Positioning Canada's Potato Industry for Improved Sustainable Production

LEAD RESEARCHER

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This research activity is studying ways to improve nitrogen use efficiency in Canadian processing and table potato production. The research team is working to determine the environmental and agronomic performance indicators for fresh and processing potatoes in Canada. Emissions efficiency and nitrogen management practices on potato farms across the country are being tested.

Trials are taking place in Alberta, Manitoba, New Brunswick and Prince Edward Island. Researchers added different rates of nitrogen fertilizer to standard varieties of table and processing potatoes and newer suspected higher nitrogen use efficient varieties.

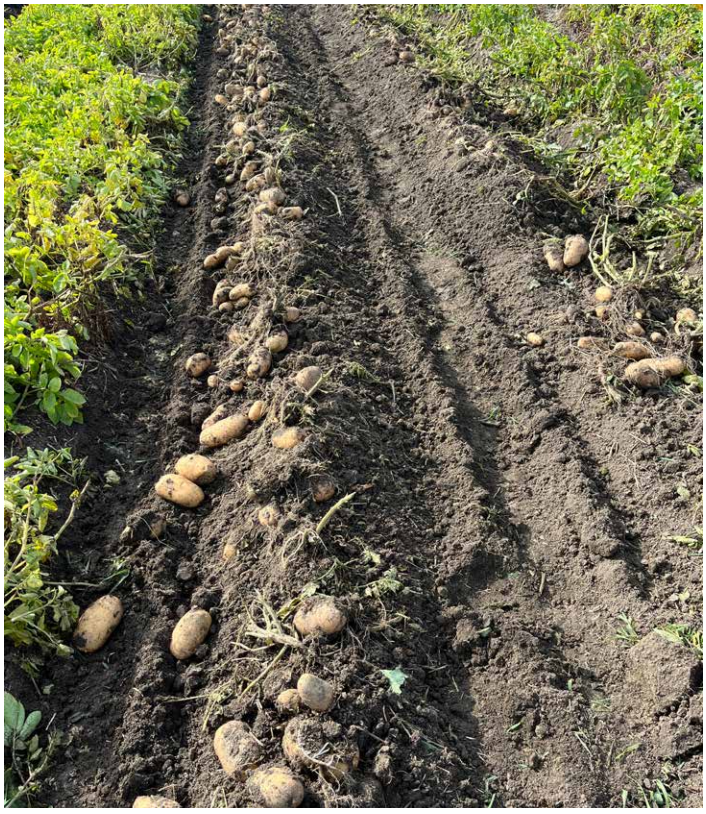
Field activities wrapped up in early October with harvest and post-harvest soil sampling. Since then, the research team has been processing samples.

Research to date is showing the test cultivars have superior nitrogen use efficiency than the standard cultivars. Also, nitrification inhibitors are reducing N_2O emissions, this depends on site and weather conditions during the growing season.

KEY TAKEAWAYS:

- Test cultivars are being found to have superior nitrogen use efficiency than the standard cultivars.
- Nitrification inhibitors are reducing N_2O emissions, but this depends on site and weather conditions during the growing season.

Dark Red Norland potatoes ready to be weighed after harvest on Sept. 2, 2025. Photo: Chris Hoffmann



A Dakota Russet potato trial ready for harvest on Sept, 15, 2025.
Photo: Chris Hoffmann