



# Potato Progress

Research and Extension for Washington's Potato Industry  
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 Andrew Jensen, Editor. Submit articles and comments to: [ajensen@potatoes.com](mailto:ajensen@potatoes.com)  
 108 Interlake Rd., Moses Lake, WA 98837; Fax: 509-765-4853; Phone: 509-765-8845.

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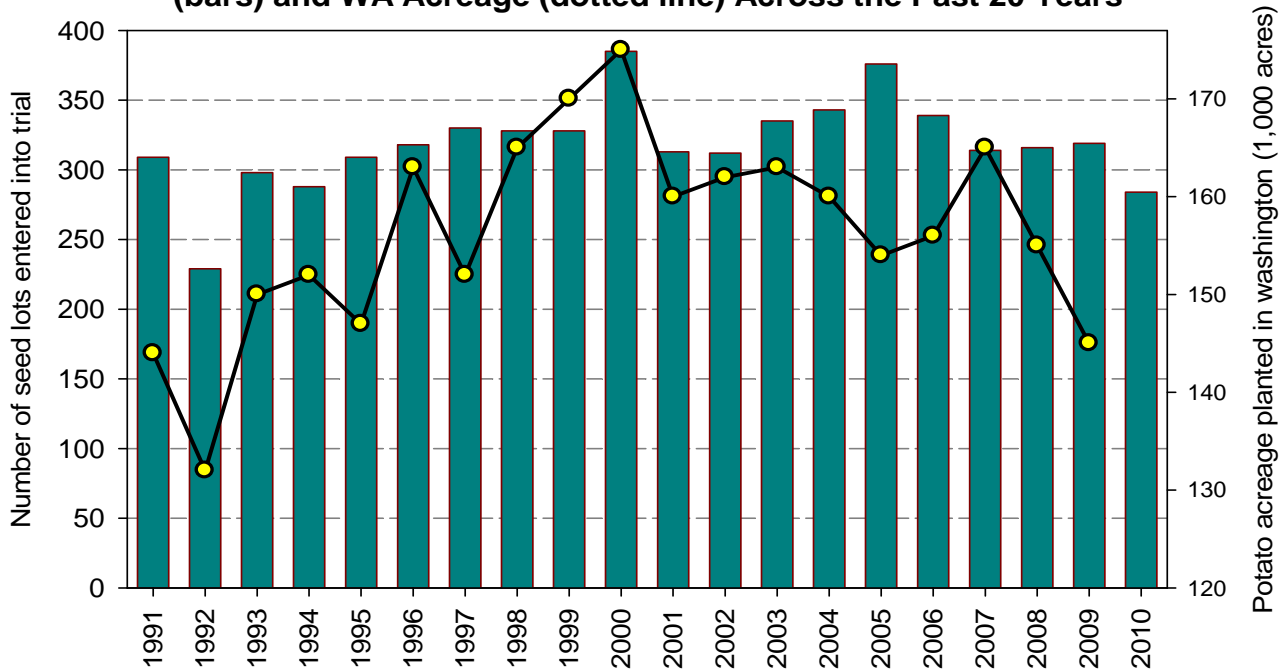
June 14, 2010

## 2010 Washington State Commercial Seed Lot Profile and Potato Field Day Preview

Mark J. Pavek, Zach J. Holden & Chris D. Hiles: Washington State University, Pullman

Two hundred eight four seed lot samples were entered into the 2010 commercial seed lot trial (Figure 1). This is the fewest samples entered since 1992. Acreage and seed lot numbers were down in 1992 following a price drop from \$5.20/CWT in 1990 to \$3.80/CWT in 1991. As of 2008, there has been a steep decline in Washington potato acreage and the slide has likely continued into 2010. Process demand has declined along with acreage restrictions encouraged by the United Potato cooperative. There are likely other factors affecting potato demand, nonetheless, we hope to see the Washington acreage increase in the near future.

