

**FOURWING  
 SALT BUSH**  
*Atriplex canescens*  
 (Pursh.) Nutt.  
 plant symbol = ATCA2

Contributed by: USDA NRCS Plant Materials Program



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**Alternate Names**

chamiza, chamise, chamiso, bushy atriplex, fourwing shadscale, buckwheat shrub, white greasewood, salt sage, wafer sagebrush, box brush

**Uses**

*Ornamental and beautification:* Its grayish or whitish green color has possibilities as an ornamental or screening plant in picnic or camping areas in low rainfall sites. The plant has excellent potential for plantings to promote native species. It is used on mine spoils, cut banks and other disturbed areas to blend into natural vegetation.

*Erosion control:* Due to its extensive and deep root system (20 to 40 feet deep) this plant has an adaptation for erosion control, especially where associated native plants have not been disturbed.

*Livestock:* This is a nutritious plant. It has a good rating for sheep and goats, fair for cattle, and poor for

horses, except in winter when its rating would be fair to good. The seed crop is extremely nutritious and

eaten so extensively by livestock as to be detrimental to the continued reproduction of the plant.

*Wildlife:* Deer relish this plant, especially during the winter. Quail use this species for shady cover, roosting, and food. It has been observed to be used by porcupine, ground squirrel, and jack rabbit.

**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**

*Atriplex canescens* (Pursh) Nutt., fourwing saltbush, is an evergreen, much branched, gray shrub from 2 to 6 feet tall occasionally reaching 10 feet tall. It has stout, gray scurfy branches. Leaves are alternate, linear-spatulate to narrowly oblong, with 1/2 to 2 inches long margins somewhat enrolled with a dense permanent scurf on both sides. Male and female flowers are on separate plants, male flowers in spikes forming large panicles, female flowers in spikes forming large, dense leafy, spike-like panicles. Fruiting bracts have 4, free, flat, entire or fringed wings from which the plant gets its name.

**Adaptation and Distribution**

Fourwing saltbush is an important species in the northern salt desert shrub association. Average annual precipitation in this desert area varies from 6 to 14 inches but is mostly in the 8 to 12 inch range; summers are hot and dry and winters are normally cold. Fourwing saltbush grows on a wide range of soils from clays to sands. It does well in soils with high lime content. It can tolerate soil depths from 10 inches to over 3 feet, but is mostly found in moderately deep to deep soils. It is able to exist on soils with heavy white or black alkali concentrations but is not restricted to saline-alkali areas and is by no means an indicator of these conditions. The plant is found in desert flats, gravelly washes, mesas, ridges, slopes, and even on sand dunes. It can grow at elevations from 3,000 to as high as 8,000 feet, but is most likely to be found at 4,500 to 6,000 feet.

Fourwing saltbrush is distributed throughout the western United States. For a current distribution map, please consult the Plant Profile page for this species on the PLANTS Website.

### **Establishment**

The seedbed should be weed free and firm. Drilling is the most successful seeding method but some success has occurred from broadcasting where some method of covering has been employed. Seed should be covered no deeper than 1 inch. Seedlings have been successful throughout the year but best results are obtained by seeding in late spring or early summer. Good stands have been obtained by seeding during the winter as late as January. Seeding rate should be 8 to 10 pounds per acre. De-wing the seed with a hammer mill improves the ease of handling and enhances germination. Poor stands may result if seed is not de-winged.

Seed ripens in late August and September and can be collected from September to December by stripping it from dense clusters. They can be stored successfully and remain viable for 6 or 7 years. Some transplanting of 2 or 3 year old nursery stock has been tried but has not been successful.

### **Management**

Planted areas should be kept free of weeds during the first year of establishment. Proper grazing use on this shrub should be 40% of the total annual growth during the growing period and 50% during the plant dormancy period. This plant is well adapted to winter use. Careful management is needed due to the brittle nature of the twigs. A rotation deferred system of grazing will aid this plant in producing a maximum yield of forage for livestock.

As a screening plant, this species has a place on drier locations. However; it should not be seeded in heavy foot, horseback, or vehicle travel areas where it would soon be killed due to its brittle nature. In heavy winter deer concentration areas, this plant will be grazed out if additional food sources are not provided.

### **Pests and Potential Problems**

There are no serious pests of fourwing saltbush. Rabbits and other small rodents are especially damaging to small seedlings.

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

‘Marana’ (CA), ‘Rincon’ (NM), and ‘Santa Rita’ (AZ). Seeds can be purchased from commercial seed sources.

### **Prepared By & Species Coordinator:**

*USDA NRCS Plant Materials Program*

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For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS <<http://plants.usda.gov>> and Plant Materials Program Web sites <<http://Plant-Materials.nrcs.usda.gov>>.

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