

The Question and Answer Board:

By Barbara Kemp, Consulting Rosarian

Amending Soil for Roses

Q Do I need special soil to grow roses?

A Roses can grow in reasonably good soil, but they will thrive in amended rich soil. The best soil is one that is fertile, retains water, rich in organic matter, and loose enough so that air and water can penetrate. If soil is too sandy, it cannot hold onto water or fertilizer, so these roses need to be watered and fed frequently. On the other hand, clay soils hold water and nutrients well, but usually has poor drainage. The best soil is called the loam, which is a combination of sand, silt, and clay. The loam drains well and retains enough water and nutrients for the rose to thrive.

If you haven't done so, it is recommended to identify the type soil in your garden and test the nutrient levels. Easy-to-use soil test kits are available at your garden center. Soil test strips can determine the pH, nitrogen, phosphorus, and potassium levels in the soil. How do these nutrients affect your roses?

Nitrogen—stimulates growth, resulting in tall, strong canes, good blooms, and rich dark green foliage.

Phosphorus—stimulates root growth and produces large blooms. It also promotes strong root systems.

Potassium—promotes root growth and bloom color.

Q What is pH, and what is the best level for our area?

A **pH**—measures the soil acidity or alkalinity. The pH level in soil determines how well the rose will be able to use the nutrients in the soil. Most soils in Colorado are alkaline and have a pH level between 7.0 and 8.0. A soil test with a 6.0 to 6.5 level is considered ideal.

Q What are some soil amendments used with roses?

A Organic materials can be mixed into the soil to improve the drainage, nutrition, and water retention of the soil.

Examples of organic materials are: decomposed animal or plant matter, peat moss, packaged garden soil, pine needles, barnyard cow or horse manure, Perlite, etc.

(DO NOT use play sand.) Organic materials are valuable to the soil. When they are added to clay soils, it makes it more coarse and allows for drainage; added to sandy soil, it retains moisture and nutrients.

Q Do I need to amend the complete planting bed or just the soil in individual planting holes?

A If there is poor soil in the complete bed, you should amend the complete area. Roots could be trapped in pockets of good soil that is surrounded by poor clay soil, which could retard the growth of the rose. If your soil is good, then only improve the soil in the individual holes. For both, use at least 25 percent of organic materials, i.e. peat most, compost, bagged manure, etc. Break up dirt clods and remove any debris and rocks from the soil.

Q Is fresh manure recommended?

A Fresh manure contains a high percentage of ammonia, which is high in nitrogen. As water percolates through the manure, it leaches out the nitrogen. So older manure that is exposed to the elements is valuable for its organic content, but not as valuable as fertilizer. (**CAUTION**—Do not place fresh manure in a hole when planting a rose bush as it has a higher level of nitrogen, and if there isn't a sufficient amount of water for the rose, the nitrogen will form salts in the plant's tissues and the roots could burn.) You also need to be aware that fresh manure brings weeds.

Barbara's Formula: Each year an application of horse manure that has been percolating for a year in my vegetable garden becomes excellent organic compost, and it comes with worms. A sufficient amount is spaded around the rose along with a combination of fertilizers (Epsom salts, kelp, alpha meal, and Mile-Hi Rose Feed). The fertilizers are distributed according to the recommended applications and size of rose (shrub to miniature). I have found that this combination of horse manure and fertilizer has been a good combination for clay soils. Summer mulch is then applied.

