

## EFFECTS OF INTERSEEDED CLOVER OR NITROGEN FERTILIZER ON FORAGE METRICS OF ANNUAL RYEGRASS GRAZED BY STOCKER CATTLE

P.A. Gunter, M.K. Mullenix, L.C. Burdette, and R.B. Muntifering<sup>1</sup>

A 3-yr study was conducted to evaluate forage nutritive value and clover abundance when N fertilizer was replaced in part with either interseeded clovers or protein supplements for stocker cattle grazing annual ryegrass (*Lolium multiflorum*). Nitrogen-delivery methods  $\pm$  monensin included: annual ryegrass fertilized with 112 kg N/ha in a split-application (NFERT), annual ryegrass interseeded with crimson clover and fertilized with 56 kg N/ha at time of establishment (CC), annual ryegrass interseeded with arrowleaf clover and fertilized with 56 kg N/ha at time of establishment (AC), annual ryegrass fertilized with 56 kg N/ha and cattle supplemented with distillers dried grains plus solubles at the rate of 0.65% BW daily (DDGS), and annual ryegrass fertilized at 56 kg N/ha and cattle supplemented with whole cottonseed at the rate of 0.65% BW daily (WCS). Year impacted both *in vitro* true digestibility (IVTD) and crude protein (CP) where IVTD and CP were greatest in Yr 3, intermediate in Yr 2, and least in Yr 1. Degradable intake protein (DIP) was affected by N-delivery method and year where CC was less than NFERT, DDGS, WCS and AC, and Yr 1 was greatest, Yr 2 intermediate, and Yr 3 least. Clover presence was greater for CC than AC across the 3 years of the study, and CC had greater abundance when monensin was fed. Results are interpreted to mean that year had a greater impact on forage nutritive value than N-delivery method.

<sup>1</sup>Phillip A. Gunter, Mary K. Mullenix, and Russell B., Muntifering Upchurch Hall Auburn University, AL 36849, Lance C. Burdette 4725 Co Road Shorter, AL 36075