
 Roses

Management Highlights

- Target pH: **6.0**
- Fertilize roses each year with multiple applications in the late winter (January-February) and through the summer months (June, July and August).
- **Do not apply fertilizer after August 15.** Fertilization after this date may stimulate succulent growth which is susceptible to frost damage or winter-kill.

Introduction

Roses are usually grown for their beautiful flowers, but may provide other benefits such as hedge plants and food and cover for wildlife. Roses respond well to deep, rich soils and appropriate fertilization. Soils for roses can be improved by the addition of compost, manure or peat moss. When using these materials, be sure to monitor soil pH and add lime as necessary.

Soil pH and Liming

The target pH for roses on Delaware soils is **6.0**. The lime recommendation for a particular site is calculated from the soil pH and buffer pH measurements using the steps outlined in *Calculating the Lime Requirement -- Chapter 4, Section 4.4*. Avoid overliming in order to encourage good plant growth and prevent deficiency of micronutrients such as iron. When amending soils for roses with peat moss, apply lime with the peat moss at a rate of 1 cup of lime per square yard. Incorporate thoroughly.

In most cases, the lime requirement can be met by either calcitic or dolomitic limestone. *Dolomitic limestone* is recommended if:

- soil test Mg is less than 50 FIVs, or
- soil test Mg is between 50 and 100 FIVs *and less than soil test Ca.*

Calcitic limestone is recommended if:

- soil test Mg is greater than 100 FIVs, or
- soil test Mg is between 50 and 100 FIVs *and greater than soil test Ca.*

When establishing new beds, lime is should be applied in the fall prior to planting. This provides time for the lime to react with the soil to raise pH. On established beds, do not spread more than 50 lbs lime/1000 square feet at a time. If more than 50 lbs/1000 square feet has been

Lawn and Garden Plants

recommended, make two or more treatments of 40-50 lbs each several months apart until the full rate has been applied.

Nutrient Recommendations

Nutrient recommendations for roses are based on the nutrient requirements of the plant and the soil test values for P and K. To determine the nutrient recommendation for a specific site, select the **P-K Index Value** from Table 1 using the soil test P and soil test K values shown on the Soil Test Report Form. Next, using that index value, select the appropriate nutrient recommendation from Table 2, below.

Table 1. P-K Index value as a function of soil test P and soil test K.

Soil Test K (FIVs)	Soil Test P (FIV)s			
	1 - 25	26 - 50	51 - 100	101 - 150
1 - 25	1	2	3	4
26 - 50	5	6	7	8
51 - 100	9	10	11	12
101 - 150	13	14	15	16

Table 2. Nutrient recommendations for roses as a function of the P-K index value.

P-K Index Value	Nutrient Recommendation
1-15	In late winter (January-February), apply 5-10-10 at a rate of ½ cup per plant (approximately 4 oz) or 2 lbs per 100 square feet (approximately 4 cups). In mid-June, mid-July and mid-August, apply 5-10-10 at a rate of ¼ cup per plant (approximately 2 oz.) or 1 lb per 100 square feet (approximately 2 cups). Do not fertilize roses after August 15.
16	Since both soil test P and K are very high, ammonium nitrate (34-0-0) or urea (46-0-0) can be used in place of the complete fertilizer. Apply at a rate of 1 tablespoon per plant in the winter application and ½ tablespoon per plant in mid-June, mid-July and mid-August. Do not fertilize roses after August 15.

Additional Information

See Soil Test Notes 1 and 13 (Appendix APP-7) Extension Bulletin #154: *The Care of Ornamental Plants – Delaware Home Gardeners Manual* for additional information about nutrient management of roses.
