

SeedBytes

A quarterly newsletter produced for the New Brunswick Seed Potato Industry

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New Brunswick Seed Potato Growers Association Update

The NB Seed Potato Growers Association continues to be involved in a number of important issues and ongoing activities affecting our provincial seed potato industry. These include:

- **BRR issues** such as a national protocol for cleanup/best management practices; research into the development of new disinfection materials; BRR testing of EI sold off-farm, sample size protocol.
- Seed potato allocation at the **Bon Accord Elite Seed Potato Centre**.
- **Potato Cyst Nematode (PCN)** - Approximately 65,000 samples (5 lbs/sample) have been taken in Canada in 2009 with most having been taken to meet export requirements to the U.S. In NB, approximately 9,500 samples have been taken and represent approximately 75% of seed potato production in the province. It appears US requirements for 2010 will not change. CFIA cost recovery on PCN sampling and testing may become a Canadian industry issue in 2010.
- **Future PCN research in Canada** - The Quebec industry is asking for national and provincial support (including financial) for a national research program in that province.
- **BRR insurance** – The original request to the NB Crop Insurance Commission was to change its existing policy so that BRR-infected seedlots may be disposed in a manner that does not force the grower to channel the potatoes into a non-seed market and possibly cause further contamination.

The Commission responded by indicating that producer premiums will increase by 20%, zero yield be inserted into the indemnity calculation and historical yield, and contact lots be also included with infected lots. The NBSPGA has not agreed with the proposed requirements and discussions on the issue are ongoing.

- **Florida test requirement for Maine** – continue to ask them to accept the Elisa lab test.
- Continue to ask the federal government to **review all CFIA inspection fees** with the intent to lower or remove the fees.
- Discussions with the NB Dept of Agriculture & Aquaculture on possible future implementation of **mandatory post harvest virus testing of seed potatoes** to be planted in the province; a mandatory survey undertaken in 2009 will attempt to define the level of PVY in specific varieties.
- Continue to monitor the **Seed Potato Quality Management Program**.
- Provided input in proposed changes to the **variety registration** program - The introduction of new lines/varieties through the fast-tracking process will be implemented by CFIA in the future. The seed potato industry has asked CFIA to ensure that industry is provided adequate information (on new lines/varieties) relative to potential virus infection.

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Upcoming Events

Potatoes NB Annual Conference — Thursday, February 11th at the E.P. Sénéchal Centre in Grand Falls. For further information, please contact the Potatoes NB office at (506) 473-3036 or ctpotato@potatoesnb.com

Northeast Potato Technology Forum will be held in Charlottetown, PEI on March 10—11, 2010. For more information contact **Brian Beaton** — beaton@gov.pe.ca



Canadian Agri-Science Clusters & National Potato Industry Priorities

By Chuck Dentelbeck—Canadian Horticulture Council

The Canadian Agri-Science Clusters is an initiative launched under the federal government's Growing Canadian Agri-Innovations Program. The purpose of the program is to help industry-led agricultural organizations pull together national scientific and technical resources to establish clusters in support of innovation and research. Projects for the program must focus on the pre-commercialization development of new agriproducts, practices and processes in Canada that will make agriculture more profitable and competitive.

To date, the Canadian Horticultural Council (CHC) has undertaken a number of activities to gather input from members, including: a member survey; Innovation and Research Symposium at the March 2009 AGM; the formation of the Science Advisory Committee (SAC) by way of resolution at the CHC-AGM in Calgary; numerous SAC conference calls; a face-to-face SAC meeting on June 3-4, 2009; and commodity groups such as potatoes establishing their national research priorities in collaboration with their value chain partners. The Research Working Group of the CHC-Potato Committee Executive (PCE) met with their value chain partners on August 9, 2009. The group established a list of issues facing the potato industry and identified possible projects. The CHC-PCE met on November 3, 2009 and agreed that the following research priorities be advanced under the Agri-Science cluster application which must be submitted by January 31, 2010:

- Late blight,
- Breeding and evaluation, and
- Priority pests - verticillium wilt, scab and wireworm.

The PCE has asked Dr. Khalil Al-Mughrabi to chair a late blight working group responsible for the development of a work plan focusing on the following:

- National late blight strain identification program,
- National late blight research program,
- National late blight extension program, and
- Late blight information for a national potato website.

For more information on this initiative please feel free to contact me (CDentelbeck@hortcouncil.ca).



Bio Potato Strategy

By Dr. Helen Tai and Dr. Yvan Pelletier—AAFC

Potato is utilized as a staple food around the world, and is the fourth most cultivated crop. At present, almost all the potato crop harvested in Canada is sold on the fresh market or processed into French fries and potato chips. However, potato has a wide range of unique, beneficial characteristics. Diversifying potato crop usage will provide farmers with increased economic opportunities. In addition, development of new products will provide opportunities for Canadian industries. For these reasons the BioPotato Network was formed to foster development of potato-based bioproducts and bioproducts to enhance potato production. The BioPotato Network includes 31 scientists from various disciplines representing around 11 institutions from government, universities and industry from across Canada. The network focuses on developing bioproducts for health and the environment.

