

Tree Fruit Pest Advisory

University of Idaho, U.S. Department of Agriculture, and Idaho counties cooperating.

Summer 2009 Issue 6

Protect Yourself

Codling Moth

First generation hatch has ended. Cover sprays need to be applied for the second generation egg hatch during July 5-10. Insecticides that target both larva and egg stages are recommended. Such as: Altacor, Assail, Calypso, and Intrepid. Homeowners should view the pest advisories at the bottom of this page for chemical recommendations. Growers should continue to apply the chosen material(s) at the interval provided on the label.



canopy, and will continue to grow through August. They prefer sprouts and new terminal growth.

Because of their waxy outer covering, they are difficult to control and catching them early is important, rather than waiting until populations are too large to manage. Good coverage of the insecticide of choice (to dripping) is necessary to soak through the insects' woolly coverings.

Woolly Apple Aphid

You should be monitoring for woolly apple aphid colonies. Pay close attention to bark crevices, pruning scars, etc., where overwintering aphids have been multiplying. They typically overwinter in the roots, migrating first to suckers and then the main tree canopy,

but a portion of the population remains in the upper tree parts year-round. Aerial populations are also becoming numerous in the outer portion of the tree

Spider Mites

Watch out for stippling of leaves caused by Spider mites.



Degree Day post biofix (7/9/09)

<u>Sta. Elevation</u>	<u>CM/PTB</u>	<u>50% Hatch</u>
Payette(2150)	1113	July 25
Emmett(2390)	1106	July 25
Caldwell(2431)	1123	July 25
Parma(2290)	1178	July 23
Ontario(2188)	1214	July 22
WallaWalla(1375)	1096	July 25

Look out for:

- Watch apple fruit clusters for signs of fire blight infections.
- Watch for "cottony" colonies of woolly apple aphid and signs of stippling of leafhoppers and spider mites.

Control of apple and pear pests with Surround Jay Bruner

Surround WP reduced **codling moth** injury by approximately 50% in field trials. Concerns regarding the effect of Surround on integrated mite control still exist. Neonate codling moth larvae were deterred from entering the fruit by Surround WP residues in a laboratory bioassay, and in whole-fruit treatments the number of entries in Surround WP treated fruit were about 60% of the untreated fruit.

-In leaf disk bioassays Surround WP deterred colonization in choice tests. Only 9% of **pandemis leafroller** larvae chose the Surround WP treated disk over the untreated disk. In leaf disk bioassays with neonate **lacanobia fruitworm** larvae only 6% chose the Surround WP treated disk. Mortality was high for both species in Surround WP only arenas.

- Residual activity of Surround WP was evaluated in a field-aged bioassay. Surround WP showed 7 days of activity against **pandemis leafroller**. Against **lacanobia fruitworm**, Surround WP residues caused significant mortality through 14 days.

- Field trials with Surround WP against **lacanobia fruitworm** showed it to reduce foliage feeding and protect fruit when applied prior to egg hatch.

- Surround applied prior to oviposition of the **western tentiform leafminer** can reduce mines by 50%. However, there was a strong effect of Surround applications on **Pnigalio flavipes**, the key biological control agent of leafminer. It may be possible to avoid application activity periods of **Pnigalio**

flavipes thus reducing the negative aspects of Surround on this beneficial insect.

- Surround has no apparent effect on **campyloomma** nymphs or the prevention of damage by this pest on apple. This could be good news for pear where **campyloomma** is considered a valuable early season predator of pear psylla.

- Surround effects on **spider mites** were variable, having no effect in one test and reducing densities in another. Surround treatments also reduced predatory mite densities in field tests. There is evidence and concern that certain uses of Surround in apple orchards will stimulate spider mite populations through the suppression of **predatory mites**.

- Surround is a highly effective control for **white apple leafhopper**. One or, in the second generation, two applications provide a high level of suppression of this pest.

- Surround effects on **stink bugs** were variable, but in general it appears not to deter fruit injury in late summer from adults immigrating to orchards from native habitats.

· Surround WP was effective in control of **pear psylla** when used season-long, as well as prebloom or postbloom only in combination with conventional controls.

