FRUITS & VEGETABLES

Backyard Orchard: Stone Fruits no. 2.804

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Quick Facts...

Peach twig borer can cause severe twig dieback and damage to fruit.

Treat trees in July and August to control peach tree borer (crown borer).

The best control for peach twig borer is a dormant or delayed dormant spray shortly before bloom.

Cytospora canker is a fungus problem that results in amber to brown gum on trunk or branches.

Insect control on fruit trees should begin with prebloom sprays (dormant or delayed dormant) for scale insects, aphids and mites. Applications of a dormant Superior or Supreme type horticultural oil in combination with Diazinon or Thiodan will control these insects if applied during late winter or early spring, before buds open. Do not apply dormant oil if a heavy freeze is expected; damage to the tree could occur. Oil sprays must have ample time to dry before freezing weather. This usually takes at least 10 to 12 hours.

Oil sprays speed up spring bud development and reduce flower bud ability to withstand cold temperatures. It is therefore best to delay dormant oil sprays until the buds are starting to break. Base the amount of spray on the size of the tree (except when mentioned otherwise).

Tree Diameter x Height	Amount of Prepared Spray
20 x 20	4 gallons
15 x 15	3 gallons
10 x 10	2 gallons
5 x 5	1 gallon

A poorly pruned tree with dense foliage may need up to double these amounts to achieve good coverage of the tree interior.

Peaches, Nectarines, Apricots, Cherries and Plums

The best control for peach twig borer on peaches, nectarines, apricots and plums is a dormant or delayed dormant spray (shortly before bloom). Avoid summer applications of insecticides unless peach twig borer is a problem. First generation peach twig borer control is most effective if sprays are applied the last of May or the first of June, when the pits of peaches are beginning to harden. Apply a second application in mid-July for the second generation.

Protect stone fruit trees from peach tree borer (crown borer) with two spray applications, one during early July and the other during early August. Direct these sprays at the base of the tree near the soil line. Check stone fruit trees for peach tree borer as soon as the soil thaws in the spring if the July and August treatments were not made the preceding year (see discussion under August 1-10). Treat with PDB if peach tree borer damage is noted. As in apples and pears, avoid Sevin (carbaryl) on stone fruit trees.

Dates indicated are approximate. They vary with elevation, exposure and variety. Stage of bud development (i.e., pink stage) is a more dependable way to schedule needed sprays.

Late March: Delayed Dormant

Mites, aphids, twig borer, Cytospora canker.

What: Prune trees, then apply dormant oil plus diazinon to control twig borer, aphids and mites. On peaches and nectarines, add Benlate as a preventive control for *Cytospora* canker (gummosis).

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Cytospora canker is a fungus problem that results in an amber to brown-colored gum on trunk or branches. Do not confuse it with peach tree borer, an insect that leaves a clear to black ooze containing wood or sawdust chips at or below ground level.

To control *Cytospora* canker during tree dormancy, prepare a fungicide paint by mixing 2 tablespoons of Benlate (benomyl) 50WP in 16 fluid ounces of shellac thinner (diluted one part methyl alcohol thinner to one part water) with a small amount of white interior latex paint to show where treatments have been applied. Diluted white latex paint (33 to 50 percent water) or horticultural spray oil also can be used as a carrier liquid. Reduce the concentration of Benlate to 1/2 to 1 tablespoon Benlate 50WP per gallon of carrier liquid if this *Cytospora* canker treatment is made while the trees are in leaf. The use of diluted white latex paint on the trunk base up to the lower branches helps reduce sun scald ("South West Injury"), a winter-induced condition responsible for winter trunk and branch injury. Sun scald increases the severity of *Cytospora* canker.

How: Use 5 to 6 tablespoons Superior or Supreme dormant oil plus 1 tablespoon Diazinon 50 percent wettable powder (WP), or 2 teaspoons 25 percent Diazinon liquid in sufficient water to make 1 gallon of spray. For *Cytospora* control, add 1 to 2 teaspoons of Benlate 50WP (benomyl) in a pint (16 fluid ounces) of diluted shellac thinner (1 part thinner and 1 part water). Paint or spray directly onto *Cytospora* infections.

This fact sheet contains up-to-date information for homeowner control of insect and disease problems on tree fruits. Insect and disease controls have been combined in an easy-to-follow format. Recommended chemicals usually are readily available to homeowners. In some cases, the concentration of the product listed and what is available locally may differ.

