Effects of Summer Supplement Feeding Frequency on Performance of Grazing Beef Replacement Females

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INTRODUCTION

- Cost effective heifer development
  - Graze standing forage
  - Potential needs of supplemental protein and/or energy
    - Based on seasonality / stage of production
    - Midwestern pastures composed of cool season grasses
    - Growth pattern “slumps off” in the hot weather
    - Cattle performance may be hindered
- Protein supplementation
  - Infrequent comparable performance to daily supplementation
  - Ruminants ability to recycle nitrogen
- Energy supplementation
  - Infrequent supplementation has shown negative results
    - Primarily done with corn as energy source
    - Stalker et al., 2005
    - Low frequency feeding of distillers grains as energy source
    - Fed at levels > 15% of diet
    - Poor performance compared to daily feeding
    - Authors speculate decline in weight gain due to high fat content
- Corn co-products (corn gluten feed and distillers grains with solubles)
  - High in protein, energy, and phosphorous
    - Beneficial for forage systems if quality is poor/quantity is limited
    - Fiber based feed (starch removed)
    - May reduce ruminal health problems
    - May allow lower feeding frequency, at higher rates

MATERIALS AND METHODS

- 42 bred Angus heifers (17 months of age)
- Graze cool season grass pastures for 60 days
- 1 of 2 treatments;
  - High frequency - supplement fed 6 days/week
  - Low frequency - supplement fed 3 days/week
  - Supplement consisting of 1:1 mixture corn gluten feed/soybean hulls
    - Reduce the potential of sulfur toxicity
    - Reduce the incidence of bloat
- Each treatment provided with 30 lbs. supplement per hd. per week
- Heifers weighed and assigned body condition score (BCS)
  - At beginning and end of trial period
- Ultimately determine the effects of energy supplementation frequency on heifer performance
  - When forage quality and quantity decline during the summer

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REFERENCES