



Potato Progress

Research and Extension for Washington's Potato Industry
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July 24, 2006

Washington Potato Pest Management Field Day Wednesday, August 2, 2006 - Eltopia Vicinity

Agriculture Development Group, Inc, in cooperation with the Washington State Potato Commission and several crop protection companies is hosting the Washington Potato Pest Management Field Day to review the latest research results and agrichemical registrations in potatoes. This is the most comprehensive potato pest management field day in Washington. This agenda may change.

8:30 Introductions and Overview

Introductions and the 10 Most Interesting Potato Pest Management Research Results of 2006, Alan Schreiber, Agriculture Development Group, Inc.

Beet Leafhopper Efficacy Data - After 3 Years of Trying, We Have Some, Alan Schreiber

Impact of BLTVA on Potato Tuber Processing Quality, Joe Munyaneza and Jim Crosslin, USDA -ARS.

Distribution and Movement of Wireworms in the Soil, Dave Horton, USDA -ARS

Update on Cruiser Maxx, Sam Thornton, Syngenta Crop Protection

Two Pesticides are Now Registered on Potatoes: Battalion and Evito, Jeri West, Arysta LifeSciences

Green Peach Aphid Population Dynamics in 2006 & Trends in Aphid Populations from 2000-2006, Keith Pike, Washington State University

New Registrations from Bayer Crop Sciences, Monte Anderson, Bayer Crop Sciences

Zeba - The Latest Technology in Potato Soil Moisture Management

Assail and PennCap-M for Pest Control in Potatoes, Greg Simonson and Roger Willemsen, Cerexagri-Nisso LLC

Potato Cyst Nematode in Idaho and other Current Events in PNW Potato Pest Management,
Andy Jensen, Washington State Potato Commission

12:30: Hosted Lunch - Whole Hog Bar-B-Que -- Come have lunch on Alan Schreiber's nickel

Directions to ADG Research Farm

From Othello:

- * Take Hwy 24 south (follow signs to Basin City if any)
- * Head south on Sagehill Road (this road will take you into Basin City)
- * Head east on Road 170
- * Head south on Glade Road
- * Head west on Ringold Road
- * Head north on Bellevue Road
- * The farm main entrance is on Bellevue Road about .2 miles from the intersection on the left

From Pasco:

- * From I-182 take the Road 68 exit and head north for about 15+ miles
- * Road 68 turns into Taylor Flats at some point then dead ends into Ringold Road. Turn right on Ringold Road.
- * Turn left on Bellevue Road (the first road on the left). The farm entrance is about .2 miles from the intersection on the left.

Or

- * From I-182 take Glade Road north for about 15 miles, just 1 mile past Eltopia West (Texaco gas station) is Ringold Road which will be on the left. Turn left on Ringold.
- * Go 2.5 miles on Ringold until you come to Bellevue road. Turn right on Bellevue Road. The farm entrance is about .2 miles from the intersection on the left.

If you have questions, call 509 266 4348.

Biofuel Crops – A Fit in the Potato Rotation?

Research Being Conducted by USDA-ARS at Paterson

The move toward biofuels in the U.S. is starting to gain momentum – the President has supported a major research initiative into making fuels from biomass. According to the Web site, <http://www.doegenomestolive.org>, “Secretary of Energy Samuel Bodman recently announced the goal of making ethanol a practical and cost-competitive alternative by 2012 (at \$1.07/ gal) and displacing 30% (60 billion gallons) of gasoline by 2030.” One of the crops that is being studied for biomass production is called switchgrass. Local USDA-ARS and WSU scientists at the Prosser location have been studying this crop and its production in the Columbia Basin. According to their Web site, <http://www.ars.usda.gov/Main/docs.htm?docid=10250>,

“Switchgrass contrasts to corn in the west by: 1) being a perennial crop, eliminates the need for annual tillage, reducing soil loss from wind erosion, 2) having lower fertilizer

requirements, and fewer pest issues decreases fertilizer and pesticide use, 3) ability to produce a harvestable biomass and becoming dormant if irrigation water is restricted compared to corn which would senesce and produce little harvestable yield, and 4) since 2001, switchgrass has proven to be productive and adapted to the lower Columbia Basin region of the PNW in exploratory WSU research trials. To be economical for the grower and local ethanol production facilities, a low-cost, high-return sustainable crop is required. Many questions surround the feasibility of switchgrass as an ethanol feedstock in the PNW. The specific objectives are:

1. To determine adaptability of switchgrass based upon yield monitoring, fiber quality, cultivar selection, nutrient use efficiencies, weed control and irrigation requirements.
2. To compare energy balances of ethanol produced from switchgrass silage and hay to that of corn silage or grain over seasonal accumulation.
3. To determine the reductions in feedstock quality and ethanol yield from switchgrass hay stored under covered or uncovered storage facilities.
4. To develop an economic analysis of costs and returns to switchgrass growers necessary to sustain feedstock supply to ethanol production facilities."

