



Potato Progress

Research and Extension for Washington's Potato Industry

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Accumulated Heat Units for Three Columbia Basin Sites

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Heat units accumulated for potatoes planted in March and April at three Columbia Basin locations through June 15, 2001 are graphed on page two, in Figs. 1-3, for Paterson, Othello, and Quincy, respectively. At Paterson, total heat units accumulated for 2001 are greater than in 2000 for potatoes planted prior to April 15. For those planted after that date, heat units for 2000 and 2001 are similar. This year's Paterson heat unit accumulation is similar to the average for the recent five growing seasons.

The pattern of heat unit accumulation at Othello is similar to that at Paterson but the amount of heat units is substantially lower. Less than 800 heat units accumulated at Othello for all planting dates, while most of the planting dates at Paterson accumulated close to 900 heat units. The heat units accumulated at Quincy are lower than those accumulated at Paterson but higher than at Othello. The heat unit comparison for 2001, 2000, 1999 and five-year average show a very similar profile, the exception being the May 1st planting date at Quincy.

The heat unit accumulation profile of the three locations is shown in Figs. 4-6, on page two, for Paterson, Othello, and Quincy, respectively. The heat unit profile for 2001 at Paterson is nearly identical to the profile for the five-year average, considerably higher than 1999 and lower than 2000 by a similar amount. At Othello, the profile for 2001 is similar to that in 2000 and the five-year average with some minor deviations. The Quincy heat profile is basically the same as that at Othello except at a higher level of heat units.

POTATO FIELD DAY DATES & LOCATIONS

June 28

8:30 am

WSU Othello Research Unit

- Six miles east of Hwy. 26 and Hwy. 17 intersection on Hwy. 26 to Booker Rd.; south on Booker Rd. ¼ mile to WSU Research Unit entrance.
- Potato seed lot trial, on-station potato research plot tour, pesticide recertification and certified crop advisor credit sessions.

July 9

1:00 pm

Granger, WA

- West of Sunnyside on I-82 to Granger; south on Hwy. 223; Left on Indian Church Rd.; left on Hwy. 22 two miles; left at bridge. Watch for WSU signs.
- Early harvest red skinned & specialty cultivars and clone trials.

July 18

9:30 am

Patterson USDA/WSU IAREC Site

- From Pasco on I-82 to Hwy 14 seven miles; west to Cristi Rd.; south to Field Rd. to west - approx. 1.5 miles west to circles.
- From west/south of Prosser on Hwy. 22 to Hwy. 14; East 5 miles to road opposite AgNW headquarters; south to Field Rd.; 2 miles east to circles.
- Advanced clone & new cultivars, long term tillage trials, N management for Umatilla Russets, soil & tissue test alternatives; cover crops & fumigation trials, potato herbicide trials; potato volunteer control in corn; N transformation from various crop residues.

July 20

9:00 am

Lynden, WA

- North of Bellingham on Guide Meridian to north edge of Lynden to Bedlington Farms headquarters on right.
- Demonstration of advanced clones & newly released cultivars.

August 2

9:30 am - 3:00 pm

Agriculture Development Group

- 15 miles north of Pasco - for information, please call: (509) 543-9757
- Pest Management information; new & pipeline pesticides.

August 16

4:00 pm

WSU Mt. Vernon R & E Center

- From I-5 take Kincaid Exit at Mt. Vernon; from north turn left (west); From south turn right (west) then right at 1st stop light (3rd St.); through town across bridge (Skagit River) 2.5 miles. WSU Res. Unit sign on left.

Aphid Count on Potatoes, Washington, June 20, 2001

<u>Location</u>	<u>County</u>	<u>Potato Variety</u>	<u>Aphids/plant</u>		<u>Aphids/ Acre*</u>
			<u>Hand Beat</u>	<u>Aphid Shaker</u>	
Toppenish, site 1	Yakima	Red	13.3	50.0	850,000
Toppenish, site 2	Yakima	Norkota	14.0	246.0	4,182,000
Prosser	Benton	Burbank	0.4	13.5	229,500
Mattawa, site 1	Grant	Norkota	0.2	10.5	178,500
Mattawa, site 2	Grant	Shepody	5.3	101.0	1,717,000
Burbank, site 1	Walla Walla	Ranger	0.2	1.5	25,500
Burbank, site2	Walla Walla	Ranger	0.5	9.0	153,000
N Pasco	Franklin	-	0	-	-
George	Grant	-	0	-	-
Alderdale	Klickitat	-	0	-	-

*Based on shaker count, assuming 17,000 plants/acre.

The aphid shaker is a device being developed by Dr. Pike that is capable of quickly extracting nearly all the aphids from a plant sample. As can be seen in the data above, it is capable of finding many more aphids than the traditional beat tray method. Be aware that the earliest aphid life stages, the 1st instar nymphs, are very small; almost too small to see with the naked eye. These constitute a majority of the aphids now present. They can be easily overlooked. Dr. Pike recommends that scouts carry a 10-20x hand lens to aid in aphid detection.

Guidelines for aphid control are provided at a WSU website: www.potato.prosser.wsu.edu. The guidelines also include information on beetle/mite control, and resistance management.

Questions or Concerns? please contact George Graf or Keith Pike at 509-786-2226, or Gary Reed, Oregon State University-Hermiston at 541-567-6337. The Aphid Hotline is maintained by Keith Pike and supported by the Washington State Potato Commission.

The next Hotline Update will be July 2, 2001.