

## The Vital Importance of Topdressing in the Maintenance of Satisfactory Creeping Bent Greens

By O. B. Fitts

As the subject of topdressing has been given considerable space in the BULLETIN from time to time it may appear to the older readers of the BULLETIN that this particular factor in greens maintenance is being overemphasized. Notwithstanding this, many complaints of unsatisfactory creeping bent greens are still being received, accompanied with descriptions of conditions which indicate the lack of proper topdressing. As there are many greenkeepers who this season are having their first experience with creeping bent greens, it is felt that the importance of topdressing can not, therefore, be overstressed at this time.

Every greenkeeper wants to keep his greens in the best possible condition. Every active green-committeeman appreciates the satisfaction which his club members derive from playing on turf of fine quality. It is our desire to help both the greenkeeper and the green-committeeman as much as possible toward achieving the very best in this respect, by passing on to them the information gained through our experimental work with turf grasses.

The results of the experimental work at the Arlington Turf Garden during the season of 1925 have furnished convincing evidence of the fact that topdressing is indispensable as an aid to the production of turf of good quality in the maintenance of creeping bent greens. One has only to see the difference in the quality of turf between the areas which were topdressed at the turf garden and the areas of the same grass which were not topdressed, to be thoroughly convinced of the importance of topdressing. Many who visit the garden observe this difference and are convinced. And being convinced that the turf on the areas which have been topdressed is far superior to that on the areas not topdressed, they almost invariably have certain questions which they desire answered. Usually the first question is, "How often do you topdress?" And this is followed by the inquiries, "With what material do you topdress?" "How much topdressing do you put on at one application?" "How do you apply it?" Asking questions is what we are particularly desirous of having our visitors do, as it then becomes an easy matter to explain the different phases of the work. Now, an answer to a question with the evidence before one is much more convincing than is a written answer. But, unfortunately, not all who are interested in greenkeeping are able to visit our plots; therefore this article is prepared in order to discuss certain features of topdressing for the benefit of readers of the BULLETIN to whom opportunity has not been afforded for discussing the matter in person.

**TIMES WHEN IT IS NECESSARY TO TOPDRESS.**—The results of experiments at the Arlington Turf Garden indicate that a very satisfactory frequency of applying topdressing is once a month during the growing season, which, in the northeastern quarter of the United States, corresponds to the period of approximately April 1 to October 1. Of course the frequency may be increased or decreased somewhat, as may be rendered necessary by prevailing conditions, without great variation in the results obtained. In our experience, however,

monthly applications have been very practical and satisfactory, and we feel that they should be adhered to as closely as practicable.

**MATERIALS TO USE FOR TOPDRESSING.**—For ordinary clay loam soil, a compost made up of equal parts of loam, sharp sand, and well-rotted stable manure or similar organic material, has been found to give very satisfactory results. These proportions should, however, vary according to the type of soil on which the compost is to be used. If it is to be used on sandy soil, the percentage of sand should be decreased and the percentage of loam increased. If it is to be used on soil rich in organic matter, the percentage of manure should be decreased and the percentage of loam increased. This compost dressing should be reinforced with ammonium sulfate or ammonium phosphate, as these stimulating fertilizers help to keep the grass in a vigorous condition.

**RATE OF APPLICATION.**—One cubic yard of compost, in which has been thoroughly mixed 10 to 25 pounds of ammonium sulfate or ammonium phosphate, is sufficient to dress 5,000 square feet of green, after the turf is established. In the early stages of a creeping bent green—that is, before the turf has attained a playable condition—it may be found necessary to make slightly heavier applications in order to get a smooth and firm surface more quickly. The amount of ammonium sulfate or ammonium phosphate should moreover be varied according to the season. In the cooler months of spring and fall 5 pounds per 1,000 square feet of green, or 25 pounds per cubic yard of compost, may be used; in the hot months of summer, however, the quantity should be reduced to about 2 pounds per 1,000 square feet, or 10 pounds per cubic yard of compost.



Fig. 1.—Spreading compost with a shovel and rubbing it into the turf with the back of a rake. Note the uniform distribution



Fig. 2.—Spreading compost with a top-dressing machine. Satisfactory results are obtained by this method, with an accompanying economy in labor

**METHODS OF APPLYING COMPOST.**—There are two general methods in practice for dressing putting greens. Each is satisfactory as far as results are concerned. They are illustrated in Figures 1 and 2. Spreading the compost with a shovel by hand is a rather slow method; but if the man is onto his job he can make a very nice, uniform distribution of the material. The method of applying compost with the topdressing machine is more practical where large areas or a number of greens are to be dressed, as it is much faster than hand spreading. Regardless of the method used, it is necessary to follow the applica-

tion with brushing the compost down into the turf. For this purpose a number of devices have proved satisfactory. The compost may be rubbed in by the back of a rake, as shown in Figure 1, or it may be brushed in by the use of a flexible metal door-mat, shown in Figure 3, or by any other means that may prove satisfactory. Apart from the method employed for brushing the compost in, the important thing is that it must be brushed in well if satisfactory results are to be obtained.

