

Pome Fruits—Chemical Control

Agri-Mek Timing Study, Wenatchee

Everett Burts

Washington State University Tree Fruit Research and Extension Center, Wenatchee, WA

Keywords: pear psylla, Agri-Mek, Guthion, Mitac, pear

Eleven-yr-old pear 'Bartlett' and 'Anjou' trees were sprayed with an air carrier sprayer to compare the effectiveness of petal fall and second generation timing of Agri-Mek for control of pear psylla. Plots consisted of 2 replicates of 12 x 6 tree rectangles. Additional sprays applied to the entire orchard during the growing season included Guthion 35% WP 3 lb/acre on 17 Jul and Guthion 35% WP 2 lb plus Mitac 50% WP 3 lb/acre on 31 Jul. Treatments were evaluated for PP by counts made at 2-wk intervals. Adult PP were counted from a 25-beating-tray sample per replication. PP nymphs and PRM were counted from 2 50-leaf samples per replicate. Leaf samples consisted of the proximal leaf, distal leaf and 3 leaves from the middle of 10 terminal shoots. Leaves were brushed and resulting slides were examined under magnification. PP russet and other pest damage were rated according to US grade standards for fresh market pears on 50 mature fruits per cultivar per replication. Factors of fruit quality including firmness, soluble solids and size were evaluated from 2 10-fruit samples per replicate at normal harvest maturity. Fruit and foliage were examined for phytotoxicity after each spray.

Both spray timings provided good control of pear psylla. The 10 May application produced lower seasonal average nymph and adult densities because it controlled the first generation. There was no significant fruit damage from pear psylla honeydew russet in either plot. No other pests reached damaging densities in the test orchard. There were no treatment associated differences in fruit quality.

Treatment date	Mean ¹ PP nymphs per 25 leaves								
	14 May	30 May	11 Jun	26 Jun	9 Jul	24 Jul	8 Aug	13 Aug	Seasonal
10 May	2.25a	0.00a	0.25a	0.00a	0.50a	0.00a	0.00a	0.00a	0.56a
5 June	21.75b	5.25b	0.75a	1.00a	3.50a	0.00a	0.50a	1.00b	4.03b

¹Means within columns followed by the same letter are not significantly different (P=0.05, Fisher's Protected LSD).

Treatment date	Mean ¹ PP adults per limb tap								
	14 May	30 May	11 Jun	26 Jun	9 Jul	24 Jul	8 Aug	13 Aug	Seasonal
10 May	2.25a	0.00a	0.25a	0.00a	0.50a	0.00a	0.00a	0.00a	0.56a
5 June	21.75b	5.25b	0.75a	1.00a	3.50a	0.00a	0.50a	1.00b	4.03b

¹Means within columns followed by the same letter are not significantly different (P=0.05, Fisher's Protected LSD).