

Diseases -Black Knot

Black knot is a common disease of plums and cherries caused by the fungus *Apiosporina morbosa* (Schw. Ex Fr.) Arx. It is primarily a disease of orchard trees but black cherry and pin cherry are frequently attacked. Some of the flowering cherries may also be attacked. The disease is found mostly everywhere in the Maritimes, wherever its numerous hosts grow. It can cause considerable branch and twig mortality, severe stunting and sometimes death of trees. However, because of the low commercial value of most hosts, the unsightliness of black knot symptoms is generally considered its worst feature here.

Symptoms

- Swollen, black tumour-like cankers or knots are typical of this disease. The knots are usually on one side of the twig or branch although they often girdle the branch. They vary between 25 and 50 mm in diameter and tend to grow along the branch. Older portions of the knot die but the fungus may continue to grow at either end of the infection until the branch is encircled and dies.

Life Cycle

- Infection occurs only in current-year twigs in the spring and a slight swelling is usually evident by fall. The bark ruptures the next spring when the knot is covered with an olive-green velvety layer composed of spores which are spread by wind and rain.
- In late summer, the knots harden and turn black. During the winter, another type of spore develops in little sacks inside the knot. These spores, the most important source of new infections, are discharged and germinate during periods of rain in early spring thus completing the 2-year cycle. Some knots are also produced by secondary infection from old knots when fungal strands grow out to invade new tissue.

Control

- Thoroughly clean up all infected wild plums and cherries in the vicinity. On desirable trees, cut off all infected twigs and branches 8 to 10 cm closer to the stem than the knot, burn the cut pieces. This should be done in winter or before April 1st and may have to be repeated periodically because it is often difficult to locate the very young infections.
- Well timed applications of an effective fungicide can be used to protect high value trees against infection if necessary. Spray at delayed dormant stage in spring (just as the buds are breaking) with Bordeaux mixture or liquid lime sulphur. This should be followed by a summer strength lime sulphur spray when the flower buds begin to open and again with the same material after the blossom petals fall.
- Lime sulphur (delayed dormant) - 1.25 gal per 10 gal of water
- Lime sulphur (summer) - 40 fl oz per 10 gal water

