

PROTOCOL

Trials were planted with an ALMACO plot drill in 6-foot by 10-foot plots arranged in a randomized complete block design with four replications. Seeding rates were adjusted to account for pure live seed (Table 2). Trials were separated by species due to different optimum harvest times. Plots were not amended with any fertilizer, lime, or irrigation at any time to represent a minimum-input system that often characterizes native-grass systems. Seedbed was cultivated 5 months before planting and allowed to settle, receiving glyphosate treatments as needed to eliminate weeds and create a stale seedbed. Plots from individual species were harvested to a 6-inch stubble height after they reached between 24 and 30 inches of growth. Harvesting was performed using a “Zero Turn” mower equipped with a bagging system and taking a 52-inch swath from the middle of the plot. To determine dry matter percentage, subsamples were taken from each plot and then weighed and dried in a forced-air oven at 131°F until weight remained constant. Statistical analysis was performed using PROC GLM in SAS, and means were considered

Genus/Species	Seeding rate (PLS)
	<i>lb/A</i>
Big bluestem	12
Indiangrass	10
Little bluestem	5
Switchgrass	8
¹ PLS = Pure Live Seed	

different at $P < 0.05$. Subsamples were further used to evaluate forage nutritive value using NIR and the grass hay equation of the NIRS Forage and Feed Testing Consortium (Madison, Wisconsin). Plateau (imazapic) was used at a rate of 6 ounces per acre as both a preemergence and postemergence application during the establishment year in the indiangrass, big bluestem, and little bluestem. Switchgrass trials received a postemergence application of Pastora (nicosulfuron and metsulfuron methyl) at 1.5 ounces per acre.

RESULTS

All locations were initially planted in May 2013 and allowed 1 year of establishment before data collection was initiated. During the establishment year, occasional mowing and clearing of the plots was performed to minimize weed competition. In general, big bluestem across every location showed superior stand establishment and was considered fully established for most varieties by the end of the first year. All species were fully

established in Poplarville by the end of 2013, but indiangrass and switchgrass had to be replanted in May 2014 in Starkville and Newton due to incomplete stands in the plot. Little bluestem ranked as the most difficult to establish with only complete stands available for harvest in Poplarville after two plantings. In Starkville, only data from big bluestem is presented due to incomplete stand establishment with the other species.