

Group 2 – Pathogens**BLACK KNOT (*Apiosporina morbosa*)**

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Monitoring Season

All season (April – October)

Control Season

All season (April – October) for non-pesticide control activity

Rating

Pathogen

Hosts and Damage

- Fungus affecting *Prunus* species
- Smaller twigs usually die within a year after being infected
- Larger branches may live for several years before being girdled and killed by the fungus
- Heavily infected trees become progressively worse during each growing season and often become stunted and deformed as the disease interferes with the transport system

Physical Characteristics

- Spindle-shaped green swellings starting in late spring rupture and enlarge turning into black “knots” in fall that continue to enlarge from year to year and range in size from 1.5 cm to 30 cm in length

Biology

- Overwinters in the “knots” on infected branches
- Spores produced from “knots” are the source of infection to other parts of the plant or to other plants
- Youngest growth and wounded tissues are most susceptible

Why Manage

- To prevent the loss of native and city parks tree species and to maintain biodiversity
- To evaluate, establish and maintain tolerable levels of damage
- To prevent increased maintenance costs such as tree replacement
- Increased need for vegetation replacement; reduced vegetation value
- Increase plant susceptibility to disease and pests
- Public perception and complaints, aesthetics, health and safety concerns
- Control spread to and from private property
- Maintenance standards

Monitoring Procedures

- Pre-control monitoring
- Post-control monitoring
- Spot checking

Control Procedures (Control when notified or causing harm)

- Physical/mechanical: Pruning (pathogen control); prune off 10 cm below point of infection; disinfect pruning tools after each cut
- Pesticide: None used at present
- Biological: None used at present



A



B



C



D

A) Black knot is commonly found on Schubert chokecherry, mayday and pin cherry trees. B) The fungus occurs only on woody parts of the tree, deforming branches, stunting growth and eventually contributing to the death of the tree. C) Corky, black spindle-shaped swellings or knots are found on branches and twigs. D) Fungus starts as a small light brown swelling and progresses to a hard dark knot enlarging every year.