

# Tree Fruit Pest Advisory

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

Spring 2011 Issue 5



## White Apple Leafhopper

Look for nymph activity on and under the leaves. Parasitic wasps usually control leafhopper populations sufficiently. However if more than 3 leafhoppers are seen on one leaf measures should be considered.

## Codling Moth

Weather has created a sporadic moth emergence this season. Adults mainly fly and mate at night when temperatures are above 50 and during clear weather (not raining). Therefore, weather has been our best mating disruption. Eggs within females are only viable for about 3-4 days, so if they cannot mate with males, eggs do not get laid.

The critical window where 70 to 80 percent of hatch occurs is listed below. Make sure chemical coverage is overlapped during this period.

## Green Peach Aphid

Look for aphids on peach and nectarines. Dormant and spring treatments usually keep populations manageable. However, significant losses can be sustained on nectarines even with low aphid populations, as the aphids feed directly on the fruit.

**Peach Leaf Curl** has been seen in some places this spring due to the weather. This fungus affects peaches and nectarine leaves by puckering and distorting leaf area. First turning pink and multiple colors of red pink brown and green. It's very pretty. If you have the problem this year remember at leaf fall (September) to apply a fixed copper.

**San Jose Scale (SJS)** crawlers have emerged. Most effective treatments begin around June 27th. Esteem has shown to work the best, and for homeowners, horticultural oil or carbaryl. Homeowners, two application should be enough. Apply a cover spray at 600 DD, sometimes with the second cover spray of CM.

**Fire Blight** infections will be manifested as wilted shoots now in your trees. If you are noticing "flagging" on the tips of your apple and pear trees. Prune these out about the same distance into healthy wood as the length of the shoot that is damaged.

## Protect Yourself

### Degree Day "No biofix" (6/12/11)

Station/Elev.	CM/PTB	Critical	WCFF
Boise(2716)	435	Jun17-Jul5	15-Jun
Caldwell(2418)	428	Jun18-Jul6	12-Jun
Emmett(2390)	404	Jun20-Jul8	21-Jun
Mt. Home(3002)	407	Jun20-Jul8	22-Jun
Nampa(2635)	382	Jun20-Jul8	17-Jun
Ontario OR(2188)	441	Jun17-Jul5	17-Jun
Parma(2290)	433	Jun17-Jul5	17-Jun
Paye/Weis(2126)	372	Jun20-Jul8	22-Jun
Walla Walla(1407)	436	Jun17-Jul5	13-Jun

### Look out for:

- Although Western cherry fruit flies will be mature enough to lay eggs, cherries turning straw yellow are most susceptible to damage and treatments can be delayed until then.
- Coryneum blight is extremely relevant this year. Look for developing lesions and treat if necessary to protect fruit later in the season. (Bonide, Ziram, and Pristine).

## Gummosis

Permission given by:

**Marion Murray**, USU IPM project leader to use this article.

With the warming temperatures comes the flow of sap, especially noticeable in stone fruit trees (cherry, apricot, peach, and plum). The oozing is sometimes generically referred to as gummosis (although back East, "gummosis" refers to a disease caused by a fungal pathogen). The sticky, oozing gum can be clear or amber in color, and by the end of the summer, it will have become almost rock-hard.

Although most people suspect borers when they see oozing, it can actually be caused by a variety of other factors, such as:

### 1. A plant pathogen

a) Cytospora canker, caused by *Leucostoma cincta*, invades and kills bark and cambial tissue through wounds such as pruning



Cytospora canker is amber in color occurring near wounds or pruning cuts.



Oozing gum results from any number of factors.

cuts, sunscald, hail, etc. Gumming from cytospora is dark amber in color, and if you scrape the outer bark, the dead phloem will appear cinnamon brown in color. Cytospora canker is an opportunistic pathogen, meaning that it invades trees through wounds. It can be found almost everywhere, so prevention is the key to management.

Management for cytospora includes:

i. in normal pruning operations, make proper cuts (i.e., do not leave stubs or do not make "flat



By scraping the outer bark you can see dead phloem tissue adjacent to healthy tissue.



