Vegetative Releases for Beach, Marsh and Estuary Restoration in South Louisiana

Garret Thomassie (garret.thomassie@la.usda.gov), and Curt J. Riche’

USDA – Natural Resources Conservation Service
Golden Meadow Plant Materials Center, Galliano, LA

The mission of the USDA - Natural Resources Conservation Service (NRCS) Plant Materials Program is to develop, test and transfer plant science technology to meet customer and natural resource needs. Specifically, the Golden Meadow Plant Materials Center (PMC) near Galliano, Louisiana consists of a state-of-the-art facility with the necessary resources to identify, develop and transfer coastal wetland plant materials. In addition to wetland plants, the center also focuses on native vegetation as a remedial source to combat natural resource concerns including issues affecting soil, water, air, plant, animal, human and energy. The PMC currently operates on approximately 90 acres and is dedicated to address primarily both plant research and increase. Four primary objectives of the PMC include: 1. The development of improved conservation plants; and 4. To provide foundation plant materials for the commercial growers that supply wetland plant material for coastal restoration activities. Thus far, this PMC has eight plant varietal releases meeting all of the above objectives for the Northern Gulf Coast area. The releases are highly effective for marsh restoration, shoreline and levee stabilization, and coastal beach and barrier island sand dune enhancement and stabilization.

Caminada Germplasm sea oats
Exceptionally tolerant of harsh conditions associated with coastal beach environments
Tolerates salt spray, short inundation of saltwater from storm surges, strong winds, xeric soil conditions, and rapid sand accretion
Superb dune and sand builder

Pelican Germplasm black mangrove
Provides valuable habitat for brown pelicans and other shorebirds
Important to coastal ecosystems by stabilizing soils with their extensive root systems
Can persist in strongly saline habitats
Contributing biomass to the detritus cycle
Important to coastal ecosystems by stabilizing soils with their extensive root systems

Fourchon Germplasm bitter panicum
Above ground portion of the plant reduces wind velocity causing sand to drop out of the wind stream and accumulate
Shows greatest plant vigor where blowing sand accumulates around the plant
Resilient to salt spray, occasional inundation, high temperatures, low soil moisture, low fertility, sand abrasion and smothering by drifting sands

Camperdown Germplasm gulf bluestem
Recommended for conservation planting in coastal areas of the north central Gulf of Mexico basin
Excellent planting component to increase species diversity and back dune stabilization

Bayou Lafourche Germplasm California bulrush
Recommended for erosion control along shorelines, canal banks, levee banks, and other areas of soil-water interface
Used in the creation and restoration of wetlands, to improve water quality, and reduce suspended sediments
Provides habitat for mammals, birds and fish and promotes establishment zones for submerged aquatic plants

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