Forage Recycling for Greater Yield

Triangle Cross Livestock 2003

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Summary:

Hay mulching or recycling hay in coastal bermuda fields increased forage production.

Objective:

The introduction of recycling forage in established coastal bermuda fields is designed to conserve moisture, increase forage yields, and improve soil fertility.

Materials and Methods:

A coastal bermudagrass field was selected for a nutrient recycling study. Initial inspection of the field indicated soil compaction and little organic matter.

In December 2001, feeding with round bales of hay began in the selected field to a group of cow/calf pairs. This practice was continued in December 2002. Cattle were forced to clean up the hay before another bale was placed in the field. Hay was using a non-skirted hay ring. The hay ring was moved to a fresh site upon placing a fresh bale of hay for the cattle. Feeding continued through March 10 for the two years of this study.

This field has not been "hayed" for six years, but has been in a rotational grazing system.

On April 30, 2003, weed control was initiated using 2,4-D Ester, and 300 lbs./acre of liquid 32-0-0-3 fertilizer was applied to the field. On May 30, 2003, this field received 1.75 inches of rainfall.

The field was grazed from November 2002 through April 16, 2003, at which time the cattle were moved to a fresh pasture. The cattle returned to this field on June 5 and remained 60 days.

On September 1, 2003, 200#/acre of 33-0-0 fertilizer was applied to this field. Two inches of rain was received on September 3. Cattle were placed back in this field on September 30.

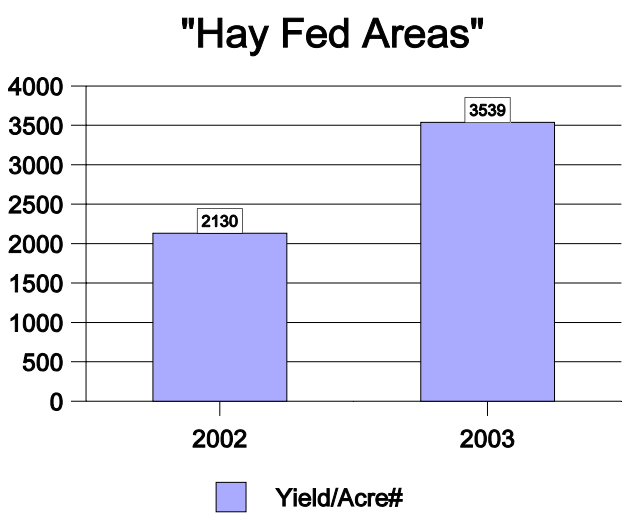
Clippings were made on September 30, 2003, from the "hay fed" (mulched) areas and the

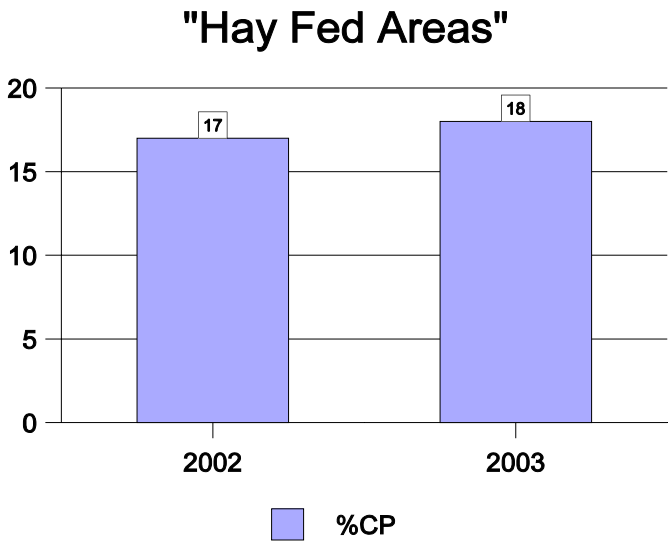
control areas.

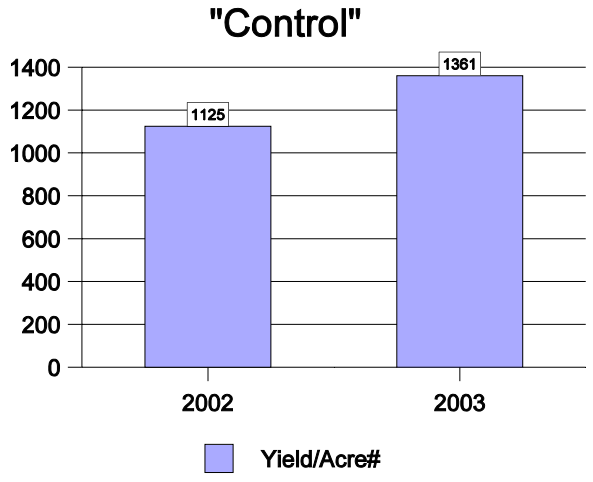
Results and Discussion:

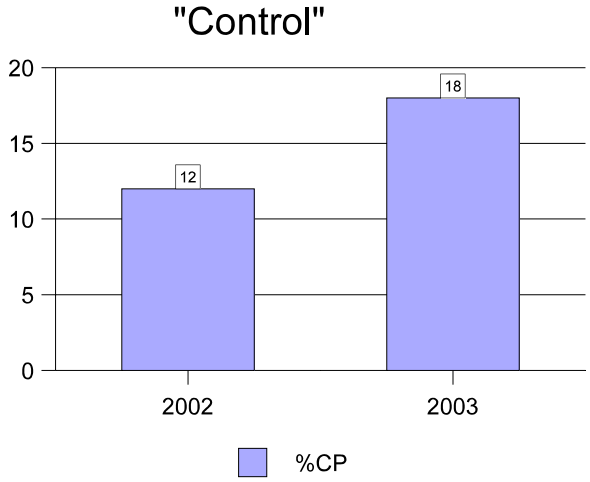
The forage response to hay recycling was compared as to yield and quality.

Visual observation noted more lush growth of forage in the areas where hay was fed. Forage growth was 6 - 8 inches greater in height in these areas. The "hay fed" areas produced significantly higher forage yields. The quality showed a surprising result for the 2003 growing season as indicated by the following graph.









This study suggests the influence of recycling hay is greater rainfall capture, moisture

conservation, and recycled nutrients. Soil compaction is diminishing as a result of the demonstration. Also noted is greater plant vigor in the "hay fed" areas. In drought times as experienced during this two-year study, the use of this management practice could be used by producers to stretch rainfall. Another benefit might be a reduction in the amount of needed commercial fertilizer to produce the desired amount of forage.

Acknowledgments:

The author wishes to express appreciation to Triangle Cross Livestock, which served as a cooperator in this result demonstration.

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