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Supplementation of Beef Cows Grazing Corn Stalk Residue: A Demonstration¹

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Summary and Implications

Controlling feed costs is imperative for cow-calf producers to remain cost-competitive. During fall and early winter, these projected costs can be significantly reduced by utilizing cornstalks. By effectively grazing corn residues, Iowa cow-calf producers have the opportunity to extend the grazing season and reduce winter feed costs. The ISU distillers' dry grain (DDG) supplementation demonstration suggests that pregnant beef cows utilizing a strip-grazed system with appropriate supplementation can maintain their body condition scores (BCS) during challenging weather conditions. The supplemented group maintained a 5.7 BCS and the control group lost 0.3 BCS during the 49-day demonstration. The DDG supplemented system was projected to be more cost-competitive (\$18.82 per head advantage) than the continuous grazed control group.

Introduction

Iowa beef cow producers that graze corn residue in their operation have the opportunity to extend the grazing season and significantly reduce stored feed costs during the fall/winter timeframe. If managed effectively, this system can also maintain a pregnant cow's body condition score (BCS) even during extreme weather conditions. This demonstration compared continuous corn residue grazing without grain/co-product supplementation to strip-grazed cornstalks with DDG supplementation. BCS scores and supplemented feed usage and cost were evaluated.

Materials and Methods

A cornstalk grazing demonstration was conducted in Mahaska County, Iowa from December 2008 to January 2009. The purpose of this demonstration was to compare continuous corn residue grazing without grain/co-product supplementation to strip-grazed cornstalks with distillers' dry grain (DDG) supplementation. The treatment group—thirty spring calving Angus-based cows—was provided approximately 10 ac of cornstalks each week for seven weeks (forty-nine days). Dakota Gold Bran was provided at 5-6 lbs per head per day from Day 17 through Day 49. The control group—thirty spring calving Angus-based cows—was provided 60+ ac of cornstalks without grain or co-product supplementation. Both the control and treatment groups were fed grass-legume hay for twelve of the forty-nine test days due to ice conditions. Body condition scores were evaluated at the beginning and end of the demonstration.

Results and Discussion

The treatment group receiving the DDG supplementation in the strip-grazed system maintained their body condition score (BCS) of 5.7 even with three ice events that impacted feed availability for twelve of the forty-nine days. During this same period, the BCS of the control cows decreased from a beginning score of 5.7 to 5.4 during the seven-week demonstration.

The DDG supplemented system was more cost-competitive (\$18.82 per head advantage) than the continuous grazed control group (Table 1). This difference compares the DDG and hay supplementation costs of the treatment group to the control group's actual hay and estimated DDG cost to increase the control cow's BCS by 0.3 points.

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Table 1. Cost comparison of control and treatment cows.

| | Control Group | Treatment Group |
|--|----------------------|------------------------|
| Hay fed/cow | (261 lb) \$13.07 | (133 lb) \$6.65 |
| + DDG fed/cow | -0- | (188 lb) \$12.88 |
| = Total | \$13.07 | \$19.53 |
| + Projected feed cost To regain condition | \$25.28 | -0- |
| TOTAL COST | \$38.35 | \$19.53 |

The supplementation project also demonstrated that non-fenced corn fields can be successfully grazed by utilizing electric fences.