

YOUR TURF PROBLEMS

... and their solution

QUESTION:

Our fairway soil is moderate to strongly acid pH 4.8 to 5.4, available phosphorus is very low, but potash is reported as satisfactory. Please suggest a fertilizer program for the next several years. We wish to encourage Kentucky blue grass.

ANSWER:

Kentucky blue grass is a lime-loving plant and requires a high level of available phosphorus, whereas bent and fescue can withstand considerably more acidity, and need less phosphorus.

The practical significance of these facts is often overlooked. More lime is needed on acid soil for blue grass than for fescue or bent, and phosphate fertilization is likewise more important for blue grass.

Since soil is strongly acid, fairways should receive finely ground limestone this fall or during early winter. Use about one ton per acre where reaction approaches pH 5.5, and increase the rate to one and one-half tons where reaction is pH 5.0 or lower.

No mention is made of soil content of available magnesium. If this is low, be sure to use a dolomite limestone. One containing from 20 to 30 percent, or more, of magnesium oxide or its equivalent should be selected. This information can be obtained from the producer.

By using the quantities suggested, additional lime will not be needed for a period of 2 to 3 years. It is not necessary to raise reaction to pH 6.0, or higher, immediately.

Because available soil phosphorus is low, phosphate fertilizer should be applied generously early this fall. The rate should approach 300 to 600 pounds of 20% grade superphosphate per acre. For other materials, or superphosphate of different analysis, adjust rate to supply the equivalent quantity of phosphoric acid. Approach the lighter rate on sandy

soil, and the heavier rate on silt and clay loam soils. With this initial heavy rate of phosphate, subsequent fertilization can be with a fertilizer containing from 1/3 to 1/2 as much phosphoric acid as nitrogen, as long as a satisfactory level of available soil phosphorus is maintained. In any event phosphate in quantity will not be needed for a period of two to four years.

Since available soil potash is adequate, nitrogen is the only other fertilizer element needed. For best results, the major portion should be supplied from true organic sources, such as Milorganite, cotton-seed meal, etc. In these fertilizers over 90% of the nitrogen is water insoluble, but is converted by soil organisms into soluble and available compounds as needed by the grass.

Since grass is a voracious feeder, the organic fertilizer (Milorganite) should be applied this fall at rates of 700 to 1500 pounds per acre. Approach the lighter rate where turf is fair to good, and the higher rate where grass is poor to fair.

During 1939 and 1940, omit use of lime and phosphate, and confine feeding to the use of the organic fertilizer. Specific recommendations will be furnished early each spring.

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Tell us about your Turf Problem. The facilities and services of our Soil Testing Laboratory and Field Agronomists are at your disposal, within reasonable limitations.

Turf Service Bureau

THE SEWERAGE COMMISSION
MILWAUKEE WISCONSIN

feed with **MILORGANITE**
THE ORGANIC-NITROGEN TURF FERTILIZER