

Chemical Control/New Products

NEW INSECTICIDE EVALUATION FOR POSTBLOOM CONTROL OF PEAR PSYLLA

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An experiment to test the effects of experimental and registered insecticides on pear psylla was replicated in two locations. These trials were conducted at the WSU Tree Fruit Research and Extension Center in Wenatchee, WA, on pear block 25 and at Smith Tract Triangle near Orondo, WA. Treatments with location in parentheses are shown below.

Materials and Application Summary		
Treatment	Materials Applied	Application Rates
Asana (25 & Triangle)	Asana 0.66 EC	1 pt/acre
Asana/PBO (25 & Triangle)	Asana 0.66 EC/ PBO	1 pt/acre, 1 pt/acre
Esteem/Saf-T-Side (25 & Triangle)	Esteem 0.88 EC/ Saf-T-Side	1 pt/acre, 0.25% V/V
Dimilin/Saf-T-Side (25 & Triangle)	Dimilin 25 WP/ Saf-T-Side	3 lb/acre, 0.25% V/V
Comply (25 & Triangle)	Comply	8 oz/acre
Assail 0.075 (25)	Assail 70 WP	0.075 lb/acre
Assail 0.15 (25)	Assail 70 WP	0.15 lb/acre
Assail/Saf-T-Side (25)	Assail 70 WP/ Saf-T-Side	0.15 lb/acre, 0.25% V/V
Agri-Mek/Neemix (25)	Agri-Mek 0.15 EC/Neemix	8 fl oz/acre, 8 oz/acre
GWN-1535 (25)	GWN-1535	4 pt/acre
Agri-Mek/Saf-T-Side (25)	Agri-Mek 0.15 EC/ Saf-T-Side	20 fl oz/acre, 0.25% V/V
Pyramite/Saf-T-Side (25)	Pyramite 60 WP/ Saf-T-Side	10 oz/acre, 0.25 % V/V
Pyramite/Saf-T-Side/Savey (25)	Pyramite 60 WP/ Saf-T-Side/ Savey 50 WP	8.8 oz/acre, 0.25% V/V, 4 oz/acre
Calypso (Triangle)	Calypso	4 fl oz/acre
Calypso (Triangle)	Calypso	8 fl oz/acre
Calypso/Saf-T-side (Triangle)	Calypso/ Saf-T-side	4 fl oz/acre, 0.25% V/V
Calypso/Saf-T-side (Triangle)	Calypso/ Saf-T-side	8 fl oz/acre, 0.25% V/V
Agri-Mek/Saf-T-side (Triangle)	Agri-Mek/ Saf-T-side	12 fl oz/acre, 0.25% V/V
BAJ 2740 (Triangle)	BAJ 2740	11 fl oz/acre
BAJ 2740 (Triangle)	BAJ 2740	18 fl oz/acre
Pyramite/Saf-T-side (Triangle)	Pyramite/ Saf-T-side	10 oz/acre, 0.25% V/V
BAJ 2740/Calypso (Triangle)	BAJ 2740 /Calypso	11 fl oz/acre, 2 fl oz/acre
BAJ 2740/Calypso (Triangle)	BAJ 2740 /Calypso	18 fl oz/acre, 3.3 fl oz/acre

Treatments were applied to single tree plots replicated four times in a randomized complete block design. Treatments were applied with a handgun sprayer at 400 psi to the point of drip, at a spray volume of approximately 200 gal/acre. Application timings were as follows: Dormant (Asana and Asana/PBO at both sites); delayed dormant (Dimilin and Esteem at both locations); clusterbud (Comply at Smith Tract Triangle, and Comply and Assail at Block 25); and petal fall (all remaining treatments). Pear psylla adult counts were made by using a beating tray with four tray samples per tree, one from each quadrant of the tree. Psylla egg and nymph counts were made through 20 April by collecting 5 spurs per tree and examining them under a binocular dissecting scope and counting the number of eggs and nymphs. Starting on 28 April, 25 leaves were collected from each tree and were brushed with a standard mite-brushing machine onto a glass plate. One-half the plate area was examined using a grid system and the number of egg and nymphs counted and recorded as numbers/leaf. In Block 25, Assail at the high rate and

