

Pome Fruits—Biological Control

Pesticide Bioassays on Pear Psylla Predators

Bradley S. Higbee and Thomas R. Unruh
 USDA-ARS, Yakima, WA

Keywords: pear psylla, Sevin, azinphosmethyl, Thiodan, soap, Ajax, Tide, M-Pede, pear

Mortality of the predators *Deraeocoris brevis* and *Anthocoris melanocerus* and the parasite *Trechnites insidiosus* on foliar residues of pesticides and soaps at field rate, 25% of field rate, and 400% of field rate, is consistent with the observation that these beneficials are absent in conventionally managed orchards (moderate to heavy synthetic pesticide use) and are relatively abundant in orchards under "soft" management.

All three conventional pesticides tested resulted in high mortality (>40%) of the beneficials at field rates or higher (Fig. 1). *D. brevis* showed more tolerance to Thiodan and azinphosmethyl. Azinphosmethyl caused the least mortality of the synthetic pesticides examined.

Both predators survived well in all soap bioassays while the parasite was very susceptible to the two laundry detergents at field rates or higher (Fig. 2). The insecticidal soap M-Pede caused low mortality at all rates under these conditions.

