

A Conservation Plant Released by the Natural Resources Conservation Service
 E. “Kika” de la Garza Plant Materials Center, Kingsville, Texas and
 Texas Native Seeds, Caesar Kleberg Wildlife Research Institute,
 Texas A&M University-Kingsville, Kingsville, Texas

Divot Blend tallow weed

Plantago hookeriana Fisch & Mey
and *Plantago rhodosperma* Dcne.

Divot tallow weed is a blend of two species of plantain (commonly known as tallow weed) originating from south Texas. Divot tallow weed blend was cooperatively released by the Texas Native Seeds Program of the Caesar Kleberg Wildlife Research Institute at Texas A&M University-Kingsville, Texas Agrilife Research-Beeville, Texas and the USDA NRCS E. “Kika” de la Garza Plant Materials Center in 2009.



Figure 1. Hookers plantain (left) and redseed plantain (right)

Description

Hooker’s plantain (*Plantago hookeriana* Fisch & Mey) is a short-stemmed, cool season annual with thin leaves and a slender taproot growing to 30 cm (Fig. 1). Its inflorescence is a spike producing dull, brown seed. Redseed plantain (*Plantago rhodosperma* Dcne.) is also a cool season, annual with a slender taproot but has wider leaves and grows to 14 inches. The inflorescence is a spike producing bright red to reddish black seed.

Source

Divot Blend consists of STN-561 Germplasm Hooker’s plantain collected in Medina County, Texas, and STN-496 Germplasm redseed plantain collected in Bexar County, Texas. These two accessions were chosen from 27 accessions of three species of tallow weeds evaluated at Texas Agrilife Research-Beeville in Beeville, Texas. Additional observations were conducted at two other locations in Texas.

Conservation Uses

These two species of plantains are cool season forages recommended for upland wildlife plantings and range seeding mixes. The seeds of both species are consumed by game birds such as northern bobwhite quail and mourning doves, and the foliage is eaten by northern bobwhite quail, Rio Grande wild turkeys, white-tailed deer, and cattle. Redseed plantain is an important component in the diets of both scaled and bobwhite quail in southwest Texas. In irrigated food plot settings, solid stands of Divot tallow weed blend have averaged 2,000 lb/acre of forage. This blend is also recommended for many types of conservation plantings, such as stream-side buffers and filter strips.

Area of Adaptation and Use

Plantago hookeriana usually occurs on sandy, gravelly, or rocky soils in prairies, open woods, and waste places while *P. rhodosperma* typically found on clays and heavier soils. Divot Blend tallow weed is recommended will likely be in the Gulf Coast Prairies and Marshes (MLRA 150), Rio Grande Plain (MLRA 83), Edwards Plateau (MLRA 81), and southern portions of the Oak Woods and Prairies (MLRA 87), and Blackland Prairie (MLRA 86).

Establishment and Management for Conservation Plantings

Begin seedbed preparation well in advance of planting. Plant October thru December in south Texas. Establish a clean, weed-free seedbed by either tillage or herbicides. Prior to planting, the site should be firm and have accumulated soil moisture. Plant Divot blend as part of a native seed mixture or as a food plot for wildlife. A seeding rate of 10 pounds pure live seed (PLS) per acre is recommended for a solid stand. When planting in a seed mixture, adjust the rate of Divot Blend according to the percent desired at the planting site. There are approximately 223,000 seeds per pound of Divot Blend.

Ecological Considerations

No severe insect or disease problems have been observed in tallow weeds. Divot Blend consists of naturally occurring germplasm and no breeding, selection or genetic manipulation was used in the development of these releases.

Seed and Plant Production

Tallow weeds typically take 180 days from planting to seed maturity. Divot Blend seed yields average 350 PLS lb/acre in commercial seed production settings. Divot Blend seed is harvested with a combine. To clean the seed, begin with a brush machine to separate the seed from the plant followed by an air screen cleaner to remove dried stems, leaves and other inert matter from the harvest.

Availability

For conservation use:

Seed is available from native seed dealers in south Texas. Seed of STN-496 Germplasm redseed plantain is identified by USDA NRCS accession number 9090496. Seed of STN-561 Germplasm Hooker's plantain is identified by USDA NRCS accession number 9088561.

For seed or plant increase:

All commercial seed fields must be located in Texas and isolated from other cultivated varieties and wild populations by a minimum of a half mile. Both accessions must be grown and harvested separately, but they can be grown adjacent to one another. Only seed lots comprised of the 2 accessions may be certified for sale as Divot Blend tallow weed. Surplus seed of individual accessions may be sold separately as Source Identified seed, but not as a Selected Texas Native Ecotype. G1 and G2 seed fields have a 7-year production limit, after which time, fields must be replanted using the appropriate seed generation (G0 or G1).

Citation

Release brochure for Divot tallow weed blend (*Plantago hookeriana* Fisch & Mey and *Plantago rhodosperma* Dcne.). USDA-Natural Resources Conservation Service, E. "Kika" de la Garza Plant Materials Center. Kingsville, Texas 78363. Published September 2020.

For additional information about this and other plants, please contact your local USDA Service Center, NRCS field office, or Conservation District <<http://www.nrcs.usda.gov/>>, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://www.plant-materials.nrcs.usda.gov>>

For more information, contact:

E. "Kika" de la Garza Plant Materials Center
3409 North FM 1355 Kingsville, Texas 78363
Phone: (361) 595-1313
<http://plant-materials.nrcs.usda.gov/stpmc/>

or

Texas Native Seeds
CKWRI-TAMUK, MSC 218, 700 University Blvd., Kingsville, Texas 78363
Phone: (361) 593-4525

<https://www.ckwri.tamuk.edu/research-programs/texas-native-seeds-programs-tns>

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