



Potato Progress

Research and Extension for Washington's Potato Industry

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July 22, 2004

Washington Potato Pest Management Field Day

Wednesday, August 4, 2004 – Eltopia Vicinity
2621 Ringold Road, Eltopia

Alan Schreiber, Agriculture Development Group, Inc.

Agriculture Development Group, Inc, in cooperation with the Washington State Potato Commission, and several crop protection companies, is hosting the Washington Potato Pest Management Field Day to review the latest research results and agrichemical registrations in potatoes. This is the most comprehensive potato pest management field day in Washington. There are more new products being registered on potatoes in the current 12 month interval than any time in the past decade – we will cover all of them! This agenda will likely change slightly prior to the event.

9:30 **Introductions and Overview**

Vegetation Management Revolution in Potatoes

- Sonalan, Chateau, Outlook, and Spartan – Four New Herbicides for Potatoes
- ET and Aim – Two New Desiccants for Potatoes

Advances in Disease Management for the Columbia Basin

- New Products, New Thinking for Late Blight, Early Blight, and White Mold (we have four new fungicides registered)

Noon: **Hosted Lunch – Whole Hog Bar B Que-Come Have Lunch on Alan Schreiber**

The Future of Mite Management in Potatoes

- Within twelve months, we could have three new miticides on potatoes; learn what is in store – see which of the three miticides was just granted a Section 18 for Washington and Oregon.

The Latest Research, The Latest New Registrations for Potato Insects

- An Effective, New Insecticide for Control of Wireworm
- Beet Leafhopper: Research Update, Identification and Biology
- A New At-Planting Insecticide Available Next Year
- A Soft Insecticide for Colorado Potato Beetle and Worms

It's Time to Check Potatoes for Mites

Alan Schreiber, Agriculture Development Group, Inc.

A non scientific survey of central Columbia Basin potatoes fields indicates that two-spotted spider mites are present in low numbers. Applications of miticides (Agri-Mek, Comite, and Acramite {via Section 18, see below}) should be made upon early detection of mites. All potatoes that are at least one month from harvest should be surveyed for the presence of mites and mite eggs starting July 15th.

Sampling for mites requires a close visual inspection of leaves from all levels of the plants. Use of at least a 16X hand lens is important for detecting mites in low numbers. There are no registered miticides available that will provide full control or serve as rescue treatments once mite populations reach outbreak levels. Application of miticides should begin before populations reach 2 mites per leaf; this is close to the detection limit for the pest. Thorough coverage is essential for good control. Foliage should be dry at the time of application. Do not irrigate potatoes for 24 hours after application if possible.

Section 18 Granted for Acramite-4SC for Washington (and Oregon)

Alan Schreiber, Agriculture Development Group, Inc.

The Washington State Potato Commission submitted for, and received an emergency exemption for Acramite-4SC for control of two-spotted spider mites in potatoes. A companion request was granted for Oregon as well. The exemption allows a single application by air at the rate of 1.0 to 1.5 pints (0.5-0.75 lbs a.i.) per acre. A maximum of 10,000 acres of potatoes may be treated in Washington. **A tolerance HAS been granted for this use pattern.** Acramite may not be applied to potatoes unless two applications of Comite have already been applied to the field. In Commission-funded trials, Acramite provided a level of control that was either equal to, or better than, Comite. The 1.5 pint level performed significantly better than the 1.0 pint level; however, the level of infestation was greater than what should exist in a grower field. It is important to apply Acramite early in the mite outbreak. The exemption goes into effect August 1st.

Tuber Moth Update

Andrew Jensen, WSPC and Phil Hamm, OSU Hermiston

Potato tuber moth is one of the most serious potato pests world-wide. It has historically been considered a tropical/sub-tropical pest. In recent years, however, it has become a serious problem in the Hermiston area of Oregon. Some had thought that warm winters had allowed it to survive much farther north than previously. However, the bitter cold of this past winter may have changed some minds. The tuber moth can also over-winter inside storage buildings. It can even reproduce in storage at temperatures of 50°F and higher. So the moth may be here to stay regardless of winter temperatures.

We have been conducting a pheromone trapping network for potato tuber moth in the Columbia Basin. Some of you may have seen the tent-shaped white traps scattered around the Basin. These work by attracting tuber moth using a sexual attractant chemical called a pheromone. Once inside the tent-shaped trap, the insects are stuck on the sticky liner of the trap. The liner can then be removed and taken to the office for counting. The pheromone capsules for this work were kindly provided by Pete Landolt at the USDA-ARS lab at Wapato, Washington.

