September/October 2018 Volume 19, Issue 5

# Prince Edward Island



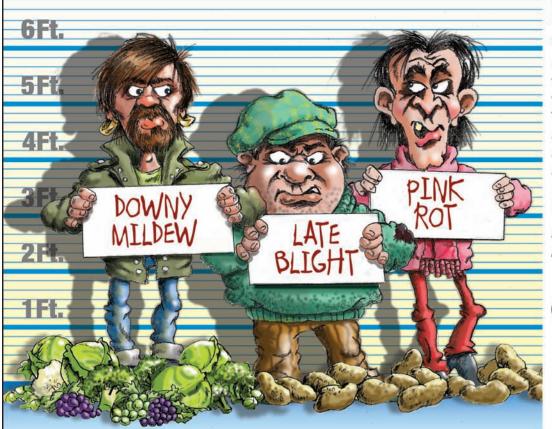
### PEI POTATO BOARD ANNUAL BUSINESS MEETING

Wednesday, November 21st, 2018
9:00 to 11:00 am
Potato Board Office
90 Hillstrom Ave, West Royalty Business Park, Charlottetown, PE

Please join the Board of Directors and staff as we review the financial statements and Board activities for the last year and provide opportunity for input on activities and priorities for 2018/2019.



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### Prince Edward Island

# **POTATO NEWS**

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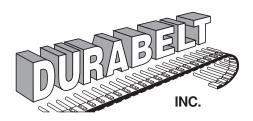
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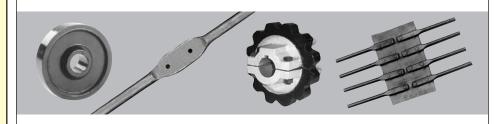
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Cover: A drone camera provides a great shot of potato harvest underway at Skyeview Farms in Elmwood. Photo: Tayler Weeks.



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# Chairman's Comments

by Darryl Wallace, PEI Potato Board Chairman

No matter where extreme weather events happen around the world these days, we hear about it in a matter of minutes - from hurricanes and tornadoes to wildfires and typhoons - and we are in awe at the power of Mother Nature. Closer to home we are dealing with the impacts of the 2018 weather season on our farms. The late spring, dry and hot summer and now an early killing frost in many areas will all affect the yield and quality of the crop we dig.

They say that misery loves company, and we are certainly not alone this year. Growers in Europe have experienced a drought in 2018 which will result in reduced global supplies of fresh and frozen processed potatoes; they have experienced heat and smoke in western Canada and the USA and wet weather in some parts of the Midwest and on the US Eastern Seaboard. Overall, North American Potato Market News is forecasting a 2.3% reduction in the North American potato crop. We encourage growers to stay up to date with current market reports as we will need to get every penny out of our crop this year.

The Board is changing the format for its Annual General

Meeting and the details are available under 'Potato Board News' in this issue. I encourage

everyone to come out to our Business Meeting on November 21 to learn about Board activities and have input into our priorities for next year. We will also discuss changes to our governance model, so your attendance is important.

In this busy and changing world it is more important than ever that we work together through our Board to address issues such as maintaining access to crop protectant products, dealing with the CFIA cost recovery initiative, and gathering clear information on how the new Safe Food for Canadians Act will affect our operations, among others.

It has been an honour to serve as the Board Chairman over this past year. I have learned a lot about the industry and how fortunate we are to have a strong grower organization.

I wish everyone a safe and productive harvest season.





The PEI Potato Seafood Chowder Championship First Place Award was presented by Potato Board Chairman Darryl Wallace to Chef Seth Shaw, The Brickhouse Kitchen & Bar. Photo: Photo: Al Douglas.

# POTATO BOARD NEWS

# **Changes Announced for the PEI Potato Board Annual General Meeting**

The PEI Potato Board is pleased to announce a new approach to how we conduct our annual meeting, trade show and awards banquet.

The PEI Potato Board's Annual Business Meeting portion of the meeting (where the chairman's report, financials and Board's annual plan are reviewed) will be held 9:00 to 11:00 a.m. on Wednesday November 21 at the Board office at 90 Hillstrom Avenue in Charlottetown. Brief updates will also be provided on plans for the coming year, and the outlook for the 2018 marketing season.

As for the speaker agenda, trade show and awards banquet portion, the PEI Potato Board is excited to team up with the PEI Department of Agriculture and Fisheries to host a more robust 2 day PEI Potato Conference, Trade Show and Industry Banquet on February 19 and 20, 2019. The Potato Conference and Trade Show will be held at Red Shores Charlottetown and the Industry Banquet will be held

at the Delta Prince Edward Hotel in Charlottetown on the evening of the 19th. Sponsorship opportunities for the Conference, Expanded Trade Show and Industry Banquet will be available in the next few weeks.

We are hopeful these changes will provide greater value to producers, dealers, exporters and industry participants.

# PEI Potatoes at the Ontario Potato Field Day

Ontario remains a significant market for PEI seed potatoes. To keep our brand top of mind with Ontario potato growers, Board representatives have attended the Ontario Field Day and the Ontario winter potato conference over the last few years. This year's Ontario Potato Field Day was held on Thursday, August 23 at HJV Equipment in Alliston. General Manager Greg Donald was in attendance with PEI Potato Banners, seed directories and promotional information.

The Field Day provided an opportunity to check on new farm equipment, see the display of new potato varieties, participate in the trade show and socialize with the potato industry personnel and talk to current and potential customers of PEI seed potatoes.



PEI Potato Board General Manager Greg Donald talks to potato growers at the Ontario Potato Field Day. Photo: Eugenia Banks.

### 2018/19 Board of Directors Confirmed

The terms for Board Director positions are staggered so

that each year one position in each district is open. Sitting directors are eligible to offer to serve no more than two consecutive terms and elections are held if there is more than one nomination in a given district.

New directors elected or acclaimed for terms beginning in November 2018 include: Craig Wallace, Processing Director for West Prince District; John Visser, Table Director for Summerside District; and Billy Cameron, Seed Director for Charlottetown District. Wayne Townshend will serve a second term as Seed Director for Souris-Montague District.

Retiring Directors include Darryl Wallace, West Prince; Fulton Hamilll, Summerside; and Alex Docherty, Charlottetown.

The Board would like to thank the retiring Directors for all their efforts on behalf of the industry and looks forward to working with the new directors.

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### **Board Governance Changes**

The Board of Directors has been reviewing the governance model for the Board, including the Board's voting districts and the eligibility requirements to be a registered producer under the Potato Marketing Plan Regulations.

After several meetings, a review of other Canadian potato industry organizations and other PEI commodity associations, growers were surveyed twice in 2018 to obtain feedback as possible changes were being refined.

To recap the issue:

As is the case with many segments of the agricultural sector, the number of potato farms in Prince Edward Island has declined substantially in recent years. Our production has remained relatively stable over the past 5+ years, indicating that farms are becoming larger. With shrinking farm numbers, it can be difficult to find people to serve on our Board of Directors and/or the various committees that are active in our organization. The Board also feels it is important to seek involvement from more of the younger members of our organization and from both genders going forward.

Proposed new approach:

- Move from four districts back to three districts, with the geographic boundaries adjusted in order to make the number of production units per district more similar.
- Remain at 12 directors in total, but with a different approach to electing those directors:
- There would still be three directors elected for each district, with equal representation by sector (seed, tablestock and processing), therefore there would still be a seed potato director, a tablestock director and a processing director in each district; and
- In addition, there would be three directors elected "at large" from across the province: one director would be a seed director, one would be a tablestock director and one would be a processing director.
- The eligibility to vote and/or serve as a director would be changed as follows:
  - Current requirement: Must be at least 18 years old, be actively involved in the farming activities of the production unit, and either directly or indirectly own at least 10% of the equity ownership of the production unit.
  - Proposed new requirement: Must be at least 18 years old, be actively involved in the farming activities in the production unit, and either directly or indirectly own at least 10% of the equity ownership of the production unit (or be a direct

### Get set for the

# Potato Business Summit

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family member of the owners and derive the majority of his/her income from the farm).

