

Yield, Quality and Persistence of Thirteen Genotypes of Eastern Gamagrass at Three Southern Locations. J.L. DOUGLAS*, L.M. THAREL and C.M. OWSLEY, USDA-NRCS.

Thirteen southern eastern gamagrass [*Tripsacum dactyloides* (L.) L.] genotypes have been identified as potential cultivars but forage production parameters are lacking. Objectives of this study were to determine yield, quality and persistence of these 13 genotypes at three southern locations. Genotypes were established in 1995 in a randomized complete block with four replications at Americus, GA, Booneville, AR and Coffeeville, MS and forage attributes and persistence determined for three consecutive years. Yields ranged from 7.5 to 19.1 Mg ha⁻¹ depending on genotype, location and year. When averaged over locations and years, accession 9062680 was the highest yielding genotype (17 Mg ha⁻¹). Cutting date and genotype influenced forage quality estimates of CP, ADF and NDF. Average CP ranged from 60 to 110 g kg⁻¹ DM, ADF from 370 to 420 g kg⁻¹ DM and NDF from 670 to 730 g kg⁻¹ DM. Florida genotypes winter killed in 1997 at Coffeeville and Booneville but persisted at Americus. A *Rhizoctonia* and *Pythium* complex caused severe damage or death to genotypes at Coffeeville except 9062680. Two genotypes, accessions 9062680 and 9058495, were identified for future cultivar release.

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