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

Duval Germplasm red lovegrass

Eragrostis secundiflora (J.) Presl. ssp. *oxylepis* (Torr.) S.D. Koch

Duval Germplasm red lovegrass © South Texas Natives

Duval Germplasm [*Eragrostis secundiflora* (J.) Presl spp. *oxylepis* (Torr.) S.D. Koch] was cooperatively released in 2016 by the *South Texas Natives* Project of the Caesar Kleberg Wildlife Research Institute at Texas A&M University-Kingsville, and USDA NRCS E. "Kika" de la Garza Plant Materials Center. This release is a selected plant material class of certified seed.

Description
Duval Germplasm red lovegrass is a low growing, early successional bunchgrass, and is easily identified by the pink to reddish color of the seed heads. Duval Germplasm flowers throughout the summer and fall in South Texas.

Source
This selection is made up of four different accessions originating from the Rio Grande Plains, Coastal Sand Plain, and Gulf Coast Prairies and Marshes ecoregions of Texas. These four accessions were chosen from nineteen accessions evaluated at three locations in South Texas. No breeding, selection or genetic manipulation was carried out on the release.

Conservation Uses
Duval Germplasm red lovegrass is recommended for critical site revegetation, roadside plantings, and for inclusion in range seeding mixes. Red lovegrass is a warm season perennial that provides quick cover in sandy and sandy loam soils prone to erosion and typically dominated by forbs. Red lovegrass is poor forage for cattle.

Area of Adaptation and Use
The area of known adaptation of Duval Germplasm includes the Rio Grande Plain (MLRA 083B), Gulf Coast Prairies and Marshes (MLRA 150B), Coastal Sand Plain (MLRA 083E), and southern portion of the Blackland Prairies (MLRA 086B) ecoregions of Texas. Best performance of this seed source has been observed on medium to course textured soils. Use of Duval Germplasm in adjacent ecoregions has not been tested.

Establishment and Management for Conservation Plantings
Planting can be done in late fall or spring in South Texas. Red lovegrass can be included in warm-season planting mixtures. Establish a clean, weed-free seedbed by either tillage or herbicides. Prior to planting, the site should be firm and have accumulated soil moisture. Red lovegrass can be seeded using a drill or broadcast seeder. If broadcast seeded, some type of additional coverage such as culti-packing or light dragging is recommended to ensure good seed to soil contact. Seed should be planted 1/8 to 1/4 inch deep. Due to the small seed size of this release, it is better to plant too shallow than too deep. For calibration purposes, Duval Germplasm red lovegrass contains approximately 4,000,000 seeds per bulk pound. A seeding rate of 0.5-1 pounds pure live seed (PLS) per acre is recommended. Duval Germplasm has shown rapid emergence in most planting trials.

Areas planted to Duval Germplasm should be deferred until plants become established and are allowed to set seed. Established plants should be allowed to produce seed annually because in many areas, with proper soil, red lovegrass readily reseeds itself with minimal soil disturbance.

Ecological Considerations
No severe insect or disease problems have been observed in red lovegrass once established. Cold tolerance of this germplasm beyond the area of intended use is unknown.

Seed and Plant Production
Seed quality of Duval Germplasm averaged 93% PLS in seed increase fields. Potential seed yields per acre have been calculated at 10 PLS lbs. per acre on 36" bedded rows with a plant population of 14,000 plants per acre.

Seed production of Duval Germplasm red lovegrass is best started using greenhouse grown transplants, planted on bedded rows. Seedlings grow and mature quickly and will produce a marketable crop in the year of planting.

Seed harvest is possible using a variety of methods and implements. Seed of all accessions ripens indeterminately. A Flail-Vac Seed Stripper can collect the ripe seed crop without damaging or eliminating the ability to make subsequent harvests of the stand as later flowering florets mature. However, we have also found that a majority of the seed crop will hold well on the plants after completing maturity, allowing for a combine to be used to harvest the seed. An additional benefit of combining is the removal of unfilled florets which increases seed harvest purity. We have found that in well managed irrigated fields, 2-3 harvests can be expected per year. The first harvest has typically taken place as early as May with the last harvest occurring in October.

Seed is best cleaned by combinations of brushing, and screening. Caryopses can be easily dislodged from hulls using a brush machine and then cleaned using screens. Cleaning by this method can result in high PLS percentages averaging ≥ 90% PLS.

Seed of Duval Germplasm red lovegrass © South Texas Natives

Availability
For conservation use:
Seed will be available from native seed dealers in South Texas. Seed of Duval Germplasm red lovegrass release will be identified by USDA NRCS accession number 9112620.

For seed or plant increase:
All commercial seed fields of Duval Germplasm must be located in Texas and isolated from other cultivated varieties and wild populations of *Eragrostis secundiflora* by a minimum of 300 feet. Release of this variety will be limited to a single grower, with preference given to those who can provide production locations meeting isolation requirements. 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).

For more information, contact:

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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>

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