

### QUESTIONS AND ANSWERS

All questions sent to the Green Section 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. 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 Section.

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.

**Prevention of spongy condition of creeping bent turf; effect of height of cut on disease.**—We have heard that it is necessary to allow our Metropolitan bent on the putting greens to remain long during brown-patch weather. If we do this we find it becomes spongy and soon presents a poor putting surface. How should we care for the greens in this respect in order to get the most satisfaction from them? (Pennsylvania)

**ANSWER.**—The Metropolitan strain of creeping bent is a fast, vigorous grower, and in order to provide a good putting surface with this grass it is necessary to make every effort to keep it from developing too much surface growth consisting of long blades and intertwined stolons. Metropolitan bent seems to require less fertilizer than Washington or other well-known strains of creeping bent. Regular close cutting is necessary. The mower should be set as low as possible without scalping the high spots. If the green is so bumpy that close cutting scalps high spots these areas should be removed or made less prominent by dragging top-dressing into the low spots. Metropolitan bent will in time develop considerable depth of nap with accompanying spongy condition in spite of close cutting. When this condition occurs the greens should be raked severely with sharp-tined rakes and then mowed close. This procedure should be repeated until most of the surface growth has been removed. The greens will look badly after such treatment, but if they are top-dressed immediately and lightly fertilized the fine, new growth will quickly restore them to normal appearance and they will again have a true, firm putting surface.

We have never had satisfactory evidence that bent on putting greens becomes less susceptible to large or small brown-patch by increasing the height of cut. However, in the case of the Virginia strain of creeping bent, which is susceptible to leaf-spot, we have noticed that the leafspot does less damage when the turf is kept longer; also annual bluegrass (*Poa annua*) is more liable to withstand the extremes of summer if left longer. Since Metropolitan bent is not susceptible to leaf-spot we see no reason why it should be allowed to grow longer in the summer. On our turf gardens we cut it as close as possible even during hot weather in order to provide good putting turf at all times. By proper attention to fertilizing, watering, and application of fungicides it can be maintained in a healthy condition when kept cut extremely short.

**Treatment of putting greens infested with moss.**—We are sending you a sample of soil from one of our greens on which you will notice a growth of moss. While this sample is from a green with a top soil of poor quality, our other greens, most of which are constructed with a rich loam, also have considerable moss. We are just completing the remodeling of our course. The greens have been planted with creeping bent stolons, which we have kept soaked with water, as is customary when planting bent stolons. It is possible that we may have used too much water. Kindly give us your suggestions as to remedial measures. (Connecticut)

**ANSWER.**—Your sample of soil proves to be too acid for bent grass. We suggest that you apply hydrated lime to your greens at the rate of 25 pounds to 1,000 square feet. About a week or 10 days after the lime has been applied the greens should be top-dressed with sulphate of ammonia at the rate of 5 pounds to 1,000 square feet. If the sulphate of ammonia is applied before a week has elapsed after the lime was put on the greens, there is likelihood of the grass being killed by the release of ammonia which follows the addition of sulphate of ammonia to hydrated lime. Heavy fertilizing for a time usually gets rid of moss. It is suggested that you prepare a good compost containing a large quantity of organic material to use on your green which have poor top soil. The soil of your green in question needs a good supply of organic material, and the best way to supply this without replanting the green is by heavy applications of a top-dressing containing large quantities of organic material. It would be well not to water your greens any more than is necessary to keep the grass growing vigorously. The right amount of water can best be determined by digging plugs out of the green occasionally to determine whether the soil is sufficiently moist in the top one or two inches.

**Kindly advise us regarding the use of seaside creeping bent in our region. (Oklahoma.)**

**ANSWER.**—Seaside creeping bent has been tested on several golf courses in Oklahoma in the past few years. On many putting greens it has proved to be successful, and many of the golfers of the state have been most enthusiastic about the results obtained with this grass. To be successful, however, it must be adequately watered. Much of the soil in Oklahoma is not naturally suitable for raising any kind of bent, but by providing adequate drainage and improving the texture of the soil by the use of sufficient sand and organic material it seems entirely likely that seaside creeping bent will prove superior to the grasses now in use on putting greens in Oklahoma. This is a section of the country that is outside of the range that was usually regarded as suitable for bent. As we learn more about the culture of bent grass it is probable that the range will be greatly extended in the next few years. Tests already made with seaside creeping bent in Oklahoma certainly have been sufficiently successful to warrant much further trial of the grass in that state.

**Precautionary measures in the control of grubs; applying arsenate of lead.**—Last season beetles in abundance were flying over our course. Should we therefore expect this season to be troubled with the grubs of these beetles in our putting green and fairway turf? If

so, how early in the season should we begin applications of arsenate of lead for their control, and in what quantity should it be applied? We have been using this chemical in the past for the control of grubs. (Illinois.)

**ANSWER.**—If beetles were prevalent on your course last season it is likely that you will have much damage from them this season, and arsenate of lead is the best remedy we know of. It is applied to putting greens and fairways at the same rate, namely 5 pounds to 1,000 square feet. In some cases 3 pounds have proved to be effective, but 5 pounds is the general recommendation. The chemical is difficult to distribute evenly unless it is mixed with some material to add bulk. Sand or compost may be used for this purpose. On many courses it is applied with the fertilizer, otherwise it can be mixed with damp sand or with soil. The chemical can be applied at any time during the growing season, but in order to be most effective against grubs it is well to make the application by the first of June.

**Treatment of putting greens of heavy clay subsoil.**—One of our greens, which is built on a solid putty clay, is in very poor condition. We shall appreciate your suggestions for bettering the condition. (New York.)

**ANSWER.**—You do not state whether the green is properly drained or not. It is likely that a large part of your trouble is due to poor drainage or too much watering. If there is a drainage system in your green, its outlets should be examined to see that they are functioning properly. Heavy clay soil can be greatly improved by working into it a large quantity of coarse sand and plenty of organic matter. This can best be done by first removing the sod, although it is generally preferred to accomplish the same purpose in some other way. It is also possible to improve this condition greatly by top-dressing heavily and frequently, thereby building up a good layer of a well-prepared top-soil containing plenty of sand and organic matter. On such greens it is well to be particularly careful also of the watering. Too much water tends to puddle heavy clay soils and make them very hard when they become dry. The watering of a green of this type requires a great deal of constant watching. In wet seasons it is impossible to cut down on the amount of water in the soil except by adequate drainage.

**Is it possible to have a green open for play as quickly by seeding as by planting stolons?** (Illinois.)

**ANSWER.**—As a rule, greens planted with stolons may be ready for play several weeks before greens planted with seed.

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Thirteenth hole (133 yards), Whippoorwill Country Club, Chappaqua, Westchester County, N. Y.

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**Francis Bacon tells us that man and Nature execute their operations very differently.**

**Man commences with parts, finishes one, and then proceeds to another, and so on till the whole is completed.**

**Nature, on the contrary, commences with the whole, advances all the parts uniformly, finishing none until the whole is completed.**

