

## SAGEWORT WORMWOOD

*Artemisia campestris* L. ssp.  
*caudata* (Michx.) Hall &  
Clements

Plant Symbol = ARCAC

Contributed By: USDA NRCS National Plant Data Center

**Alternative Names**  
Western sagewort

### Uses

*Ethnobotanical:* Both the Lakota and the Dakota used sagewort wormwood (*Artemisia campestris*) for medicine (Kindscher 1992). The Lakota made a tea from the roots to remedy constipation, inability to urinate, and difficulty in childbirth (*Ibid.*). Blackfeet runners chewed leaves for stamina. The Blackfeet also chewed the leaves of sagewort wormwood for stomach troubles and applied the chewed leaves to rheumatic joints and sore eyes (Kindscher 1992). A tea of fresh leaves was drunk to abort difficult pregnancies. The Blackfeet stored the dried leaves for use in a tea that was drunk to relieve coughs and applied externally to relieve eczema. The Shuswap use a decoction of sagewort wormwood for coughs, colds, and tuberculosis (Moerman 1986). They also make a poultice of steamed branches and apply it to bruises and sores.

*Wildlife:* Sagebrush furnishes essential cover for many of the smaller desert animals (Martin et al. 1951). Its foliage and flower clusters constitute most of the diet of the sage grouse, and these parts together



USDI, GS, NPWRC

with the twigs are the primary source of food for antelope and mule deer. Other mammals that browse the foliage and stems include jackrabbits,

black-tailed rabbits, white-tailed rabbits, cottontails, chipmunks, gophers, ground squirrels, various species of mice, prairie dogs, kangaroo rats, and white-throated wood rats. Elk and mountain sheep browse on the foliage and twigs. Range cattle also make good use of sagebrush as forage.

### Status

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

### Description

*General:* Sagewort wormwood (*Artemisia campestris*) is a smooth-stemmed biennial herb 3-10 dm (1-4 ft) tall with stems arising singly from a prominent taproot. This species is without the typical sagebrush odor that is common to most *Artemisia* species. The basal leaves are numerous, sometimes persistent and sometimes deciduous. These leaves are 2-3x compound, and each leaf is 2-10 dm long and 1-4 dm wide. The cauline leaves are less divided and become more reduced as they ascend the stem. The inflorescence of numerous small heads is an elongate but narrow panicle. The fruits are dry, smooth, broadly cylindrical achenes. The mature achenes are sub-cylindric and hairless. Sagewort wormwood flowers from August to September.

The lactone glycosides, santonin and artemisin, are probably found in all *Artemisia* species and account for their anthelmintic properties (Moore 1979). Thujone, a terpene-like ketone and essential oil, is also found in the plant and may be responsible for some of its medicinal effects (Kinscher 1992). However, it is poisonous in large doses. The Food and Drug Administration classifies *Artemisia* as an unsafe herb containing "a volatile oil which is an active narcotic poison" (Duke 1985).

### Distribution

For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

## Establishment

*Adaptation:* Sagewort wormwood grows in open places, and is often found growing in sandy soil. Sagewort wormwood is circumboreal, and its southern range occurs in Oregon, Arizona, Michigan, and Vermont.

Most of the wild sages are abundant in their natural habitats. White sage and other *Artemisia* species can be propagated by seeds or by cuttings taken in the early summer (Kindscher 1992).

*Propagation from Cuttings:* Sagewort wormwood spreads vigorously from a prominent taproot. Plants can easily be divided and replanted.

- In greenhouse conditions, it is best to dig up and separate plants in late fall or winter. This is the “quiescent” period that follows seed maturation, and leaves are senescent (dried up and brown colored).
- Split the plant clump into pieces by hand, then cut the plant into sections, each with one or more buds.
- For dividing the whole plant, gently loosen the soil around the plant, taking care to not damage the roots, and then lift the plant gently with a pitchfork. Shake off as much soil from the roots as possible.
- Divide the plant into smaller pieces by hand, retaining only healthy, vigorous sections, each with new buds.
- Replant the divisions as soon as possible. It is important the plants don’t dry out, so if replanting is delayed a couple of hours, dip the plants briefly in water and keep them in a sealed plastic bag in a cool, shady place until you are ready to plant them.
- Cut back the old top-growth and replant the divided plant sections to the same depth as before.
- When replanting, ensure that the roots are well spread out in the planting hole and the plant firmed in. Water newly planted divisions thoroughly; take care not to expose the roots by washing away soil when watering.
- Plants should be planted in the full sun in a light, loose soil. Plants should be planted on 12-18” centers.
- As plants are becoming established, the rooting zone needs to be kept moist.

*Propagation by seed:* When the soil has warmed to at least 45°F (7°C) in the spring, sow hardy *Artemisia* species where they are to flower.

