

Fruit Pest Advisory

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

Spring 2015 Issue 2

Protect Yourself

Fire Blight Blossoms are still open and vulnerable forecasts call for Warm, Windy, and Wet. Perfect days for Fire blight infection. WSU's Cougarblight model uses these following indicators to measure risk of infection in an orchard.

Low: low risk of infection, only treat areas adjacent to active cankers if a wetting event occurs

Caution: Wetting at this point is not likely to lead to infection, except within a few yards of an actively oozing canker.

High: If unprotected flowers are wetted, infection is possible. You may choose to apply antibiotic within 24 hours before or after the infection (wetting) event.

Extreme: Outbreak may occur if blossoms are wetted, no matter the blight history of your orchard. Apply antibiotic

within 24 hours before or after the wetting event.

Trees that had infections last year are more prone to infection this year and should increase risk levels accordingly. Remember a wet event must take place for the blight to occur. Even a dew that last more than two hours during 65 to 70 degree weather can cause an outbreak. Trees are susceptible in the spring when they have open blossoms. But trees with damage caused by hail are susceptible anytime. Therefore have antibiotics on hand to prevent infection. Products include: Copper, bactericides, and biological products are effective in their control. Bordeaux, Kocide, Streptomycin (Agri-Mycin), BlightBan, and Serenade (*Bacillus*) should be used if temperatures and weather are suggesting a possible infection. Remember : Prevention is Everything!

Degree Day "No biofix" (4/23/15) Codling Moth

Station (Elev.)	°Days	1% Hatch
Southwest		
Parma (2309)	286	6-May
Boise (2719)	315	4-May
Nampa (2713)	242	12-May
Fruitland (2360)	264	9-May
Southern		
Mt. Home (2992)	263	10-May
Hagerman (3197)	258	12-May
Twin Falls (3921)	222	21-May
Rupert (4154)	184	27-May
Magic Res. (4315)	162	1-June
Eastern		
Pocatello (4605)	243	19-May
Idaho Falls (4709)	175	27-May
Rexburg (4870)	126	8-Jun

Look out for:

- Aphids had little winterkill and are infesting new foliage and on the underside of leaves on your apples and cherries.
- Powdery mildew lesions on apple, cherry, and peach leaves have already been seen this year.
- Look at apricot and peach leaves for purple spots. Coryneum blight infection now means a spray at petal fall and shuck split.
- Peach Leaf Curl is likely due to the cool wet weather. If you had problems last year protect new growth with a fungicide.

Thinning your Fruit

Tony McCammon

After freezing temperatures in early April you may not need to thin very much. In the Magic Valley some orchardists are reporting as much as 90% kill on cherries and peach blooms. However apples and pears are better off.

Fruit trees often set more fruit than they can support or develop properly. This is increasingly a problem on trees that have not been properly pruned. Excessive fruit compete with each other for the limited stored energy in the plant. This keeps most of the fruit a smaller, unmarketable size. This depletion process in one season can create devastating 'June drop' the following season and begin an alternating bearing cycle. Thinning fruit each year in the spring and proper pruning each winter helps prevent these problems from developing.

Thinning fruit when it is young allows each remaining fruit to develop to its maximum size, without reducing the trees vigor. Less crowded fruit receives more sunlight, so fruit color and flavor may be enhanced.

Fruit should be thinned when they are relatively small. Typically stone fruit are thinned when they are $\frac{3}{4}$ to 1 inch in diameter. Apples and pears are



Photo by Ohio State University

thinned at $\frac{1}{2}$ to 1 inch or within 30 days after full bloom. Thinning too early can result in split pits in stone fruit. Whereas, thinning late will reduce the chances that fruit size will increase.

Small fruiting varieties of apricots and plums can be thinned to 2 to 4 inches apart on a branch. Larger fruit like peaches should be pruned to 3 to 6 inches apart. If the load is light due to the natural thinning of the frosts, less thinning is required because the total number of fruit is low.

