17, 2009

Vol. II, No. 12

IN THE NEWS

Guelph-bred produce has international appeal. Two asparagus hybrids developed by a U of G researcher are showing enormous promise for expanding commercial production of the crop in the UK. According to UK industry expert Jamie Petchell, the Millenium asparagus variety, developed by U of G Prof. Dave Wolyn, has overtaken long-established market leaders in terms of both quality and marketable yield in recent field trials. Currently a new hybrid developed by Wolyn is being tested in the UK and showing great promise. Asparagus crown and seed distributor, Hargreaves, has approached Wolyn to release the seed commercially. Petchell anticipates that these high-yielding varieties may enable growers to boost UK production by more than half. To date, most asparagus produced in England has come from Dutch-bred hybrids, mainly for white asparagus.

Scientists try to find safe fat for puffed pastry. By studying the structure and properties of fats, Canadian food scientists Dr. Alejandro Marangoni of the University of Guelph and Dr. Gianfranco Mazzanti of Dalhousie University in Halifax have found that full (versus partial) hydrogenation of oils from crops such as canola and soy actually produces a healthier fat product that can be used effectively in pastries without losing the "pouff" effect that occurs during baking. General Mills is the industrial sponsor partnering with the team, which is exploring many options to engineer a replacement fat that can laminate properly and stand the pressure of being compressed repeatedly while the puff pastry dough is prepared. By developing a healthier fat, the team is also working to reduce the amount of unhealthy trans and saturated fats used in baking. The research and findings were presented at the fifth annual scientific conference of the Advanced Foods and Materials Network June 11-14 2009 in Guelph, Ontario.

RESEARCH STATIONS

EARS in the Northwest. The Emo Agricultural Research Station (EARS) is located in a different time zone from the main campus, 1,795 km away. Located in Emo, Rainy River

District, near the Ontario-Minnesota border, EARS is a seasonally operated (April 1 to Nov 30) research station administered by the New Liskeard Agricultural Research Station, 1,250 km to the east of EARS. The research program involves regional evaluation and expansion of crop species, cultivars and agronomy, including research on forage species (hay/silage, pasture and seed production), spring cereals, canola, soybeans and, new this year, some vegetable trials to evaluate the potential for local food baskets. Bioenergy crops such as switchgrass, big bluestem and reed canary grass are also being evaluated for their potential to supply the needs of the Atikoken and Thunder Bay generating stations. Two hybrid poplar plantations and a clonal seed orchard for spruce are also located at the station, and work on hemp has been conducted in the past. EARS also plays a very important knowledge transfer role in the northwest. Work at EARS is funded through the OMAFRA-U of G contract as well as partners Abitibi-Bowater, the Northern Ontario Heritage Fund and Ainsworth.

BUSINESS DEVELOPMENT OFFICE

OGI invests in U of G research to eliminate boar taint with genetic markers. Animal and Poultry Science Profs. Jim Squires and Flavio Schenkel have benefitted from an investment by the Ontario Genomics Institute (OGI) and JSR Genetics for their research on genetic markers related to boar taint, in the amount of \$100,000. This research has the potential to enable pig genetics companies to produce more marketable pig lines with increased feed efficiency and lean meat yield, and proactively meet the challenges presented by increased opposition to the use of castration as a means to control boar taint -- an off-flavour associated with uncastrated male pigs grown to market weight. The investment will enable the team to identify an expanded set of the most effective genetic markers with the goal of validating a subset that are sufficiently predictive of reduced boar taint to justify the development of breeding programs driven by the biomarker approach. The team has been researching the use of genetic markers for 20 years and has in that time benefitted from many investments and grants, including a number of grants from OMAFRA.

NEWS

Move over mammalian cells, the plants are here. With an annual global therapeutic antibody market predicted to be \$30 billion by 2010, Prof. Christopher Hall and his team have helped plants move a step closer to entering the lucrative antibody market. Hall's team has shown genetically modified plants can offer an alternative to traditional mammalian cell expression systems for large-scale production of therapeutic antibodies. Plant crops have tremendous potential to produce antibodies that can assist in the treatment for diseases such as AIDS and breast cancer -- easier and more cost-effectively than using livestock. Human disease treatment with therapeutic antibodies requires many kilograms of product, which provides an opportunity for the agricultural crops sector to be a significant player in the therapeutic antibody market. Hall and his colleagues at McMaster University have recently initiated a study to help move plant therapeutic antibodies closer to the therapeutic marketplace, working with colleagues, Drs. Raja Ghosh and John Hassell to purify plant produced therapeutic antibodies and test their efficacy.

