



National Potato Variety Evaluation for Sustainability, Resilience and Climate Change

LEAD RESEARCHERS

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The national potato variety evaluation is working to boost profits and sustainability for the Canadian potato industry by finding new potato selections with improved productivity, disease resistance and climate resilience. New selections are being compared to currently grown potato varieties across the major potato production areas of Canada.

The Ontario trials have identified new promising potato varieties. F180085-04 is a standout early to mid chip line with high yield and gravity and low sugar levels at harvest. It reduces the likelihood of processors rejecting a crop due to high sugar levels. AG1540 was the highest-yielding late-maturing fresh market line in trials. VF180073-13 is highly resilient, ranking as a top yielder in both the standard and heat-stress trials. This variety allows growers to better manage the risks associated with increasingly frequent summer heatwaves. VF19006-002, AG1601.05, and Kingsman were found to be the strongest dual-purpose varieties for boiling and baking in trials.

The 2025 Ontario growing season trials were harvested and evaluated in the fall, with the research activity currently in the active storage testing phase for the 2025–2026 long-term commercial storage trials. The research team plans to share the comprehensive results of the 2025–2026 storage trials in December this year.

For the Agriculture and Agri-Food Canada (AAFC) trials, the team conducted trials in the major potato production regions of Canada in 2025. Agronomic and yield data were collected at each site as well as the daily weather data and field records. Quality assessments, of fry and chip colour, and boil and bake assessments, have started and will continue through



Potato trials during the 2025 growing season at Agriculture and Agri-Food Canada Harrington Research Farm on Prince Edward Island.

Photo: Scott Anderson

storage. The data from each site is currently being compiled and analyzed.

The AAFC team expects the 2025 data will allow them to evaluate the selections for drought tolerance as the eastern sites were rainfed and had suffered from a major drought during the tuber bulking period. The overall yields were much lower at these sites, which will allow the team to identify selections that outproduced the standard varieties grown in the trials.





KEY TAKEAWAYS:

- F180085-04 is a standout early to mid chip line with high yield and gravity and low sugar levels at harvest. It reduces the likelihood of processors rejecting a crop due to high sugar levels.
- AG1540 is the highest-yielding late-maturing fresh market line.
- VF180073-13 is highly resilient, ranking as a top yielder in both the standard and heat-stress trials. This variety allows growers to better manage the risks associated with increasingly frequent summer heatwaves.
- VF19006-002, AG1601.05, and Kingsman were found to have the strongest dual-purpose varieties for boiling and baking.
- The AAFC team expects the 2025 data will allow them to evaluate the selections for drought tolerance as the eastern sites were rainfed and suffered from a major drought during the tuber bulking period.

A potato trial plot on Prince Edward Island on Sept. 4, 2025. The plants were not been top killed, but because of the drought some look like they had been. Photo: Andrea Bizeau

