Potato Progress

Research and Extension for Washington's Potato Industry
Published by Washington State Potato Commission **www.potatoes.com**
Andrew Jensen, Editor. Submit articles and/or notes to: ajensen@potatoes.com

Volume II, Number 6 *June 18, 2002*

Potato Field Day Program and Seed Lot Entry Summary

Robert E. Thornton, Washington State University, Pullman

Three hundred and twelve samples of seed lots from twelve seed producing areas (4 grouped as Other) were planted at the WSU Othello Research Unit earlier this spring. The number and percent of the lots from the various seed areas and the number of lots of the six major varieties in the 2002 trial and a comparison to the 2001 trial are shown in the accompanying table. Forty-two lots were planted on March 26th, 114 lots on April 9th, 92 lots on April 23rd, and 64 lots on May 8th. Note that there is a decline in the percent of lots of Umatilla Russet and those varieties included in the "other" category compared to 2001. There is a substantial increase in the percent of lots of Russet Burbank and Shepody. In terms of where the seed lots came from in 2002 compared to 2001 there is a sharp decline in the percent of lots from Idaho and Colorado with no one or group of seed areas appearing to have increased appreciably to compensate for this decline. These seed lots are a major feature of the upcoming Potato Field Day to be held at the Othello Research Unit starting at 8:30 AM on June 28th (see included program for details). In addition to the opportunity to observe the seed lots in the trial, there is a field day program that includes three concurrent sessions two of which provide an opportunity to observe research plots located at the research unit and visit with the investigators involved in that research. All three of the concurrent sessions will offer CCA credits. Pesticide applicator recertification credits will be offered for Concurrent Sessions II and III. A hosted lunch will be available on site from 11:30 am to 1:30 pm.

2002 Variety x Seed Source Source	Alturas	Burbank	Norkotah	Ranger	Shepody	Umatilla	Other	TOTAL	%TOTAL
ALB	(0) 0	(14) 22	(6) 6	(23) 12	(1) 0	(0) 0	(4) 3	**(49) 43**	**(16) 14**
BC	(0) 0	(0) 1	(0) 0	(0) 2	(1) 3	(0) 0	(2) 2	**(4) 8**	**(1) 3**
CAN	(0) 0	(1) 5	(1) 1	(1) 8	(0) 1	(0) 1	(0) 0	**(4) 16**	**(1) 5**
CO	(0) 0	(1) 0	(18) 9	(0) 0	(0) 0	(0) 0	(4) 0	**(24) 9**	**(8) 3**
ID	(4) 10	(12) 5	(2) 3	(25) 15	(9) 11	(13) 9	(6) 4	**(72) 57**	**(23) 18**
MT	(1) 3	(51) 58	(8) 8	(24) 26	(1) 3	(26) 19	(6) 6	**(121) 123**	**(39) 39**
OR	(5) 1	(1) 2	(2) 3	(0) 4	(0) 3	(6) 2	(0) 2	**(15) 17**	**(5) 5**
OTHER	(3) 0	(2) 3	(1) 1	(2) 5	(2) 1	(0) 1	(10) 1	**(10) 12**	**(3) 4**
WA	(0) 1	(1) 1	(4) 9	(3) 4	(0) 1	(0) 7	(2) 4	**(14) 27**	**(4) 9**
TOTAL	**(13) 15**	**(83) 97**	**(42) 40**	**(78) 76**	**(14) 23**	**(49) 39**	**(34) 22**	**(313) 312**	
%TOTAL	**(4) 5**	**(27) 31**	**(13) 13**	**(25) 24**	**(4) 7**	**(16) 13**	**(11) 7**		**100**

Figures in "( )" are 2001 totals.
2002 Other Source include ND, SD, NEB, NEV, Unknown
2001 Other Source include CAL, ND, NEB, NEV, Unknown

Potato Field Day Program

June 28, 2002

WSU Othello Research Unit

(6 miles East of Hwy. 26/17 Junction, South of Hwy. 26 on Booker Road)

8:30 - 9:00 am Coffee and Rolls

9:00 - 10:30 am Visit Seed Lot Trial

Concurrent Session I

POTATO CULTURAL PRACTICES FIELD TOUR

10:30 am **Manipulating Yield & Grade Through Storage Management of Seed Potatoes**.
Lisa Knowles. - Washington State University, Pullman

