

**I. Colorado Potato Beetle; Neonicotinoid Statewide Insensitivity<sup>1</sup> (Fig. 1).**

County	Site ID	(P<0.0001) (=0.05)	Estimated slope (± SE)	LD <sub>50</sub> (± 95% CL)	Resistance Ratio <sup>2</sup>
Adams	A	(P=0.1372)	6.1% ± 3.9		
	B	(P=0.5523)	11.8% ± 5.6	0.039 (0.032 – 0.045)	0.039 / 0.031 (1.3)
	C	(P=0.0085)	3.2% ± 2.8	0.644 (0.867 – 0.398)	0.644 / 0.031 (20.8)
	D	(P=0.0231)	4.9% ± 3.2	0.552 (0.584 – 0.513)	0.552 / 0.031 (17.8)
Columbia	E	(P=0.6722)	13.6% ± 4.9	0.028 (0.020 – 0.037)	0.028 / 0.031 (0.9)
Langlade	F	(P=0.3018)	10.5% ± 4.5	0.049 (0.073 – 0.025)	0.049 / 0.031 (1.3)
	G	(P=0.1543)	6.8% ± 3.6	0.163 (0.208 – 0.119)	0.163 / 0.031 (5.3)
Oconto	H	(P=0.7902)	12.7% ± 6.2	0.027 (0.039 – 0.022)	0.027 / 0.031 (0.9)
Portage	I	(P=0.0342)	4.0% ± 3.6	0.487 (0.683 – 0.293)	0.487 / 0.031 (15.7)
	J	(P=0.2115)	7.9% ± 4.0	0.039 (0.054 – 0.024)	0.039 / 0.031 (1.3)
	K	(P=0.0183)	3.1% ± 2.7	0.692 (0.782 – 0.601)	0.692 / 0.031 (22.3)
Waushara	L	(P=0.0094)	3.7% ± 2.5	0.514 (0.579 – 0.451)	0.514 / 0.031 (16.6)
	M	(P=0.4559)	13.2% ± 6.9	0.052 (0.070 – 0.034)	0.052 / 0.031 (1.7)
	N	(P=0.0869)	5.9% ± 4.3	0.081 (0.106 – 0.057)	0.081 / 0.031 (2.6)

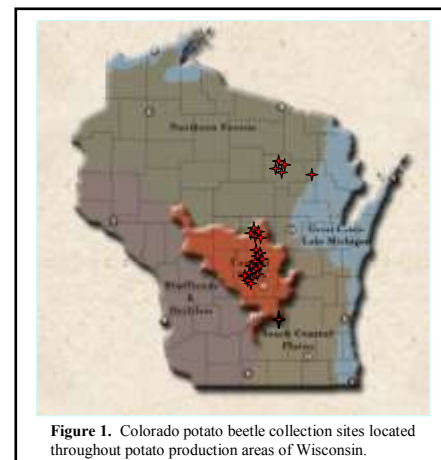


Figure 1. Colorado potato beetle collection sites located throughout potato production areas of Wisconsin.

<sup>1</sup> Sincere thanks to all cooperating growers and pest management practitioners for their assistance with the CPB insensitivity project (Mr. Randy Van Haren Pest Pro Inc., Plainfield, WI & Mr. Andy Merry, Antigo, WI)

<sup>2</sup> Resistance ratio estimates calculated against a New Jersey reference control strain of Colorado potato beetle adults (LD<sub>50</sub> = 0.031).

**II. Full Season – Reduced-Risk, Colorado Potato Beetle Control, Large Plot Demonstration Trials (Hancock Agricultural Experiment Station, Field K19)**

Treatments	Active Ingredient	Application Rates	Application Number	Plot Numbers
<i>At-plant systemic:</i>				
1) Cruiser <sup>®</sup> FS Altacor <sup>™</sup> 35WG	thiamethoxam rynaxypyr	0.16 oz / cwt 3.0 oz / A	1 (at-plant) 2 (10-14 days apart)	(101, 201, 301)
2) AdmirePro <sup>®</sup> Alverde <sup>™</sup> SC	imidacloprid metaflumizone	7.5 fl oz / A 4.5 fl oz / A	1 (at-plant) 2 (10-14 days apart)	(102, 202, 302)
<i>Foliar programs (with neonicotinoids):</i>				
3) Agri-Mek <sup>®</sup> 0.15EC Endigo <sup>™</sup>	abamectin thiamethoxam + lambda-cyhalothrin	8.0 fl oz / A 12.0 fl oz / A 4.0 fl oz / A	1 (at 1 <sup>st</sup> instar larvae) 1 (at 3 <sup>rd</sup> instar larvae) 2 (10 – 14 days apart)	(105, 205, 305)
4) Altacor <sup>™</sup> 35WG Actara <sup>®</sup> 25WG	rynaxypyr thiamethoxam	3.0 oz / A 3.0 oz / A	2 (10-14 days apart) 2 (10-14 days apart)	(107, 207, 307)
5) Actara <sup>®</sup> 25WG Agri-Mek <sup>®</sup> 0.15EC	thiamethoxam abamectin	3.0 oz / A 12.0 fl oz / A	2 (10-14 days apart) 2 (10-14 days apart)	(108, 208, 308)
6) Assail <sup>®</sup> 70WP Altacor <sup>™</sup> 35WG	acetamiprid rynaxypyr	4.0 oz / A 3.0 oz / A	2 (10-14 days apart) 2 (10-14 days apart)	(108, 208, 308)
<i>Foliar programs (without neonicotinoids):</i>				
7) SpinTor <sup>®</sup> 2SC Altacor <sup>™</sup> 35WG	spinosyn rynaxypyr	4.5 fl oz / A 3.0 oz / A	2 (10-14 days apart) 2 (10-14 days apart)	(103, 203, 303)
8) Rimon <sup>®</sup> 0.83EC Alverde <sup>™</sup> SC	novaluron metaflumizone	12 fl oz / A 4.5 fl oz / A	2 (10-14 days apart) 2 (10-14 days apart)	(104, 204, 304)
9) Alverde <sup>™</sup> SC Radiant <sup>™</sup> SC	metaflumizone spinetoram	4.5 fl oz / A 7.0 fl oz / A	2 (10-14 days apart) 2 (10-14 days apart)	(106, 206, 306)

**III. Impact of Potato Virus Y (Strain) Infection on Tuber Storage and Quality Among Selected Potato Cultivars, (Hancock Agricultural Research Station, Hancock, WI Field C19)**

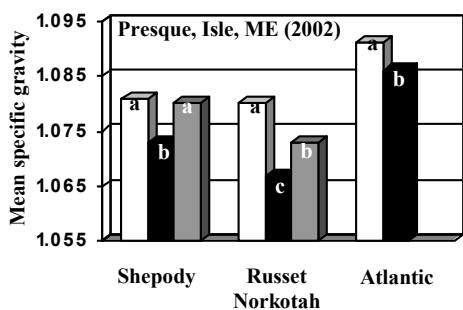


Figure 2. Effects of PVY inoculation timing (preflower□, post-flower■, and non-inoculated◻) on specific gravity among 3 potato varieties in Presque Isle, Maine 2002.

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