The rationale for the change in the eligibility requirement is that there are many farms which have younger family members actively involved in the farm but which have not yet given those members a share of the ownership of the farm. It is felt that these younger members could contribute to the governance of the industry by voting and/or serving as directors, but they are ineligible to do so due to a lack of ownership. We would like to find a way to include them in industry decisions (voting) and governance.

The definitions of a farm unit and a production unit are being reviewed by staff and legal counsel. There are concerns the current definitions do not best reflect a number of potato farms today that have more than one potato farm business entity. The review of these definitions will be completed shortly.

More information on the proposed changes will be mailed to each registered producer prior to the Annual General Meeting, along with an invitation to attend the meeting on November 21st in order to provide direction to the Board re the acceptability of the proposal. For more information, please contact the Board office at 902-892-6551.



# **Open Farm Day 2018**

Open Farm Day 2018 was held on a beautiful sunny day on September 16. Many thanks to all the sponsors of the event and particularly to the Keenan and Nieuwhof families, of Rollo Bay Holdings and Blue Bay Farms respectively, who opened their doors to the public to help raise awareness of the significant contribution that the agriculture sector makes to the provincial economy and to rural communities.

Photos clockwise from top right: (left to right) Evie Keenan, Evan Keenan and Hazel Keenan help their families get ready by digging some potato samples; Hank Atwood and Evan Keenan show off an older model tractor on display; Cassie MacGillivray serves up new potatoes with all the fixings at Blue Bay Farms in South Rustico; a visitor looks over the display on potato varieties and production information at Blue Bay Farms; Randall Nieuwhof explains the running of the packing line to a visitor to Open Farm Day. (Photos: Keenan families, M.K. Sonier and Kayla Nieuwhof)











# **Lands Protection Act**

In 1764, Samuel Holland was sent out with a team to survey the entire Island. The Island was divided into 67 lots of roughly 20,000 acres each with a small amount of land set aside for Crown land and land for three county towns. Back in Britain, on July 23, 1767 a lottery was held in London and the land granted to people of influence who were to pay rent to the Crown and to settle the land.

A further brief summary of the history of land ownership regulations can be found in the following excerpts from "Issues in Island History as Related to Land (1767-1967)" by Professor Harry Baglole, Director of Institute of Island Studies, University of Prince Edward Island, and presented as part the seminar on Land Information in Prince Edward Island held in Charlottetown PEI in June 1987:

"An important constitutional milestone occurred in 1851 when the Island was granted Responsible Government and the government of the first premier George Coles passed the Land Purchase Act in 1853. By this Act, between 1853 and 1873, when Prince Edward Island joined Confederation, 457,260 acres of land were purchased from the absentee proprietors by resident land tenants in PEI. The Compulsory Land Purchase Act (or Land Restriction Act) of 1875 limited proprietorial ownership to 500 acres. By the turn of the century, the predominant pattern was possession by owners-occupiers in 100 acre parcels, i.e., the family farm."

Since that time, land and land ownership has continued to be a contentious issue on PEI. The current regulations we live under are attached to the Lands Protection Act, passed in 1982, and the latest Commission on the Lands Protection Act released a report in June 2013.

Recent issues have come to the forefront in 2018 regarding non-resident land procurement and ownership and the impact this is having on the ability of current Island farmers to improve, diversify and expand their business.

A letter was sent from the Potato Board to the Cabinet Committee on Priorities in March, 2018 after concerns were raised on recent land sales to non-residents. The following points were made:

 In recent months, several parcels of agricultural land in eastern PEI have been sold to non-residents without farmers in the province having the opportunity to learn that the land was available for sale and/or to purchase the land. The manner in which these sales occurred would appear to be in contravention of IRAC's advertising guidelines and are certainly contrary to the intent of the Lands Protection Act. The sales are

- also harmful to Island farmers who in some cases, had been renting and farming the land, and/or were very interested in acquiring additional land to extend rotations or to establish new farms.
- 2. Most potato farmers in Prince Edward Island have been working hard to improve the financial and environmental status of their family farms, and access to good agricultural land is key to these efforts. Farmers are investigating rotation crop options and are supporting research into new crops and improved practices. We are proud of the improvements that have been made and of the contribution that we make as individuals and as a sector to the economy of our province. We want to continue this, but feel the increased rate of sale of farmland to non-residents is a major threat now and going forward.

# PEI's land, its rich soil and the generations of Island farmers are our most valuable resources. We need to protect them!

- 3. In some cases, farmers have been renting land for several years, and have now been advised that the land has been sold to non-residents who may or may not intend to move to PEI to farm the land themselves. Our farmers are being told they can no longer use the fields they had been farming for several years. They would have been highly interested in purchasing the land but were not given the opportunity to do so due to the absence of any local advertising. The farmers who are calling us are very upset, and feel these recent transactions and the approvals given for them, without complying with the advertising guidelines, are harmful to their individual farms and to our industry as a whole.
- 4. We also ask that IRAC and Executive Council establish more transparent processes that would ensure that local farmers have the opportunity to purchase the land they are farming and/or land that the owners desire to sell, prior to that land being sold to non-residents.
- 5. We have reviewed the current IRAC guidelines, and they do not seem to apply to share transfers. It appears that it is possible for an Island resident to incorporate a company, have the land acquired by the company, and then sell the shares to a non-resident. The non-resident

- would still have to apply to IRAC for approval, but the advertising guidelines do not seem to apply. If this is the case, we ask that IRAC immediately change its approach and still require the company to advertise the land, even though it is shares, and not land, being sold.
- 6. Potato acreage in PEI has decreased from 113,000 acres at its peak in 1999 to the current planting level of 84,200 acres in 2017. It has been stable at those levels for several years, and we have seen an increase in the length of crop rotations on many farms, as well as investments in new rotation crops. We've also see diversification within the potato sector into organic production, specialty varieties, seed acres, etc. We are seeking ways to improve marketable yield per acre for both economic and environmental reasons. No one wants to go back to 113,000 acres of potatoes per year, but we do feel that our farmers should have the opportunity to purchase land for various agricultural pursuits, including potato production, before it goes to non-residents.

The Board also recently took advantage of an opportunity on September 6, 2018 to make a presentation to the Standing Committee on Communities, Land and Environment on the issue of land ownership regulations. During the presentation, General Manager Greg Donald and Board executive members Chairman Darryl Wallace and Secretary-Treasurer John Hogg, highlighted the following information:

 Background on the current state of the potato industry in PEI – number of acres, number of farmers, and key sectors and markets.  Sustainability efforts by farmers in the areas of soil conservation, soil health and organic matter, research on water use and nutrient management efforts including support of the 4R system.

They also explained that their primary concern regarding increasing land speculation and rising costs is to ensure there is enough land:

- To sustain current production
- In some cases to expand production
- To improve crop rotation and or crop diversification
- For the next generation

The presentation concluded with the following recommendations:

- The provincial government needs to better manage the Lands Protection Act and its regulations that are in place:
  - Advertising land before selling to a nonresident.
  - Unethical real estate practices contrary to the Act.
  - Adherence to land holdings limits.
  - Greater transparency by Executive Council with approval process including IRAC recommendations.
  - Government need to adhere to the spirit, intent & rules of the Lands Protection Act.
- PEI needs to develop a clear land use policy that will ensure agricultural land will remain in agriculture.
  - Evaluate necessary resources for land conservation work.
  - Review ALUS payments.

The PEI Potato Board offered to work with our provincial government to find acceptable solutions to these very important issues. Provincial officials responded by proposing a working group that would include representation by our Board and other agricultural organizations. We had hoped that this group would be well into its mandate by now, but we are still awaiting a first meeting. We have been advised that will happen once a review of non-resident land ownership has been completed by IRAC. We welcome feedback from farmers on this important issue.



# **Island Grade 3 Classes Visit the Farm**



Left to right: John, Bradley and Adam Hogg of Klondike Farms near Summerside answer questions about potatoes and other crops they grow from curious Grade 3 students visiting their farm as part of The Dairy Youth Trust and Ag In the Classroom PEI mini -open farm day for Grade 3 students held across PEI on September 14. Photo: Colleen Hogg.