10:50 am **Effects of DMN on Seed Productivity**
Rick Knowles - Washington State University, Pullman

11:10 am **Optimizing Storage Regimes in Relation to Tuber Maturity of Processing Potatoes**
Rick Knowles - Washington State University, Pullman

11:40 am **Herbicide Carry Over in Seed Potato Tubers**
Ed Driskill – Washington State University, Pullman

12:00 am **Potato Stand Establishment-Planting Depth and Irregular Spacing**
Mark Pavek - Washington State University, Pullman

12:20 - 1:30 pm **HOSTED LUNCH**

Concurrent Session II

POTATO PEST MANAGEMENT FIELD TOUR

10:30 am **Predators That Feed on Green Peach Aphid**
Bill Snyder - Washington State University, Pullman

11:00 am **Effects of Chemicals and Vine Kill vs. Green Vine Harvest on Potato Storage Diseases**
Tom Cummings - Washington State University, Pullman

11:15 am **Combinations of "New Chemistry" Potato Seed Treatments**
Tom Cummings - Washington State University, Pullman

11:30 am **Herbicide Carry Over in Seed Potato Tubers**
Robert Thornton - Washington State University, Pullman

12:00 - 1:30 pm **HOSTED LUNCH**

Concurrent Session III

POTATO PEST MANAGEMENT WORKSHOP

10:30 am **Herbicides for Nightshade Control in Potatoes and Volunteer Potato Control in Corn**
Rick Boydston- USDA-ARS, Prosser

11:00 am **Volunteer Potatoes-Where do They Come From and Can Anything be Done About Them**
George Newberry - Washington State University, Pullman

11:30 am **PVY Issues in Columbia Basin Potatoes**
Phil Hamm – Oregon State University, Hermiston

12:00 pm **Using Selective Pesticides to Conserve Beneficial Insects and Spiders**
Bill Snyder – Washington State University, Pullman

12:45 - 1:30 pm **HOSTED LUNCH**

How Cool Has It Really Been??

Robert E. Thornton and George D. Newberry
Washington State University, Pullman, WA

Anyone who has spent any time in fields in the potato producing areas of Washington has probably declared to themself, as well as others, that the 2002 growing season has been unusually cool (cold) compared to previous years. Usually, we make such statements based on our remembrance of the previous years' climate rather than reference to weather records. Data from the Public Agricultural Weather System (PAWS) operated by Washington State University provides current season and historical information that makes possible accurate comparison of the climate. One method of comparing year-to-year differences or similarities is to follow accumulated heat units. A heat unit is calculated by multiplying the number of degrees above a designated base temperature by the number of days that temperature is experienced. For example, 45° F base temperature, 50° F avg. daily temp. = 5 heat units (50-45=5). Heat units accumulated between March 1st and June 10th for 5 planting dates are shown in Figures 1, 3 and 5 respectively for 2000, 2001 and 2002. The average heat units for that time period for the past 5 and 10 years at three locations across the potato growing area of the Columbia Basin are shown for comparison. Regardless of the planting date or location the accumulated heat units for 2002 are lower that the two previous years and the 5 and 10 year average. The difference between 2002, the two previous years and the five and 10 year average is not as great for Paterson (Figure 2) as it is for Quincy (Figure 4) or Basin City (Figure 6). From the first of March through May 3rd heat units at all three locations were not very different from the short and long term averages. Over the past 10 years there is a noticeable downward trend in the heat units accumulated from March 1st to June 10th (Figure 7). During that 10-year period, 1999 is the only year that had fewer heat units by June 10th than 2002. The highest accumulated heat units for that 10 year period occurred in 1992. Heat unit accumulation since the period shown in the accompanying figures has been erratic at best and the short term outlook does not indicate that what would be considered "normal" climatic conditions are to be expected in the near future.

Field Day Dates

It's time to mark your calendars for the upcoming potato field days planned by local scientists and extension staff.

Eltopia - Potato Pest Management Field Day & hosted lunch, August 7, 10:00 AM
Mt. Vernon - Mt. Vernon Field Day, WSU Research Unit, August 20, 4:00 PM