Always read the label directions. Labels often are updated yearly or more often. If there is a conflict between recommendations in this fact sheet and the product label, ***always follow the product label****.*

Restricted use chemicals — for use by certified applicators only — are not included.

Early April: Pink Stage

Aphids, mites, twig borer.

What: Pink stage is when the flower buds start to show pink, before the tree blooms. If you missed the delayed dormant spray, apply a spray to control twig borer, aphids and mites.

How: Spray with 3 tablespoons Superior or Supreme oil plus one of the following: 1 tablespoon Diazinon 50WP, 2 teaspoons 25 percent Diazinon liquid, or 1 tablespoon Thiodan 50WP, per gallon of water.

Mid-April: Petal Fall

Aphids, Cytospora, powdery mildew, Coryneum blight.

What: For aphids, make another application of Diazinon to which a surfactant (i.e., liquid dishwashing soap) has been added. If curled leaves with aphid colonies are present, give close attention to spraying them. Coverage inside the leaf curls is very difficult but necessary for control.

For *Cytospora*, make a second application of Benlate on peaches and nectarines, with or without summer weight oil. See "Late March" for description and application rates.

Apply micronized wettable sulfur or Benlate to control powdery mildew (rusty spot) on peach fruit if this has been a problem in the past.

The term "rusty spot" is used because dark-reddish or rusty-brown spots are present on the fruit as it begins to mature. It affects only the immature peach and nectarine fruit until the pits have hardened, in late June or early July. This problem is particularly severe when high humidity and showers occur during spring and early summer. This disease apparently is associated with apple powdery mildew. Its incidence invariably is highest in peach plantings within 1/4 mile of highly mildew-susceptible apple varieties.

Coryneum blight appears on young peach, nectarine and apricot leaves and twigs (occasionally on sweet cherries) as small red spots that enlarge and become purple with a whitish-tan center. These spots eventually drop out of the leaf blade, hence the name "shothole disease."

Spots may first appear on fruit 10 to 12 weeks prior to harvest and can continue to appear through pit hardening (late June). Infections that occur on

fruit two to three weeks before harvest can develop rapidly to produce sunken rot spots up to 1/2 inch in diameter and depth. This fungus disease is most severe in years when frequent showers occur in late spring and summer. Treat with Ziram, Captan or fixed copper at petal fall and just before any wet weather periods through June.

Sweet cherry leaves are similarly affected with a fungus called *Coccomyces*. This causes numerous small purple spots on the upper leaf surface. Tissue in the center of the spot dies and sometimes falls out, leaving a shothole appearance. This problem is more common in areas where moist conditions are prevalent.

How: For aphid control use 1 tablespoon Diazinon 50 percent wettable powder (WP) or 2 teaspoons 25 percent Diazinon liquid in sufficient water to make 1 gallon of spray. Add three drops of a liquid dishwashing detergent to each gallon of mixed spray.

For *Cytospora* control, use 1 tablespoon of Benlate 50WP (benomyl) with each gallon of water. Rusty spot sprays include Benlate 50WP at 1/2 tablespoon, or micronized wettable sulfur at 3 tablespoons per gallon of water. Apply rusty spot sprays at seven to 10-day intervals beginning with petal fall and continuing through pit hardening in June or July.

For *Coryneum* blight control, spray trees with 4 teaspoons of Captan 50WP or 5 teaspoons of Ziram (76 percent wettable powder) per gallon of water. Use fixed copper in accordance with label directions.

Do not use sulfur during hot weather or on apricots.

June 10

Twig borer.

What: Apply an insecticide to help prevent twig borer damage to apricot, plum, nectarine and peach fruit. Young larvae feed on terminals and the stem end of fruit. This is the common “worm” that causes damage to fruit.

How: Use 1 tablespoon Diazinon 50WP, 2 teaspoons 25 percent liquid Diazinon, or 1 tablespoon Thiodan 50WP in each gallon of water.

July 1-10

Peach tree borer (crown borer), twig borer, pear or cherry slug, Cytospora canker.

What: Apply an insecticide to control peach tree borer. This insect bores into the lower trunk of peach, apricot, cherry, nectarine and plum trees. Its feeding injury can kill the tree if it chews its way completely around the trunk.

Applying these materials at the time recommended may not comply with the recommended preharvest interval (PHI) prior to harvest of the crop. If this is the case, apply the treatments early to allow for the proper number of days.

