

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.

Covering northern greens with stable manure over winter.—We have obtained a plentiful supply of well-rotted stable manure. Should we make a compost pile of this for use on our greens next spring, or put the manure on the greens as a dressing before winter sets in? Our winters are very cold, often the greens being covered with ice. (New York)

ANSWER.—All experiments and observations of which we have knowledge indicate that nothing is gained by covering putting greens in the North with any material in order to protect the grass from winter injury, but that in many cases much damage has resulted from such practice. In any case we would advise that stable manure, no matter how well rotted, be kept off of putting greens. It is almost impossible to get manure free from weed seeds. As a winter top-dressing, stable manure forms a soggy blanket by the time spring has arrived, which is liable to smother and otherwise injure the grass at that season. Even in northern Canada it has been found that it is not necessary to cover putting greens over winter to protect the grass from injury. Winter injury usually occurs on poorly drained greens, and is not due to lack of covering. In certain cases it is due to snow-mold, a fungous disease which may be controlled by applications of mercury fungicides. As will be noted in the article on snow-mold in the Bulletin for October, 1928, greens covered over winter have proved to be more liable to suffer from snow-mold than greens uncovered. If greens in your vicinity suffer from winter injury it is probably due to the existence of pockets in them or to inadequate drainage.

Winter injury to bent greens in the North.—On April 2 there suddenly appeared in one of our bent greens dead patches 6 to 18 inches in diameter which resembled the injury from brown-patch except that the patches were almost white, nearly round, and very clearly defined. This occurred after a period of almost uniform freezing weather at night lasting for a month. Your recommendations for treating this condition will be appreciated. (Massachusetts)

ANSWER.—The injury is probably due to snow-mold. Grass injured by this disease is bleached and the injury appears as white patches. Its name snow-mold, like the common names of many diseases, is somewhat confusing, leading to the impression that it is caused only by snow. The injury is caused by the action of a fungus which is most likely to grow when the temperature is low and there is abundant moisture; consequently it is most frequently associated

with thawing snow. It, however, occurs many times when there is no snow, as during cold weather there is often sufficient moisture from frost, dew, or mist. If you have had a prolonged period of temperatures near the freezing point it is likely that the disease would find conditions favorable for its development. It would be well to treat your green with corrosive sublimate at the rate of 1 to 2 ounces to 1,000 square feet. The chemical may be dissolved in a barrel of water and applied by means of a sprinkling can or sprayer. Complete information on the nature and treatment of snow-mold is found in articles in the Bulletin for April, 1927, October, 1928, and August, 1929.

Value and use of tannery refuse, sawdust, and charcoal as material for top-dressing.—We have available a supply of tannery refuse, sawdust, and charcoal. Would these be suitable for use as material for top-dressing putting greens? (Cuba)

ANSWER.—If tannery refuse is composted in the proper manner, it should be a good source of organic matter to mix with sand and loam. We would not advise the use of sawdust unless it has first been broken down into a pulpy texture. The rotting of sawdust can be hastened by sprinkling nitrate of soda on piles of sawdust and then dampening them. It can then be used much as tannery refuse is used. Charcoal does not serve the same purpose as rotted tannery refuse and sawdust, as it is practically pure carbon and is extremely inert. Tannery refuse or rotted sawdust may be used in piles much as old sods and clippings are used. If you can not obtain sufficient manure to make layers of manure in the pile, we would recommend that you build up the pile with a layer of loam, then a layer of tannery refuse or sawdust, and then a layer of sand, the layers of loam, refuse, and sand being repeated as the pile is built up. In preparing the layer of tannery refuse or sawdust it is best to mix hydrated lime with it, using 25 pounds of lime to a cubic yard of refuse, and then dust the top of the layer with sulphate of ammonia at the rate of 10 pounds to the cubic yard. By treating the layers of refuse in this manner while the pile is being built up the rotting process will be much quicker and more thorough. The pile will heat up rather quickly and should be cooled by wetting several times before being turned. Further information on the construction of compost piles is contained in the Bulletin for February, 1928.

Controlling cutworms.—A year ago the turf on our practice putting green began to turn brown along the entire outer edge of the green. Since that time the trouble has been gradually extending inward over the green in an irregular circle. We are sending you a plug of turf from the browned area and shall be glad to have your advice in the matter. (Delaware)

ANSWER.—Your turf is being destroyed by cutworms, which feed on the roots and the tender shoots of the grass. These can be controlled by poisoned bait prepared and applied as follows. Thoroughly mix 1 pound of white arsenic with 10 pounds of wheat bran. Moisten the mixture sufficiently to make it crumbly, with a solution of 1 pint of molasses in 10 pints of water. Scatter this bait on the green just before nightfall at the rate of 3½ pounds to 1,000 square feet. The treatment may have to be repeated once or twice.



The sixteenth hole of the Rolling Green Golf Club, Media, Pa.



There is quite as much education and true learning in the analysis of an ear of corn as in the analysis of a complex sentence; ability to analyze clover and alfalfa roots savors of quite as much culture as does the study of the Latin and Greek roots.

O. H. Benson

