

OREGON STATE UNIVERSITY

POTATO UPDATE

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Hermiston Agricultural Research and Extension Center

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Insect Trap Report

Area Pest Alert Serving Umatilla & Morrow County

Traps are collected on Thursdays.

TRAP	PTW	BLH	OLH	PA	GPA	OA
1	4	0	4	0	0	0
2	0	2	7	0	0	0
3	0	0	19	0	0	0
4	4	0	3	0	0	1
5	0	0	23	0	0	0
6	0	0	5	0	0	0
7	1	0	7	0	0	0
8	0	0	1	0	0	0
9	1	0	1	0	0	0
10	0	0	0	0	0	0
11	0	0	7	0	0	0
12	0	0	0	0	0	0
13	21	0	0	0	0	0
14	1	0	0	0	0	0
15	1	0	0	0	0	0
16	3	0	0	0	0	0
17	0	2	6	0	0	0
18	0	0	2	0	0	0
19	0	0	0	0	0	0
20	2	0	1	0	0	0
21	0	0	0	1	0	0
22	0	0	3	0	0	0
23	0	1	7	1	0	0
24	1	1	2	0	0	0
25	0	0	1	0	0	0
26	24	0	4	0	0	0
27	1	0	1	0	0	0
28	0	0	33	0	0	0
29	0	0	2	0	0	0
30	1	0	9	0	0	0
31	1	0	5	0	0	0
32	0	5	9	0	0	0
33	0	0	27	0	0	0
34	43	0	5	0	0	0

PTW: Potato Tuberworm

BLH: Beet Leafhopper

OLH: Other Leafhopper

PA: Potato Aphid

GPA: Green Peach Aphid

OA: Other Aphid

From BLH yellow sticky cards located outside potato circles.

TRAP	PP	OP
1	0	21
2	0	27
3	0	2
4	0	9
5	0	31
6	0	3
7	0	0
8	0	7
9	0	1
10	0	3
11	0	7
12	0	17
13	0	7
14	0	37
15	0	7
16	0	0
17	0	14
18	0	17
19	0	4
20	0	4
21	0	2
22	0	4
23	0	19
24	0	43
25	0	3
26	0	1
27	0	2
28	0	17
29	0	3
30	0	45
31	0	0
32	0	5
33	0	8
34	0	2

PP: Potato Psyllid

OP: Other Psyllids

From DVAC (5-10 feet from the edge of the field; 5 minutes)*.

TRAP	PP	OP
1		
2	1	0
3		
4		
5	3	2
6		
7		
8	0	0
9		
10		
11		
12		
13		
14		
15	0	0
16		
17		
18		
19		
20		
21		
22		
23		
24		
25	0	0
26	0	0
27		
28	5	0
29		
30	0	0
31		
32		
33		
34	2	0

PP: Potato Psyllid

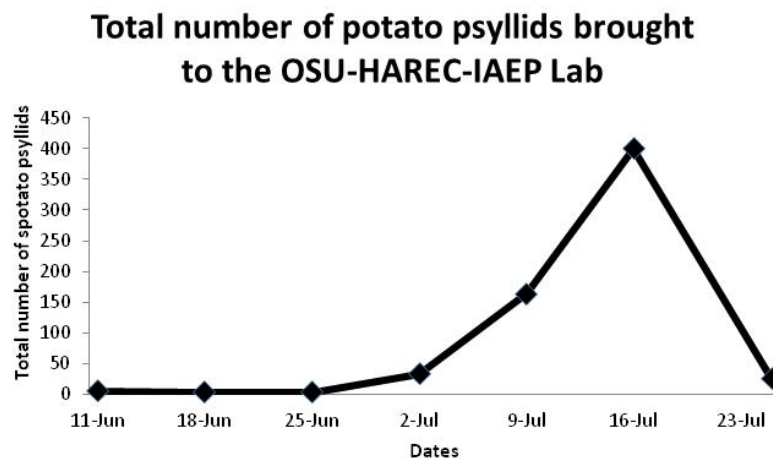
OP: Other Psyllids

* selected sites were sampled

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Pest Observations in the Lower Columbia Basin the Week of July 23

Early this week, Zebra Chip (ZC) was confirmed by PCR (HAREC Plant Pathology lab) in two potato plants from a single field located outside of Hermiston. Plants in the field showed typical ZC symptoms, reddish foliage, thicken nodes, dying vines; daughter tubers had mild to moderate, typical internal symptoms. Based on the symptoms, the likely time of feeding and infection by a potato psyllid carrying the bacterium was about 2 weeks earlier (around July 2-9). Potato psyllid counts have been low for the past several weeks around the area where the diseased plants were found. However, in the last couple of weeks, potato psyllid counts have been increasing. The figure below shows the number of potato psyllids brought to the Irrigated Agricultural Entomology Program (IAEP Rondon's lab). Note that many samples arrive late on Friday and those are not accounted for in the July 23 data point. Alex Murphy (Postdoctoral scholar in my lab), is receiving samples at the IAEP. Thanks Alex!



Application of insecticides is warranted. If you haven't already been scouting fields, carefully do so. Remember that if you find any plants that have symptoms that suggest ZC, collect both the plant and tubers and bring them in for confirmation. Even though the potato psyllid can still damage potato plants even if it does not carry the bacterium (causing "psyllid yellows"), the insect (either adult or nymph) has to carry the bacterium to cause ZC.

ZC is a destructive disease that can cause very significant yield and economic losses. There are a number of insecticides registered for use on potatoes that have activity against potato psyllids in the adult and immature stages (nymphs or eggs). **No effective non-chemical control options for potato psyllids have been verified at this time in the PNW. Research is underway.**

A table of insecticide activity for psyllid life stages is shown below. Each "x" indicates the insecticide activity. Several of the insecticides listed are currently being tested to re-evaluate their efficacy under PNW conditions.

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Product	Group	Potato psyllids		
		Eggs	Nymphs	Adults
Agri-Mek	6	x	x	X
Admire	4a		x	X
Belay	9c		x	x
Beleaf	9c		x	x
Cruiser	4a		x	X
Fullfill	9b		x	x
Movento	23	x	X	
Oberon	23	x	x	
Radiant	5		X	
Rimon	15	x	x	
Platinum	4a		x	x
pyretroids	3		x	x
Venom	4a		x	x

Remember to rotate insecticides between different groups. For more information about chemical control options go to <http://www.potatoes.com/IPMStuff/PDFs/PotatoPsyllid.pdf>.

For more information contact your extension agent....*Silvia Rondon, Extension Entomologist Specialist*

Plant Pathology Lab Potato Disease Update

The thunderstorms of the last two weeks have resulted in lightning damage in some potato fields. Lightning damage can look similar to some stem rot diseases such as white mold. One key to identification is that circular patches of dead plants appear to show up overnight. Also, there will often be a “depression” in the soil in the center of the dead patch where the main lightning strike occurred.

If you have any questions regarding plant diseases, please contact me at 541-567-8321 or jordan.eggert@oregonstate.edu....*Jordan Plant Pathology Manager*