

PARTICIPATORY PLANT BREEDING FOR ORGANIC CROP PRODUCTION

Spring Update

Greetings! We hope that this newsletter finds you well and that preparations for the 2014 growing season are going smoothly. It has been a busy winter for the participatory plant breeding (PPB) program with meetings taking place across the Prairie Provinces, crosses being made in the greenhouse and selections from the 2013 season being threshed and cleaned.

We are currently in the process of packaging up seed to be sent out to the participating farmers. Farmers that have participated in this program in previous years will be sent the seed that they selected last year while those that are new to the program will be receiving second (F2) and third (F3) generation wheat and oat populations. Farmers involved in the participatory potato breeding project will be planting the tubers that they stored on farm last year.

Making selections in the field

When speaking to participating farmers throughout the 2013 growing season and the winter months a question that commonly comes up is how to make selections in the field. People are curious to know how plant breeders make selections and what they should be looking for. Here are some quick tips on making selections:

- 1) Think about what characteristics are important to you and look for plants that display those characteristics
- 2) Rogue plants throughout the growing season that have characteristics that you would like to avoid
- 3) Have confidence in your abilities to make good selections!

Participating Farms 2014



Farmer profiles

Regional coordinators with USC Canada are putting together a website on the participatory plant breeding program and are looking for farmer profiles. If you would like a short profile of your farm to be included on the website, please send Anne a picture that can be posted as well as a short description of yourself or your farm. The profiles will be sent to each farmer for approval prior to being put on the website. Profiles can be sent to Anne at Anne.Kirk@umanitoba.ca.

Evaluating farmer-selected wheat lines in 2014

We started the farmer participatory breeding program in 2011 with ten farmers each growing and selecting 3 populations. Time sure flies because we are now at the point where we will be testing all the farmer-selections in the same experiment. The plot will be grown on the University's organic farm at Carman, Manitoba in 2014. One important purpose of the comparison plot study is to learn how different farmers working in different farming environments selected differently within the same population. A second purpose is to increase seed supply of each of the farmer-selected lines for further testing on different farms. Measurements in the study will include grain yield and protein content. Once we have more seed of these lines we will include baking tests in the study.

New crosses

New crosses for the wheat and oat program were made at the University of Manitoba last fall and seed from these crosses was increased in the greenhouse this winter. Limited amounts of seed will be available for planting on-farm this spring.

Anne will be making new crosses this summer or fall and would like your input. Are there specific varieties that you would like to see crossed or unique characteristics that you are interested in? If so, please let me know and I will do my best to incorporate these into new crosses.



Please let us know if you have any questions or comments about the participatory plant breeding program.

Thank you for your participation!

Anne Kirk and Martin Entz

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