

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

## Webb Germplasm whiplash pappusgrass

### *Pappophorum vaginatum* Buckley

Webb Germplasm whiplash pappusgrass (*Pappophorum vaginatum* Buckley) was cooperatively released in 2010 by the Texas Native Seeds Program of the Caesar Kleberg Wildlife Research Institute at Texas A&M University-Kingsville, USDA NRCS E. “Kika” de la Garza Plant Materials Center, and the Texas AgriLife Research Station-Beeville, Texas. This release is a selected plant material class of certified seed.

#### Description

Whiplash pappusgrass is a native, warm-season, perennial bunch grass with a height of 2 to 3 1/2 feet. The seedhead is 4 to 8 inches long, with a whitish or tawny appearance only rarely with a slight purple tinge (Fig. 1). Whiplash pappusgrass is found in dry rangelands of Texas to Arizona with annual rainfall of 10 to 20 inches. In the west it occurs at elevations of 2,500 to 4,000 feet. It is located on a wide variety of range sites including gray sandy loam, claypan prairie, and saline clay. It is found in association with Arizona cottontop, false Rhodes grass, pink pappusgrass, alkali sacaton, plains bristlegrass, and vine mesquite.



Figure 1. Whiplash pappusgrass seedhead

#### Source

This release is comprised of 3 populations from Webb, Dimmit, and Zapata county in south Texas. They were selected from an evaluation of 70 native collections of *Pappophorum* spp.

#### Conservation Uses

Webb Germplasm whiplash pappusgrass is recommended for rangeland seed mixes, for saline and alkaline site restoration, highway right-of-way plantings, retired cropland restoration plantings, and for diversifying invasive grass monocultures. Webb Germplasm provides good forage for livestock and is an excellent bunchgrass for wildlife cover.

#### Area of Adaptation and Use

Webb Germplasm is likely to perform best in the Rio Grande Plain (MLRA 83) and Gulf Coast Prairies and Marshes (MLRA 150) ecoregions. Webb Germplasm has shown good performance in the Trans Pecos (MLRA 42) ecoregion of Texas; however, long-term persistence in this region is unknown. Whiplash pappusgrass grows well on most soil types, including sandy loam, clay, clay loam and saline clay soils. It is poorly adapted to sand or loamy sand soils. Seed collections used in the development of Webb Germplasm originated from clay and sandy loam soils. It is also adapted to saline and alkaline soils common throughout South Texas.

#### Establishment and Management for Conservation Plantings

The best stands of Webb Germplasm are obtained by drilling or broadcasting seed into a firm, well-prepared seedbed in late August-early October in south Texas. Plantings done at other times of the year typically have little emergence until late summer or early autumn, regardless of moisture availability. If planted by broadcasting, firm the soil afterwards by culti-packing or light dragging to ensure seed coverage and to prevent seed loss to animals or wind. Plant seed no deeper than ¼ inch below the soil surface. For calibration purposes, Webb Germplasm contains approximately 436,000 seeds per bulk pound. The seeding rate is 3 pounds pure live seed per acre for solid stands. When included in a mix, adjust the seeding rate according to the desired amount of Webb Germplasm for the planting site. On most sites, a mixture of Webb Germplasm whiplash pappusgrass and Maverick Germplasm pink pappusgrass will provide the best results.

Do not graze areas planted to Webb Germplasm for 1 year after planting until plants are fully established. Afterward, it can be periodically grazed to 4" stubble height with no adverse effects. Allow plants to produce seed annually. Whiplash pappusgrass is a long-lived perennial that is extremely drought and fire tolerant once established.

### **Ecological Considerations**

Common pests of whiplash pappusgrass seed include fall armyworms (*Spodoptera* spp.), thrips (*Thrips* spp.), and rice stink bugs (*Oebalus pugnax*). Control of pests may be necessary in order to produce seed crops in dry years under irrigation. Webb Germplasm is a naturally occurring germplasm and no breeding, selection or genetic manipulation was carried out on the release.

### **Seed and Plant Production**

Seed increase fields have been established from transplants spaced on 36" bedded rows. Whiplash pappusgrass produces seed throughout the growing season with adequate soil moisture. The first seed harvest is typically made in April with the last harvest occurring in October in south Texas. 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. Seed harvested in this manner averages 54% pure lives seed. Use an air screen seed cleaner to clean stems and chaff from the harvest. No attempt has been made to clean caryopsis from the bur or glumes, as seed damage or reductions in seed life are likely to occur.

### **Availability**

*For conservation use:* Seed is available from native seed dealers in Texas. Seed of Webb Germplasm whiplash pappusgrass is identified by USDA NRCS accession number 9093443.

*For seed or plant increase:* All commercial seed fields of Webb Germplasm must be located in Texas and isolated from other cultivated varieties and wild populations of *Pappophorum vaginatum*. G1 and G2 seed fields have a 7 year production limit, after which time, fields must be replanted using the appropriate seed of generation (G0 or G1).

### **Citation**

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