For example, if Thiodan 3 E.C. is used on peaches (21-day PHI), you may need to make the August application earlier to allow the proper PHI. Thirty days later, make a third application (instead of the recommended two) in order to provide adequate protection from the peach tree borer.

Diazinon also is used to treat this insect pest. Apply Diazinon sprays every 14 days to provide adequate protection. Diazinon has a 10-day PHI on apricots, cherries, plums, prunes and nectarines, and a 20-day PHI on peaches. Comply with the PHI to help prevent pesticide residue problems.

Apply an insecticide to help control twig borer (see June). This treatment also helps control pear and cherry slug. This is the larval stage of a species of sawfly. The larvae is dark and shiny and resembles a slug. This insect feeds on leaves and damages them by stripping the green tissue leaving only the veins.

Scrape *Cytospora* cankers down to the wood to remove diseased tissue and then treat with a Benlate (benomyl) paint. Round the treated areas at the top

References

For additional information, see the following fact sheets:

2.800 Backyard Orchard: Apples and Pears.
2.914 Coryneum Blight.
5.507 Spider Mites.
5.520 Stone Fruit Insects.
5.560 Pear Slugs.
5.566 Peach Tree Borer.
5.569 Insect Control: Horticultural Oils.

All can be obtained from your Colorado State University Cooperative Extension county office or The Other Bookstore (Cooperative Extension Resource Center) at (970) 491-6198.

Table 1: Preharvest intervals.

Thiodan 3 E.C., Endocide 3 E.C.	
Peach, apricots, nectarines	21 days
Plums, prunes	7 days
Lindane	60 days
Diazinon	
Peaches	20 days
Apricots, nectarines, cherries, prunes, plums	10 days
Thiodan	
Peaches, apricots, nectarines	30 days
Prunes and plums	7 days

and bottom for more rapid healing. Round or nearly round treated areas heal best. This protective paint can also treat large pruning wounds or mechanical injury.

How: For peach tree borer control use one of the following with sufficient water to make 1 gallon of mix: 1 tablespoon Thiodan 3 E.C. (Endocide 3 E.C.), 1-1/2 tablespoons Thiodan 50WP, or 1 tablespoon lindane 20 percent liquid. Apply only to the trunk and soil around the base of the tree. **Do not** contaminate the fruit. Use approximately 1/2 gallon of material per tree. Observe the necessary PHI.

For twig borer control, spray fruit and foliage. Use one of the materials recommended for the June twig borer spray. Observe the necessary preharvest waiting period before picking the fruit.

For *Cytospora* canker control, see the treatments given under late March. Be sure to reduce the Benlate rate to 1/2 to 1 tablespoon Benlate 50WP per gallon of carrier liquid.

Harvest Period

Coryneum blight.

What: If *Coryneum* blight spots are present and showers occur just before harvest, spray with Captan. Note the required four-day re-entry period between Captan applications and re-entering the orchard.

How: For *Coryneum* blight, spray with Captan 50WP at the rate of 4 teaspoons per gallon of water.

August 1-10

Peach tree borer.

What: Second treatment for peach tree borer (crown borer).

How: See July 1-10 application.

If July and August treatments were missed or inadequate, masses of clear to black gum may exude from around the base of the tree. This ooze contains minute sawdust-like bark chips. The damage usually occurs from 6 inches above to 2 to 6 inches below the soil surface. Check for borer larvae if this occurs. These white worms with brown heads feed on living tissue as they tunnel beneath the bark. If larvae are noted, apply paradichlorobenzene (PDB) to fumigate the root system. You can use PDB in the spring but early fall treatments are preferred. Apply the crystals in a ring completely encircling the trunk, not closer to the bark than 1 inch nor farther away than 3 inches. Cover the crystals with several shovelsful of soil to confine the PDB gas. Do not apply the treatment when soil temperature is below 60 degrees F. In many areas of the state where stone fruit can be successfully grown, soil temperatures usually are above 60 degrees until October, depending on weather. Follow label directions for the amount of material to use per tree.

A treatment for peach tree borers in July and August as indicated previously should prevent root damage and eliminate need for PDB treatment.

Fall Treatment

Coryneum blight.

What: If *Coryneum* blight was severe, spray after leaves drop.

How: Use Bordeaux mixture or copper fungicides. Bordeaux mixture is available from some nurseries and garden shops. Follow the directions when diluting with water. Apply fixed copper (53 percent) at the rate of 2 to 3 teaspoons per gallon of water.

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