



Potato Progress

Research and Extension for Washington's Potato Industry

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Specialty Potato Field Trial of 2003

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The term “specialty potatoes” refers to a relatively small portion of the potato market. These are potatoes that have pigmented flesh or unusual skin color (e.g., purple skin). Yellow flesh potatoes are considered to be in the specialty category. However, Yukon Gold has become so common it is almost a mainstream potato variety. Red and purple flesh potatoes are still new and only small amounts of seed are available. A third category includes the fingerlings, small size elongate potatoes, which generally have low yields, and are especially coveted by upscale restaurants.

We conducted a yield trial at the USDA/ARS Systems Research at Paterson, WA site in 2003. The purpose of the trial was to evaluate performance of a large number of specialty clones and named varieties under commercial production regimes and to provide exposure to and samples for growers and the fresh market and processing industries. The data presented here is based on four replications of 10 hill plots. The plots were grown under a center pivot irrigation system with standard fertilization applications and disease and pest control measures.

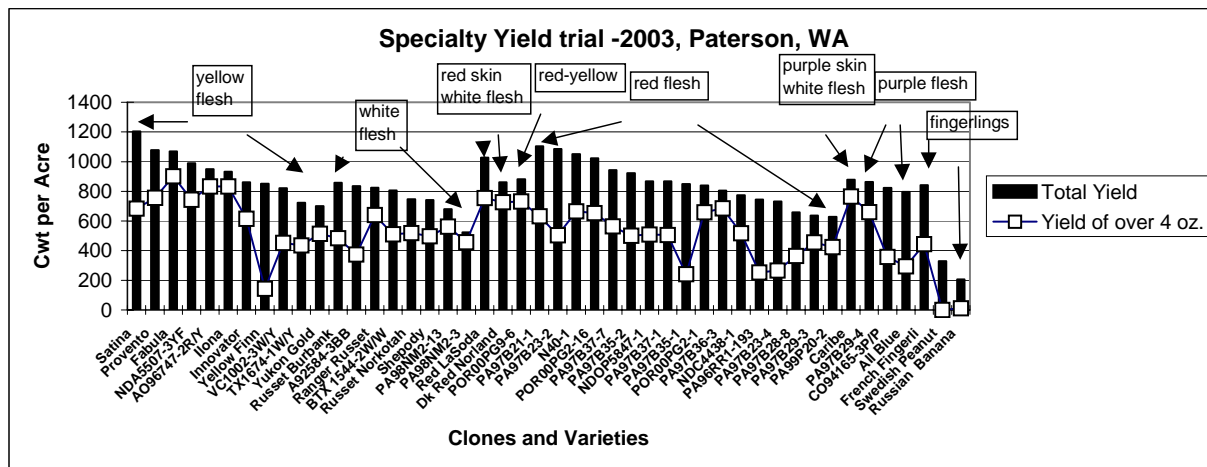


Figure 1. Yields of specialty and a few mainstream potato varieties at Paterson, Washington, 2003.

A portion of the results are shown in graphic form in Figure 1. The genotypes are grouped by type and then ordered from left to right according to total yield. The square indicates the portion of yield of over four ounce size tubers. The first aspect of this yield worth noting is that in most categories the yields of the highest yielding genotypes are comparable to mainstream varieties. There are yellow flesh, red flesh, and purple flesh genotypes that have total yields and

yields of over 4 ounces that are similar to those of Ranger Russet and Russet Norkotah. The top yielders among the yellow flesh are Satina, Provento, and Fabula. These European varieties have been very consistent in their high performance over two years. They contrast sharply with Yellow Finn, a variety that has been grown on a small scale in Washington State for many years, which had in this trial a high proportion of rather small tuber size. Among the red flesh types there is a considerable range of performance with many representatives that have relatively small tuber size. There are just two purple flesh types in this trial. The purple flesh CO94165-3P/P, the seed of which comes from Colorado, although showing a high total yield produces mostly small attractive round tubers with solidly purple flesh. There is already an established and profitable market for small size red skin, white flesh varieties. It is possible that small size red or purple flesh potatoes will find a similar attractive price niche. French Fingerling is a high yielding fingerling type, while Swedish Peanut and Russian Banana have extremely low yields and small size. Not shown here is La Ratte, an even poorer agronomic performer, that is nonetheless highly desired by restaurants.

Specialty potatoes still have erratic markets. Outlets with large volumes are relatively unfamiliar with these types of potatoes and therefore tentative about buying them. In addition, the amounts available are still very small. Therefore, all participants are faced with an uncomfortable level of risk. The seed grower, commercial grower, and buyers are stuck at very small scale until the risk of investment for larger production is taken by some brave entrepreneur. The evolution of this still tiny portion of the potato economy will be interesting to watch. A typical producer of specialty potatoes at this time would be a small scale highly diversified family farm that sells from its own roadside vegetable stand or in farmers' markets.

Planning to Cope With Tuber Moth in 2005

As many of you know, we have a new insect pest in the Columbia Basin, potato tuber moth. It looks like tuber moth is here to stay, and so growers and other industry members need to start thinking about monitoring for it in 2005. It would be a good idea for all growers in the Basin to have pheromone traps around all potato fields. For the average 100 acre field, 4 pheromone traps would be ideal. It might be a good idea to start lining up the supplies you will need for tuber moth pheromone traps as soon as possible. Below is the information we have published before on trap sources and set-up.

