Hardy rice puts down roots in Ontario: Successful crop could cut ...
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PADDY PILOT

Hardy rice puts down roots in Ontario

Successful crop could cut food-import bill, help farmers and provide habitat for ducks

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Rice, a crop normally associated with steamy sub-tropical countries or the U.S. South, is thriving in experimental paddies in the southwestern corner of Ontario.

The crop trials, now in their second year, are offering researchers strong indications that rice can be adapted to Canadian conditions and provide farmers with another grain to grow alongside such familiar staples as wheat and barley.

"I think we can grow it. There are varieties available" that seem to grow well in northern conditions, says Soon Park, a plant breeder with Agriculture Canada who is working on the project.

Harvesting this year's crop — growing in paddies the size of two suburban back yards near the shore of Lake Erie — is expected to be completed by the end of October. Yields last year were at levels found in some Asian rice-producing areas, and the crop this year also looks respectable. Mr. Park said the trials are now ready to move to a more advanced stage, where the grain is grown under actual field conditions.

"I think we need some good, adventurous farmers to try it," Mr. Park said, looking out over the paddies. Once farmers become familiar with the crop, he predicts they will find it little different from growing other grains.

The quest to grow rice in Canada is the product of an effort by the federal and provincial agriculture ministries and Ducks Unlimited, a wildlife group that hopes the flooding of farm fields to create rice paddies can perform double duty as wetland habitat for waterfowl. About 80 per cent of the original marshes and swamps in Southwestern Ontario have been destroyed by urbanization or agriculture.

A successful rice crop could make up for some of this environmental loss, while also providing an income for farmers. Rice-growing areas in the United States have been found to be excellent waterfowl habitat, with better food sources in the rice left over from harvesting than the original marshes.

The idea of growing rice in Ontario might seem daunting. The nearest North American areas where large amounts of rice are cultivated are Arkansas and Mississippi, hundreds of kilometres to the south. But the researchers say Canada theoretically has a good shot at becoming a rice producer because the grain thrives at similar latitudes in Korea, Japan, and even northern China.

"They're big producers of rice in northern regions that are comparable to us, and their growing conditions are similar," said Galen Driver, an agricultural specialist at Ducks Unlimited.

The key to successful rice growing will depend on being able to find varieties that can cope with Canada's sometimes quirky spring weather. Cold snaps when rice starts to flower can cause unappetizing-looking black kernels.

To date, that hasn't happened with any of the 10 strains being tested. Researchers are trying to select the variety of Japonica rice — the type that produces short to medium-sized grain — that would be ideally suited to Canada.

One result of the research is that varieties producing long-grain rice don't seem to be able to tolerate the cold sufficiently to be able to grow well in Canada.

About 50 kilograms were harvested last fall. Some of the rice was sent to a California rice research institute for analysis, which found it to be of good quality and "quite edible," Mr. Driver said.

Mr. Park has cooked up some of last year's experimental rice for dinner, and said it was tasty and comparable to store-bought rice grown in California.

All the rice now eaten in Ontario is imported, at a cost of $35-million a year, so a successful crop could reduce the need to import food while helping farmers.

The trials have found that Canadian rice paddies can produce an internationally respectable yield equal to about five tonnes a hectare, a crop size that would have a value of about $2,000, double the income earned from corn.

It is not the first time researchers have experimented with rice in Canada. Trials were held 20 to 30 years ago in the Niagara area and elsewhere in Southwestern Ontario, but the efforts never yielded enough to be viable. But since then, improved rice varieties have been developed that have higher yields and more commercial potential.

To grow rice, paddies are created by raising small dikes around fields, which are then flooded ankle-high during the entire growing season.

One advantage of growing rice so far from traditional areas where it is cultivated is the near-absence of insect pests that plague the crop elsewhere.

Once the rice is mature, any time from the end of August until October, the fields are drained and the crop harvested by combine.

This year was a particularly tense one for the rice experiment because of low rainfall. The fields dried up in June, and rather than let the rice seedlings burn under the hot sun, Mr. Driver hired a water tanker to flood the field every three days.

The ideal areas for growing rice appear to be flatlands near the southern end of Lake Erie, in places near ample water supplies. Mr. Park said the crop would probably also thrive in the Niagara Peninsula. The two areas have some of Canada's longest growing seasons.



Soon Park, a plant breeder with Agriculture Canada, has been testing rice varieties to find strains that can grow in Ontario. Now he wants to find 'good, adventurous farmers' willing to grow it. TED ANDKILDE/The Globe and Mail

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