

Questions and Answers

Value and use of peat and muck.—We have just purchased an acre of muck land of a uniform depth of about 8 feet. We are sending you four samples of this muck each taken from a different depth. Please test these samples for acidity and advise what fertilizing value they possess and how suitable they would be for top-dressing putting greens. (New York)

ANSWER.—Peats and mucks contain some nitrogen, but it is in an unavailable form and hence the material can not be used as a source of nitrogen for fertilizing purposes. They contain phosphoric acid and potash only in traces or comparatively small amounts which can not be considered of value. The surface sample is very well decomposed reed muck derived from the material below, which is still in the peat form. At the depth of 2 feet the material is more fibrous and is mixed with woody debris. At the depth of 5 feet the material is only slightly decomposed. At the 7-foot depth the material is still peat, somewhat similar to that at the 5-foot depth. The material at the 5-foot depth is very acid, testing pH 4.5. The sample from the 7-foot depth is less acid, testing pH 6. A deposit such as this, procured at a reasonable price, would provide an excellent source of organic matter, which can be put to good use by mixing it with soil so as to provide good, open, friable soil for seed beds and excellent soil for top-dressing purposes.

Applying lime to putting greens in brown-patch control.—On several of our greens the soil shows an acidity of pH 4.5. At what rate should limestone be applied on soil of this character to aid in checking brown-patch? (New York)

ANSWER.—On soil you describe limestone should be applied at the rate of 25 to 50 pounds to 1,000 square feet. This is for spring application. If you want quicker results during summer months hydrated lime may be applied at a rate not exceeding 10 to 15 pounds to 1,000 square feet at any one time. Usually it is safe to use much larger quantities, but during hot weather occasionally burning results, and therefore lower rates of application are advisable, repeated when necessary. Hydrated lime should not be applied at the time when nor for several days after sulphate of ammonia or other fertilizers containing ammonia are applied. This is because the hydrated lime reacts chemically with ammonium salts and liberates ammonia gas, which is poisonous to turf. The effect of lime in brown-patch control is discussed at some length in the Bulletin for May, 1929.

Agricultural slag as a substitute for ground limestone.—We can buy ground limestone for \$6 a ton and agricultural slag for \$1.30 a ton. The latter is claimed to contain 82 per cent carbonate of lime and 3.1 per cent carbonate of magnesia. Which would you recommend us to purchase for use in reducing acidity on bluegrass fairways? (Pennsylvania)

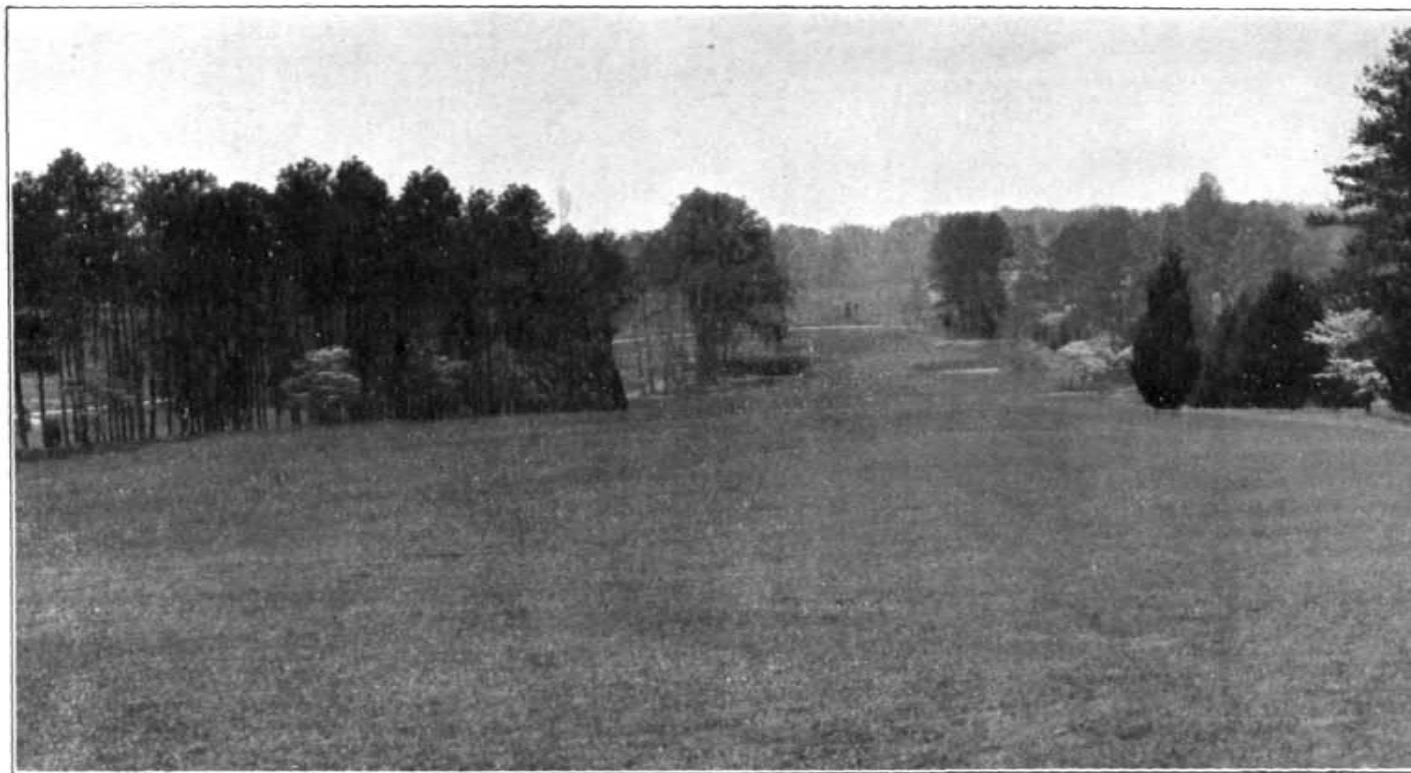
ANSWER.—In Bulletin 220 of the Pennsylvania Agricultural Experiment Station, State College, Pa., entitled "The Agricultural Value of Specially Prepared Blast Furnace Slag," agricultural slag is given, on the whole, a favorable comparison with limestone. Considering the lower price of the slag, it is worthy of a trial.

