

Tree Fruit Pest Advisory

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

Spring 2010 Issue 2

Protect Yourselves

Codling Moth: Using temperature data from Nampa and Parma weather stations and J.Bruners 2008 no biofix model. Readings indicate that the cool temperatures have stretched out codling moth flight considerably. The "typical" starting spray date is at approximately 1% egg hatch. The first cover should go on at about this time, and the second cover should occur during the period of "greatest egg hatch." At this time period, 50% of all the eggs are hatching, so it is important to make sure the fruit is well protected.

Growers may choose a second option, and that is to apply horticultural oil (1%) as an ovicide before eggs start hatching. By applying the oil, all eggs that have been laid will be killed. This option "delays" the 1% egg hatch timing by about 7-10 days. Oil is less expensive than many of the newer codling moth insecticides, and so this option could result in some savings.

Commercial insecticides:

Intrepid, Esteem, Rimon

Homeowners should use

1% horticulture oil , Neem Oil, or Acetamiprid This active ingredient was released in 2009 and will work well for backyard growers. It has a 14 day residual that effects both moth larvae and eggs. Spectracide and Ortho have acetamiprid products.

Good residue coverage on your fruit is vital during the first generation. Research shows the better the protection and coverage during the first generation the less pressure for subsequent generations.

Fire Blight is at moderate risks of infection. If temperatures increase during this upcoming wet weather you can expect fire blight to be infecting your trees.

White apple leaf hopper: Start monitoring for this pest. They typically

start showing up around petal fall. Growers that have had a problem with this pest in the past should be monitoring now. One or more per leaf causes stippling damage. This in itself will not harm the tree, but the problem is that untreated early generations lead to a nuisance situation for apple pickers at harvest. They are very difficult to control as adults or later in the season.

Using Sevin XLR for fruit thinning will provide sufficient control. For commercial growers, entomologists from Cornell suggest using Provado, Actara, or Assail for leafhopper, as these products also provide control for rosy apple aphid. (recommendations by: Marion Murray USU)

Degree Day no-biofix (5/25/10)

Sta. Elevation	CM/PTB	1% Hatch	WCFF
Payette(2150)	362	May 31	633
Emmett(2390)	306	June 3	557
Caldwell(2431)	309	June 3	636
Parma(2290)	340	June 1	676
Ontario(2188)	329	June 2	670
WallaWalla(1397)	410	May 23	793

Look out for:

- Check codling moth traps daily to monitor pressure and mark the dates of High pressure days. Approximately 10 days after those days make sure you have coverage on the trees.
- Examine apple and cherry leaves for white powdery spores of powdery mildew
- Examine apple, peach, and cherry leaves for new colonies of aphids forming

Potential New Pest Threatens Ripening Fruit in the Treasure Valley

Idaho State Department of Agriculture is looking for volunteer citizen surveyors from among the Treasure Valley cherry, peach and small fruit growers to help with an exotic pest survey. As many of you are aware and new fruit pest called the spotted wing drosophila (*Drosophila suzukii*) (SWD) has recently invaded California and at least 13 counties in Oregon including Umatilla County. These flies can infest and cause a great deal of damage to ripening fruit, as opposed to the overripe and fallen fruit that are infested by most other *Drosophila* species. Oregon officials have confirmed findings of SWD in blueberries, wild blackberries, red raspberries, Marionberries, cherries, strawberries, plums, peaches, and grapes. Although ISDA has no confirmed reports of SWD infestations in the Gem State, it is crucial to find infestations of this pest as

early as possible, when they can still be treated effectively. Adult SWD flies resemble the small fruit or vinegar flies that one might notice buzzing around the kitchen or around rotting fallen fruit outdoors. ISDA is interested in getting vinegar fly samples from fruit growers and vendors importing fruit from western Oregon. There is no plan for regulatory action regarding Idaho infestations of SWD, but rather ISDA just wants to find out if the flies have made their way into our fruit producing areas and help growers implement an integrated pest management program for the pest if found. If any producers are interested in participating in the survey please have them contact ISDA staff entomologist, Ben Simko at 208.332.8620 or e-mail ben.simko@agri.idaho.gov. Attached is a pdf file of a recently published bulletin from Oregon State University on SWD that gives more background on the new invasive species threat.



Fruit Thinning

Fruit trees often set more fruit than they can support, especially if the trees were not properly pruned during the previous season. Excessive fruit compete with each other for energy and remain small. This energy drain can also weaken the tree and make it more susceptible to pests and sunburn damage. Leaving too much fruit on the trees can lead to alternate bearing or limb breakage.

Thinning immature fruit at the appropriate time allows each remaining fruit to develop to its maximum size, with little reduction of tree vigor. Less crowded fruit receive more sunlight which improves color and flavor.

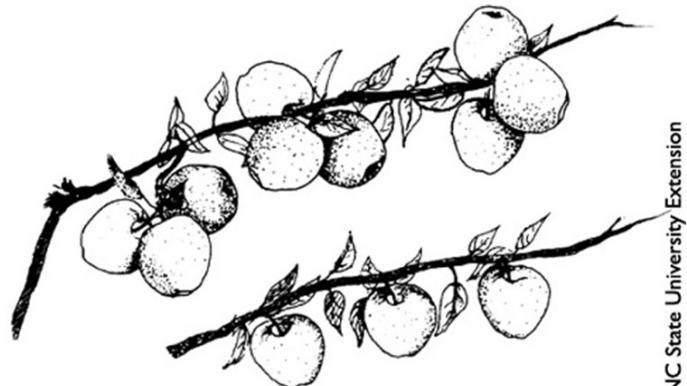
Natural thinning occurs when small immature fruits drop off naturally during what is known as "June drop". Fruits that are diseased or infested with insects may also drop prematurely. In some trees natural thinning is sufficient to produce high-quality fruit such as in cherries, persimmons, and nut trees. Stone and pome fruit require thinning for best production.

