

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
KNOX CITY, TEXAS

NOTICE OF RELEASE OF CUERO GERMPLASM PURPLE PRAIRIE CLOVER
SELECTED CLASS OF NATURAL GERMPLASM

The U.S. Department of Agriculture, Natural Resources Conservation Service, Knox City Plant Materials Center announces the release of a selected ecotype of purple prairie clover, *Dalea purpurea* Vent.. As a selected release this plant will be referred to as Cuero Germplasm purple prairie clover. It has been assigned the PI number 441183. Cuero Germplasm is released as a selected class of certified seed (natural track).

This alternative release procedure is justified because there are no local ecotypes of purple prairie clover available for use in Texas.

Collection Site Information: Cuero Germplasm was originally collected in 1970 from native plants located in the southern part of DeWitt County approximately 11 miles from the town of Cuero (N. Lat. 29°00', W Long 97° 09'). The collection site is located 200 yards north of the town of Tomaston along the north side of US Highway 87. Elevation at the collection site is approximately 150 feet; the soil at the collection site is classified as Tremona loamy fine sand, 0 to 5 percent slope. Average precipitation for the area is around 34 inches. Other plants growing in association included mesquite, little bluestem, and black brush. The collection site is located in MLRA 83A - Northern Rio Grande Plains.

Description: Cuero Germplasm purple prairie clover, *Dalea purpurea*, is a native, warm-season, perennial legume. The plant has one or more stems up to 2.5 ft. long growing from a woody root with a stout taproot. Several branch roots are located near the surface. Leaves are alternate, pinnately compound with 5 leaflets. The flowers appear terminally on erect stems and are rose-purple cylindrical floral spikes about 2 inch in length. The flowers open progressively from the base to the tip of the flower head. Fruit is a 1-2 seeded pod about 1/8 of an inch long. There are approximately 275,000 seeds per pound. Purple prairie clover blooms from April through June. Seed generally matures from mid July to late August.

Method of Breeding and/or Selection: Cuero Germplasm was originally evaluated in 1971-72 against 5 other accessions. In 1973 two accessions were dropped and 4 new collections were added to the evaluation. In 1974 three additional accessions were added to the evaluation. From 1974-1976 a total of eleven collections were evaluated looking at stand establishment, vigor, seed production and forage production. In 1976 Cuero Germplasm was selected as the top accession based on survivability, vigor and overall plant performance. Cuero Germplasm meet the selection criteria of finding a native legume suitable for range reseeding and wildlife use. Seed production at the Plant Materials Center averages about 200 pounds/acre each year. An average PLS of 90% can be expected. See attachment 1 (pages 4-5) for Initial Evaluation Summaries.

Environmental Impact Assessment: Cuero Germplasm purple prairie clover is a selection of naturally occurring germplasm and has been unaltered from its original collection. Cuero Germplasm did not meet the assessment of a plant that would become invasive based on literature review and the attached "Invasive Species Worksheet" (see attachment 2, pages 6-13).

Conservation Use: Cuero Germplasm may be used as a component in seed mixtures for range seeding and pasture plantings. Livestock and wildlife favor Cuero Germplasm as highly nutritious forage. Its forage value is particularly high while young tender growth is present. As with all native legumes it must be managed accordingly to avoid overgrazing. Some livestock producers have experienced bloat problems when animals have consumed large quantities of legumes. Wildlife can utilize the plants and seed for food. The plants provide a good seed food crop for quail. Cuero Germplasm may be utilized in filterstrips, field borders, contour buffer strips, in riparian forest buffers, and for erosion control plantings.

Anticipated Area of Adaptation: Cuero Germplasm purple prairie clover is adapted in MLRAs 42, 77C, D, 78B, C, D, 80A, B, 81A, B, C, 82, 83A, 84B, C, 85, and 86A, B in Texas. Purple prairie clover is widely distributed throughout central, south, and west Texas. Purple prairie clover occurs mostly on sandy, sandy loam and other moderately drained soils. Purple prairie clover is adapted to prairies, plains and slopes along hillsides.

Availability of Plant Materials: Generation 0 seed (equivalent to Breeder seed) will be maintained by the USDA-NRCS Plant Materials Center at Knox City, Texas. Field production (G1) seed is available through the Texas Foundation Seed Service to interested parties for increase purposes.

References:

Correll, S.D., M.C. Johnson, Manual of the vascular plants of Texas. Texas Research Foundation, 1970.

Hatch, S.L., Checklist of the Vascular Plants of Texas, 1990.

Hatch, S.L., Pluhar, J., Texas Range Plants, TAMU Press, 1993.

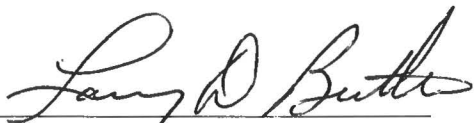
USDA-SCS Planting Guide, Purple Prairie Clover, 1979.

Prepared by:

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Signatures for release of:

Cuero Germplasm purple prairie clover (*Dalea purpurea*)

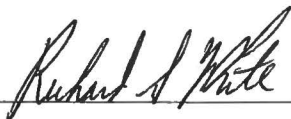


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