O R E G O N S T A T E U N I V E R S I T Y

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POTATO UPDATE

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Lygus Bugs in the Basin: Many Unknowns

This small sucking bugs, brown to greenish, can cause minor damage of unknown economic significance or as we think until now. Damage commonly consists of flagging of leaflets, leaves, or small stems. Until few years back, chemical treatment for Lygus in potatoes probably was rarely needed. Alfalfa fields often develop very large populations of Lygus, from which the insects may colonize before moving into potato fields. Lygus are common throughout the Northwest and more recently present in areas where diseases such as purple top disease was reported but no vector (beet leafhopper) in sight.

Lygus are easily found using a beating sheet/tray, sweep net technique. Both adults and nymphs of all sizes are present at the same time. There are no established treatment thresholds for Lygus in potatoes so far…….*Silvia Rondon, Extension Entomologist Specialist*

Lygus damage in a variety of crops: tomato, pear (above)l strawberry, pepper (bottom). Pictures from online resources.

The **2015 IPM Guidelines for Insects and Mites in Idaho, Oregon and Washington Potatoes** are now available online. Visit the NW Potato Research IPM page http://www.nwpotatoresearch.com/IPM-Home.cfm and/or http://www.nwpotatoresearch.com/IPMStuff/PDFs/NorthwestInsectGuidelines.pdf.

LATE BLIGHT HOTLINE ….Sponsored by Syngenta
Oregon State University: 1-800-705-3377
University of Idaho: 1-800-791-7195
Washington State University: 1-800-984-7400

Oregon late blight update on July 31, 2015

Oregon: Late blight has just been reported and verified in Klamath County, OR. Fungicide applications should be made every 5 to 7 day in fields with late blight and fields adjacent to those fields with late blight. Fields in Klamath County should be treated on a 7 to 10 day schedule. Continue to monitor fields for late blight frequently throughout region and please let Brian Chalrton or Kenneth Frost know of any newly infected fields. Additional samples of late blight are needed to determine the genotypes of *Phytophthora infestans* that are occurring in OR. Knowledge of the genotypes present in the area will aid in providing sound management recommendations. All growers in Klamath County should monitor weather forecasts daily and apply a fungicide before any major rainfall. Also, be careful not to overwater fields as extra water can worsen tuber rot problems and potentially lead to more late blight.

Please contact Brian Charlton (Klamath Basin, 1-541-591-1255), Ken Frost (Hermiston, 1-608-556-9637), or Robert Cating (Hermiston, 1-541-567-8321) to report, confirm or to make late blight diagnosis.

Around the United States: Over the last 7 days, new late blight detections have been reported from Indiana, Maine, New York, and Ontario, Canada. Additional information about late blight can be found at http://www.usablight.org/ and an occurrence map for late blight detections around the US can be found at http://www.usablight/org/map.

Extension Plant Pathology Diagnostic Lab Update

This week, 2,296 Potato psyllids were tested for '*Candidatus* Liberibacter solanacearum' (Lso), the bacterial pathogen responsible for zebra chip of potato tubers, bringing the annual total to 12,176. Two psyllid submissions tested positive this week. These positives consisted of one submission with two psyllids and one submission with 24 psyllids. A few samples tested positive for PVY and soft rot/black leg, but the majority of the potato samples this week were submitted due to "purple top", and most of these were found to be positive for BLTVA.

~Bryce Robinson, Robert Cating, and Ken Frost

Potato Purple Top Disease

This week we have seen an increase in the number of potato purple top disease samples that have come through the clinic. Symptoms of purple top disease are variable, but generally include, shortened internodes, leaf curling, and leaf purpling. (Fig. 1). In severe cases, aerial tubers may be formed. Similar above ground symptoms are caused by the bacterial organisms '*Candidatus* Liberibacter solanacearum' (Zebra chip), '*Candidatus* Phytoplasma asteris' (Purple top), and Beet Leafhopper-Transmitted Viresence Agent (BLTVA; Purple Top). However, the most recent samples submitted to the clinic have tested positive for the presence of the Beet Leafhopper Transmitted Viresence Agent (BLTVA), a phytoplasma that is thought to be vectored primarily by the beet leafhopper (*Circulifer tenellus* Baker).
….Robert Cating and Ken Frost

Figure 1. Foliar symptoms of potato purple top disease.

Thanks to the Oregon Potato Commission for sponsoring our trapping and extension efforts, and **the USDA-NIFA Technical Assistance for Specialty Crops Program**. Also, special thanks to Anderson geographic & consulting for sponsoring our interactive map.

O R E G O N S T A T E U N I V E R S I T Y

Insect Trap Report

Area Pest Alert, Umatilla & Morrow County. Traps are collected on Thursdays. Please note: "-1" value means no data

TRAP	PTW	BLH	OLH	PP	OP	GPA	PA	OA
1	0	0	0	0	0	0	0	1
2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0
4	0	0	6	2	0	0	0	1
5	1	0	0	2	0	0	0	0
6	0	0	29	2	0	0	0	0
7	-1	-1	-1	-1	-1	-1	-1	-1
8	0	0	1	0	0	0	0	0
9	1	0	1	1	0	0	0	0
10	0	1	0	0	0	0	0	0
11	0	2	0	13	0	2	3	0
12	0	1	2	8	0	0	3	0
13	-1	-1	-1	-1	-1	-1	-1	-1
14	4	2	1	0	0	0	0	0
15	38	0	4	0	0	0	0	2
16	3	2	1	-1	-1	0	0	0
17	-1	-1	-1	-1	-1	-1	-1	-1
18	1	0	0	-1	-1	0	0	0
19	-1	-1	-1	3	0	-1	-1	-1
20	0	0	1	0	0	0	0	0
21	0	0	2	10	0	0	0	0
22	0	0	2	6	0	0	0	0
23	0	0	0	70	0	0	0	0
24	0	3	0	0	0	0	0	1
25	0	0	0	0	0	0	0	0
26	3	0	1	-1	-1	0	0	0
27	0	2	2	0	0	0	0	0
28	0	0	2	0	0	0	0	0
29	0	0	4	5	0	0	0	0
30	0	0	0	2	0	0	0	0
31	1	3	2	0	0	0	0	0
32	0	0	3	0	0	0	0	1
33	0	5	1	2	0	0	3	5
34	60	0	0	2	0	0	0	0
35	-1	0	0	0	0	0	0	0
36	-1	0	0	0	0	0	0	0

PTW: Potato Tuberworms
BLH: Beet Leafhoppers
OLH: Other Leafhoppers
PP: Potato Psyllids
GPA: Green Peach Aphids
PA: Potato Aphids
OA: Other Aphids
OP: Other Potato Psyllids