

THREETIP SAGEBRUSH

Artemisia tripartita Rydb.

Plant Symbol = ARTR4

Description

General: Threetip sage is a medium-sized shrub reaching 3 to 6 ft tall with silvery green herbage, similar to other members of the genus. The leaves are distinctly three-cleft with linear lobes (Welsh et al., 2003). There are approximately 2.2 million seeds/lb according to the PLANTS database (USDA-NRCS, 2019).



There are two subspecies, threetip sagebrush (*A. tripartita* ssp. *tripartita*) and Wyoming threetip sagebrush (*A. tripartita* ssp. *rupicola*). Wyoming threetip sagebrush is a lower-growing, dwarf form with decumbent branches reaching 15 inches in height (Beetle, 1960).

Distribution: Threetip sagebrush occurs in arid and semi-arid regions of western North America including parts of British Columbia, eastern Washington and Oregon, southern Idaho, northern Nevada and Utah, and western portions of Montana, Wyoming and Colorado. Wyoming threetip sagebrush occurs in arid portions of Wyoming and southern Oregon (Beetle, 1960; USDA-NRCS, 2019; Welsh et al., 2003). For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.



Habitat: This species commonly occurs in dry plains and hills of the sagebrush steppe and grassland communities, often in association with big sagebrush (*A. tridentata*), bluebunch wheatgrass (*Pseudoroegneria spicata*), and Sandberg bluegrass (*Poa secunda*). Threetip sagebrush often occupies sites slightly wetter or higher in elevation than Wyoming big sagebrush, but drier and lower than mountain big sagebrush (*A. tridentata* ssp. *vaseyana*) communities.

Adaptation

Threetip sagebrush is adapted to areas receiving 6 to 35 inches mean annual precipitation (USDA-NRCS, 2019). It is adapted to all soil textures and is most commonly found growing in soils with a pH range of 6 to 8.5 (USDA-NRCS, 2019). Threetip sagebrush generally inhabits somewhat moister or more favorable habitats than Wyoming big sagebrush (*A. tridentata* ssp. *wyomingensis*) (Cronquist et al., 1994).

Uses

Wildlife: Though there have been observed instances of mule deer and other large ungulates browsing on threetip sagebrush (Carson et al., 1987), its utilization is limited, and it is not considered a preferred source of food (Ogle and Braze 2009). In Wyoming it is used sparingly during periods of food scarcity (Dittberner and Olson, 1983). It is rated fair in energy and protein value (Dittberner and Olson, 1983). Threetip sage is browsed by pygmy rabbits (Green and Flinders, 1980) and was rated as having high palatability for sage-grouse by Rosentreter (2004). Threetip sagebrush also offers food or shelter for numerous small birds and mammals (Stanton, 1974).

Livestock: Three tip sage is unpalatable to cattle, but will be browsed by sheep (Brunner, 1972; Ogle and Braze, 2009).

Restoration: Threetip sagebrush is not difficult to establish by direct seeding or transplanting (McArthur and Stevens, 2004), but is rarely included in rangeland seed mixtures because of its low palatability to wildlife and livestock.

Ethnobotany

Threetip sagebrush was used medicinally by some native American tribes. Decoctions of leaves and branches or roots used to treat colds and other ailments by Okanagan-Colville tribe (Turner et al 1980). Infusion used by Navajo for headaches and washing wounds (Elmore, 1944).

Status

Threatened or Endangered: No.

Wetland Indicator: No

Planting Guidelines

Threetip sagebrush establishes readily from seed or from transplanting (McArthur and Stevens, 2004). The full stand seed rate to deliver 25 to 50 seeds per square foot is 0.5 to 1 lb/ac. When seeded in a mixture, the seeding rate should be adjusted to the appropriate percentage of the full stand seeding rate. The seeding rate should be doubled for broadcasting or for critical area plantings.

Transplants and bareroot stock can also be used to establish threetip sagebrush. These techniques should be considered for small critical area plantings and seed increase plots. Guidelines for related species of sagebrush indicate that transplanting should occur in early spring when moisture levels are optimum using 5 to 8-inch-tall stock that has been overwintered and hardened (Welch et al., 1994). A 0.5 to 1.0 ft² area should be cleared of competing vegetation at the planting site for best establishment.

Management

Threetip sagebrush typically increases in response to spring sheep grazing, but will decrease with heavy fall grazing, allowing grasses and forbs to increase (Ellison, 1960; Taylor, 1994). Threetip sagebrush will commonly sprout following mechanical disturbance such as cutting and mowing and less frequently following burning or chemical treatments (Beetle, 1960; Pechanec et al., 1965).

Pests and Potential Problems

There are no known pests or potential problems associated with threetip sagebrush.

Environmental Concerns

Threetip sagebrush is native to western North America. It will spread under favorable conditions but does not pose any environmental concern to native plant communities.

Control

Herbicides can be used to control threetip sagebrush; however, complete control is rarely achieved without multiple applications, and stands may return in higher density than previously (Schlatterer, 1973). Please contact your local agricultural extension specialist or county weed specialist to learn what works best in your area and how to use it safely. Always read label and safety instructions for each control method. Trade names and control measures appear in this document only to provide specific information. USDA NRCS does not guarantee or warranty the products and control methods named, and other products may be equally effective.

Seeds and Plant Production

Seed can be collected by shaking, beating or stripping the seed off the plants into containers. The raw materials can then be processed using a hammer mill or brush machine to dislodge the seeds from the flowering heads. Screen cleaners and air cleaners can then be used for final cleaning.

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

Limited quantities of wildland collected seed may be available from commercial sources. There are currently no commercial releases of threetip sagebrush. Seed sources should be selected based on the local climate, resistance to local pests, and intended use. Consult with your local land grant university, local extension or local USDA NRCS office for recommendations for use in your area.

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