Slug: Ask the Master Gardener Date: November 30, 2003

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This year several folks have brought in samples of cherry trees with ugly knots on the twigs and branches. Appropriately enough, this is called "black knot" and it can affect most species of Prunus spp. Only the peach tree is safe from this fungus.

Black knot is caused by the fungus *Apiosporina morbosa*. This fungus produces spores in tiny microscopic, flask-shaped structures embedded in the tissue of these hard black knots. The sexual spores are released in the spring and the asexual spores can be produced both spring and fall.

In the spring, the young knot and the margins of the older knots are olive green and have a velvet-like surface. This is caused by asexual spore production. The sexual spores develop in the older black tissue. Both can cause infection, which most generally occurs in springtime between bud opening and tree blooming.

To begin this whole process, the spores are carried by the wind or in splashing water to young shoots where infection can begin through the bark. The fungus then begins to develop just under the bark in the cambium layer. You won't notice the swelling at first, but it will be evident by the second year. This knot or gall can be present for several years. The black knot fungus itself usually dies after the second year. However, some of the older galls or knots can attract a pink fungal growth covering the surface of the knot. This one is thought to be parasitic on the black knot fungus. The older knots can also attract insects that invade the knots as well.

Black knot is not very prevalent in cultivated plums or cherries, but it could become a fruit tree owners' problem, especially where some of the wild cherry trees are used as wildlife habitat, windbreaks or as ornamental trees.

Now, to the control part:

- 1. Prune out any twigs and branches that show signs of swelling. This pruning should be done during the dormant season before the buds open to prevent new infection. Cut off larger branches 2 to 3 inches below the gall or knot. Burn these prunings and be sure to sanitize your cutting tools just to be on the safe side. Clean up well beneath and around the tree.
- 2. Check for wild host plants and if possible get rid of them to eliminate the source of infection.

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This column is written by Washington State University/Skagit County certified Master Gardeners. Questions may be submitted to WSU/Skagit County Cooperative Extension, 306 S. First, Mount Vernon, WA 98273-3805.