Controlling annual bluegrass (*Poa annua*).—Some of our greens are now (May) infested with annual bluegrass. This is the first season it has appeared. As it grows in patches all over a green, the putting surface is practically ruined. Our greens are of bent grass. We are informed that in a few weeks the annual bluegrass will die and we may then expect good greens. Your advice will be appreciated. (New Jersey)

ANSWER.—It seems that in your section annual bluegrass will eventually invade any putting green regardless of the grass that is used. It does not stand the hot summer weather well and much of it will die during summer. Your bent grass will probably take its place as fast as it dies. However, much annual bluegrass seed will remain in the turf and germinate the following autumn or spring. In order to reduce annual bluegrass in a putting green it is desirable to prevent as much of its seed as possible from getting into the green. This can be done in various ways. Greens that are subject to washes should be protected by having grassy hollows or sand traps on the hillside to catch these washes, since otherwise much seed of annual bluegrass may be washed upon the green from higher elevations. Also the material used for top-dressing should be examined carefully to see whether or not it contains annual bluegrass seed. This may be done by setting out a flat of the top-dressing material, watering it, and observing what germinates in it. Where the infestation of a green is in scattered spots, the patches of annual bluegrass may be removed with a hole cutter and replaced with good turf. We know of no chemical or fertilizer treatment which will keep annual bluegrass from invading a green. It gets in much more easily if there are poor spots of turf such as may result from disease or lack of adequate care. If turf is kept healthy and closely knit at all times there is less likelihood of annual bluegrass becoming established in a putting green.

Ridding greens of *Dichondra*.—We are sending you a piece of turf containing a cloverlike weed which is gradually showing itself on our Bermuda grass greens and smothering out the Bermuda. What is the weed and how can we get rid of it? (Louisiana)

ANSWER.—The piece of turf you send is infested with a weed, common to your section of the country, called *Dichondra*. This weed is rather difficult to remove and it may eventually be necessary to remove the turf and resod with pure Bermuda grass or plant with Bermuda grass seed. Before going to that extreme, however, you may have some success by sprinkling the infested area with sulphate of ammonia early in the spring when the Bermuda commences to grow. Pure sulphate of ammonia should be placed in a canister or salt shaker and dusted on the infested areas early in the morning when the dew is still on the ground. Within a few hours after a light dusting it will be noticed that the weed is being burned and is turning yellow. At that time the putting green should be watered in order to wash the chemical into the soil and prevent injury to the grass roots which may be in the weedy area. This direct application of sulphate of ammonia to the weedy area serves two purposes; it temporarily destroys the weed and it stimulates a new growth of Bermuda grass in these areas by its fertilizing action. Several of these treatments may materially decrease the amount of the weed in your greens.



Eighteenth hole (480 yards), Sedgefield Country Club, Greensboro, N. C.



A SONG THE GRASS SINGS

The violet is much too shy,
The rose too little so;
I think I'll ask the buttercup
If I may be her beau.

When winds go by, I'll nod to her
And she will nod to me,
And I will kiss her on the cheek
As gently as may be.

And when the mower cuts us down,
Together we will pass,
I smiling at the buttercup,
She smiling at the grass.

Charles Granger Blanden

