

BLACK KNOT FUNGUS

Apiosporina morbosa

What is Black Knot Fungus?

Black Knot is a common and often serious fungal disease that is currently at very high levels of infestation on trees in the *Prunus* genus throughout the City of Estevan. Local species affected are the Cherry, Plum, and Mayday trees growing on private properties, boulevards, in parks, and naturalized areas. If not controlled, the disease will continue to spread throughout the tree and other host trees. Unchecked, branches eventually become girdled, preventing transfer of water and nutrients through the woody tissue.

Black Knot most notably appears as corky, black, spindle-shaped swellings or knots that are found on the branches throughout the entire tree. It is a fungus that is spread via spores in the spring air and infects new growth on susceptible trees when the buds are beginning to open. It is transported by wind, rain, insects, birds, and contaminated pruning equipment.

Physical Characteristics:

The disease is difficult to notice during the early stages of infection; initially, it appears as small, light-brown, green gall or swelling with a velvety texture. Within a year or two, the knots will have hardened and darkened to the noticeable black knot seen on many trees here now. Often, branches will not leaf out or may wilt beyond the knot. Older infections enlarge every year and may range from 15 to 30 centimeters in length along a branch.

Reasons for Managing:

Allowing the disease to remain on the tree will infect other portions of the tree, as well as neighboring susceptible trees; it is easily spread. Without mitigation, the tree may live for several years in a deformed state, however, at high levels of infection the tree will eventually die. Controlling it will reduce the opportunity for further infection and help save other host trees in the area.

Control Measures:

Ideally, within the first year of infection, it is important to remove the branches with symptoms at least 15 cm (approx. 6 inches) toward the stem from the point of infection; if possible, it is healthier for the tree if you prune to a healthy collar rather than leaving stub branches. Sterilize cutting tools by dipping into a 5% diluted solution of household bleach in water after each cut, and ensure all waste debris is buried or burned immediately. If the infection is on a main stem or scaffold branch, cut out the diseased tissue 2 centimeters beyond edge of infection; however do not girdle the entire circumference of the stem as this will result in mortality. The ideal time to prune is during the dormant season, Fall, winter, early Spring when the black knot is easily visible and before the warmer, wet conditions appear which are ideal for the fungal spores to release and spread to new host material. Chemical options (fungal suppressions) are limited and they are not a recommended strategy for mitigations, it not a cure, rather it is a preventative measure to limit spreading to other hosts. Monitor your trees regularly for signs and symptoms, and maintain a vented canopy through pruning.

For additional information, contact the City of Estevan Parks Division at (306) 634-1800.



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