

Environmentally sound dried plum farming practices.

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Objectives:

1. Evaluate registered pesticides for aphid control at fall application timing.
2. Monitor scale and PTB populations in fall sprayed blocks.
3. Test “new” sprayer designs for improved coverage in dried plum orchards. Assess uniformity of spray application and deposition between standard air-blast sprayer vs. tower sprayer.
4. Improve application efficiency and reduce drift with existing sprayer technology. Develop a suite of practices to improve application efficiency and reduce drift with standard airblast sprayer.
5. Increase grower awareness of available spray technologies through meetings and newsletter articles.

Procedures/results:

1. A replicated, single tree trial was established in a Sutter County orchard with a history of high mealy plum aphid pressure to evaluate previously untested but registered pesticides for effective aphid control with fall application. Seven pesticides were applied using an air-assisted, backpack mistblower this fall at two timings – the first week of November and the first week of December, 2007. Materials in the test represent four chemistry classes (1B, 3, 4A, and 9C) and are:
 - Warrior (3)
 - Diazinon (1B)
 - Baythroid (3)
 - BeLeaf (9C)
 - Provado (4A)
 - Supracide (1B)
 - Lorsban (1B)

Aphid control will be evaluated in the spring, 2008.

2. Scale and PTB were monitored following the IPFP guidelines in six orchards where fall sprays were applied in 2006. No differences in scale counts or PTB levels were measured when fall treated and dormant treated blocks were compared. This work will continue in 2007-2008 and be fully reported in the 2008 Prune Research Reports.

3. Preliminary studies to evaluate coverage differences between tower and conventional airblast sprayers were conducted in Sutter county orchards at two separate timings – 1) early May and 2) late June, 2007. This work will continue in 2007-2008 and be fully reported in the 2008 Prune Research Reports.
4. A large (20 acre) replicated trial was established in the fall, 2007 in Sutter County prune orchard with a high aphid pressure history to test efficacy of drift reduction modifications to existing orchard sprayers. Venturi (low drift) nozzles and “Cornell donuts” intended to reduce airflow and drift were used to apply systemic (Actara) or cover (Asana) materials for aphid control using a conventional sprayer (Air-O-Fan PTO sprayer). Nine separate treatments were applied in October (Actara) and early December (Asana). Plots will be evaluated for aphid control in spring, 2008.
5. An orchard sprayer field meeting was held in Sutter County on October 25, 2007.