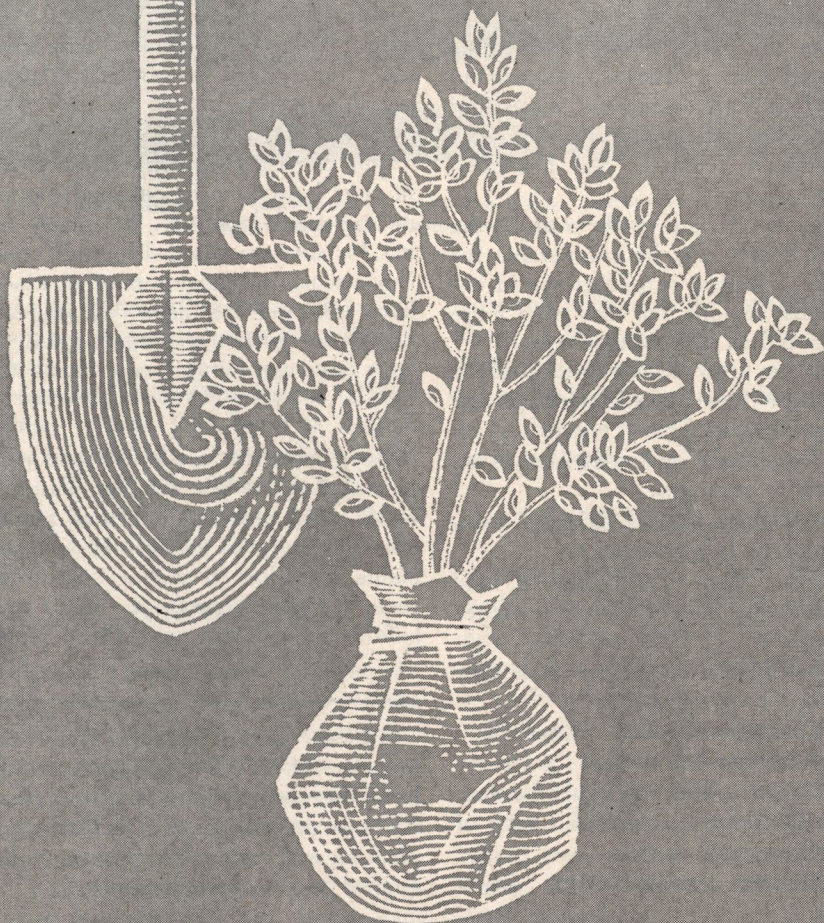


GROWING

*Azaleas and
Rhododendrons*



Home and Garden Bulletin No. 71

U.S. DEPARTMENT OF AGRICULTURE

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.

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

You can grow azaleas 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 2 years old and 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 them during the growing season.
- Guard against drought; be sure plants get the equivalent of 1 inch of rainfall every 10 days.
- Protect azaleas from insect attack.

BUYING PLANTS

Some kinds of azaleas will survive colder winter temperatures than other kinds. Some will withstand hotter summer temperatures than others. Before you buy azalea plants, be sure they are adapted to your area.

You can ask a reputable nurseryman in your locality to recommend species or varieties; generally, the plants he has for sale are adapted to your area. You also can ask neighbors which kinds have done well for them. Or you can ask your county agricultural agent or your State agricultural experiment station for species and variety recommendations.

Buy plants that are sturdy and well branched. The best size for planting is 15 or 16 inches tall. Small plants are winterinjured easily. 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

Azaleas and rhododendrons are members of the same plant group and have the same cultural requirements. All instructions in this bulletin for planting and care of azaleas may be applied also to rhododendrons.



N-34098

Grow small azaleas in a coldframe for a year or two. Cover the coldframe during the winter with plastic sheeting or glass.

than 16 inches tall are satisfactory, but they are more expensive than 16-inch plants.

Get balled and burlapped (B&B) plants—plants that have a burlap-wrapped ball of soil around the roots. These do not dry as easily as bare root plants and they are more easily established.

