

A Conservation Plant Released by the Natural Resources Conservation Service
E. "Kika" de la Garza Plant Materials Center, Kingsville, Texas

Kinney Germplasm false Rhodes grass

Trichloris crinita (Lag.) Parodi

Kinney Germplasm false Rhodes grass [*Trichloris crinita* (Lag.) Parodi and previously known as *Chloris crinita* Lag.] was released by the USDA NRCS E. "Kika" de la Garza Plant Materials Center in 1999. It is a selected plant material class of certified seed.

Description

False Rhodes grass is a native, warm-season perennial bunchgrass. It is also commonly known as two flower trichloris. It grows 1 to 2 feet tall, with leaves 3 to 8 inches long. Plants produce dense, feathery, 1- to 2-inch long seedheads that turn from green to light brown or blonde at maturity (Fig. 1).

Source

Kinney Germplasm false Rhodes grass was originally collected near Brackettville, Texas. This single population was chosen from a comparison with nine other collections because of its ability to survive during a prolonged period of drought. It also produced more seed heads and greened up earlier than most of the accessions.

Conservation Uses

False Rhodes grass should be used primarily as a component in seed mixtures for range restoration. It has potential for use in pasture plantings, filter strips, erosion control plantings, and landscaping.

Area of Adaptation and Use

False Rhodes grass grows best on sandy to sandy loam soils. It will tolerate soils that are weakly saline. Its natural range is San Antonio, Texas, south into the western two-thirds of the Rio Grande Plain and westward to Arizona. Kinney Germplasm has performed well at locations in the Rio Grande Plain (MLRA 83), Gulf Coast Prairies and Marshes (MLRA 150), and Trans Pecos (MLRA 42) ecoregions of Texas. False Rhodes grass also occurs naturally in the southern portion of the Edwards Plateau (MLRA 81). Kinney Germplasm may be adapted to this region as well, but this has not been verified through field testing

Establishment and Management for Conservation Plantings

Begin seedbed preparation well in advance of planting. Plant in early fall (August) 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. Because of the fluffy nature of the seed, false Rhodes grass is best seeded using a grass drill equipped with picker wheels to evenly distribute the seed and prevent clogging of the planter tubes. Broadcast seeding may be used in areas not easily planted with a drill, but additional practices to encourage good seed-to-soil contact, such as cultipacking and harrowing, may be necessary after planting. Plant seed $\frac{1}{8}$ to $\frac{1}{4}$ inch deep. It is better to plant too shallow than too deep. For calibration purposes, Kinney Germplasm false Rhodes grass contains approximately 1,428,000 seeds per bulk pound. A seeding rate of 1-2 pound of pure live seed (PLS) per acre is recommended. This corresponds to planting 20 live seeds per square foot. In planting mixtures, reduce the rate according to the percent of false Rhodes grass in the seed mixture.

Do not graze areas planted to Kinney Germplasm for 1 year after planting to allow adequate rootstock development. Allow established plants to produce seed annually to ensure stand health. False Rhodes grass is a long-lived perennial that is extremely drought tolerant once established.



Figure 1. Kinney Germplasm false Rhodes grass

Ecological Considerations

No severe insect or disease problems have been observed in false Rhodes grass once established. Cold tolerance of this germplasm beyond the area of intended use is unknown. Kinney Germplasm is a composite of naturally occurring germplasm and no breeding, selection or genetic manipulation was used in the development of this release.

Seed and Plant Production

False Rhodes grass has produced as much as 100 lb/acre of clean seed but averages around 75 lb/acre. Seed production of Kinney Germplasm is best started using greenhouse grown transplants, planted on bedded rows. Rapid spread and growth have been observed in transplant established stands providing seed harvests by the second year and sometimes as quick as the first year. Transplants facilitate better weed control in the seed production fields.

Kinney Germplasm can produce multiple seed crops per year when grown in south Texas. The quantity and quality of seed harvests vary greatly depending on location and field conditions, but it usually is around 60% PLS. Seed is harvested with a Flail Vac or similar brush-type harvester. The use of slow travel and RPM speeds while harvesting results in relatively clean seed, needing little cleaning or processing. Debearding of the seed has been accomplished with a Westrup brush machine. However, do not aggressively debar the seed such that it removes the caryopsis from the glumes as seed damage or reductions in seed life have been observed. To clean stems and chaff from harvests, use an air screen cleaner to clean seed following the debearding treatment. In well managed irrigated fields, 2-3 harvests can be expected per year. The first harvest is typically made in early May with the last harvest occurring in October.

Availability

For conservation use:

Seed is available from native seed dealers in south Texas. Seed of Kinney Germplasm false Rhodes grass is identified by PI-434462.

For seed or plant increase: First generation (G0) seed is produced and maintained by the E. “Kika” de la Garza Plant Materials Center. All commercial seed fields of Kinney Germplasm must be isolated from other cultivated varieties and wild populations of *Trichloris crinita*. 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

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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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