



# Rockin E Gardening Handouts

*Tips and Suggestions for 'Year-Round' Gardening*

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## Coryneum Blight - Shothole Fungus

Coryneum Blight, or Shothole Fungus, is a disease that infects trees whose fruit have a 'pit', rather than trees whose fruit have a seed. Peach, Nectarine, Apricot, Plum, Almond and Cherry trees are all susceptible to this disease. Flowering Cherry and Flowering Plum trees are also susceptible to Coryneum Blight. This disease can also affect laurel shrubs.



Apples, Pears, Crabapples, Flowering Pear and most nut trees do not get this disease; however they have their own problems that you many need to be aware of.

Coryneum Blight is known as Shothole Fungus because the leaves of trees that are infected with this disease have lots of small '**BB**' like or '**Shot**' holes. The leaves look like they have been shot with a shotgun or a BB gun. Since little can be done to control shot hole fungus once the trees have been infected, proper diagnosis and prevention is essential in treating shot hole disease.

Coryneum Blight affects leaves, fruits, buds, blossoms, small branches and twigs. This disease does not kill trees quickly. Trees may live five to ten years while infected with this disease. However, if this disease is not controlled, the quality of the fruit will drop, the quantity of fruit will decrease, new branch growth will diminish, and the trees will eventually die.



Shot hole disease thrives in wet conditions. Coryneum Blight is most active during periods of warm, wet weather, both in the spring and in the fall. Trees planted in lawn areas are very susceptible because of the frequent lawn watering schedule during the warm spring and fall weather.

Coryneum blight may spread rapidly within an individual tree, however movement from tree to tree may be somewhat slower, depending on weather conditions.

### Symptoms

#### Leaves

Coryneum Blight on leaves starts with small tan spots on the leaf surface. The spots turn brown and have purple borders. Later in the summer, the brown spots drop out of the leaves leaving the small 'BB' holes in the leaves.



#### Fruit

Coryneum Blight on fruit starts with small, reddish-brown spots. The spots become hard and corky. The spots often grow together, making large areas of unsightly fruit. The spots have tough, leathery patches of flesh underneath them. The fruit, though spotted and tough, can still be used and eaten after removing the unsightly portions.



#### Twigs and Stems

Coryneum Blight on twigs and stems can cause the most damage to your trees. The infection starts with



Photo by: UtahPests-USU/Ext-Coryneum-Bud.jpg

cankers on small branches, twigs and buds. These cankers can be purple or brown. They usually cause sunken areas on the branches and twigs. Sap often oozes from the cankers, which forms a gumming effect on the limbs. These cankers grow larger and can completely girdle the branch, twig, or bud. These cankers eventually kill all the infected parts of the tree. As the disease progresses, more and more of the branches die until the entire tree finally dies.

Unfortunately, most homeowners mistake this gumming to be the result of a peach borer. The treatment for peach tree borer and peach twig borer is completely different than the treatment for coryneum blight, so many trees become severely infected before the proper treatment actually begins.



### Spread of Disease

Coryneum Blight spores spread from one tree to another, or from one part of a tree to another, by splashing water from rain and from sprinklers. The spores can also be carried to other locations (within the water droplets) by wind, birds, insects, and by pruning tools. These spores can spread both in the fall and in the spring.

Coryneum blight over-winters as spores in the leaf scars, under the bud scales, in any cracks on the twigs and branches, and in the existing cankers on infected trees.

If you are able to apply a fungicide in the spring to kill the spores as they start to grow, or spray in the fall before the spores have time to prepare for winter, you can kill many of the disease spores and prevent the disease from spreading.

### Control

Once a tree is severely infected with Coryneum Blight, it may take two or three years of diligent pruning and spraying to



completely eliminate this disease. Extra fertilizer may also be needed to stimulate new growth that can replace the dead and diseased parts of the tree. Fertilize your tree early in the spring, before the tree begins to grow.

## Spring Control

Remove and destroy all infected twigs and branches as soon as you see them. You should remove dead and diseased branches any time of the year that you see them, not just in the spring.

Spray your tree with a fungicide just as the buds begin to swell in the spring. Be sure to spray before the blossoms actually open. Spray the tree again as soon as the petals begin to drop.