PLANTING TIMES

You can plant azaleas most successfully when they are dormant. In the North the best time to plant them 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 also can plant or move azaleas while they are growing, though with

more risk than while they are dormant. Many azaleas 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 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 is under tall, deep-rooted trees such as oaks and pines. There, the mixture of sunshine and shade is good.



N-31746

Azaleas grow well in locations that are too shady for many other flowering shrubs. They also grow well in full sunlight.

Do not plant azaleas under shallow-rooted trees such as elms and maples, however. These trees will use water and plant food needed by the azaleas.

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

If you are planting azaleas 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.

SPACING THE PLANTS

Spacing of azalea and rhododendron plants depends on the variety you plant and the effect you want.

Mature rhododendrons spread to 6 or 8 feet in diameter. Mature 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.

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.



N-34100

As azalea plantings mature, they may become crowded. Thin them by moving some of the plants to a new location.

Azaleas need acid soil that holds moisture and is well drained. Adding organic matter of the right type—peat moss, 1- to 2-year old oak leaves, or forest leafmold—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 acid with chemicals or grow the plants in tubs or planters that contain suitable soil.

Azaleas grow well in pure peat or leafmold; use as much as you can afford.

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



N-34102

Press soil firmly under the rootball to set the plant at the proper level and to keep it from settling.

and your area has frequent hard rains, leave the surface mounded; it will help drain away excess water and keep the beds from getting waterlogged. Under normal conditions, level the beds or planting holes.

SETTING THE PLANTS

Dig planting holes larger than the rootballs of the azalea plants. After you set each plant in a hole, cut the twine around the rootball. It is not necessary to remove the burlap; it rots quickly. If other materials are used as 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.

Acidity Testing

To determine whether your soil is acid enough for azaleas, have it tested or test it yourself.

Your State agricultural experiment station will test your soil and give directions for changing the soil's acidity, if necessary. Ask your county agricultural agent how to prepare the soil sample or write to your State agricultural experiment station for this information.

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.

MULCHING

As soon as you have the plants set, mulch the soil around them with oak leaves, peat moss, pine needles, or leaf-mold.

Use at least 2 inches of peat moss or pine needles or 2 to 5 inches of leaves or leafmold. Spread the mulch so all the soil is covered beneath the branches.

If the plants are not sheltered by nearby buildings, shrubs, or trees, remove the mulch at the onset of cold weather. If they are growing in sheltered locations, the mulch can remain in place.

Add new mulching material every spring.

WATERING

Be sure the plants get enough water. They should have the equivalent of 1 inch of rain every 10 days. You can be safe in applying about 2 gallons of



N-34103

Apply a mulch of oak leaves, pine needles, or peat moss around the newly set plant.

water to each plant every 10 days from spring to late fall. Omit watering for 10 days after heavy or prolonged rains.

Watering is essential during the first 2 years after planting. After azaleas become well established, they usually will survive with normal rainfall.

If you plant azaleas 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 may need light fertilizing soon after planting. Apply fertilizer in early spring.

After the first season, organic matter usually furnishes enough nutrients to the plants. If the plants need fertilizer, their leaves begin to turn light green.

Garden stores sell fertilizer formulated especially for azaleas. Apply it according to the directions on the package.

Do not apply fertilizer after July 1.

Do not use special lawn fertilizers on azaleas. These fertilizers often are alkaline.

PRUNING

Azaleas 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.

If you want your plants to be bushier, cut growing twigs half way back when they are 4 or 5 inches long.

Plants that have grown too tall or are crowded can be pruned back severely to the size and shape you want. The plants will not have many flowers the next season after pruning, but in following years the flowers will be more abundant.

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 roots grow close to the surface and will be injured if the soil is disturbed.

