

Participatory Plant Breeding for Canadian Organic Crop Production

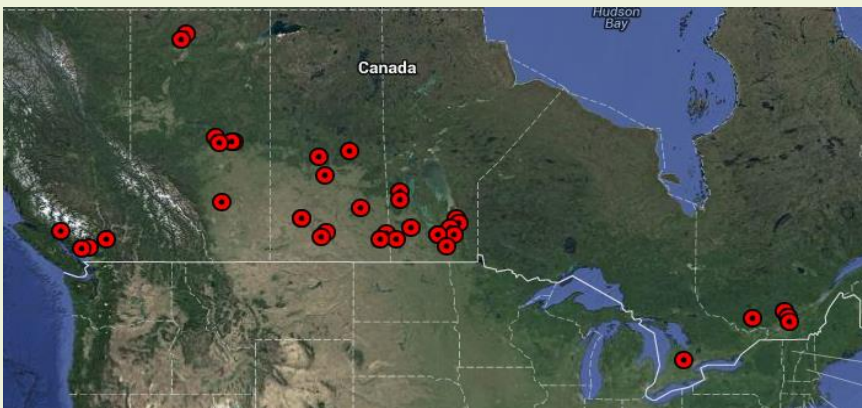
Update on the PPB Programs

Greetings, farmer breeders! I hope that this newsletter finds you well and that you are having a good growing season. The participatory plant breeding (PPB) program will be sending out newsletters periodically to keep you up to date on the PPB program.

As you may know, this program now includes wheat, oat and potato and involves farmers from across Canada. The participatory plant breeding program is part of a larger project that aims to build a more secure, diverse and locally adapted seed supply, the Bauta Family Initiative on Canadian Seed Security. For more information on this program visit their website: <http://usc-canada.org/wheat-we-do/canada/bauta-en/>

At this point in the growing season your populations should be growing strong and you should be able to see segregation for characteristics such as plant height, disease resistance and biomass. If you have any questions about making selections or about disease identification please phone or email Anne at (204) 474-6236 or kirk@cc.umanitoba.ca

Participating Farms 2013



Oat Program

There are a total of 14 farmers in the participatory oat breeding program this year. Populations of oat are planted at 5 farms in Alberta, 3 in Saskatchewan, 5 in Manitoba and 1 in Quebec.

This is the second year of selections for six of the participating farmers. In the oat program populations of F3, F4 and F5 oats are distributed to farmers. F6 panicles that were selected from the fifth generation (F5) plots by participating farmers in 2012 are planted in a panicle nursery on organic land at the site of the Glenlea Long Term Organic Rotation. In a panicle nursery each of the selected panicles is planted into a short row for evaluation. Jennifer Mitchell Fetch, oat breeder with Agriculture and Agri-Food Canada, will be making selections from these panicle rows throughout the growing season. When a row is selected to continue on in the breeding program the entire row is harvested and seed will be increased for yield testing. Some quality analysis will be done on the selected rows prior to planting them in larger yield plots in 2014.

Potato Program

This is the first year of the participatory potato breeding program. Populations of potatoes are being grown and selected on six farms across Canada. Two farms are located in Quebec, one in Ontario, one in Manitoba and two in British Columbia. Selections in the first year of the program will be based on tuber appearance and one tuber from each selected hill will be saved for planting in 2014. Like the wheat program, selections will continue for three summers. At the end of the third year of selection tubers will be evaluated for quality by Agriculture and Agri-Food Canada

Upcoming Events

Alberta:

Organic Field Day

Wednesday, August 7, Barrhead, AB

For more information contact David Hobson: 1-800-521-2400 or davidhobson@organicalberta.org

Saskatchewan:

Organic Field Day

Thursday, August 8, Vonda, SK

For more information contact David Hobson: 1-800-521-2400 or davidhobson@organicalberta.org

Manitoba:

2013 Ecological and Organic Farming Field Tours

Monday, July 22, 2013, Carman, MB

Monday, July 29, 2013, Glenlea, MB

For more information:

<http://umanitoba.ca/outreach/naturalagriculture/>

Wheat Program

There are 26 farmers in the participatory wheat breeding program this year. Populations of wheat are planted at 2 farms in British Columbia and Alberta, 8 in Saskatchewan, 12 in Manitoba and 1 in Ontario and Quebec.

While this is the first year of selection for many of the participating farmers, there are seven farmers that are on their third year of selection with the same populations. A portion of the wheat from each of these populations will be returned to the University of Manitoba for further agronomic and quality testing in 2014.



Population of Red Fife x 5602 HR cross planted near Agassiz, BC



Population of wheat planted near Ottawa, Ontario.



Potato populations on a Quebec farm



Potato populations on a BC farm

What's new? Regional coordinators from USC Canada have been conducting consultations with farmers. During these consultations farmers are asked to identify which varieties they are currently growing and why, as well as suggestions for parental varieties to be used in future crosses. Information collected about wheat and oat varieties was used to develop new crosses that will be distributed to farmers in 2014. Wheat and oats are currently planted in the greenhouse and crossing will take place in August.

Please let me know if you have any questions or comments about the participatory breeding program. I can be reached by email at kirk@cc.umanitoba.ca or by phone: (204) 474-6236.

Anne Kirk