

Where to Obtain Information

Contact your local USDA - Natural Resources Conservation Service Office for more information.

Visit our Plant Materials Internet Site at <http://Plant-Materials.nrcs.usda.gov> to find more information on solving conservation problems using plants.

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United States Department of Agriculture
Natural Resources Conservation Service
Plant Materials Center

San Marcos Germplasm Eastern gamagrass



An improved
conservation plant
selected by the
James E. "Bud" Smith
Plant Materials Center,
Knox City, Texas



San Marcos Germplasm

Eastern gamagrass,

Tripsacum dactyloides

San Marcos Germplasm is released as a selected class of certified seed (natural track)

Origin

San Marcos Germplasm was originally collected from seed in 1964 from native plants located in Hays County, Texas near the town of San Marcos. Elevation for the area is approximately 800 feet; the soil at the collection site is classified as Houston Black Clay. Average precipitation for the area is around 33 inches.

Potential Uses

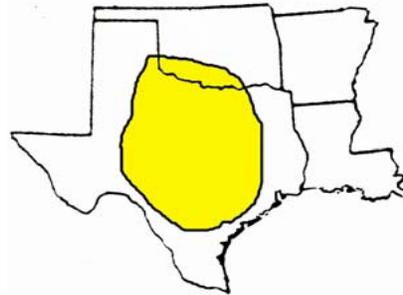
San Marcos Germplasm may be used in pure stands for improved pasture and hay plantings or as a component in seed mixtures for range seeding. Its forage value is highly palatable to all livestock and must be managed accordingly to avoid overgrazing. Wildlife can utilize the plants and seed for food. The plants provide good ground nesting cover for quail. San Marcos Germplasm may be utilized in filterstrips, field borders, contour buffer strips, cross wind trap strips, and riparian forest buffers for nitrogen and phosphorus uptake, and erosion control.

Plant Description

San Marcos Germplasm Eastern gamagrass is a tall perennial, warm-season, native bunchgrass. It spreads by thick (1/2 to 1 inch) rhizomes and produces seed from July to September. Plants will grow from 5-9 feet tall with leaf blades 12-24 inches long. San Marcos is a lowland type of eastern gamagrass favoring bottomland soils.

Area of Adaptation

San Marcos Germplasm is adapted throughout much of Texas and southern Oklahoma where low land types of eastern gamagrass are commonly found. It may be produced successfully in areas of lower rainfall (less than 28 inches) if grown under some type of irrigation system.



Establishment

Seedbed preparation should begin the year prior to a scheduled spring seeding. This tillage activity reduces weed pressure and increases your chances of a successful planting the first year. Plow and work the site as necessary the summer or early fall prior to establishment to create a firm weed-free seedbed. Tillage should be completed in the fall to allow time for the site to settle and accumulate moisture.

San Marcos Germplasm may be planted in row or as a solid stand. Solid stand plantings can be installed using a grass drill or broadcast seeder. When using a broadcast seeder, some type of additional tillage activity is needed to cover seeds. When planting in rows (38-40 inches) use a planter with corn or cotton plates.

Seed should be planted at a depth of no more than 1/4 inch on fine texture soils and no more than 3/4 inch on coarse soils. San Marcos should be planted at 10 pounds of pure live seed (PLS) per acre.

Management

Prior to planting phosphorus and potash should be at a medium level according to soil test recommendations. Do not add more than 10 Lbs. of nitrogen per acre until the stand is evident. Eastern gamagrass responds well to applications of nitrogen.

San Marcos starts growth in late spring and will remain green until frost. This is a highly palatable grass and improper management will decrease its growth. Try not to graze 50%-60% of new growth during grazing season.

Availability of Plant Materials

Generation 0 seed (equivalent to Breeder seed) will be maintained by the Plant Materials Center at Knox City. Field production (G1) seed for grower increase is available through the Texas Foundation Seed Service, Vernon, Texas (940) 552-6226.