Supplemental Distillers Grains Plus Solubles for Stocker Cattle Grazing Native Rangeland During Summer

New Mexico State University

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Introduction

- DDGS availability
- DDGS quality
- Supplementation – medium to high quality forage
Introduction

• Phosphorus summer supplementation
• Forage energy availability
• DDGS metabolizable protein
Objectives

• Evaluate the comparative effects of increasing the level of supplemental corn distillers grains plus condensed soluble on performance of steers grazing native rangeland during summer
Materials and Methods

• Location: Dallam County, TX, 40 miles East of CLRC

• Plant community
  – Sideoats *Bouteloua curtipendula*
  – Bluegrama *Bouteloua gracilis*
    • Old Word Bluestem *Andropogum gerardii*
    • Galletagrass *Hilaria jemesi*
    • Bufalograss *Buchloe dactyloides*
Materials and Methods

• 3 pastures

• 4 paddocks 15.76 acres each
Materials and Methods

• 72 English crossbred steers 454 ± 52.1 lb

• Adapted to DDGS 2 weeks

• Blocked by BW into light, medium, and heavy
Materials and Methods

• Each block was divided into 4 grazing groups

• Each group assigned to 1 of the DDGS level:
  – 0% of BW
  – 0.2% of BW
  – 0.4% of BW
  – 0.6% of BW
Materials and Methods

• Initial standing crop
  – Light block pasture = 767 lb/acre
  – Medium block pasture = 884 lb/acre
  – Heavy block pasture = 1086 lb/acre

• Clipped forage quality
Materials and Methods

• August 11 to October 6
  – 56-d Experimental period

• Data were analyzed as completely randomized block design
  – Proc mixed of SAS
  – Model include DDGS level as fixed
  – Block was used as random effects
Final BW

![Bar chart showing Final BW with DDGS level, % of BW on the x-axis and BW in lb on the y-axis. The chart includes error bars and linear and quadratic significance levels.](image)

Linear $P = 0.0016$
Quad $P = 0.013$

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Supplement Intake

Linear $P = 0.001$

![Graph showing Supplement Intake vs. DDGS level, % of BW]
Supplement Conversion

Lb of sup./lb additional ADG vs. DDGS level, % of BW

P = 0.50
Implications

- DDGS can be effectively used as supplement
- ADG improvement
- Supplement Conversion
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