UNIVERSITY of NEW HAMPSHIRE
COOPERATIVE EXTENSION

Family, Home & Garden Education Center
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It's Always a Great Time to Lime

Lime is applied directly to the soil of your lawn to increase the soil pH. Soil pH, a measure of the soil's acidity or alkalinity, can directly influence the vigor and quality of your home lawn. Here in the humid, eastern United States rainfall exceeds 40 inches per year, leaching basic or alkaline-forming ions such as calcium and magnesium from the soil. This results in an acid soil condition which restricts the growth of turf. The optimum pH level for turf is in the 6.0 to 6.5 range. Keep in mind that lime should not be applied unless a soil test indicates that it is needed. Too much lime can be as harmful as too little, causing potential trace element deficiencies.

Making the limestone application is simple. Use either a drop spreader or a rotary spreader. Uniform coverage is the key as lime is very insoluble and essentially stays where it is put. To insure even coverage, one-half of the lime should be applied in one direction, and the remainder applied in a perpendicular (crisscross) direction. If you are using ground lime, it is simple to determine if coverage is uniform because of the visible white color. More care must be taken if pelletized lime is used.

If your soil pH is so low that more than 50 lbs/1000 sq ft is needed, then the lime application should be split. Additional applications should be put down 3 to 6 months after the first application. Applications of less than 50 lb/1000 sq ft will disappear after one or two rains. If you have not applied any lime for several years and are not able to do a soil test, a good rule of thumb would be to apply 40 to 50 lbs of lime per 1000 square feet.

It is often recommended that lime be applied in the fall to enable the material to begin raising the pH over the winter for the next season's growth. However, lime can be applied at any time of the year.

Lime is safe to use. The common forms of lime applied to turf, calcitic lime and dolomitic lime, are nontoxic to humans and grass, and will not cause pollution problems.

An application to bring the soil pH to 6.5 should last at least 4 years. Soils tend to revert to their natural acidity; most nitrogen fertilizers used on lawns are acid-forming, hastening the natural process. Ammonium nitrate and urea, two commonly used fertilizers, break down in the soil to produce nitric acid. Approximately 1 ¾ lbs of pure lime is needed to neutralize the acidity caused by 1 lb of nitrogen from either of these fertilizers. This means your soil should be tested periodically and lime applied when needed.

Liming materials commonly used on lawns are either calcitic or dolomitic lime. Calcitic lime is generally found in packages of smaller quantity, and often is more expensive. It is mined from natural bedrock deposits. The soil is bulldozed off the bedrock, holes are drilled in the limestone and then it is blasted out with dynamite charges. It is crushed to

about 1 inch stones and then pulverized or ground to screening specifications. Calcitic limestone supplies calcium, an essential element for plant growth.

Dolomitic or agricultural lime is mined in a manner similar to calcitic lime. It has a neutralizing value between 85 to 109% and supplies both calcium and magnesium for plant growth.

Pelletized lime is finely ground lime to which a cementing agent has been added to form “pellets”. It has been in use for a number of years, and while it is more expensive, this material is easier to spread than traditional liming materials. It also eliminates the dust problem. Lime pellets dissolve with a soaking rain or irrigation.

You can purchase a pH test kit at most garden centers. For $5.00, the UNH Cooperative Extension Soil Testing Program will run a soil pH test for you. To obtain a soil test form, call the toll free Info Line at 1-877-398-4769 or visit our website at www.extension.unh.edu and go to the agriculture page, choose “Problem Diagnosis and Testing Services” and follow the directions.

Call the UNH Cooperative Extension’s Family, Home, and Garden Education Center’s Info Line toll free at 1-877-398-4769 for “Practical Solutions to Everyday Questions.” Trained volunteers are available to answer your questions Monday through Friday from 9:00AM to 2:00PM and Wednesday evenings from 5:00PM to 7:30PM.

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