Members of the Blue Bay Farms team (in white shirts left to right): Henk Compagner; Tineke, Peter, Klaas, Damaris and Randall Nieuwhof, welcome Grade 3 classes to the farm and packing operation. The kids were able to get a first hand look at how food is grown and delivered to market. Photo: Alice Nieuwhof.

# **Toe Taps & Taters**

Toe Taps and Taters, a Fall Flavours Signature Event, was hosted again in 2018 by Sherwood Produce at their warehouse facility in Canoe Cove, PEI. Chef Michael Smith and Farmers Alex and Logan Docherty welcomed the more than 280 guests who attended the event, an increase of 80 guests over 2017. Guests went on a wagon tour to learn about rotation crops grown in the years between potato crops, enjoyed entertainment by local musicians and dancers and sampled local craft beer which was then followed by a four course meal featuring famous Island potatoes. Evening entertainment was provided



Clockwise from top left: Potato farmer Alex Docherty hosts the wagon tour; contestants enjoy the potato sack race and potato peeling contest; a beautiful night to get started outdoors; the large warehouse facility provided lots of room for parking, displays and room for all events; Chef Michael Smith welcomes guests to the event. Photos M.K. Sonier and L. Docherty.

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# Peas and Potatoes



by M.K. Sonier

Peas and potatoes commonly sit side by side on the dinner plate and now are becoming neighbours in the fields of Prince Edward Island.

Chris Chivilo grew up on PEI and one of his early jobs was at the PEI Grain Elevators. After a couple of years there, he headed west and spent time on the prairies with several grain companies, learning the grain and pulse business. His last job working for someone else was where he was introduced to the pea crop; subsequently he and his wife Tracey were encouraged to start up their own company. Their company W.A. Grain & Pulse Solutions was first established in the western provinces, as well as Ontario and Quebec. Five years ago, they returned to the Island parttime and started to do some experimental work on pulse crops with interested Island growers.

Just like potatoes, peas are a very adaptable crop and are grown right across the country. For the Maritime region, W.A. Grains & Pulse Solutions chose two green pea and two yellow pea varieties that are well suited to the Maritime climate and have resistance to bleaching, which is a defect that can result from conditions of high humidity (heavy early morning dews) when the peas are ripening.

Three years ago, they contracted for 650 acres, and in 2018 this had increased to 8,000 acres grown across the Island, with the focus in central PEI.

The company was very busy in the early part of 2018 with the construction of many holding tanks, a commercial

cleaning room and a seed cleaning facility in Slemon Park, near Summerside, at the site of the former Humpty Dumpty plant.

Peas can be used both for human consumption and pet food. PEI's location on the coast is advantageous for shipping as most high grade peas will go to Europe for food use. Lower grade product may be trucked to pet food markets in Ontario, Quebec or the North Eastern USA.

On the farm, peas seem to fit in well with potato production as they are commonly planted in early May and combined in August, which does not conflict with potato harvest. This also leaves time to sow a cover crop or to just allow the peas left in the field to regrow and provide cover for the field over the fall and winter. They require minimal care in the field - a herbicide, one fungicide and a topkill spray - which leaves more time for potato related field activities.

Like any new crop, learning how to grow it, and what works and what doesn't, takes time and is often perfected by trial and error. Rob and Barry Green of Greenfield Farms in Bedeque, grew their first crop of peas three years ago and Rob says one thing that they have learned with peas is that timing of field operations is critical. Many people seem to find harvest challenging as the plants can lay down and it can be difficult to get in underneath and recover all the crop. Rob says they have found that if the fungicide is applied at the right time (at the first sign of flowering), his crop will stand up better and is easier to harvest. Harvesting at the right time when the moisture in the field is right is

also important to avoid quality issues such as dimpling and colour dockage.

The Greens feel the best place for peas in the rotation is after potatoes, and Chivilo agrees. With all the recent focus on soil health and cover crops, some rotation variations he has seen used include:

Year 1: peas followed by winter wheat

Year 2: winter wheat followed by a forage crop

Year 3: Potatoes

and







(Top) The rotating screen used to separate the mustard seed and peas on Klondike Farms. (Left) The mustard seed drops out and goes into a tank on farm while (right) the peas go onto a truck for delivery to W.A. Grain & Pulse Solutions in Slemon Park. Photos: M.K. Sonier.

Year 1: peas followed by winter wheat

Year 2: winter wheat followed by brown mustard

Year 3: Potatoes

John, Adam and Bradley Hogg of Klondike Farms were one farm that tried something a little different in their experimentation with a pea crop. They grew peas in combination with mustard in the same field. The rationale was that the mustard plants would help the pea plants to stand up a little better (allowing them to wind around the mustard plants) so that the peas would be easier to cut and fewer peas would be left in the field. The Hoggs would

rate the first year a success, although there are definitely tweaks to be made for a second try before they decide if it is a practice they will continue long term. The cutting went very well and the mustard yield was about the same as a crop of brown mustard alone. Early estimates



Above: Chris Chivilo of W.A. Grain & Pulse Solutions displays a sample of field peas that have just been cleaned and are ready to move to the holding tank.

Opposite page: Peas and potatoes grow side by side in one of Greenfield Farms' fields in Central Bedeque.

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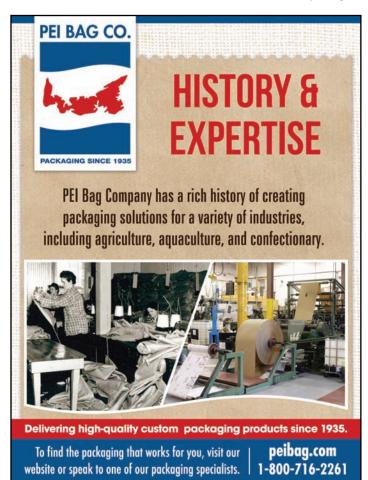


W.A. Grain & Pulse Solutions were busy early in 2018 getting storage and cleaning facilities ready in Slemon Park for harvest season. The storage tanks are in three groups - left: tanks to receive raw product from the fields; center: storage tanks for cleaned peas; right: seed storage tanks. Photo: M.K. Sonier

of the pea yield were between 0.5 to 0.75 tonne per acre which is below the average yield of peas alone (normally 1 to 1.5 tonnes per acre). The mustard seed and peas were separated using a revolving screen as they came off the truck. Mustard seed stayed on the farm for planting next year, while the peas went to W.A. Grain & Pulse Solutions facility in Slemon Park.

Chivilo and Island potato growers are looking forward to increased production and development of the pulse business on PEI. Both Chivilo and his wife and his youngest son, who also works for the business, spend time on PEI. They are working on expanding beyond peas to other types of pulse crops, mustard seed and are also developing markets for hulless oats and barley.

For potato growers, pulse crops seem to be a good addition to a potato rotation due to harvest timing, allowing establishment of winter cover crops, adding nitrogen and organic matter to the soil, not being a preferred host for wireworm, and in most scenarios, offering a more profitable return than barley.



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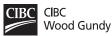
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# 2018 Field Days

# East Prince Agri-Environment Association Summer Field Tour

In December 2017, the East Prince Agri-Environment Association was invited to send representatives to Ottawa to give a presentation to The House of Commons' Standing Committee on Agriculture and Agri-Food and discuss the Association's environmental initiatives and research projects. Following that presentation, the Chair of the Standing Committee, Pat Finnigan, Member of Parliament for Miramichi-Grand Lake, NB was invited to visit PEI in 2018 and do a tour of the Association's research sites. Mr. Finnigan was joined on the tour by Senator Diane Griffin, PEI Minister of Agriculture Rob Henderson, PEI Minister of Communities, Land and Environment Richard Brown, Wayne Easter, MP for Malpeque, PEI and representatives from the AAFC Charlottetown Research Station, the PEI Potato Board, the PEI Federation of Agriculture and the PEI Department of Agriculture and Fisheries.