Traps (but not holders) can be obtained two different ways, either through local chemical dealerships or from one of the companies that supply the dealerships. Suterra, out of Bend OR, only deals with dealerships, so contact your local chemical supplier for their products. Another company, Trece Inc, will sell to both dealerships and private individuals. They can be reached by calling 918-785-3061 or going to their web site: WWW.TRECE.COM. Traps should be hung no higher than 12" above the canopy of whatever is growing in the area, or 12" off the bare ground. We are keeping the area around our traps free of weeds. The insect will likely fly no higher than the canopy height in that area. We have used the high strength PVC pipe for stands in our locations and have used heavy aluminum wire 30" long in the shape of a "7", placing one end of the wire into the end of the pipe and hanging the trap on the other end of the wire. We have made a circle in the wire to hang the Delta trap on to help keep the trap from blowing away. In some locations we used ½" electrical conduit because the ground was so hard that pounding in the PVC pipe did not work well. The pipe is pounded into the ground about 12".

Potato Varieties in the Northwest

Data for the following table were gathered by the National Agricultural Statistics Service (NASS), and summarized here by the editor. In some cases, NASS does not report numbers for certain varieties, and these cases are indicated by the --. Several minor varieties not listed here were reported by NASS on occasion.

<u>State</u>	<u>Russet Burbank</u>	<u>Russet Norkotah</u>	<u>Shepody</u>	<u>Ranger Russet</u>	<u>Umatilla</u>	<u>Alturas</u>	<u>Other</u>
Idaho							
1997	79.7%	5.0%	7.1%	4.0%	--	--	4.2%
1998	77.9%	4.8%	5.6%	6.6%	--	--	5.1%
1999	74.4%	8.3%	4.2%	9.1%	--	--	4.0%
2000	74.9%	8.0%	3.9%	7.7%	1.3%	--	4.2%
2001	70.8%	8.4%	3.8%	11.1%	--	--	5.9%
2002	71.0%	7.5%	3.4%	12.0%	--	--	6.1%
2003	69.2%	10.1%	1.3%	12.9%	--	1.2%	5.3%
2004	63.3%	14.2%	1.7%	12.5%	--	2.9%	5.4%
Oregon							
1997	30.9%	38.8%	18.2%	1.8%	--	--	7.9%
1998	39.5%	24.8%	17.2%	10.3%	--	--	7.2%
1999	42.9%	21.4%	12.5%	12.5%	--	--	8.9%
2000	32.7%	27.8%	9.8%	11.2%	3.1%	--	13.3%
2001	38.9%	12.3%	10.8%	22.5%	1.9%	--	13.6%
2002	24.3%	16.8%	18.8%	19.2%	1.8%	--	19.1%
2003	22.3%	25.6%	13.3%	15.4%	--	5.0%	18.4%
2004	22.8%	16.3%	10.3%	31.3%	--	7.2%	12.1%
Washington							
1997	50.2%	17.5%	7.6%	15.5%	--	--	9.2%
1998	58.1%	13.2%	8.9%	11.4%	--	--	8.4%
1999	41.3%	15.4%	10.8%	17.6%	6.7%	--	8.2%
2000	33.7%	17.2%	10.8%	20.2%	12.3%	--	5.8%
2001	35.3%	19.3%	6.8%	19.9%	12.1%	--	6.6%
2002	34.8%	11.8%	10.3%	22.3%	8.1%	--	12.7%
2003	34.9%	11.1%	9.3%	22.1%	8.2%	1.5%	12.9%
2004	34.7%	12.9%	8.2%	18.5%	10.7%	3.5%	11.5%

Columbia Basin Potato Workshops

Tuesday, January 11, 2005

**TRAC
6600 Burden Blvd.
Pasco, WA**

Wednesday, January 12, 2005

**Best Western Hallmark Inn
3000 W. Marina Drive
Moses Lake, WA**

AGENDA

- 8:00 am Registration and refreshments
- 8:20 **Introduction**
Andrew Jensen, Washington State Potato Commission, Moses Lake, WA
Gary Pelter, WSU/Grant-Adams Area Extension, Ephrata, WA
- 8:30 **Effect of Long Term Rotations on Productivity of Potato Soils**
Hal Collins, USDA-ARS, Prosser, WA
- 9:00 **New Potato IPM Technologies**
Walter Stevenson, University of Wisconsin, Madison, WI
- 9:30 **What Are We Learning About Wireworms and Potatoes?**
Dave Horton, USDA-ARS, Wapato, WA
- 10:10 **Break** Refreshments Courtesy of J.R. Simplot Company, Moses Lake, WA
- 10:15 **An Integrated Approach for Reducing In-Field Greening of Potato Tubers**
Mark Pavsek, Washington State University, Pullman, WA
- 10:45 **Boosting Potatoes Natural Defenses**
Roy Navarre, USDA-ARS, Prosser, WA
- 11:15 **Fungicide Resistance Management Strategies**
Walter Stevenson, University of Wisconsin, Madison, WI
- 11:45 **Using Vydate in Potato Nematode Management**
Russ Ingham, Oregon State University, Corvallis, OR
Nick David, Oregon State University, Corvallis, OR
- 12:15 **Adjourn**

Please turn off cell phones during the program

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