Bacterial Canker (on Apricot) is milky in color.

cuts" that remove the branch collar where healing would normally occur) and do not prune in wet weather;

- ii. use white tree wrap or 50/50 latex paint/ water to prevent sunscald injury
- iii. prune affected limbs back to healthy wood and sterilize tools with 10% bleach between cuts;
- iv. remove severely affected trees;
- v. keep trees healthy with optimal watering, mulching, nutrition, etc.

b) Bacterial canker, caused by *Pseudomonas syringae*, is more common on cherry, but has been identified from peach in Utah. Gumming from bacterial canker can also be amber in color, but may appear milky. Exposed phloem will have a slight fermented smell. *Pseudomonas* is also opportunistic, entering the plant tissue through tiny wounds. The bacteria can survive as a non-pathogenic epiphyte on leaf and bark surfaces of peaches, cherries, and many other plants including weeds.

**WashingtonCounty** UNIVERSITY OF IDAHO EXTENSION UPDATE

By University of Idaho Extension, Washington County. [www.pnwpestaalert.net](http://www.pnwpestaalert.net)

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WSU Pest Management Transition Project Newsletter  
WSU Decision Aid System

Infections occur in late fall just prior to winter, and symptoms appear the following spring. Late season rainfall spreads the bacteria from leaf surfaces to buds where the infections take place. Infections are inconspicuous in the fall and winter but become more obvious in the spring, with dead buds that often exhibit signs of gummosis. Flowers and foliage may be infected under rainy conditions, resulting in wilting of shoots and oozing. Once within the branches, the bacteria invades the phloem, causing cankers

Management is the same as for cytospora canker, with the addition of copper sprays in the



Oozing from shothole borers is a response to



Trees under stress often do not have the reserves

fall (2-3 applications beginning at 10% leaf drop to just after full leaf drop) and early spring prior to bud break.

### 2. Greater peachtree borer.

If you see gumming at the base of the tree (no higher than 8-12"), the gumming may be caused by this borer, and is not a canker. Peachtree borers attack the crown of the tree, and healthy trees can withstand attack. Tree can be protected with a properly timed insecticide (more information in future advisories).

### 3. Flatheaded or shothole borers.

These types of beetles will only attack weakened trees or wounds such as where sunscald has occurred. Attacks on healthy trees are usually unsuccessful because the tree will exude enough sap/ooze to flush out the insects. Ooze is often clear in color, and limited to beetle entry holes. Weakened trees that are attacked may actually not ooze as much because

they do not have enough reserves to waste on this response. Management of these pests is difficult, and may include bark sprays of permethrin May through August.

### 4. Wounds

Wounds from frost crack, bark injury, cat scratching, hail, etc. may exude gum in spring. Gummosis not caused by a pathogen will run somewhat clear in color (but will dry to amber).

### 5. Other climatic or physiological problems

Factors such as planting too deep, excessive irrigation, severe pruning from April - August, or over-bearing have all been cited as possible causes of abiotic gummosis.

If you are not sure that a pathogen is causing the gummosis, scrape the outer bark away. If the inner bark is still cream-colored (healthy), the oozing is caused by a non-living factor, and there is nothing you should do. If the wood is tan to brown, it is dead, and was most likely killed by a pathogen.



Clear oozing may be a result of a wound.



By scraping the bark away you can check to see if the phloem, is healthy.

# Washington County

## Fruit Thinning

The objective of thinning is to balance supply with demand (leaves per fruit) and in the case of apples and pears, to prevent or at least reduce biennial bearing. The goal is to have fewer fruit in favor of larger size, sweeter flavor, and a crop every year.

Apple clusters should be thinned to one fruit, and fruiting clusters spaced 6 to 8 inches apart. Peaches, nectarines, and other stone fruits should be spaced out 3 to 5 inches along a shoot.

Chemical thinners: A formulation of Fruitone® L (AMVAC Chemical Corporation) has been released for use in apples and pears. It is liquid instead of powder, making it easier to handle. The recommended rates are 0.5 to 4.0 fluid ounces per 100 gallons. (Use higher rates for more difficult to thin cultivars.) The label also has recommendations for its use to promote return bloom on apple trees. It is also used for preventing premature fruit drop in the fall on apples and pears.

ALWAYS read and follow the instructions printed on the pesticide label. The pesticide recommendations in this UI publication do not substitute for instructions on the label. Pesticide laws and labels change frequently and may have changed since this publication was written. Some pesticides may have been withdrawn or had certain uses prohibited. Use pesticides with care. Do not use a pesticide unless the specific plant, animal, or other application site is specifically listed on the label. Store pesticides in their original containers and keep them out of the reach of children, pets, and livestock.

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