



# Potato Progress

Research and Extension for Washington's Potato Industry

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## Columbia Basin Ground Water Management Area 2002 Cost Share Program

The Columbia Basin Ground Water Management Area (GWMA) is offering two cost-share programs for the 2002 season. The **Irrigation Water Management (IWM) Cost-Share Program** provides land managers and owners scientific data upon which to increase their efficiency and protect local groundwater resources. The **Deep Soil Sampling Voucher Program** is an education program offering information to growers about the nitrate level in the soil profile.

### IWM COST SHARE PROGRAM

The Columbia Basin Ground Water Management Area (GWMA) is offering an Irrigation Water Management Cost Share Program for Basin growers and irrigators desiring to enroll in IWM or to upgrade their IWM scheduling techniques for irrigating their properties.

Eligibility for the program extends to all irrigators in Adams, Franklin and Grant counties, including agricultural operations, dairies and feedlots, golf courses, and spray field operations.

The Columbia Basin GWMA will offer irrigators two category selections for participation in the moisture monitoring program. Class I Real-Time IWM program will fund 75% or up to \$12.00 per acre to the cooperating grower for soil moisture reporting consisting of multiple data collection at one-hour intervals or less with instant access via internet or telephone. The Class II standard IWM program will fund 50% or up to \$7.50 per acre for soil moisture monitoring consisting of data collection and reporting on a weekly basis at a minimum. The maximum match to any one participant will be \$5,000. Goods and services eligible for coverage by the IWM cost share program include consulting services and water management tools, such as soil moisture monitoring equipment, flow measurement devices, and catch-can tests.

### Deep Soil Sampling Voucher Program

Land managers in Adams, Franklin and Grant counties are being offered the opportunity to have deep soil sampling of their property paid for by the Columbia Basin Ground Water Management Area (GWMA). The purpose of the Deep Soil Sampling program is to provide owners and operators of Columbia Basin farms, golf courses, spray fields and parks with information regarding the amount of nitrate in their soil to a level of 10 feet or the impeding layer.

The land managers will receive an analysis on the presence of nitrate at one-foot increments in their soil with full cost coverage of sampling and analysis for NO-3-N by the Columbia Basin GWMA. Other soil tests for elements other than nitrates will be at their own expense.

Funding is limited to an amount up to \$150 per composite sample per field to a maximum of \$1,000 per owner/operator. To qualify for the program, property tested must be in Adams, Franklin or Grant counties.

To sign-up for the Columbia Basin GWMA Deep Soil Sampling and/or the Irrigation Water Management programs, contact one of the following:

**Franklin Conservation District office, (509) 545-8546, ext. 3**

**Othello Conservation District office, (509) 488-2802, ext. 5**

**Upper Grant Conservation District office, (509) 754-2463 ext. 5.**

Participants for these programs will be selected through a random lottery system. The total number of participants is based on total funds available and the percentage of irrigated land in each county.

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## Potato Breeding in the Pacific Northwest

Ranger Russet is the most successful outcome of a strong cooperation between industry and scientists in potato variety development in the Pacific Northwest (see next article). This scientific and political collaboration among Washington, Oregon, and Idaho is known as the Tri-State Potato Variety Development Program. The effort is directed by a committee made up of six growers, two from each state, five scientists from the universities and USDA, and four administrators from USDA and the three universities. The research is funded by the USDA-ARS, the three state universities, federal grant dollars, and grant dollars from the three state potato commissions. In Washington, support of variety development work at WSU and USDA Prosser accounts for more than 20% of the potato commission's annual research budget. These dollars contribute to the in-field testing of promising material by Robert Thornton, the post-harvest evaluations of Rick Knowles, and the breeding work of Chuck Brown.

Initial crosses, producing true seed, are conducted by the USDA-ARS in Aberdeen Idaho. Responsibilities for the multi-year variety selection process, which follows the initial crosses, are shared by Washington State University, University of Idaho, and Oregon State University. USDA-ARS scientists at Prosser also make significant contributions.

### **University of Idaho:**

- Provide advanced and commercial evaluation of selections produced by the USDA program;
- Provide limited generation seed of potential releases.

### **Oregon State University:**

- Provide additional seedlings using USDA-originated and Oregon derived crosses;
- Select and evaluate early-generation seedling clones;
- Produce pre-nuclear certified seed for grower increase, and field grown seed for research trials for the entire variety development program;
- Provide field resistance screening for late blight, viruses, and other diseases in cooperation with USDA.

### **Washington State University:**

- Provide comprehensive post-harvest testing of processing quality;
- Define quality variables in new varieties;
- Develop agronomic recommendations for new varieties for long-season, high temperature growing areas;
- Complete advanced and commercial testing in the Columbia Basin;
- Evaluate early generation seedling clones;
- Complete disease screening for late blight and corky ringspot.

## Potato Varieties in the Northwest-Updated

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. If you are interested in a larger table including all reported varieties, please contact the editor at the WSPC office.