**Figure 1. Number of Potato Seed Lots Entered into the WSU Seed Lot Trial (bars) and WA Acreage (dotted line) Across the Past 20 Years**



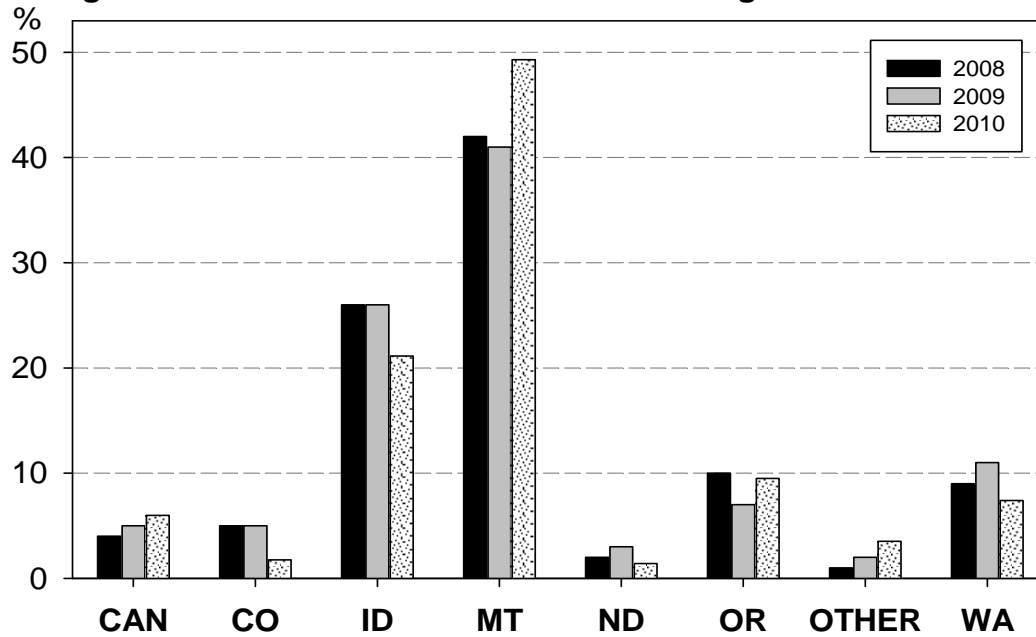
Montana seed lot entries increased dramatically from the previous 2 years while Colorado, Idaho and Washington entries declined significantly (Figure 2). Canada-supplied seed lots are still on the increase following the 2008 reopening of the U.S./Canada border to Alberta-grown seed potatoes.

The interest in new varieties is on the rise and some of these other regions may be experiencing growth as growers search for and buy any and all available seed. Over 18% of all seed lots entered were varieties ("Other" category) that were newly developed or are new to the region (Figure 3). This is a record high and is up over 7% from just 3 years ago.

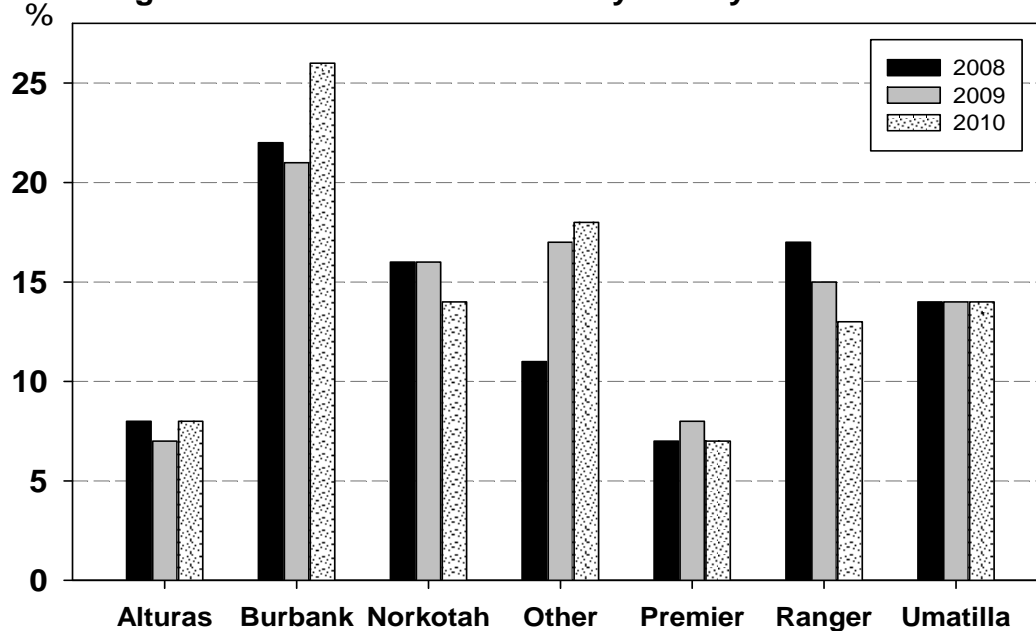
Russet Burbank entries saw a dramatic increase from the previous 2 years. Umatilla and Alturas appear to be holding steady while Ranger entries continues to decline for the 4<sup>th</sup> year in a row (Figure 3). Norkotah and Premier Russet seed lot numbers also declined slightly from last year.

