For each soil sample you submit to the Auburn University Soil Testing Laboratory, you will receive a report that will include soil sample information, soil test results, and fertilizer recommendations. This circular is designed to help you understand the soil test report (sample below) so you can use lime and fertilizer efficiently and economically.

Soil Group (3)

Your soil is placed into one of four groups for soil testing purposes.

The soil group is based on the amount of clay, the type of clay, and the amount of organic matter in the soil. It reflects the soil's capacity to hold plant nutrients and to release them to growing plants.

- Soil group 1. Sandy soils (low nutrient-holding capacity).
- Soil group 2. Loamy soils and light clays (intermediate nutrient-holding capacity).
- Soil group 3. Fine-textured, clayey soils and soils high in organic matter (high nutrient-holding capacity).
- Soil group 4. Fine-textured, clayey soils from the Central Alabama Black Belt region (very high nutrient-holding capacity).

Soil Test Results (4)

The soil test results will include the following information:

pH. The soil pH is the most important analysis for homeowners. It measures the soil's acidity or alkalinity. A pH of 7.0 is neutral, below 7.0 is acid, and above 7.0 is alkaline.

Most Alabama soils are acid. If the soil pH is too acid (below 5.5), it may be too low for most garden plants. Lime should be recommended to raise the pH to around 6.5. Most garden plants do best in a slightly acid soil (pH 6.0 to 7.0). On the other hand, azalea, rhododendron, gardenia, hydrangea, and blueberry grow best in a very acid soil (pH less than 5.5).

Pounds per acre (Rating). The numbers reported for phosphorus (P), potassium (K), and magnesium (Mg) are rated to describe how much is available for the plant(s) you plan to grow.

Ratings range from very low (VL) to extremely high (EH). High (H) is ideal (see Table 1). The rating is more important to the gardener than the actual value reported as pounds per acre. This value is important only if you are comparing one field with another of the same soil type. It is also helpful if you are keeping records of your soil test results from one year to the next.