



Growing Azaleas and Rhododendrons

Azaleas and rhododendrons are at their best in climates that are fairly mild and humid. They grow well throughout the Appalachian Mountains and in the states along the Atlantic and Gulf coasts. They do well around Lake Erie, in the southern Mississippi valley, and along the Pacific coast from Puget Sound to San Francisco Bay. Azaleas and rhododendrons are members of the same plant group and have the same cultural requirements. Rhododendrons will appreciate more protection from wind and winter sun.

Soils or climate in the rest of the United States may be favorable for azaleas and rhododendrons. They can be grown in unfavorable regions, but they need more attention than in favorable regions.

You can grow azaleas and rhododendrons successfully if you follow these rules in planting and caring for them:

- Buy species and varieties that are adapted to your area.
- Get plants that are at least 8 to 16 inches tall.
- Plant them in well-drained, acid soil that is high in organic-matter content.
- Set plants no deeper than they were in the nursery.
- Maintain a mulch around the plants.
- Guard against drought; be sure that spring planted or freshly-moved plants receive adequate water, particularly the first 2 years after transplanting. Water thoroughly when plants show signs of wilting. Do not overwater in areas where drainage is poor.
- Protect azaleas and rhododendrons from insect attack

Buying Plants

Some kinds of azaleas and rhododendrons will survive colder winter temperatures than other kinds. Some will withstand hotter summer temperatures than others. Before you buy plants, be sure they are adapted to your area. Ask a reputable nursery operator in your locality to recommend species or varieties. Ask neighbors which kinds have done well for them.

Buy plants that are sturdy and well branched and at least 8 to 16 inches tall. Small plants are easily injured in winter. If you get plants less than 8 inches tall, grow them in a coldframe for a year or two before you set them out. Plants more than 16 inches tall are satisfactory, but they are more expensive than 16-inch plants. Get balled and burlapped plants (B&B) or

container-grown plants. Some container-grown plants are not eager to extend their roots into garden soils.

Planting Times

You can plant azaleas and rhododendrons most successfully when they are dormant. In their northern range, the best time to plant is early spring, before new leaves start to grow. In the South, they can be planted from fall to early spring, at any time the ground is unfrozen. You can also plant or move azaleas while they are growing, though with more risk than while they are dormant. Many plants are sold in the spring while they are in bloom. These can be established successfully in the garden if they are protected carefully from drying after they are planted.

Planting Sites

Azaleas and rhododendrons do not grow well in dense shade; they become spindly and bloom only sparsely. They will grow satisfactorily, however, in full sunlight or in moderate shade.

They grow best where they have alternating sunshine and shade and are protected from the wind. A good place to plant azaleas and rhododendrons is under tall, deep-rooted trees such as oaks and pines. There, the mixture of sunshine and shade is good. Do not plant under shallow-rooted trees such as elms and maples, however. Those trees will use water and plant food needed by the azaleas.

Evergreen trees with low branches make good windbreaks and attractive backgrounds for azaleas and rhododendrons. Closely planted shrubs are good also, if they do not encroach on the space needed for the azalea and rhododendron plants.

If you are planting azaleas and rhododendrons around a building, they will do best on the north and east sides of the building where they are protected from the hot afternoon sun. You can plant them on other sides of the building, but you will have to give them more attention to protect them from drying.

Acidity Testing

To determine whether your soil is acid enough for azaleas, have it tested or test it yourself. Cape Cod Cooperative Extension will test your soil and give directions for changing the soil's acidity, if necessary.

You can make your own test for soil acidity with testing kits sold by garden supply stores. These kits are inexpensive and easy to use. Remember that the "optimum pH range" for evergreen azaleas is 4.5 to 6.0. For deciduous azaleas, the "optimum pH range" is 4.5 to 5.5. For rhododendrons, the "optimum pH range" is 4.5 to 6.0.

Preparing the Soil

Prepare the planting site several weeks in advance of planting. Prepare beds to spade depth or dig individual holes at least 18 inches in diameter and 12 inches deep.

In heavy clay soils, identified by water standing in planting holes, it is better to construct raised beds of a better drained growing medium. Azaleas and rhododendrons need acid soil that holds moisture and is well drained. Adding organic matter of peat moss, 1 to 2 year-old oak leaves, or forest leaf mold, increases soil acidity and improves waterholding capacity of sandy soils and drainage of clay soils.