Several field sites were visited during the morning session to look at on-farm trials covering topics such as: Measuring the effectiveness of willow trees and nitrate woodchip cells for reducing nitrate run-off in high risk areas (Countryview Farms); planting willow riparian buffers to reduce greenhouse gas emissions (Smith Farms); visiting a water testing site at Maple Plains that is helping researchers look at linking water quality to land management practices; and various field projects on building soil organic matter/



AAFC Research Scientist Dr. Yefang Jiang (left) explains details of the water monitoring project to East Prince Agri-Environment Association tour participants. Photo: A. McKenna.

cover crop trials/erosion controls.

During at networking lunch at AAFC Harrington Research Farm, potato growers Gordon McKenna, Jason Webster, Andrew Lawless and Adam Hogg made presentations on new technology they are using on their farms that is enabling them to grow potatoes in a more environmentally sustainable manner. This was followed by a tour of some of the research plots at Harrington.



Potato grower Andrew Lawless talks to tour participants and describes the advantages he has seen using a Lemken air seeder for cover and rotation crops on his farm. Photo: M.K. Sonier

The tour provided a good opportunity for politicians to meet and talk with potato farmers on a casual basis and see first hand the efforts being made by producers on the farm.

### PEI Variety Trial and AIM Field Tour at AAFC Harrington Research Farm

On Wednesday, September 12, a field tour was held at the AAFC Harrington Research station to highlight variety trial plots showcasing advanced seedlings from the AAFC potato breeding program, a trial sponsored by the PEI Potato Board with new varieties available from private variety agents and several trials underway as part of the PEI Agronomy Initiative to Increase Marketable Yields (AIM).

The results of all these trials will be available to growers in project reports and presentations at grower meetings over the winter, however the tours provide people with an opportunity to see how the trial was carried out in the field and have one on one conversations with the research scientists and project managers.

The first stop was at the variety trials. The AAFC Harrington location is one of numerous sites across the country where Year 5 and 6 advanced lines from the AAFC

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breeding program are being evaluated for yield and quality potential under a range of environmental conditions. This information will be compiled and summarized for comparison with standards to help in the final selection of lines that will be released to the industry for further evaluation. AAFC Potato Breeding Program staff were on site to receive first hand feedback from growers and industry personnel.

The second stop was at the Variety Trial sponsored



by the PEI Potato Board. This trial is the next stage in evaluation and includes advanced lines from the **AAFC** breeding program that have been released for further industry evaluation as well as new varieties available from private variety agents. Participants in this years trial included Real Potatoes and Parkland Seed Potatoes. Growers interested in varieties in this trial can usually access seed for onfarm evaluation or commercial production.

The PEI Agronomy Initiative to Increase Marketable Yield and the Potato Board are working on many collaborative trials with AAFC scientists. Trial sites visited included:

- Ethylene treatment for seed potatoes (AIM-AAFC)
- Alternative Crop Rotation studies (PEIPB-AAFC)
- Alternative forage mixtures demo plots (AIM-AAFC).

Full reports on all these trials will be included in future issues of *PEI Potato News*.

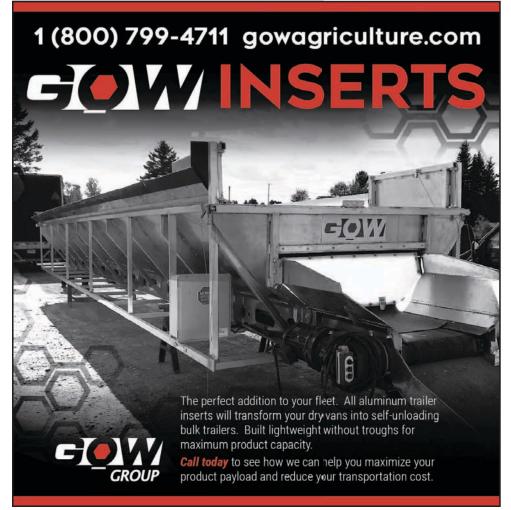
# Cavendish Farms Variety Trial Tailgate Sessions

On September 13, Cavendish Farms hosted tailgate sessions across the province for their growers to look at samples from field scale plots of many new potato varieties that are under evaluation for processing use. Sessions were hosted at Poole's Corner in eastern PEI, at the Willard Waugh & Sons farm near Summerside, and at Triple S Farms in O'Leary. The majority of the new varieties originate from breeding programs in the United States with a small number from a local breeder and a European breeding program.

Spacing in the trials ranged from 10" to 16" depending upon the variety. Fertility treatments varied by location but were the same for all varieties with the exception of three which were being evaluated under a reduced Nitrogen program.

Plots at the Waugh farm were grown under both irrigated and non-irrigated conditions.

In general, on that day, approximately half of the varieties under evaluation were showing a positive yield response to irrigation at this location. However most strips were still green, with growing potential. Visual type of tubers was in many cases better than the standard Russet Burbank and varied by variety. After harvest, the production from the different strips will be graded and evaluated for other quality parameters for processing to provide a full picture of how the new varieties compare to all the current standards.



### 4R 2018 Field Tour

Tailgate sessions were held on September 20 and 21. The Thursday session was held in the Kensington area with plots at Oyster Cove Farms (the Ramsay family) and Mull Na Beinne Farms (Vernon and Bertha Campbell). At the first stop, Matt Ramsay spoke about the "Right Type" trial evaluating the use of slow release fertilizer products in a field of Russet Burbank processing potatoes. Matt explained that the goal is not necessarily to reduce Nitrogen, but to use it more efficiently; and with slow release products to make sure the fertilizer is used by the plants throughout the summer and fall, and excess does not run off early in the season.



Josh Lindsay (left) of Kensington North Watershed Group and Matt Ramsay of Oyster Cove Farms answer questions about the use of slow release Nitrogen products under evaluation in 4R trials on PEI. Photo: M.K. Sonier

At the second stop, Steve Watts of Genesis Crop Systems and Vernon Campbell spoke about the "Right Rate" trial carried out in conjunction with Dr David Burton, Dalhousie Faculty of Agriculture, looking at varying rates of nitrogen fertilizer on a field of Russet Burbank potatoes for processing. The plots with the lowest and highest rates were easy to pick out in the field and from tuber samples, but evaluation of the harvested crop yield and quality will be needed to determine which of the three rates in the mid-range provide the most efficient use of nitrogen while minimizing amounts left in the field after harvest.

The Friday session was held at Rollo Bay Farms in Souris. The "Right Rate" trial had been repeated at this location. As well, Steve Watts and Alvin Keenan reported on a trial that had been conducted to compare newer 4R candidate Best Management Practices including split N applications with slower release granular and foliar products, reduced phophorous rates and modified potassium sources with conventional grower standard practices for Russet Burbank

fresh production. Results of all trials will be shared with industry during the winter meeting season.

### **Cavendish Farms Research Tour**

A new format was followed this year at the Cavendish Farms Research Tour that allowed for very good interaction between project coordinators and growers at five technical stations set up to preview the various research projects. Topic areas included: new potato varieties; potato breeding and somoclonal variation selection for scab resistance; evaluation of yield and quality using different calcium sources for processing potatoes; evaluation of chemical control options for early dying; crop enhancing products; pollinator species for use as cover crops or in headlands, buffer zones and grass waterways; evaluation of yield and quality using different potassium sources and application timing; and the use of Gibberellic acid on seed potatoes to increase numbers and seed size uniformity.

The field tour was followed by lunch and an optional tour of the storage facilities that were built in 2017.





Newton Yorinori, the new Director of Research and Seed Operations for Cavendish Farms, speaks to growers during Cavendish Farms Research Field Tour on September 25, 2018.