Fruit thinning should be done just after the June apple drop, when the fruit is about the size of a cherry or walnut. For most varieties, the apples are removed but the stems stay

attached to the fruit spur. Thinning should be done to allow a closer spacing near the base of the branch and a wider spacing near the tip. This is done to avoid having the branches bend or break from too much weight.

Early thinning or overthinning may increase the incidence of disorders such as bitter pit, but delayed thinning can reduce fruit size and return bloom.

Apples should be thinned when the largest fruits are between $\frac{1}{2}$ and 1 inch in diameter usually 30 to 45 days after full bloom. Here's how to thin the apples:



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WSU Pest Management Transition Project Newsletter

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WSU Decision Aid System

1. Pick off the smallest fruits as well as any that are misshaped or damaged.
2. Remove excess apple clusters so that the tree is left



with clusters spaced 6 to 8 inches apart.

3. Thin each remaining clusters to one fruit each (keep the largest). Leaving one apple per cluster can help reduce codling moth infestations.

Peaches, nectarines, apricots, and plums should be thinned when fruits are $\frac{3}{4}$ to 1 inch in diameter. Thinning too early can increase split pit. Waiting too long wastes the plant's energy and the opportunity to get the largest, sweetest fruit possible. Here's how to thin these species:

1. Space fruit out 2 to 4 inches along a shoot for plums and apricots and 3 to 5 for peaches and nectarines.
2. If the trees have not been properly pruned to reduce the amount of fruiting wood, additional thinning may be required to prevent a heavy crop from breaking limbs.
3. To achieve the large sweet peaches that we all enjoy, a moderate-sized peach tree should only produce 100 to 150 fruits on the entire tree.

Considering transition to organic? Think on this.....

Organic systems generally rely on natural processes and products and avoid synthetic inputs. In fruit production, pest management in organic and conventional orchards is becoming more similar, with the advent of pheromone mating disruption, more emphasis on biological control, and the availability of new natural products such as spinosid and granulosis virus. However, organic growers do not currently have herbicide tools and must rely on organic amendments for soil fertility, leading to higher production costs for these aspects. Fruit thinning in apples, once a very high additional cost for organic producers, can now be accomplished with approved materials that have been found to be among the most effective thinning materials for conventional growers as well. Rodent control can be another challenge for organic systems, and limits the use of innovative ground covers for weed control and nitrogen inputs.

In Washington, organic apple orchards generally yield the same as conventional orchards, and packouts are often higher. Organic fruit earns that vary from year to year, but they can lead to greater profitability. In 2007, about 5% of the state's apple acreage was certified organic, and this is expected to grow to 10% by 2009.

3 top concerns: fruit thinning, weed control, fertility

Some tips:

1. Start small. Pick a quality orchard block in production. Do not choose a problem location or one that has a history of pest problems. Use the 3-year transition as a learning process on a limited number of acres and limit your risk. Your costs will be higher for several years (including potentially costly

mistakes), and you will get no price premium for the fruit until the third or fourth year.

2. Check out the market. Organic apples have gone through some ups and downs. Check with your fruit packer or marketer to see if they handle organic, and what their outlook is. Your success may depend on the variety you pick. Check with other packers and marketers as well.
3. Think about your tolerance of paperwork and rules. Organic certification is a very rigorous, detail-oriented process. You must keep excellent records. You must follow changes in the rules and materials list. You will have an annual application and inspection (for a fee!). If you have already gone through a food safety audit or similar program, you will have a feeling for what the certification process is like.
4. Think about your tolerance of pests. Organic systems rely more on biological control. Natural enemies often lag behind the pest and take a while to build up to where they control the pest. If you can't stand seeing the sight of aphids on lush shoots, organic may not be for you.

Frequently Asked Questions

Organic Compliance Manual [FAQs](#)

USDA has a comprehensive list of questions asked over the past 6 years in the [NOP-AQSS system](#).

What is organic farming?

In the U.S., organic farming (and processing) is a legally defined procedure for agricultural products that generally relies on natural processes and products and avoids the use of synthetic products.

How long does it take to become organic?

The key timeclock for organic certification is the 36 months of

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no use of prohibited materials (e.g. synthetic fertilizers and pesticides) prior to the harvest of an agricultural product to be represented as organic in the marketplace. Anyone can use organic farming methods, but to make market claims and be certified, you then must comply with the rules in the National Organic Program. Growers describe a biological transition that often occurs when shifting to organic production that can take up to 5 to 7 years in the soil.

Who has to be certified?

Anyone producing or processing an agricultural product with a U.S. market claim of 'organic' must be certified by a USDA accredited organization. Rules vary for products grown here and shipped to other countries. There are exemptions and exceptions for certification.

How is organic farming different than other farming?

It is governed by an extensive set of rules (NOP) that generally allow natural processes (e.g. biocontrol) and products (e.g. B.t.) and disallow synthetic products (e.g. ammonium nitrate fertilizer). The number of production and processing tools and materials is much smaller for organic producers than other producers. Organic producers cannot use genetically modified organisms, sewage sludge or municipal biosolids, or irradiation.

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.

Trade Names--To simplify information, trade names have been used. No endorsement of named products is intended nor is criticism implied of similar products not mentioned.

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