CONTROLLING INSECTS¹

Protect your azaleas against insects or they will not thrive. Look for the characteristic injuries caused by the common azalea pests and treat promptly with the appropriate insecticide. Recommended insecticides are available at garden-supply stores. Follow the directions on the label for dilution, application, and care in handling.

Azalea Lace Bug

Coarse yellow speckling of young leaves is a sign of infestation by the azalea lace bug. The leaves also have black specks on the underside. Spray promptly with malathion or lindane. Repeat at monthly intervals if injury reappears.

Thrips

Foliage speckling also is caused by thrips—tiny black insects. Thrips injury is common in the South. Spray as for lace bug.

Spider Mites

Small yellow specks and fine webs on the leaves are caused by spider mites. Injury usually appears in June or later. Spray with malathion or Kelthane once a week for 3 weeks.

¹ Prepared by Entomology Research Division.

Precautions

Insecticides are poisonous; handle them with care. Follow all directions and heed all precautions on the label. Store them where children, pets, and livestock cannot reach them. When using them, keep them away from the eyes, nose, and mouth.

Lindane and chlordane can be absorbed through the skin in harmful quantities. When working with these insecticides, avoid spilling them on the skin. If you spill either of these materials on yourself, wash it off of your skin immediately and change all clothing on which insecticide has been spilled.

Fuller Rose Beetle

Notches in the sides or tips of leaves probably are caused by the Fuller rose beetle or the Japanese weevil. These insects feed at night. Spray or dust with chlordane. Repeat 2 weeks later.

Azalea Leaf Miner

Brown patches in leaves or rolled-under leaf tips are caused by the azalea leaf miner. Spray with malathion. Repeat 2 weeks later.

Whiteflies

Adult whiteflies, which feed on under-leaf surfaces, are responsible for black sooty deposits that appear on the foliage of certain hairy-stemmed azaleas. Spray with malathion 3 or 4 times at weekly intervals.

Azalea Bark Louse

Wooly accumulations on twigs or in crotches of branches are the sign of the azalea bark louse. Spray thoroughly with malathion to penetrate the waxy covering on the insects.

Azalea Stem Borer

Wilting or dying stems may be affected by the azalea stem borer. Split open these stems to see if borers are tunneling within them. Prune branches back to sound wood to keep borers from reaching roots. Burn the prunings.

CONTROLLING DISEASES

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

Flower Spot

Flowers become spotted, then limp. All flowers on the plant are quickly destroyed. Spray with Zineb, prepared as directed by the manufacturer, 2 or 3 times a week during the flowering 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 Bordeaux mixture (4 ounces copper sulfate and 6 ounces hydrated lime in 3 gallons water) immediately after the flowers fade.

Leaf Gall

Pale-green or whitish fleshy galls grow on leaves or flowers. Hand pick the galls. Spray with Zineb prepared as directed on the package.

Leaf Scorch

Leaves have yellowish spots with brown centers and reddish borders. Leaves drop off and plant is weakened. Apply Zineb in spring and fall.

Iron Chlorosis

Leaves turn light green or yellow between the veins but the veins remain green. Plants lack iron, usually because of weak soil acidity. Watering with "hard" water reduces acidity. Rain washes lime from masonry walls into azalea plantings nearby and lowers soil acidity.

May be caused also by excess acidity.

Can be checked temporarily by spraying the foliage with one ounce of ferrous sulfate in one gallon of water. Soil acidity must be changed for longer lasting control. Consult your county agricultural agent or your State agricultural experiment station for control recommendations.

Each year, the U.S. Department of Agriculture receives thousands of requests for information about growing flowers. In an effort to comply with these requests efficiently, the Department has prepared a series of publications on the flowers that are most frequently the subject of inquiry. This bulletin is one of the series.

Prepared by

CROPS RESEARCH DIVISION

AGRICULTURAL RESEARCH SERVICE

Washington, D.C.

Issued June 1960

U.S. GOVERNMENT PRINTING OFFICE: 1960

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington 25, D.C. — Price 5 cents