Varieties developed by the Northwest Potato Variety Development Program/PVMI accounted for 47% of the seed lots entered into the 2010 trial and included: Premier Russet, Classic Russet, Alpine Russet, Blazer Russet, Clearwater Russet, Highland Russet, Alturas, Ranger, Umatilla, Gallatin Russet, Defender, and A0008-1TE.

**Figure 2. Percent of Seed Lots from each Region between 2008-10**



**Figure 3. Percent of Seed Lots by Variety between 2008-10**



The potato field day will begin at 8:30 am on a new day (THURSDAY), June 24 at the WSU Othello Research Farm (see program below). In addition to viewing the seed lots, you will be able to participate in one of three concurrent sessions. Sessions I and II will allow you to view a sample of this year’s in-field research. Session III is a Chemigation Remote Monitoring and Irrigation Workshop. We anticipate that all three sessions will offer CCA credits, and that Sessions II and III will offer pesticide applicator recertification credits for WA and ID. A hosted-lunch, offered between 11:30 and 1:00, will complete the field day. The agenda, seed lot information, and a map to the research center can be found on our website: [www.potatoes.wsu.edu](http://www.potatoes.wsu.edu)

# WSU Potato Field Day – Thursday June 24, 2010

Located at WSU Othello Research Unit – 1471 W Cox Rd, Othello  
(6 miles East of Hwy. 26/17 Junction, On Booker Rd, ¼ Mile South of Hwy. 26)

8:30 - 9:00 am Coffee and rolls

9:00 - 10:00 am Commercial Seed Lot Trial Disease Results and Viewing

## Concurrent Session I: Potato Cultural Practices Field Tour

10:15 am **Regional sampling network for potato insect pests in the Columbia Basin**  
*Carrie Wohleb* – WSU, Grant/Adams Counties

10:30 am **Improving irrigation efficiency**  
*Mark Stalham* – Univ. of Cambridge, UK, *Mark Pavek, Zach Holden, Chris Hiles* – WSU, Pullman

10:45 am **Tuber set & size distribution studies**  
*Rick Knowles, Jake Blauer, Lisa Knowles* – WSU, Pullman

11:00 am **High phytonutrient baby potatoes**  
*Roy Navarre* – USDA/ARS, Prosser

11:15 am **In-season potato management & post-season quality**  
*Rick Knowles, Mark Pavek, Daniel Zommick, Chris Hiles, Lisa Knowles, Zach Holden* – WSU, Pullman

11:30 am **Options for Controlling Spring Wind Erosion in Potatoes**  
*Andy McGuire* – WSU, Grant/Adams Counties

11:45 am **Current Research: Can Green Manures Reliably Replace Metam Sodium Fumigation?**  
*Andy McGuire* – WSU, Grant/Adams Counties

12:00 pm - 1:00 pm **HOSTED LUNCH**

## Concurrent Session II: Potato Pest Management Field Tour

10:15 am **Regional Sampling Network for Potato Insect Pests in the Columbia Basin**  
*Carrie Wohleb* – WSU, Grant/Adams Counties

