



Tree Fruit IPM Advisory: April 12th, 2006

CODLING MOTH (Apple and Pear): Codling moth over winter as mature larvae in cocoons in crevices on trunks and in other protected sites. The larvae form pupae as temperatures warm in the spring and adults emerge from these pupae during bloom. Good control of codling moth is dependent on killing eggs before or as they hatch or newly emerged larvae before they enter fruits. Timing of control sprays is determined by when adults begin emerging for the season. As of Monday, April 10th, codling moth degree-day (DD) accumulations since March 1 were 49-77 DD in Utah County, 52-77 DD in Salt Lake County, 49-59 in Davis/Weber County, 52 DD in Box Elder County, and 30-35 DD in Cache County. Traps should be set by 100-125 DD and first moths are expected by 200-250 DD. If temperatures warm up over the next week, traps should be out by the end of next week (Apr 20-22) in the warmer locations (southern Utah County and West Valley City). At any given site, at least two traps should be set (unless it's just a backyard scenario). To increase the chance of getting an accurate biofix (= first moths caught at a site), try to set 1 trap per 3-5 acres. It has been shown that a greater trap density translates into a more accurate biofix. This makes sense when you consider that the traps are like "beacons" out there in the orchard—the more beacons, the greater the probability of attracting moths. If you are using mating disruption, it is still recommended that you determine a biofix for your orchards. Optimal timing of supplemental sprays to coincide with peak egg hatch periods of first and second generations can be determined based on the original biofix date. Without this information, you are left guessing.

PEACH TWIG BORER (Peach, Nectarine, and Apricot): To control the overwintering larvae, bloom-time sprays for this pest are very effective because the larvae are exposed as they feed. At this time of year, there are not any succulent shoots for the larvae to burrow into, so they are forced to feed on young leaves and petals. Insecticide residues on the surface of leaves and petals are more likely to get ingested, which makes materials such as Bt (DiPel), spinosad (Success, Entrust, Conserve), or diflubenzuron (Dimilin) very effective at this time. Bt (1 lb./acre) and spinosad (7 oz. Success) should be applied twice during bloom for maximum effect. First peach twig borer moths generally emerge 10-14 days after codling moth, and control of the summer generations are timed based on first moth catch (biofix).

GREEN PEACH APHID: Green peach aphid densities were high in the spring of 2005. A delayed dormant spray of dormant oil + esfenvalerate (Asana) or other effective insecticide is recommended if peach aphids are a concern this spring. Timing for the delayed dormant application is when buds begin to open and flower color is visible, but before flowers are completely open.

FLATHEADED BORERS: Emerging adults cause the flattened, oval shaped holes in tree trunks. Adults are expected to begin emerging in mid- to late-May. Larvae tunnel in the cambial tissue and can girdle and kill young trees. We have observed large populations in older, declining tart cherry and apple orchards. Young orchards, especially 1-2 year-old trees, near older orchards with flatheaded borers are at risk for infestation. Removal of infested trees and preventive insecticide treatments applied to trunks of young trees are primary management tactics. Remove dead or dying trees that can attract borers to attack and initiate a borer population in a susceptible orchard. The timing is late May to first of June after adults begin to emerge, mate, and females will lay eggs on tree trunks. Recommended insecticides include Lorsban (not registered post-bloom on apple), Thiodan, permethrin, and esfenvalerate. Young tart cherry and apple orchards surrounded by infested trees are at greatest risk and you may want to consider protecting these with preventive trunk treatments.

ROOT BORERS: Ten-lined June beetle and Prionus root borer larvae have been observed killing young and old cherry (and probably other types) of fruit trees. Problems have been most prominent on lighter, sandy soils. Root borers can cause replant problems and kill newly planted trees. When an orchard is replanted without at least a 1-2 year fallow period, soil fumigation or other practices to reduce root borer populations should be employed. Replant problems are generally most severe when the same species of tree is replanted without a fallow period.

ROOT WEEVILS: Root weevil adults cause notching of lower leaves and larvae feed on the crown and roots of trees. In recent years, leaf notching has been observed on tart cherry and peach trees. Prolonged drought conditions experienced before last year may have contributed to their population increase. Young trees with small root systems are especially prone to decline caused by root weevils. If heavy leaf notching is observed in an orchard, an insecticide treatment timed with when notching first begins in the late spring to early summer (May to early June) may be warranted. Insecticides applied to the lower canopy should reduce adult populations. Recommended insecticides include Lorsban, Thiodan, Actara, Provado, Calypso, Guthion, and Diazinon. Check the label for registered tree crop sites. Insect parasitic nematodes have been shown to be effective in controlling root weevil larvae when applied to the soil under ornamental trees and shrubs.