

# The Effect of Feeding a Rumensin<sup>®</sup> Containing Free-Choice Mineral to Steers Grazing Native Grass Pastures

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Previous research has shown that pasture cattle fed a Rumensin (monensin sodium, Elanco Animal Health) containing free-choice mineral consistently gain .05 to .1 kg per day more than cattle fed a non-medicated mineral. Rumensin free-choice mineral is a well balanced mineral mixture which is commercially available from numerous U.S. feed suppliers. Rumensin free-choice mineral is formulated to provide 10% calcium, 6% phosphorus and 24% salt. It contains 1620 grams of Rumensin per 909 kg and, when consumed daily at 28 to 114 g per head provides 50 to 200 mg of Rumensin per animal. This study was conducted to provide additional information relative to mineral consumption and weight gain of pasture cattle offered Rumensin free-choice mineral.

Four hundred sixty-nine English and Continental cross yearling steers averaging 249 kg, were grazed on native Flint Hills grass pasture in southeast Kansas during the summers of 1996 and 1997. The grazing area was permanently cross-fenced into four location blocks of two pastures each. Prior to the start of the 1996 grazing season, the two pastures within each location block were randomly assigned to one of two experimental treatments:

1. Rumensin free-choice mineral
2. Control non-medicated mineral

During the 1997 grazing season, the experimental treatment assigned to each pasture within block the previous year was rotated. Thus, over the two year period, each pasture within a location block received each mineral treatment. Additionally, four of the eight pastures (two blocks) were designated to be grazed for 83 days (April 23 to July 15) at a stocking rate of .8 ha per head and the remaining four pastures (two blocks) were

designated to be grazed for 114 days (April 23 to August 15) at a stocking rate of 1.2 ha per head. The stocking density for each location block was maintained constant for both years. Prior to the start of the grazing season each year, all cattle were vaccinated, dewormed and implanted. Cattle were individually weighed at the beginning and end of the grazing season. The mineral mixtures were fed in open, ground level feeders. Fresh mineral was added to each feeder as needed. No additional mineral or free choice salt was provided to the cattle. Mineral consumption was determined weekly.

One location block from the 1997 grazing season was deleted from the data set because of uncontrollable mineral wastage in one pasture. There were no interactions for weight gain response or mineral consumption by year or grazing season length, therefore the data are combined. Daily weight gain of the cattle fed the Rumensin containing mineral was .09 kg per day greater ( $P < .05$ ) than for the cattle fed the non-medicated control mineral (1.21 vs 1.12 kg, respectively). Mineral intake of steers fed the Rumensin free-choice mineral averaged 96 g per day, while the control steers consumed an average of 142 g per day. Rumensin intake averaged 170 mg/head/day.

Cattle generally consume less mineral when offered a Rumensin free-choice mineral, however, grazing performance is enhanced. Cattle in the current study gained nearly 9 kg more weight over the 99 day grazing period while consuming nearly 4.5 kg less total mineral. Mineral consumption can be encouraged by placing mineral feeders in loafing and watering areas, increasing the number of available feeders, and/or protecting mineral feeders from environmental contamination. No other salt or mineral products should be offered to pasture cattle being fed Rumensin free-choice mineral.