

1. Corrects soil acidity

2. Furnishes important plant nutrients—calcium and magnesium

3. Reduces the solubility and toxicity of certain elements in the soil such as aluminum, manganese, and iron. This toxicity could reduce plant growth under acid conditions

4. It promotes availability of major plant nutrients. Calcium acts as a regulator and aids in bringing about the desirable range of availability of many plant nutrients. Some elements which lime aids in regulating are zinc, copper, and especially phosphorus.

5. It increases bacterial activity and hence induces favorable soil structure and relationships. Soil structure is also improved by the addition of decayed organic matter or compost. The soil becomes more porous, increasing air circulation and the ability of the soil to absorb and hold moisture.

TIME OF APPLICATION

To obtain maximum efficiency and faster action, the best time to apply lime to the lawn is when the soil is being prepared for planting. This applies to the sub-soil as well as the topsoil because lime moves very slowly through the soil. (See Publication No. 405, NEW LAWNS.) Research has shown that it takes up to two years for lime to move two inches through the soil.

Applications of lime on established lawns may be made at any time of the year, the most favorable time of the year being fall, winter, or early spring, in that order. If applied when the soil is too wet, it is difficult to obtain an even distribution. If heavy equipment is needed to spread the lime, make the application on level areas when the ground is frozen. Less damage is made to the soil and grass under these conditions. Alternate freezing and thawing and

early spring showers hasten its penetration into the soil.

Lime must spread evenly over the entire area because it does not move horizontally. The use of a spreader insures a better distribution and permits the lime to be placed next to flower beds or in close proximity to acid-loving plants.

RATE OF APPLICATION

The amount of lime required will vary with the degree of acidity, the soil type and the kind of lime material. Light, sandy soils require less lime than soils high in silt and clay. It is always a good practice to have the soil tested to determine the amount and kind of lime required. Soil test mailers and sampling instructions are available from County Extension offices.

Liming the lawn is an important part of good maintenance and should be included in the schedule. However, many enthusiastic gardeners are apt to over-lime. Generally, applications of lime should only be made every three to five years. Soil tests will aid the homeowner in determining the exact applications to be made. Single applications of over 150 pounds of lime per 1,000 square feet (three tons per acre) are not recommended. If over 150 pounds per 1,000 square feet are needed, apply half one year and the remaining half two to three years later, after rechecking the soil pH.

It should be remembered that too much lime can be as damaging to lawn grasses as the lack of lime. Also, lime is not a cure-all to all lawn maladies but an ingredient which can correct soil acidity, thus creating favorable conditions for other factors to occur which develop favorable conditions in soil for lawn grasses. It is important that the homeowner know what lime is necessary and how much is needed so that he can make the proper application for the first step toward a healthy lawn.