

Section VIII.  
Mites & Sap-sucking Insects

WASHINGTON POTATO IPM PROGRAM – 2000

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Test plots were at the Agriculture Development Group, Inc, research farm 15 miles north of Pasco Washington. The variety was Russet Burbank. The seed was cut in 2.25 ounce pieces and treated with Maxim fungicide. The potatoes were planted on April 28 in 34 inch rows at 9 inch drops. The plots were 8 rows by 25 feet. The experimental design was a randomized complete block design with 4 replications per treatment.

Applications began on June 16, 2000. Plots were sampled twice a week and with applications being made when the average number of aphids per treatment was 1 aphid per plant. No effort was made to maintain the same number of applications for each treatment, however all chemical treatment was applied three or four times. All treatments were applied via CO<sup>2</sup> backpack sprayer with 8003 VS Teejet nozzles. The application used 20 gallons of water at 30 psi. Additional applications were made on a scouted basis with a threshold of one wingless green peach aphid per plant.

Evaluations were made twice a week. Evaluations were made using a beating sheet (27 in x 27 in) that was used to count both winged and wingless aphids. Evaluations were taken from one plant per plot. Foliage at the end of the season was tested for potato leafroll virus using ELISA techniques by Dr. Pete Thomas, USDA, Prosser Washington.

The treatments were

Trt No.	Treatment Name	Rate
1	UTC	
2	MONITOR	2 PT/A
3	PIRIMOR	0.5 LB/A
4	PIRIMOR	0.66 LB/A
5	ACTARA	0.3711 OZ A/A
6	ACTARA	0.7566 OZ A/A
7	FULFILL	1.37 OZ A/A
8	FULFILL	1.37 OZ A/A
	ENVIROPEL	0.25 % V/V
9	PROVADO	0.7566 OZ A/A
10	X product	0.8565 OZ WT/A
11	X product	0.9993 OZ WT/A
12	X product	1.142 OZ WT/A
13	X product	1.285 OZ WT/A
14	X product	1.428 OZ WT/A



Season long green peach aphid control with action threshold of 1 aphid per plant

Treatment	Rate	No. GPA per plant														Totals	% PLRV	
UTC		23-Jun	27-Jun	3-Jul	5-Jul	7-Jul	10-Jul	14-Jul	17-Jul	20-Jul	24-Jul	27-Jul	31-Jul	3-Aug	7-Aug	9-Aug	29.0 a	17.5
PIRIMOR	0.66 LB/A	0.0 a	4.3 a	0.0 a	1.0 a	0.3 a	0.5 a	0.8 a	2.8 a	2.8 a	3.5 a	7.5 a	1.0 a	1.5 a	1.0 a	0.5 a	10.3 b	4
FULFILL	1.37 OZ A/A	0.0 a	3.3 ab	1.5 a	0.5 a	0.5 a	0.0 a	0.0 a	0.0 b	0.5 b	0.0 b	0.5 b	0.0 b	0.3 b	0.3 a	0.0 a	10.0 b	2.5
ENVIROPL	0.25% %V/W	0.0 a	3.3 ab	1.3 a	1.3 a	0.0 a	0.0 a	0.8 a	0.5 b	0.0 b	0.3 b	0.0 b	0.0 b	0.5 ab	0.3 a	0.0 a	9.5 b	2.5
ACTARA	0.7566 OZ A/A	0.3 a	1.5 bc	0.0 a	0.8 a	0.0 a	0.3 a	1.3 a	0.0 b	0.0 b	0.0 b	1.8 b	0.0 b	0.0 b	0.3 a	0.0 a	6.5 bc	1.25
PROVADO	0.7566 OZ A/A	0.0 a	0.3 c	0.0 a	0.8 a	0.3 a	0.3 a	0.0 a	0.3 b	1.3 b	0.0 b	0.5 b	0.8 ab	0.5 ab	0.3 a	0.0 a	4.8 c	4
PIRIMOR	0.5 LB/A	0.5 a	0.5 bc	0.0 a	0.5 a	0.0 a	0.5 a	0.0 a	0.0 b	0.3 b	0.3 b	0.3 b	0.0 b	0.0 b	0.5 a	0.0 a	4.0 c	2.5
MONITOR	2 PT/A	0.0 a	0.3 c	0.8 a	0.0 a	0.0 a	0.0 a	0.3 a	0.0 b	0.0 b	0.0 b	0.3 b	0.3 ab	0.3 b	0.0 a	0.0 a	4.0 c	6
X product	0.8565 OZ WT/A	0.3 a	1.3 bc	0.8 a	0.3 a	0.0 a	0.5 a	0.0 a	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b	0.5 ab	0.0 a	0.0 a	4.0 c	1.25
X product	0.9993 OZ WT/A	0.0 a	0.0 c	2.0 a	0.0 a	0.0 a	0.0 a	0.3 a	0.3 b	0.3 b	0.0 b	0.0 b	0.0 b	0.0 b	0.0 a	0.0 a	3.8 c	1.25
X product	1.285 OZ WT/A	0.0 a	0.3 c	0.3 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b	0.0 a	0.0 a	3.0 c	2.5
ACTARA	0.3711 OZ A/A	0.0 a	0.0 c	0.0 a	0.0 a	0.3 a	0.3 a	0.3 a	0.0 b	0.0 b	0.3 b	0.0 b	0.3 ab	0.0 b	0.0 a	0.0 a	3.0 c	0
X product	1.428 OZ WT/A	0.3 a	0.3 c	0.3 a	0.0 a	0.3 a	0.0 a	0.0 a	0.0 b	0.0 b	0.3 b	0.0 b	0.3 ab	0.5 ab	0.0 a	0.0 a	2.8 c	3
X product	1.142 OZ WT/A	0.3 a	0.3 c	0.3 a	0.0 a	0.0 a	0.8 a	0.0 a	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b	0.0 a	0.5 a	2.5 c	1.25
FULFILL	1.37 OZ A/A	0.0 a	0.8 bc	0.3 a	0.0 a	0.5 a	0.0 a	0.0 a	0.0 b	0.0 b	0.3 b	0.0 b	0.0 b	0.3 b	0.0 a	0.0 a	2.5 c	1.25

Treatment Dates

Trt	Date
All Treatments	16-Jun-00
3,4,6,7,8,10,11,12,14	27-Jun-00
10,11,12,13	30-Jun-00
14	5-Jul-00
9	10-Jul-00
2,3,4,5,6,7,8,9,13	14-Jul-00
All Treatments	21-Jul-00