

# Rhododendron - Azalea or Rhododendron (*Ericaceae*)

Azaleas and Rhododendrons are very popular small- to medium-sized shrubs that flower prolifically in spring, but are slow growing and require acidic, organic, moist, and well-drained soils in shady situations for establishment and optimum performance.

## FEATURES

### Form

- small- to medium-sized ornamental shrubs
- Azaleas generally mature from 2-4' in height and width, and Rhododendrons generally mature from 4-10' in height and width
- upright clump growth habit in youth, becoming rounded to spreading with age
- slow growth rate

### Culture

- partial shade to full shade
  - performs best in partial shade in moist, well-drained, acidic soils, with the keys to successful growth being the placement of the shrub in a well-drained soil that is moderately high in organic matter and porous media (amend with topsoil, peat moss, mini-pinebark chips, leaf compost, aged manure, treated sewerage sludge, and/or sand) and acidity (pH 5.0 to 6.5; amend with aluminum sulfate or very small amounts of crushed elemental sulfur), with adequate moisture and without extended periods of summer drought, but never in wet or poorly drained soils, neutral to alkaline soils (pH 6.5 or above), or areas that can receive any winter salt spray (near roads) or salt water runoff (near roads, driveways, or sidewalks)
  - cultivars and hybrids are propagated primarily by rooted stem cuttings or tissue culture, but most forms (including the species) are also easily propagated by seeds, although they generally will not come true to seed (i.e., they will have different floral shades as compared to the mother plant)
  - numerous diseases and pests affect the foliage, stems, branches, trunk crown, and roots, of both cosmetic and life-threatening nature, that are greatly accentuated by abiotic stresses (e.g. summer heat, winter cold, drought, alkaline soils, etc.)
  - abundantly available with hundreds of selections, primarily in containers, but also in B&B for the larger-sized specimens
  - for evergreen Rhododendrons (and the few evergreen Azaleas), avoid placement in a site that is exposed to winter sunshine and sweeping or swirling winds, to avoid foliage desiccation when the soil is frozen and the shallow root system cannot replenish the water loss; at foundations, an eastern or northern exposure is much preferred, while in more open areas, placement near protective larger woody plants is recommended
  - placement too close to structural foundations, especially underneath roof overhangs, can lead to permanent drought conditions due to a lack of rainfall reaching the roots; alternatively, if the soil has settled at the foundation and slopes toward the structure, occasional wet conditions will result in root rot; in either case, soil is often very poor at foundations of homes built since the advent of heavy earth-moving machinery, and must be amended as a wide, shallow hole (deep holes of well-draining soil with surrounding heavy soil attract and retain water, and again may result in root rot)
  - if pruning or light shearing is performed to encourage density of the shrub or promote compactness, it should take place immediately after flowering, to ensure that floral buds will be set in mid-summer on the new growth for the following spring's bloom
- ### Foliage
- for both Azaleas and Rhododendrons, leaves are medium to dark green, alternate, oblong to elliptical,

on short petioles, and subject to chlorosis (yellowing due to a deficiency of iron and other micronutrients) in alkaline soils

-for most Azaleas, leaves are either deciduous or semi-evergreen, about 1-2" long, generally with some pubescence, and have either a subtle mixed autumn color, or virtually no change in color before abscission

-for most Rhododendrons, leaves are generally lustrous evergreen, from 2-6" long, and with subtle scales and/or with dots on their lower surfaces

### Flowers

-for both Azaleas and Rhododendrons, shades of white, salmon, pink, red, crimson, violet, lavender, or purple are the most common floral colors, but yellows and oranges also exist; most Azaleas and Rhododendrons flower in May

-Azaleas generally have about 1-3" diameter inflorescences that are in small clusters and evenly spread across the top of the emerging foliage, with 5 stamens per flower

-Rhododendrons generally have about 2-8" diameter

inflorescences that usually rise above the evergreen foliage, in bold clusters, with 10 stamens per flower

### Fruits

-rarely noticed and ornamentally insignificant, although usually fertile and readily germinated if so desired

### Twigs

-often pubescent on first-year stems, and being sympodially branched (several stems originate from the same position on a branch, appearing like fingers from an upturned hand)

-Azaleas are generally twiggy with smaller diameter stems, while Rhododendrons are generally less branching and stouter-stemmed

-Azaleas have terminal floral buds that are smaller (but more numerous), while Rhododendrons have terminal floral buds that are larger (but fewer in number)

### Trunk

-multi-trunked, gray to brown, and usually spreading with age



## USAGE

### Function

-foundation, specimen, group or mass planting, border, woodland, or naturalizing shrub for shady locations

### Texture

-fine, medium, or bold texture in foliage and if bare, depending upon species, hybrid, or cultivar

-open, average, or thick density for the same reasons

### Assets

-extremely showy spring flowering

-shade-loving

-some are broadleaf evergreen (most Rhododendrons and a few Azaleas), while others may occasionally have good autumn color in semi-shade (some Azaleas)