In addition to ethanol, there is a lot of interest lately in biodiesel produced from various oilseed crops. The Prosser unit is also actively studying oilseed crops for biodiesel. For more information on biofuels, see <http://www.doegenomestolife.org/biofuels/>, and for more information on local research, see <http://www.ars.usda.gov/Main/docs.htm?docid=10250>.

Tuberworm Moth and Beet Leafhopper Trapping Update

Tuberworm

So far this season the tuberworm moth numbers have been much lower than in the previous two years (Fig. 1). Folks often ask why, and of course we really don't know the reason. Factors at play include the intense management carried out by growers in 2005, the cold snaps during the winter that reduced volunteer potato survival, the cool and wet spring, and effects by disease, parasitoids, and predators. Low spring populations aside, the hot weather we have seen in recent weeks favors tuberworm. Also, the most important time for tuberworm damage is just prior to harvest in the fall. Therefore, don't let the low numbers of tuberworm so far this season let you think that tuberworm is not a concern this season. Keep monitoring, and be ready for tuberworm later in the summer and fall.

Beet Leafhopper

Beet leafhopper numbers reached very high numbers this year, but later than in previous years (Fig. 2). What this means for purple top transmission is not certain. We hope to have more information in coming years that will help us know the significance of size and timing of beet leafhopper populations.

Trap Catch - OR, 2004-06

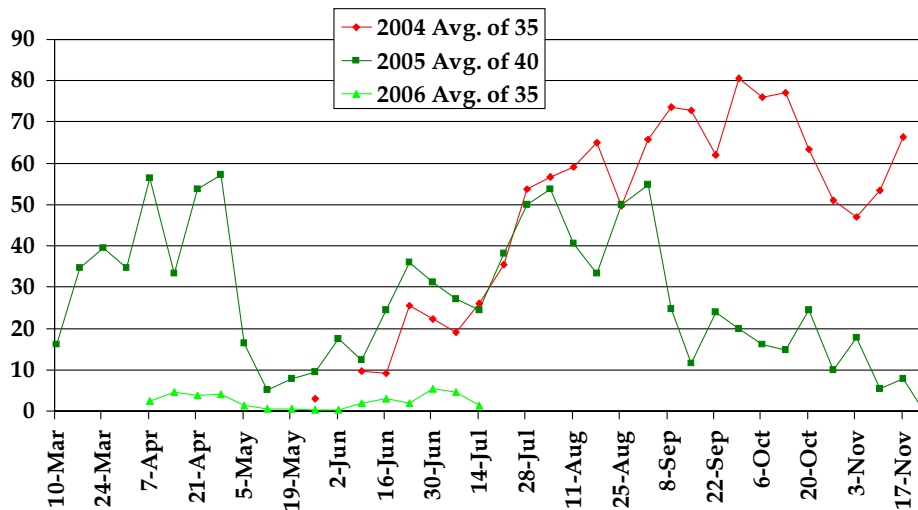


Figure 1. Tuberworm moth catch in Hermiston area of Oregon, 2005 and 2006.

Mid Basin Beet Leafhopper Catch 2005 & 2006

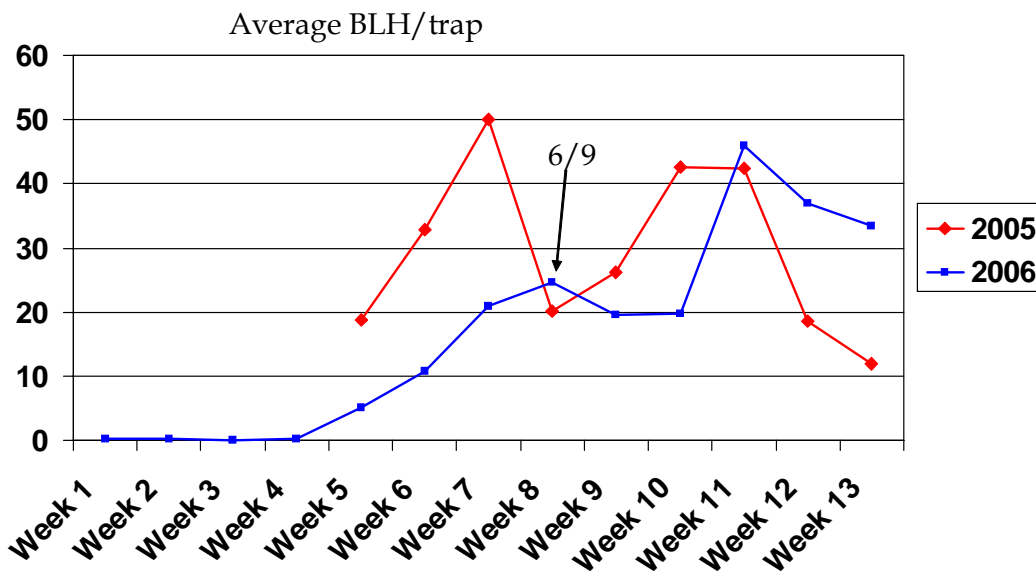


Figure 2. Beet leafhopper catch on yellow cards in the mid-Columbia Basin of WA, 2005-2006.