Cytospora Canker

My Spruce seems to be slowly dying from the bottom up, can it be saved?

The Chicago area is not the native home for Spruce species, yet we love the beautiful Blue Colorado and Norway Spruces that adorn many suburban landscapes. Unfortunately, they are not so tolerant of the shade and droughty weather or planting sites into which we so often place them. When Spruces are under stress, most often caused by root death due to drought or planting sites that are exceptionally dry, like berms, they are especially susceptible to developing die back from ***Cytospora Canker***.

Advanced Cytospora Canker on Blue Spruce with typical dieback
photo: Lesley Bruce Smith

photo: Lesley Bruce Smith © 2011

Cytospora Canker is a fungal disease that can affect Spruces *(Picea spp.)*, Hemlocks *(Tsuga spp.*), Firs *(Abies spp.)*, and Larches *(Larix spp.)*, however, sadly it is most severe on Norway *(Picea abies)* and Colorado Blue Spruce *(Picea pungens "Glauca')*. Cytospora is a fungus that naturally lives on the bark of trees and generally does not cause harm until the tree is under stress. It can easily infect wounds from pruning cuts, winter or storm damage or other physical damage but normally symptoms do not appear until a tree is older than a decade or so and under serious stress. This stress in the Norway and Colorado Blue Spruces is overpoweringly associated with *root damage due to drought stress*. Some other factors can include improper planting, or difficult planting sites that are either very poorly drained (soggy or heavy clay) causing drowning of roots, or very dry causing root death from desiccation.

Closeup of needles infected with Cytospora
photo: Lesley Bruce Smith

photo: Lesley Bruce Smith © 2011

There is no chemical control for Cytospora Canker. The best medicine is prevention by protecting our Spruces from drought stress and root die back. Consult your arborist at Arborsmith® for accurate diagnosis and recommendations for proper treatment. Each tree and it's site is different and needs to be evaluated accurately to provide correct care. When Cytospora is properly identified, pruning out dead and diseased wood during the dormant season can slow the spread of the disease by removing some of the spore inoculum. However, more important is mulching and providing supplemental water during droughty periods being careful not to water needles or branches which can spread the disease and make it worse. Spruces can live for many years with this disease if they receive proper care.

*There is lots of specific, more detailed information regarding this disease available on the web. Just put **Cytospora Canker** into your search engine.*

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Rhizosphaera Needle Cast

Many branches of my Blue Spruce are turning all brown, can we save it?

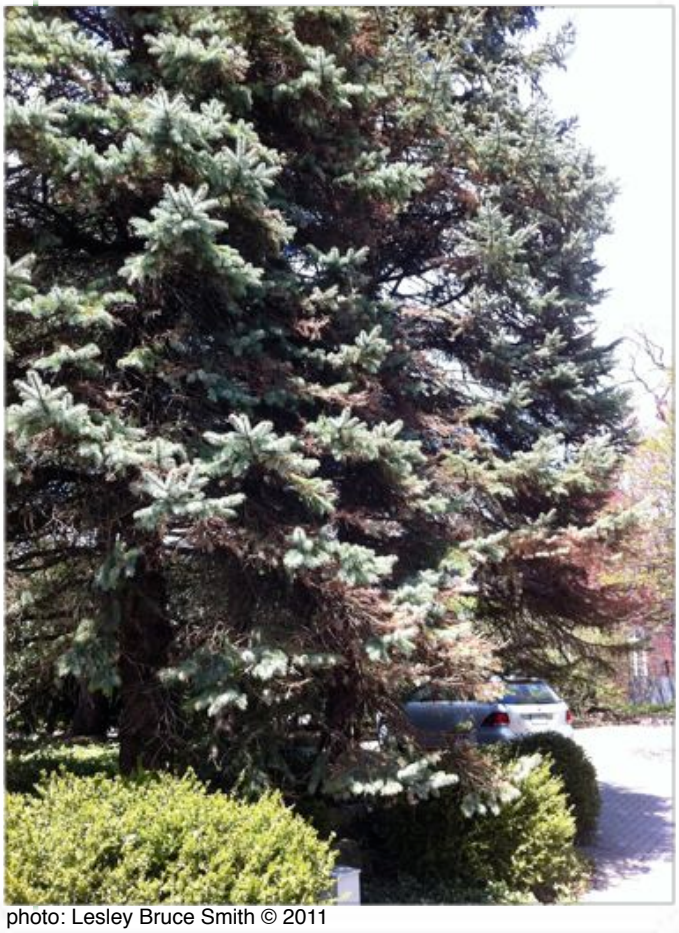

photo: Lesley Bruce Smith © 2011

Rhizosphaera Needle Cast is a newer fungal disease affecting Blue Spruces. White Spruce are moderately susceptible, while Norway Spruce are more resistant. It is equally as disfiguring as Cytospora Canker in it's advanced stages and can often be mistaken for Cytospora. Also like Cytospora the disease is more common on trees that are under stress, which is most often caused by drought or root die back from some other issue. It is usually first evident on lower branches and then works upward gradually. It usually takes 15 months after initial infection to see symptoms of needle death appear. Second year needles turn a purple and brown color and fall from the tree, although this symptom is common to most die back on Spruces. Definitive diagnosis must be made with a hand lens looking for small black spots on affected needles.

Like all fungal diseases, Rhizosphaera is made worse by cool wet spring weather when needles are just emerging. But it is important to emphasize that this disease can only get a foothold on trees that are under stress. ***Drought and root death from drowning or other factors is a stress that lays any tree open for attack from disease or pest organisms.*** The root cause of the stress needs to be addressed with mulching, proper watering during dry periods, and the attempted elimination of other stress factors that we can control. It is best to have each tree evaluated by an arborist from Arborsmith® to determine the best course of action.

photo: Gilbert Smith © 2011

Trees Can Be Saved

In addition to dealing with the root cause of this disease, affected trees should be sprayed with a fungicide when new needles are half elongated and again in approximately 4 to 6 weeks. In addition, trimming to create better air circulation and removing dead and diseased branches helps to control and slow the progression of the disease.

There is lots of specific, more detailed information regarding this disease available on the web. Just put ***Rhizosphaera Needle Cast*** *into your search engine.*

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