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Title: Utilization of Forages in Beef Cow-calf Nutrition

Although feed makes up the greatest proportion of annual costs for beef cow-calf producers, providing the cowherd with adequate nutrition is vital to its productivity and profitability. If decreasing costs from feed inputs is possible, it can greatly affect the producer's bottom line. Two means to achieve this goal are to increase the feed efficiency of individuals within the cowherd and extend the grazing season. The first approach was investigated with two experiments in which grazed forage intake and performance was monitored for beef cows of known residual feed intake (a measure of feed efficiency) rank. In this study more efficient cows had numerically lower grazed forage intakes than high RFI cows in gestation and late lactation while maintaining similar body weight and condition and weaning calves of similar weight. Further research is necessary to confirm these differences, however, due to low numbers utilized. Extending the grazing season was investigated using winter grazing of stockpiled tall fescue in a two-year study to evaluate the second approach. In this study, the performance was compared of spring-calving beef cows wintered on hay, hay plus a grain supplement, or stockpiled tall fescue pasture. Results of this study indicated that stockpiled tall fescue is a viable option for wintering spring-calving beef cows, as cows in this treatment had better or similar performance than cows in either hay treatment. The differences in performance observed did not seem to extend past winter grazing, and calves born to dams in this study had similar birth and weaning weights among treatments. These studies demonstrated two methods of decreasing feed cost of maintaining the cowherd by either selecting for decreased feed intake or using stockpiled tall fescue, a less expensive feedstuff.