

## A Threat to Christmas Trees . . .

# Researcher Tells How To Control Needlecast

Needlecast of Scotch pine Christmas trees, a disease causing 2¼ million dollars damage annually for tree growers in Pennsylvania, can be controlled with a fungicide program developed at The Pennsylvania State University.

The disease is caused by a fungus and should be treated about July 20 and again about August 15, according to Dr. William Merrill, associate professor of plant pathology at Penn State. Field studies by Dr. Merrill and associates show that two fungicide treatments will control the disease.

The Penn State scientist said the fungus infects the

current year's needles in late July and August but no symptoms develop until the following spring. Then in April the infected needles suddenly turn reddish-brown and fall from the tree during April to June.

Trees sprayed in 1973 have developed no needle browning or needle loss, Dr. Merrill said recently. On the other hand, unsprayed trees are currently undergoing needle browning and needle loss throughout the bottom 50 per cent of the tree, on the average.

Christmas tree growers can obtain information on the proper fungicides to use and the rates of application

from county agricultural extension agents, he stated.

During July and early August the fungus forms characteristic fruiting bodies on fallen needles. Those structures can be seen with the naked eye. They are black, football shaped, about ½ to 1 millimeter long, and have a slit down the middle.

The disease appears first at the bottom of the tree. It gradually works its way higher up the tree so that after two or three years much of the tree is defoliated

every spring. After two complete defoliations the tree often is killed. Even if the tree is not killed, usually all of the lower branches are killed or the tree appears so sparsely needled that it cannot be sold.

Needlecast of Scotch pine trees has forced some growers out of business. It has forced many others to shift from Scotch pine to other species such as Douglas fir, the true firs, or the spruces.

## Pa. Conservationist Sees Rapid Changes In Land Utilization

Pennsylvania's landscape is changing at a rapid rate as shifts in population make new uses of the land according to State Conservationist Benny Martin, U. S. Soil Conservation Service.

Martin said about one-half million acres change from one use to another every year. Nearly 150,000 of these acres are used for new developments which include homes, shopping centers, roads, schools, and recreation areas.

Urbanization is one of the major causes of land use changes in the Commonwealth. Other factors include strip mining, changes in agriculture and a second home in the country.

Martin said an important factor in selecting land for new uses is a knowledge of the soil. In Pennsylvania, he said, there are over 1,000 different kinds of soil. Many of the soils, Martin cautions, can be real problems to home owners, land developers, farmers, and road builders if they are not used correctly.

The state conservationist

said problems associated with poor selection and use of the land are wet basements, inadequate sewage disposal, excessive erosion, cracked foundations, and stream sedimentation. Many of these problems could be eliminated or greatly reduced, he stated, if the land users understood the land they selected and applied corrective measures.

Martin reported that soils information is now available for 80 percent of the land in the Commonwealth. All the

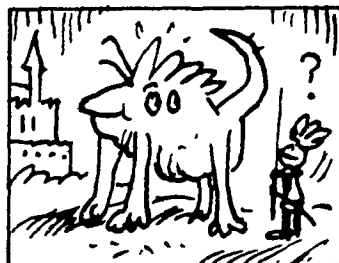
## Growing Degree Days

In Lancaster, the average temperature for the week was 76 degrees, 2 degrees over the average.

Growing degree days for crops that start at 40 degrees totaled 2422 which was 103 days over the average.

For crops starting at 50 degrees, the days totaled 1418, 79 above the average.

Rainfall for the week was .02 inches and total from April 1, 13.44 inches which is .29 less than average.



Medieval legend talks of a monster who had no head, the eyes and mouth being placed elsewhere.

soils have been rated to show the problems associated with their uses for town and country planning, engineering, woodland, recreation, wildlife, and agriculture. Field offices of the Soil Conservation Service and county agents have the information which is available to the public in all counties in the state.

The soil survey of Pennsylvania is being done by the Soil Conservation Service in cooperation with The Pennsylvania State University and the Department of Environmental Resources.

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