4. When the recommended amount of P₂O₅ or K₂O is small, e.g., 20 lbs/A, the grower must identify the minimum amount that can be practically applied. Often a choice must be made between applying no fertilizer this year or applying a larger amount, e.g., 50 lbs/A, which will supply the crops for the next two years.

5. Changing the recommended amount of P₂O₅ or K₂O by 10 to 20 lbs/A seldom results in observable differences.

ADDITIONAL INFORMATION

Additional information may be obtained from University of Delaware Cooperative Extension Service offices in Newark, Dover, and Georgetown.

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NOTE 3: Forage Crops

LIME

In general, incorporation and thorough mixing of limestone to a depth of at least inches is necessary for best results. Thus, it is best to lime prior to seeding forage crops, particularly perennial crops. Uniform spreading is also important. The following are guidelines for lime applications where tillage is possible.

Applications of more than 2.0 T/A -- ½ to 3/4 of the lime should be spread, disked into the soil, and plowed under. The remainder can then be spread and disked in. This method results in good incorporation and mixing - important when the pH is low and the lime rate is high. This should be done as far in advance of planting as possible to allow time for the lime to react. Re-sample the field in 4 to 6 months to see if further liming is necessary.

Applications of 2.0 T/A or less -- All of the lime can be spread in a single application. At rates of 1.5 to 2.0 T/A, disked in the lime, followed by a plow-down and re-disking gives best results. For applications of 1.0 T/A or less, disked to 6 inches alone is usually adequate.

Existing pastures and hayfields may be renovated by topdressing limestone. This practice is less likely to produce satisfactory results when the recommended rate of application exceeds 1 to 2 tons /A. Where the existing stand is in poor condition and not yielding well, it would be worthwhile, where possible, to plow up the existing sod, apply lime as described above, and re-seed. This is especially important for alfalfa, a very acid-sensitive crop that declines markedly when the soil pH is too low.
Phosphorus, Potassium

Crop growth is reduced due to low nitrogen levels. Manure or nitrogen fertilizers should be applied to improve crop growth.

Nitrogen

The amount of nitrogen recommended is based on the following points should be considered:

1. The growth of grasses which will consume the nitrogen applied. 
2. The amount of nitrogen required to maintain a healthy lawn. 
3. The apparent need for nitrogen as determined by soil tests.

Fertilizer Needs

Information on fertilizer needs and fertilization

Information on fertilizer needs and fertilization

Trace Elements

Nitrogen