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Sagebrush in Prisons Project Newsletter

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Sagebrush in Prisons is an ecological education program for incarcerated adults and youth, a partnership of the Institute for Applied Ecology, Bureau of Land Management, and State and Federal Correctional Institutions and is a part of the Sustainability in Prisons Project.

What should we be doing? Sagebrush Crew to-do list:

- ☐ **Water daily**-make sure the conetainers in the corners get water too!
- ☐ **Fertilize once a week**- make sure you rinse the leaves afterwards to prevent burning!
- ☐ **Test soil pH every other week**- the ideal range is 5-8. Add lime if pH is 5.0 or below.
- ☐ **Thinning**- slowly thin down the number of plants per conetainer to one.
- ☐ **Fill out data sheet daily**- record daily activity and anything worth noting.
- ☐ **Watch for root rot**- if root rot is present, separate infected containers from non- infected ones and let the infected ones dry out completely.
- ☐ **Rotate trays 180° once a week-** this prevents the plants on the outside edge from drying out.

What's the difference between sage and sagebrush?

Written by Oregon SPP staff

One of the most common misconceptions about the Sagebrush in Prisons program is about which species of plant we are growing. People might say: "Oh, you're growing sage? I love sage, especially on potatoes or in marinara." Then you have to explain that "No, we aren't growing sage the spice, but sagebrush the high desert shrub." Sagebrush and sage aren't even related, but their common names confuse people into thinking that they are. Culinary sage, or *Salvia officinalis*, is an herb native to the Mediterranean region, and is used as a spice and for its medicinal properties. Sage is a member of the mint family (Lamiaceae, to botanists). But sagebrush, *Artemisia tridentata*, is in another family altogether, the sunflower family (Asteraceae). But of course sagebrush flowers look nothing like sunflowers, and in fact they are wind pollinated instead of insect pollinated. The *Artemisia* genus is named after Artemis, the Greek goddess of hunting, wild animals and the wilderness. The species name *tridentata* refers to the leaves, which have three "teeth" at the end. Culinary sage leaves are oblong, toothless, have a pebbly texture, and taste much better than sagebrush.

Sage

←Leaves

Flower→

Sagebrush

←Leaves

Flowers→

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SAGEBRUSH in PRISONS PROJECT

Sagebrush Ethnobotany: medicine, fiber, & Dye

Written by Oregon SPP staff

Ethnobotany is the study of how people make use of plants. Daniel Moerman's book *Native American Ethnobotany* lists sagebrush as one of the ten plants with the greatest number of uses. Native Americans of the high desert West have used sagebrush for thousands of years for medicine, ceremony, fiber, dye, and more.

Medicine
Many tribes traditionally used sagebrush as a medicine to treat a variety of ailments including as a tea for stopping internal bleeding, treating headaches and colds. Externally it was used for body aches, preventing infection in wounds, treating athlete's foot, as a hair rinse to treat dandruff, and as an insect repellant.

Ceremony
The most well known use of sagebrush is as a Native American ceremonial smudge. In this ceremony a bundle of dried sagebrush leaves is burned to spiritually cleanse or purify a person, space, or object of bad spirits or negative energies or influences.

Fire
The shredded bark is a fine tinder for starting fires. The stems make good friction sticks for making fires. The seeds are used during celebrations because, when thrown into a fire, they explode like crackers. The wood is hard, dense, and burns rapidly and well (even when green) and has a pleasant aromatic smell.

Fiber
The fibrous bark is used for weaving sandals, mats, baskets, and rope, or as a stuffing material in pillows and as an insulation in shoes to keep the feet warm. A fibre obtained from the inner bark is used for making paper. The stems are harvested in late summer, the leaves removed and the stems steamed until the fibre can be stripped off. The fibre is then cooked for two hours with lye before being ball milled for 4 hours. The resulting paper is a light tan/gold colour. A bunch of the leafy stems can be tied together and used as a broom.

In 1938 an anthropologist digging in a cave at Fort Rock, Oregon found ancient sandals made of shredded sagebrush bark. It turned out that the sandals were over 9,000 years old! This style of sandal was thereafter called "Fort Rock sandals." Fort Rock-style sandals have been found at six other sites in southeast Oregon and northwestern Nevada. Their ages range from about 10,400 to 9,100 years old, making Fort Rock sandals the oldest directly dated footwear in the world.

Dye
A yellow to gold dye is obtained from sagebrush leaves, buds and stems combined. This can be used to dye wool, cotton, and other fabrics.

Sagebrush bow drill fire board

Sagebrush smudge bundle

Fort Rock sagebrush bark sandals

Sagebrush used to dye wool yellow