

***Rhus trilobata*: Worthy Plant Seeks Worthy Name**

Nancy Rose

Saddled with common names like skunk-bush, stinking sumac, and ill-scented sumac, *Rhus trilobata* is clearly a shrub in need of a good public relations agent. Those unflattering names refer to the strong scent its foliage and stems emit when crushed. Ignore the unappealing monikers, and you will find that its ornamental and environmental assets are more than sufficient to make *R. trilobata* a valuable landscape plant.

Rhus trilobata has a wide native range in western North America, reaching from the Canadian

province of Saskatchewan south to Texas and Mexico but skipping the moist coastal areas of the Pacific Northwest. It grows in many ecological regions, from the Great Plains grasslands to mountain shrubland, chapparal, and forest areas, and is found in association with numerous species of deciduous and evergreen trees and shrubs as well as with grasses and forbs.

Within its native range this deciduous shrub can grow from two to twelve feet tall, with four to six feet being typical in most landscape settings; its height is determined in part



A lemonade-like drink can be made from the attractive red fruits.

by moisture availability. Its form ranges from irregularly upright to mounded, with numerous slender, branched stems rising upward from the crown. These flexible young stems have been used in basketry by Native Americans, accounting for one of the plant's lesser-known common names: basketbush. Shoots also emerge from the extensive system of woody rhizomes that spread laterally below ground, creating a dense thicket that in width can equal two or more times the plant's height. A taproot together with a large mass of more shallow fibrous roots anchor the shrub.

The leaves of *Rhus trilobata*, compound and alternately arranged on the branches, consist of three subsessile (nearly stalkless) leaflets that are generally ovate or rhomboidal in shape. The terminal leaflet is the largest, with a length of one to two-and-one-half inches; it is often distinctly three-lobed (hence the specific epithet *trilobata*) but at times displays only shallow or negligible lobing. Its leaf margins are coarsely toothed, most teeth being rounded although some are slightly pointed. Leaf surfaces, while variably pubescent on young leaves, usually become smooth and slightly glossy as the foliage matures. Medium to dark green in summer, the leaves often develop excellent fall foliage color that ranges from yellow to orange, red, and reddish purple.

In spring *Rhus trilobata* blooms before its foliage appears, the flowers emerging from short, catkin-like spikes borne at the branch tips. Individual flowers may be unisexual or bisexual, with both types occurring on most plants. Only about one-eighth inch long, they are light yellow or greenish yellow and have five petals. The fruit is a red, subglobose (not perfectly round) drupe about one-quarter inch long, slightly hairy and a bit sticky on the surface and containing a single dark brown nutlet. Mature

fruits have a tart taste; a tangy lemonade-like drink can be made by steeping them in water. The fruits, leaves, stems, and roots of *R. trilobata* have been used for various culinary, medicinal, and other utilitarian purposes by native cultures in the western United States.

Six naturally occurring varieties of *Rhus trilobata* are recognized: var. *anisophylla*, var. *pilosissima*, var. *quinata*, var. *racemulosa*, var. *simplicifolia*, and var. *trilobata*. *R. trilobata* var. *trilobata*—so named to indicate that it displays the species' typical morphology—covers the entire native range. The other varieties vary in such features as height, growth habit, leaf size and form, and fruit pubescence. Where the



New leaves are downy, usually becoming smooth and glossy with maturity. In fall the green gives way to yellows, orange, reds, and reddish purple.

ranges of these varieties overlap, plants often show intermediate morphological characteristics.

Rhus trilobata looks very much like its more widely available cousin, *R. aromatica*. The resemblance is close enough that skunkbush was previously listed in taxonomic references as a variety (*R. aromatica* var. *trilobata*) rather than as a separate species. Morphological differences between the two are few. *R. trilobata*'s leaves, flowers, and fruits are generally smaller and its terminal leaflets more distinctly lobed than those of *R. aromatica*, but these features show enough variability to make them unreliable as diagnostic tools. It is in geographic distribution that the two species show clear differences, with *R. trilobata* occupying a western range while *R. aromatica* is found east of the Great Plains. A corresponding difference is found in their environmental adaptations: *R. trilobata* tolerates fairly dry, alkaline soils while *R. aromatica* prefers moist, slightly acidic sites. The leaves of both species emit a distinct odor when crushed, but the somewhat less pungent scent of *R. aromatica* earned it the common name "fragrant sumac" while *R. trilobata* is stuck with its less-than-flattering nicknames.

As its wide natural range might indicate, *Rhus trilobata* is an adaptable plant. It grows well in somewhat alkaline soils but also appears to tolerate neutral to slightly acidic soils. Most references list it as winter hardy to USDA zone 4 (average annual minimum temperature minus 20 to minus 30 degrees F), but the hardiness of individual plants is likely to vary depending on seed provenance. It thrives in either full sun or partial shade, but fall foliage color is usually better in full sun.

Because it is well adapted to drier climatic conditions, *Rhus trilobata* is an excellent choice for xeriscaping. Annual precipitation in most of its range averages just 10 to 20 inches; by contrast, the average is 42.5 inches in Boston and 29.4 inches in Minneapolis-St. Paul. In USDA regional evaluations, a seed-grown selection of *R. trilobata* from Bighorn County, Wyoming, fared best at evaluation sites with drier climatic conditions. Specimens failed to thrive and/or showed higher incidence of fungal leaf spots in sites with poorly drained soils, higher rainfall, and higher humidity.

Rhus trilobata can be propagated in several ways. One of the simplest is by root (rhizome) cuttings. In spring, sections of rhizome can be dug up, cut into sections, and potted or planted in a propagation bed. Alternatively, softwood stem cuttings taken in early to mid summer can be rooted in a peat-perlite medium under mist. For seed propagation, the fleshy pulp should first be removed from the seeds of ripe fruits. The seeds (nutlets) have a very hard coat that must be cracked by mechanical or chemical scarification, after which they can be planted directly in a seedbed. Plants of *R. trilobata* can most easily be found in nurseries in western states, but several mail-order garden catalogs offer container-grown plants for sale.

This sumac can be used effectively in several ways. Its dense network of roots and rhizomes makes it an ideal plant for holding soil on steep slopes, banks, and terraces. It also works well in large-scale mass plantings since its suckering habit allows it to fill an area quickly. Its ability to tolerate drought and grow in rocky or gravelly soil makes it a good choice for dry, difficult sites. New England gardeners should not be put off by *Rhus trilobata*'s affinity for arid soils, however. As long as it is planted on a sunny, well-drained site where flooding is not a problem, it will do well in those hilly or rocky areas that are common in the Northeast but less than ideal for more common garden shrubs. Once established, *R. trilobata* requires little maintenance; pruning to control height and improve appearance can be done as needed. With its attractive spring flowers, colorful fruit, and bright fall color, *R. trilobata* is a worthy addition to native plant displays, naturalized gardens, commercial properties, and other sites in need of a tough, adaptable shrub.

Nancy Rose is a horticulturist and educator with the University of Minnesota Extension Service. She has been growing and evaluating woody ornamental plants for many years, most recently at the University of Minnesota Landscape Arboretum and previously at the Morton Arboretum near Chicago. She is also a garden writer and photographer, writing a gardening column for the *Minneapolis Star-Tribune* and writing and editing for several gardening magazines. Nancy is co-author of the books *Shrubs and Small Trees for Cold Climates* and *The Right Tree Handbook*.