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**Azalea and Rhododendron
Culture in Minnesota**

Azaleas and rhododendrons are native to cool, moist climates of the northern hemisphere. Nearly 900 of the approximately 1,000 known species are native to the moist mountain regions of the Himalayas and adjoining Asian countries. In North America, there are 28 species native to the moist mountain regions near the Atlantic and Pacific oceans. Except for one isolated species in northern Colorado, and a few plants of Rhododendron lapponicum near the Dells in Wisconsin, no native species occur in the vast interior of the United States and Canada.

The climate of Minnesota is probably far from ideal for the successful culture of azaleas and rhododendrons. Site selection and soil modification can go a long way toward providing proper growing conditions for certain deciduous species and cultivars such as the Mollis azalea, which is now readily available from many Minnesota nurseries.

SITE SELECTION

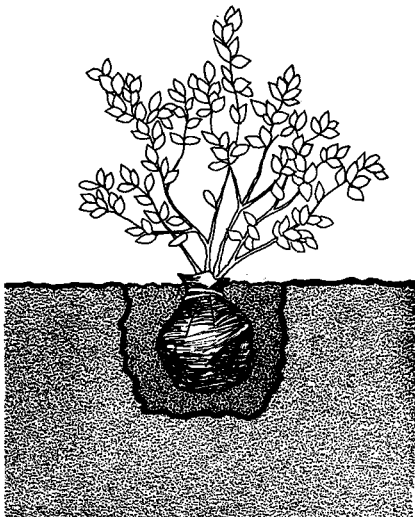
Since a cool, moist site is essential, a site that is partially shaded is best. Light shade under large oak trees or a location on the north side of a garage or a ranch style home is ideal. Avoid heavy shade, severe root competition, or a windy site.

SOIL MODIFICATION

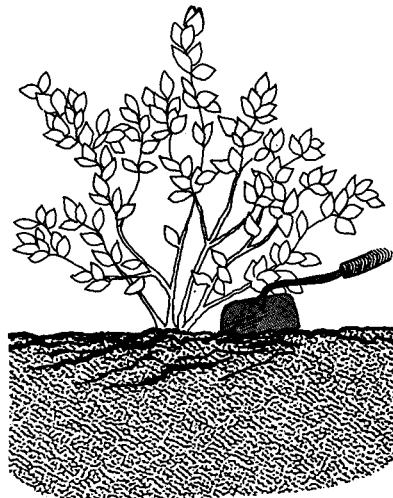
The soil must be acid. A soil pH of between 4.0 and 5.5 is optimum, but we have experienced no difficulty in growing azaleas and rhododendrons at a pH of 6.0 at the arboretum. To play safe, an acidity test of the soil should be made. If the pH is above 6.0, a modification of the soil will be needed.

There are several ways in which the soil pH can be lowered. The liberal use of an acid form of organic matter such as acid peat moss, aged sawdust, or composted oak leaves is the safest and best way to increase soil acidity.

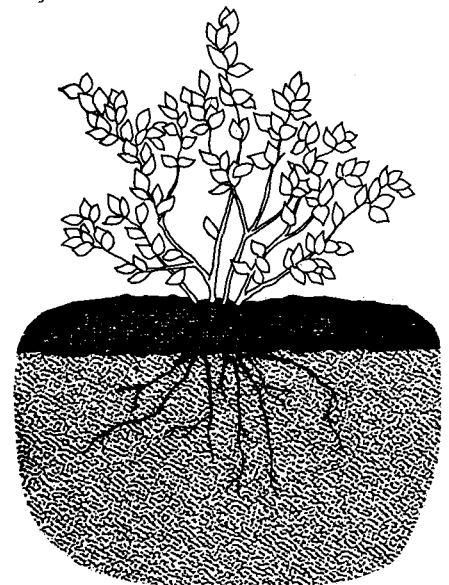
In soils of high pH it may be necessary to add ferrous sulphate to the soil. Approximately 10 pounds are needed for each 100 square feet of soil surface to lower the pH 1.0 point on an average medium loam soil. If the pH is 6.5 and you wish to lower the pH to 5.5, apply 10 pounds of the ferrous sulphate evenly over each 100-square-foot area to be planted and work thoroughly into the soil. Sandy soils will require slightly less, and heavy soils will require more ferrous sulphate to bring about the same change in pH.



Plant at the same depth as the plant was growing in container or nursery.



Don't cut roots by deep hoeing.



Use a 3- to 4-inch mulch of acid peat, aged sawdust, or composted oak leaves.

PLANTING

Planting is best done in the early spring, although container stock or freshly dug plants moved with a ball of dirt can be planted as late as July with good results. Make the hole large enough to accommodate the root system and fill in with a specially composted soil high in organic matter. It is essential to plant at the same depth that the plant was growing in the container or nursery. Failure to become established and grow often can be traced to planting too deep. Although azaleas must have moist soil, they must also have oxygen, which means good aeration is required.

A good surface mulch to control weeds and conserve moisture is advised. The root system is shallow and does not like to be disturbed. Deep cultivation and hoeing remove needed roots and reduce growth. A good mulch also aids in keeping the soil cool. Acid peat, aged sawdust, or composted oak leaves are excellent for surface mulching. Replenish the mulch each year to keep it several inches deep.

Watering may be necessary during dry periods, although a highly organic soil and a surface mulch will go a long way toward keeping the soil moist. A fine mist during periods of extreme heat will prove beneficial in lowering the air temperature around the plants.

Avoid planting too close to a concrete or stucco wall. The lime from the mortar will leach into the soil and cause trouble by increasing the pH. Space plants so mature plants will not be crowded. The Mollis azalea will grow from 5 to 6 feet. Other hardy species will be similar in spread but may vary in height.

FERTILIZATION

The need for fertilizers will be indicated by plant growth and the color of the foliage. Generally, one application of an acid-producing fertilizer each year will be sufficient. Do not fertilize after the blooming period; late fertilizing will encourage late growth in the fall. The nitrogen used should be in the sulphate rather than the nitrate form. For a few plants it is generally best to purchase an azalea fertilizer that is properly formulated for acid-loving plants. Follow the manufacturer's instructions as to amount and method of application.

SPRAYING

A complicated spray program for azaleas is seldom needed. Keep watch for leaf-eating insects and spray as needed to keep them under control. A chlorotic condition of the foliage generally will indicate a high pH or an alkaline soil. Chelated iron will be helpful in correcting this condition.

PLANT PROTECTION

Winter protection from the cold will not be needed if hardy varieties are selected and proper cultural practices followed. Rabbits are very fond of tender azalea shoots, and a protective screen against rabbits and mice may be needed. A cylinder of hardware cloth is excellent for this purpose. Evergreen rhododendrons will require protection from the winter sun. Burlap can be used for this purpose.

Growing azaleas and rhododendrons can be rewarding--and well worth the trouble it takes to grow them well.