To date we are finding large numbers of potato tuber moths in the traps in some areas around Hermiston. Most of the 35 traps in that area are catching at least some moths each week. In contrast, we are finding only a few moths in Washington, and these are concentrated in the areas south of Tri-Cities, with a very few caught immediately north of Pasco. We will be trapping well into September to follow population trends and to watch for migration northward. **The latest data for Washington can be found at Keith Pike's potato insect web site: <http://www.potato.prosser.wsu.edu>.**

These are things to consider regarding management of this pest:

1. Monitor each individual field for the moth – do not rely on the trapping data provided by our trap route to determine your management. If you want to monitor with pheromone traps, contact either one of us for information on traps and lures you will need.
2. Moths must be controlled during the growing season. Once the vines have dried down, the moths will be feeding in the tubers, and little can be done to control them.
3. To avoid extensive damage after vine kill, try to minimize the time period between vine kill and harvest.
4. CAUTION: This insect has the potential to rapidly develop resistance to insecticides. If regular treatment is required, be sure to rotate insecticides of different classes (i.e. pyrethroids, organophosphates, carbamates, neonicotinoids, etc.)

Upcoming Field Days

August 3rd: Drip Irrigation Field Day, near Royal City (Contact: 488-5793).

August 4th, Potato Pest Management Field Day, 9:30 am, 2621 Ringold Road, Eltopia (Contact: 266-4348)

August 18th, Western Washington Potato Field Day, WSU Mount Vernon (Contact: 360-428-4270)

Potato Acreage Estimates for "Fall" Potatoes – NASS Data

See the following web site for more data: <http://www.usda.gov/nass/pubs/estindx3.htm#potatoes>.

Potatoes: Area Planted and Harvested, Yield, and Production by Seasonal Group, State, and United States, 2003-2004 (continued)

Seasonal Group and State	Area Planted : 2003	Area Planted : 2004	Area Harvested : 2003	Area Harvested : 2004	Yield : 2003	Yield : 2004	Production : 2003	Production : 2004
	:----- 1,000 Acres -----				-- Cwt --		1,000 Cwt	
CA	8.4	7.7	8.4	7.7	410		3,444	
CO	66.3	65.0	65.7	64.8	360		23,652	
ID	360.0	350.0	358.0	348.0	344		123,180	
10 SW Co:	25.0	26.0	25.0	26.0	465		11,625	
Other ID:	335.0	324.0	333.0	322.0	335		111,555	
IN	3.8	3.4	3.7	3.2	250		925	
ME	66.0	63.5	65.5	63.0	260		17,030	
MA	3.0	2.6	2.8	2.5	275		770	
MI	46.0	43.0	45.5	42.0	330		15,015	
MN	60.0	53.0	58.0	49.0	385		22,330	
MT	10.7	10.7	10.6	10.6	315		3,339	
NE	23.5	22.0	23.2	21.5	425		9,860	
NV	8.3	6.7	8.0	6.7	415		3,320	
NM	4.0	4.0	4.0	4.0	400		1,600	
NY	22.2	20.0	21.7	19.7	300		6,510	
ND	117.0	95.0	112.0	91.0	245		27,440	
OH	4.5	3.7	4.3	3.6	300		1,290	
OR	42.8	40.0	42.6	40.0	493		20,991	
Malheur :	5.8	5.3	5.8	5.3	415		2,407	
Other OR:	37.0	34.7	36.8	34.7	505		18,584	
PA	14.5	12.0	13.5	11.0	290		3,915	
RI	0.6	0.5	0.5	0.5	300		150	
SD 3/	1.0		1.0		340		340	
UT 3/	1.0		1.0		335		335	
WA	163.0	160.0	162.0	160.0	575		93,150	
WI	81.0	75.0	80.0	74.0	410		32,800	
:								
Total	1,107.6	1,037.8	1,092.0	1,022.8	377		411,386	
:								
US	1,274.5	1,184.3	1,250.0	1,165.6	367		458,854	

- 1/ Estimates for current year carried forward from earlier forecast.
- 2/ The forecast of fall potato production will be published in the November "Crop Production".
- 3/ Estimates discontinued in 2004.