

Antigo, WI - Langlade County, 2008 Field Day; Potato and Vegetable Insect Research

Russell L. Groves, Alex Crockford, Amy Charkowski, Chad Kramer, Tom German, Bob Coltman, Rick Hafner, Kevin Bula & Wisconsin Seed Certification Program, Scott Chapman, Amy Boerboom, Mike Crossley, Mark Frazier, Karolina Heyduk, Time Hoesly, Daryl Staveness.

I. Impact of Potato Virus Y (Strain) Infection on Tuber Storage and Quality, (Hancock Agricultural Research Station, Hancock, WI Field S3)

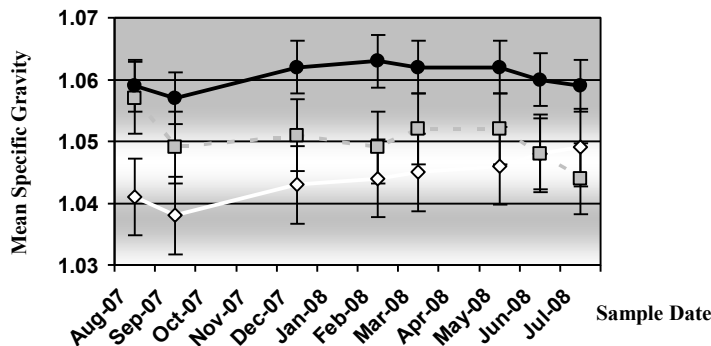


Figure 1. Effects of PVY inoculation (pre-flower) on specific gravity in storage between 2 strains of PVY (PVY^O◇ and PVY^{N:O}□) and a non-inoculated control (●) in cv. ‘Silvertop Russet’, HAES, 2007-08.

Cultivars	PVY Strain	Infection Time	Plot Numbers
Atlantic	PVY _O	Pre-flower	(101, 201, 301, 401)
	PVY _O	Post-flower	(102, 202, 302, 402)
	PVY _{N:O}	Pre-flower	(103, 203, 303, 403)
	PVY _{N:O}	Post-flower	(104, 204, 304, 404)
	UTC		(105, 205, 305, 405)
Silvertop	PVY _O	Pre-flower	(106, 206, 306, 406)
	PVY _O	Post-flower	(107, 207, 307, 407)
	PVY _{N:O}	Pre-flower	(108, 208, 308, 408)
	PVY _{N:O}	Post-flower	(109, 209, 309, 409)
	UTC		(110, 210, 310, 410)
Russet Norkotah	PVY _O	Pre-flower	(111, 211, 311, 411)
	PVY _O	Post-flower	(112, 212, 312, 412)
	PVY _{N:O}	Pre-flower	(113, 213, 313, 413)
	PVY _{N:O}	Post-flower	(114, 214, 314, 414)
	UTC		(115, 215, 315, 415)
Russet Burbank	PVY _O	Pre-flower	(116, 216, 316, 416)
	PVY _O	Post-flower	(117, 217, 317, 417)
	PVY _{N:O}	Pre-flower	(118, 218, 318, 418)
	PVY _{N:O}	Post-flower	(119, 219, 319, 419)
	UTC		(120, 220, 320, 420)

II. Managing Current Season Infections of Potato Virus Y in the Asymptomatic Potato Cultivar, cv. Silvertop Russet’ for Potato Seed Production (Langlade County Airport, Antigo, WI).

Treatment Number	Product	Application Frequency	Product Concentration	Nozzle Tip	Plot Number	Flag Color
1)	UTC	--	--	--	(101, 201, 301, 401)	Red
2)	Aphoil	7	0.02	D3-DC25	(102, 202, 302, 402)	White
3)		7	0.04	D3-DC25	(103, 203, 303, 403)	Blue
4)		7	0.04	XR-11003	(104, 204, 304, 404)	Yellow
5)		4	0.02	D3-DC25	(105, 205, 305, 405)	Orange
6)		4	0.04	D3-DC25	(106, 206, 306, 406)	Pink
7)	JMS	7	0.0075	D3-DC25	(107, 207, 307, 407)	Green
8)	Stylet Oil	7	0.015	D3-DC25	(108, 208, 308, 408)	Brown
9)		7	0.015	XR-11003	(109, 209, 309, 409)	Silver
10)		4	0.0075	D3-DC25	(110, 210, 310, 410)	Lime
11)	QRD 416	4	0.015	D3-DC25	(111, 211, 311, 411)	Violet
12)		4	0.01	D3-DC25	(112, 212, 312, 412)	2 Red

III. Managing Current Season Infections of Cucumber Mosaic Virus Among Susceptible (cvs. ‘Paladin’ and ‘Talon’) and Resistant (cvs. ‘NY-263’ and ‘NY-770A’) Pepper Cultivars Using Mineral Oil Applications, Reflective Mulches, and Resistant Germplasm (Hancock Agricultural Experiment Station, Hancock, WI)¹.

Treatment Number	Application Frequency (days)	Reflective Mulch	Pepper Cultivar	Plot Number
1)	--	--	NY-263	(101, 201, 301, 401)
2)	--	--	NY-770A	(102, 202, 302, 402)
3)	--	--	PALA	(103, 203, 303, 403)
4)	--	--	TALO	(104, 204, 304, 404)
5)	--	++	NY-263	(105, 205, 305, 405)
6)	--	++	NY-770A	(106, 206, 306, 406)
7)	--	++	PALA	(107, 207, 307, 407)
8)	--	++	TALO	(108, 208, 308, 408)
9)	7	--	NY-263	(109, 209, 309, 409)
10)	7	--	NY-770A	(110, 210, 310, 410)
11)	7	--	PALA	(111, 211, 311, 411)
12)	7	--	TALO	(112, 212, 312, 412)
13)	7	++	NY-263	(113, 213, 313, 413)
14)	7	++	NY-770A	(114, 214, 314, 414)
15)	7	++	PALA	(115, 215, 315, 415)
16)	7	++	TALO	(116, 216, 316, 416)
17)	4	--	NY-263	(117, 217, 317, 417)
18)	4	--	NY-770A	(118, 218, 318, 418)
19)	4	--	PALA	(119, 219, 319, 419)
20)	4	--	TALO	(120, 220, 320, 420)
21)	4	++	NY-263	(121, 221, 321, 421)
22)	4	++	NY-770A	(122, 222, 322, 422)
23)	4	++	PALA	(123, 223, 323, 423)
24)	4	++	TALO	(124, 224, 324, 424)



Figure 2. CMV symptoms of infection, 2007 Central Sands, WI 2007.

¹ Special thanks to Heath Farms, the NYSAES Cornell University, and Dean Molly Jahn, University of Wisconsin, College of Agriculture and Life Sciences for germplasm contribution to the project.

