

2013

Cornstalk Strip Grazing Demonstration with Beef Cows

Dennis R. Maxwell
Iowa State University

Follow this and additional works at: http://lib.dr.iastate.edu/farms_reports

 Part of the [Agricultural Science Commons](#), [Agriculture Commons](#), and the [Animal Sciences Commons](#)

Recommended Citation

Maxwell, Dennis R., "Cornstalk Strip Grazing Demonstration with Beef Cows" (2013). *Iowa State Research Farm Progress Reports*. 1925.
http://lib.dr.iastate.edu/farms_reports/1925

This report is brought to you for free and open access by Iowa State University Digital Repository. It has been accepted for inclusion in Iowa State Research Farm Progress Reports by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

Cornstalk Strip Grazing Demonstration with Beef Cows

Abstract

In the fall of 2012, the ISU McNay Research Farm, Chariton, Iowa, conducted a trial on strip grazing of cornstalks to extend the normal 40–60 grazing days per cornstalk acre. The goal was to delay feeding hay as long as possible due to limited hay supplies and high costs caused by drought.

Keywords

RFR A12118

Disciplines

Agricultural Science | Agriculture | Animal Sciences

Cornstalk Strip Grazing Demonstration with Beef Cows

RFR-A12118

Dennis Maxwell, retired beef cattle manager

Introduction

In the fall of 2012, the ISU McNay Research Farm, Chariton, Iowa, conducted a trial on strip grazing of cornstalks to extend the normal 40–60 grazing days per cornstalk acre. The goal was to delay feeding hay as long as possible due to limited hay supplies and high costs caused by drought.

Materials and Methods

Cornstalks were used from a 33-acre cornfield that had yielded about 100 bushels/acre when harvested in October.

Cows used in this demonstration were 52 head of 3–6 year old, spring calving, dry, purebred Angus cows with an average weight of 1,253 lb. The cows had an average condition score of 5.6 and were in their second stage of gestation. The cows had been weaned on August 16, 2012, because of drought and then grazed on mostly stockpiled grass pastures until October 29, when they were placed on the first strip of cornstalks.

The grazing period for this demonstration was from October 29 to December 26. The weather was mostly excellent for cornstalk grazing with moderate temperatures and dry conditions, except for two small rain showers and a storm of about four inches of snow on December 20. Cows only consumed grain, husks, and leaves before being moved to the next strip. Nine strips of various sizes were used in grazing periods of 4–14 days (mostly 5–7 days). Watering problems due to freezing temperatures caused an early end to the grazing in this field resulting in the use of only 27 of the 33 acres.

Results and Discussion

A total of 3,001 cow-days of grazing was achieved on the 26.7 acres of strip-grazed cornstalks or 112.4 cow-days per acre. This is about twice the number of cow-days expected from whole field grazing. (Note that the “cow-days” here are not equal to a standard Animal Unit Day for a 1,000 lb cow.)

Calculations. Many producers hesitate to use strip grazing of cornstalks thinking that there is too much labor involved and not being aware of the economic benefits. If we assume that we could have achieved 50 cow-days per acre with whole field grazing, then we would have gotten (50 cow-days × 26.7 acres) 1,335 cow-days of cornstalk grazing. We obtained 3,001 cow-days with strip grazing. Therefore, we achieved an extra 1,666 “bonus” cow-days or 2.25 times as much grazing from the same cornstalk area.

We could put a value on these “bonus” cow-days if the alternative was to feed hay by assuming:

- 1) 2.5 percent of cow body weight as hay consumption
 - 2) 5 percent hay waste
 - 3) cow weight of 1,253 lb × .025 = 31.33 lb of hay per day × 1.05 for waste = 32.89 or 33 lb per day of hay
 - 4) \$140 per ton hay cost (7 cents per lb).
- Then, the 1,666 cow-days × 33 lb hay × 7 cents = \$3,848 hay savings for strip grazing.

If we also assume an estimate of 15 hours of labor to put up and take down the nine strip fences in this demonstration, then the hay savings of \$3,848 divided by the 15 hours of labor equals a payment of \$257 per hour for the producer’s time in strip grazing the cornstalks (less some allowance for ATV use and portable electric fencing equipment).