-medium to bold texture (Rhododendrons) or fine texture (most Azaleas)

## Liabilities

- exacting in its requirement for soils that are acidic, organic, and moist, but not neutral to alkaline, sterile, or wet to poorly-drained
- many diseases and pests that are either cosmetic or life-threatening
- slow growth rate and establishment

## Habitat

- Zones 4 to 8 for Rhododendrons and the most cold hardy Azaleas, but most Azaleas are only cold hardy to zones 5 or 6, with some only tolerant of winters in zones 7, 8, or even 9 (and are restricted to mild winter regions or are used as indoor flowering plants)
- Native to many regions of the world, but generally from the Eastern U.S., China, or Japan

## SELECTIONS

### Alternates

- broad-leaved evergreen shrubs for shady spots (*Buxus*, *Camellia*, *Ilex*, *Kalmia*, *Leucothoe*, *Pieris*, etc.)
- deciduous flowering shrubs for shady spots (*Clethra alnifolia*, *Fothergilla gardenii*, *Itea virginica*, etc.)
- acid soil-requiring shrubs (*Camellia*, *Ilex verticillata*, *Kalmia*, *Leucothoe*, *Pieris*, etc.) and companion acid soil-requiring trees (*Oxydendrum*, *Stewartia*, *Styrax*, etc.)

### Cultivars – Variants – Related species

- many cultivars, hybrids, and species exist of Azaleas and Rhododendrons, primarily differing in their floral color, floral size and density, cold hardiness, heat tolerance, evergreen or deciduous foliage, growth habit, early maturity to bloom, and seasonal time of bloom; a few of the most popular selections are listed below, with their cold hardiness noted:

### Azaleas:

- Rhododendron* 'Delaware Valley White' - white flowers, with 10 stamens per flower (atypical for an Azalea), to 3' x 3', a Glenn Dale Hybrid, zone 6
- Rhododendron* 'Gibraltar' - ruffled orange flowers, to 8' x 6', a Knaphill Hybrid (but often incorrectly listed as an Exbury Hybrid), zone 5
- Rhododendron* 'Stewartstown' – (also known as 'Stewartstownian', 'Stewartstonian', or 'Stewartsonian') flowers are brick-red, with autumn color that is a shiny vibrant red-orange to red-wine on semi-deciduous foliage, to 5' x 4', a Gable Hybrid, zone 5
- Rhododendron* "Girard Hybrids" - heavily flowered, to 3' x 3', semi-evergreen, zones 5 or 6; the many cultivars include 'Girard Crimson' (crimson), 'Girard Fuchsia' (ruffled red-purple), 'Girard Hot Shot' (orange-red to scarlet), 'Girard Renee Michelle' (pink), and 'Girard Rose' (rose)
- Rhododendron* "Northern Lights Series" - the most cold hardy Azaleas (fully through zone 3), deciduous, with relatively stout stems for an Azalea, to 6' x 6', with showy and fragrant flowers before the foliage; several cultivars, including 'Golden Lights' (golden-orange), 'Orchid Lights' (shell pink), 'Rosy Lights' (rose-dark pink), and 'White Lights' (white-yellow)

### Rhododendrons:

- Rhododendron* 'Northern Starburst' - the first release of the new "Genesis Series", with stouter stems, heavier burgundy foliage, and larger pink blossoms than 'PJM Compact' (which it is compared to), to 4' x 4', zone 4
- Rhododendron catawbiense* 'Roseum Elegans' - the standard cultivar of Catawba Rhododendron (which has many cultivars and is the most bold-textured and large-foliaged evergreen Rhododendron), with large lavender pink inflorescences, summer heat tolerance, to 8' x 8', zone 4
- Rhododendron mucronulatum* - Korean Rhododendron is the first of the genus to flower, in

late Mar. and early Apr., with pink flowers opening long before the new foliage emerges (on this unusual deciduous Rhododendron), with the petals often damaged by frost and freezes, and best located at northern foundations to delay flowering as much as possible, to 6' x 6', zone 4

-*Rhododendron* "PJM Hybrids" - a series of hybrids, with the original selections bred by Edmund Mezitt and named for his father Peter J. Mezitt, noted for their compact habit (to 4' x 4'), mahogany-bronzed evergreen foliage, and profuse pink, rose, magenta, lavender, or white flowers, in late Apr. to early May, zone 4

### ID Summary

- all forms of the genus *Rhododendron* display sympodial branching and spring flowering, with a shallow fibrous root system; beyond that, the 2 major groups are differentiated as follows:
- Azaleas generally have 5 stamens per flower with the inflorescences scattered above the foliage, are deciduous to semi-evergreen, have small foliage, thin twigs, and many twigs (resulting in a fine texture with a dense growth habit)
- Rhododendrons generally have 10 stamens per flower with the inflorescences in large and sometimes distinctly separate clusters, are usually evergreen, have larger foliage with the leaf undersides possessing dots or scales, on normal diameter or stout twigs, and are more sparsely branched (resulting in a medium to bold texture with an open growth habit)

