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Comparison of Rye and Triticale as Forages for Grazing Stocker Cattle

Winter annual small grains are frequently grazed during late fall and early spring in southeastern Kansas. Wheat is often the crop of choice, especially if grain production is the primary objective. If pasture is the main consideration, there are probably other small grains that will yield more forage and produce a greater quantity of beef cattle weight gain per acre than wheat.

Research has been conducted at the Southeast Kansas Experiment Station to determine which winter annual small grains will result in maximum forage and beef production in a graze-out program. A study conducted in 1981-82 revealed that triticale produced nearly twice as much beef liveweight gain per acre as Newton wheat. Results from a 1982-83 study indicated that a mixture of 2/3 rye and 1/3 wheat produced over three times as much beef liveweight per acre as triticale. The following study was conducted to compare rye and triticale with respect to performance of grazing stocker cattle.

Procedure: On September 19, 1983, two 5-acre fields were seeded with winter annuals. One field was seeded with 105 lb of triticale per acre and the other was seeded with 89 lb of Bonel rye per acre. At seeding time, 25-65-70 lb of $N\text{-}P_2O_5\text{-}K_2O$ per acre was applied and on November 14, 1984, 50 lb of N per acre was applied to each pasture. Pastures were stocked according to availability of forage. All steers were implanted with Ralgro(R) and dewormed with Tramisol before being turned onto the pastures. Two lb of rolled milo containing 200 mg Rumensin(R) was fed to each steer daily throughout the study. Cattle were weighed following a 16-hour shrink from feed and water before they were turned out and removed from the pastures.

Results: Results of this study are presented in Table 7. Triticale produced 24.3% more (76 lb) beef liveweight gain and 22 more animal grazing days per acre than rye, but there was no significant difference ($P > .20$) in average daily gain. In this study, daily gains were similar but liveweight gain and animal grazing days per acre favored the triticale. This is in contrast to an earlier study in which a mixture of 2/3 rye and 1/3 wheat was greatly superior to triticale. This difference is largely due to the time of year in which grazing occurred. Initiation of grazing was delayed in 1984 because of muddy field conditions in late winter and early spring. As a result, much of the early forage production from rye was not utilized and total season production tended to slightly favor the triticale, which produces most of its forage later in the spring.

Conclusions: Daily gains were similar between stocker steers grazing rye and triticale, but liveweight gain and steer grazing days per acre favored the triticale.

Table 7. Rye vs Triticale for Grazing Stocker Cattle.

Item	Rye	Triticale
Liveweight beef gain, lb/acre	313	389
Animal days/acre	124	146
Average daily gain, lb	2.52	2.66

Effect of Energy Supplementation on Gains of Steers Grazing Bermudagrass

Supplementation with energy is an effective way of increasing gains of grazing stocker cattle. Energy supplementation also serves as a carrier for monensin and other feed additives that might be beneficial. Hand feeding energy supplement gives the cattleman an opportunity to check his cattle and observe them for possible problems. Cattle supplemented with energy while on pasture may also go on feed faster in the feedlot and require fewer days on feed before ready for slaughter. This study was conducted to evaluate the effect of energy supplementation on gains of stocker cattle grazing bermudagrass.

Procedure: Forty-five yearling mixed crossbred steers with an initial weight of 704 lb were randomly allotted by weight and divided into three equal groups of 15 head each on June 15, 1984 and placed on three 5-acre Midland bermudagrass pastures, which had been previously fertilized with 150-40-60 lb of N-P_2O_5-K_2O per acre on May 14, 1984. Fifty lb of N per acre was applied to all pastures on August 8, 1984. One group of steers received no energy supplementation, while the other two groups received 2 or 4 lb of rolled milo plus 150 mg monensin per head daily. Steers were rotated among pastures at 14-day intervals to minimize the effect of pasture differences. All steers were implanted with 36 mg of Ralgro(R) and dewormed with Tramisol(R) at the start of the study. Initial and final weights were taken following a 16-hour shrink from feed and water. The study was terminated on September 19, 1984.

Results: Results of this study are presented in Table 8. One steer was removed from the control group for reasons unrelated to the experimental treatment. Steers receiving 2 and 4 lb of energy supplement per head daily gained 4.27 times more (60 lb) ($P < .01$) and 6.07 times more (87 lb) ($P < .01$), respectively, than the unsupplemented control group. Feeding 4 lb of rolled milo produced 34.2% more gain (27 lb) ($P < .05$) than feeding 2 lb per head