

RESEARCH PROTOCOL: SEED PRODUCTION & BREEDING 2018

Southern Ontario Participatory Pepper Breeding Project

Farmer-researchers

Rebecca Ivanoff, unaffiliated
Greta Kryger, Greta's Organic Gardens
Annie Richard, Kitchen Table Seed House
Kathy Rothermel, Kitchen Table Seed House

This document outlines the steps that Rebecca, Greta, Annie and Kathy will follow to continue breeding a pepper as part of the *Southern Ontario Pepper Breeding Project*. It also serves as a Memorandum of Understanding between the farmer-researchers and the EFAO.

Breeding Protocol

The group is growing out three lines this year: their mass-selected red pepper population, yellow progeny line and red pepper progeny line. For all lines, the group will use the Pepper Descriptor Form (copied at end of document;

<https://docs.google.com/document/d/1b6DFA1nbjGd7KogEH8SPBfqjclVlyz8tm1t0ZyDPk7s/edit?ts=5a5e6917#>)

For their yellow progeny line, Rebecca and Greta will grow out 12 plants of each selection of the best yellow peppers from last year (4-5 selections). Each of the plots of 12 plants will be covered to allow peppers to self-pollinate. Once fruit has formed, they will remove the cover and mark the selfed fruit with nursery marker or flags. The same process will take place for the red progeny lines that Kathy and Annie will grow out. Progeny lines that don't meet the criteria will be discarded, and the best plants of the best 2-3 plots will be saved to grow out again next year. They will keep data on our check varieties as well (commercial varieties Ace F1 and Aristotle F1).

All growers will also grow the mass selected population, in addition to the progeny lines. They will be separated from each other by at least 45 meters.

Materials and Research Expense Budget. Prices are approximate; NA or in-kind for any materials that you already own or have access to. Please indicate if you intend to give any of the supplies to EFAO's Tool Library for others to use after you are finished with them.

Material	Quantity	Unit	Total Cost	EFAO's Tool Library (Y/N)	Grower
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Nursery marking pen	2	\$5	\$10	N	Annie
Protect Net insect Netting	1 (FIINTE2,2X10 0-17) 7.2 ' x 328' From Dubois		\$295	N	Annie
Colored stake flags	4 sets (1 blue, 1 yellow, 1 orange, 1 red) From Ben Meadows: https://www.benmeadows.com/professional-grade-pvc-stake-flags-4-x-5_4809883/#mainProductBottom	\$4.99 USD	\$20 USD	N	Annie
Seeds for Check Varieties	100 seeds/each (cheapest from Riemer Seeds)		\$58	N	All
Total cost			\$383		

Deadline for data and photo submission:

October 31, 2018

Memorandum of Understanding

Please refer to efao.ca/research-mou for Memorandum of Understanding.

Pledge for Breeders

You have the freedom to use the seeds generated from your farmer-led research project in any way you choose. In return, you pledge not to restrict others' use of these seeds or their derivatives by patents or other means, and to include this pledge with any transfer of these seeds or their derivatives.

Acknowledgements

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Contact

Sarah Hargreaves, sarah@efao.ca

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Ontario
Trillium Foundation



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