



Potato Progress

Research & Extension for the Potato Industry of
Idaho, Oregon, & Washington

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Updates on Potato Psyllid and Zebra Chip (ZC)

Columbia Basin (excerpted from Carrie Wohleb's Potato Pest Alert)

Potato psyllids have been found in more of our sentinel plots last week. Two adult potato psyllids and some nymphs were found in our plot in Pasco. These are being tested for *Liberibacter*, the bacterium that causes ZC, but the results are not in yet. Additionally, potato psyllids were collected in sentinel plots in Yakima, Prosser, and Hermiston this week. None of these have tested positive for *Liberibacter*. Last week, we also found a potato psyllid in our Paterson plot. The only sentinel plot that we have not found potato psyllids in yet is in Othello, but we will be watching it closely.

Idaho (excerpted Erik Wenninger's post at PNWPestAlert.net)

The potato psyllid sample from June 19 in Twin Falls County that tested positive for *Liberibacter* was confirmed to be positive by gene sequencing. Samples from the following week (one from the Kimberly R&E Center and one from the same grower's field in Twin Falls County) also have tested positive for *Liberibacter* by PCR.

A few more adult potato psyllids (collected on July 3) have been found on yellow sticky traps in two different commercial potato fields in Twin Falls County, Idaho. These samples should be tested for *Liberibacter* this week. Numbers of psyllids continue to be rather low (1 and 3 psyllids per field), and we have yet to find potato psyllids of any life stage on potato plants themselves.

Field bindweed found harboring potato psyllid eggs in a grower's field last week tested negative by PCR, which is consistent with studies by USDA-ARS, Wapato suggesting that field bindweed is not a host to *Liberibacter*. More field bindweed with potato psyllids was found along edges of a potato field in Gooding County, ID. Both eggs and early instar nymphs were found. Although reported to not be a host for *Liberibacter*, this weed is a suitable host for potato psyllids. The importance of field bindweed and other alternate weed hosts of potato psyllids (e.g., nightshades) in facilitating spread of psyllids into potato fields remains to be explored, but good weed management might aid in psyllid management in potato.

A new extension publication "Potato Psyllid Vector of Zebra Chip Disease in the Pacific Northwest: Biology, Ecology, and Management" is now available. It has information specific to the Northwest. You can find it at

<http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/30058/pnw633.pdf>



USDA-ARS and WSU-IAREC, Prosser Scientists and Staff would like to invite you to visit the Paterson Research Field Site and join us for tours of the fields. This is a great time to learn about the progress in various research programs. Bring your family and friends with you to enjoy this day. We look forward to seeing you!



JULY 17, 2012



8:30 am Welcome and Introductions

Tour Research Presentations:

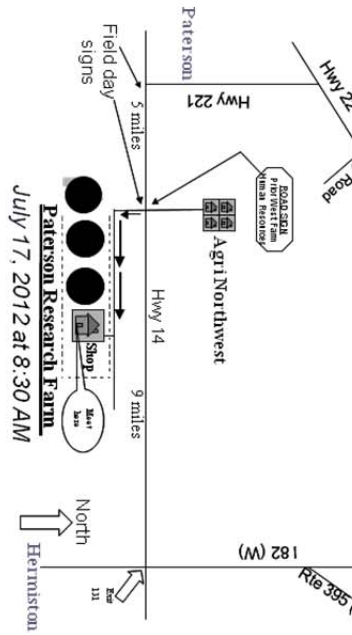
- 9:00-9:15 Seed corn maggot control with seed treatments. *Tim Waters*
- 9:15-9:25 Screening for white mold resistance in dry beans. *Phil Miklas*
- 9:25-9:35 Nitrogen fixation efficiency in bean. *Phil Miklas*
- 9:35-9:50 Soil microbial activity and N pools following organic amendments. *Hal Collins*
- 9:50-10:00 Preemergence herbicide efficacy in potato. *Rick Boydston*
- 10:00-10:15 Vine kill methods and skin set in baby potato. *Rick Boydston*
- 10:15-10:30 Late blight and pythium leaf foliar sprays in potato. *Lyndon Porter*
- 10:30-10:45 Nitrogen best management practices in potato. *Ashok Alva*
- 10:45-11:00 Using hyper spectral reflectance to detect N and water stress. *Ashok Alva*
- 11:00-11:15 Sweet corn genotype tolerance to HPPD herbicides. *Rick Boydston*
- 11:15-11:30 Potato psyllid control with seed treatments and insecticides. *Tim Waters*
- 11:30-11:45 Potato psyllid management with insecticides. *Alan Schreiber*
- 11:45-12:00 Growing switchgrass for biofuel. *Steve Fransen, Hall Collins, Emi Kiumura, and Romulus Okwamy.*
- 12:00 Lunch provided**

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USDA-ARS/WSU -IAREC : Sustainable Cropping Systems & Biofuels Field Day at Paterson



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USDA-ARS & WSU-IAREC
 In Cooperation with
 AgriNorthwest
Sustainable Cropping Systems & Biofuels
Field Day at Paterson
July 17, 2012
 Vegetable & Forage Crops Research Unit, Prosser, WA



Plant Disease Diagnostic Lab at OSU Hermiston

The Oregon State University Hermiston Agricultural Research and Extension Center (HAREC) has been offering plant disease diagnostic services, through its plant pathology laboratory, to the growers of the Columbia Basin for over 22 years. The primary mission of the laboratory is to provide accurate and timely disease diagnosis primarily for commercial growers and fieldmen, but also for homeowners located in the Columbia Basin as well as greater Oregon, eastern Washington, and western Idaho. Services include general plant disease diagnosis, disease management recommendations, soil pathogen assays, as well as specialty plant disease testing. These services were established by Extension Plant Pathologist and current HAREC station director, Philip B. Hamm. The effort of providing disease identification is supported by the current plant pathology laboratory manager and diagnostician, Jordan Eggers, and faculty research assistant Jesika Holcomb. The laboratory staff is capable of diagnosing the majority of the diseases afflicting crops grown in the Pacific Northwest. However, since the Columbia Basin is one of the most productive potato agricultural areas in the United States, the laboratory is especially equipped to test for the important viral, fungal, and bacterial pathogens impacting this crop. Persons wishing to submit plant disease samples can either bring samples to the laboratory or by filling out a sample submission form found at <http://oregonstate.edu/dept/hermiston/plant-pathology-plant-lab-testing> and mailing the samples to the address listed on the form. Instructions for sample submission and a price list for testing fees can be found on the website as well. A fee of \$60 per sample is assessed to general diagnostic services. Fees for additional tests may apply. For questions regarding services or testing fees please contact Jordan Eggers at Jordan.Eggers@oregonstate.edu or by calling 541-567-8321 or by stopping by the OSU HAREC Plant Pathology Laboratory.



Jordan Eggers

Jesika Holcomb