· Surround WP was potentially shown to act as a dispersal deterrent to adult overwintering **pear psylla**.

Recommendations in EB-0419 – One output of this research is the recommendations for pest control published in the Crop Protection Guide for Tree Fruits in Washington. Recommendations exist for codling moth, leafhoppers, **lacanobia fruitworm** and pear psylla.

Sunburn Protection Tony McCammon

Surround and RAYNOX have been tested extensively over the past five years and have shown to effectively protect apples from sunburn damage. They were similar in efficacy for sunburn protection. Both protectants reduced sunburn about 50% on average. **RAYNOX, however,** does not interfere with color development. Fruit previously sunburned recovers better (i.e., color over) when treated with RAYNOX. RAYNOX leaves no unattractive residue on fruit, in the calyx or in the stem bowl. RAYNOX blocks sub-

stantial UV-B radiation, a cause of sunburn browning in apples. RAYNOX also reflects ultraviolet and infrared radiation that is normally converted to heat when absorbed by apples.

Talking with Essie yesterday, he wanted me to stress these products as a essential tool in your management programs. When temperatures are going to reach into the 95 degree range these chemicals should be applied to protect your fruit. With the many benefits that Surround has it would be a wonder that you would not be using it.

Coryneum Blight

Marion Murray

Another disease that we are seeing earlier and heavier than ever is coryneum blight (shot hole) on peach, nectarine, and apricot.



Brand new infections on fruit may appear as a water-soaked lesions with a bit of ooze (see right). Soon after, lesions turn purple, and fruits may be infected multiple times. Early infections on the fruit will result in scabby, deformed fruit at harvest. Late infections leave sunken, grayish lesions.



Coryneum blight can be difficult to eradicate because it overwinters in buds, and the fungus can survive in infected twigs for up to three years. A grower must be dedicated to eradication, and combine annual pruning of diseased twigs with a regular spray program. Fall is the optimal timing for treatment with copper, at 50% leaf drop.

Growers that see disease developing on the fruit should apply 1

to 2 captan or ziram sprays at 10 - 14 day intervals. The weather is predicted to be warm and dry, so infections should slow down. But when rains are expected, plan to apply a preventative spray up to harvest.

Earwigs

Earwigs can be seen feeding on peach fruit.

Usually damage on peach, nectarine, and apricot is seen later in the season, when fruit is riper, but wet conditions favor earwigs, so their activity was increasing. They often will enter fruit through the stem end, but they can also create pits or gouges that extend deep into the fruit. Please note that earwigs are also predators, so if damage is low, you may want to consider letting them be.



Control can be troublesome. Sprays such as Sevin applied to the trunk provide protection for less than one day. Trapping or prevention may be the next best option. The following information is provided by Diane Alston, Extension Entomologist:

I recommend using Tangletrap (a sticky adhesive) applied to a duct tape band placed around the tree trunk (4-5" high to avoid contact with ground cover vegetation). Place the sticky band now before the earwigs begin to crawl into the tree, and reapply the Tangletrap as needed to keep a sticky surface. Tangletrap comes in tubes, tubs and aerosol cans, and should be available in most garden center stores or online.

Alternatively, you can use attractive traps for earwigs. I've had success with tuna cans with a 1/4 - 1/2" layer of bacon grease or tuna juice plus vegetable oil in the bottom. Place the trap cans at the base of trees and remove the trapped earwigs and refill with bait as needed. Warning: the tuna can traps are attractive to cats, dogs, and other furry animals.

PayetteCounty

Peach Twig Borer Chemical Efficacy Doug Walsh WSU

Properly timed insecticide applications can control peach twig borer in stone fruit orchards. There does not appear to be any significant resistance of peach twig borer to registered insecticides. Several candidate insecticides were very effective at controlling peach twig borer. These include acetimidiprid and DE-175. Ace-

timiprid should be registered for use on stone fruits by this coming spring. It is a neonicotynyl insecticide that also provides good control of aphids that can infest stone fruits. DE-175 is Dow Agrosiences more potent spinosyn compound. It will provide more effective control of PTB than Spinosad for conventional stone fruit growers. Spinosad in the Entrust formulation will still be the standard for organic growers.

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