



White Sage Propagation

Artemisia ludoviciana Nutt.

Alternative Names

white sagebrush, cudweed sagewort, lobed cudweed, man sage, prairie sage, wild sage, Louisiana sage, silver wormwood, western mugwort

Description

General: White sage is a whitish-silver, woolly, herbaceous perennial plant with rhizomes and a strong sagebrush scent. There are several subspecies of white sage and traits are quite variable. Height can vary from 6 inches to 30 inches. Leaves are silvery-white, soft to the touch due to dense hairs on the surfaces, and, arranged alternately up the stem in varying shapes from coarsely toothed to shallow lobed or entirely smooth. Leaf tips range from round to spear shaped. Generally, the leaves have short stalks (petioles) or no stalks. The tiny flowers are petal-less and arise in clusters from the leaf axils. They appear yellow when fully open. The plants are wind-pollinated and while the pollen is attractive to pollinators, it can be a severe allergen to humans. White sage has traditionally been used by American Indian tribes for a multitude of medicinal and ceremonial purposes.

Distribution: White sage grows in dry grassland, sagebrush steppe, meadows, open forest, rangeland, and disturbed areas such as roadsides. It prefers dry areas with sandy or rocky soil but also grows in riparian areas along streams.

Propagation

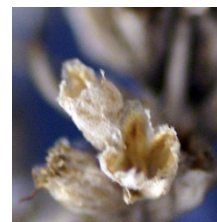
White sage can be propagated from seed, rhizome cuttings and plant division.

***Seed Collection:** The seed is tiny, with over 4 million seeds per pound. Seed is formed in cylindrical heads and is generally ripe from late September to November in the Northern Great Plains. Ripe seeds are grayish brown, smooth, and firm to the touch. Seeds shatter soon after they mature so it is important to monitor ripeness and harvest soon after the seedheads begin to open. Seed can be collected by stripping or crushing the seedheads. Seedheads can also be clipped and stored in a closed environment, such as a paper or cloth bag, to allow the seed to shatter from the heads. To prevent mold growth, seed should be spread out or allowed to surface-dry before storing.

***Obtain permission and required permits prior to collecting plant material on public or private land.**



White sage plants are covered with dense hairs.



Seed has shattered from this open seed head.



A white sage plant has many seed heads.

Seed Treatment and Seeding: Seeds of white sage can be dormant. If spring seeding or seeding indoors, cold moist stratification (prechill) for 15-60 days can improve establishment. To prechill, put seed in a plastic bag or container with sand, peat, blotter paper, paper towel, cloth, or other medium that can be kept damp, and place in a cold location such as a refrigerator. Planting seed outdoors in the fall will provide natural stratification. Seed should be surface sown or at a very shallow depth (1/8 to 1/4 inch). If starting plants indoors, seed 8-10 weeks prior to transplanting outdoors.

Transplanting Outdoors: Transplant after the danger of frost has passed. Seedlings should be acclimated to weather conditions for 1-2 weeks prior to transplanting outdoors. When determining location and plant spacing for the seedlings, consider that white sage develops rhizomes (underground runners) that allow plants to spread and form colonies.

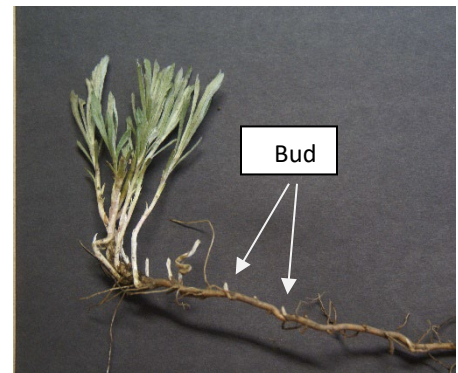
Rhizome/Plant Division: White sage rhizomes can be divided to propagate new plants. To make rhizome cuttings, dig below the soil surface of a plant to find the rhizomes and roots. Remove a section of rhizome and cut into pieces. There must be at least one bud on the cut rhizome piece to produce a new plant. The pieces can then be planted outdoors or in pots. It is important to water the rhizome pieces until plant growth is detected. Whole plants can be divided by splitting the plants apart so that each division has a root or rhizome and one or more buds. Each division can then be planted outdoors or potted. Replant the divisions as soon as possible to prevent drying out. Old top growth can be cut off.

Stem Cuttings: Stem cuttings can be made by cutting a 4-6 inch stem in spring or early summer. Select a stem that is healthy and free of disease. Cut below the leaf node and place the stem in well drained, moist soil to root. Stem cuttings can be more difficult to root than plant or rhizome divisions.

With this and other work, the Plant Materials Program aims to share plant solutions that solve local and national conservation problems. For additional information on specific species of plants mentioned, please see the [USDA PLANTS database](#). Technical information and guidance on the use of conservation plants to address resource concerns can be found on the [Plant Materials Program website](#) or [contact the nearest Plant Materials Center or plant materials specialist](#).



White sage can form dense colonies.



White sage plants can be propagated by dividing rhizomes into sections. Each section needs a bud for forming a new plant.