

# COME INNOVATE

ERIE INNOVATION AND COMMERCIALIZATION QUARTERLY



## A Message from the Vice President...

// As the title of this newsletter indicates, we encourage all to consider innovation as part of their go forward strategy. Water management, crop diversification, end markets, new markets and more. These all must be considered. Nutraceuticals, functional foods, health, bioeconomy, and agri-tourism are but a few options to increasing profitability. Read on to see how others are doing it! //



Photo Credit: Erie Innovation & Commercialization

## Repurposing the Agriculture and Agri-Food Canada Delhi Research Station

By: John Kelly  
Erie Innovation and Commercialization

**With Agriculture and Agri-Food Canada's Delhi Research Station slated to close, an opportunity exists to consider options for the future of the facility. Erie Innovation and Commercialization has received an investment from the Canadian**

Agriculture Adaptation Program (CAAP) to look at options for the repurposing of the Delhi Research Station.

Located on sandy soil in the south central Ontario region, this site is ideally suited to meet the needs of horticultural producers, water technologies (irrigation, drought intolerance, water movement) and entrepreneurs. A recently formed steering committee of stakeholders has been tasked with identifying viable options for the future of the facility, and is looking for input from industry, government and academia.

Several possible ideas have been put forth including an Agri-Food Innovation Centre, an incubation facility for new and emerging businesses, a privately held research facility

driven by industry needs, and a proposed Canadian Agriculture Water Research Institute (CAWRI). Input and discussion is needed on these and other ideas to further assess their feasibility.

The objective of this project is to develop a vision and plan for the future of the Delhi Research Station that will further the agricultural sector in the region and perhaps have significance nationally and internationally as well.

Investment in this project has been provided by Agriculture and Agri-Food Canada through the Canadian Agricultural Adaption Program (CAAP). In Ontario, this program is delivered by the Agricultural Adaptation Council.

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Agriculture and Agri-Food Canada

Agriculture et Agroalimentaire Canada

# Ontario's Citrus Boost: Sea-buckthorn

The potential of a new superfruit in Ontario

By: Shelley Imbeault  
Erie Innovation and Commercialization

Recently I had the opportunity to visit a sea-buckthorn farm in Ontario. Normally, when I mention the term 'sea-buckthorn', I am met with a puzzled look, a furrowed brow and a "what is sea-buckthorn?". Essentially, it is a shrub that ranges in size from a half to six metres in height. The branches are dense, stiff and very thorny. Growing between these thorns is the sea-buckthorn berry. The fruit is typically egg to round shape ranging from yellow to bright orange in colour.

This is a hardy plant that can survive extreme cold temperatures and is drought tolerant. It is also adapted to a wide variety of soils including sandy, gravelly soils with poor nutrients. It is well-adapted to Ontario's climate.

There is a high interest in this plant from the nutrition community because it is known as a "super-fruit". Sea-buckthorn is very high in vitamin C, so much so that when 100g are consumed, one receives ten times the amount of vitamin C than what is contained in a glass of orange juice. The berries are also an excellent source of beta-carotene, vitamin E and vitamin A. They are also a greater source of anti-oxidants than blueberries, which are well known for their healthful benefits. Sea-buckthorn can be found in teas, juices, jams and ice-cream.

Due to sea-buckthorn's high bioactive content, there is also increasing demand in the personal care and health market. The components of sea-buckthorn are widely used in cosmetics, skin creams and soaps. Along with the nutrition market, the Ontario Ministry of Agriculture, Food and Rural Affairs estimates that there is a potential North American demand for approximately 10,000 kgs of processed sea-buckthorn, a demand that is currently being met by imported product.

Less than 20 acres of sea-buckthorn is grown in Ontario between five major growers. Three of those growers are located in the south central Ontario region, with only one having the capacity to process the berries. All of Ontario's sea-buckthorn berries and products are sold either roadside or in farmer's markets.

