Construction and Care of Bermuda Greens in the South

By P. D. Maxwell, Dornick Hills Country Club, Ardmore, Oklahoma

At the time our golf course was established, in 1914, there were no grass greens in the State of Oklahoma and very few in the South. At the present time probably 90 per cent of the courses in the South are still tolerating sand greens, and it is with the hope that I may be of service in inducing some of these to substitute grass greens that I offer the benefit of my experience covering the last ten years, during which time I have visited practically every grass green course in the South. Up to the last two or three years the matter of the proper selection of Bermuda was never suggested, and it is just now beginning to receive the proper consideration. Even now the average greenkeeper wants to tell you how he plants, how he cultivates, how he top-dresses, how he mows, etc., but always overlooks what to my mind is the all-important thing—the selection of the proper strain of Bermuda grass, which should be a fine-leafed strain rather than coarse-leafed. The strains of Bermuda are as diverse as the varieties of corn, and as different in appearance as are white and red corn. The differences between the average strain of Bermuda and the best Atlanta strain are as marked as the differences between bluegrass and the finest creeping bent grass. I have already touched upon the superiority of the Atlanta strain of Bermuda grass, in my article in the March, 1924, number of THE BULLETIN.

Only four of the forty golf courses in Oklahoma have Bermuda grass greens, and I believe this is about the proportion existing throughout the South. The greater proportion of the clubs still having sand greens are in ignorance of the fact that anything else is possible. A small percentage know they can have grass but think the cost of establishing and maintaining grass greens is prohibitive. For both classes the following suggestions may be of interest.

Bermuda will grow and do well in any state where cotton grows and will succeed fairly well in any soil, better in sandy soil with clay subsoil. At the time of planting a green, if it is possible to do so, mix 10 to 15 loads of stable manure with the top soil. This is desirable, but not absolutely necessary, as fertilizer can be applied at any time later. Drainage of the green is important, but all expensive subirrigation systems are to be avoided; I have yet to see one which is satisfactory. A water system is highly desirable, but not essential. I know of several greens which are kept in fairly satisfactory condition without artificial watering. Top-dressing gives very good results in the absence of a water system.

Bermuda can be planted in any month from March to July, but I would advise spring planting especially where there is no water system. Of the three methods of planting—seeding, sodding, and the vegetative method—the last named, which consists of planting the roots or stolons, is decidedly the best. Seeding is always more or less uncertain, and beside, seed contains a mixture of strains. Sodding is expensive and not as satisfactory as the vegetative method. Plant the roots or stolons from one to two feet apart. With proper attention and constant weeding during the first few weeks, one can get a perfect stand and cover for the greens in 80 to 100 days, and even in a shorter time if the planting is done in June or July, when the weather is very warm, if water is available to force growth. Bermuda thrives on heat. If expense is not to be considered,

the stolons may be planted very much thicker than two feet apart, and the results will justify the expense.

Most important is the weeding of the green during the first few weeks, thus giving the Bermuda full opportunity to spread and cover the ground. When the grass has completely covered the ground, top-dress with good soil. This will be food for the growing grass and will also help to obtain the proper surface for the green. It is then time to cut with an ordinary lawn-mower. After a few days of constant cutting, another and lighter top-dressing of sifted soil is necessary. When the grass begins to come through, begin the use of the regular putting green mower. I advise daily cutting, especially through the spring and early summer.

A period of 100 days will ordinarily elapse from the time the stolons are planted to the time the green is ready for putting.

After a stand is once obtained there is little trouble from weeds and other grasses, as, at least in Oklahoma, Bermuda brooks no competition.

Although, as I have stated, Bermuda will do fairly well in any soil, constant vigilance and intelligent attention are necessary in order to maintain a good turf of steady and luxuriant growth. We can not maintain good turf with fertilizing. For this reason I strongly advise using the mowers without grass catchers. By all means let the clippings remain on the turf. If greens are cut each day, as they should be, the clippings will never be noticeable and artificial fertilizers will be needed less often. When you feel that it is necessary to stimulate growth it can easily be done by top-dressing with good soil mixed with well-rotted stable manure. This is best done in early spring.

Bermuda turns gray with the first frost and remains dormant until spring. In order to produce turf during this period of dormancy, I sow from twenty to thirty pounds of Italian rye-grass seed on each green in September, and a very satisfactory winter green is thus obtained.

In closing, let me emphasize again the importance of the selection of the finer strains of Bermuda grass. This is the first essential in obtaining good Bermuda putting turf. This is a matter to which very few of the southern greenkeepers have paid attention, and I believe that the immediate future will show great advancement in this direction.

Preventing Crab Grass From Going to Seed

Paper Read by Robert Scott, Greenkeeper, Baltimore Country Club, at the Annual Meeting of the Green Section, January 5, 1924

Crab grass is a pestiferous annual weed. Its marvelous ability to produce seed is the great obstacle to be overcome in controlling it. If by any means its prolific seeding can be prevented or even held in check, one can be reasonably sure of better greens. Where crab grass is not too thick, the best method of getting rid of it is by hand-weeding as soon as the young plants are big enough to handle; but where it is so thick that this can not be done without tearing out the good grasses, other methods must be employed. The greens used to get so thick with crab grass at the Baltimore Country Club that they resembled a coco-fiber door-mat. Only a small area in the center of each green was weeded, and these areas were growing smaller each season as from all sides the crab grass kept advancing toward the center. The following method of combatting this