

II. Pome Fruits

d. Chemical control

Pear psylla (PP); *Psylla pyricola* Foerster

Everett Burts
Washington State University
Tree Fruit Research and Extension Center
1100 N. Western Avenue
Wenatchee, WA 98801
509-663-8181

SLIDE-DIP SCREENING OF THIODAN AND THIODAN-PBO AGAINST WINTER FORM PEAR PSYLLA, 1988. Winter form adult pear psylla were collected from commercial pear orchards by aspirating them from beating trays. Psyllids were anesthetized with CO₂ and mounted on strapping tape attached to 1" X 3" microscope slides. Ten psyllids were mounted on each slide by placing them on their backs and pressing their wings onto the tape. Slides containing psyllids were dipped for 5 sec. in dilutions of test pesticides. Treated psyllids were held for 48 h in refrigerator trays lined with moist paper towelling at 70 ° F. Mortality was determined by teasing individual psyllids with a small brush. Those responding with rapid leg movement or reflex jumping movement were classed as live. This test included four replications of five serial dilutions of each pesticide and a control dipped in water.

Thiodan 3 EC formulation was very effective against winter form adult psyllids and its activity was not increased by combination with piperonyl butoxide, perhaps because concentrations of Thiodan tested were too high. This activity is surprising considering the low level of activity of Thiodan WP found in previous years' testing. Lab testing of Thiodan 3 EC was prompted by good control observed from pear grower applications of Thiodan in combination with Pydrin or Pounce. However, foliage sprays against summer populations of mixed stages did not provide good control.

Toxicity of Thiodan EC to Winter Form Adult Pear Psylla

PPM (AI) Thiodan¹

Mean % mortality from 48 hour exposure

	Thiodan only	Plus 1200 PPM PBO
1800	100.0	100.0
900	100.0	100.0
450	100.0	100.0
225	97.5	87.9
113	92.5	95.0
Check	0.2	0.2

¹Recommended field concentration for dilute spray is 675 PPM