If your soil is neutral or alkaline, organic matter may not add enough acidity. Then it is necessary to make the soil with chemicals or grow the plants in tubs or planters that contain suitable soil.

Azaleas and rhododendrons grow well in soil which an abundant amount of peat moss or leaf mold has been well mixed. If you are preparing planting beds, spread a layer of organic matter 4 or 5 inches deep over the surface of the spaded bed. Mix the organic matter with the upper 6 inches of soil. If you are preparing separate planting holes, mix the soil from the hole with an equal volume of organic matter.

After you have added organic matter to the soil, the surface of the bed or planting hole will be higher than the surrounding soil. If the soil is heavy and your area has frequent hard rains, leave the surface mounded; it will help drain away excess water and keep the beds from getting water-logged. Under normal conditions, level the beds or planting holes.

Spacing the Plants

Spacing of azalea and rhododendron plants depends on the variety you plant and the effect you want. Many rhododendrons spread to 6 or 8 feet in diameter. Most azaleas need 4 to 6 feet of space per plant. Spacing is no problem for single plants; plant them far enough from other plants or from buildings so they will not be crowded when mature. If you want a mass of blooms, set plants close together while they are young, then transplant them as they become crowded. A good plan is to place small azaleas 2 feet apart. After 3 or 4 years, when they start crowding each other, remove alternate plants and replant them in another location. This will give remaining plants room to develop.

Setting the Plants

Dig planting holes larger than the rootballs of the azalea and rhododendrons plants. If the roots of the plant are balled and burlapped, remove the burlap before setting the plant in the hole. If the rootball is broken or if the removal of the burlap causes the soil to loosen, cut the twine around the top of the

rootball and fold back or cut off exposed parts of the burlap after placing the plant in the hole. If other materials are used for wrapping, remove them.

Press soil around the rootball. Pack it firmly under the plant. While you are doing this, set the plant so it is no deeper than it was in the nursery. If the roots are planted too deeply; they will not get enough air, and the plant will die. After you fill the hole, soak the soil thoroughly. This helps to bring the soil into close contact with the roots.

Mulching

As soon as you have the plants set, mulch the soil around them with leaves, pine needles, or bark. Use at least 2 inches of pine needles, or bark and 2 to 5 inches of leaves. Spread the mulch so all the soil is covered beneath the branches.

Weeding

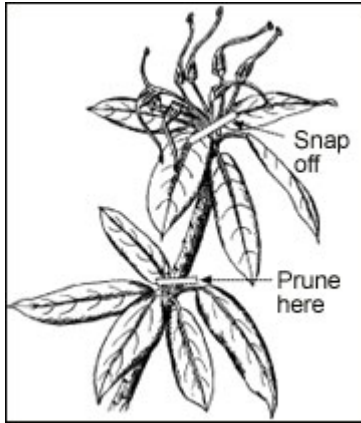
A heavy mulch prevents weeds from growing readily around plants. Hand-pull those weeds that do manage to grow. Do not cultivate with a hoe or other garden implements. Azalea and rhododendron roots grow close to the surface and will be injured if the soil is disturbed.

Watering

Watering is essential during the first 2 years after planting. After azaleas become well established, they usually will survive with normal rainfall. Water plants thoroughly when weather conditions make it necessary. The amount needed will vary, depending on amount of rainfall, temperature, humidity, and wind velocity. However, be sure the plants get enough water. If you plant under overhanging eaves or where rain does not reach them, you will have to supply all their water. If this is the case, continue watering through the winter, whenever the ground is not frozen.

Fertilizing

Azaleas and rhododendrons may need light fertilizing on sandy soils or in soils poor in nutrition. Apply fertilizer in early spring. After the first season, organic matter usually furnishes enough nutrients to the plants. When the plants need fertilizer, their leaves begin to turn light green or growth is short. Garden stores sell fertilizer formulated especially for azaleas and rhododendrons. Apply it according to the directions on the package. Do not apply fertilizer after July 1. Do not use special lawn fertilizers. These fertilizers often are alkaline and may contain herbicides that could kill the azaleas and rhododendrons.



Pruning

Azaleas and rhododendrons grow well without pruning. You may want to prune them, however, to remove dead or injured branches, to shape the plants, or to reduce their size. Snap off flower cluster as soon as petals collapse. For more severe pruning, cut back to whorl of leaves.

