

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 here given it is your privilege and duty to write to the Green Section. While most of the answers are of general application, it must be borne in mind that each recommendation is intended specifically for the locality designated at the end of the question.

Economy in the use of known chemicals in place of proprietary fungicides in brownpatch control.—We are having quite a bit of trouble here in southern Texas from brownpatch in the winter grass on our Bermuda greens. Practically every golf course of importance here has planted its Bermuda greens with redtop and bluegrass. We have had no trouble in San Antonio with bluegrass but have had quite a bit of trouble with redtop. We have been spraying our greens every ten days with * * *, a proprietary brownpatch remedy, but find this rather expensive. Is there any preventive we could use as a spray or a topdressing which would keep our winter grass healthy and yet not be so expensive as this proprietary preparation? (Texas)

ANSWER.—You can control brownpatch much more economically by using corrosive sublimate than by using the preparation you mention. There is a little more danger of burning grass with corrosive sublimate than with that preparation, but since the pure chemical is so much more effective it should be used in smaller quantities. We have found that 2 ounces of corrosive sublimate contain approximately the same amount of mercury as 1 pound of the preparation referred to. The control of brownpatch is determined by the mercury content of the fungicide employed. Therefore, in cases where you have found 1 pound of the fungicide you have been using effective, we would advise you to try 2 ounces of corrosive sublimate. This can be applied best when mixed thoroughly with a pail or two of slightly moist soil. The soil makes it possible to distribute the chemical more evenly; but it is essential that the corrosive sublimate be mixed very thoroughly with this soil for obtaining an even distribution. As soon as the chemical is applied it should be watered in with a light sprinkling, care being taken not to use an excessive amount of water since that would tend to wash the chemical down into the low areas on the green. In addition to its mercury content the preparation you have been using contains a fertilizer rich in nitrogen. One pound of this preparation contains nitrogen equivalent to approximately 1 pound of sulphate of ammonia. Therefore, if your greens are in need of nitrogen they will get a stimulation from the application of the material you have used which they will not get from an application of corrosive sublimate alone. This form of nitrogen, however, can be bought much more economically in the form of sulphate of ammonia or some other regular fertilizer. Many of those who use combinations of fungicides and fertilizers get the impression that they are getting control of brownpatch when, as a matter of fact, all they are getting is a stimulation of growth by the

application of nitrogen. We therefore feel that it is necessary to warn users of such combinations to try fertilizers in addition to fungicides in order to determine whether or not the benefit from the use of the preparation is due merely to its stimulating the growth of the grass.

Treatment of putting greens on alkaline soil infested with crabgrass and other weeds; use of sulphate of aluminum and gypsum.—A test of the soil of our putting greens shows that it is neutral in reaction. The greens are full of clover and have much crabgrass, and the finer grasses of which we have sowed seed from time to time do not thrive on account of this lack of acid soil. What would you suggest as a safe and reasonably quick method of making the soil slightly acid? We are informed that sulphate of aluminum or acid phosphate will effect such a change more quickly than sulphate of ammonia. It has also been suggested that the use of gypsum in place of lime will keep the soil friable without making it alkaline. (Pennsylvania)

ANSWER.—Our advice is that you use nothing but sulphate of ammonia for making your soil slightly acid. Sulphate of aluminum, while it makes soils acid and is suitable to use with some plants, is harmful to grass. Acid phosphate does not materially affect the acidity of the soil. The name of this fertilizer is often misinterpreted to mean that it has an acid reaction on soil, and to avoid such wrong impressions the trade has adopted the name superphosphate to replace the name acid phosphate. There is practically no evidence that gypsum will be of much value in soil for bent grasses. Good bent grass can be grown on a soil slightly alkaline if it is fertilized frequently. Frequent applications of sulphate of ammonia will greatly retard the growth of clover even though the soil be slightly alkaline. In controlling crabgrass it is suggested that you weed it all out by hand before it has a chance to seed on your greens. Crabgrass seeds freely, and unless the plants are removed before they are permitted to produce seed they will sow the green for another crop of crabgrass the following year. You should also see that your topdressing material is kept free from crabgrass seed. Frequently compost piles are allowed to become covered with crabgrass, which goes to seed and thus contaminates the topdressing material.

