USDA United States Department of Agriculture

A Conservation Plant Released by The Natural Resources Conservation Service
James E. "Bud" Smith Plant Materials Center, Knox City, Texas

'T-587'

Old World Bluestem

Dichanthium spp.

T-587 old world bluestem (*Dichanthium* spp.) was released in 1981 by the USDA-Natural Resource Conservation Service (NRCS) in cooperation with Texas A&M AgriLife for future plant breeding programs.

Description
T-587 is a mixture of several types that do not intercross; thus, plant type is not uniform, and the frequency of types may vary from location to location due to differences in adaptation. Shifts in frequency of types may change in future generations due to differences in seed production and environmental adaptation. Generally, plants are taller and more robust than King Ranch (KR) bluestem, with stems ranging from 3 to 3½ feet in height. Leaves are generally wider than KR (~0.4-inches), 10 to 16 inches in length, and greater in number than KR. Nodes are slightly swelled and reddish-purple in color with a ring of hairs. The seed head is a terminal panicle, with 5 to 26 primary spikelike branches which may be sparingly rebranched (Fig. 1). A distinguishing characteristic of T-587 is the aromatic odor of the plant. There are approximately 854,000 seeds per pound.

Fig. 1. Mature seed head of T-587 old world bluestem (*Dichanthium* spp.). Photo courtesy of the James E. "Bud" Smith Plant Materials Center.

Source
T-587 is a mixture of approximately 80 collections of old-world bluestems introduced into the U.S. from Asia.

Conservation Uses
T-587 is recommended for conservation and forage production. It can be planted for critical area stabilization or for warm-season pasture for hay and grazing. In over 140 field plantings, representing more than 100 Texas counties, T-587 has proven to be a palatable, a high forage producer, and persistent under heavy grazing. Forage quality analysis shows T-587 equal to or higher in yield, digestibility, and protein compared to other old-world bluestem cultivars, and more resistant to leaf rust than KR bluestem.

Area of Adaptation and Use
T-587 is not adapted to severe winters in the Texas Panhandle or western Oklahoma. Its area of adaptation includes all the area south of a line from Cochran County in northwest Texas to Red River County in northeast Texas with a normal precipitation of 14 inches or more. T-587 is adapted to a wide range of soil textures except deep sands and poorly drained soils.

Establishment and Management for Conservation Plantings
The full seedling rate for T-587 is 1.2 pounds of pure live seed per acre. When planting as a component of a seed mixture, adjust the seeding rate to the desired percent of the mix. Plant seed ¼ to ½ inch deep.

Begin seedbed preparation the year prior to spring planting to reduce weed problems during the first year of establishment. Work the site during the summer or early fall prior to establishment to create a firm weed-free seedbed. Complete field preparation work in the fall to allow the soil to settle and accumulate moisture. Apply herbicides to control weeds when minimum and no-till planting operations are used for establishment. Consult your local extension weed specialist for herbicide recommendations for old-world bluestem.

Plantings should be well established before livestock grazing is permitted. Twelve months of grazing deferment is recommended to give plants time to establish. Established stands of T-587 should not be grazed lower than 6-8 inches,

depending on the prescribed grazing system. Contact your local U.S. Department of Agriculture-NRCS field office for assistance in planning and applying prescribed grazing plans.

Use soil test recommendations to determine the amount and kind of fertilizer to sustain a medium soil test level. Avoid N fertilizer during the establishment year because it will encourage weed growth. Control weeds chemically and/or mechanically such as mowing to a height above the established grass seedling during the establishment year. Consult your local extension weed specialist for recommendations on herbicides for old-world bluestem.

Ecological Considerations
Please consult the PLANTS website or your local NRCS Field Office to address proper uses and concerns.

Seed and Plant Production
T-587 is harvested by either direct combining, swathing, and combining, or a seed stripper (Fig. 2). Seed generally matures from mid-June to early July, and with adequate rainfall or irrigation, can produce a second crop from mid to late October in Knox City, Texas.

Fig. 2. T-587 old world bluestem in a production field. Photo courtesy of the James E. "Bud" Smith Plant Materials Center.

Availability
For conservation use: Seed is commercially available.

For seed or plant increase: Breeder seed is maintained by the USDA-NRCS James E. “Bud” Smith Plant Materials Center, Knox City, Texas and available to seed growers.

For More Information

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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 Website <http://plants.usda.gov> or the Plant Materials Program Website <http://www.plant-materials.nrcs.usda.gov>