

Pome Fruits—Chemical Control

Agri-Mek Timing and Acaricide Evaluation, 1992

Philip VanBuskirk, Richard Hilton and Peter Westigard
Southern Oregon Experiment Station, Medford, OR

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The test orchard consisted of mature 'Bosc' pear trees planted on a 25 by 25 ft spacing. Treatments were applied: 14 April (petal fall), 5 May (1st cover), and 9 June (2nd cover) to four single tree replicates in a randomized block design. All applications were applied to runoff using an FMC Bean handgun sprayer operating at 300 psi. Additional sprays applied to the entire orchard during the trial were Imidan 50% WP 5 lb/acre applied 8 May, 2 June, and 2 July. Treatments were evaluated biweekly. Samples collected prior to 27 April consisted of fruiting spur leaves, and all other samples were made by collecting 15 leaves at random from the tree centers. Mites were removed from leaves using a mite brushing machine, with eggs and post-egg stages counted with the aid of a dissecting microscope.

The 5 May (1st cover) application provided over 12 wks control of TSM without reaching the retreatment threshold of 4-5 TSM/leaf. Petal fall applications were slightly less effective; Agri-Mek plus oil gave 10 wks control and Agri-Mek plus Kinetic provided 6 wks control before the retreatment threshold was reached. Agri-Mek plus oil applied on 9 June (2nd cover) was unable to reduce TSM populations below the retreatment threshold. Agri-Mek used in conjunction with Kinetic on 9 June provided over 6 wks control of TSM. Brigade which was only evaluated at first cover provided 8 wks control of TSM, before the retreatment threshold was reached and the plot sprayed out.

Table 1. Petal fall application.

Treatment	Rate form/ 100 gal	Average TSM/leaf					
		3 Apr	27 Apr	11 May	26 May	8 Jun	22 Jun
Agri-Mek .15 EC	5 oz	15.50a	3.90a	0.00a	0.00a	0.20a	4.07a
+ Orchex 796 oil .25%	32 oz						
Agri-Mek .15 EC	4 oz	38.30b	15.10b	3.23a	4.67a	7.20a	7.67a
+ Kinetic	3 oz						
Control		22.90a	13.30b	25.66b	31.87b	68.40b	64.95b

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

Table 2. First cover application.

Treatment	Rate form/ 100 gal	Average TSM/leaf						
		1 May	18 May	1 Jun	15 Jun	29 Jun	13 Jul	27 Jul
Agri-Mek .15 EC + Orchest 796 oil .25%	5 oz 32 oz	19.80a	0.27a	0.13a	0.07a	0.14a	0.40a	0.80a
Agri-Mek .15EC + Kinetic	4 oz 3 oz	22.50a	0.40a	0.07a	0.40a	0.60a	0.20a	0.40a
Brigade 10WP	4 oz	19.70a	0.07a	0.20a	3.27a	4.66a	---	---
Control		20.20a	22.20b	27.00b	85.20b	79.07b	69.93b	45.80b

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

Table 3. Second cover application.

Treatment	Rate form/100 gal	Average TSM/leaf			
		6 Jun	24 Jun	6 Jul	20 Jul
Agri-Mek .15 EC + Orchest 796 oil .25%	5 oz 32 oz	32.87a	5.77a	10.70a	13.53a
Agri-Mek .15EC + Kinetic	4 oz 3 oz	67.07a	3.20a	2.33a	2.73a
Control		68.40a	104.26b	63.57b	74.00b

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