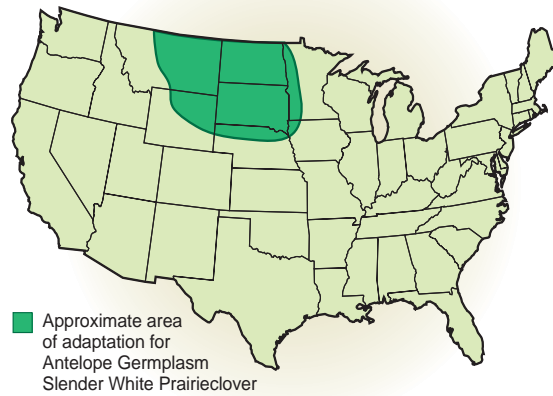


Antelope Germplasm Selected Class Slender White Prairieclover

Antelope is a tested class germplasm release of slender white prairieclover (*Dalea candida* Willd.) originally collected in 1947 in Stark County, North Dakota, 10 miles (16 km) southwest of Dickinson (elevation 2,500 ft (760 m)). This collection was first evaluated as NDL-56 at the Soil Conservation Service Nursery at Mandan, North Dakota, and in 1960 was sent to the newly established Plant Materials Center at Bridger, Montana. At the Bridger PMC, this accession was compared to three other collections of slender white prairieclover and seven collections of purple prairieclover.



(250-450 mm) of annual precipitation and found growing in mid- and short-grass prairie plant communities.

Uses

Slender white prairieclover is palatable and nutritious for all classes of livestock and is an important browse for antelope, deer, and upland game birds, particularly sharp-tail grouse. This native legume can be used as a forb/legume component in reclamation of drastically disturbed lands, range renovation, and government conservation programs such as the Conservation Reserve Program (CRP). This native legume can be included in any seeding mixture for wildlife habitat restoration or wildlife enhancement areas within other types of plantings. In addition, the prairieclovers fix nitrogen, making it available to associated grass species. In plantings requiring native plant materials, this is one of the few native forbs that is commercially available.

Description

Slender white prairieclover is a long-lived perennial legume, which generally grows to a height of 17-24 inches (45-60 cm). The multiple slender stems rise from a woody base with a strong, deep, poorly branched taproot. The slender stems are usually upright and spreading, but occasionally prostrate. The leaves are alternate, odd-pinnate, and the five-nine leaflets are glandular-dotted. The leaflets of slender white prairieclover are larger than those of purple prairieclover. The flowers are in terminal spikes that are compact and cylindrical. The white flowers develop in July and August with seed maturing in late August or September. The flowers are atypical of the legume family, having one standard and four narrow petal-like bodies instead of the typical wings and keel. The lower portion of the petal and petal-like bodies join with the stamen stalks to form a tube. The plants die back to the base each year. The papery seed pods contain one or two small kidney-shaped seeds. The processed seed of Antelope has 278,000 seeds/lb (613,000 seeds/kg).

Adaptation

Slender white prairieclover is a native legume that ranges from the southern portions of the Canadian prairie provinces through the prairies of the Dakotas, south to Kansas and Oklahoma, and is found in the prairies and foothills of Colorado, Wyoming, Montana, and Utah. Antelope germplasm of slender white prairieclover is best adapted to the northern latitudes of the range of this species. It is usually found as a minor component in late seral grasslands, but it can be a pioneer species on disturbances on shallow soils or gravels. This plant is found primarily on well-drained sandy, gravelly, and silty soils, rarely on clayey or lowland sites. In the northern prairies and plains, it is found on sites receiving 10-18 inches

Establishment

For best results, seed should be planted into a firm, weed-free seedbed. The full seeding rate is 4 lb/acre (4.4 kg/ha); however, this species will usually be a minor component of a native seed mixture at a rate of 0.5 lb/acre (0.6 kg/ha) or less. It is recommended that seeding be done with a drill that will ensure a uniform 1/4 to 1/2 inch (6 to 12 mm) seed placement depth. The seeding of the forb component



of a mix in alternate rows or cross-planting with the grass component will ensure better forb establishment and stand longevity. Early spring seeding will produce the best results. In areas receiving good late spring and early summer precipitation, the planting date can be delayed so that the first flush of weeds can be controlled prior to seeding. With any planting that includes forb and shrub species, broadleaf weed control can be a problem. Periodic mowing during the establishment year is one option for weed suppression.

Seed Production

For seed production, slender white prairieclover should be established in rows with between-row spacing of 18-30

inches (45-75 cm), allowing for between-row cultivation. Wider row spacing is necessary when grown under dryland conditions. Seed production should not be attempted on sites receiving less than 15 inches (380 mm) of annual precipitation without irrigation. Slender white prairieclover is insect pollinated. In foundation seed production fields at the Bridger PMC, 18 different wasps and bees have been found to be active when the plant is in full bloom. Both honey bees and leaf-cutter bees are very active on slender white prairieclover when hives or boards are located near the fields. Annual warm-season grasses and broadleaf weeds are the most problematic weeds. Chemicals labeled for use on alfalfa and clovers can be utilized; however, no chemicals are specifically labeled for use on slender white prairieclover. Seed production cannot be expected until the second year, but stands will continue to be productive for at least five years if weed control is successful. Slender white prairieclover flowers throughout late July and August. Seed is ready to harvest during the first two weeks of September. Because of the indeterminant ripening, the plants should be swathed and allowed to cure in a windrow prior to combining. Each seed pod contains a single seed (rarely two). The seed pods are run through a hammermill to process down to the kidney-shaped legume seed. Seed yields of 100-200 lbs/acre (112-225 kg/ha) can be expected under dryland conditions and yields of 200-400 lbs/acre (225-450 kg/ha) under irrigation. Antelope is the only release of slender white prairieclover presently under commercial production.

Availability

The USDA-NRCS Plant Materials Center, Bridger, Montana, in cooperation with the Bismarck, North Dakota, PMC, released Antelope as a tested class germplasm release. G₁ seed (equivalent to foundation seed) is produced at the Bridger PMC and made available to commercial growers through the Foundation Seed Stock program at Montana State University-Bozeman and the University of Wyoming Foundation Seed Program at Powell, Wyoming. Only one generation (G₂ equivalent to certified) beyond foundation (G₁) is recognized.

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