

# SUNSTAR NURSERIES LTD INFO SHEET:

## **BLACK KNOT** (*APIOSPORINA MORBOSA*)



### **What is BLACK KNOT?**

Black knot is a widespread fungal disease that attacks trees in the *prunus* family. It's spores are released following periods of warm, wet weather and are spread by splashing water, wind, birds, and insects. If left to grow, it effectively strangles new growth, girdling branches and dooming the tree to deterioration and eventually death.

Insects and plant diseases use the galls as an entry to the tree.

The black knot fungus overwinters in the galls on branches and trunks.

Spores are released during wet periods in the spring. The wind carries these spores to trees where they infect young green shoots or wounded branches.

The fungus grows within the branch for several months with no outward symptoms of disease.

### **Signs & symptoms of BLACK KNOT:**

Once established, black knot is easily identified with its hard, uneven, black galls that seem to enwrap twigs and branches.

- One year after infection, galls can be seen as a swollen area of the branch with a velvety olive green covering of fungal growth
- Two years after infection, the gall has turned black and hard.
- Looks like and is often referred to as "Poop on a stick"
- Easiest to spot in winter when tree has no leaves

### **Trunk symptoms:**

- Large areas of rough black swollen bark form on the main tree trunk.
- Black knot galls on trunks are often cracked and may ooze sticky liquid.
- Wood decay fungi may enter the trunk through cracks caused by black knot galls and cause wood rot.

### **Control of BLACK KNOT**

- Remove any knots that are found. Pruning cuts should be made in late winter (February or March) when temperatures are below freezing. This will prevent black knot spores from infecting the pruning wound.
- Larger branches with established knots should be removed entirely.
- Make the pruning cut at least 8 inches below the black knot gall. NOTE: It is preferable to prune an infected branch further back to an appropriate location, such as a healthy collar, rather than leave a stub
- Use a pruning knife or chisel to remove galls on trunks and large branches, cutting down to the wood and out to at least an inch beyond the infection.
- Infected branches should be removed from the area and burned, buried, or disposed of. Infected branches left below the tree will continue to release spores for up to 4 months after removal. Small cuttings can be stuffed in trash bags and hauled away. Do not compost any infected cuttings unless your heap has an internal temperature of 160 degrees (not many do).
- To maintain a black knot free tree, it will be necessary to inspect the tree and prune out any new galls each winter.
- Clean pruning tools as you use them with a solution of 1/2 cup bleach to a gallon of water. Wipe tools between cuts and leave your pruning blades in the solution for three to six minutes when finished. The Alberta Ministry of Agriculture and Forestry has a detailed guide to pruning and disposing of infected trimmings at their website.
- Chemical control (preventative not curative) is not very effective and is not usually recommended unless for valuable plantings, such as collections, orchards, arboreta or for severe infestations

### **References:**

- <https://www.planetnatural.com/pest-problem-solver/plant-disease/black-knot-fungus/#:~:text=Black%20knot%20is%20a%20widespread,peach%2C%20apricot%2C%20and%20chokecherry.>
- <https://www.alberta.ca/black-knot.aspx>
- [https://www.edmonton.ca/programs\\_services/pests/black-knot.aspx](https://www.edmonton.ca/programs_services/pests/black-knot.aspx)
- <https://www.strathcona.ca/agriculture-environment/plants/tree-care/black-knot/>