10:30 am **Who is eating whom? Molecular detection of prey and predator guts**  
*Gretchen Snyder, Christine Lynche* – WSU, Pullman

10:45 am **Insect killing pathogens in potato fields**  
*Randa Jabbour, Dave Crowder* - WSU, Pullman

11:00 am **Managing late blight and early blight**  
*Dennis Johnson, Tom Cummings* – WSU, Pullman

11:15 am **The powdery scab dilemma: culture, chemical or cultivar**  
*Tom Cummings, Dennis Johnson* – WSU, Pullman

11:30 am **Selecting varieties for resistance or tolerance to powdery scab and black dot**  
*Chuck Brown* – USDA/ARS, Prosser, *Dennis Johnson* – WSU, Pullman

11:45 am **A tale of 3 kingdoms: pectolytic bacteria, Vert. dahliae & potato in the potato early dying complex**  
*Brenda K. Schroeder, Jeremiah K. S. Dung, Dennis A. Johnson* – WSU, Pullman

12:00 am - 1:00 pm **HOSTED LUNCH**

## Concurrent Session III: Chemigation Remote Monitoring & Irrigation Uniformity\* Workshop

### *\*On-Site Pivot Calibration Demo*

10:15 am **Main Topics:** 1) Determining the Distribution Uniformity of a Center Pivot, Evaluating the Results, and Proposing Corrective Courses of Action.  
2) Demonstrating a Remote Monitoring System to Track Real-time Chemigation System Operation, Soil Moisture Level, and On-site Weather Conditions

*Dr. Troy Peters*, WSU Extension Irrigation Engineer; *Leigh Nelson*, USDA-NRCS Statewide Irrigation Engineer; *Tom Hoffmann*, WSDA Technical Assistance Specialist; *Byron Fitch*, WSDA Chemigation Compliance Specialist; and *Bill Terry*, Genesis Data Harvesters.

12:15 - 1:00 pm **HOSTED LUNCH**

*CCA and pesticide recertification credits have been applied for (WA & ID)*



## Hermiston Agricultural Research and Extension Center

Oregon State University, 2121 South 1<sup>st</sup> Street, Hermiston, Oregon 97838

T 541-567-6337 or 541-567-8321 | F 541-567-2240 | <http://oregonstate.edu/dept/hermiston/index.php>

### HAREC Potato Field Day June 29, 2010 8:00-12:10

- 8:00 am Registration**
- 8:30am How Environmental Conditions Favor Silver Scurf Development – Phil Hamm, OSU**
- 8:50am Nitrogen Issues in Potato Production - Jess Holcomb, OSU**
- 9:10am Using *Bacillus mycooides* Induced Systemic Resistance for management of Potato Virus Y – Barry Jacobsen, Montana State University**
- 9:30am Update on Insecticide Seed Treatments in Potatoes - Chris Clemens, Syngenta Crop Protection, Biological R&D**
- 9:50am Sustainable Approaches to Nematode Management - Russ Ingham, OSU**
- 10:10am A Review of the Diseases Found in Potato Seed Planted at HAREC from Nearby Commercial Plantings - Phil Hamm, OSU**
- 10:30am Impact of seedborne PVY strains on emergence, growth, and foliar symptoms in 8 potato cultivars (and a review of current season infection by strains of PVY on yield and foliar and tuber symptoms) - Jordan Eggers, OSU**
- 10:50am Treatment for the Beet Leafhopper to Better Manage Potato Purple Top Disease - Silvia Rondon, OSU**
- 11:10am New Varieties for Potato Production – Dan Hane, OSU**
- 11:30am Thiamine and Folate in Potato: Targets for Increased Nutritional Value and Enhanced Disease Resistance – Aymeric Goyer, OSU**
- 11:50am Fertilizers in potato production - Don Horneck, OSU**
- 12:10pm Adjourned**

Agriculture, 4-H Youth, Family & Community Development, Forestry, and Extension Sea Grant Programs. Oregon State University, United States Department of Agriculture, and Umatilla County cooperating. The Extension Service offers its programs and materials equally to all people.