

Canadian Agri-Science Cluster for Horticulture 3



Update to Industry

2020-21 – Semi-Annual

Activity title:

End use focused variety development (British Columbia) - #16 Variety Evaluation

Name of Lead Researcher:

Heather Meberg – E.S. Cropconsult Ltd.

Names of Collaborators and Institutions:

BC Agriculture in the Classroom and University of the Fraser Valley

Activity Objectives (as per approved workplan):

- 1) Provide data to variety developers to assist in decision making;
- 2) Provide preliminary agronomic and culinary data to assist producers with the adoption of new cultivars;
- 3) Fill the gap between identifying promising new varieties from breeding programs and the adoption of varieties for use in the industry.

Research Progress to Date (use plain language, not to exceed 500 words):

The 2021 Potato Variety Trials (BCPVT) was planted on May 14th, 2021 at Felix Farms in Delta, BC. The grower 'false planted approximately 900 feet of eight rows with fertilizer but no potatoes. Potatoes for the trial were then hand planted into these rows. The demonstration plots were five feet in length by two rows and there were 41 varieties from AAFC plus the 59 varieties that were planted in the replicated trial. There were 100 varieties planted in the ten hill demo plots, which were harvested and displayed on August 18th, 2021. There were 59 varieties planted in the replicated trial. The replicated plots were 15 feet in length by two rows. Each row of each plot included five hills of warba seed as a buffer. They were planted May 14th, 2021 and top killed on September 10th, 2021 and harvested on October 7th and 8th 2021. There were three irrigation events in addition to ¾ inches of precipitation. There were three extreme heat events through June-August with temperatures higher than 35C. The field and plots were fertilized with a chipper mix in furrow of 1050 lbs of 10-9-24. The plots were treated the same as the surrounding field of Colomba with insecticide and fungicide sprays as required. Harvest conditions were wet, leading to a delayed harvest and some rot in the plots. Information on each variety was collected at harvest. A selection of each variety was saved for display at grower meetings. There are 13 varieties that will be delivered to the Ag in the classroom teaching kitchens and University of the Fraser Valley for further evaluation.

The field day was delivered on August 18th, 2021 with 100 varieties on display. There were over 100 attendees including buyers of BC product, event sponsors, industry, growers and potato grower visitors from AB. Growers were asked to complete a feedback form on the varieties displayed. Fifty Feedback forms were distributed, and 30 forms were returned. Varieties that had 40% or more of the respondents interested were CO99076-6R, Whitney, FV16004-7 and Stampede Russet. The following varieties had the interest of 27-39% of respondents – Audrey, Elmo, Arizona, Chieftain and RP2019-81.

Extension Activities (presentations to growers, articles, poster presentations, etc.):

POTATO VARIETY TRIAL FIELD DAY: Organized by E.S.Cropconsult Ltd. and the BC Potato and Vegetable Growers Association. Held at Felix Farms, 3485 46a St Delta, BC on August 18th, 2021. There were approximately 100 attendees.

COVID-19 Related Challenges:

Limited participants at the field day due to COVID-19 restrictions. There was no social event attached to the field day this year. Attendees booked two-hour time slots to view the potatoes with a maximum of twenty people in the plot at a time. The teaching kitchens are still willing to assess our potatoes. All things considered the project went very well.

Key Message(s):

The 2021 BCPVT was an important project for industry. Approximately 100 people attended the field day and a hand-out has been prepared for those who could not attend in person (please see attached). There were 100 varieties on display at the field day. Complete harvest data was collected on all 59 varieties in the replicated trial. Thirteen varieties were selected for further assessment in teaching kitchens and post-harvest storage assessments at the University of the Fraser Valley.

This project is generously funded through the Canadian Agri-Science Cluster for Horticulture 3, in cooperation with Agriculture and Agri-Food Canada's AgriScience Program, a Canadian Agricultural Partnership initiative, the Canadian Horticultural Council, and industry contributors.



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