Vermont farmer experiments with cold-hardy rice

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Erik Andrus is surrounded by ducklings at his rice paddy on Tuesday, June 21, 2011 in Ferrisburgh, Vt. Several New England farms are experimenting with growing rice, after a Vermont couple was awarded a grant to determine if rice production in the Northeast is possible and to create seeds for interested farmers. (AP Photo/Toby Talbot)

(AP) -- Erik Andrus considers himself a beer and bread man, but he's had limited success growing high quality grains on his sometimes soggy swath of Vermont farmland. This spring, in an effort to turn a liability into an asset, he switched focus and began experimenting with rice.

On one damp acre, he and a friend used an excavator to carve out two rice paddies, a reservoir and canals. Heavy spring rains filled the paddies, where Andrus has planted cold-hardy rice. A drain on one side allows him to regulate the water level in the paddies, and a pump pulls more water when needed from the reservoir.

He's hoping to harvest 4,000 pounds of rice this year, and if all goes well, he'll expand in an effort that could be a model for New England farmers looking for new sources of revenue.

"I have, like I guess you would say, a strong cultural allegiance to wheat and barley," said Andrus, 39, of Ferrisburgh. "I love bread, and I love beer more than I love a plate of brown rice and a glass of sake - but if my inclination says bread, and the land says rice I have to listen to what the land says."

Andrus' effort comes as farmers in Vermont's dairy country seek more options, and as New England states seek ways to boost local food production and make the region more self-sufficient should disasters ranging from massive snow storms to terrorist attacks make it difficult or even impossible to bring in food. There's also been growing interest in locally grown food nationwide, and many states are looking at agriculture as a growth industry.

Andrus and his wife bought Boundbrook Farm in 2005 and added a bakery two years later. He's still experimenting with grains but rice became the priority after he took a workshop in February on growing cold-hardy rice. He remains one of the few farmers in the region to actually attempt it.

Anna McClung, research leader for the Dale Bumpers National Rice Research Center in Arkansas, said the first couple to try it - Andrus' teachers - were "really thinking out of the box."

Most rice produced in the U.S. is grown in semi-tropical conditions in the South. Arkansas produces half the country's rice in an area where typical temperatures range from the 70s to 90s, and it's also grown in California, Louisiana, Mississippi, Missouri and Texas. But rice is a versatile crop, thought to have originated near the Himalayas and grown in cold areas of Japan and China as well as the tropics.

Most of the cold-hardy varieties that can withstand lows in the 40s are short-grain, Japanese-style rice. Whole Systems Design LLC in Warren has been growing short-grain brown rice in paddies carved out of a hillside for three years. Its website describes the rice as an "exciting, climate-change adaptable staple crop."

Andrus figures he needs to sell his for $2 per pound to cover his costs. The price is more than people would pay at large grocery chains but competitive with specialty stores.

In the South, farmers put their rice right into the ground using machines, or sometimes even distribute the seed by plane, he said. That won't work in Vermont, where the springs are too cold. Instead, Andrus started 50,000 rice plants in a hoop house, which is like a greenhouse with plastic sides, and later transplanted the young seedlings into his paddies.

The freshman class from a local high school helped move the young plants, which look life tufts of long grass. Andrus, who spent a year in Japan in 2000, said he was inspired by the way transplanting rice by hand is a community building activity there and he hoped to replicate that on his farm.

"The kids all had a good experience, and you know, it broadened their view of what agriculture in Vermont can be," he said.

In the fall, the paddies will be drained and the rice harvested with a horse-

drawn reaper binder, which cuts and bundles the plants and is a green alternative to the small combines more often used. After the rice is dried and threshed, it will be processed, with a $2,200 rice huller Andrus ordered from China. One reason more people don't grow rice is the lack of ability to process it, he said.

A local health food store has already promised to buy some of his harvest, and the rest will be sold at farmers' markets and to members of a community supported agriculture farm in Massachusetts, who pay ahead for produce and other products provided throughout the season. While his farm can't compare to the hundred- and thousand-acre rice farms in the South, he hopes to expand his paddy system to 5 acres and hopes rice will be a way for the smaller farms in the Northeast to diversify and make money while improving the environment.

The paddies provide a habitat for birds and amphibians, and the rice acts as a living filter, removing nitrogen and phosphorus from the water supply, he said. And, while the paddy system requires an investment, he figures it's worth it because it takes his worst, wet property and transforms it into potentially his most profitable.

"The rice takes that hindrance and makes it into an asset," he said.