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# Measuring the Effects of Residue Tillage Equipment in Prince Edward Island: A review of recent field scale research



## by Ryan Barrett, Research & Agronomy Coordinator, PEI Potato Board

For many years, one of the essential tools in potato production in Prince Edward Island and elsewhere has been the traditional moldboard plough. While traditional methods of land preparation have done an excellent job of preparing a seed bed for potato planting and have produced many favourable crops over the years, they present some challenges, both agronomically and environmentally. Studies by researchers at AAFC in Charlottetown have found that ploughing early in the fall without use of cover crops is associated with increased leaching of soil nitrate, presenting both an environmental concern as well as a loss of nitrogen that could be used for the following year crop. Opting to delay ploughing until air and soil temperatures have decreased (late fall) reduces the risk of nitrate loss, but also ensures a bare soil exposed to the elements through the winter and spring. This exposed soil is then at significant risk of soil erosion from both water and wind. This is becoming even more of a concern in recent years, as warmer winter temperatures and more frequent freeze and thaw cycles increase the risk of soil erosion.

Additionally, use of a moldboard plough for tillage has been identified as a major factor in the decline of soil organic matter in studies around the world. While it has been a very effective tool for land preparation, it is important to investigate other tillage options that may prove to be more beneficial to short term marketable yields as well as to soil health over the medium and long term.

In recent years, many potato growers in Prince Edward Island have invested in primary residue tillage (PRT) equipment. These implements are sold in multiple forms and brand names, but generally perform similar tillage operations. Instead of inverting the soil profile (ie. flipping sod) like a moldboard plough, they incorporate above ground residue into the soil profile, usually at a shallower total depth than the plough. Normally, this type of tillage equipment will require a tractor with more horsepower to be effectively operated, but residue tillage equipment can work more acres per hour than a moldboard plough.

In a 2013 study by Tyler Wright with the PEI Department of Agriculture and Fisheries comparing operation of a moldboard plow (7 bottom) with a 13 foot wide Synkro 4003 implement, there were significant differences in tillage cost between the two implements. After factoring in the purchase cost, fuel, depreciation, maintenance, insurance, and tractor costs, there was a \$10.55 advantage in tillage costs per acre in favour of the Synkro over the plough (\$22.25/acre for Synkro, \$32.80/acre for plough).

One of the key selling points for these types of implements is that they leave more crop residue on the top of the soil (generally between 20% to 25% in PEIDAF studies) than the plough. This residue is more likely to help prevent soil erosion from wind and water during the winter and spring, as the fields with higher percentages of crop residue have been shown to catch more snow during the winter and be less susceptible to producing the "red snow" that has been evident in many PEI winters. Additionally, if one chooses to plant a cover crop

following use of PRT, there is the opportunity to reduce the potential for nitrate leaching and other over-winter nutrient losses.

Notwithstanding some of these potential advantages, it is important for potato growers to know how the use of these implements will impact marketable yields of potatoes in comparison with moldboard ploughing. As a result, there have been a number of different field-scale studies performed with Island growers over the past few years to compare these two types of tillage. In this analysis, we were able to assess the results of three separate studies that were independently designed and conducted but that had similar trial design and data collection. It was felt that it is important to analyze all of this available data to better understand what trends are being demonstrated over multiple farms and multiple years. The three studies with data analyzed were performed by:

- Prince Edward Island Department of Agriculture and Fisheries (PEIDAF) and PEI Soil & Crop Improvement Association (PEISCIA), led by Tyler Wright, Soil & Water Engineer.
- Kensington North Watershed Assoc. (KNWA), led by Barry Murray (Watershed Coordinator) and Matt Ramsay (potato producer from Hamilton, PEI).
- East Prince Agri-Environmental Association (EPAA) and Agriculture & Agri-Food Canada, led by Bonnie



Robertson (Soil Engineer), Scott Anderson, Rick Peters, and John Phillips (EPAA).

We will discuss the design and results of each of these trials individually, before examining commonalities or differences observed between the three studies.

### PEIDAF/PEISCIA Trials (2010-2016):

In these trials, moldboard plowing in the fall was compared with primary residue tillage (PRT) in the fall at two different farms in central Prince Edward Island. The same field was used for each farm across years. At one farm (Farm A), a Pottinger Synkro 4003 implement was compared against fall ploughing in 2013 and 2016. At the other farm (Farm B), a Jober Rotobeche was compared against fall ploughing in 2010 and 2013 (with levelling roller in 2013) while a Pottinger Synkro 4003 was compared against fall ploughing in 2016.

The plots at each farm were between 0.2 and 1.2 acres in size, established the fall before potato planting. Four plots were worked at each location, with glyphosate (Round-Up) applied before tillage. Processing varieties were used, and samples were taken from both sides and measured for yield and quality, as well as contract payout in the final year of analysis.

### **Kensington North Watershed Trials (2015-2017):**

In partnership with local potato growers, the agronomy team with the Kensington North Watershed Association conducted trials on seven farms across three years (2015, 2016, 2017), with no individual field evaluated more than once. Each field involved in the study was split between the use of a PRT implement (Synkro or Lemken) and moldboard plough. Between three and five yield samples were taken from each side of the field and were submitted for grading to Cavendish Farms Central Grading, including a calculation of total payout per acre for each treatment according to Cavendish Farms processing contract specifications for that variety.

### **AAFC/EPAA Trials (2016-2017):**

In partnership with Agriculture and Agri-Food Canada through a project supported in part by the Prince Edward Island Potato Board, the East Prince Agri-Environment Association undertook a three year study to investigate the use of PRT equipment (Lemken) in the fall in comparison with moldboard ploughing in the fall and PRT in the spring. Three fields were assessed in each of three years. Tillage was performed in the year before potatoes were planted. Soil and tuber samples were then taken the following fall, with tuber grades performed by AAFC. All three fields were in a three year rotation of potatoes, followed by a grain crop and then a forage crop. These fields were all located in eastern Prince County.

Additionally, there was research performed to compare percent ground cover and water infiltration rates among treatments, but that data was unavailable for this analysis and is not presented here.

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### **Comparing Results Across Studies:**

Table 1: Difference between PRT (treatment) and moldboard ploughing (control) for select variables across three different studies.

	PEIDAF	KNWA	AAFC
Market. Yield (cwt/ac)	+29.7	+39.4	+10.1
Total Yield (cwt/ac)	+30.1	+26.4	+0.5
Specific Gravity	-0.002	-0.001	-0.003
Common Scab %	+4.5	-1.1	-0.4
Potash (ppm)	+31.1		+30.5
Magnesium (ppm)	+11.3		+11.9

In Table 1, we compare the results from each of the three studies for common variables. For each variable, the difference between fall primary residue tillage (PRT) (treatment) and fall moldboard ploughing (control) is shown. If that difference is significantly different at a confidence level of 90%, that is indicated in bold. Positive numbers indicate a numerical advantage to PRT, while negative numbers show a numerical advantage to moldboard ploughing:

From this data analysis, it appears that we can make some summary statements comparing fall PRT versus fall moldboard ploughing:

- PRT is associated with marketable yields that are as good as or better than yields associated with fall moldboard ploughing. In two out of the three studies, there was between a 30 and 39 cwt per acre advantage in marketable yield associated with fall PRT.
- 2. There is a slight negative impact on specific gravity associated with the use of fall PRT, although this was only deemed significant in one study.
- 3. The impact of fall PRT on common scab is still somewhat inconclusive, and may be confounded with other variables such as change in soil pH and potato variety. Two of the studies showed a slight reduction of common scab incidence (one significantly) under fall PRT, while the other had a significantly higher common scab incidence level under fall PRT.
- 4. In the two studies where soil tests were performed, concentrations of potassium and magnesium were significantly higher under fall PRT, with very similar differences observed between the two studies.
- 5. There is some numerical evidence from two studies that PRT is associated with an increase in soil pH; however, this increase was not shown to be statistically different. Perhaps with more sites and more years of study, it would be possible to explore this further.

### **Summary and Conclusions:**

The primary goal of this investigation and data analysis was to assess the agronomic merit of using fall residue tillage (PRT) equipment for primary tillage ahead of

potatoes instead of the conventionally-used moldboard plough in the fall. From the data analyzed in these three studies, the general trend appears to be that PRT is associated with improved yields and improved availability of some soil nutrients, which may in fact have a strong linkage. If K and Mg are more available in the root zone following PRT than moldboard ploughing, it may have an association with the beneficial effect on yield. It may also necessitate a re-examination of fertility rates for these nutrients under residue tillage.