[See Sea-buckthorn on Pg 4](#)



Ontario Sea-buckthorn



Sea-buckthorn products

## Natural BioActives Conference Showcased Ginseng and Others

By: Ed Lui, Scientific Director, OGIRC  
Western University

The program of the recent International Natural Bioactives Conference ([www.naturalbioactivesconference.com](http://www.naturalbioactivesconference.com)) highlighted the latest in research and development on bioactives from natural sources. The Ontario Ginseng Growers Association was a primary sponsor and contributor to this conference. More than 120 experts from across Canada and around the world converged in London, Ontario to focus on two primary themes:

1. Discovery in health benefits and molecular mechanisms; plant biotechnology; medicinal plant quality improvement and use of 'omics' technology; and
2. Strategy for sustainable development; multi-sector collaboration and globalization; product standardization and safety.

In addition to showcasing the health benefits of natural bioactives and the latest research tools, significant attention was directed at agricultural production. This included medicinal plant genomics, ginseng cultivar development, micropropagation technology and a Canadian in vitro medicinal plant conservation initiative. Development of product quality and the importance and implications of ISO standards, integrating traceability, sustainability, conservation ethics and safety were also noted.

Canada was well represented at this conference. Carl Atkinson

presented on "Ginseng Production: Challenges Facing Ontario Ginseng Growers" and Sean Westerveld of OMAFRA provided an overview of medicinal herb production in Ontario; Sem Ponnambalam of the Marketing Division of AAFC who provided an update on Canadian Functional Foods and Natural Health Products. At the conclusion of the Discussion Forum, John Kelly of Erie Innovation and Commercialization led a productive collective discussion of commercialization points among delegates. A final workshop focused on "Incorporation of Natural Bioactives in Food Formats" in which ginseng and other health products were discussed. Finally, Samuel Godefroy, Director General of Food Directorate of Health Canada provided comments on the regulatory frame and policy in transition.

An important message arising from this conference was the recognition of the importance of research and innovation for successful advancement and sustainable business development in natural health products and functional foods. It emphasized the importance of collaboration and communication among stakeholders from different sectors, for example agriculture, basic and advanced processing/production, marketing, regulatory agencies as well as researchers on health benefits and advanced technologies. Moreover, it is critical to eliminate the stand-alone "silos" attitude to facilitate successful integration and synergy and work at all stages along the value chain.



# A Unifying Voice For Life Sciences

By: Jason Field, Executive Director  
Life Sciences Ontario

In Ontario, life sciences are strong and diverse. It has many strengths with world class academic institutions with leading edge research programs, globally leading food production systems, excellent hospitals in a unique public healthcare system, innovative technology companies and a rich diversity of both intellectual and natural resources. But this sector continues to operate in fragmented segments which diminishes these strengths and does not show the very strong contributions and value of the industry to the economy. Enter Life Sciences Ontario.

Life Sciences Ontario (LSO) is a relatively young organization, coming into existence only a few short years ago. However, we have a long history as a growing grassroots organization; first as the Toronto Biotechnology Initiative and subsequently as The Biotechnology Initiative (TBI). Our evolution from TBI to LSO has been a natural progression of both our organization and the sector in Ontario.

This transformation was much more than transition from a regional to provincial organization; it was a fundamental shift from representing a small segment of the biotechnology industry to being a unifying voice for the entire life sciences sector in Ontario. Our founding principle is "Diversity of Membership, Unity of Voice" and it underpins every activity that we undertake as an organization. From our many networking events, mentorship program, industry promotion activities and advocacy initiatives, LSO strives to unite a broad spectrum of life sciences stakeholders that includes (among

others) agriculture and food, industrial biotechnology, pharmaceuticals, medical devices, animal health, environmental sciences and nutraceuticals.

