

Black Knot

On

Prunus virginiana 'Shubert Select' = Canada Red Select Cherry

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<http://ohioline.osu.edu/hyg-fact/3000/3011.html>



Hard, black galls caused by the black rot fungus on plum twigs.

1) Description of the Problem:

When you first looked at the cherry tree, everything looked healthy and normal, except for the fact that it had large (about 6-12 inch long) black swollen mass on some of the lateral branches. It appeared to be mainly on the newer growth, rather than the older growth. It looked as if someone had taken pieces of a black wool blanket and wrapped it on some of the smaller branches located on the tree. Other than seeing the large masses of elongated black, the plant looked healthy. Even the branch with the large mass on it. Beneath the large mass, looked healthy, as well as above. Because of the overall appearance of the plant, I felt that it wasn't very damaging to the plant.....however, when looking online, it says that it can be very detrimental and can stunt or even kill the plant if allowed to continue for too long (<http://ohioline.osu.edu/hyg-fact/3000/3011.html>). The black mass that surrounds the younger limbs are actually the swollen bark of the tree, and if it doesn't stunt or kill the plant...it can cause harm to someone or something else, such as an animal or human because the tree limb could break off during a storm, due to the weakened tissue in that area.

2) Description of the Cause:

According to the Ohio State University Extension's Fact Sheet from the Plant Pathology Dept, written by Michael A. Ellis, black knot is caused by a fungus called *Dibotryon morbosum* also known as *Apiosporina morbosa*. This fungus overwinters in the knots of plants, especially *Prunus* species. Then in the spring, spores are released into the air and the disease can be passed from plant to plant. However, this tends to only happen when it is wet, and infects the surrounding trees if the wood remains moist for extended periods. The cooler it is, the more it has to rain in order for it to infect the plant tissue, which tends to be the new growth on succulent green twigs. (<http://ohioline.osu.edu/hyg-fact/3000/3011.html>).

3) Description of the Remedy or Treatment for the Problem:

The best remedy/treatment for dealing with this fungus is either by taking preventative measures or by doing heavy pruning. When taking preventative measures, you want to make sure that you aren't planting somewhere close to any known trees that have this fungus or that you're at least upwind from these plants, so that the spores don't get spread via the wind over to your plants. Another thing that you could do as a preventative measure is to make spray fungicides before the wet weather occurs and when the temperature is above 55 degrees F. Finally, if you aware that the problem is already infesting your plants, the next best method is to start pruning off any of the infected pieces/limbs before bud break occurs. This will help reduce the amount of diseased plants, as well as helping to remove the problem permanently. When removing the limbs, you want to be sure that you prune at least two to five inches below the black mass to ensure that you get all of the fungus out. Also, if you decide to remove strictly to fungus infected area, be sure to cut down at least a half inch beyond the black mass so that you are into healthy, live tissue. Beyond these, the only things that you can do is be observant and look for the disease and catch it at an early stage. (<http://ohioline.osu.edu/hyg-fact/3000/3011.html>).

4) References:

- Ellis, Michael A. "Black Knot of Plums and Cherries." Ohio State University Extension Fact Sheet: Plant Pathology. 18 Nov. 2003 <<http://ohioline.osu.edu/hyg-fact/3000/3011.html>>.
- Tripepi, Robert R. "Re: Homework #4." E-mail to the author. 18 Nov. 2003.