

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 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 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.

1. The effect of long-continued close mowing and topdressing.—Is there any danger of shortening the life of turf by subjecting it to the continual close clipping and topdressing recommended for keeping creeping bent turf in true putting green condition? (Ohio.)

ANSWER.—The plots of Washington and Metropolitan bent turf at the Arlington Turf Garden that are now in their eighth year have been cut very close practically every weekday and topdressed about once a month during the growing season through their duration to date, and they are apparently as good now as the one-, two-, and three-year old turf. Close clipping is necessary to keep any kind of turf in good putting green condition, and the frequent topdressing with proper materials, if properly applied, will in no way impair the durability of any turf but will be found very helpful, both for keeping the grass vigorous and healthy, and for keeping the surface of the green true.

2. Close cutting of newly planted bent greens.—I recently noticed a recommendation for cutting creeping bent in the early stages of turf development in which it is stated that the grass should be cut at first with an ordinary lawn mower, and after the first topdressing it should be cut with the mower set at three-quarters of an inch and gradually lowered until the proper height for the finished putting surface is reached. This is apparently contrary to former advice to cut it to a putting green length from the beginning. Which method should we follow? (Michigan.)

ANSWER.—Cut close from the beginning and you will find that a true putting surface and a good dense turf will develop quicker and with less labor.

3. Neither Washington nor Metropolitan strain should produce fluffy turf.—We have been informed that the Washington strain of creeping bent grows upright and produces a fluffy turf, and that the Metropolitan strain clings closely to the ground and does not make fluffy turf. Is this correct? (Illinois.)

ANSWER.—Both the Washington and Metropolitan strains of creeping bent cling very closely to the ground when growing naturally, but the nodes are very close together, and when they are grown under turf conditions they produce a dense growth of foliage which stands upright owing to the fact that the leaves are so closely crowded. Neither of these strains produces a fluffy turf when kept properly cut and topdressed. The quality of turf produced by these two strains is practically identical except in color. The Washington is a bright apple-green, and the Metropolitan a light blue-green.

4. Truing putting green surfaces.—Our greens are not true and we wish to know what weight roller you would advise us to use on the greens in order to make them true. (Minnesota.)

ANSWER.—In the rolling of greens in the spring the idea is to roll just heavily enough that footprints, particularly heelprints, will not be left in the turf. Rolling more heavily than this is not desirable and is in most cases harmful. The weight of roller desirable to bring about these results will depend on the character of the soil and the denseness of the turf. A heavy clay soil will stand much less rolling than a light soil. This is a matter which is however easily determined. The weight of roller most commonly used is from 175 to 225 pounds. The weight can readily be altered to suit conditions when a water-ballast roller is used. We believe however that you will get better results in truing the surfaces of your greens by top-dressing the greens perhaps several times until you get the desired trueness of surface. If your soil is heavy, topdress with sandy loam; if medium, topdress with ordinary good loam or compost.

5. Effect on soil of continued use of corrosive sublimate in earthworm control.—Some of our neighboring courses are still buying the worm eradicator advised by seed houses and paying \$120 for the amount used in one application for the 18 holes. Counting labor of hauling and mixing the sand required with the corrosive sublimate which we use for the same purpose, I think our applications cost less than \$40 for one application on 18 holes. We are advised, however, that frequent applications of corrosive sublimate will produce a permanent injury to the greens. Please let us have an answer about this. Also, would it not pay to worm the ground on the approach to the green for a distance of, say, 20 yards; especially where the ground is very favorable for worms? Can anything be put under a green to prevent the worms coming through? (Ontario.)

ANSWER.—Corrosive sublimate is the best thing we have found for getting rid of earthworms on putting greens. Its method of use is fully detailed in *THE BULLETIN* for May, 1924 (page 115). Of course, it is possible to use it in such large quantities that it will scorch the grass, but we have thus far not noted any injury from its continued use. We have been using it on a certain area for eight years and have not the slightest indication of any evil effect from it. We think it will pay you well to worm your approaches, as it is not very expensive when corrosive sublimate is used. We have found nothing that can be put under greens to prevent the occurrence of earthworms and at the same time grow grass satisfactorily. Furthermore, we do not approve of putting layers of cinders or any other material of such a nature under putting greens.

6. Animal charcoal as a fertilizer.—We are sending you a specimen of animal charcoal, which is a by-product of a local industrial concern. We are inclined to believe that it has good fertilizing or mechanical properties, or possibly both, so that we might use it to advantage on our greens and fairways. We can obtain it delivered on the job very cheap. Would you advise our using this material as a fertilizer? (West Virginia.)

ANSWER.—Charcoal, on account of the English tradition, is still favored by some greenkeepers. In our experience we have been unable to see any results whatever from the use of any form of charcoal. Animal charcoal would have some advantage over vegetable charcoal, inasmuch as it carries some phosphorus. We think you can rest assured the material would do no harm, but we doubt if there is any particular benefit to be derived from its use. It would have to be very cheap, in our judgment, to justify its use.

7. Disadvantage of spring and summer planting.—About the first of June we will be ready to plant with creeping bent stolons a green which we have had to change. Do you think that time would be too late in the season for success? (Pennsylvania.)

ANSWER.—Bent stolons can be planted at any time of the year, but if they are planted in spring or summer they are certain to be damaged badly by the growth of weeds. The best time to plant greens in your locality is between August 15 and September 1.

8. Sand-binding grasses; salt-resistant grasses.—Can you suggest any grass which will grow in salty sand, especially for the purpose of binding the sand to prevent its blowing? (New York.)

ANSWER.—Of turf-forming grasses, the two having the best chance of succeeding under the conditions you mention are seaside bent and red fescue. Seaside bent is best established by planting the stolons, but the red fescue would have to be seeded. The best tall grass for holding blowing or drifting sand is beach grass (or marram grass), which would have to be started by setting out the roots. This however is a tufted grass, and not a turf-former. Seaside bent and beach grass can be obtained at many places along the New England coast, especially the coast of Massachusetts. The latter grass also occurs extensively on the shores of Long Island.

9. Value and use of guano as a fertilizer.—Kindly give us your recommendations as to the use of guano as a fertilizer, its value and how it should be applied. (Pennsylvania.)

ANSWER.—Guano is used in mixed fertilizers, chiefly in the South. There is no question regarding its efficiency. We have conducted no experiments with its use on putting greens, but are inclined to think that the most economical and at the same time most effective method of using it on putting greens would be to mix it with good top soil in the proportion of 10 to 15 percent of guano to the soil.

10. Comparison of rotted compost with mushroom soil.—Which would you consider the better for topdressing fairways, compost which has been in the pile for over a year, or mushroom soil just taken from the beds? (Pennsylvania.)

ANSWER.—We consider good compost made by rotting manure in soil of equal value to mushroom soil. In fact, they are one and the same thing. Mushroom soil is a compost of horse manure and clay or clay loam of a year's standing in a mushroom cellar.