Results related to common scab are less clear. In two studies, there was negligible difference and low overall incidence levels of scab. In the other, there was a significantly higher incidence of scab associated with PRT; however, this large difference was largely seen at only one farm and was particularly worse under Ranger Russet (a scab susceptible variety) than in other varieties. What is unclear is the effect of PRT on soil that may have led to higher scab incidence in this study. Perhaps a higher average soil pH (5.85 for PRT vs 5.7 for ploughed) is responsible for this increase in scab incidence. This may necessitate a change in lime application for fields where PRT is used, as well as paying close attention as to where scab susceptible varieties are planted.

What was not addressed in these studies is the long-term agronomic and environmental benefit associated with reduced soil erosion. Any change in practices that limits the amount of topsoil lost from fields will have significant long-term benefit for any farm.

Further study may be warranted to determine whether PRT is conclusively associated with increased soil organic matter. No statistically significant difference was seen in the two studies that conducted soil tests in this analysis; however, neither study conducted "before and after" soil tests to assess change in soil organic matter percentage. In addition, it may not be able to see a perceptible improvement in only one year; instead, multiple years of rotation may be required to show differences. The one study that conducted trials in the same field over multiple rotations indicated a trend for PRT to be associated with an increase in soil organic matter, but it may require more sites and more years of study to verify this trend.

The full extension article for this review is available on the PEI Potato Agronomy website under Topics > Soil & Fertility > Erosion Control/Tillage.



### An Update From the:

# **PEI Department of Agriculture & Fisheries**

by Lorraine MacKinnon, Potato Industry Coordinator



As harvest begins, the first thing I would like to bear in mind is the safety of our farmers, their families, and employees. The use of machinery guards, proper lighting, appropriate training, and well maintained equipment are just as important as proper rest and nourishment. A handy two page checklist for potato harvest safety can be found on the Workers Compensation Board of PEI website or simply Google "safe potato harvest wcb".

### PEIDAF SUMMER PROGRAMS & SERVICES

During the growing season, PEIDAF delivered services to potato farms that included Aphid Alert, Plant Disease Diagnostic Services, Potato Fieldworker Meetings, and Colorado Potato Beetle (CPB) collections for insecticide resistance screening. Around fifteen samples of live CPB were sent to our Agriculture and Agri-Food Canada colleagues in Fredericton. Because the researchers must rear a second generation of CPB using the samples sent, it takes some time for the results to be reported. Later in the winter, PEIDAF will report on the CPB insecticide resistance situation on PEI.

Based on discussions at the Potato Fieldworker Meetings and reports from Plant Disease Diagnostic Services, there was a range of issues in PEI potato fields this past season that were somewhat unusual. A freeze in early June, two separate hail storms that brought damage to potato fields from Alberton to Montague, and extended periods of hot and dry weather were all blows dealt by Mother Nature. That being said, the crop pulled through these weather events for the most part, and many parts of the Island received some much needed rain in August. Some fields will struggle to size up, but we can still hope for a high level of quality during the shipping months.

As of September 18, there are no reported cases of late blight on PEI in 2018. Diseases that were prevalent in many of the samples submitted to the Plant Disease Diagnostic Lab included Rhizoctonia, Verticillium Wilt, Fusarium Wilt, Brown Spot, Early Blight and Black Dot. The occurrence of wilt organisms (verticillium or fusarium) affected the health and longevity in many fields. There was also some spotty occurrence of blackleg. Blackleg is often spread mechanically at harvest, so growers who experienced blackleg infections should consider intensifying their disinfection practices. I encourage you to refer to the PEI Potato Agronomy Website for resources for cleaning and disinfecting at harvest. As

well, I encourage producers to submit plant and tuber samples to the Plant Disease Diagnostic Laboratory as it is important for farmers to know what diseases they are dealing with or problems that may show up in storage.

Some field personnel and growers reported higher populations of CPB later into the growing season, and both tarnished plant bug and flea beetles also caused damage in some fields. European Corn Borer egg masses were either elusive or not present at all; with some minor exceptions in fields where egg masses were easily found.

In 2017, the Aphid Alert team did not find green peach aphid all season long. In 2018, one green peach aphid was found very late in the season. Aphid numbers in general remained low in 2018.

### PEI POTATO CONFERENCE FEBRUARY 19-20, 2019

The PEI Potato Board and PEIDAF are making some changes for 2018-2019. Every year, the Potato Board has held a one-day conference with a banquet; and the PEIDAF has organized a separate one-day conference. In 2019, the two separate events will be combined into an expanded two-day PEI Potato Conference and Banquet to be held on February 19-20, 2019. The objective of the PEI Potato Board and PEIDAF is to offer a valuable program for PEI potato farmers touching on new technology, key agronomic issues, and marketing updates. Expect a larger tradeshow, compelling presentations and the continuation of the Potato Board's fabulous grower and industry banquet. More details to come; mark your calendars!

### PMRA UPDATES - MANCOZEB AND NEONICS

In the last issue of PEI Potato News, I summarized a decision on metiram and mancozeb that had been recently released. At that time, mancozeb was to be restricted to ten applications per season, metiram to three applications per season, and the use of metiram and mancozeb in a single growing season were to be limited. In the intervening weeks, PMRA has withdrawn this decision, and their website states that the proposed regulatory decision should have cancelled ALL uses of mancozeb.

It was announced that a new Proposed Re-evaluation Decision Document would be forthcoming for mancozeb (the metiram decision stands). The process will take several more weeks and in the meantime, there are no label changes. However, watch for the next proposed changes so that you

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can provide feedback during the consultation period. There will be a 90 day comment period when the new Proposed Re-evaluation Decision Document is released. This is industry's opportunity to provide feedback if you oppose or have concerns about the PMRA's proposed decision.

On August 15th, PMRA released two Proposed Special Review Decisions on commonly used neonicotinoid insecticides: Thiamethoxam (Actara, Cruiser Maxx, etc) and Clothianidin (Titan, Poncho, etc). PMRA is proposing cancelling all outdoor uses of these insecticides over the next three to five years. This proposed decision comes after

a risk assessment to aquatic invertebrates (not pollinators; those are separate reviews). Again, there is a 90 day comment period, which closes on November 13th.

Finally, a final decision on Imidacloprid (Admire, Alias, Clutch, Gaucho etc) is expected in December of 2018.

If you wish to provide PMRA with comments during the consultation period for either mancozeb or neonics, please contact myself or someone at the PEI Potato Board. One thing is for certain; development and registration of new pest control options is going to be crucial in the 2020s.



### **Canadian Crop Report September 25 2018**

by Kevin MacIsaac

Prince Edward Island: The summer of 2018 has been extremely dry, however, the province did experience two significant rain events in August. This moisture was able to revive much of the crop but unfortunately the area in the extreme western part of PEI received much smaller amounts. Overall, some fields started to show their age early as September again provided very little precipitation. Tuber set appears to be down and sampling throughout the season showed the crop to be almost two weeks behind normal. The crop needed an open fall to size up but unfortunately many areas of PEI experienced a very early frost on September 25th with temperatures dipping below 0 to -3 degrees Celsius for several hours. At press time it remains to be seen how the low temperatures affected green fields of Russet Burbanks. Dry soil also seems to have created issues with off-types, wireworm damage, and scab on susceptible varieties. Last year's yield came in at 284 cwt/acre which industry reps feel could be an early estimate for the PEI crop at this time. So much hinges on rainfall in the next couple of weeks, delayed maturity, and harvest conditions that the yield estimate is extremely tentative. Limited shipping of new crop is occurring and prices have been holding their own.

**New Brunswick**: The crop looked decent although the first early harvested fields show the yield to be down from last year, the result of a hot growing season that never really cooled down. Early Shepody harvest has been disappointing with hollow heart dockage. On other varieties as well, growers have been reporting that the set may be down,

probably related to very dry conditions at tuber initiation. In a reverse pattern this year, the lower St John River Valley had received better moisture levels than the Grand Falls area. Russet Burbank quality seems a little rougher and hollow heart is prevalent. Size profile also appears smaller, particularly on Goldrush, as the crop needed additional rain to complete tuber bulking. New Brunswick also received early freezing temperatures on September 24th with weather stations in Grand Falls reporting -6.5 degrees and Woodstock reporting -4 degrees Celsius. Last year's yield came in at 294 cwt/acre – this year's appears to be lower.

