



ATTS Group

Avoid mistakes in controlling Black Knot

By Toso Bozic

Black knot (*Dibotryon morbosum*) is naturally occurring disease throughout Canadian prairies. Trees and shrubs of Cherry (*Prunus*) genus are mostly affected. Various species of ornamental or edible cherries (Maydays, Shubert chokecherry, chokecherry, Nanking cherry, pin cherry, sand cherry, sour cherry, etc.), Saskatoon's, plums, flowering almond are mostly inflected by this disease.

Unless you are in fruit production business where this disease can greatly reduce the crop yield, this disease on individual trees will take years and sometimes decades to entirely kill the tree. Black knot is not one of the quick and deadly diseases that will kill your tree within a year or two. One of the biggest spreaders of black knot is improper pruning and time when people prune trees and shrubs. Avoiding improper pruning mistakes and choosing appropriate time is the best way to not spread this disease.

Disease and Symptoms Identification

Black knot is relatively easy to recognize. Fall and wintertime is the best way to recognize infestation. From a distance, you will notice the dark black colour swelling galls (like tumor growth) of branches or stems on affected trees. In early summer, the newly developed infections you will notice velvety green/olive color swellings along branch or twigs. It may take up to 4 years for the black knot to mature and turn black. During wintertime spores mature and a single average size (2-4 inch) black knot can produce and release millions of little spores. Spores are released in springtime during wet period. The vast number of spores will naturally spread if not controlled.

Mature black knot is usually between 2-4 inches, but I have seen large branches with even 10 inches long infestation. Deform looking twigs and branches are also quite common among recognition. Galls completely encircle and griddle branch and eventually kills a twigs and branches. Older black knots could be partly covered with white pinkish fungal mold or riddled by holes made by insects. Wood decay fungus may enter in the trunk or branches infested by black knot.



Pictures: Deformed branches (L); Old black knot with pinkish/white mold (C) and heavy infested tree



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Management of black knot

Spores are naturally spread by wind and rain but not much you can do about that. Unfortunately, one of the most common ways to spread this disease is by improper pruning during growing season. The most important action is monitoring your trees and shrubs for possible infestation. Timing and proper pruning is very crucial to reduce or eliminate potential risks. Choosing tree and shrub species resistant to black knot is option as well. There is no chemical control of this disease.

When to control black knot – Timing

- Prune **only during wintertime -December till prior to March 1**. Pruning when temperature is well below 0 Celsius spores are inactive and can not survive exposure to cold winter temperature. During this time, trees and shrubs are also not active, and they will not be damaged during pruning cuts.
- Avoid pruning in late in fall (Sept, Oct, and Nov) or early in spring (March, April, and May) – both times you may crate more risk than good to trees and shrubs.
- Do not prune anytime during growing season unless you notice that for first time there is new infestation. Unfortunately, many people prune their trees and shrubs during growing season which is the most dangerous way to spread disease.
- Do not prune during wet, rainy, and windy days as spores are easily dispersed during these weather conditions

How to perform proper pruning and removal

- First, you need to have some basic knowledge about [proper pruning](#) which includes safety.
- Make sure that you have [proper and sharp tools](#) to perform tree and shrub pruning.
- Fungus is spread within wood way bellow infested area. As a result, you must prune at least 12 inches or even if it is possible 24 inches below infested area.
- If you prune few infested branches during growing season, you must disinfect pruning tools after every cut. During wintertime you need to disinfect pruning prior and after.
- Pruning all the way to the collar of a branch is sometimes recommended.
- In heavy infested trees and shrubs, entire removal is the best way to reduce the impact of black knot.
- Remove infested wood IMMEDIATELY. Disposal of infested branches are crucially important as pruning itself. Spores can be spread even 4 months after pruning. Do not leave branches nearby trees or shrubs.
- If you have a few branches, put them in garbage bag while the whole tree material is disposed to the landfill. Also, during wintertime you may burn infested wood as well.

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