

CALIFORNIA YERBA SANTA

Eriodictyon californicum
(Hook. & Arn.) Torr.

Plant Symbol = ERCA6

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Alternate Names

Mountain balm, Palo Santo, holy plant

Uses

Ethnobotanic: Yerba Santa was highly valued by many California tribes including the Salinan, Ohlone, Miwok, Pomo, and Yokuts who continue to use it for various medicinal purposes. The Spanish who came to early California were so impressed with the plant that they gave it the name Yerba Santa, meaning holy plant. Yerba Santa was introduced to the Spanish Padres at Mission San Antonio de Padua by the Salinan tribe and it became one of three major medicinal herbs used at the mission (Heinsen 1972).

The plants can be harvested at any stage, but are best in the fall when the leaves are sticky and aromatic (Hedges & Beresford 1986). The Kashaya Pomo recommend gathering the leaves just before the plant begins to produce flowers (Goodrich et al. 1980).

The leaves, stems and flowers are used (Heizer & Elsasser 1980). They are either eaten or made into a

tea, decoction, or poultice. The flowers and the bitter, aromatic leaves may be used fresh or dried. The leaves and flowers were made into a "bitter or sweetish-soapy" tasting tea that was drunk to relieve headaches and other symptoms of tuberculosis. Infusions of Yerba santa leaves and flowers were used to treat fevers, coughs, colds, stomachaches, asthma, rheumatism, pleurisy, and to purify the blood. The Kawaiisu drank Yerba Santa tea instead of water for a month to treat gonorrhea (Zigmond 1981). The Salinan used an infusion of the leaves as a balm for the eyes. Later, those at the San Antonio mission made eye balm by placing the leaves in corked glass bottles and allowing them to sweat in the sun.

Leaves were smoked or chewed to relieve asthma, coughs, colds, headaches, and stomachaches. Heated leaves were placed on the forehead to relieve headaches (Bocek 1984) and other aches and sores (Barrett & Gifford 1933). The sticky leaves conveniently stay in place upon the skin. Mashed leaves were applied externally to sores, cuts, wounds, and aching muscles. Mashed leaves were also used to reduce the swelling and relieve pain caused by bone fractures (Barrett & Gifford 1933). Yerba Santa, used alone or combined with other herbs, was applied to infected sores on humans and animals. The branches and leaves were burned in steam baths to treat rheumatism. The Ohlone wove the leaves into skirts and aprons.

Wildlife: Bees visit the flowers of Yerba Santa, which make a deliciously spicy amber honey. Seedlings and young plants are relatively nutritious and palatable but the bitter compounds in mature Yerba Santa shrubs discourage most large herbivores. However it is an important forage crop for black-tailed deer in the winter when other food sources are unavailable. Birds and small mammals eat the seed capsules.

Livestock: Goats will sometimes eat the leaves and stems. Cattle will avoid Yerba Santa in favor of more palatable plants, which can be a problem in highly grazed areas where it can become the dominant plant (Howard 1992).

Other: Yerba Santa can be used for rehabilitating and stabilizing disturbed areas (Howard 1992). The seeds germinate readily in disturbed soils. The shallow, spreading root system can help to stabilize areas subject to erosion caused by runoff.

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

General: Waterleaf family (Hydrophyllaceae). Yerba Santa is a perennial evergreen shrub (5 to 22 dm) native to California and Oregon. The stems are black with shredding outer bark. The lance shaped leaves (4 to 15cm long) are thick and leathery with a glutinous upper surface. The leaves are dark green above with lighter green beneath and can have either smooth or saw-toothed edges. Older leaves often turn black due to a condition called sooty fungus. The white to purple trumpet-shaped flowers (8 to 17mm) grow in branched panicles at the stem ends. The flowers bloom from May to June or July. The small capsulate fruits (2-3mm) ripen in September and contain from 2 to 20 small black seeds.

Distribution: Yerba Santa occurs from the Coast Ranges in California from Monterey County to the Klamath range in Siskiyou County as well as in the Sierra Nevada Range from Kern County in California to the Oregon counties of Klamath and Jackson in the north (Howard 1992). For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

Habitat: Yerba Santa grows below 1600-m elevation on dry rocky hillsides and ridges. It can be found in patches on chaparral slopes, forests, canyons, and along riverbanks. It is abundant in some annual grasslands and oak woodlands. Yerba Santa is often found in disturbed areas and early to mid successional communities.

Adaptation

Yerba Santa is adapted to the hot, dry summers and mild, wet winter's characteristic of the Mediterranean climate of California. Yerba Santa is a "fire-following" species (Emery 1988). Seeds stored in the soil for decades germinate readily during the first spring after a fire (Howard 1992). Older plants can sprout from their underground stems, called rhizomes, following disturbances such as fire.

Establishment

Gather seeds in September and October as the fruit capsules ripen. Yerba Santa seeds can be planted in the fall or early spring. The seeds will store indefinitely if kept in a dry, cool location. Prior to sowing, mix the seeds with several parts of moist

sand. This helps to ensure even distribution. Seeds can be sown directly into a prepared bed or into flats filled with a mixture of equal amounts of soil, sand, and leafmold. Heating the seeds in an oven for 5 minutes at 194 °F may increase germination rates (Emery 1988). Alternatively the seed coat can be scarified in order to allow moisture and air to enter (Mirov & Kraebel 1939). This may be accomplished by rubbing the seeds between two pieces of sandpaper. Adding charate (burned and ground plant stems) to the soil may also increase germination success. When the seedlings are large enough to handle they should be transplanted into larger pots. The plants can be placed into the ground the following spring.

The plants are sunloving and do not tolerate shade. Plants may be grown in any texture of soil but prefer it to be slightly acidic and moderately fertile. The shallow roots allow them to establish in thin as well as deep soils. The plants are tolerant of serpentine soils.

When selecting a site keep in mind that after two years Yerba Santa can reproduce vegetably through rhizomes. These underground stems can spread as much as 2.5 m in one year under excellent conditions (Howard 1992) and may overrun other plants (Halse 1993). This vegetative spread results in cloned patches with plants spaced from 20 to 25cm apart.

Management

The plants should only be pruned in the spring or early summer.

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

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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Edited: 15apr02 ahv; 19may03 ahv; 05jun06 jsp

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