IV. Nuts

- d. Chemical control
 - Peach twig borer, San Jose scale, and European red mite almonds

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Concern over the movement of dormant oil and OP sprays, especially in the ground fog has led to various speculations as to possible solutions. One such approach is to apply the two materials separately with a 3 week interval between applications. This trial was set up to apply an oil and diazinon together, oil followed with diazinon and diazinon followed with oil. The rationale being that the fog carrying capacity might be less when either material is applied alone (especially the OP) and that volatility and droplet survival would be less. However, of high concern is what kind of efficacy can be expected on PTB, SJS and ERM eggs when the dormant oil and OP are applied separately. The following table shows those results as obtained this past season on almonds.

Almonds
Dormant Control of Peach Twig Borer, San Jose Scale,
and European Red Mite

| <u>Material</u> | Form. | Rate /Acre | <u>GPA</u> | PTB mean strikes/tree | SJS mean SJS/tree | ERM mean mites/leaf |
|--------------------------------|----------------|-------------------|------------|-----------------------------|-------------------------|---------------------------|
| Orchex + diazinon | 0-796 50 WP | 5 gals. 3 lbs. | 50 | 1.0 c | 1.4 a | 2.24 c |
| Orchex + diazinon | 0-796 50 WP | 6 gals. 4 lbs. | 360 | 0.7 c | 0.8 a | 3.80 bc |
| Orchex | 0-796 | 5 gals. | 40 | 24.2 ab | 2.0 a | 2.17 c |
| Diazinon + Orchex (21-d) | 50 WP 0-796 | 3 lbs. 5 gals. | 40 | 6.3 c | 2.0 a | 5.12 b |
| Orchex + Diazinon (21-d) | 0-796 50 WP | 5 gals 3 lbs. | 40 | 21.3 b | 1.4 a | 2.08 c |
| Check | | | | 32.8 a | 2.4 a | 12.60 a |

Sprayed on January 20 & February 12, 1990 with Myers 3-pt. PTO air carrier sprayer. NePlus variety. Fresno County.

PTB - Counted strikes from 3 trees/rep. 3 reps./treatment. April 30, 1990.

SJS - Sampled 33, 33, 34 leaves for 100 leaves/treatment. 3 reps/treatment. Brushed leaves with mite brushing machine & counted immature scale. September 21, 1990.

ERM - Counted mites from 10 leaves/tree. 3 trees/rep. 3 reps./treatment. April 26, 1990.

Means followed by same letter are not significantly different (P=0.05) DMRT.