

Chemical Control/New Products

Pear, Evaluation of Registered Acaricides in Late Season Foliar Applications, 1994

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The trial was conducted in a 2.4 acre pear block of 15-year-old Comice pear trees. A single application of the acaricides or acaricide combinations was made on 21 Jul to 3 single tree replicates using conventional high pressure handgun equipment with the trees sprayed to runoff. Estimation of TSM densities was made at about weekly intervals from 20 Jul through 14 Sept. Samples consisted of 15 mature pear leaves/replicate which were returned to the laboratory where the mites were removed with a brushing machine and then counted with the aid of a dissecting microscope.

Pretreatment densities of TSM were relatively high, averaging over 13/leaf of combined egg and post-embryonic stages. The 7-day post-treatment evaluation showed a 90+% reduction with all acaricides except for the ovicides Apollo and Savey which did not express their full effect until 11 Aug. Based on the average post-treatment TSM levels the overall best acaricide performance was achieved with Savey alone, this compound combined with Carzol or Vendex and with the Apollo plus Vendex combination. Acaricides that provided initially good mite suppression but exhibited a resurgence in numbers toward the end of the test included Carzol, Vydate and Agri-Mek plus oil. Vendex and Kelthane treatments resulted in the poorest overall TSM suppression, averaging about 80% over the test period compared to densities in the untreated check plot.

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**Table 1.**

Treatment	Rate/acre	Average number of mites (all stages) per leaf							
		Pre-count	28 Jul	4 Aug	11 Aug	22 Aug	31 Aug	14 Sep	Seasonal mean
Savey 50WP	4 oz	12.3a	3.2a	1.3a	0.4ab	0.3a	0.2a	0.3a	0.9abc
Savey 50WP + Vendex 50W	4 oz 2 lb	13.5a	1.8a	0.9a	0.4ab	0.2a	0.0a	0.2a	0.6ab
Savey 50WP + Carzol 92SP	4 oz 2 lb	15.9a	1.0a	0.2a	0.0a	0.1a	0.1a	0.4a	0.3a
Apollo SC	6 oz	13.0a	6.4a	4.8a	0.8abc	1.3ab	0.4ab	0.6a	2.4abcde
Apollo SC + Vendex 50W	6 oz 2 lb	13.3a	1.1a	2.0a	0.5abc	0.4a	1.2ab	0.8a	1.0abc
Vendex 50W	2 lb	13.8a	2.2a	1.9a	3.4bc	2.0ab	4.5bc	5.1ab	3.2de
Carzol 92SP	2 lb	13.6a	1.2a	0.9a	1.2abc	1.7ab	1.6ab	4.0ab	1.8bcde
Kelthane 50	4 lb	14.6a	2.0a	2.7a	3.8c	2.7b	3.2abc	6.9b	3.5e
Vydate 2L	3 qt	16.2a	0.6a	0.1a	1.2abc	0.7ab	5.1bc	9.3b	2.8cde
Agri-Mek EC + oil (Orchex 796)	20 oz 0.25%	12.0a	0.7a	0.3a	0.2ab	1.0ab	1.2ab	9.2b	2.1abcd
Control		15.2a	21.6b	30.1b	40.7d	13.5c	11.0c	10.5b	21.2f

Means within a column followed by the same letter are not significantly different (P=0.05 Fisher's Protected LSD). Data were subjected to  $\sqrt{x+0.5}$  transformation for statistical analysis. Nontransformed means are presented for comparison.