

UNITED STATES GOLF ASSOCIATION  
GREEN SECTION  
Southwestern Office

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Southwestern Turfletter

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GRASS UNDER TREES

Trees on a golf course are wonderful, but they provide difficult conditions for turf maintenance. Tees in shade are the most frequent source of trouble. On these areas, the tree problems are compounded because of the extremely heavy traffic.

Trees affect grass in at least three ways: (1) They produce shade, and some grasses do not tolerate this condition. (2) Tree roots compete for soil moisture and plant food, particularly moisture. (3) In the case of deciduous trees, falling leaves cover the turf each fall. If these leaves are allowed to lie on the turf until they become soaked with water, they can plaster the grass down and cause a great deal of thinning out of the turf.

When turf thins out under trees, we usually think first of the matter of shade. Shade is seldom a problem on fairways and greens. Tees are the use areas that are most often affected. Sometimes the rough may be heavily shaded but the necessity for good turf in the rough is much less important. Shade is highly desirable near tees where golfers sometimes must wait until other players clear the fairway. The golf course affords more pleasure because of these well-placed shade trees. Since some shade is desirable, we must think about the tolerance of various grasses to this condition.

Bermudagrass is the most widely used grass for tees in the Southwest, yet Bermudagrass fares rather badly in shade. It needs full sunlight at least part of the day. There are relatively few grasses in this region that can be substituted for Bermudagrass on tees. The bentgrasses will survive in some parts of the region, but they will not withstand a great deal of traffic. Zoysiagrasses are somewhat more shade tolerant than Bermudagrass, but injuries heal very slowly in Zoysia turf. If either Zoysia or bent is to be used on tees, the area should be large enough to permit frequent rotation of tee markers.

Tall fescue is probably the most promising grass for shaded roughs in the major part of the Southwest. Tall fescue forms an open turf that permits easy finding of balls, yet it will penalize the player who must play from it. There are also many native species that grow sufficiently dense under trees to meet the requirements of the rough.

Competition by tree roots for plant food and moisture is most noticeable on putting greens, on tees, and sometimes along fairway edges. Shallow feeding trees are the worst offenders. The Southwestern Region, with its dry, hot summers, can expect rather severe turf injury from the effects of this competition. Root pruning, by means of a chisel-like tool, is probably the most effective means of combating the effects of shallow tree roots. Tree roots can be cut to a depth of about 18 inches with an implement of this kind. Cultivation, to allow better water infiltration, is also a helpful practice in keeping water available for turf as well as for roots.

Falling leaves affect all areas on the golf course. It is usually not too difficult to keep them swept off greens and tees, but fairways offer quite a problem. Leaf mulchers and vacuum machines have done much to lessen the problem on most golf courses.

The most pleasing golf courses have good trees and good turf. While it may sometimes tax the superintendent's ingenuity to do so he can usually keep both trees and turf growing vigorously by choosing the correct species and by supplying the correct management to create a favorable environment for the growth of each.

#### CONTROL OF GRASS AROUND THE BASES OF TREES

When grass grows vigorously in the rough of golf courses or in other areas where it is not clipped frequently it often grows up closely around the bases of trees, posts, and under fences, so that it becomes quite unsightly. To keep the course well-groomed, and to keep this grass clipped at all times, is a rather laborious and costly chore. Some superintendents have recently begun to solve this problem by using sprays to kill out the grass near the bases of trees and under fences. There are a number of chemicals that will do the job. Diesel fuel, kerosene, or other petroleum fractions are effective as non-selective herbicides. There are also some materials such as maleic hydrazide which will retard the growth of grass so that only one or two mowings a year are sufficient to keep it under control. Maleic hydrazide, if used at too heavy rates, may damage the grass severely. However, in such areas severe damage is not a serious matter. There are many golf courses which might make use of some of these materials to eliminate a great deal of the hand labor involved in trimming such areas.

#### FAIRY RINGS

Fairy rings on a golf course are rather unsightly, and cause much comment from players. As long as they are on fairways they do not do a great deal of damage and should be little cause for concern. Sometimes, however, they invade putting greens and then it is a different matter.

The fairy ring is caused by a fungus growth in the soil. Most of these fungi that cause fairy rings are the type capable of producing mushrooms above the soil and sometimes when fruiting conditions are right, one can observe the mushrooms around the edge of the fairy ring. The ring is formed as the mycelium or

root structure of the fungus spreads outward from the point of origin. As the fairy ring grows outward, it takes almost all of the water that is in the soil. The soil is dried out so completely that the grass is sometimes killed. As the fungus continues to grow outward, the inner portion of the ring dies out; that is; the mycelium of the fungus dies out and releases nitrogen, thereby causing the grass to make a flush of dark, green growth around the circle.

There is no known complete control for the fairy ring fungus. Several fungicides such as the mercury materials, copper fungicides, and similar materials will kill the fungus if they are brought in contact with it. However, it is very difficult to drench the soil sufficiently to make sure that the fungicide contacts all the parts of the fungus.

The symptoms of fairy ring can be alleviated by spiking the affected area very thoroughly and soaking it with water. When the soil is wet the turf will grow in spite of the fungus. It is also helpful to fertilize the area adequately so that the effects of the release of nitrogen by the fungus does not make such a marked showing. Fairy rings are not serious turf diseases; nevertheless, most superintendents would like to be rid of them.

#### TURF FIELD DAYS

The Oklahoma Turf Field Day was held at Oklahoma A. & M. College at Stillwater on May 19. Dr. Wayne Huffine, of the Agronomy Department at Oklahoma A. & M., is in charge of the turf research work. Dr. Huffine explained the purpose of the tests currently under study. They included a study of sources and rates of nitrogen for U3 Bermudagrass; comparisons of a number of selected strains of Bermudagrass; a study of adaptation of various bentgrass selections; and studies of chlorosis inducement and control.

A brief trip to Lakeside Memorial Park in Stillwater allowed the group to inspect an experimental putting green which had been used in connection with the soils studies that have been conducted by agronomists at Oklahoma A. & M.

The Central Plains Turf Foundation Field Day is being held at Mission Hills Country Club in Kansas City on June 14. Equipment exhibits and demonstrations are a feature of the morning program. Luncheon and short talks at Mission Hills Country Club will be followed by a tour of golf courses, parks, cemeteries, and other points of interest. This well-planned program is the work of a special Field Day Committee composed of Earl "Smiley" Bell, chairman; Chet Mendenhall, co-chairman; "Tex" Champion; Ed Brugger; and Henry J. "Bud" Elmer.

The Texas Turfgrass Association Field Day will be held in Dallas on August 9. The group will meet at Cedar Crest Golf Course, site of the 1954 Amateur Public Links Championship, at 9 a.m. Tours will be conducted to the various points of interest in Dallas. Mr. Grover Keeton, of the Dallas Parks Department, will be in charge of arrangements.

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