

PROTOCOL

Tall fescue, perennial clovers, and alfalfa trials across the state were established in fall 2017. Soil samples from each location were collected and analyzed by the Mississippi State University Soil Testing Lab. Each trial area was amended with lime, phosphorus (P_2O_5), and potassium (K_2O) according to soil test recommendations. Recommendations for phosphorus and potassium in grass were usually fulfilled with one application of 13-13-13. Plot dimensions were 6 feet by 10 feet and planted using a precision cone seeder (ALMACO plot drill) on a prepared seedbed. The experimental design was a randomized complete block replicated four times. Recommended seeding rates were based on pure live seed (PLS) and are presented in Table 3. All grass plots were harvested when 75% of the plots achieved 15 inches of growth. Alfalfa was harvested at 10% bloom, and clovers were harvested when 75% of plots were 10–15 inches tall. Perennial clovers, alfalfa, and tall fescue were

harvested to a stubble height of 3 inches. Plots were harvested with a Winterstieger plot harvester (Austria) equipped with a forage header. A subsample was collected and dried at 131°F to calculate dry matter (DM) percentage. Data were analyzed using the general linear model (PROC GLM) of SAS and mean separation was conducted using the LSD at $\alpha = 0.05$.

Climate data is recorded in Table 1 and 2 from Holly Springs, Prairie, Starkville, and Newton for 2018.

Table 3. Seeding rates used in variety trials.¹

Variety	Seeding rate (PLS)
	<i>lb/A</i>
Alfalfa	20
Red Clover	12
Tall Fescue	20
White Clover	3

¹PLS = Pure Live Seed.