Our understanding of the relationship between food and health has increased interest in functional foods and nutraceuticals. These are foods and extracts that have health benefits beyond providing basic nutrition. Potato varieties that are consumed today are mostly white in color. However, potatoes with skins and flesh that are red, purple, yellow and orange contain high levels of bioactive compounds. The BioPotato Network explores what kind of benefits they provide to a number of health conditions including neurodegenerative diseases, stroke, autoimmune dis-



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orders, diabetes, allergies, infections, heart disease and obesity-related diseases. New potato varieties with high levels of beneficial bioactive compounds are being developed through breeding. Another kind of functional food product from potato will address dietary changes prescribed for the prevention and management of conditions such as type-2 diabetes, coronary heart disease, obesity and certain cancers. These changes include decreasing the glycemic index and increasing fibre intake. Through breeding and processing, potatoes are being developed in the BioPotato Network to have modified starches that are less digestible (thus, lowering glycemic index) and increased fibre content. The goal is to provide innovative potato-based health products for consumers.

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Potato tubers are a good source of starch and the research in BioPotato Network contributes to development of value-added potato starch products. The versatile starch molecule can be chemically and/or physically modified for use in making pills and tablets for the pharmaceutical industry resistant starch in functional foods, gums in food additives and a number of other products. A particularly attractive application of potato starch is for making bioplastics. Bioplastic is a new generation of material that is able to reduce environmental impact by being biodegraded through the action of living organisms while functioning like traditional plastic. In addition starch-based bioplastics are derived from renewable agricultural sources as opposed to non-renewable petroleum sources for traditional plastics. Starch based polymers and/or blends have been used to produce biodegradable plastics in trash bags, mulch films and containers for packaging. The expertise of the BioPotato Network is being used to develop potato based bioplastic products including starch based bioplastic and fibre-based bioplastic for film, foam, nursery pots, tablewares and packaging applications.

Potato is a domesticated species that is part of the Solanum genus, a large group of tuber bearing plants. Other related wild Solanum species contain in their foliage many useful chemical compounds. Some Solanum species are resistant to the main insect pest in potato, the Colorado potato beetle. Chemicals that are toxic to the beetle or prevent it from feeding on resistant species can be used to develop a botanical insecticide and biopesticide that are safer for health and the environment. Wild Solanum are hard to grow but can be domesticated through crossing with the cultivated potato. These hybrids can provide an agricultural source for botanical insecticides and biopesticides.

For more information go to the BioPotato Network website at www.biopotatonetwork.ca.



Potatoes NB Annual Conference—February 11, 2010

The 2010 version of the Potatoes NB Annual Conference will be held at the **E.P. Sénéchal Centre in Grand Falls on Thursday, February 11**. This new facility boasts not only a premiere ice surface, but also a new venue for conferences.

Presenters at the conference include Dr. Yves LeClerc, Jimmy the Janitor, Dr. Khalil Al-Mughrabi, Jolene Brown, Dr. Loretta Mikitzel, Dr. Benoit Bizimungu and many more.

For more information on the conference visit : <http://www.potatoesnb.com/conference/overview.asp>

Accelerated Release Program—2010

The 2010 edition of the Accelerated Release Program will be held at the Potato Research Centre in Fredericton on Wednesday, February 17th. The program starts at 10:30 AM and concludes at 3:30 PM. Lunch will be provided with speakers in the afternoon.

For further information contact Benoit Bizimungu at 452-4880 or Agnes Murphy at 452-4824.



Walls have eyes at CTA

By Jon Hilkevitch | Chicago Tribune reporter

You might think you've seen mold growing on the walls of CTA subways. Or stalactites. Or unidentifiable cankers. But potatoes?

There is indeed a pile of potatoes sprouting through the ceiling in the pedestrian tunnel connecting the Red and Blue lines at Jackson.

You say "tater." I say "tuber." Any way you slice it, the fake spuds are planted in polystyrene soil on the roof of the underground walkway in a bid to sell more Lay's potato chips.

What more might a hungry commuter ask for, except some tangy chip dip and a train that isn't crammed with passengers like 10 pounds of potatoes stuffed into a 5-pound sack?

Lays teamed up with Titan Worldwide, the CTA's advertising contractor, and Atomic Props & Effects to create the hanging-potato collage. The ad, which will run through Sunday, was created to promote Lay's "Closer than you think" campaign to show consumers that Lay's potatoes are grown on American farms, including by local farmers.

To prove its point, Lays set up a "Chip Tracker" on its Web site, www.fritolay.com.

Customers can click on the Chip Tracker and enter the first three digits shown under the expiration date on each bag of chips to see how close to home the potatoes were born and bagged.

What a wonderful excuse for a reporter to eat expense-account potato chips all afternoon.

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Travelers react to an unusual advertisement for Lays potato chips Monday on the ceiling of the pedestrian walkway between the Red and Blue line CTA Jackson stations. (Terrence Antonio James / Tribune / August 3, 2009)

NBSPGA Update

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- Establishment of a national late blight working committee (within the CHC Potato Committee) composed of industry and government representatives that will identify and channel priority research (i.e. late blight strain identification) and extension activities in Canada.

The NBSPGA participates in the following:

- National Seed Potato Sub-Committee of the Potato Committee, Canadian Horticultural Council
- Bon Accord Elite Seed Potato Centre & the Plant Propagation Centre Stakeholder Advisory Committee
- NB Potato Market Strategy Development Advisory Committee
- Canada-US Potato Committee meeting
- Mandatory Post-Harvest Virus Testing Committee

Many of the issues and ongoing activities identified will require substantial attention in the next year. In addition, there are always new issues that have to be dealt with in a timely manner.



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SeedBytes is produced through a collaborative effort by Potato Development Centre staff. Special thanks to Dr. Loretta Mikitzel for ongoing editing of this newsletter. If you have ideas for future issues, please forward them to any Potato Development Centre staff member.