So what is a "unified voice" for life sciences and why do we need it? You probably recognize that most of the sectors mentioned above have one or more existing organizations that represent the specific and unique needs of those stakeholders. The concept of a "unified voice" is not to replace these organizations or to duplicate their efforts. Rather, it is to look at the high level challenges that pervade across all these sectors and bring awareness to policy makers. Further, as individual sectors, we are often viewed as relatively small compared to other well organized sectors, such as the Information and Communication Technologies industry. But as a coordinated life sciences sector, we are an economic powerhouse. It is from this platform of a strong, unified sector that LSO and its partners can more effectively advocate on behalf of life sciences stakeholders.

The Ontario government has also recognized our leadership within the industry by asking us to represent Ontario's life sciences sector in several key initiatives, including the Ontario/Quebec Life Sciences Corridor, coordinating Ontario's industry presence at the BIO2012 international conference (the largest such conference in the world) and, leading the development of key priority challenges and proposed solutions for the life sciences Open for Business initiative.

See LSO on Pg 4



## Upcoming Events

### Royal Agricultural Winter Fair

**November 2-11, 2012**

**Exhibition Place  
Toronto, ON**

**For More Information:  
[www.royalfair.org](http://www.royalfair.org)**

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### The Business of Lavender

**November 14-15, 2012**

**Woodstock, ON**

**For More Information:  
[www.ontariolavenderassociation.org](http://www.ontariolavenderassociation.org)**

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### Green Rural Opportunities Summit and Exhibition

**CALL FOR ABSTRACTS**

**March 4-5, 2013**

**London Convention Centre  
London, ON**

**For More Information:  
[www.investinmiddlesex.ca/events](http://www.investinmiddlesex.ca/events)**



By: Shelley Imbeault  
Erie Innovation and Commercialization

## Agri-food Innovation is Recognized by the Ontario Government

Erie Innovation and Commercialization wishes to congratulate the SCOR regional winners of the 2013 Premier's Awards for Agri-Food Innovation Excellence.

Ontario's agri-food industry is leading the way with innovation products and ideas that are bringing more locally grown food to the dinner table.

The following SCOR region innovators were celebrated at a regional ceremonies throughout the month of August:

- Jakeman's Maple Products
- LM Bolle & Sons
- Gunn's Hill Artisan Cheese
- Ontario Cattle Feeders' Association
- VG Meats

- Burning Kiln Winery
- Glenwillow Farms
- Ontario Popping Corn Company
- S. Eric Richter

A total of 50 regional awards were handed out. Of these, five recipients will be chosen and awarded with a Premier's Award, a Minister's Award and three Leaders in Innovation Awards at the Premier's Summit on Agri-food that takes place in October of this year. Good luck to the recipients.

For more information or for a full listing of regional winners, please visit [www.omafra.gov.on.ca/english/premier\\_award/2011/winners/regional.htm](http://www.omafra.gov.on.ca/english/premier_award/2011/winners/regional.htm)



2012 Amaranth Golden Giant in Ontario

## Sea-buckthorn

*Continued from Page 2*

Marlene Wynnyk is a sea-buckthorn farmer in Wingham, Ontario and one of the first to recognize the value of this plant.

"I would recommend sea-buckthorn to any farmer. It's perfect for our climate and soil," says Wynnyk.

Although this product is new to North America, it has been used in China and Russia for centuries. There is potential for Ontario farmers with this super-fruit.

With continued development of Ontario production, hopefully one day we will see Ontario sea-buckthorn on our grocery shelves.

## LSO

*Continued from Page 2*

We do have one major challenge: a "unified voice" is only effective if it is truly representative of the great diversity in Ontario's life sciences community. LSO has already partnered with many organizations, companies and individuals who have contributed to this unified voice, but we need your voice as well.

To find out more about LSO or to become a member, please visit: [www.lifesciencesontario.ca](http://www.lifesciencesontario.ca)

# Superfoods for Health: A look at Katan Kitchens

By: Jamie Draves, Katan Kitchens

**Katan Kitchens was born out of the opportunity and benefit of integrating Food and Health. Jamie Draves, President and Founder of Katan Kitchens, leveraged his health industry background with his first hand experience in using superfoods to overcome a personal health crisis. Traditional medicine had failed to successfully treat Jamie**

when he was diagnosed with idiopathic (no known cause or treatment) pancreatitis. Similarly, heavily processed foods failed to provide the nutrients and immune system support his health required in this compromised state. It was understanding the importance of food health, the role of superfoods in health improvement, and the growing importance of food health and disease, that sparked his entrepreneurial activity. He has set out on a mission to produce pure superfoods locally to support Katan Kitchens and others in preparing high nutrient, high antioxidant and easily digested foods.

