

# 'Wytana'

## Moundscale

*Atriplex X aptera* A. Nelson (pro sp.)  
 [*canescens x nutallii*]

A Conservation Plant Release by USDA NRCS Bridger Plant Materials Center, Bridger, MT



*Moundscale growing in the wild near Warren, Montana*

'Wytana' moundscale {*Atriplex X aptera* A. Nelson (pro sp.) [*canescens x nutallii*]} is a cultivar released in 1976 in cooperation with the Montana and Wyoming Agricultural Experiment Stations. At the time of its release, and for many years after, it was commonly called Wytana fourwing saltbush.

### Description

Wytana moundscale is a native, long-lived, perennial shrub that is less spiny than other *Atriplex*. It has an extensive root system with a well developed tap root, and grows 1 to 4 feet tall with branches starting near the ground. Plants are mostly either male or female (dioecious). Male plants produce small yellowish flowers at the end of stems on the current year's growth. Female flowers have two bracts united above the middle and with four, papery winged, one-celled seed pods (utricles). The utricles are conspicuously clustered on the branch ends. Some plants produce male and female floral structures on the same plant (monoecious) and have stamens and pistils in the same flower (hermaphroditic). The leaves are grayish-green, alternate, and covered in whitish hairs. The older wood is scaly and light brown to dark gray in color. Stems of new growth are also scaly, whitish-gray, and covered in short hairs.

### Origin

Wytana moundscale is a naturally occurring hybrid of true fourwing saltbush *Atriplex canescens* and Gardner's (Nuttall's) saltbush *Atriplex nutallii*. Wytana originates from seed collected in 1960, in Musselshell County, Montana, at 3,400 feet elevation with an average 12

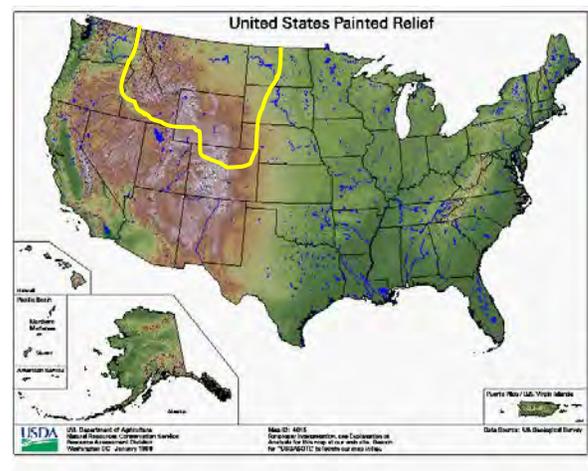
inches of annual precipitation. Wytana was tested for more than 15 years against fourwing saltbush collections from across the western United States. It consistently rated superior in seedling vigor, salt and drought tolerance, forage and seed production, and stand longevity. The original collection of Wytana was directly increased without selection.

### Conservation Uses

Wytana was one of the first native shrubs used for mine reclamation and range revegetation in arid and semi-arid environments. It is ideally used in seed mixtures for conservation and wildlife plantings. The forage is fairly palatable and nutritious for domestic livestock and wildlife. When eaten in large quantities, it can cause bloat. Wytana provides food and cover for upland game birds and many species of granivorous songbirds. The leaves and seeds are eaten by rodents and it is preferred cover for rabbits and coyotes. Wytana typically flowers from late June until mid-July, providing nectar and pollen for insects.

### Area of Adaptation

Wytana is principally adapted to dryland areas east of the Continental Divide. It is particularly well adapted to soils that developed from marine shales and grows well on soils that are slightly affected by salts.



*Area of adaptation for Wytana moundscale*

### Establishment and Management for Conservation Plantings

Wytana can be established by direct seeding. Intact, winged utricles number 24,500 per pound, whereas clean, de-winged seed numbers approximately 49,000 per pound. De-winged seed tends to germinate faster than

winged seed. For best results, seed should be planted into a firm, weed-free seedbed. It is recommended that Wytana be included as a component of a native seed mixture at a rate not to exceed ¼ to ½ pound pure-live-seed per acre. When used in a mix, adjust the seeding rate to the desired percentage of mix. A seeding depth of ½- to ¾-inch is recommended. Seed should be dormant planted after October 15. Seedlings are vigorous and survive well, but resistance to insects and disease (damping off) is poor, and tolerance to shading is only fair. It reproduces by seed and vegetatively by root sprouting.



*Wytana seed field at Brian Duyck's farm near Powell, Wyoming*

### Ecological Considerations

Wytana leaves and stems contain saponin, which is somewhat poisonous when consumed in large quantities. Plants may suffer from infestations of grasshoppers, mealybugs (selected genera in the family Pseudococcidae), aphids (selected families in the superfamily Aphidoidea), *Orthezia* scales, several Chrysomelid beetles, seed chalcids (tiny, wasp-like insects), and the Atriplex case-bearing moth *Coleophora atriplicivora*, resulting in defoliation and seed damage.

### Seed Production

Seed of Wytana is relatively easy to produce from direct seeding. Wytana is very drought tolerant and requires only 10 to 14 inches of annual precipitation for seed production. Fields should be planted in 30-inch row spacing under irrigated conditions and 48-inch row spacing in dryland production. Wytana moundscale is a cross pollinator. Seed fields of Wytana, because of its low growth form, can be either swathed or direct-combined. Harvest when leaves and stems have a moisture content of less than 40%; seeds are in a firm to hard dough stage, dry, and a dull yellow in color. Seed combined out of cured windrows does not require additional drying prior to storage, whereas direct combined seed requires drying prior to storage. Direct cutting at a time when the utricles are very dry may result in a greater yield with better seed

fill. Average harvest date at the Bridger Plant Materials Center is October 1. Seed yields average 150 and 300 pounds per acre under dryland and irrigated conditions.



*Wytana moundscale seed stalk*

### Availability

Wytana moundscale has limited availability on the commercial seed market. Foundation seed is maintained by the USDA-NRCS Plant Materials Center in Bridger, Montana. It is available to commercial growers through the Montana Foundation Seed Program at Montana State University-Bozeman and the University of Wyoming Foundation Seed Service in Powell, Wyoming. Foundation and Certified seed classes are recognized.

*For more information, contact:*

Bridger Plant Materials Center  
98 South River Road  
Bridger, Montana 59014  
Phone 406-662-3579  
Fax 406-662-3428

<http://plant-materials.nrcs.usda.gov/mtpmc>  
<http://www.nrcs.mt.usda.gov>

### Citation

Release Brochure for Wytana moundscale (*Atriplex X aptera*). USDA-Natural Resources Conservation Service, Bridger Plant Materials Center. Bridger, Montana 59014. Revised January 2013.

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