**PEAR: Pyrus communis L. 'd'Anjou'**

Pear Psylla (PP); *Psylla pyricola* Foerster

H. Riedl and P. W. Shearer
Oregon State University
Mid-Columbia Research and Extension Center
Hood River, OR 97031

**PEAR, COMPARISON OF SUPERIOR SPRAY OILS, 1986:** A 4.4 acre 60-year-old commercial pear block was subdivided into 4 equal-sized plots to accommodate 3 different oil treatments and a check where no oil was applied. Volck Supreme was compared to 2 experimental spray oils which differed in terms of viscosity and emulsifiers. Oils were applied 28 Feb (dormant) together with flowable sulfur at 1 gal/acre; 14 Mar (delayed dormant) together with Ambush 2EC at 12 oz/acre and Lorsban 4E at 20 oz/acre; 29 May (1st cover) together with Guthion 50WP at 1.25 lb/acre. Otherwise, a standard insecticide and fungicide program was used throughout the test block. Sprays were applied dilute by an Aerofan sprayer delivering 200 gal/acre. Treatments were evaluated for PP control by beating tray counts of adults (25 trays/treatment) and nymph counts on spur (19 May) and shoot (24 Jun) leaves (108/treatment). Leaves were examined under a stereo microscope.

Pre-treatment counts of PP were slightly higher in the no-oil check plot before the 1st application 28 Feb. All 3 dormant oil treatments significantly reduced PP adults compared to the no-oil check. No difference in control was detectable after the delayed-dormant pyrethroid spray 14 Mar. However, PP rebounded faster in the no-oil check compared to the treatments with oil. No difference in control was noticed among the 3 oil treatments.

**Phytotoxicity,—**

On 2 Jun after the 1st cover, spur leaves and fruit in each of the 4 treatments were examined for any symptoms of phytotoxicity. None were noticed. Results from an examination 30 Jun were also negative. At harvest 100 fruit were inspected from each treatment. No unusual phytotoxicity symptoms were apparent, suggesting that prebloom as well as 1st cover use of these oils is safe.

**Emulsification Tests.—** Oils were mixed with water at 2.2 g/liter. All 3 oils had good initial emulsification. However, only CC15180 showed larger oil droplets on surface after gentle stirring action. No flocculation was noticed. After shaking oil-water mixtures for 5 min they were poured through a 50-mesh screen. All mixtures were smooth and left no residue on the screen. With CC15180 oil droplets formed quickly on the surface after mixture was taken off the shaker.

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**PEAR: Pyrus communis L. 'Bartlett'**

Pear psylla (PP); *Psylla pyricola* Foerster

H. Riedl, P. W. Shearer, T. J. Facteau, and E. A. Mielke
Oregon State University
Mid-Columbia Ag Research and Extension Center
Hood River, OR 97031

**PEAR, EFFECT OF CALCIUM CHLORIDE ON PEAR PSYLLA CONTROL, 1986:** Sprays were applied 31 Jul to 13-year old pear trees by handgun operating at 200 psi. Test plots were 4 single tree replicates arranged in a randomized block. PP populations were sampled 1 and 3 weeks after treatment. Nymphs were counted on 40 terminal leaves/treatment (10/tree). Leaves were examined under a stereo microscope.

PP population was very high. Treatments with amitraz gave complete control of nymphs. Calcium chloride, commonly applied to prevent cork spot and similar disorders on pears, did not reduce the effectiveness of amitraz. Calcium chloride, as well as the spreader Triton B-1956, had no effect on PP and nymph densities were as high as in the check.

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Means in each column followed by the same letter are not significantly different (*P = 0.05, DMRT*).

*TR - trace, < 0.1, adults/tray.*