

# SeedBytes

A quarterly newsletter produced for the New Brunswick Seed Potato Industry

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## NBSPGA Annual Meeting Held

By Andrew Sullivan—Plant Propagation Centre

The Annual Meeting of the New Brunswick Seed Potato Growers Association (NBSPGA) was held Tuesday, March 20<sup>th</sup>, 2007 in Perth-Andover. Many hearty souls braved the stormy weather to attend the supper and evening meeting.

Presentations during the Annual Meeting focused on current issues:

- *Development of oil and border crop technology for aphid control*
- *Virus survey of New Brunswick E3 and E4 seed lots*
- *Highlights of Trip to Cuba*
- *Annual Report of the NBSPGA*
- *Highlights of the Canadian Horticultural Council meetings held in Vancouver, BC March 5-9, 2007*

- *Potato Cyst Nematode situation and national survey*
- *Bon Accord Elite Seed Potato Centre and Plant Propagation Centre updates*
- *Department of Agriculture and Aquaculture update*
- *Incremental Crop Insurance*

There was active discussion on several topics during the meeting: Potato Cyst Nematode and how current soil testing requirements impact timely seed shipments to American markets was the dominant issue.

These meetings are as strong as the people who attend them. The NBSPGA executive thanks all those who attended the Annual Meeting, and welcomes input from all seed potato producers on topics of interest to them and their businesses.

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### Upcoming Events:

Potato Roguing School will be held in late June/early July. For more information, please contact Janet McLaughlin or Jacques Lavoie at 1-866-778-3762.

New Brunswick Institute of Agrologists

2007 Annual General Meeting  
 April 20, 2007

Fredericton Inn

Contact  
 nbia@nbagrologists.nb.ca for more information.

The Potato IPM Scouting School will be held again this summer. Please contact Dr. Khalil Al-Mughrabi at 1-866-778-3762 for further information on dates and topics to be covered.

Electronic versions of all Seed-Bytes issues can be found online at [www.gnb.ca](http://www.gnb.ca), then click language preference, Departments and Agencies/Agriculture and Aquaculture/ Potatoes/SeedBytes and select the month for the issue.

The newsletter link has been emailed to all recipients. If you do not have the link, contact Andrew Sullivan at [andrew.sullivan@gnb.ca](mailto:andrew.sullivan@gnb.ca) or 1-866-778-3762.

### New Brunswick Seed Potato Growers Association

#### 2007-2008 Executive

Gailen Allan—President

Steven Hunter

Sean Kilfoil—Vice President

Paul Dionne

Robert Watson—Secretary—Treasurer

Stephen Pray

Robert Jeppesen

Mike Givskud

Wayne Albright

Gilles-Pierre Côté

Denis Desjardins

# International Maine-Maritime Potato Action Team (IMMPACT)

By Dr. Khalil Al-Mughrabi—Potato Development Specialist—Pathology



The traditional potato farming region of Northwest New Brunswick and Aroostook County in Maine is comprised of several hundred family farms that have made the potato their primary cash crop for generations. Though divided by an international boundary, the region appears as a continuous stretch of cultivated land, where many Maine and New Brunswick farms are separated by fence posts, tree lines or the St. John River.

IMMPACT was initiated during the winter of 2004/2005 in response to concerns from New Brunswick and Maine over late blight management. Late blight is recognized as a 'community' plant disease, whereby control practices implemented by the individual impact everyone in the region. Since this plant disease, and others, know no boundaries, IMMPACT has gathered stakeholders from our international farming community to collaborate in the promotion of best management practices for potato plant health.

Members of IMMPACT include Potatoes



New Brunswick; Maine Potato Board; New Brunswick Department of Agriculture and Aquaculture; Maine Department of Agriculture, Food and Rural Resources; Maine Seed Potato Board; Agricultural Certification Services; University of Maine Cooperative Extension; McCain Foods Canada; and McCain Foods USA.

The website ([www.potatoimmpact.com](http://www.potatoimmpact.com)) which offers valuable information to potato growers on potato disease management was launched in 2005. Bilingual fact sheets on managing late blight and other potato diseases produced by the New Brunswick Department of Agriculture and Aquaculture and others produced by the University of Maine Cooperative Extension can be accessed by browsing the website. The website also includes useful links from various Canadian Provinces, the United States, and international potato organizations. Insect and blight hotline numbers in New Brunswick and Maine are also listed.

I encourage all potato growers and home gardeners to visit this website – I am certain they will find it very useful.

