Potato farmer holy grail: McDonald's french fries

By JOHN MILLER, Associated Press Writer Wed Sep 23, 5:12 pm ET

KIMBERLY, Idaho – From the fields of Idaho to tasting rooms in suburban Chicago, potato farmers, researchers and industry representatives are in the midst of an elusive hunt: finding a new spud for McDonald's french fries.

Seven years have passed since the fast-food giant last added a new U.S. potato variety to three previously approved for its golden fries, something that both irks and motivates potato researchers who hope their progeny will be next.

Because McDonald's buys more than 3 billion pounds of potatoes annually across the globe, it has the power to dictate whether a variety sprouts or winds up in the less-lucrative supermarket freezer's crinklecut bin — or worse yet, banished to become dehydrated taters.

"It's a card game where McDonald's holds nine-tenths of the cards," said Jeanne Debons, the Potato Variety Management Institute's director. The institute was established in 2005 by the Idaho, Oregon and Washington potato commissions to handle licensing and royalties from new potatoes developed at universities and federal research facilities in the three states. An unwritten ambition: to get new potato varieties looked at by McDonald's.

Mini-tuber Varieties Available for Spring 2010
From the University of Idaho

<table>
<thead>
<tr>
<th>Variety</th>
<th>Code</th>
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<tbody>
<tr>
<td>Alturas</td>
<td>A0008-1TE</td>
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<tr>
<td>Blazer Russet</td>
<td>A00286-3Y</td>
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<td>Classic Russet</td>
<td>A00293-2Y</td>
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<td>Clearwater Russet</td>
<td>A96814-65LB</td>
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<td>Defender</td>
<td>A97066-42LB</td>
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<td>IdaRose</td>
<td>A98345-1</td>
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<td>Ivory Crisp</td>
<td>A99326-1PY</td>
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<td>Premier Russet</td>
<td>Red Sunset</td>
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<tr>
<td>Ranger Russet</td>
<td>Yukon Gem</td>
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<tr>
<td>Russet Burbank</td>
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</tbody>
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Please submit requests to
Lorie Ewing 208-885-6663
lewing@uidaho.edu

From Oregon State University

<table>
<thead>
<tr>
<th>Variety</th>
<th>Code</th>
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<tbody>
<tr>
<td>Maze</td>
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<tr>
<td>Modoc</td>
<td></td>
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<tr>
<td>Willamette</td>
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</tbody>
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Please submit requests to
Solomon Yilma, 541-231-5893
solomon.yilma@oregonstate.edu

Mini-tuber production at OSU
Timeframe for Ordering Plantlets and Mini-tubers from University of Idaho

October
- Order mini-tubers varieties with long dormancy (e.g. Russet Burbank, Bannock, IdaRose, Classic). A 50% deposit is required at the time of ordering.

December
- Order tissue culture plantlets for private greenhouses.
- Order normal and short dormancy mini-tubers.

January
- Send in field tubers for virus clean up (allow 10-12 months for clean up).
- Plant long dormancy varieties in the greenhouse.

May
- Plant shorter dormancy tubers in the greenhouse.

July
- Plant Moscow summer greenhouse.

Next April
- Mini-tubers ready for distribution.

Anytime
- Order tissue culture plantlets.

To place orders please contact:
Lorie Ewing, 208-885-6663, lewing@uidaho.edu
Solomon Yilma, 541-231-5893, solomon.yilma@oregonstate.edu

Red Sunset
An early bright skinned red with high Iron and Vitamin C content

A new line to be released in 2009, Red Sunset (AO93487-2R) produces a high marketable yield with excellent fresh market quality. It out-performs Dark Red Norland and Red LaSoda in the percentage number ones and skin color ratings. This bright red skinned, mid to early maturing variety also has high Iron and Vitamin C content.

Red Sunset is resistant to scab. Weaknesses include a propensity toward moderate skinning during harvest and susceptibility to viruses and late blight.

Red Sunset has medium storage capability and requires medium to high fertility. This line is resistant to Metribuzin at normal application rates.

Mini-tubers will be available in the Spring 2010 from University of Idaho (see page 1).

Disease Ratings

<table>
<thead>
<tr>
<th>Disease</th>
<th>Rating</th>
</tr>
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<tbody>
<tr>
<td>Early Dying</td>
<td>susceptible</td>
</tr>
<tr>
<td>Scab</td>
<td>resistant</td>
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<tr>
<td>PLRV</td>
<td>susceptible</td>
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<tr>
<td>PVY</td>
<td>susceptible</td>
</tr>
<tr>
<td>Net Necrosis</td>
<td>mod resistant</td>
</tr>
<tr>
<td>Late Blight both Foliar &amp; Tuber</td>
<td>susceptible</td>
</tr>
</tbody>
</table>
The first annual combined Washington and Oregon Potato Conference will be held at the Three Rivers Convention Center in Kennewick, WA. Todd Buchholz, an economist, author and entrepreneur will be the keynote speaker. Mr. Buchholz was a former director of economic policy for the White House, a manager of a hedge fund, and a teacher at Harvard University. He has penned articles for the New York Times, The Wall Street Journal, Forbes and Reader’s Digest. His editorials and commentary on PBS correctly forecasted the 2001 slowdown and ‘pop’ in commodities prices in 2008. Admission is $5.00.