List of approved research projects posted. A list of approved projects following a call for proposals this past spring for the OMAFRA-U of G research program's seven new themes has been posted. Also posted are documents showing the distribution

and value of project operating funds, and the distribution of project proposals submitted. You can see all three documents [here](#) under the research themes heading.

STAFF AND STUDENT NEWS

New director at RIB. Research and Innovation Branch (OMAFRA) has announced that Kenneth Law has accepted the position of director. Law has a varied background having worked in the private, public and academic sectors as well as OMAFRA. He was most recently Managing Director for the Initiative of Automotive Manufacturing Innovation, a world-class research consortium in the research and development, transfer and commercialization of new technologies to the automotive industry. Law is a licensed professional engineer and holds a Master of Management Science in the management of technology from the University of Waterloo, along with a Master of Business Administration in marketing and international business from York University.

KTT capacity. Carla Verwijs is back-filling for Mary-Jo Gordon who is on secondment to the Ministry of Northern Development and Mines. Previously Carla has worked as a knowledge management consultant in Europe on projects that support industry, university and government.

BDO Welcomes Two New Staff Members. The Business Development Office has two new members on staff. Catherine Geci is technology transfer manager focusing on life sciences research, and Colleen McCaffery is technology transfer and agreements assistant. Before joining the BDO, Geci worked with intellectual property matters, including patents in the life sciences field. In addition to having a scientific academic background, she is a lawyer. McCaffrey brings industry experience, having worked in the chemical sector as a patent and licensing assistant/technology coordinator, then as a technical support analyst. Her academic background includes business administration and communication studies.

SPARK AIR going strong. SPARK AIR has posted several stories on [Farms.com](#) including stories about research on controlling weeds without using pesticides, reducing ammonia from poultry, fungicide on corn and solving tarspot in Maples. You can see these and other stories [here](#).

COMING EVENTS

Simcoe vegetable and alternative crop open house. On August 18, 2009 from 1:30pm – 5:0 pm at the Simcoe Research Station, learn tips and tricks for managing new crops. Hands-on demonstrations on alternative crops will be held, and participants will have the opportunity to talk with U of G staff and OMAFRA specialists. For more information about this event, go [here](#).

Trial garden open house. The Guelph Turfgrass Institute is hosting its annual trial garden open house on August 18, 2009 from noon to 8:00pm. Master gardeners and landscape technicians will be on hand to provide information about various plants and flowers and pest control and to answer questions from visitors. At 1:00pm, there will be a presentation on natural pest control for lawns and gardens.

Pick a peach. On Thursday August 20, 2009 from noon – 2:00pm in the Atrium of 1 Stone Road, U of G Vineland Prof. Jay Subramanian and OMAFRA Tender Fruit Specialist Ken Slingerland will be displaying 30 varieties and selections of peaches from Vineland and other orchards/breeding programs in Ontario and Michigan. Drop by and help evaluate potential new varieties for Ontario, and learn about pest and disease management.

News@Noon. The next News@Noon lunchtime seminar takes place September 3, 2009 in Room 102 of Rozanski Hall at the University of Guelph. Prof. Mike Dixon, Director of the Controlled Environment Systems Research Facility, will speak about “Biological life support for the exploration of space.” For more information, contact Liz Snyder (519-826-3376, lsnyder@uoguelph.ca) or Robyn Meerveld (519-826-4191, robyn.meerveld@ontario.ca).

2009 Canada's Outdoor Farm Show. This year's farm show takes place September 15-17 on the grounds of the Woodstock Research Station. It features demonstrations of innovative production systems, and energy and healthy living expos. For more information go to www.outdoorfarmshow.com.

About The Buzz

The Buzz is the electronic community news vehicle for the OMAFRA-University of Guelph partnership.

Editor: Liz Snyder, OMAFRA-U of G programs, 519-826-3376, lsnyder@uoguelph.ca. To contribute, contact Liz or contributing editors Robyn Meerveld, (519-826-4191, robyn.meerveld@ontario.ca) or Owen Roberts (519-826-5207, owen@uoguelph.ca).

Contributors to this issue: Sue Bennett, Simon Berge, Natalie Carter, Brenda Cassidy, Steve DeBrabandere, Ken Hough, Robyn Meerveld, Remo Pallottini, Owen Roberts, John Rowsell, Ken Slingerland, Jay Subramanian, Liz Snyder, Mary Visser Kerr, Dave Wolyn

Find out more about the OMAFRA-U of G Partnership at:
www.uoguelph.ca/research/omafra/index.shtml
www.omafra.gov.on.ca/english/about/uofg/

Please forward this newsletter to anyone who may be interested.