

## QUESTIONS AND ANSWERS

All questions sent to the Green Committee will be answered in a letter to the writer as promptly as possible. The more interesting of these questions, with concise answers, will appear in this column each month. If your experience leads you to disagree with any answer given in this column, it is your privilege and duty to write to the Green Committee.

While most of the answers are of general application, please bear in mind that each recommendation is intended specifically for the locality designated at the end of the question.

**1. Winter seeding.**—We are intending to reseed as soon as possible bluegrass greens that were heavily weeded during the past summer, intending to sow about 30 pounds of bluegrass to each green. These greens measure about 20 by 20 yards. We have had up to date a mild, dry winter, and there has not been any permanent frost in the ground for several weeks. Would we be making a mistake to sow the seed at this time of the year (January) so as to have it in the ground before a heavy snow, or should we wait until the growing season has actually started? (Missouri.)

We believe it would be perfectly satisfactory in your latitude, to sow your bluegrass seed in January.

**2. Playing on the putting greens in winter and early spring.**—The chairman of the Green Committee and I do not agree on one subject, and that is, when the course should be opened for play in the spring. Our course is laid in a valley composed of sandy soil, some boulders, and rocks, and it drains very quickly. Our season is about ten days behind that of Long Island. We believe we could keep our course open the year round without damage. I took great pains to inquire in England and Scotland last summer about the closing of their courses during the winter months when they had constant freezes and thaws, and found they never dreamed of stopping play at any time. Near here some courses with memberships of a thousand keep open all the time in spite of their clay soil with plenty of mud; they used to close years ago, using temporary greens, tees, etc., but have now given that up and find that their courses are not harmed in any way. Am I right in my belief that it does not do any harm to play right now (March)? Please give me your candid opinion and let me know what the custom is throughout the country. (New York.)

There is no valid reason for not using putting greens for play at any time of the year except when they are soggy from freezing and thawing or from other reasons. When they are soggy, heel-prints soon make the greens practically unplayable; and if they are played on, some injury to the grass may result. Whenever the moisture conditions of the greens are reasonably good there is not only no harm in using them for play, but there is evidence which even indicates that it is advantageous. In the clubs about Washington the greens are used throughout the winter except at times when they are soft and soggy from freezing or from excessive rain. On sandy-soil courses, even in New England, the greens may always be used in winter. On any type of soil it does no harm to use the greens when the moisture in the soil is not excessive.

**3. Grass for putting greens and for sand hills in Southern Florida.**—Will fescue grow on putting greens in Florida if it is watered throughout the year? Is there any grass which can be used for putting greens other than Bermuda

grass, which will stand this climate and give a better putting surface? Is there any grass which will grow in Florida on sand hills? (Florida.)

Fescue is useless in Florida. The best strains of Bermuda grass make excellent putting greens. Of these the best we have at present is the strain called Atlanta Bermuda. On some of the southern Florida putting greens the strain called Giant Bermuda is found; this is the coarsest of all strains and very unsatisfactory for putting greens. In the light of our present knowledge we believe that under your conditions the best you can do is to have permanent Bermuda greens; but you should use the best strain of Bermuda. Furthermore, it would be desirable to have some clay in your soil, as much finer Bermuda will grow on clayey soil than on sandy. There are quite a number of grasses in southern Florida that will grow on sand hills and help bind the sand together. Sea oat grass is one of these. If you can get out to the open shore, where the wind blows a good deal, you can find various grasses suited to the conditions and which will be splendid to use on the sand hills. A visit to the agricultural experiment station at Miami, Florida, might be helpful to you in this matter.

**4. Treatment of bent turf to produce a smooth putting surface.**—We planted several greens from creeping bent stolons, but the turf does not present a putting surface that is sufficiently smooth. Can you suggest a treatment that will overcome this objection? (California.)

The smoothness of creeping bent turf depends on the strain of creeping bent planted and on the frequency of top-dressing. The grass grows so rapidly under favorable conditions that until the stolons have rooted at each joint a rather loose mass develops. Frequent top-dressing encourages the rooting of the stolons at the joints. Without this treatment a year's time will probably be required before your turf will become firm and smooth, whereas by proper attention as regards top-dressing this result should be obtained within a few months.

