

SECTION VI
Foliage and Seed Feeding Pests

FIRST EFFICACY DATA AGAINST THRIPS ON POTATO

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Historically, thrips have not been considered an insect pest of potatoes, for example, the PNW Insect Management Handbook includes no mention of thrips of potatoes. Increasingly, growers in the Columbia Basin are making applications of insecticides for control of western flower thrips. Thrips populations have been targeted in potatoes from the Oregon border of Washington to north of Moses Lake. While it has not been documented that thrips actually cause economic damage to potatoes, growers are insistent that management of the pest is required.

No efficacy data are available for control of thrips on potatoes as no research efforts have been directed toward the pest on that crop. In 2006, we conducted the first trial to generate efficacy data on thrips occurring on potatoes. The first attempt to conduct the trial in a commercial field was over sprayed by an aerial application of Monitor. The trial was repeated on our research station on “research” potatoes. Unfortunately, pest pressure was substantially lower than that in the commercial field.

In this trial every product tested with the exception of a highly experimental insecticide resulted in a significant reduction in thrips numbers. Tank mixes of imidacloprid and lambda cyhalothrin were extremely effective against thrips. Other products that were effective against thrips included Monitor; lambda cyhalothrin (Warrior) applied alone, Clutch (clothianidin), Leverage (imidacloprid and cyfluthrin) and Assail.

These data suggests that thrips on potatoes are relatively easy to manage when populations are low. Some of the products that demonstrated efficacy are registered including Monitor and Leverage. Other products such as Clutch and Lambda are expected to be registered on potatoes in the next one to two years. The results suggest that existing or near future will provide a significant level of control of thrips.

Efficacy of 17 Treatments for Control of Thrips							
Trt No	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Cumulative number of thrips
1	UNTREATED CHECK						11.00 a
2	WARRIOR	0.0234	LB A/A		3 FL Z/A	A	4.25 cde
3	ASANA	0.031	LB A/A		6 FL Z/A	A	6.00 bcd
4	MONITOR	1	LB A/A		2 PT/A	A	3.75 cde
5	ASSAIL	0.0744	LB A/A		1.7 OZ/A	A	4.00 cde
6	SUCCESS	0.07	LB A/A		4.5 FL OZ/A	A	5.75 bcd
7	PENNCAP-M	1	LB A/A		4 PT/A	A	6.00 bcd
8	Experimental	9.4	LB A/A		8 OZ/A	A	9.50 ab
	ORGANO SILICONE SURFACTAN	0.1	% V/V		0.1 % V/V	A	
9	Experimental	14	LB A/A		12 OZ/A	A	9.50 ab
	ORGANO SILICONE SURFACTAN	0.1	% V/V		0.1 % V/V	A	
10	BUG OIL	1	% V/V		1 % V/V	A	7.75 abc
11	BUG OIL	2	% V/V		2 % V/V	A	7.50 abc
12	LEVERAGE	0.08	LB A/A		3.8 FL OZ/A	A	3.50 cde
13	IMIDACLOPRID				3.8 FL OZ/A	A	2.75 de
	LAMBDA				2.56 FL OZ/A	A	
14	IMIDACLOPRID				3.8 FL OZ/A	A	1.00 e
	LAMBDA				3.2 FL OZ/A	A	
15	IMIDACLOPRID				5 FL OZ/A	A	3.50 cde
	LAMBDA				2.56 FL OZ/A	A	
16	CLUTCH				4 OZ/A	A	2.25 de
17	BATTALION				12 FL OZ/A	A	3.50 cde