

**RED ELDERBERRY*****Sambucus racemosa* L.**

Plant Symbol = SARA2

Contributed by: USDA NRCS Plant Materials Center, Corvallis, Oregon



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**Alternate Names:** Other scientific names include *Sambucus callicarpa*, *Sambucus microbotrys*, *Sambucus pubens*, *Sambucus pubens* var. *arborescens*, *Sambucus racemosa* var. *racemosa*, *Sambucus racemosa* ssp. *pubens* and *Sambucus racemosa* var. *pubens*. Alternate common names include scarlet elder, stinking elderberry, stinking elder, red-berried elder, bunchberry elder, and red elder.

**Uses:** The dense roots and rhizomes of red elderberry make it useful for soil stabilization and erosion control on moist sites including streambanks. It provides fair to good food and cover for birds plus small and large mammals. Hummingbirds collect

**United States Department of Agriculture-Natural Resources Conservation Service**

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nectar from the flowers. With fair energy and low protein values, this variety is rated fair to good as browse for livestock and game animals. **New growth of elderberry contains a glucoside than can be fatal to livestock.** The foliage in late summer and fall is more palatable and safer for livestock and wildlife. The fruit is high in ascorbic acid. Stems, bark, leaves and roots contain alkaloid and cyanide-producing toxins but berries may be consumed as jelly or wine after cooking. **Warning: The fruit of all elderberries should be cooked to degrade the alkaloid compounds before consuming.** This versatile plant can also be used to make dye, insecticide, medicine, and musical instruments. The colorful fruit attracts birds and several cultivars have been developed for ornamental applications.

**Legal Status:** Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

**Description:** Red elderberry is a large deciduous shrub or small tree of the Honeysuckle family that grows 10-20 ft tall with a broad arching form. Older specimens have large, multiple trunks with coarse bark. Red elderberry begins growth early in spring and produces abundant, small, creamy white flowers in large, conical or pyramidal shaped clusters between April and July. Large clusters of small, bright red, fleshy berries appear in summer bearing 2-5 seeds per fruit. Opposite leaves are divided into 5-7 pointed, oval to oblong or lance shaped 5-10 cm long leaflets with finely toothed margins. The foliage has a strong, distinctive odor. Twigs are pithy and light weight, dark red or purple to reddish-brown in color, and covered with numerous small bumps (raised pores). Dead terminal twigs are common.

**Adaptation and Distribution:** Red elderberry is an early to mid seral species in the west and a component of climax deciduous forests in the eastern U. S. It inhabits streambanks, ravines, swamps, moist forest clearings and higher ground near wetlands from sea level to 9500 ft in elevation. It is shade tolerant but prefers a sunny exposure. Red elderberry is found on a wide variety of soils but favors deeper, loamy sands and silts and nutrient rich sites with good drainage, ample moisture and a pH of 5.0 to 8.0. This species is circumpolar in northern temperate zones extending south in cooler areas along the California coast and at higher elevations in the Rocky and Appalachian Mountains. Red

elderberry is widespread throughout its range and is occasionally dominant or co-dominant in moist areas. It is still common but less dense on upland sites.



Britton, N.L., and A. Brown. 1913. *Illustrated flora of the northern states and Canada*. Vol. 3: 268.

**Establishment:** Red elderberry may be propagated vegetatively by dormant hardwood cuttings taken in late fall or winter, by softwood cuttings taken in the spring or summer, and by root or rhizome cuttings. Stem cuttings require at least 2 nodes (joints) with the basal cut just below the lower node. Stem cuttings may benefit from the use of a rooting hormone solution like IBA or IBA-talc. Layering is another means of propagation. Sturdy, unrooted dormant cuttings taken in late fall or winter can be planted directly on moist streambanks as “live stakes”.

Due to seed coat and embryo dormancy, dry or fresh seed requires 30-60 days warm, moist (20-30°C) stratification followed by at least 90-150 days cold stratification (5°C) [cold, moist chilling], or 5-15 min sulfuric acid plus 2 months cold, moist chilling at 1-4°C for good germination. Others suggest that after pulp removal, fresh seed can be sown immediately in late summer to provide both warm (fall) and cold (winter) periods for conditioning. There are about 200,000 – 300,000 clean seeds per pound. Red elderberry consistently produces abundant fruit and seed. Container and bare root nursery stock may be

planted using standard practices. Fall planting is recommended over winter and spring if material is available at this time.

**Management:** Nursery plantings of red elderberry can be as dense as 700 plants per acre in soil at least 24 in. deep. Consider supplemental irrigation during establishment year or years with low rainfall. Red elderberry will re-sprout from both roots and the seed bank following fire. Severe pruning will prevent a spindly growth habit in ornamental applications.

**Pests and Potential Problems:** Viral cankers can girdle and kill the stems. Bacterial and fungal leaf spots, powdery mildew and cane borers are usually not serious.

**Environmental Concerns:** Red elderberry spreads slowly either by seed or by root sprouting. In moist forests of the Pacific Northwest this species (var. *racemosa*) can inhibit tree regeneration following fire, but it is not considered a primary competitor. Although little effect has been discerned in the field, plants may have some allelopathic potential as they inhibited germination and growth of Douglas-fir (*Pseudotsuga menziesii*) and other species under experimental conditions.

**Cultivars, Improved, and Selected Materials (and area of origin):** Red elderberry is routinely available in containers or bare-root from west coast native plant nurseries. ‘Plumosa Aurea’ is an ornamental cultivar with cut leaves and yellow foliage.

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Edited: 070716 jsp, 090619 jme

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