

Cytospora Canker

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What is Cytospora canker? *Cytospora canker* is one of the most common fungal diseases of Colorado blue spruce. This disease can also affect Norway spruce (and less frequently other spruces) as well as Douglas fir. Trees that are 15 years old or older and are at least 20 feet high are most susceptible.

What does Cytospora canker look like? *Cytospora canker* usually first appears on lower branches and progresses up the tree. Individual upper branches may show symptoms as well. Needles on infected branches turn purple, then brown and die. Diseased needles eventually fall off and the infected branch dies. Infected branches often produce a bluish-white sap that oozes somewhere along their length.



Death of lower branches of Colorado blue spruce characteristic of Cytospora canker.

Where does Cytospora canker come from? *Cytospora canker* is caused by the fungus *Leucocytospora kunzei*, which survives in infected branches. Spores of the fungus are spread by wind, rain splash, insects, birds and mammals.

How do I save a tree or shrub infected with Cytospora canker? Immediately remove and destroy any diseased branches, by pruning them at the trunk. Prune only in dry weather and be sure to clean your pruning shears (e.g., by dipping them in a 10% bleach solution) between cuts so you don't move the fungus from branch to branch, or from

tree to tree. Also, water and fertilize your tree properly to limit stress that could make it more susceptible to infection.

How do I avoid problems with Cytospora canker in the future? Perhaps the easiest way to avoid *Cytospora canker* is to avoid planting Colorado blue spruce. If you do plant blue spruce, allow adequate spacing between trees in new plantings. For an established tree, judiciously prune branches to open the tree's canopy. Proper spacing and pruning promote increased airflow, which leads to a less favorable environment for infection and disease development. In addition, minimize any stress to your tree. Prevent water stress to your tree by avoiding soil compaction, and by making sure there is adequate soil drainage. During dry periods, water your trees adequately. Proper mulching can help moderate your tree's moisture level. Prevent nutrient stress by properly fertilizing your conifers every 3-5 years.

For more information on Cytospora canker: See UW-Extension Bulletin A2639 or contact your county Extension agent: