

Availability of Plant Materials

Breeder seed will be maintained by the NRCS James E. "Bud" Smith Plant Materials Center near Knox City, Texas. Foundation seed is available for seed growers through the Texas Foundation Seed Service, Vernon, Texas (940) 552-6226.

Where to Obtain Information

Contact your local USDA - Natural Resources Conservation Service Office for more information or visit us on the web at: <http://www.tx.nrcs.usda.gov/technical/pmc/index.html> to find more information on solving conservation problems using plants.

USDA-NRCS
James E. "Bud" Smith
Plant Materials Center
3776 FM 1292
Knox City, Texas 79529-2514
Phone: (940) 658-3922

June 2007

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

USDA-NRCS
Plant Materials Center
3776 FM 1292
Knox City, Texas
79529



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

'San Marcos' Eastern gamagrass



A conservation plant
selected and released by the
James E. "Bud" Smith Plant Materials
Center, Knox City, Texas

'San Marcos'

Eastern gamagrass,

Tripsacum dactyloides

Origin

'San Marcos' 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

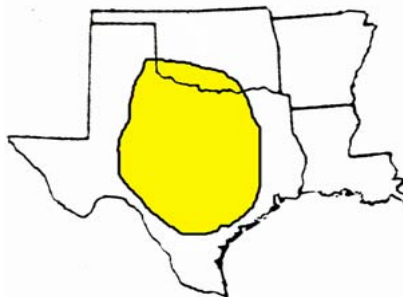
'San Marcos' may be used in pure stands for grazed pasture and hay plantings or as a component in seed mixtures for upland wildlife habitat management. Its forage value is highly palatable to all livestock and must be managed accordingly to avoid overgrazing. Wildlife can utilize the plants and seed for food. The plants provide good ground nesting cover for quail. 'San Marcos' may be utilized in

filterstrips, field borders, contour buffer strips, cross wind trap strips, and riparian forest buffers for erosion control.

Plant Description

'San Marcos' 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' favors bottomland soils.

'San Marcos' is adapted throughout much of Texas and southern Oklahoma. In general, 'San Marcos' requires at least 28 inches of annual precipitation but may be produced successfully in areas of lower precipitation if grown under irrigation.



Establishment

Seedbed preparation should begin the year prior to a scheduled spring seeding. The site should be prepared during 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' may be planted in rows or as a solid stand. Solid stand plantings can be

installed using a grass drill with 16 inch row spacing. When planting in rows (36 inch spacing) use a planter with corn or cotton plates.

Seed should be planted at a depth of no more than 1 inch. 'San Marcos' should be planted at 10 pounds per acre of pure live seed (PLS) per acre. There are 7,107 seeds in a pound of 'San Marcos'. Stratified or dried seed can be used to establish 'San Marcos'.

Management

Prior to planting phosphorus and potash should be at a medium level according to soil test recommendations. Do not add more than 10 pounds per acre of nitrogen until the stand is evident. 'San Marcos' responds well to nitrogen fertilizer. NRCS James E. 'Bud' Smith and East Texas Plant Materials Centers reported yields in excess of 5 tons per acre when managed under moderate to high nitrogen fertility levels (50 to 60 pound/acre of nitrogen applied after each harvest) and harvested on a 60 day clipping interval.

'San Marcos' starts growth in early spring and will remain green until frost. This is a highly palatable grass that is very susceptible to overgrazing. Forage quality testing results for 'San Marcos' yielded an average percent crude protein of 10 percent and average total digestible nutrients (TDN) between 50-to 57-percent. Contact your local USDA-NRCS Service Center for assistance in developing a prescribed grazing plan.