- Seeds can also be sown in pots or seed trays and either out-planted in their final positions in late fall or over-wintered in a cold frame to be out-planted in spring. This technique is particularly useful in gardens with clay soil that is slow to warm up in spring.
- The two main methods of sowing outdoors are broadcast and drills. For both, prepare the seedbed first by digging over the soil to one spade depth, then rake over and firm.
- Broadcast Sowing: Sprinkle seeds thinly and evenly on the surface of the prepared seedbed and rake them in lightly. Label the seedbeds, then water the area gently, but thoroughly, with a fine spray.
- Sowing in drills: Use either a trowel tip or the corner of a hoe, mark out shallow drill holes 3-6” (8-15 cm) apart, depending on the ultimate size of the plant. Sow seeds thinly and evenly by sprinkling or placing them along each drill at the appropriate depth. Carefully cover with soil and firm. Label each row and water gently but thoroughly with a fine spray.
- To prevent overcrowding, the seedlings usually need to be thinned. To minimize disturbance to a seedling being retained, press the soil around it after thinning the adjacent seedlings.
- Water the newly establishing seedlings fairly frequently until the roots have developed.

## Management

The following information on the *Traditional Resource Management* (TRM) was provided by Lynn Youngbuck, who is Cherokee, Chiracahua, and Fox. TRM includes the following:

- Take only what you need, leaving the best to reproduce.
- Speak to the plant, leave an offering of tobacco or sage before harvesting. The plant will grow back two stems for every one cut.
- We humans are another strand in life. Plants sustain us and should be treated as another living being.
- Plants were taken care of by extended family groups of women. They were taken care of and watched each year for generations.
- Materials harvested were shared and traded with the whole tribe.

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

ARCAC is available from native plant nurseries within its range.

### **References**

Andros, F. 1883. *The medicine and surgery of the Winnebago and Dakota Indians*. American Medical Association Journal 1: 116-118.

Beichel, C., E. McDonald, & T. Cole (eds.) 1993. *Encyclopedia of gardening*. Dorling Kindersley, London, New York, Stuttgart. 648 pp.

Carlson, G.G. & V.H. Jones 1939. *Some notes on use of plants by the Comanche Indians*. Michigan Academy of Science, Arts, and Letters 25: 517-543.

Densmore, F. 1974. *How Indians use wild plants for food, medicine, and crafts*. Dover Publications, Inc., New York, New York. 397 pp.

Duke, J.A. 1985. *CRC handbook of medicinal herbs*. CRC Press, Boca Raton, Florida.

Grinnell, G.B. 1962. *The Cheyenne Indians*. 2 vols. Cooper Square Publishers, New York, New York.

Hart, J. A. 1976. *Montana native plants and early peoples*. Montana Historical Society, Helena, Montana.

Hartmann, H.T., D.E. Kesler, & F.T. Davies, Jr. 1990. *Plant propagation principles and practices*. Prentice Hall, Englewood Cliffs, New Jersey.

Kindscher, K. 1992. *Medicinal wild plants of the prairie. An ethnobotanical guide*. University Press of Kansas. 340 pp.

Kindscher, K. 1987. *Edible wild plants of the prairie*. University Press of Kansas. 276 pp.

Kroeber, A.L. 1908. *The ethnology of the Gros Ventre*. American Museum of Natural History, Anthropological Papers 1: 145-281.

Martin, A.C., H.S. Zim, & A.L. Nelson 1951. *American wildlife and plants a guide to wildlife food habits*. Dover Publications, Inc., New York, New York. 500 pp.

McClintock, W. 1909. *Materia medica of the Blackfeet*. Zeitschrift fur Ethnologie: 273-279.

McGregor, R.L., T.M. Barkley, R.E. Brooks, & E.K. Schofield (eds.). *Flora of the Great Plains*. Great Plains Flora Association. University Press of Kansas. 1402 pp.

Moerman, D.E. 1986. *Medicinal plants of Native America*. Research Reports in Ethnobotany, Contribution 2, University of Michigan Museum of Anthropology Technical Reports, Number 19. 534 pp.

Moore, M. 1979. *Medicinal plants of the mountain west*. Museum of New Mexico Press, New Mexico.

USDA, NRCS 2000. *The PLANTS database*. Version: 000316. <<http://plants.usda.gov>>. National Plant Data Center, Baton Rouge, Louisiana.

USDI, Geological Survey 2000. *Native wildflowers of the North Dakota grasslands*. Version: 000316. <<http://www.npwrc.usgs.gov/resource/literatr/wildflwr/species/artecamp.htm>>. Northern Prairie Wildlife Research Center, Jamestown, North Dakota.

### **Prepared By**

*Michelle Stevens*

Formerly USDA, NRCS, National Plant Data Center

### **Species Coordinator**

*M. Kat Anderson*

USDA, NRCS, National Plant Data Center  
c/o Plant Science Department, University of California, Davis, California

Revised: 04dec00 jsp; 17mar03 ahv; 30may06jsp

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>>

*The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).*

*To file a complaint of discrimination write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.*

*Read about [Civil Rights at the Natural Resources Conservation Service](#).*