**Quebec**: The potato crop in Quebec has experienced a hot and dry summer. Although some rain was received in the first week of September, it came too late for varieties like Goldrush, resulting in a smaller size profile. Growers with irrigation may be able to achieve an average crop while some non-irrigated regions have now experienced two dry seasons. At press time it is too early to accurately predict yield, but for certain there will be no bumper crop. Last year's yield was 306 cwt/acre. A best guess at this time could be 290 cwt/acre. The early harvest to date exemplifies the issue of smaller size tubers with very few oversize potatoes. Quebec growers may ask CFIA to extend the date for change over from 2in. minimum to 2.25 in. minimum grade standard to utilize more bottom end of their crop.

**Ontario**: A hot and dry summer was also par for the course in Ontario. The crop did receive rains in late August, but many feel it came too late for heat stressed fields resulting in secondary growth and new stolons. Recent rains and high temperatures also provided growing conditions conducive to late blight. Given some disappointing yields

on early table spuds, early fresh crop has been cleaning up in an orderly manner as harvesters cover a lot of acres. Early chip harvest is also moving on schedule. Last year's yield in Ontario averaged 225 cwt/acre. Yield for this crop is expected to be less – perhaps in the 210 cwt/acre range.

Manitoba: The province has experienced a very dry, stressful summer with a record number of days over 30 degrees Celsius. The table crop is being harvested now and the Winkler area was fortunate to receive an inch of rain in early September which has helped smoothen the harvest process. Growers are always concerned about being challenged with dry clods in the harvest operations. Fresh harvest to date indicates a lower yield with very good quality. Excessive temperatures creating heat runners from the tubers have also pressured the processing crop in Manitoba. In addition, some reservoirs ran out of water early due to excessive water withdrawals. Early harvest began with Rangers going out of field into processing plant lines. Digs on the Russet Burbank variety show a rougher tuber due to crop stresses. Last year's yield was record breaking at 350 cwt/acre. This year's harvest appears lighter with a preliminary estimate of 325 cwt/acre. Harvest progress was good but came to a halt on September 23 as Mother Nature brought in precipitation in the form of snow, parking harvesters for a few days.

Saskatchewan: It has been a dry summer in Saskatchewan with some producers receiving only a quarter inch of natural rain in the last month. The volume of potatoes will be down but size will be excellent for a seed-producing province like Saskatchewan. A killing frost occurred on September 4th with low temperatures reaching -2.3 degrees to -5.0 degrees in the valley. Yields last year were 250 cwt/acre. An estimate for this year could be 240 cwt/acre. At press time, first snows had stalled harvest in some parts of this prairie province.

Alberta: The province has been dry but early harvest on the Chippers and Rangers has been surprisingly good. There appears to be less early dying in the crop this year. The seed crop may be off a bit in yield due to dryness but the size profile is very good. Frost also occurred on September 4th province wide with temperatures down around 0 degrees Celsius. Long season varieties like Burbanks have sat for 3 weeks with very little bulking, possibly due to the smoke from various fires burning in Western Canada and the US. Yield at this time is virtually impossible to predict however it could be very similar to last year's 391 cwt./acre. Harvest progress had been excellent, as growers know cold weather comes in early in that province. Cooler temperatures and substantial snowfall in the northern part of the province has halted harvesting operations for several days now.

**British Columbia**: The crop got an excellent start in May with planting in a timely manner, in comparison to a very late 2017. June was a little damp but then turned very dry. Irrigated fields were good but some non-irrigated fields tended to have a large set of smaller sized potatoes. Smoke from the fires also hampered photosynthesis over several weeks. Given the early maturity of the crop, growers have been harvesting aggressively and keeping stores well supplied with local spuds. This will translate to a crop that will run out earlier on the other end. Current harvest is focussed on yellows, whites, and some russets, with reds ready to start. In terms of yield, this year's crop looks similar to the 2016 crop (of 310 cwt/acre) and above the 2017 crop of 285 cwt/acre. Harvest progress has been good but fall rains have been a hindrance in recent days.

# **Upcoming Events**

Please call the Board at (902) 892-6551 for further information on any of these events.

### October 2018

Oct 18-20 PMA Fresh Summit, Orlando, Florida.

### **November 2018**

Nov 2-11	Royal Agricultural Winter Fair, Toronto, Ontario.
Nov 21	PEI Potato Board Annual General Meeting, Charlottetown, PEI.
Nov 27	Canadian Potato Council Meeting Washington DC.
Nov 28	Canada/US Potato Meetings. Washington DC.
Nov 29	Potato Association of America Seed Certification Section Meeting. Washington DC.

### December 2018

Dec 11-13 New York Produce Show. Javitz Convention Centre, New York City.

### January 2019

Jan 9-10 NPC Potato Expo, Austin, Texas.

### February 2019

Feb 19-20 PEI Potato Conference and Awards Banquet. Charlottetown, PEI

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# **INDUSTRY UPDATES**

# Peter Boswall Retires from the PEI Department of Agriculture and Fisheries

Peter has had an outstanding career and has made many contributions to agriculture and government on PEI. He comes from a background rich in agricultural heritage. Growing up on the family Jersey farm in Marshfield and his active involvement in 4-H fostered an early passion for agriculture. Peter attended the Nova Scotia Agricultural College where he received a diploma in agricultural engineering, and later completed his degree in plant science from Dalhousie University.

His career started in agriculture working with the Crops Branch of the P.E.I. Department of Agriculture and he was involved in managing on-farm field crop trials across P.E.I. Peter was appointed Provincial Potato Specialist in 1990 and spent the next 10 years working with growers on issues concerning the potato industry.

During this time the industry faced some serious blows and challenges. He played a major role in the PVYn eradication plan, and he supported the implementation and administration of the Plant Health Act and the Potato Quality Program. In the late 1990's, Potato Wart was discovered on the Island. Peter contributed to numerous federal-provincial working groups and committees and was

instrumental in supporting the potato industry and the Department in navigating through the difficult times.

During the same period, he saw exciting times as well. There was a significant expansion of the Island's potato processing capacity. McCain Foods new plant was constructed, as well as a plant expansion at Cavendish Farms. Emphasis was placed on international seed missions in efforts to rebuild the seed industry. Peter was one of the driving forces in the planning and delivery of the International Potato Expo and School held in the early 1990's.

After leaving the potato position, Peter moved into the role of Field Crops Specialist, and most recently worked with the Policy Section and had the responsibility for agriculture trade policy. He was the provincial representative on the Canadian Seed Growers Association, an organization he remains actively involved with to this day. He is past chair of the Federal-Provincial Agriculture Trade Policy Committee.

Peter retired in April 2018. He and his wife Sandra MacKinnon continue an active involvement in the operation of a purebred Angus herd located in Kinross, P.E.I. He is enjoying his retirement and we wish him all the best!

### **Breakfast on the Farm**

Farm and Food Care PEI's first annual Breakfast on the

Farm was hosted at Crasdale Farms Inc. in South Rustico on Saturday August 4th, 2018, and it was a huge success. Over six hundred people took advantage of this excellent opportunity to visit a modern dairy farm, enjoy a PEI sourced breakfast, learn about farming and where our food comes from, and much more.

Farm & Food Care PEI would like to thank everyone who helped make this important event happen. We are profoundly appreciative of Brian and Amber Craswell, and family for their excellent hospitality and graciously opening up their beautiful farm to us and the public to host this event. To all our partners, we are grateful for their support and contributions to Breakfast on the Farm, especially to the local businesses who donated the tasty Island sourced food. We would also like to acknowledge Jeremy and his team with Simple Feast Catering for all their hard work while preparing



The PEI Potato Board was a Gold Sponsor for the first Breakfast on the Farm event organized by Farm & Food Care PEI. Tate was one of the guests pictured here with (left to right) Minister of Agricultue and Fisheries Robert Henderson, Premier of PEI Wade MacLauchlan and Santina Beaton, Farm & Food Care PEI Coordinator.

and cooking all the delicious food for all attendees. We are genuinely thankful for the incredible volunteers who came out to help make Breakfast on the Farm run smoothly, plus set up and take down for this event.

