

UTILIZATION OF FORAGES IN BEEF COW-CALF NUTRITION

Allison Meyer

Dr. Monty Kerley, Thesis Supervisor

ABSTRACT

Two studies investigated methods of decreasing feed costs of cow-calf operations. In the first study, two experiments were conducted to determine the difference in grazed forage intake of beef cows of known residual feed intake (RFI) rank. Low RFI (highly efficient) cows had a 21% lower average numerical forage intake ($P = 0.23$) than high RFI cows (lowly efficient) during mid to late gestation in Experiment 1. In Experiment 2, an 11% numerical difference in forage intake ($P = 0.12$) was observed between low and high RFI cows in late lactation, while in both experiments RFI groups had similar body weight (BW) and body condition score (BCS) change. Further research is necessary to confirm these differences due to low numbers used in this study. A second 2-year study compared performance differences between spring-calving crossbred beef cows wintered on one of three treatments: grass hay only, grass hay with grain supplementation, or non-endophyte infected stockpiled tall fescue (STF) pasture. Cows grazing STF ended the trial with higher BW and BCS than cows fed hay only in both years and cows fed hay with supplement in year 1. Differences in performance did not extend past winter grazing, and calves born had similar birth and weaning weights among treatments. Grazing STF is a viable option for wintering spring-calving beef cows, and because typical grass hay is of lower quality than STF, cows fed hay require supplementation to achieve similar performance to that observed while grazing STF.