Once the fruit starts to form, spray your tree every two or three weeks during the wet weather. A tree planted in a lawn may need to be sprayed more often than a tree planted in a garden, if the lawn water is reaching the tree's leaves.

If your tree is not severely infected with coryneum blight, and there are not extended periods of rain, a single application of a fungicide when the fruit is the size of a pea will provide excellent control. Some years, this may be the only time you need to spray your tree.

If a tree is severely infected with coryneum blight, or if there are frequent rain storms (or if water from your sprinkler system reaches the leaves and fruit) during the warm spring weather, you will need to spray your tree every 2 to 3 weeks to protect the fruit. Your spray will also help to prevent it from spreading within the tree. In very severe cases, you may need to apply a fungicide all summer long.

**Be sure to read the label of the fungicide you use. You need to know which fungicide may be used, and how long you should wait after applying that fungicide before you can pick the fruit.**

## Chemicals available to use in the Spring.

**Chemical recommendations are constantly changing, be sure to read the label before using any chemicals, even if you have used them in the past.**

**Bonide Liquid Copper Fungicide** (Copper Soap)

**Monterey Liqui-Cop Spray** (Metallic Copper)

The chemicals, that are listed above, should be applied when the buds just start to swell. Do not apply them after buds open, or when leaves start to appear. These chemicals may damage tender leaves and buds.

**Spectracide Multi-Purpose Fungicide** (eagle fungicide)

**Fertilome F-Stop Fungicide** (eagle fungicide)

**Fertilome Landscape and Garden Fungicide** (daconil)

**Bonide Fungonil Multi-purpose Fungicide** (daconil)

**Bonide Captan Spray** (captan)

**Hiyield Captan 50W Fungicide** (captan)

The chemicals, that are listed above, can be used during the spring and summer, as long as you follow the label recommendations.



## Fall Control

Spray your tree in the fall as soon as 60% to 80% of the leaves drop off. You must spray before the rain or snow can spread the disease spores into the newly formed leaf scars. A leaf scar is the point where the leaf was attached to the tree before it dropped off in the fall. Make sure that you spray your trees before the leaf scars have a chance to callus for the winter. Once the leaf scar is callused, fungicides cannot effectively reach and kill any spores that may already be under the callus.

If any disease spores land in the leaf scars after the leaves fall from the tree and before the tree has a chance to produce a callus over the leaf scar, those spores are likely to survive the winter. Those spores can cause the disease to re-occur the next spring.

Once the leaf scars are callused, and are ready for winter, it is hard to kill any spores that may have already entered into the leaf scars. However, any disease spores that may land in the leaf scars after they callus are less likely to survive the winter weather and cause any problems.

Prevention is the most important control for this disease. Fall is the very best time to prevent this disease. Do not wait too long to spray in the fall. It is better to spray twice, once when 60% of the leaves drop and again when 90% of the leaves drop, than to wait too late to apply your fall fungicide. It doesn't help to spray your tree once the leaf scars are completely hardened off for winter. You will need to wait until the tree starts to break dormancy, in the spring, to treat for Coryneum Blight.

## Chemicals available to use in the Fall

**Chemical recommendations are constantly changing, be sure to read the label before using any chemicals, even if you have used them in the past.**

**Bonide Liquid Copper Fungicide** (Copper Soap)

**Monterey Liqui-Cop Spray** (Metallic Copper)

**Hi Yield Bordeaux Mix** (Copper & Lime Wettable Powder)

The chemicals that are listed above are the best ones to use in the fall. The chemicals listed below are not as effective in the fall, but they can be used during the spring, summer and fall.

**Spectracide Multi-Purpose Fungicide** (eagle)

**Fertilome Landscape and Garden Fungicide** (daconil)

**Bonide Fungonil Multi-purpose Fungicide** (daconil)

**Captan** (wetttable powder)

**Be sure to read all label recommendations and warnings before spraying. Not all brands of fungicides have the same recommendations on their labels. The chemical concentration may also vary from one brand to another.**



## More Resources:

<http://extension.usu.edu/files/publications/factsheet/coryneum-blight08.pdf>

<http://www.ext.colostate.edu/pubs/crops/02914.html>

<https://utahpests.usu.edu/IPM/htm/fruits/fruit-insect-disease/coryneum-blight>

<http://utahpests.usu.edu/IPM/htm/fruits/fruit-insect-disease/coryneum-blight-factsheet/>

