in the autumn rather than assuming a yellowish dead appearance. This also adds color to the grounds in the fall when other plants are dead.

Rather than to plant the harmful common barberry which is known to cause the loss of so many million dollars from black stem rust, country clubs are asked to plant the Japanese barberry, which in the end will prove far more satisfactory and beautiful than the common barberry.

Methods of Applying Ammonium Sulfate or Ammonium Phosphate

By O. B. Pitts

There are three methods available for applying ammonium sulfate or ammonium phosphate, and each gives splendid results when properly employed.

1. The first method is to mix the fertilizer thoroughly with compost. Topdress with this mixture, brush the material well down into the turf, and then follow immediately with a thorough watering. By this method both ammonium sulfate and ammonium phosphate have been applied on plots at the Arlington Turf Garden at the rate of 6/2 pounds per 1,000 square feet of surface every month during the growing season without the slightest indication of burning, and the results of each application have been excellent. It is, of course, very rarely necessary to make such a heavy application. In fact, it is advised that applications of not more than 5 pounds per 1,000 square feet be used in the cool weather of spring and fall, and not more than 2 pounds in the very hot summer weather. However, in case it is necessary to use heavier applications, it can be done by this method without burning the grass. The fertilizer is absorbed by the compost as it goes into solution when water is applied, and there is very little chance of its sticking to the foliage and burning if sufficient water is employed.

2. Fisher fertilizer may be applied satisfactorily in the form of a solution provided extreme care is taken to water it in well. Even if a weak solution is left on the grass it becomes stronger as the water evaporates and may then cause burning.

3. Another method is to apply ammonium phosphate or ammonium sulfate in the crystal form, either alone or with just sufficient sand to facilitate uniform distribution. This method, like that of the solution, requires extreme care in watering the fertilizer in, as the sand has very little absorbing capacity and the fertilizers, as they go into solution, may burn the foliage.

Results of the three methods of applying ammonium sulfate or ammonium phosphate, as here described and as conducted in experiments at the Arlington Turf Garden, have indicated throughout the past three years that better and more lasting effects have been obtained from mixing the fertilizers with compost than from either of the other methods. It is the safest method of the three and should be used on golf courses in preference to any of the other methods. However, if it is not convenient to use this method, either of the other methods may be used if extreme care is taken to see that the fertilizers are thoroughly watered into the turf.

Soil analyses.—These are of practically no value. No one living can tell what they mean.