



Sallie Lee  
Urban Regional Extension Agent  
News Release

## Is it Time to Lime?

**Question:** I've had problems growing azaleas since moving to the Birmingham area. A neighbor suggested that adding lime to the soil might help. Does that sound like a good idea to you, and if so, is this a good time to apply it?

**Answer:** Ah the "add lime" response to problems in our landscapes and gardens! There is some confusion over the use of lime in vegetable gardens, landscapes, and turf areas.

First, although your lawn or garden may well benefit from an application of lime, you won't know that unless you have a soil test run; the Extension mantra is "don't guess, soil test." Applying lime when it's not called for can cause problems for your plants or turf, so spend a few dollars to test the soil and possibly save many dollars in cost of lime, application, or problems later on.

To begin with, what IS lime and what is its purpose? Lime is ground limestone, a type of sedimentary rock composed mostly of calcite and/or aragonite, both forms of calcium carbonate ( $\text{Ca CO}_3$ ).

Alone, lime is not a substitute for fertilizer. However, it can help plants take up necessary nutrients by raising the pH of soil, making it less acid. Basically pH is the measure of soil's acidity or alkalinity, and can directly influence the vigor and quality of lawns, ornamentals, and gardens. When pH is less than 7.0, soil is termed "acidic", when above 7.0, it is labeled alkaline, or "sweet" soil.

While most plants have a preferred pH, they will grow and thrive in a range from 6.0 – 7.0. However, there are exceptions that can make the difference between a successful crop and total failure. Blueberries are a good example. Soils in this part of Alabama tend to be on the acid side. Even so, blueberries need a pH of 4.5 – 5.2 which is difficult for many garden sites to achieve. Though materials are available that will lower pH, the process may take years and even then results may be disappointing. The only way to be sure – test the soil.

The addition of lime when not needed can backfire in other situations. Lime causes soil to be less acid; if that number reaches a 7.5 or 8.0 due to repeated applications of lime, pH can reach a level that nitrogen, phosphorus, iron, and other nutrients become less available, much like soil that is too acid. Testing the soil will tell us what we need to add, if anything, for specific ornamentals, vegetables, or crops.

Burned lime, Dolomitic limestone, Ground limestone, Hydrated lime, and Pelletized limestone are all listed as potential sources of lime; as you might suspect, each has its advantages and disadvantages. As example, Burned lime is a fast acting form of lime but can be hazardous if used incorrectly, and is difficult to apply. Dolomitic limestone is a slower acting material and is also a source of magnesium. Pelletized limestone is easier to apply, but is usually more expensive than other sources.

Although liming CAN be done most of the year, generally speaking the best time is in the fall so material has time to work into the soil. In this manner benefits will be available for spring planting and growth. It is not recommended that lime be applied to turf that is wilted or frost-covered.

Your soil test will give soil pH and recommend how much to apply. The ROT (Rule of Thumb) is 100 lbs of lime spread over 1,000 square feet will raise soil pH by 1 point. It is recommended this be the maximum amount of lime applied at any one time. If your lawn's pH is 4.5 (definitely acid), a series of applications, one month apart, should be considered. After all applications are completed, additional lime should not be added until another soil test is done in 2-3 years.

Most experts recommend that fertilizer and lime be applied at different times to realize the maximum benefit from both.

Soil tests are available from a number of sources, including Auburn's Soil Testing Lab. The soil test kit is free and can be picked up at the St. Clair County Extension office; it is a do-it-yourself test that includes instructions, a sheet to accompany your sample, and a box for mailing it. The \$7.00 fee to cover the actual test is one of the best actions you can take for your landscape, garden, or turf grass as it could save you many more dollars in unnecessary products or treatments.

Or you may check this site to take a virtual tour of Auburn's Soil Testing Lab, learn how to take a good soil sample and print the forms you will need to send with your soil sample and payment: [www.aces.edu/soillab](http://www.aces.edu/soillab).

If you have additional questions regarding testing your soil for lime or fertilizer requirements, please contact Urban Regional Extension Agent Sallie Lee at the St. Clair County Extension Office by calling (205) 338-9416 or email [leesall@aces.edu](mailto:leesall@aces.edu)