Breakfast on the Farm was a free public event that brought together consumers and producers, with an overall greater goal of increasing the public's trust in our food and agricultural industry here on Prince Edward Island. Guests who attended this event were treated to a free locally sourced breakfast and also had the opportunity to tour a PEI family farm, participate in a variety of activities, become educated on where our food comes from, and more. Coffee was offered to attendees in exchange for a donation to PEI 4H resulting in \$284 donated to the PEI 4H Trust.

Breakfast on the Farm created a unique opportunity for Island farmers, tourists, and non-farming Islanders to have a conversation about food and farming on Prince Edward Island. This event allowed the public to have all their questions and concerns answered by the people who are actually producing and involved in the production of the food that is on our plate; this ensures that the public is receiving accurate and credible information. This was a positive and effective event for the food and agriculture industry on Prince Edward Island.

### 4R Climate-Smart Protocol Reduces Greenhouse Gas Emissions by up to 35 per cent

Aug. 16, 2018 - OTTAWA, ON — New research concludes that Canadian growers can reduce their on-farm greenhouse gas emissions by up to 35 per cent by implementing 4R Nutrient Stewardship best practices. A literature review, conducted by Dr. David Burton, a nitrous oxide researcher at the Department of Plant, Food, and Environmental Sciences at Dalhousie University, found it is possible to reduce emissions by 10 per cent over original estimate from previous studies.

"Since 2008, the Canadian fertilizer industry has used a conservative estimate of 25 per cent potential nitrous oxide emissions reductions using the 4R Climate-Smart Protocol," said Clyde Graham, Executive Vice President, Fertilizer Canada. "Following this review, we're finding that the effectiveness of the 4Rs is greater than initially estimated."

The 4R Climate-Smart Protocol, also known as the Nitrous Oxide Emission Reduction Protocol, is an easily adaptable, science-based solution to agricultural impacts which incorporates 4R Nutrient Stewardship (Right Source @ Right Rate, Right Time, Right Place®) for Canada's growers under the guidance of an accredited professional. A national strategy incorporating the Protocol would significantly reduce on-farm nitrous oxide emissions per unit of crop

produced while still allowing growers to benefit from the input that is the main driver of crop yields in modern high-production systems.

"While nitrous oxide emission reduction is based on climate and soil, the flexibility of the 4R Nutrient Stewardship framework allows growers from any region to maximize the results of their nutrient management practices, thus achieving a reduction rate of up to 35 per cent," said Burton. "The agriculture sector contributes 36 per cent of total global greenhouse gas emissions; research has confirmed that the implementation of the 4R Climate-Smart Protocol can significantly reduce that."

Fertilizer Canada has just completed three years of extensive research engaging nine scientists across the country, five of whom worked to quantify the economic, social and environmental benefits resulting from advanced nitrogen fertilizer management practices under 4R Nutrient Stewardship.

"While these results enable growers from regions across the country to confidently implement 4R practices, there is still work to be done to fully understand the benefits of the 4Rs," said Karen Haugen-Kozyra, Professional Agronomist and President of environmental consulting firm, Viresco Solutions.

To further this research, members of the Canadian fertilizer industry have recommitted funding for five more years to demonstrate the effectiveness of 4R Nutrient Stewardship management for reducing the environmental impacts of agriculture.

Such commitment to research will support and enable implementation of the 4R Climate-Smart Protocol launched by Fertilizer Canada to support the country's reduction of nitrous oxide emissions from on-farm nitrogen use.

Read the report, "A Review of the Recent Scientific Literature Documenting the Impact of 4R Management on N2O Emissions Relevant to a Canadian Context", to discover how nitrogen fertilizer management presents an opportunity to reduce the emissions of N2O from agroecosystems in Canada.

Canadian 4R Research Network funding was provided by Agriculture and Agri-Food Canada's Agrilnnovation Program (Growing Forward 2), contributing Fertilizer Canada member companies to the North American 4R Research Fund and Fertilizer Canada's Science Cluster Program.

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# the Classroom Canada ONLINE!

### aitc-canada.ca

The website is a new and exciting, interactive online showcase of all things agriculture education! AITC-C's brandnew website was launched in June 2018 and features a wealth of resources and information to dig into for partners, volunteers, educators, and students.

Below, you will find details about AITC's dynamic new tools featured on the site:

The Canadian Educator Resource Matrix: this is a one stop shop for educators across the country that contains over 60 resources including 45 snapAG Online Information Sheets that invite students and educators to explore accurate information in bite sized pieces about today's agriculture and food story.

The matrix has been designed for easy and quick use to access curriculum-linked resources that will bring agriculture education alive! Quick search through the legend: At the top of the page, there is a legend of 8 icons for teachers to quickly search for specific types of resources such as: Fun Activity, Informational Resource, Lesson Plan, Online Resource, Storybook, Video, Poster or Map, Instructional Resource and Learning Kit.

Teacher Binder: Teachers can create their own login and start downloading resources into their personal online binder. This "online binder" will hold all their go-to agriculture education resources. This also gives AITC-C the opportunity to gather background information (where they are from, what grade they teach, what school, what resources they are using) for further targeted communications with the educators. Feedback, and impact evaluation would be measured directly with the engaged educators throughout the year.

SnapAG is an online project where users can find accurate, balanced, and current information, packaged in bite-sized, easy to read pieces, on hot button topics around agriculture and food. The series of 45 sheets ranges in topics from organics to animal welfare, farm technology, and more.

Currently, nine new Biotechnology sheets are being developed, bringing our total to 56, which will be available on the website very soon. These sheets cover topics such as "Plant Breeding", "GMO's and Human Health", and "GMO Food".

AITC-C encourages all partners and stakeholders to share the snapAG information with your networks, whether that be at workshops, meetings, or just by word of mouth!

### Engage, Empower, Inspire with Agriculture in First Funding for Threatened Bird Conservation Received from ALUS Canada

September 11, 2018. Charlottetown - A landmark partnership is underway to protect the environment on Prince Edward Island by conserving threatened grassland bird species. The initiative between the Government of Prince Edward Island and ALUS Canada, A Weston Family Initiative, encourages farmers to delay their first cut of hay until after July 15 when young grassland birds -- including the federally protected bobolink - have fledged the nest. ALUS Canada will provide the provincial government (through PEI ALUS) with \$90,000 over three years, and the first cheque was delivered at a ceremony in Charlottetown.

"We are pleased to partner with ALUS Canada in this initiative which builds on the successes of the ALUS program in this province," said Agriculture and Fisheries Minister Robert Henderson. "Through the ALUS program, Prince Edward Island farmers have demonstrated their commitment to help protect and enhance the environment."

"I heard bobolink calls in my fields early in the season, so I was happy to delay my hay cut," said ALUS participant Mike Lafortune, who hosted a tour of the ALUS projects on his farm, Dexter Cattle Company, in PEI after today's press conference. "It's good to know this small change is enough to produce a new generation of birds every year."

ALUS Canada and the PEI ALUS program have been partners for over a decade in helping Canadian farmers produce ecosystem services, but this is the first time ALUS Canada has helped to fund ALUS activities in PEI.

"This is a perfect example of the important ecosystem services that farmers can produce for the benefit of the community at large," said ALUS Canada CEO Bryan Gilvesy.

"We are happy to bring PEI ALUS into ALUS Canada's national marketplace for ecosystem services, and to support conservation outcomes on the Island. **ALUS** participants not only increase biodiversity, but also produce cleaner air and cleaner water for PEI communities."

For more information on ALUS Canada visit https://alus.ca.



ALUS Canada CEO Bryan Gilvesy visited the Island recently to announce the partnership on a new program between ALUS Canada and the government of PEI to conserve the habitat of threatened grassland bird species. Photo: B. Simpson.



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