For further information, contact Dr. Khalil Al-Mughrabi at the Potato Development Centre at 1- 866-778-3762 or by e-mail at [khalil.al-mughrabi@gnb.ca](mailto:khalil.al-mughrabi@gnb.ca).

**IMMPACT meetings have focused on collaborative efforts to advise potato growers in the region on optimum late blight control methods. The general action plan includes the following:**

1. Formation of an international group of crop advisors and policy makers to address current issues.
2. Development of consistent information on disease inoculum, cull pile management, and control methods.
3. Establishment of a common system of weather monitoring and disease forecasting system in Maine and New Brunswick.
4. Continued emphasis on timely and accurate telephone "hotline" programs and the establishment of an email list server for local crop advisors to receive late blight updates.
5. Agreement on township / parish resolution for late blight warnings.
6. Development of news topics targeting critical disease control stages.
7. Establishment of media contacts for technical and policy issues.
8. Website outreach to consolidate existing late blight information.

## 2007 Cull Potato Pile Disposal

By Brian DuPlessis — Manager— Potato Development Centre



Cull potatoes are a source of diseases such as late blight and bacterial ring rot. The presence of cull potato piles increases the risk of the new crop becoming infected with these diseases. Proper cull potato disposal is a necessary component of an effective disease management strategy.

All cull potato piles must be disposed of prior to the deadline date of **June 10, 2007**.

For further information, please contact the Potato Development Centre, Wicklow, toll-free (1-866-778-3762) or 506-392-5199.

May		June					Jul
Mo	Tu	We	Th	Fr	Sa	Su	
28	29	30	31	1	2	3	
4	5	6	7	8	9	10	
11	12	13	14	15	16	17	
18	19	20	21	22	23	24	
25	26	27	28	29	30	1	
2	3	4	5	6	7	8	

**Cull Pile Disposal Deadline**

# Seed Potato Prep 101

By Dr. Loretta Mikitzel — Potato Development Specialist—Physiology



It is that time of year again. You have decided on which cultivar(s) to grow and how much seed you need. Now it is time to bring that seed home and prepare it for planting. Consider the following:

1. The experience, expertise and integrity of the seed potato grower are the most important factors in the consistent production of good quality seed tubers. Choose a seed grower you know and trust.
2. Make sure you and your seed supplier are in agreement on cultivar, clone, seed size, class, grade, quantity, price, date of delivery, etc.
3. Make sure all paperwork is in order – certification, field inspection results, post harvest test results, purchase agreement.
4. Disinfect the truck(s) that will transport the seed.
5. Disinfect all surfaces of the storage area where the seed will be stored. Remember – “the blue stuff” disinfectant works best in cold water.
6. Do not store seed in any area where a sprout inhibitor was used or where sprout inhibitor-treated tubers were stored.
7. Are you familiar with Canadian seed potato regulations and tolerances? Check the seed upon arrival and contact CFIA immediately if quality may be an issue and an inspection is needed.
8. Keep records of conditions and weather/temperature during loading, unloading and handling. Good records can protect you if seed does not perform.
9. Keep seed lots separate whenever possible.
10. Keep the seed clean: provide disinfectant foot dips at all seed storage entrances. Make sure employees use them. Refresh foot dips regularly – a dirty dip is a useless dip.
11. Avoid rough handling and bruising the tubers. Bruising stresses the tubers, decreases seed performance and invites pathogens to attack, and rot, your seed.
12. After delivery, store seed tubers at 4-5C and 90-95% RH. To minimize damage during handling, slowly warm seed to 10-12C over 7-10 days prior to cutting.
13. Cut seed with sharp, clean blades adjusted to deliver piece size that weigh about 2 ounces. Disinfect the seed cutter daily and between seed lots.
14. Apply seed piece treatments, at the label rate, at time of cutting and provide workers with appropriate safety gear.
15. Cut seed pieces may be stored and wound healed at 12-15C, 95%RH and with adequate oxygen in piles no higher than 6 feet.
16. Plant either freshly-cut seed (cut and planted on the same day) or seed that has been wound healed for about two weeks. Time the seed cutting operation accordingly.
17. To control sprout growth if planting is delayed, cool the cut seed pieces down to <6C, then re-warm prior to planting.
18. Unless physiologically aged seed is desired, avoid storage conditions that promote sprout growth and avoid desprouting the tubers.
19. Consider greensprouting to promote an early harvest for seed production or to capture that lucrative early table market. Place small whole tubers in continuous light at 12C for 4-6 weeks prior to planting. Greensprouting tubers advances the growing season by about 2 weeks.