New Fresh Market Variety Brochure Available

This new 8 page A5 brochure highlights the characteristics of the newest varieties that are suitable for the fresh market from the Tri-State Breeding Program.

It is downloadable in PDF format from the PVMI website:

Holy Grail cont.

The company still relies on the Russet Burbank for many of its fries, even though this 130-year-old variety takes an eternity to mature, gulps water and falls victim to rots and other diseases, meaning farmers must douse it in chemicals. Socially conscious investors want McDonald's to help cut pesticides to protect the environment and farmworker health. Still, coming up with a spud stud is no mean feat: One of the last varieties McDonald's tested, the Premier Russet, has a pedigree that on paper resembles the lineage of a thoroughbred race horse, with ancestors like the buff-skinned Penobscot of Maine.

The company decided it was an also-ran. "It has a smaller starch cell," Mitch Smith, McDonald's agricultural products director, recalls of tasters' conclusions about the Premier. "You get a smoother texture, it does affect the way it eats."

Other U.S. potato-growing regions are also on the case. In July, researchers and industry reps meeting in Sturgeon Bay, Wis., home to the U.S. Potato Gene bank, discussed new sustainable varieties — all to help McDonald's advertise that potatoes they serve are produced with less chemicals and water. To be sure, McDonald's has increased its use of other potato varieties in the last decades. Early-maturing, Canadian-bred Shepody potatoes go into many of its fries sold in August, September and October. But those potatoes don't store well, so by November, Ranger Russet fries hit the fast-food joints. And better-storing Umatilla Russets — the last U.S. potato variety approved by McDonald's back in 2002 — fill the bellies of consumers from late December until the end of February.

From then on, Russet Burbanks, with robust storage qualities, consistent texture and taste, remain Mickey D's mainstay, though this variety brought West by Massachusetts botanist Luther Burbank in 1875 is costly to produce.

Across America, the Russet Burbank has a declining market share, but is still no small potatoes. In 2008, Idaho potato farmers planted 57 percent of their total acres with Russet Burbanks, while the variety accounted for 41 percent across the eight biggest potato-producing states.

Allan French, a globe-trotting J.R. Simplot Co. manager who oversees potato varieties that feed the Boise based company's sprawling fry-processing empire stretching from Idaho to China, says finding a replacement has been elusive. "We're always looking for the silver bullet to replace the Russet Burbank," French said. Coming up with a reliable new variety takes years. Commitments. The Premier Russet emerged from the breeder's greenhouse in the early 1990s, but wasn't released for commercial growers until 2006. Along the way, it underwent storage trials at facilities near the tiny farming town of Kimberly. Here, University of Idaho researchers stack experimental varieties in refrigerated stalls, testing everything from sprout resistance to shrinkage. And in the test kitchen next door, storage scientist Tina Brandt fries up new varieties, to see how they stack up to Russet Burbanks, which tend to develop unsightly dark splotches that crop up on fry ends. "There have been a lot of fantastic varieties that have come along over the years, but for one reason or another — shrinkage in storage, disease resistance, texture — they haven't been adopted," Brandt laments.

At the McDonald's campus in Oak Brook, Ill., perfume-wearing intruders are shooed from tasting rooms, to prevent contamination of french fries samples randomly pulled from restaurants around America for monthly scrutiny by representatives of the company's three main suppliers: J.R. Simplot, Canada's McCain Foods Ltd., and Omaha-based Con-Agra Foods Inc. These days, however, taste, texture and golden-brown appearance aren't everything.

In March, three activist investor groups won an agreement from McDonald's to promote best practices to cut pesticide use by its American potato suppliers. So far, the groups say the company is doing a "great job" adhering to its McDonald's Smith says he's satisfied growers are already working efficiently and sustainably, largely because wasteful water or chemical practices dent their profits. But finding new varieties to meet that goal without mashing customers' taste expectations would be, well, gravy, he said.

Just now, McDonald's is scrutinizing the Bannock Russet, a 10-year-old potato variety bred originally in Idaho that isn't as susceptible to most diseases as Russet Burbanks. "If we can find a variety that does that, with less inputs, water or whatever, that's something we're looking for," Smith said. "To date, there are not a lot of varieties that perform consistently enough."

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