

Spray program developed for Scotch Pine disease

UNIVERSITY PARK - Until recently, growers of Scotch pine Christmas trees may have wished their products were "liquid scotch" instead of timber. Their trees were being damaged by a fungus causing an average loss of \$1.00 to \$1.25 per tree.

But now a fungicidal spray program has been developed which reduces infection from 60 per cent in unsprayed trees to two per cent in sprayed plantations. The treatment came from research by Dr. William Merrill and associates in the College of Agriculture at Penn State.

The fungus causes a yellowing and shedding of needles one-year-old or older during late summer and fall. This condition has made some Christmas trees unsalable and has caused up to 25 per cent losses in other plantations, Dr. Merrill said. The disease also occurs in tree nursery seedbeds.

The disease is named *Naemacyclus* needlecast, since it is caused by the fungus *Naemacyclus minor*. Discovered in Pennsylvania in 1972, the fungus has affected Christmas tree production in the Lake States and the Pacific Northwest. The needlecast is

found statewide in Pennsylvania.

The spray is now being field-tested by growers in various parts of the Commonwealth. The present spray program has one drawback. Three applications are needed during the spring and early summer to be effective.

This year a single application of a more persistent experimental fungicide reduced infection from about 50 per cent in unsprayed trees to around 4 per cent in sprayed trees. This newest spray program will be field-tested by growers in 1980. Being ex-

perimental, the fungicide is not yet registered for use.

"Thus it appears that *Naemacyclus* needlecast, currently the most serious disease affecting Scotch pines in Pennsylvania, will be brought under control in the near future," Dr. Merrill predicted.

He said the disease has three infection periods—mid-July to mid-August, mid-October to early December, and the spring and summer of the following year. The single fungicide, the least costly per growing season, is believed to be most effective when applied in late April and early May.

Dr. Merrill outlined the

symptoms of this needlecast.

First, infected needles turn yellow with prominent brown bars appearing across the needles. Then fruiting bodies of the fungus develop within these brown areas from late October through early December. Infected needles are being shed during the fall and winter. Spores produced on the shed needles infect other needles, including those newly elongated.

"The third infection period is the most damaging one," Dr. Merrill stated. "Up to 100 per cent of the needles may become infected. Although the infection period extends from April to

August, most infection occurs during short periods in April or May when the weather favors growth of fungal spores," he added.

For some years, *Naemacyclus* needlecast has been confused with aphid damage. Both result in yellowing and shedding of one-year-old or older needles in late summer and fall, it was noted. However, the prominent brown bars caused by *Naemacyclus* are not produced by aphids.

Dr. Merrill and associates are on the faculty of the research division of the College of Agriculture, the Pennsylvania Agricultural Experiment Station.

Farmer-owned reserve sorghum released

WASHINGTON - Grain sorghum has again reached the price at which owners may withdraw the commodity without penalty from the farmer-owned grain reserve.

Producers may immediately remove their sorghum from the reserve by repaying their Commodity Credit Corporation price support loans.

John Goodwin, CCC acting executive vice president, pointed out that release of the reserve does not require farmers to redeem or sell their grain at this time.

Goodwin said that the five-day moving average market price for sorghum was \$4.33 per hundredweight on September 5. The reserve release level for a feed grain is reached when the market price is 125 per cent of the commodity's loan rate. That level is \$4.24 per hundredweight for sorghum.

Sorghum was first released June 22 when the price was \$4.25 per hundredweight. The release authorization was withdrawn August 1 when the price dropped to \$4.21 per hundredweight.

Approximately 29 million hundredweight of sorghum are in the reserve. Farmers receive storage payments annually in advance on this grain from the U.S. Department of Agriculture. Upon repayment of the loan, farmers may keep the storage payments earned through the date of repayment. If the loan is not repaid, storage credit will continue through the end of October.

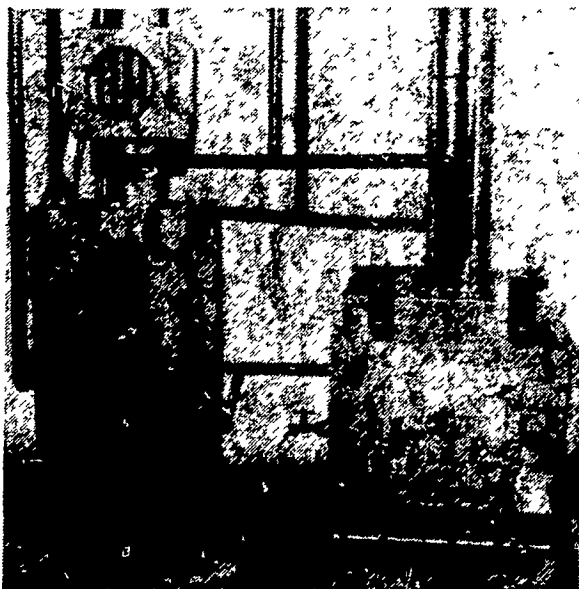
On Oct. 31, USDA will review the average prices for sorghum to determine if the release authorization should remain in effect. If release continues, storage payments will stop in those states where the price remains above the release level.

Data used by CCC in determining the release level include a daily report by Agricultural Marketing Service which shows prices bid by buyers at selected markets, and a month-end Economics, Statistics, and Cooperatives Service (ESCS) report of prices received by farmers, showing the previous month's average prices and the current mid-month prices.

The daily markets reviewed for sorghum are Kansas City and Texas. The five-day average of these market prices, adjusted to reflect prices revealed by farmers, were the basis for today's action.

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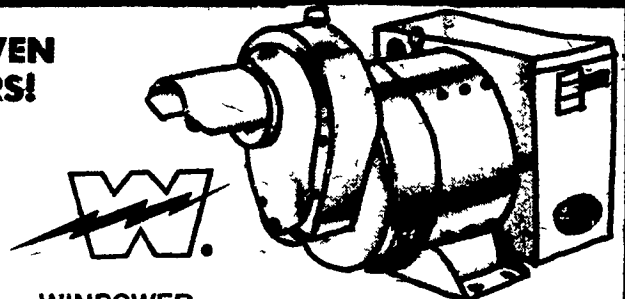


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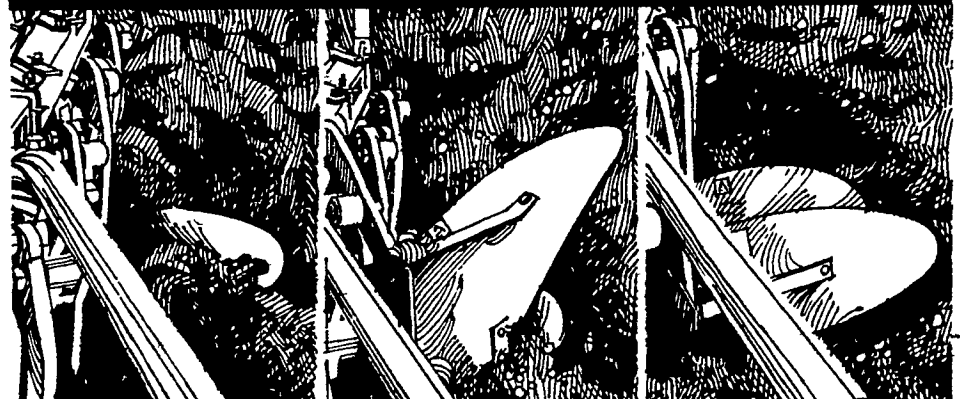
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