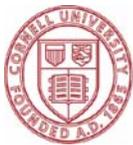


HOME GROUNDS FACT SHEET



Cornell University
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Tip Blight of Pines

Dieback, twig blight or tip blight are names given to a fungus disease that has been causing damage to 2 and 3 needle pines, especially Austrian, Mugo and Scot's.

The fungus organism, *Sphaeropsis sapinea*, is a destructive invader of seedling pines 3-5 years old. It causes a rot that extends upward from the collar below the surface of the soil. The disease may be recognized by the deep-red color of the bark and black streaks in the wood.

Older pine trees infected by the fungus exhibit an open effect in growth and dieback of the branches. The new growth of such branches is stunted and the needles turn brown. The terminal buds exude an excessive amount of resin that gives branches a crusty white appearance. With a hand lens, the minute black fruiting bodies (pycnidia) may be seen at the base of the diseased needles. They are also found on the twigs, which may be killed back for some distance, and on cones. Cankers may be formed at the nodes.

It is believed that trees weakened by drought or growing in unsuitable situations are most susceptible to attack by this fungus that enters the plant tissue through wounds caused by physical damage or insects.

Integrated Pest Management (IPM)

Considerations

IPM is a common sense approach to pest control and plant care. It employs a number of measures to prevent, control or reduce plant problems. These include using resistant plant varieties, proper plant selection and placement, good aftercare and biological and/or mechanical controls. As a last resort, after all other remedies have been explored, a pesticide* that is least toxic to people and natural predators, can be considered. Prior to using any pesticides, plants should always be monitored for the degree of infestation and a sensible control measure considered.

* A pesticide is a substance that kills, or attempts to kill, a particular pest, e.g. **insecticide**, **fungicide**, **herbicide**, etc.

Control

Prune back blighted twigs, branches and cones during dry weather in autumn to prevent spread of fungal spores. Disinfect the pruning tools before each cut by dipping them into a solution of denatured alcohol or a solution of 1 part household bleach to 10 parts of water. Completely discard all prunings. Because tip blight is increasing in severity on Long Island, it is advisable not to plant Austrian pines because they are so susceptible. For existing trees, apply a protective fungicide spray even if the infection is not severe.

Chemical pesticides may be available. If you choose to use a chemical pesticide, contact your local Cooperative Extension office for specific recommendations. Spray just prior to bud break. Make two more applications at ten day intervals. The addition of a commercial spreader-sticker to the spray solution will insure better adherence of the fungicide to the plant material. During a rainy spring, a fourth application about ten days after the third may be advisable. Good coverage is essential for optimum protection.

To build up the vigor of the tree, water deeply during drought periods and fertilize in the fall or early spring. Pines are dry land plants, so do not water too frequently. Established trees should not need watering more than once every ten days, if there is not adequate rainfall. Heavy or poorly-drained soils are not preferred.

Control insect activity that may debilitate the tree by spraying when necessary with the proper pesticide at the right time.

"This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be available, and some uses may no longer be legal. All pesticides distributed, sold or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension specialist or your regional DEC office (631) 444-0341. Read the label before applying any pesticide. Cornell Cooperative Extension and its employees assume no liability for the effectiveness or results of any chemicals for pesticide usage. No endorsement of products is made or implied."

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