

Pome Fruits—Chemical Control

Lime Sulfur Timing Study

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The purpose of the trial was to compare the effectiveness of lime sulfur plus oil treatments when applied postharvest (PH), postharvest plus delayed dormant (PH+DD), or delayed dormant (DD). Plots of mature Bartlett trees, .1 acre in size, were replicated 3 times in a randomized block design. Lime sulfur was applied at the rate of 12 gal/acre and combined with oil at 4 gal/acre. PH applications were made on 16 Oct at 200 gal/acre and the DD applications were made 24 and 25 Feb at 125 gal/acre. All treatments were made using conventional air-carrier equipment. An additional spray applied to the entire orchard was 6 gal/acre Orhex 796 spray oil applied on 5 Feb. Samples were made biweekly by randomly selecting 10 fruit buds or clusters per replicate and counting PP eggs and nymphs with the aid of a dissecting microscope. Adult PP were counted from 5-beating-tray samples per replicate.

The PH application of lime sulfur had virtually no effect on the subsequent PP. This lack of efficacy may well have been due to the mobility of PP and the dispersal pattern of the overwintering form. Both PH+DD and DD treatments were statistically better in reducing adult and immature PP levels. The data on PP eggs and nymphs, however, point to the possibility of increased effectiveness with the PH+DD application.

Table 1. Pear psylla adults/tap.

Treatment	Pre-count	10/28	11/12	11/25	12/9	12/20	1/10	1/24	2/11	2/24	2/28	3/5	3/12	3/20
PH	65.2	25.9	10.6	9.7	6.4	2.1	2.2	2.9	3.5	7.7	2.4	2.1	2.2	1.7
PH+DD	9.7	68.5	20.6	12.5	6.0	1.8	2.1	3.2	3.4	4.8	0.9	0.6	1.3	1.2
DD	7.2	--	--	--	--	--	--	2.6	4.7	4.4	1.5	0.5	1.4	1.3

Table 2. Pear psylla eggs and nymphs/spur.

Treatment	Pre-count	3/5	3/12	3/20
PH	0.60	0.37	10.77	15.46
PH+DD	0.20	0.20	0.60	9.46
DD	0.23	0.17	4.70	10.54

Timing of Lime-Sulfur Applications Effect on Pear Psylla

