Brown Rot in Plums

Brown rot is a fungal disease that is commonly found in stone fruit (cherries, apricots, peaches, and plums). The tree may have lots of fruit; however, several will be shriveled, brown and mushy. In the U.S., the species that is found most often is *Monilinia fructicola*. This disease can also cause blossom blight and stem canker.

High humidity, rainfall, and heat in spring and early summer promote the development of the disease. Several steps can be taken to respond to and prevent the disease.

Where Does Brown Rot Come From?

Monilinia fructicola was probably present in a tree's twigs and fruit from the previous year. In the spring, the rainfall and wind spread the spores infecting the flowers and causing them to turn black. The dying tissue will have brown and tan spores on them. Once you see this, the likelihood of the fruit being infected is very high. As the fruit grows and ripens, the fungal disease also grows, causing the damage to be most apparent at harvest time.

What Does Brown Rot Look Like?

1Brown rot (Monilinia fructicola), University of New South Wales , University of New South Wales, Bugwood.org

The fruit's surface will have tan and brown circular lesions. As the fungal spores grow, the lesions will get larger and sometimes appear in concentric circles. Eventually, the fruit will completely rot and dry up, sometimes called "mummy fruit". The dead fruit may cling to the branch or fall to the ground.

The fungal disease can spread from the infected fruit to the twigs. The infected twigs will have dark, depressed cankers in an elliptical shape. As the disease progresses, it cuts off the flow of water and nutrients. Brown rot overwinters in the infected twigs, leaves, and fruit that remain on the tree, continuing the disease cycle into the next year.

What Can Be Done Right Now?

Remove and discard infected fruit, both on the tree and the ground. Do not compost the fruit; put it in the trash.
Prune away infected twigs and branches. Again, do not compost them. Sanitize the tool you use to prune between each cut. I know this sounds like a hassle; however, it will help to limit the spread of the disease. Use disinfecting wipes to wipe down the cutting blades between cuts.
Thin out any crossing branches and fruit that touch one another to improve air circulation and limit the spread of the disease from one fruit to another.
Pick up and discard any fruit or branches on the ground.

How Can I Prevent Brown Rot Next Year?

In addition to pruning and discarding infected twigs, branches, and fruit, the application of a fungicide product labeled for Brown Rot will help prevent the disease. As with many diseases, *Monilinia fructicola* outsmarts us by developing resistance to fungicides. To reduce that risk, alternate between the active ingredients in the fungicide you apply using

the Fungicide Resistance Action Committee (FRAC Code) table below (The FRAC Code should appear on the product label). For example, apply a fungicide from the FRAC 1 group this season and the FRAC 3 group next season.

The first application should be just before bloom, when the buds begin to show a little pink.
Apply fungicide again during bloom and just before harvest.
Depending on the degree of infection and weather conditions (humid, hot), apply fungicide again throughout the season.

Always carefully read the product label and follow the application and safety precautions.

Fungicides Labeled for Brown Rot by FRAC Code

FRAC 1
Benomyl
Thiophanate-methyl
FRAC 2
Iprodione
Vinclozolin
FRAC 3
Fenbuconazole
Myclobutanil
Propiconazole
Triforine
FRAC 11
Azoxystrobin
FRAC M01 - M12
Chlorothalonil
Copper Sulfate

To learn more about Brown Rot (*Monilinia fructicola*) click on these web links from Texas A&M AgriLife Extension:

Brown Rot of Stone Fruits. https://agrilifeextension.tamu.edu/library/gardening/brown-rot-of-stone-fruits/

Homeowner's Guide to Pests of Peaches, Plums, and Pecans.
https://agrilifeextension.tamu.edu/library/gardening/homeowners-guide-to-pests-of-peaches-plums-and-pecans/