



MAFES research helps produce new variety of native grass



By Bob Ratliff

When great herds of buffalo roamed what is today the eastern United States, a staple of their existence was eastern gamagrass. Following European settlement, overgrazing by domestic animals and the introduction of nonnative grasses largely displaced the warm-season bunch grass. Eastern gamagrass can, however, still be found in small colonies from Massachusetts, west to Nebraska and as far south as Brazil.

Recent developments in breeding eastern gamagrass have resulted in commercially available varieties. The newest of these is “Highlander,” developed at the U.S. Department of Agriculture-National Resource Conservation Service Jamie L. Whitten Plant Materials Center in Coffeerville and MAFES

research plots on the Mississippi State University campus.

“Eastern gamagrass is a perennial relative of field corn and is an excellent source of forage during the period of the year when cool-season grasses are relatively dormant,” said MAFES agronomist David Lang. “It is more digestible than bermuda grass and will produce about the same amount of silage as corn if harvested two to three times during the growing season.”

USDA/NRCS personnel instrumental in the development of the “Highlander” variety include agronomist Janet Grabowski and Joel Douglas, manager of the plant materials center at Coffeerville. Work on the variety has been under way since 1994, and Lang said it overcomes some of the problems associated with earlier releases.

“Highlander has superior vigor, growth form and development, and persistence compared to the earlier varieties,” he said. “Slow seed germination also has been a problem with gamagrass, but our research has shown that stratification significantly improves germination rates.”

Stratification is a cool, moist treatment of the seed for about 3 weeks, which breaks dormancy.

He added that the variety has a high degree of tolerance to environmental stresses and will tolerate wet, heavy soils. It will grow to a height of about 6 feet, but harvesting at the recommended 45-day intervals during the growing season will keep plants to about 4 feet in height.

The variety has been released to commercial breeders, and seed are expected to be commercially available in early 2004.

“Proper management, including clipping plants no lower than 4 to 6 inches to avoid damaging above-ground rhizomes, will provide an excellent forage crop,” Lang said. “The research at MSU and Coffeerville also show Highlander can be used for grazing, hay and silage, as well as erosion control, wildlife habitat and water quality improvement.”

Photos by Bob Ratliff