If you want your plants to be bushier, cut growing twigs half way back after they elongate. Plants that have grown too tall or are crowded can be pruned back severely to the size and shape you want. Prune after blossoming to reduce flower loss. The plants will not have many flowers the next season after pruning; but in following years, the flowers will be more abundant.

Controlling Insects.

If your azaleas or rhododendrons are damaged by insects or related pests, determine the kind of pest responsible for the damage, then apply an appropriate insecticide. Without protection against insects, the plants will not thrive. Insects are seldom a problem on plants grown in part shade.

In full sun, the azalea lacebug and spider mites are particularly troublesome, and are discussed below. The insecticides recommended for controlling them are available at garden supply stores.

Azalea Lacebug

Adults are about 1/8 inch long and have lacy wings and brown and black markings. The young, called nymphs, are spiny; they are colorless at first, then become black. Adults and nymphs suck sap from the underside of leaves. This causes the upper surface to have a gray, blanched, or coarse-stippled appearance, and reduces plant vitality. The underside of leaves become discolored by excrement and cast skins. Plants in the sun are more severely damaged than those in the shade.

Control—Apply a spray containing a wide spectrum insecticide. The first application should be made about June 1 in the North and earlier in the year in the South. Repeat application every 10 days until control is obtained.

Spider Mites

Adults and young of these tiny mites—they are barely visible to the naked eye—are found on the underside of leaves. They are red or greenish red. First signs of infestation are yellow, stippled areas on leaves. Flowers are discolored and faded. Injury usually appears in June or later.

Control—Apply a spray containing a miticide or horticultural oil. Follow directions and heed all precautions on the insecticide labels.

To keep spider mites from occurring in damaging numbers every year, keep area weed free and avoid planting overwintering mite hosts such as foxglove, hollyhock, and violets among the azaleas.

Controlling Diseases

Many troubles with azaleas and rhododendrons are caused by planting varieties that are not adapted or by taking improper care of the plants. However, the diseases discussed below may affect plants that have been well cared for.

Petal Blight

Flowers become spotted, then limp. All flowers on the plant are quickly destroyed. Spray with an appropriate fungicide, prepared as directed by the manufacturer, two or three times a week during the following season.

Tip Blight or Die-Back

Starts with light-brown blotches on the leaves. May spread down the leaf stalk into the branch. Branch dies. Cut off diseased branches below brown discoloration. Remove faded flower clusters. Spray the plant with 6 to 7 ounces of dry bordeaux mixture in 10 gallons of water immediately after the flowers fade.

Leaf Gall

Pale-green or whitish fleshy galls grow on leaves or flowers. Hand pick the galls.

Leaf Scorch

Leaves have yellowish spots with brown centers and reddish borders. Leaves drop off and plant is weakened.

Iron Chlorosis

Leaves turn light green or yellow between the veins, but the veins remain green. Plants lack iron, usually because the soils are not acid enough. If acid-forming fertilizer does not make your soil acid enough, spread 1 teaspoonful of aluminum sulfate crystals in the plant's "drip area." Do not apply lime or too much phosphate.

Rain washes lime from masonry walls into azalea plantings nearby and lowers soil acidity. This can be checked temporarily by spraying the foliage with 1 ounce of ferrous sulfate in 1 gallon of water; or by using iron chelates on soil, or sprays on foliage, as recommended on the manufacturer's label. Soil acidity must be changed for longer lasting control.

Use of Pesticides

Pesticide use is governed by a Federal law which is administered by the Environmental Protection Agency. This law requires manufacturers to register pesticides, and makes it illegal for people to use them except in accordance with the instructions on the label.

You may, if you wish, use less of any pesticide than the maximum amount the instructions permit. However, always remember:

1. Be sure the pesticide comes in contact **ONLY** with plants or areas you intend to spray.
2. Be sure to spray the pesticide uniformly.

You can get reliable, free information about any pesticide by calling your local agent of the Cooperative Extension.

This publication contains public information. It is not copyrighted and can be reproduced in whole or in part with or without credit.

By Erik A. Neumann, curator of education, U.S. National Arboretum, Washington, D.C., and Ralph E. Webb, entomologist Agricultural Research Center, Beltsville, Md.

Updated 2010