Innovation and market development occur at a much greater rate than in the past. Innovative developments could have taken decades, but now technology has shown us that innovation can happen annually or sooner. Erie Innovation and Commercialization recognizes the need for expediency and support for south central Ontario-based companies to maximize on these agricultural, health and entrepreneurial opportunities.

As recent as last year, "natural food" markets had been deemed as niche markets; niche markets with a premium. Along with help, direction and support of progressive partners such as Erie Innovation and Commercialization, Sand Plains Community

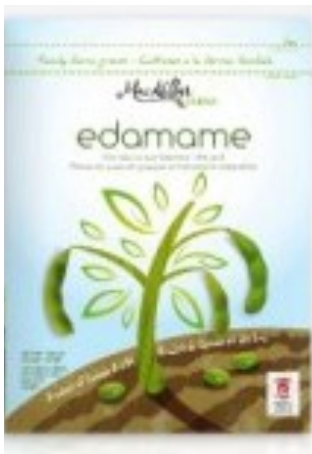
Development Fund, Canadian Agricultural Adaptation Program, the Ontario Ministry of Agriculture, Food and Rural Affairs, and the Ontario Soil and Crop Improvement Association, Katan Kitchens has been actively conducting research and development on commercially grown superfoods; such as quinoa and amaranth. The timing is optimal; these markets are showing significant growth with limited global production.

Others, including local producers, processors, distributors and retailers, are joining in this campaign as Katan Kitchens builds a robust SuperFood Value Chain. "The willingness and interest from southwestern Ontario growers have been impressive", says Draves. "We continue to hear from producers, processors, distributors and retailers that they are looking for, and their customers are looking for, something more from their products; be it health, history, innovation, uniqueness or margins. Quinoa and Amaranth certainly satisfy those criteria and create a great opportunity for future food health products."

If you are interested in learning more about these superfoods or joining the Superfood Value Chain, you can contact Jamie Draves at [jdraves@katan.ca](mailto:jdraves@katan.ca) or at 289-839-0097.

## Meeting Identified Market Needs

By: John Kelly, Erie Innovation and Commercialization



Jacob McKellar had a dream when he left Ridgetown College and then Olds College in Alberta a few years ago. He wanted to become the purveyor of products that supported an unmet market. Enter the world of Individually Quick Frozen (IQF) edamame soybeans. These are soybeans, but behave differently than conventionally raised soybeans. Green soybeans of specific varieties are picked when there are three soybeans to a pod. Then the soybeans are either boiled or salted. In the case of McKellar Farms, they worked with Delhi based Naturally Norfolk to freeze and package the product. Jacob was able to produce a consumer-friendly, professionally packed edamame product that hit the market in 2011.

This is not a simple process at all to bring this product to market, however, it does take persistence, drive and commitment to making it happen. It is also essential that continued improvement of the product to meet both the agronomic realities of south central

Ontario along with the consumer demands of the right shaped and flavoured product. Jacob has done all of this, and continues to improve his process and his varieties. In 2012, he has evaluated more than 155 varieties on his operation, well understanding that if you stand still, you will be passed by your competitors. His competition is international in nature, taking head on large operations from China and Taiwan. His company has found their niche in supplying Canadian based edamame to demanding customers, and there is a growing market for these products.

Jacob looks to the future, working with Erie Innovation and Commercialization and others to find new ways to develop his products. Taking advantage of those with large networks, McKellar Farms is looking forward to bringing their products to the next level, becoming a new internationally based company in southern Ontario.

Contact us at 519-854-7414

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