REGISTRATION OF KY 1625 SWITCHGRASS GERMPLASM

A fine-stemmed leafy switchgrass (*Panicum virgatum* L.) germplasm, KY 1625 (Reg. No. GP-57) (PI431575) was developed by the USDA Soil Conservation Service and released as germplasm in 1987 in cooperation with the Kentucky Agricultural Experiment Station. This germplasm is an increase of a strain that was collected in 1966 from Raleigh County, West Virginia, along the south side of the New River Alluvium, 1 km upriver from Highway 19 bridge, and accessioned KY 584. Seed from KY 584 was planted and selected from a collection of 35 other native switchgrass accessions at the Quicksand Plant Material Center from 1967 to 1970. In 1971, 20 clones were planted in a 5 m row for comparison with 51 switchgrass accessions that included the original 35, plus new accessions that included the cultivars Blackwell, Cave In Rock, Nebraska 28, Pathfinder, Wabasso, Pangburn, Kanlow, and Carthage. Evaluations were made to select for fine stems, leafy characteristics, and late maturity. KY 584 was the superior accession for these traits. Clonal material was increased from KY 584 and placed in a 0.04 ha field for seed increase and was designated KY 1625. Seed from the 0.04 ha plot was used to expand the increase field to a total of 1.14 ha.

KY 1625 switchgrass is a perennial warm-season grass with a high leaf-to-stem ratio and has consistently shown higher protein and digestibility levels than other switchgrass accessions. According to an unpublished study at the University of Kentucky in 1986 by T.H. Taylor, R.O. Parriott, and L.T. Jones, Jr., KY 1625 showed the higher average percent total nonstructural carbohydrates over 3 yr than cultivars Blackwell, Cathage, and Kanlow. KY 1625 is more leafy and has finer stems than Kanlow or Blackwell; however, it has poor seed quality and seedling vigor (1). Cytogenetic studies of nine plants of KY 1625 indicated chromosome numbers of 18, 27, and 40, respectively. In 1987, KY 1625 had a percentage of 33 polyploid plants with chromosome numbers of 21, 36, 54, and 72. Apparently, both polyploidy and aneuploidy may be present in this germplasm. This variability in chromosome number may account for the genetic variability in this germplasm. KY 1625 switchgrass is a perennial warm-season grass with a high leaf-to-stem ratio and has consistently shown higher protein and digestibility levels than other switchgrass accessions. KY 1625 switchgrass is a perennial warm-season grass with a high leaf-to-stem ratio and has consistently shown higher protein and digestibility levels than other switchgrass accessions. KY 1625 switchgrass is a perennial warm-season grass with a high leaf-to-stem ratio and has consistently shown higher protein and digestibility levels than other switchgrass accessions. KY 1625 switchgrass is a perennial warm-season grass with a high leaf-to-stem ratio and has consistently shown higher protein and digestibility levels than other switchgrass accessions. KY 1625 switchgrass is a perennial warm-season grass with a high leaf-to-stem ratio and has consistently shown higher protein and digestibility levels than other switchgrass accessions. KY 1625 switchgrass is a perennial warm-season grass with a high leaf-to-stem ratio and has consistently shown higher protein and digestibility levels than other switchgrass accessions. KY 1625 switchgrass is a perennial warm-season grass with a high leaf-to-stem ratio and has consistently shown higher protein and digestibility levels than other switchgrass accessions.

References and Notes

4. Dep. of Agronomy, 1575 Linden Dr., Univ. of Wisconsin, Madison, WI 53706. Research supported by College of Agric. and Life Sci., Univ. of Wisconsin and NC83 Seed Production of Insect Pollinated Legumes. Registration by CSSA. Accepted 30 Jan. 1989. *Corresponding author.