Apples and Pears produce clusters of fruit from the flower clusters. These clusters should be thinned to not more than one to two fruit per cluster, depending on the total fruit set and growing conditions. Retain the largest fruit normally developing from the King bloom or first bloom to open. If the crop is heavy, fruit should be spaced no less than 6-8 inches apart.

Hand-thinning involves removing enough fruit to leave the remaining fruit with sufficient space so they do not touch at maturity. On short spurs, this may mean leaving only two or three fruit per spur. Smaller branches should be thinned more heavily to reduce the chance of breakage.



Photo by University of Arizona



Photo by www.adama.com

Chemical-thinning is effective for large commercial operations or when hand thinning is not feasible. Usually homeowners are not happy with chemical-thinning because results are variable and a slight overdose can result in complete fruit removal and leaf drop. An inadequate dose wastes time, money, and the opportunity to maximize fruit growth.

Ethephon, 6BA(cytokinin), Amid-Thin W(NAD or NAAm), NAA (naphthaleneacetic acid), and Cararyl (Sevin) are chemical thinning products. Read and Follow label instructions carefully.

Hand thinning will take time and effort, but the improved fruit quality and consistent cropping

will be worth the effort. Here are some factors to tips to consider:

- Use chemical thinners only in blocks where bloom density and pollination were adequate to set an excessive crop.
- Sunny weather: harder to thin. Heavy clouds for 2 to 3 days: easy to thin.
- Cool weather (below 65°F): less thinning. Hot weather (above 80°F): more thinning.
- “2X4” —The temperatures and sunlight on the 2 days before, and the 4 days following thinner spray are the most critical.
- 6BA (MaxCel, Excelis Plus) is not very effective when the temperature is below 68°F.
- Carbamates (Sevin and Vydate) are still somewhat effective in suboptimal temperatures.
- All thinners work best when temperatures are in the 70s, and all chemistries have the potential to overthin when temperatures are in the mid- to high 80s. There is no “safe” thinner at high temperatures.
- Adding carbaryl in a tank mix with NAA or 6BA increases thinning response. Adding oil at 1 quart per 100 gallons of finished spray mix boosts efficacy of all thinners.
- Varieties once considered chemically hard to thin (Golden Delicious, Gala, Fuji) may not be hard to thin with a 6BA/ carbaryl tank mix.
- For most effective thinning, no less than 100 gallons of water per acre should be used for adequate coverage, and sufficient wetting time must be allowed to permit foliage to absorb the thinner.
- Use extra caution if freezing temperatures occurred during bloom. Delay thinning until you are certain that fruits are growing. Consider reduced rates of chemical thinner in this circumstance.
- Trees less than 5 years old are more apt to be overthinned.
- In some instances, it may be desirable to remove all fruit from the trees. In such cases, a mixture of 15 ppm NAA, 2 pints of Sevin XLR, and 1 pint of spray oil per 100 gallons of water applied at petal fall is effective

TwinFallsCounty

INTERMOUNTAIN Commercial Tree Fruit Production Guide

2015

A publication by Utah State University, Colorado State University, and University of Idaho



EXTENSION 
UtahStateUniversity

University of Idaho
Extension
Colorado State University
Extension

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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Attention Growers:

The 2015 edition of the Intermountain Commercial Tree Fruit Production Guide is now available for download or to purchase.

Updates for the 2015 edition include:

- all new pesticide rates and comments
- several new pesticide registrations
- residual length added (this information can be found after the pesticide name in the spray tables)
- more information on invasive pests
- updated disease biology section
- additional organic information on weeds, soil amendments, and pest management

You may download a free pdf here:

intermountainfruit.org/

Or, you may purchase a bound copy for \$5 (to cover shipping). The books will be available on the **USU Extension Shopping Site**. Once there, click on "Agriculture and Natural Resources" category and scroll down.