**5. Use of cottonseed meal on putting greens.**—We have been advised by a company who sells fertilizers not to use cottonseed meal on our putting greens inasmuch as it will bring worms injurious to the grass. Does this fertilizer cause injury to the grass by encouraging worms and insects? (Florida.)

Our results with cottonseed meal have been in every way satisfactory, and we have never seen any evidence of its encouraging worms or insects of any kind. We do not know what the company means when they refer to worms. Certainly, cottonseed meal does not encourage earthworms, and used on putting greens this fertilizer does not, in our opinion, encourage any insects.

**6. Sawdust as a topdressing for putting greens; fertilizers to use on Bermuda grass.**—We are sending you a box of sawdust which has been rotted by placing in a low, wet place. We are using this as a top-dressing on our putting greens and find that it keeps the greens very soft. Has this material been used before for this purpose? What is the best fertilizer to put on Bermuda grass if used for our greens? Our natural soil is very hard and rocky red clay. (Georgia.)

Sawdust has been tried thoroughly from a fertilizing standpoint, and there is nothing to recommend its use. It contains but a mere trace of plant food, and this is not available until it has rotted for a number of years. Fresh sawdust is extremely dangerous to use. We have seen a number of instances where the ground has been ruined for years around a sawdust pile. The best results that we have obtained from fertilizers are by the

use of ammonium sulfate. This gives us a good growth of grass and discourages white clover and crab grass. As in your region you will probably not be very much troubled with white clover, you could probably use the less expensive cottonseed meal, which is a very efficient, quick-acting fertilizer.

**7. Seeding fairways in the North.**—What seed would you recommend to mix with redtop for fairway seeding? Can hay seed be used on a golf course? We are not clear as to what hay seed is. We are told hay seed could be used on a golf course which already had a turf. (Pennsylvania.)

The commonest plants for hay used in the northern part of the United States are timothy, which makes up about half of the hay crop, red clover, and redtop. Red clover and timothy do not make good turf. Redtop makes fairly good turf but is short-lived. Its value is primarily as a filler to slowly growing grasses, especially bluegrass. Generally speaking, the best mixture to seed on fairways in the northern part of the United States is Kentucky bluegrass, 4 pounds, and redtop, 1 pound, seeding the mixture at the rate of 150 pounds to the acre. There is no one seed or one seed mixture properly called hay seed. Any grass seed or mixture of grass seed sown to produce a hay crop might be called hay seed. On fairways of golf courses, however, one is not interested in the crop of hay produced.

**8. Normal size of green and width of fairway.**—We would like to know if there is any standard size for greens and would also like to know if there is any regulation width for fairways. (Maine.)

The usual turf green is supposed to be made of a size in accordance with the shot required to reach it, *i. e.*, a green which is reached by a small pitch shot has a correspondingly small area, while one which is reached by a wooden club shot is made larger on that account. The normal fairway is about 50 yards in width, and this of course varies with conditions.

**9. Hard fescue and sheep's fescue.**—What is the difference between these two grasses? (New York.)

Hard fescue differs from sheep's fescue in that the leaves are broader and stiffer. All the seed sold by seedsmen as hard fescue is in reality sheep's fescue. So far as we know, true hard fescue seed has not been available commercially.

**10. Turf grasses for Kansas; rates of seeding for greens and fairways.**—Will you please advise me with regard to a suitable grass to plant on a golf course. (Kansas.)

For your part of the country we would recommend for fairways 4 parts of Kentucky bluegrass and 1 part of redtop, using about 100 to 150 pounds of the mixture per acre. For the rough and on bunkers, sheep's fescue is excellent. For putting greens there is nothing better than the bents, which are known in the trade as Rhode Island bent, Colonial bent, and German mixed bent. Seed of any of these, if of good quality, will produce an excellent putting surface. The bent seeds are, however, very scarce and high in price. Next to be preferred to the bents we would recommend a mixture of 4 parts of Kentucky bluegrass and 1 part of redtop, seeding this at the rate of 3 pounds per 1,000 square feet. This mixture does not produce anything like as desirable a turf as the bents, nor is there any other grass that will do as well. Red fescue is very often sold for putting green purposes, but it is our experience that it will not survive under your conditions.