

Decision.—Although B had not asked A how many strokes the latter had played, A conveyed to B wrong information by a method of expression common to golfers and accordingly he loses the hole under Rule 4 (2).

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. Dynamiting as compared with tile drainage in improving subsoil conditions.—The turf at one place on our course is very poor. Investigation of the subsoil conditions indicates that at a depth of two to three feet beneath the surface is a hard-pan of impervious clay and gravel. The standing level of the ground water at the present time (January) is 9 to 12 inches beneath the surface. A proposal has been made to us to correct this condition of the subsoil by dynamiting. Would you advise us to accept this proposal? (New York.)

ANSWER.—It is evident that the trouble with your piece of land is lack of drainage. Dynamiting would not give you permanent relief. We would advise you to install a system of tile drains not over 20 feet apart. The services of an experienced drainage engineer would be of value to you in this connection.

2. Germination of Chewings fescue seed.—We purchased some Chewings New Zealand fescue seed which was said to have shown a germination of 90 percent in a test made by the New Zealand Government Seed Control Station. Our own test of this seed showed a germination of only 12 percent. Can you account for this difference? (Wisconsin.)

ANSWER.—It has been our experience that New Zealand fescue seed is very uncertain as to germination. The long sea voyage is thought to be injurious to the seed, and furthermore its germination always deteriorates when it is carried in stock over a winter.

3. Comparative values of fertilizers.—Can you give us any data on the relative merit of cow manure, horse manure, and other fertilizers on grasses? (New York.)

ANSWER.—The subject of commercial fertilizers was fully discussed in the November, 1926, number of THE BULLETIN. A great deal has been written in regard to the relative merit of manures, but the main part of the discussion arrives at the conclusion that any stable manure is good. We would not hesitate to use any barnyard or stable manure that could be purchased. If there is considerable straw or coarse litter in it, we would put it in a compost pile with about an

equal bulk of soil and let it rot for six months or a year before using. If it is already rotted so that it breaks up readily, we would use it at once. We would just as soon have cow manure as horse manure. These materials serve a purpose in furnishing organic matter to a soil, which improves its physical condition and helps to hold moisture, a benefit which is not obtained from commercial fertilizers. Commercial fertilizers are best used along with well-rotted stable manure.

4. Value and use of Canada bluegrass.—Would you advise our using Canada bluegrass for fairways in our part of the country? (Wyoming.)

ANSWER.—Canada bluegrass does not make good fairway turf. On poor, loose soil, either sandy or gravelly, it is an excellent grass to sow in the rough, but this is about the only use there is for Canada bluegrass on a golf course.

5. How early in spring to start topdressing.—What is the best time to start topdressing? Is it better to wait until the grass has made some growth, or may topdressing be started at any time after the frost is out of the ground? (Pennsylvania.)

ANSWER.—The best time to start topdressing is just as soon as the grass begins to show signs of growth in the spring. A light topdressing is advisable at that time, and this should be followed by light topdressings at least once a month during the growing season.

6. Grasses for wet fairways.—A portion of one of our new fairways is a muck deposit depression. It is not, however, a swamp, as the soil is firm enough to raise crops. Do you think a bluegrass-redtop mixture will be satisfactory at this place in our fairways? (Maryland.)

ANSWER.—The commonly used mixture of bluegrass and redtop is about the most satisfactory one we know of for wet fairways. The proportions generally used are 3 or 4 pounds of Kentucky bluegrass and 1 pound of re-cleaned redtop. There are two other grasses which it might be well for you to try out on your wet fairways, namely, *Poa trivialis* and German mixed bent. Both of these do well in moist ground. One pound of the Kentucky bluegrass seed in your mixture might be replaced by 1 pound of *Poa trivialis*, and a portion of the redtop might be replaced with bent seed.

7. Cleansing beach soil of salt.—There is a large area on one of our fairways when even the rankest weeds will not grow. It seems to be covered with salt, and is spreading in size. It is situated on a filled-in meadow. The rest of the fairway seems to be doing very well. Have you any suggestions as to correcting this condition? (Long Island, New York.)

ANSWER.—We would suggest that you install a system of tile drainage underneath this spot in your fairway, as it is probable that the salt which has accumulated will thus be drawn away as it goes into solution from rains. The drainage of the salt would be hastened, however, by thoroughly flooding the area several times after the drainage system has been installed.

The Green Section held a meeting at Washington on February 5, at which the work of the current year was considered and the organization of committees determined. Hereafter the Green Section will function through three committees: The Executive Committee, the Research Committee, and the Advisory Committee.

The Executive Committee will control the policy of the Green Section's work; will prepare and submit to the Executive Committee of the U. S. Golf Association a budget of income and expense, and will take general charge of the business administration of the Green Section. Its Chairman, Mr. Wynant D. Vanderpool, being a member of the U. S. Golf Association Executive Committee, will keep this body informed concerning the problems and the work of the Green Section.

The technical work of the Section will be in charge of the Research Committee with headquarters at Washington. This Committee will control the experimental work being carried on throughout the country; will direct the work of the field men; will edit the Bulletin, and handle the correspondence with the Association's members. Needless to say, this is the most important work of the Green Section and it will be the aim of the Association to give the men carrying it on every possible assistance.

The Advisory Committee is composed of men in various parts of the country who have been actively interested in the work of the Section and who make contributions to the Bulletin from time to time. The men on this Committee render valuable assistance in keeping the Green Section posted concerning the needs of the different parts of the country.

The following is a very brief resume of the work planned for the year:

It is proposed to continue turf experiments in cooperation with the State Experiment Stations at Gainesville, Florida; Manhattan, Kansas; Lincoln, Nebraska; New Brunswick and Riverton, New Jersey; St. Paul, Minnesota; and Arlington Farm, Virginia. Many of the tests being conducted at these stations must be continued several years before any definite conclusions can be drawn. In addition to conducting the tests a present under way, it is proposed to enlarge the experimental work at most of the stations.

The brown-patch disease is one of the most serious problems we have to contend with throughout the country in growing turf grasses. Special emphasis will be given to means of controlling this disease through the use of mercuric compounds and other chemicals.

Beetles, grubs, and other insects constitute a serious factor in many sections and the experiments in controlling these pests by poisons will be enlarged.

The Green Section will conduct tests with strains and species of grasses in an effort to find which are best suited for various golf course purposes in each part of the United States. Special attention will be given to testing strains of creeping bent and velvet bent in an effort to find something more resistant to brown-patch than anything at present available.

The fertilizer tests will continue much as in the past to determine the effect on the soil, the turf and weeds, of long-continued use of the different chemical fertilizers. In so far as practicable anything that has bearing on the maintenance of satisfactory putting greens will be studied.

It is felt that the new line-up of the Green Section gives everyone a chance to put his shoulder to the wheel and make this a year of big results, accomplishments which will serve to keep fresh the memory of Doctor Piper, the founder of the Green Section.

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