

# Participatory Plant Breeding

March 2016 Newsletter



Greetings! We hope that this newsletter finds you well - and looking forward to the 2016 growing season. Thank you to all of the farmer breeders for your hard work on the participatory plant breeding project. Your efforts are helping produce locally-adapted varieties. The variable weather that we have encountered this winter underscores the importance of selecting crop varieties for local *and changing* growing conditions.

Here are some of our farmer breeders. Grain participatory plant breeders are featured above: from Quebec (left) and Manitoba (right). Potato farmer breeders from Vancouver Island (below) have been selecting potatoes for three years.

In addition to showing off some of the amazing farmers involved in the Bauta participatory plant breeding program, it's also a chance to provide some new information, to highlight some research results and to mark some transitions in our staff.



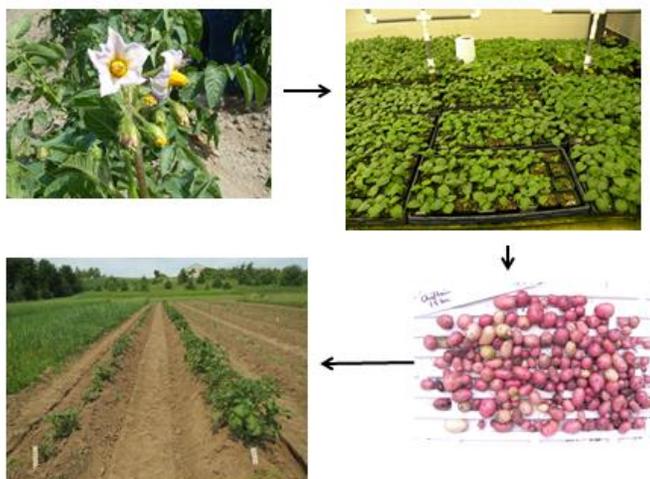
# The Potato Project



2015 was the first time that farmer-selected potatoes were tested in common experiments. Field experiments were located at the Agriculture and Agri-Food Canada research station in Fredericton, NB (above photo) and on a commercial organic potato farm in Quebec. One objective of the 2015 plot was to produce seed for 2016 - if we want to conduct a fair comparison between farmer selections, it is important to conduct the study using potato seed pieces that were produced and stored under similar conditions.

## Potatoes for 2016

Potato crosses are being done by Duane Falk



New potato crosses are available for 2016. These crosses have been made by retired University of Guelph plant breeder, Duane Falk. The number of populations for farmer breeding is limited. Please contact us if you would like to participate in 2016.

## How are farmer selected wheat populations doing in “head to head” comparisons with conventionally bred varieties?

Our first participatory wheat farmers (9 in total) were all located in Manitoba. This first group of farmers selected for 3 years (2011, 2012 and 2013). We have now tested their selections in 3 different field experiments - one site in 2014 and two sites in 2015. How are the farmer’s selections doing compared with the commercial checks in the study?

- Farmer selected varieties yielded 4% higher than conventional check cultivars under the very favourable growing conditions in 2014 and 9% higher than check cultivars under the more stressful conditions in 2015. These values are the average of the farmer selections compared with the average yield of the check cultivars.



## Transitions...



Anne Kirk in her crossing nursery (left) and Michelle Carkner harrowing her soybeans at Carman, Manitoba (right).

Anne Kirk will be leaving the Participatory Plant Breeding program at the end of March, 2016. Anne has started a new position with Manitoba Agriculture, Food and Rural Development, and has been working only part-time with us since the New Year. We wish Anne all the best - Anne has done such an incredible job getting the participatory program started and keeping it all going. She will be missed!

Michelle Carkner will begin as our new coordinator in May, 2016. Michelle is a chef, farmer, and graduate student working on organic soybean variety adaptation. You may recall that some of her research was included in the last newsletter. Michelle has a degree in Agriculture from the University of Guelph (organic major) and is just writing up her master's thesis from the University of Manitoba. Michelle will be available to answer all farmers' questions or concerns beginning in May. Welcome Michelle!

### Contact information:

March - Continue to contact Anne with any questions ([anne.kirk@umanitoba.ca](mailto:anne.kirk@umanitoba.ca))

April - Contact Martin ([M.Entz@umanitoba.ca](mailto:M.Entz@umanitoba.ca)) or Michelle ([carknemk@myumanitoba.ca](mailto:carknemk@myumanitoba.ca))

Thank you for your involvement in this exciting project,

Martin Entz