State	Russet Burbank	Russet Norkotah	Shepody	Ranger Russet	Atlantic	Umatilla	Other
<b>Idaho</b>							
1995	83.2%	2.0%	10.0%	2.6%	--	--	2.2%
1996	79.7%	3.7%	10.0%	2.7%	--	--	3.9%
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%
<b>Oregon</b>							
1995	41.1%	17.2%	27.2%	3.3%	--	--	11.2%
1996	35.4%	22.5%	25.8%	3.6%	5.6%	--	7.1%
1997	30.9%	38.8%	18.2%	1.8%	2.4%	--	7.9%
1998	39.5%	24.8%	17.2%	10.3%	1.0%	--	7.2%
1999	42.9%	21.4%	12.5%	12.5%	1.8%	--	8.9%
2000	32.7%	27.8%	9.8%	11.2%	2.1%	3.1%	13.3%
2001	38.9%	12.3%	10.8%	22.5%	--	1.9%	13.6%
<b>Washington</b>							
1995	61.1%	11.8%	13.7%	6.4%	--	--	7.0%
1996	50.3%	17.8%	11.3%	8.7%	--	--	11.9%
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%

# Annual Washington Potato Conference & Trade Show Program

Big Bend Community College, Moses Lake, WA, February 5-7, 2002

## Tuesday, February 5, 2002

- 12:00-6:00 pm Registration and Trade Show, BBCC Gymnasium  
 1:00-4:30 pm Spanish Language Program, Student Center Auditorium (Bldg. 1400)  
 6:30-8:30 pm Potato Variety Discussion, Hallmark Inn

## Wednesday, February 6, 2002 8:30am-12:05pm

Ekaterini Riga, Nematologist WSU Prosser

- 7:45 am Continental Breakfast  
 8:30 am *Developing a Better IPM Program for the Washington Potato Industry* **Alan Schreiber**  
 8:55 am *Washington State Potato Foundation--Function and Purpose* **Carol Conley**  
 9:10 am *New Developments for Monitoring Loopers, Army Worms and Cutworms of Eastern Washington*  
**Peter Landolt**  
 9:35 am *Using Soft Pesticides to Preserve Predators* **Bill Snyder**  
 10:00 am Break  
 10:15 am *The Impact of Insecticide Applications for Control of Green Peach Aphid and Colorado Potato Beetle on Two-Spot Spider Mite* **Gary Reed**  
 10:40 am *WSPC Activities on Environmental and Trade Issues Impacting the Washington State Potato Industry* **Pat Boss**  
 10:55 am *New Developments in Monitoring Adults and Larvae of Wireworms in Potatoes* **David Horton**  
 11:20 am *Food Systems Security Panel: A Look at the Issues* **Gleyn Bledsoe, Scott McKinney and Barbara Rasco. Gary Pelter, Moderator**  
 11:00-1:15 pm Hosted Potato Bar, BBCC Administration Bldg. Auditorium

## Wednesday, February 6, 2002 1:30 pm-4:15 pm

Roy Navarre, Potato Geneticist USDA/ARS Prosser

- 1:30 pm *Occurrence of Potato Tuber Worm in the Columbia Basin: Recognition, Biology, and Control Measures* **Gary Reed**  
 1:55 pm *Industry Initiatives to Remove Phytosanitary Barriers and Open Global Potato Markets*  
**John Toaspern**  
 2:10 pm *PVY: The Strains and Their Potential Damage* **Phil Hamm**  
 2:35 pm *Potato Virus Y: Breeding for Resistance* **Chuck Brown**  
 3:00 pm Break  
 3:15 pm *Phytophthora on the Move: Transmission of Late Blight from Tubers to Sprouts* **Raina Spence**  
 3:50 pm *Survivability of Late Blight Spores in Water and Soil* **Lyndon Porter**  
 4:15 pm Adjourn

## Thursday, February 7, 2002 8:30 am-12:20 pm

Robert Thornton, Horticulturist WSU Pullman

- 7:45 am Continental Breakfast  
 8:30 am *Impact of Applications of Calcium to Seed Potatoes on Next Season Production* **Steve Holland**  
 8:55 am *Benefits of Mustard Green Manures in Potato Rotations* **Andy McGuire**  
 9:20 am *National Potato Council - What's Going On?* **Allen Olberding**  
 9:35 am *Nitrogen Transformation from Potato and Rotational Crops Residues* **Ashok Alva**  
 10:00 am *Use of Ground Cover Grids in Crop Monitoring* **Mark Stalham**  
 (sponsored in part by Syngenta and the Washington State Potato Foundation)  
 10:25 am Break  
 10:40 am *Potato Crop Growth, Development, and Water Use* **Mark Stalham**  
 11:05 am *Storage Management and Processing Quality of Umatilla Russet* **Rick Knowles**  
 11:30 am *Epidemiology and Management of White Mold in the Columbia Basin* **Zahi Atallah**  
 11:55 am *Current Research Results for Powdery Scab and Fusarium Dry Rot* **Dennis Johnson**  
 12:20 pm Adjourn