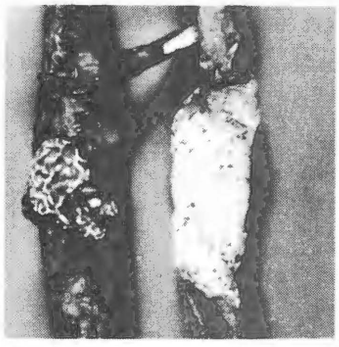
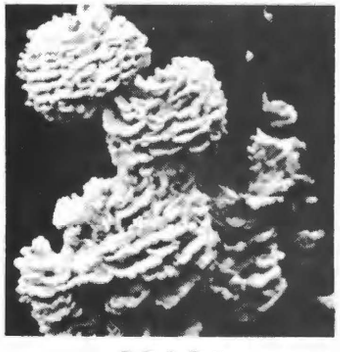
Forest Tree Diseases of Virginia



RUST

DECLINE



DECAY

CANKER

September 1968 MR-FTD-2

Needlecast of Conifers

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Needlecast is a serious leaf disease of many conifers. Infected trees have a very unsightly appearance and become useless when grown for sale as Christmas trees. This disease may increase in importance as the commercial production of Christmas trees increases. The disease is only rarely important under forest conditions; few trees are killed by defoliation, but the sustained needle kill will eventually reduce the overall growth rate. It can be a serious disease in nurseries when moist weather persists.

RANGE:

Needlecast of conifers is prevalent in all regions of

Figure 1. Needlecast Fruiting Bodies on Scotch Pine

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U. S. Department of Agriculture. W. E. Skelton, Dean, Extension Division, Cooperative Extension Service, Virginia Polytechnic Institute, Blacksburg, Virginia 24061.

North America and Europe.

CAUSE:

At least 40 different species of fungi are known to cause this disease; however, only 6 genera are of importance. These are Rhabdocline on Douglas fir, and Lophodermium, Hypodermella, Hypoderma, Elytroderma and Bifusella on pines or other conifers.

SUSCEPTS:

This disease occurs on all species of conifers including pine, spruce, fir, larch, and cedar. It is most serious on Scotch, Virginia and White pines.

SYMPTOMS:

The foliage of infected trees generally is yellowish brown to red in color; some thinning of the crown may be evidenced by needle drop or cast. Needlecast symptoms rarely affect the entire needle; instead, irregular dead areas appear on needles. In many instances completely green needles may be found among the infected needles. Black elongate fruiting bodies of the causal fungus erupt through the surface (Figure 1). At maturity these fruiting bodies open during moist weather and spores are discharged which may be carried by the wind to adjacent healthy needles or trees.

CONTROL:

Control is seldom feasible under forested conditions. Constantly infected trees should be removed during normal thinning operations, but spray programs should not be used.

In nurseries, shade tree or Christmas tree plantings, where control is economically feasible Bordeaux mixture (4-4-60) should be applied after needles are half grown and again when fully developed.

It is inadvisable to plant pine species in plantations or for Christmas tree use in areas where needlecast is prevalent.

KEYS TO PROPER USE OF PESTICIDES

1. Read the label on each pesticide container before each use. Follow instructions to the letter; heed all cautions and warnings, and note precautions about residues.
2. Keep pesticides in the containers in which you bought them. Put them where children or animals cannot get to them, preferably under lock and away from food, feed, seed, or other material that may become harmful if contaminated.
3. Dispose of empty containers in the manner specified on the label. If disposal instructions are not printed on the label, burn the containers where smoke will not be a hazard, or bury them at least 18" deep in a place where water supplies will not be contaminated.

SEE YOUR DOCTOR IF SYMPTOMS OF ILLNESS OCCUR DURING OR AFTER USE OF PESTICIDES.