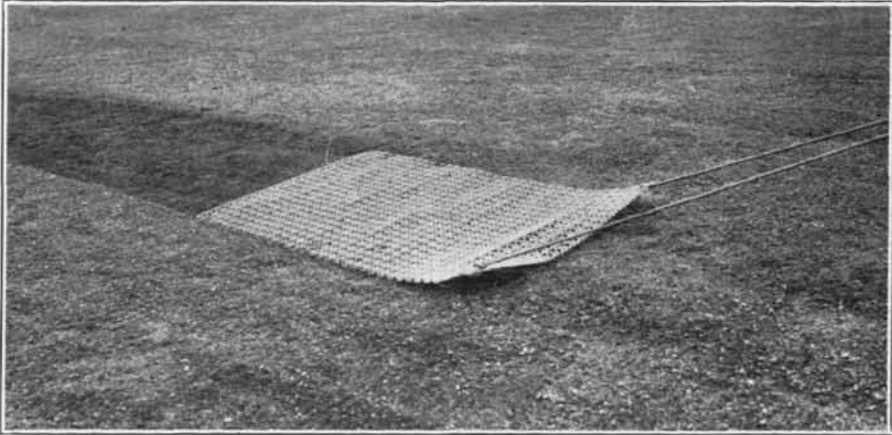


Fig. 3.—Brushing compost into turf with a flexible metal door-mat

**WHY IT IS NECESSARY TO TOPDRESS GREENS.**—There are many reasons for topdressing greens. It is necessary, in one sense, because the topdressing furnishes additional plant food, which is essential to the growth of the turf grasses. It is necessary, further, because it adds to the green a new lively surface of fresh soil, which is essential to the continuous healthy condition of the turf and which keeps the surface from getting too hard. It is necessary because it helps to fill up small depressions in the green, thereby making the surface smoother and more uniform. It is necessary, especially in the case of creeping bent greens, because it keeps the turf which is continu-

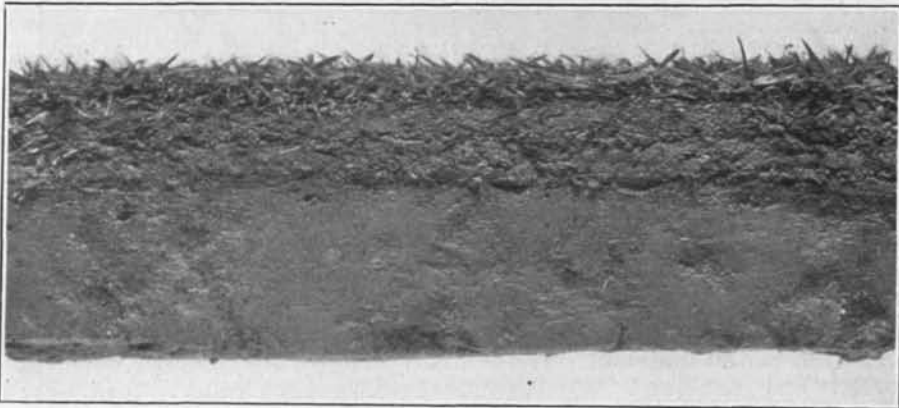


Fig. 4.—Cross-section of a piece of turf from a portion of a plot of Washington creeping bent at Arlington Turf Garden, which had been topdressed monthly during the season of 1925. Note the firm, true surface presented

ously accumulating above the surface of the soil filled and firm. If creeping bent is allowed to grow through the season without topdressing, a mat of loose, fluffy or spongy turf will develop, a condition about which many complaints have been received. On the other hand, if the greens are topdressed as suggested above and cut closely, the turf will be firm and true, simply because the compost serves to fill in the open spaces that occur between the stolons or

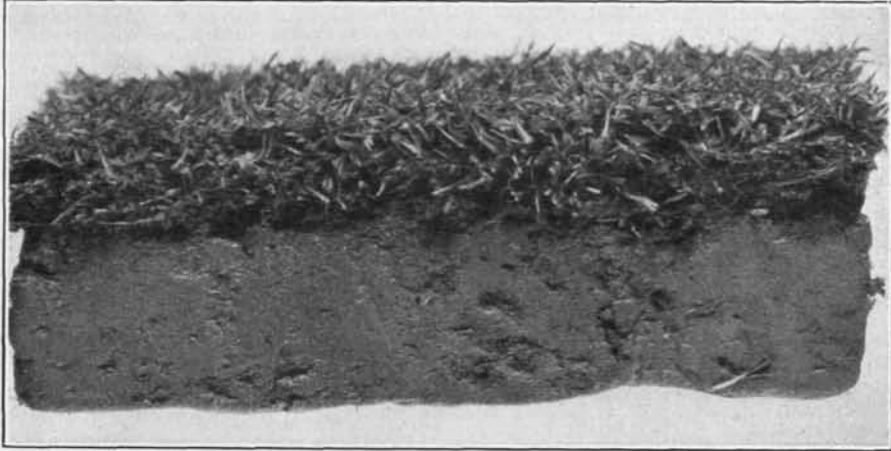


Fig. 5.—Cross-section of a piece of turf from another portion of the same plot which had not been topdressed during the season. The turf is loose and fluffy, impossible to cut satisfactorily, and undesirable for putting purposes

runners. This difference in results obtained is clearly illustrated in Figures 4 and 5. In both figures is shown turf of the same strain of creeping bent, given identical treatment in both cases except that the turf seen in Figure 4 was topdressed each month during the growing season and that in Figure 5 had not been topdressed during the season.

### Bermuda Grass Experiences at Enid, Oklahoma

By H. L. Entriken, Enid Country Club

Last winter (1924-1925) the thermometer stood at 10 degrees below zero for a long spell and most of the Bermuda lawns in the city froze out.

As a precaution against freezing we covered seven of our Bermuda putting greens with wheat straw late in November and six with a topdressing mostly of soil. Those covered with straw withstood the freeze and remained green all winter under the straw; those covered with soil all had to be replanted in the spring. The straw was removed from the seven greens in spring, and the greens were then topdressed. They were ready for play weeks before any others in this part of the country and even farther south. We expect to cover all of our greens during the coming winter and to use the approaches for temporary greens.

Brown-patch attacked our Bermuda greens for the first time this year, but the greens recovered after a few applications of chloro-phenol mercury followed by topdressing. The new growth seems to be somewhat coarser, perhaps due to the stimulating influence of the chemical.