

Pome Fruits—Chemical Control

Pear, Late Season Evaluation of Agri-Mek in Combination with Spray Adjuvants, 1993

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The study was conducted in an 8-year-old commercial Bosc orchard 16.9 acres in size. The orchard block was divided into 8 treatments, replicated three times in a randomized block design. Applications were made 8 Jul using a commercial air-carrier sprayer set to deliver 100 gal/acre. Densities of the PP and TSM were estimated by randomly selecting 10 mature and 10 young leaves 8 days post-treatment and then bi-weekly, brushing the samples and recording the stages and numbers of each species with the aid of a dissecting microscope.

PP and TSM populations were slow to respond to all Agri-Mek treatments. Three weeks post-treatment all Agri-Mek treatments were significantly better than the control in reducing PP eggs and nymphs. However, none were more effective than the standard Agri-Mek plus .25% oil. The control of TSM eggs three weeks following application showed no significant differences among Agri-Mek treatments, although all Agri-Mek plus adjuvant treatments were better than the control. Control of the post-embryonic stage of the TSM three weeks following application showed that only Agri-Mek plus LI 700 and the Agri-Mek plus Sylgard were as effective as the standard Agri-Mek and oil. When eggs and post-embryonic stages of the TSM are combined three weeks post-application, only Agri-Mek plus oil and Agri-Mek plus LI 700 were below the pretreatment threshold of 2 per leaf. While the two Agri-Mek plus M-Pede treatments were not different from the control on 27 Jul in controlling the post-embryonic stages, it should be pointed out that both treatments received only 10 oz of Agri-Mek compared to the 20 oz rate in the other Agri-Mek treatments. High numbers of PP and TSM in the plot required terminating the trial 4 weeks post-treatment.

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Treatment	Rate form./acre	Mean PP eggs per leaf			Mean PP nymphs per leaf		
		pretreatment	16 Jul	27 Jul	pretreatment	16 Jul	27 Jul
Agri-Mek .15EC + LI 700	20 oz 16 oz	2.7	0.9ab	0.3a	1.8	0.5a	0.4ab
Agri-Mek .15EC + Silwet L77 (SS)	20 oz 6 oz	1.9	0.8a	0.8a	1.2	0.5a	0.4ab
Agri-Mek .15 EC + Kinetic (SS)	20 oz 3.5 oz	3.9	0.6a	0.2a	1.7	0.5a	0.2ab
Agri-Mek .15EC + M-Pede 49EC	10 oz 64 oz	2.2	0.4a	0.3a	2.2	0.5a	0.3ab
Agri-Mek .15EC + M-Pede 49EC	10 oz 128 oz	2.3	1.0ab	0.4a	1.3	0.7a	0.9bd
Agri-Mek .15EC + Sylgard	20 oz 2 oz	2.1	1.3abc	1.0a	2.9	0.6a	0.4ab
Agri-Mek .15EC + Orchex 796 spray oil	20 oz 32 oz	3.0	2.4c	1.6a	1.7	1.0a	0.2a
Control		2.0	2.0bc	4.7b	0.8	0.9a	1.5c

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.

Treatment	Rate form./acre	Mean TSM eggs per leaf			Mean TSM post-embryonics per leaf		
		pretreatment	16 Jul	27 Jul	pretreatment	16 Jul	27 Jul
Agri-Mek .15EC + LI 700	20 oz 16 oz	13.1	2.1a	0.2a	7.2	3.0a	1.6ab
Agri-Mek .15EC + Silwet L77 (SS)	20 oz 6 oz	2.3	3.4a	0.3a	3.0	4.7a	5.2bcd
Agri-Mek .15 EC + Kinetic (SS)	20 oz 3.5 oz	4.2	2.6a	0.4a	2.4	6.2a	4.9bc
Agri-Mek .15EC + M-Pede 49EC	10 oz 64 oz	3.5	3.5a	0.6a	7.0	5.2a	6.8cde
Agri-Mek .15EC + M-Pede 49EC	10 oz 128 oz	9.7	2.5a	0.4a	8.9	7.3a	11.3de
Agri-Mek .15EC + Sylgard	20 oz 2 oz	4.7	1.2a	0.1a	4.6	2.7a	4.0abc
Agri-Mek .15EC + Orchex 796 spray oil	20 oz 32 oz	5.5	4.0a	0.0a	5.4	4.7a	0.6a
Control		3.0	8.4a	9.6b	2.9	7.3a	13.2e

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