

Spruce tree problem shows symptoms of both needlecast and branch death

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Although needlecast and branch death will have to be treated in the spring, take this time to learn more about managing these issues and be prepared for what to do next spring.

Last week, we reported that all species of spruce trees, especially Colorado blue spruce, are experiencing a decline throughout the lower peninsula of Michigan (see "[Spruce problems are probably caused by more than a single agent](#)"). The problem is not caused by the new herbicide Imprelis, released by DuPont, which has been in the news lately. This needle cast and branch death problem started about five years ago and has become epidemic in the state.

As we stated last week, this corresponds to a new needle-associated fungus, *Stigmina*, which has been called a pathogen on other plants, but has not been proven to be a pathogen, yet, on spruce. It could also be that *Rhizosphaera*, a well-known spruce needlecasting pathogen, is causing these serious symptoms by itself or in combination with *Stigmina*. We now know that many of these trees also have *Phomopsis*, a canker-causing fungal pathogen known to cause branch death. We have seen spruce trees with *Phomopsis* canker and branch death, but without needlecast disease, and we have seen spruce with needlecasting disease without apparent *Phomopsis*. We are currently doing research to see if we can detect both needlecast fungi and *Phomopsis* on declining trees.

Most of these problems are occurring on older landscape spruce trees and many of these trees have never been treated for disease. Professional growers at Christmas tree plantations and tree plantations usually have a scripted needlecast treatment program that landscape trees do not receive. For several years, we have listed those types of management programs here, but generally have not expected landscape trees to be treated.

Because needlecast diseases and *Phomopsis* branch death will be managed by treating in the spring, we can take this opportunity to list articles printed in the past where the landscaper can begin to learn more about managing needlecasting diseases. Treating for *Phomopsis* canker will be new for everyone, even for most Christmas tree growers and tree farms. Again, **treatment should begin in the spring**, but we will begin to provide some information on managing *Phomopsis* with chemicals. Without more information being available, my suggestion is to reduce the *Phomopsis* inoculum by eliminating dead infected branches (lower branches with terminal bud death), and protecting healthy branches with applications of thiophanate methyl-based materials such as Cleary's 3336 or T-Methyl. Both of these materials are registered for spruce trees and cankers caused by *Phomopsis*. For further information, read these past articles so you can be prepared for what you may want to do next spring.

Previous articles that apply to this new spruce decline

- [Blue spruce needle cast disease](#), Dennis Fulbright, [MSU \(Michigan State University\)](#) Department of Plant Pathology
- [A tip for dealing with the “Help, my spruce are dying” requests](#), Jan Byrne, [MSU \(Michigan State University\)](#) Diagnostic Services
- [Management of Douglas fir and Colorado blue spruce needle cast diseases \(2009\)](#), Dennis Fulbright, [MSU \(Michigan State University\)](#) Department of Plant Pathology
- [Manage needle cast disease on Douglas firs and Colorado blue spruces \(2008\)](#), Dennis Fulbright, [MSU \(Michigan State University\)](#) Department of Plant Pathology
- [Spruce problems are probably caused by more than a single agent](#), Dennis W. Fulbright, Mursel Catal, Sara Stadt and Jill O'Donnell, Michigan State University Extension, Department of Plant Pathology
- [Spruce tree disease symptoms are associated with fungal pathogens and are progressing through time](#), Dennis W. Fulbright, Mursel Catal, Sara Stadt and Jill O'Donnell, Michigan State University Extension, Department of Plant Pathology

- [Stigmata found associated with needle cast on blue spruce in Michigan](#), Dennis Fulbright, [MSU \(Michigan State University\) Department of Plant Pathology](#)
- [Two more spruce problems that are not herbicide related](#), Bert Cregg and Jill O'Donnell, Michigan State University Extension, Departments of Horticulture and Forestry

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