## Good Seed Pieces



1 ½ -3 oz whole tuber

## Good Seed Pieces



## Good Seed Pieces

blocky piece  
few cut surfaces

## Poor Seed Pieces



undersize  
<1 ½ ounce



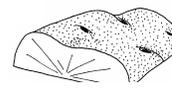
blind  
(no eyes)

## Poor Seed Pieces



ragged cut  
sharpen those knives!

## Poor Seed Pieces



slabs or slivers (large cut surface)



Sketches for this article were obtained from *Potato Facts: Selecting, Cutting and Handling Potato Seed* (Bulletin # 2412) - Author Dr. Steve Johnson—University of Maine

## Atlantic Potato Evaluation and Recommending Committee (APERC)

By Agnes Murphy—Potato Research Centre—AAFC



The Atlantic Potato Evaluation and Recommending Committee (APERC) is comprised of representatives from provincial governments, private industry, grower groups along with private and AAFC potato breeders in the Atlantic Provinces. Canadian Food Inspection Agency (CFIA) personnel attend as non voting members. Similar to its counterparts in other regions, this committee is responsible for reviewing and recommending candidate cultivars and selections for registration of potato varieties. In operation by 1959, it has, since the late 1980's, operated under the authority of the Federal Minister of Agriculture.

The APERC committee meets twice a year. The bulk of the committee's work is conducted at the winter meeting, held recently in Fredericton. Its main purpose is to set standards for trials where performance data are collected to support registration and to ensure that data and other requirements for registration are complete. If the documentation is in good order, the candidate variety is recommended for registration in Canada.

### 2007-08 APERC Executive Members

Chair	Dr. Robert Coffin – Cavendish Farms
Vice-Chair	Dr. Mathuresh Singh – Potatoes New Brunswick
Secretary	Allan Stewart – McCain Produce Inc.

Authorization for registration lies with the Variety Registration Office of CFIA. Vital to this process is an objective botanic description and a complete photographic record of the candidate variety, which allows CFIA inspectors to differentiate varieties and identify varietal mixtures in seed crops. A measured total glycoalkaloid (TGA) value of less than 20 mg/100g fresh weight of tubers is also required for registration to proceed. Richard Tarn, potato breeder and long serving member of the committee comments "this is an effective way to ensure that varieties which are recommended for registration do not present a problem to industry or consumers".

Additionally, the committee addresses issues pertaining to variety registration and potato production. Recent topics of concern have included the requirement for labeling yellow fleshed varieties and unauthorized multiplication of protected varieties. The committee conveys its views and makes requests for action to producer organizations, such as the Canadian Horticulture Council, and government officials to effect change.

A late summer meeting is convened each year in alternating provinces. This allows follow up on business items and always includes a tour of a registration trial and other agricultural visits. It's safe to say that most APERC members are happiest when comparing the merits of new varieties out in the field.

### Did you know...

It is possible to stay healthy on a diet of potatoes alone? Potatoes are rich in protein, carbohydrates, minerals, and vitamins such as riboflavin, niacin and Vitamin C. In the 19th century, Irish peasants, whose diet consisted solely of potatoes, were actually healthier than peasants in England or Europe where bread, far less nutritious, was the staple food.

(information courtesy [www.historyplace.com](http://www.historyplace.com))

## Growing potatoes in mid-air

(story taken from the Crop Biotech Newsletter)

**Growing potatoes in mid-air, in a new technique called aeroponics, is showing great promise. The technique consists of cultivating potato seedlings on specially adapted frames so that the roots, and the tubers, grow suspended in the air, without touching the soil.**

This avoids the need to disinfect the soil with harmful chemicals and keeps the tubers healthy as well. The frames are covered with black plastic to keep out the light and the plants are sprayed with a solution of nutrients to allow them to grow.

The International Potato Center (CIP) is using the technique to improve production and reduce the cost of producing seed potatoes. The method is up to



The roots and the tubers grow suspended in the air, without touching the soil.

ten times more effective than with the conventional techniques. Another advantage is that the little tubers can be harvested at any size seed the user wants, from 5 to 30 grams. Spraying fertilizers directly on to the roots makes it possible for the growth phase to continue for more than 180 days without interruption, which does not happen with conventional techniques.

First results have been very successful. For example, 67 seed tubers were obtained per plant with the variety Yungay; with Canchán INIA, 70 tubers and with Perricholi, 69. With conventional techniques, the average is from 5 to 10 tubers per plant.

### Editor

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