Fertilizing the putting green bed before planting.—What are your suggestions as regards fertilizing a putting green bed before planting? We are wondering whether it would be better to use sulphate of ammonia or some prepared formula of about 10 units of nitrogen, 8 units of phosphoric acid, and 6 units of potash? Our soil is a good sandy loam. (Illinois)

ANSWER.—In fertilizing a putting green bed preparatory to seeding or planting stolons it is recommended that a prepared fertilizer be used having a comparatively high percentage of nitrogen, considerable phosphoric acid, and some potash. A 10-8-6 fertilizer, such as you mention, should be very good. This should be applied at the rate of 40 to 50 pounds to 1,000 square feet and raked into the soil during construction. As your soil is a sandy loam it is recommended that you use, if possible, a fertilizer with an organic base.

Controlling weeds with sulphate of ammonia.—We are sending you a specimen of a weed which is invading our putting greens. Please let us know what the weed is and whether or not we can control it with applications of sulphate of ammonia. To attempt to dig it out by hand would doubtless be too expensive. (Quebec)

ANSWER.—The weed you send is creeping buttercup. Most of these large-leaved plants are likely to be checked if they are treated repeatedly with heavy applications of sulphate of ammonia. This forces the growth, and when the greens are cut closely the leaves of the plant are likely to be cut off. This treatment gradually weakens the plant. The process is, however, a gradual one, and it will probably be necessary to repeat the operation a number of times. In your locality it would probably be better to undertake this treatment in the spring than in the fall, since the forcing of turf grasses late in the fall by application of sulphate of ammonia renders them more susceptible to damage from snowmold over winter.

Controlling crabgrass in putting greens.—Do you know of any chemical that will quickly rid a putting green of crabgrass? (Wisconsin)

ANSWER.—We do not know of any such chemical that can be used with safety. If your greens are infested with crabgrass they should be thoroughly weeded by hand to prevent the grass from reseeding. Much of the crabgrass on putting greens comes from seed which is carried in the compost used for topdressing purposes. It is therefore suggested that you examine your topdressing material to make sure it is kept free from weeds that are going to seed. This can be done by thoroughly composting the material, or by plowing and keeping fallowed a piece of land in the rough. It is very important that no weeds of any kind be allowed to go to seed in the immediate vicinity while this soil is in the process of preparation. If one removes the crab grass from his greens before it seeds, protects the greens from surface wash which is likely to carry weed seeds, and uses only topdressing which is free from weed seeds, he should have little trouble with crabgrass.

Ridding bent greens of clover.—One of our bent greens is almost completely overrun with clover. What can we do to get rid of it? (Georgia)

ANSWER.—Heavy spring and fall fertilizing gets the grass off to a good start in the spring and fills it in well in the fall after the summer setback; in this way the grass is able to offer considerable competition against clover. Nevertheless, once patches of clover become established it is necessary to treat them in a drastic manner. If you do not wish to cut out the clover and replace with pure turf, the best alternative is to dust the patches of clover with sulphate of ammonia early in the morning while the dew is still on the grass. Later in the morning it will be found that the clover leaves are turning yellow. At this time it is well to sprinkle the green in order to prevent the sulphate from burning the grass too severely. Frequent treatments of this kind will destroy the clover and replace the bent, as the bent will come back quickly.



Thirteenth hole (375 yards), Sea Island Golf Club, Sea Island Beach, Ga. Tee in foreground, putting green at extreme left



**To most men experience is like the stern
lights of a ship, which illuminate only the
track it has passed.**

Samuel Taylor Coleridge

