



## Black Knot Disease

By: Joel W. Allen, Extension Educator

With many home gardeners actively involved in pruning their home fruit orchard now, it is important to also be on the look out for various insect egg masses and other fruit tree problems that are normally quite conspicuous at this time of year when the trees are leafless.



One such problem that is all too common on members of the stone fruit group is Black Knot disease; *Apiosporina morbosa*. Stone fruits that are very susceptible to this fungus disease include plums, prunes, and cherries and it can be found on both wild and cultivated plants. In fact, the wild plums and cherries tend to be the biggest culprit in spreading this disease to both the home and commercial fruit orchard. The black knot growths that show up on the twigs and branches of this susceptible genus are easily seen and removed at this time of year.

The black knot disease is characterized by the conspicuous presence of black, warty galls which may vary in size from ½ inch to several inches in length, encompassing a branch or twig. This disease can cause serious losses to

commercial fruit growers and can be very discouraging to the home gardener who may have only a few plum, prune, and cherry trees to begin with. Black knot is also prevalent on such trees that are used only for ornamental purposes such as an ornamental plum or cherry. Black knot is caused by a fungus, *Apiosporina morbosa*. Infections normally occur between April and June, during warm, wet weather. The fungal spores are produced on living galls which are one to several years old. Usually, the young, most succulent twigs are the most severely infected.

The first symptoms of the disease are usually small, light brown swellings on last year's or the current year's growth. These swellings are often not noticed and the disease becomes evident only after the black, often grotesque-looking galls have enlarged and are olive-green with a velvety texture the following spring. Soon after this stage, the knots become darker and by autumn, they appear as the black hard knots which are typical symptoms observed. This disease is generally not noticed by the home gardener until a year or two after infection, once the knot galls show up. These galls will continue to grow until they completely girdle the branch cutting off the flow of water and nutrients beyond that point. Removing the affected branch a couple inches below the gall is the most effective way of dealing with this disease. However, we do suggest disinfecting the pruning tools in a chlorine bleach and water solution between cuts so as not to spread the disease to healthy parts of the same or similar trees.

Once I have identified the disease and offered the recommended course of action, many home gardeners suggest there won't be much left of the tree if they remove all the galls. I am afraid that is often the case, that's why it is so important to be on the lookout for the early signs of this disease such as when pruning during the winter time or early spring. Pruning out the galls should be done during the winter dormant season. The galls and prunings should be destroyed by burning in a fireplace or wood stove or buried so that the fungal spores can not spread from these. Under severe conditions, applications of appropriate fungicides to manage black knot may be necessary, but generally home gardeners can manage the disease by pruning it out. You may also want to prune out black knot on wild cherry and plum in the area or remove those wild trees altogether. Be sure to check out the label of any fruit tree fungicide for specific recommendations for black knot disease.

If you are interested in planting plum, cherry, or prunes, we suggest you consider locating black knot-resistant varieties such as "President," "Methley," "Milton," and "Early Italian" and there are others. Happy Gardening!

Additional gardening questions can be submitted to the Master Gardener volunteers of Cornell Cooperative Extension of Columbia County, 479 Route 66, Hudson, NY 12534 by phone at (518) 828-3346 or via email at [columbia@cornell.edu](mailto:columbia@cornell.edu).