Alaska university sees green in golden potato

DAN JOLING - Associated Press - Associated Press

TRAPPER CREEK, Alaska (AP) — Golden birch trees marked the edge of Greg Kalal's fields, but the dentist-turned-farmer was more interested in hues beneath the soil on his land south of Mount McKinley.

Among the thousands of colorful potatoes — from yellow German Butterballs to Magic Mollys with flesh so purple it's nearly black — is a half-row of red potatoes with yellow flesh that University of Alaska Fairbanks researchers believe could become a popular and profitable niche product in a state not known for its agriculture.

University officials are pursuing their first plant patent on the unnamed potato that they hope will earn licensing fees from growers. The potato could serve a niche demand for specialty potatoes, meeting a need for locally grown food and offering revenue to farmers such as Kalal

Carol Lewis, the university's dean of agriculture sciences, described the development as, "Something that's appealing to the chef, that's appealing to the public, possibly, and hopefully, appealing to a buyer, and then appealing to the grower, that also yields well and performs in general well in our short seasons."

Researchers for more than 100 years have developed grains, grasses, berries and vegetables that could thrive in Alaska, starting with federal experimental farms in territorial days. One such farm in 1915 provided land for what became the University of Alaska.

In a state far from the food supply chain, the farms contributed to the "grow local" movement long before its recent popularity.

Potatoes were a natural fit for the state. Gold miners wanted them because they could be stored, said state agronomist Bill Campbell, a potato expert.

"If you're just trying to subsist somewhere, you throw out 50 feet, 100 feet, of potatoes. You've got a stash for the winter, if you can keep them from freezing," he said. "Potatoes and milk is a complete food, so if you have yourself a goat or a cow and a batch of potatoes, you can survive."

Potatoes are especially valuable in villages off the road system, offering a nutritious food that carries the added attraction of being distasteful to moose.

Although it ranks as Alaska's No. 1 vegetable crop, filling grocery store shelves and bins at farmers markets, the state still ranks last nationally in potato production. Alaska farmers in 2010 planted 750 acres with a harvest valued at $3.5 million, more than all other vegetable crops combined.

For the University of Alaska Fairbanks, the potential of patenting an unusual new potato marks a change from its earlier practice of concentrating research of "straight, old table stock" and giving away its research, Lewis said. The change reflects declines in government funding of public universities.

"That practice is becoming less and less as the funding for the land grants becomes less and less and we look for areas where we can actually make money so that we can continue to do the research that we've been asked to do" Lewis said.

A colorful potato, officials hope, might catch the eye of restaurant chefs or cooks at home, where potato consumption has dropped since 2000, according to a survey by the United States Potato Board.

Kalal's red and yellow variety started with a U.S. Department of Agriculture researcher at Prosser, Wash., who each year sends the university 1,500 to 2,500 new types of tubers the size of marbles.

"He makes the genetic cross of material he thinks would satisfy the request I give him," said Jeffrey Smeenk, a University of Alaska Fairbanks researcher based in Palmer.

The experimental potatoes are started in a greenhouse and transplanted into fields. They're dug up in early fall.

"As we pick up each tuber, we kind of think, 'Could this fill a niche better than material we already know about?' " Smeenk said.

There are markets for all kinds of colors, he said — the whitest of whites, golf ball-size that can be served with skins, blue-skin potatoes with white flesh, blue with blue flesh, blue with speckles. Alaska's cold soil enhances the color.

At the end of that first season, about 100 vigorous varieties are picked to grow again. By the third year, only the 20 most promising are retained.

"At that point," Smeenk said, "we usually have enough to boil some up and cook them."

A taste test ensues with volunteers that Smeenk rounds up at the experimental farm. True food scientists, he said, would shudder at the process. On the other hand, "By the time you ask 10 people to look at 20 potatoes, the top five potatoes usually show themselves up pretty quickly."

Volunteer tasters find not all potatoes are created equal.

"They've learned to be somewhat leery that we will be tasting some that might not be as flavorful as you would desire," Smeenk said.

Campbell, the state agronomist, helps pick the best potato candidates and

propagated seed that was sold to Kalal to grow under commercial conditions.

"They're just so bright and pretty — and you're selling pretty," Campbell said.

In September, Kalal used his commercial harvester to dig up German Butterballs but pulled the experimental red and yellow spuds up by hand. He describes the flesh as "a very butter-scotchy yellow color."

Standing in his field in the shadow of three monarchs of the Alaska Range — Mounts Foraker, Hunter and McKinley — Kalal said the entire harvest will be replanted next year, and likely the 2012 harvest as well.

The university has no public release date in sight, Smeenk said, even as it works with state agriculture officials to develop additional varieties.

"I don't see these colored flesh things taking over the potato industry, but if you can get a couple of percent of the fresh market total, or expand the decreasing demand for fresh potatoes, by a little bit, to me that's a big help," Campbell said.

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