sites as golf course tees can be attributed to the use of tall-growing varieties rather than the modern, dwarf types currently available.

Data reported for Cougar and "Nebraska blend" in Table 1 are from plots seeded in the fall of 1963. These plots were cut to ½- and 1-inch heights in the spring of 1964 and during 1965. Note particularly the root production of these two varieties; they were not allowed to become well established before cut to the ½-inch height. Bluegrass must be well established before clipping back to ½-inch. At the 1-inch height, Cougar root production was comparable to that of the varieties in the older trial.

Research Seeks Growth Habit Difference

Seedling characteristics of 4 bluegrass varieties are shown in Table 3. In the laboratory we attempted to identify some structural characteristic that could be measured to define the difference in their growth habits. Number of tillers and leaf sheath length have been proposed as possible distinguishing factors. We have not yet arrived at a satisfactory standard in our trials for measuring leaf sheaths (Table 3). Cougar and 0217 in seed production plots have the shortest mature plant stature. Thus, they are considered the most nearly true dwarfs of the varieties in this study. Yet, Delta and Nebraska dwarf have the shortest leaf sheaths. On the other hand, Cougar and 0217 show the greatest number of tillers which is one measure of grass ability to heal after mechanical injury. More refined tests are to be conducted in 1966 greenhouse trials to search for a characteristic that will distinguish bluegrass variety growth habits.

Table 3. Seedling characteristics of four bluegrass varieties in 1965.

	Average Number[1] Tillers	Average Leaf[1] Sheath Length (mm)
Cougar	2.0	7.1
0217	2.3	8.0
Delta	0.9	7.0
Nebr. Dwarf	1.7	6.5

1. 9 weeks after planting.

How to Diagnose Tree Diseases

(from page 17)

trees examined by the authors have been caused by injuries to roots or diseases of root systems.

The sudden death of a tree usually results from the destruction of nearly all the roots or from the death of the tissues at the trunk base near the soil line. Factors most commonly involved are infection by disease organisms (Fig. 9), winter injury, rodent damage, heavy concentrations of natural gas, lightning, and various types of toxic chemicals. Trees that progressively weaken over a period of years may be affected by girdled roots, decay following nearby pavement work, poor soil or drainage, lack of food, grade changes, natural gas leaks, and excessive planting depths. Any of these factors and several more may contribute to the ultimate death of the tree. Diagnosticians must be ever alert for the symptoms above ground as well as for those not so obvious below the soil.

Apply Fungicide Now To Check Snow Mold

Lawn care specialists who applied fungicide to customers' lawns last November or December for snow mold control should plan to make another application this spring.

But even if lawns were not treated last fall, applying a fungicide now will help control the disease.

This advice comes from Dr. R. E. Partyka, Ohio State University Extension plant pathologist, who says fungicides containing mercury provide satisfactory chemical control of snow mold. He suggests fungicides with organic mercury such as phenyl mercury acetate, or inorganic mercury as mixtures of mercurous chloride and mercuric chloride. Also effective are Tersan OM, Thimer, Dyrene, and Ortho Lawn plus Turf Fungicide, Partyka says.

Mercury compounds can cause plant damage if applied in heavy doses, the specialist warned. He advises that special attention be given to manufacturer's recommendations for chemical use.