

Meeting Golfers' Demand for Short-cut Fairways

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The height of cut on golf course fairways should be determined by the type of turf required for golf and the ability of the turf grasses to provide this type of turf. The qualities of the several turf grasses for providing a fairway turf can best be considered by dealing with the species individually. In New Jersey Kentucky bluegrass, the red fescues, and the bentgrasses have been or are being used for fairway turf.

First, may we consider Kentucky bluegrass. This species has been one of our great turf grasses. It has many wonderful attributes and uses in the turf field. However, it has long been known that typical strains available on the market will not produce good fairway turf consistently unless they are cut 1-1 $\frac{1}{4}$ inches high. This height of cut is out of the question for most golf courses in our area and very few have been able to continue with the higher cut. Clearly this means that Kentucky bluegrass as commonly known, in spite of all its great attributes as a turf grass, is "out the window" in New Jersey if we are thinking in terms of fairway turf.

If we turn our attention to the B-27 strain of Kentucky bluegrass, the picture is different. This grass which may be used considerably in the future appears to provide good turf at $\frac{3}{4}$ inch cut. The B-27 plots at Rutgers planted in 1948 and cut at $\frac{3}{4}$ inch are good and compare rather closely with the 1 $\frac{1}{2}$ " plots. We trust that B-27 will prove to be a useful fairway grass that can be cut at $\frac{3}{4}$ inch.

Red Fescues Doubtful in N. J.

Let us now consider the red fescues. These are known under various names such as Chewings' fescue, Illahee fescue, and others. These grasses prefer cool temperatures, a well-drained soil, and a high cut. In spite of the fact that many pounds of the red fescues have been seeded on fairways in our section, it is seldom that anyone can find an appreciable quantity of good fescue fairway turf. I believe that it is fair to say that the fescues have had very limited value in recent years, and there is little occasion for their extensive use on fairways as required in our area.

I make this statement in spite of the fact that I have great appreciation for the

fine attributes of the red fescues such as tolerance to low fertility and ability to produce a firm turf. Many of us have seen or read of the promising red fescue strains being developed at Penn State. If these continue to show tolerance of disease and low cut, we may well consider using considerable quantities of red fescue at some future date for fairway turf. However, until that time arrives, there is only limited occasion for seeding red fescue for fairway turf.

Bent Is Approved

Now may we consider bentgrass. If one must make a choice for a permanent fairway grass in the cool-moist sections, the bentgrasses win by a very large margin, principally because they can tolerate the height of cut demanded by the golfer for fairway turf. Many have been reluctant to acknowledge bentgrass, and it has taken many years for it to become recognized as the principal type of fairway turf for our section.

Occasional claims are still made that it cannot be used unless fairway irrigation is available, and others may point to the disease problem which is inherent to bentgrass.

Granting that the bentgrasses are less drought tolerant than other species and more susceptible to disease there is no doubt about their ability to supply more fairway turf in the moist-temperate locations of the United States because of their tolerance to close mowing. Proof of this statement is found in the many fairways in the cool-humid sections that were seeded to a mixture of grasses and which now have bentgrass as the only permanent grass in appreciable quantity.

Since we must admit that bentgrasses are the most valuable fairway species for our cool-humid sections let us consider a basic requirement for proper maintenance. It must be cut close. Our bentgrasses have long been recognized as providing poor turf when cut high. The spongy, loose, poor-rooted turf developed with this type of maintenance is very unsatisfactory and difficult to maintain. Either we cut bentgrass close or a mat develops rapidly which leads to serious problems.

Up to this point I have considered

grasses that might be used in the cooler portions of our country. In warmer sections where warm season grasses hold sway Bermuda grass is readily recognized as the major fairway grass. I believe that it is safe to assume that its requirement for close cutting is well established.

Since bentgrass and Bermuda grass are the most common fairway grasses, we must recognize that high cutting would deprive the golfer of the type of grass he desires and we would increase our maintenance problems.

Low Budget — Low Cut

The opinion is often expressed that close-cut fairways are only for the courses with plenty of money for labor, seed, and fertilizer. This thought may be true in case the course with a limited budget is providing a sound turf cover that is free of weeds and clover. However, if these disadvantages are a serious problem in the fairway it is possible that closer mowing would make them less objectionable. This means that in case it has not been possible to maintain a good turf with a limited budget and high cut, one should consider a closer cut.

I can see many advantages for high cut under special fairway conditions and for other turf purposes, but the more common fairway situation offers no place for high cutting such as the old 1 or 1¼ inch cut. The requirements for golf do not justify any other viewpoint and the grasses available to meet these requirements are best with the closer cut. The golfer will always demand a firm, closely-knit fairway turf, and as long as bentgrass and Bermuda grass offer the best opportunity of supplying this type of turf we have no alternative but to continue using them and cutting them at ¾ inch or closer according to local conditions.

Maintaining A Satisfactory Poa Annua Green

By L. E. "RED" LAMBERT
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For the past five years we have maintained a satisfactory Poa annua green at Oakwood G&CC, Dodson, Mo. The green is located adjacent to the entrance drive and the golf course service drive. Between the drives and the green, a distance of about 15 ft., a row of American Elms about 35 ft. high are doing very well. As a result of this poor location, the green is in shade during the heat of the day. The feeding roots of the trees have almost complete possession of the green area. The soil is composed of fine particles and compaction has been a problem.

Due to the tree root competition, compaction and shade, the bent grasses were not satisfactory. Due to the small dis-

tance between the trees and the green, and due to the fact that the trees were a part of the entrance drive landscaping, it was seemed inadvisable to construct a root barrier wall. A survey was being made to improve the golf course as a whole, so it was considered a poor investment to move the green as it might not fit in with the overall program.

As Poa annua was present in the green at the time, we set up maintenance practices to encourage it.

The soil was kept in a moist or slightly wet condition at all times. Water was used frequently to maintain this condition, sometimes in hot weather, four or five times a day. As the critical wilting period for Poa annua is during the afternoons, frequent checks were made and water applied as required. With the shade from the trees as a help, Poa annua did very well.

During the summer months mowing was done only when required to maintain a true putting surface. (Our bent greens are mowed daily.) Three mowings a week are about the average.

Fertilizer was applied in small quantities at frequent intervals. Due to the heavy watering practices and shallow roots of the Poa annua, we believed the place to keep the nutrients was as near the root system as possible, i.e., near the surface. We tried to maintain a hard sturdy leaf growth and avoid a lush foliage. In this way we were able to keep the Poa annua growing during the hot weather.

Little or no fungicides were used as Poa annua did not seem to be susceptible to fungus diseases. A careful check was kept for the appearance of any algae, due to the wet condition of the soil, and hydrated lime and shallow forking used whenever any signs of algae showed up.

We used chlordane as an insecticide as we had observed a retarding of the growth of Poa annua following the use of arsenate of lead.

A close watch was kept on the condition of the grass adjacent to the cup and the cup moved at any time the grass did not stand erect and was apparently ready to wilt.

As a result of all of the above work, our labor costs on this green were higher than on any of our bent greens. The savings in fungicides did offset some of the extra labor costs but not all of them. I do not recommend Poa annua greens as such, but where shade, tree root competition and compaction can not be corrected, it can be maintained as a satisfactory putting surface.

Our survey and plans have been completed, construction work is under way, and the green will not be used after the Spring of 1952.