Assail with Saf-T-Side were comparable to Comply on nymphs, which was highly effective in controlling pear psylla. For adults, Comply and Agri-Mek/Saf-T-Side were the most effective products, followed by Assail at the high rate, Assail/Saf-T-Side, Agri-Mek/Neemix and GWN-1535. This effect was a result of the overall population suppression provided by these insecticides. At Smith Tract Triangle, Calypso/Oil, BAJ 2740/Oil, BAJ 2740/Calypso and Esteem/Oil provided as good protection as the industry standard, Agri-Mek. If a more conventional program were to be followed, better full season control could possibly be achieved.

Block 25 Seasonal means

Treatment	Eggs		Nymphs		Adults	
Control	167.3	ab	105.5	a	105.2	b
Asana	150.7	ab	68.66	a-d	103.1	b
Asana/PBO	145.1	b	64.05	a-d	127.9	a
Esteem/Saf-T-Side	135.2	b	81.12	a-d	83.15	cde
Dimilin/Saf-T-Side	161.2	ab	92.28	ab	102.8	b
Comply	157.8	ab	46.84	bcd	74.17	e
Assail 0.075	155.9	ab	37.57	cd	93.5	bcd
Assail 0.15	142.4	b	33.97	d	81.19	cde
Assail/Saf-T-Side	140.5	b	37.28	cd	79.4	cde
AgriMek/Nemix	213.6	a	70.59	a-d	78.71	cde
GWN-1535	180.7	ab	78.01	a-d	80.5	cde
AgriMek/Saf-T-Side	180.8	ab	90.32	ab	75.54	de
Pyramite/Saf-T-Side	197.6	ab	85.89	abc	89.19	b-e
Pyramite/Saf-T-Side/Savey	213	a	104.1	a	93.92	bc

Means within the same column followed by the same letter are not significantly different ($p=.05$, LSD).

Triangle Seasonal means

Treatment	Eggs low		Eggs high		Nymphs low		Nymphs high		Adults	
Control	11.83	a	5.4	a	1.02	bc	21.98	b	11.73	de
Asana	10.99	a	5.4	a	1.78	a	45.9	a	32.12	a
Asana/PBO	16.41	a	6.9	a	1.7	a	40.08	a	36.02	a
Esteem/Saf-T-Side	10.47	b	7.45	a	1.04	bc	22.85	bc	14.45	bcd
Dimilin/Saf-T-Side	17.07	a	7.825	a	1.19	b	30.28	a	20.07	bcd
Comply	11.29	a	2.275	a	0.53	c	10.83	bc	10.93	e
Calypso	7.547	b	3.25	a	0.69	c	12.95	bc	12.93	cde
Calypso	15.72	a	5.9	a	0.88	c	15.48	a	11.64	cde
Calypso/Saf-T-side	10.99	b	3.075	a	0.94	c	14.33	c	13.09	de
Calypso/Saf-T-side	11.01	a	3.5	a	0.68	c	9.95	c	12.32	ef
Agri- Mek/Saf-T-side	15.31	a	4.275	a	0.87	c	12.45	c	10.98	ef
BAJ 2740	16.41	a	2.275	a	0.82	c	10.2	c	10.29	cde
BAJ 2740	18.13	a	4.075	a	1.37	bc	10.98	bc	11.89	cde
Pyramite/Saf-T-side	16.53	a	7.1	a	1.48	b	25.58	bc	16.3	bcd
BAJ 2740/Calypso	17.22	a	3.775	a	1.26	c	11.03	c	7.331	f
BAJ 2740/Calypso	11.73	a	6.025	a	1.2	c	13.08	bc	10.47	ef

Means within the same column followed by the same letter are not significantly different ($p=.05$, LSD).