

POTATO UPDATE

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Hermiston Agricultural Research and Extension Center

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Potato virus Y (PVY) in Potatoes: Part I

Aphids transmit several different viruses: Potato viruses Y (PVY), M, A and S; Potato leaf roll virus (PLRV); and Alfalfa mosaic virus (AMV). The primary spread of these viruses in the field is by aphids in a **non-persistent** (fast transmission but infective for a short time) or **persistent** manner (slow transmission but infective for life). Non-persistent viruses are difficult to control effectively with insecticides, but persistent viruses are easily controlled using conventional methods. Among these, the most important are PVY and PLRV, although PLRV is much less common than PVY.

PVY is a **non-persistent** virus with many different strains: PVY^O, PVY^{N:O}, PVY^{NTN}, Wilga (PVY^{N-Wi}) European, North American and NE11. All strains exhibit leaf mottling of various degrees (see photos on right and below) but some also cause necrosis in the tuber, such as PVY^{N:O} and PVY^{NTN}. While PVY^O just reduces yield, PVY^{N:O} and PVY^{NTN} also reduce tuber quality, so it is important to get an accurate diagnosis of the strain in your field. PVY can also be harbored in nightshades, legumes, and lambsquarters.



Mosaic symptoms caused by PVY in Rangers. Photo credit: HAREC Plant Pathology Lab.



Mosaic symptoms caused by PVY in Burbank. Photo credit: HAREC Plant Pathology Lab.



Mosaic symptoms caused by PVY in Yukon Gold. Photo credit: HAREC Plant Pathology

If you missed last week's discussion on aphids, aphid management options can be found on pages 15-20 at: [Northwest Insect Management Guidelines.](#)

Information provided by Alex Murphy. If you have any questions contact Silvia Rondon @ 541-567-8321.

Plant Pathology Lab Update

More late blight found. Dennis Johnson's late blight information line was updated on September 2nd as follows: “ Late blight has been reported in tubers from a field west of Hermiston and in a field north of Eltopia. Severity in the Eltopia field is very light with the infection only near the pivot center. Foliage of the field is mostly down due to senescence. Dews are forming at nights and it is important not to over-water. Fields in the Columbia Basin should be treated with a late blight fungicide on a 7-14 day schedule until harvest. Fields with late blight and fields adjacent to fields with late blight should be on the 7-day schedule. Harvest only during dry weather and when vines are dry. Fields should be monitored frequently for late blight.”

Potato Psyllids. 1508 psyllids were tested this week for Lso, the bacterium that causes zebra chip in potato tubers. Of these, only 1 submissions tested positive for Lso. So far, over 10,000 psyllids have been tested by the HAREC Plant Pathology lab with just a few ‘hot’ psyllids found. If you have questions about testing services, call the lab at 541-567-8321.....Robert Cating and Phil Hamm

LATE BLIGHT HOTLINE Oregon State University (800) 705-3377

41st Annual



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**Hermiston Conference Center
415 S. Hwy 395
Hermiston, OR 97838**

OREGON STATE UNIVERSITY

Insect Trap Report

Area Pest Alert, Umatilla & Morrow Co.

Traps are collected on Thursdays.

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

PTW: Potato Tuberworms
 BLH: Beet Leafhoppers
 OLH: Other Leafhoppers

GPA: Green Peach Aphids
 PA: Potato Aphids
 OA: Other Aphids

From yellow Alphasents sticky cards in 3 feet, one per field.

TRAP	PP	OP
1	0	0
2	1	0
3	1	0
4	0	0
5	8	0
6	0	0
7	1	0
8	3	0
9	2	0
10	1	0
11	-	-
12	-	-
13	0	0
14	0	0
15	0	0
16	0	0
17	-	-
18	-	-
19	-	-
20	-	-
21	0	0
22	0	0
23	1	0
24	-	-
25	0	0
26	-	-
27	-	-
28	-	-
29	1	0
30	0	0
31	0	0
32	-	-
33	2	0
34	3	0
35A	0	0
35B	0	0
36A	0	0
36B	0	0

PP: Potato Psyllids
 OP: Other Psyllids