

WESTERN REDBUD

Cercis orbiculata Greene

Plant Symbol = CEOR9

Contributed by: USDA NRCS National Plant Data Center



Brother Alfred Brousseau
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Alternate Names

Redbud, California redbud; also recognized as *Cercis occidentalis* Torr. ex Gray in The Jepson Manual (Hickman 1993) and *Cercis occidentalis* var. *orbiculata* (Greene) Tidestrom in other floras.

Uses

Ethnobotanic: Western redbud is highly valued by Native American basket weavers in California for their young, wine-red branches, harvested in the fall and used in the warp, weft, and designs of baskets. If the branches are harvested in the spring when the bark slips, the white inner sapwood may also be used as the weft or lacing in baskets.

Other: Uses include the following: landscaping, furniture, browsing, and stream stabilization. Western redbud is a good soil stabilizer along streams, and can withstand periodic flooding. The flowers provide nectar to bees and the young shoots, leaves, and seedpods are browsed by goats, and to a limited extent by deer, sheep, and cattle. The browse rating though for sheep and cattle is poor. Horticulturists have planted redbud in informal and formal gardens and landscapes since 1886 and it has been called one of California's most attractive flowering shrubs in gardeners' manuals and horticultural guides.

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status and wetland indicator values.

Description

General: Pea Family (Fabaceae). Western or California redbud is a leguminous shrub that grows from 7 to 20 feet tall with a dense rounded crown that almost reaches the ground. Western redbud is recognized as *Cercis occidentalis* in older floras. The leaves are simple, thick, round or reniform, and cordate at the base, and have from seven to nine prominent veins. They are winter deciduous; their autumn display of yellow turning to red and brown rivaling that of some eastern hardwoods. The striking pea-shaped flowers appear before the leaves, in small fascicles along the branches. Each flower has five petals that range in color from magenta pink to reddish purple. Pollination is by bumblebees (*Bombus* sp.) and orchard mason bees (*Osmia lignaria*). Although the pink sprays can be seen from February through April, any one shrub will remain in flower only about two weeks. In autumn the branches often bear many clusters of pointed, flat, vary thin pods, the upper suture with a conspicuous winged margin. In ripening, the pods are first purple and then russet-brown, each containing an average of

seven hard, bean-like seeds. The mature pods persist into the next winter. Known from the southwest U.S.

Distribution

For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site. Native to California, Arizona, and Utah, redbud is found in at least five plant communities including oak woodland, chaparral, mixed conifer forest, riparian woodland, and closed cone forest.

Establishment

Adaptation: It grows at elevations of 4,000 ft. or less, in canyons and on rather steep slopes, in gravelly, and rocky soils along streams, where it is never flooded. It also grows in the bottom of ephemeral streambeds in little pockets, benches, or crannies of boulder outcroppings. The plant is drought tolerant, sun-loving, and grows in a wide variety of soils, but it is usually found in rather harsh environments with coarse, nutrient-poor soils that are well-drained. It grows mostly singly, but sometimes, in sheltered situations, in shrubby clumps.

If possible, gather the seed from local sources, to maintain genetic diversity of redbud. The seedpods can be collected in the fall of the year from September to November from redbud branches. Redbud seeds are adapted for prolonged periods of dryness and cold and they require special pretreatment to germinate, owing to an impervious seed coat plus a dormant embryo. One method is to place the seeds into a container and pour boiling water over them and let the seeds soak overnight. They can then be covered with damp peat moss and refrigerated for two months or they can be planted right away. The germination of redbud seed in the wild is favored by fire, which cracks the seed coat and generates the heat needed to stimulate germination.

Plant the treated seed in the fall in flats, spacing the seeds approximately one to two inches apart. Use a slow-release fertilizer in the planting mix. Cover with about a quarter-inch of soil (approximately 3 to 4 times the width of the seed). To reduce the possibility of damping off, keep the flats outdoors in a protected area with partial shade and little wind. Water the flats through the winter and let the plants grow one full year before planting them out. The seedlings will be about three inches to one foot tall by the following fall. Plant the seedlings in a sunny location with good drainage. If gophers are a problem, plant redbud seedlings in cages. Watering is not necessary until the following summer, in a normal rainfall year. Give the young plants summer

water for the first three years in the ground. This amounts to once every two weeks in a hot climate and less in a coastal climate. Do not over water, as redbud will not tolerate summer water in the root crown area (at the soil level) and will suffer crown rot (*Phytophthora* sp.) if over-watered. When leaves first emerge in the spring, use liquid fertilizer to boost growth.

Management

Pruning: Periodic pruning of redbud, after it has reached the minimum age of 5 years, can be accomplished to remove dead or dying branches that might harbor diseases or insects. Pruning should take place in the fall, winter, or early spring, after leaf drop and during the dormant period. Contemporary Native American weavers practice two types of pruning. One technique is coppicing where the whole plant is cut to within several inches of the ground. Redbud vigorously resprouts from the coppice stool, sending up young straight shoots with a beautiful red pigment. This can bring added color to gardens and also these shoots are highly valued for basket weaving. Coppicing, however, should only be done on mature shrubs--at least a decade old. Flowering will be lost, until the young sprouts are two to three years old and shed the red pigment and form true bark. The other technique is selective pruning within the canopy to direct the growth of the plant. This pruning, leaves some older flowering branches, important for bees and butterflies.

Burning: Before Euro-American settlement of California, Native Americans conducted purposeful burning of hillsides in the fall of the year, after redbud has shed its leaves, to encourage the growth of young, straight shoots used extensively in basketry. Redbud also resprouts vigorously after fires.

A pathogen that infects redbud leaves is *Alternaria* sp. while *Botrytis* sp. is a gray mold that causes foliage or flower blight. Two fungi that cause root rot in redbud include *Fusarium solani* and *Verticillium dahliae*. A fungus that infects old seedpods is *Didymella leguminis-cytisis*. Most of these diseases will debilitate, but not kill redbud. Fire is an effective tool to use to eliminate the above-ground pathogens inhabiting redbud.

Cultivars, Improved and Selected Materials (and area of origin)

CEOR9 is readily available through most nurseries within its range. Contact your local Natural Resources Conservation Service (formerly Soil Conservation Service) office for more information.

Look in the phone book under "United States Government." The Natural Resources Conservation Service will be listed under the subheading "Department of Agriculture."

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For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://Plant-Materials.nrcs.usda.gov>>

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