

Chemical Control/New Products

CONTROL OF TWOSPOTTED SPIDER MITES – HANDGUN TRIAL

John E. Dunley, Bruce M. Greenfield and Larry H. Bennett
Washington State University Tree Fruit Research and Extension Center, Wenatchee, WA

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Abstract: This test was applied to d'Anjou pear trees at a commercial orchard near Dryden, WA. Individual plots consisted of single trees replicated four times in a randomized complete block design. Treatments were applied using a handgun sprayer operating at 400 psi. The trees were sprayed to drip, simulating a dilute application of 400 gpa. The treatments were applied 16 Aug. Mites were counted by collecting 25 leaves per plot and brushing them with a standard mite brushing machine onto a glass plate covered with a thin film of soap solution. Plates were examined under magnification and the number of mite eggs and motile stages recorded. All compounds worked well on the motile forms. Savey had a lag in efficacy when compared to the other materials used but did finally compare favorably.

Results and Discussion

All compounds tested had good control on the motile forms (Table 1). Acramite at the high and low rate, Mesa w/oil, BAJ 2740 at both rates, and Agri-Mek w/oil had the greatest initial impact on the egg populations (Table 2).

Table 1.

Treatment	Rate/acre	Motile TSM/leaf				
		15-Aug	21-Aug	28-Aug	4-Sep	10-Sep
Check		1.10ab	0.44a	0.46a	1.06a	1.02 a
Mesa 1%EC	25 fl oz/acre	1.04ab	0.04b	0.02b	0.14bc	0.10 b
Mesa 1%EC	30 fl oz/acre	0.44b	0.00b	0.08b	0.08bc	0.04 b
Saf-T-Side	0.25 % v/v					
Secure 72WG	0.09 lb/acre	0.82ab	0.14b	0.04b	0.04c	0.00 b
Secure 72WG	0.18 lb/acre	2.12ab	0.06b	0.00b	0.16bc	0.00 b
Acramite 50WS	0.75 lb/acre	1.34ab	0.04b	0.12b	0.16bc	0.00 b
Acramite 50WS	1 lb/acre	0.50b	0.02b	0.02b	0.10bc	0.00 b
BAJ 2740 240SC	11 fl oz/acre	0.68b	0.02b	0.02b	0.20b	0.12 b
BAJ 2740 240SC	18 fl oz/acre	2.50a	0.06b	0.10b	0.16bc	0.02 b
Agri-Mek 0.15EC	10 fl oz/acre	0.80ab	0.08b	0.02b	0.18bc	0.04 b
Saf-T-Side	0.25 % v/v					
Pyramite 60WP	13.2 oz/acre	0.70b	0.08b	0.10b	0.12bc	0.04 b
Saf-T-Side	0.25 % v/v					
Savey 50WP	6 oz/acre	0.96ab	0.48a	0.10b	0.12bc	0.04 b

Table 2.

Treatment	Rate/acre	TSM eggs/leaf				
		15-Aug	21-Aug	28-Aug	4-Sep	10-Sep
Check		0.4 ab	0.8 ab	0.7 a	0.5 a	0.3 a
Mesa 1%EC	25 fl oz/acre	0.2 b	0.5 abc	0 b	0.1 b	0.0 b
Mesa 1%EC+	30 fl oz/acre	0.1 b	0.1 c	0 b	0.1 b	0.0 b
Saf-T-Side	0.25 % v/v					
Secure 72WG	0.09 lb/acre	0.2 b	0.6 abc	0.1 b	0.1 b	0.0 b
Secure 72WG	0.18 lb/acre	0.1 b	0.4 abc	0.0 b	0.1 b	0.0 b
Acramite 50WS	0.75 lb/acre	0.2 b	0.2 abc	0.1 b	0.0 b	0.0 b
Acramite 50WS	1 lb/acre	0.1 b	0.0 c	0.0 b	0.1 b	0.0 b
BAJ 2740 240SC	11 fl oz/acre	0.3 b	0.1 bc	0.0 b	0.0 b	0.0 b
BAJ 2740 240SC	18 fl oz/acre	0.2 b	0.2 abc	0.1 b	0.1 b	0.0 b
Agri-Mek 0.15EC+	10 fl oz/acre	0.2 b	0.1 c	0.0 b	0.1 b	0.0 b
Saf-T-Side	0.25 % v/v					
Pyramite 60WP+	13.2 oz/acre	0.7 a	0.8 a	0.1 b	0.1 b	0.1 b
Saf-T-Side	0.25 % v/v					
Savey 50WP	6 oz/acre	0.3 b	0.1 bc	0.2 b	0.1 b	0.0 b