

Dothistroma Needle Blight

All of a sudden my Pines have brown needles and look like they are dying?



photo: Lesley Bruce Smith © 2011

This tree has been so severely infected and diagnosis and treatment neglected, that it is too far gone to save. Early detection and treatment is very important!

A newer deadly fungal disease that has emerged as a threat to our Pines is ***Dothistroma Needle Blight***. Unlike *Diplodia*, it affects not needle tips, or growth point of needles, but the outside edge of needles as shown in the photo below. Austrian Pines and other young Pines are most often affected. Like *Diplodia*, needles that are infected the previous year and remain on the tree release spores during the cool rainy weather. These spores can be windblown or water splashed to older needles where new infections begin. Successive years of severe infection result in decreased growth and ultimately, death.

Dothistroma can easily be mistaken for *Diplodia* or winter injury to the untrained eye. Accurate diagnosis is important for proper control of the disease. As the photo to the left illustrates, if left untreated this disease can be quite devastating.

Cautionary Note: We often see these fungal diseases proliferate on Pines that are being sprayed regularly by sprinkler heads that are

positioned to spray the needles directly, instead of soaking root zone areas. This practice spreads the fungal spores and speeds up infection.

Needles that have fallen to the ground are not really a significant source of spore infection, or inoculum, so do not worry about “cleaning up” needles under a tree because they, in fact, are a good source of mulch for the Pine which can use the extra nutrients, moisture holding capacity and root protection that the fallen needles offer. Mulching is the single most beneficial thing you can do for your trees.



photo: Lesley Bruce Smith © 2011

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

arborSmith™ abstracts
practical solutions to common tree problems

Arborsmith © Ltd. © 2011

Diplodia Tip Blight

All of a sudden my Pines have brown needles and look like they are dying?

It is easy for an untrained eye to confuse differing fungal problems of Pines. *Diplodia Tip Blight* is a fungal disease that can kill Pines. It most often attacks Austrian Pines in the Chicago area but can also infect other species of pine, however usually only when they are under stress from some other problem, and we rarely ever see it on any pine other than Austrian. Like most fungal diseases it proliferates in cool damp conditions with temperatures between 50°F - 60°F, and

unlike many fungal diseases is, in fact, potentially fatal if left untreated.

Although it is easy to treat, it often goes untreated until it is too late.

As the photos indicate, *tip* browning and die back of the branches are common symptoms of this disease. It differs from *Dothistroma* in that the growth *tips* of the branches are what is affected initially, and then the fungus will creep down and into the center of the plant through water droplet splashing around the fungal spores. Proper pruning and monitoring of watering systems so they don't "water" the branches of Pines is very important.

Treatment involves trimming out of infected branches using sanitary trimming techniques and opening the tree to allow better air circulation. Of *primary importance*, however, is **spraying with a fungicide in the spring to be done on an annual basis**. The spray usually goes on as the new needle tips are emerging and then a second spray is applied approximately a few weeks later to protect against new infection, and sometimes a third spray is required, in bad infestations or during really wet weather.

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



Diplodia Tip Blight

The grayish color of these dead branch tips is a giveaway for the presence of Diplodia Tip Blight



arborSmith™ abstracts®
practical solutions to common tree problems