Texas Agricultural Extension Service
The Texas A&M University System

Result Demonstration Report

YEAR 2000

FALL STOCKPILING OF BERMUDAGRASS
TITLE

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COMMUNITY	**AGENT**	**PRECINCT**

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I. SUMMARY:

In East Texas over the past four to five years, drought conditions have been a real problem on beef and forage producers in the area. In many years, we have had the rainfall, but at the wrong time of the year, most forge for hay purposes, is harvested during the months of June through September and even into October, again depending on the amount of rainfall and weather conditions.

II. PROBLEM:

During drought years, beef & forage producers have a hard time harvesting enough forage with recent drought conditions.

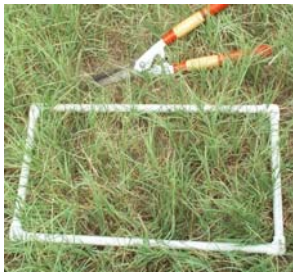
III. OBJECTIVE:

To evaluate how much bermudagrass grows during a specific period of time, (the month of October), to see if the protein level drops over this short period of time and how much production (yield) increases.

IV. MATERIALS / METHODS:

On October 4, 2000 16-6-12 fertilizer was applied at two rates to two large plots in the bermudagrass pastures, the rates were 300 pounds and 200 pounds respectfully. A control plot with no fertilizer applied, was left to compare the results. The next day, on October 5, 2000, three random forage clippings were taken and weighed to determine the yield base line, the square meter method was used, weights were measured in grams and converted to pounds. The weather was cloudy,

67 degrees. The samples were allowed to air dry for several days and were weighed again on October 17, 2000, to determine the base line. A forage sample was sent to the Texas A&M University Soil and Forage Testing Laboratory in College Station for crude protein analysis. The weights were averaged.



The process was repeated again on November 7, 2000, three random forage clippings were harvested from each plot, weighed and the average weight recorded for each of the plots based on the fertility level (300#/acre, 200#/acre or none). The samples were allowed to "air dry" for a period of six days, the samples were weighed again for the dry matter weight. Listed below are the average results of the weights to set the "base-line data":

Forage Plot Sample Weights "Base-Line Data"

October 5, 2000 (Green Weight) - 4000 Pounds or 2 tons/acre
October 17, 2000 (Dry Weight) - 2000 pounds or 1 ton/acre
50% Moisture Content
Crude Protein of Forage:* 10.9% *(Average From Across The Pasture)
Total Number of Days of Growth:* 34 *(From October 5th to November 6th)

V. RESULTS / DISCUSSION:

Listed below are the results of the demonstration:

Forage Plot Sample Weights & Other Data Taken on November 7, 2000

Fertility Rate (16-6-12)	Dry Weight: Pounds/Acre	Pounds Difference in Yield	Crude Protein
300 Pounds/Acre	2416	+416	12.5%
200 Pounds/Acre	2333	+333	11.0%
0 Control Plot	1500	-500	10.2%

The samples that were harvested on 11-7-00, contained 44 to 46% moisture.

VI. ECONOMIC ANALYSIS & IMPACT:

Pounds of Actual Nitrogen Used:	Cost of N/Acre:	Cost/Pound of N For Each Pound of Extra Forage:
300 # Plot - 48 Pounds	$14.40/Acre	3.5 cents/pound
200# Plot - 32 Pounds	$9.60/Acre	2.9 cents/pound
Control - 0	0	0

The results are assuming that the cost of actual nitrogen is .30 cents per pound. Since there was little difference in the amount of foraged produced for the extra 16 pounds of nitrogen applied, the 200 pound rate per acre would be the

preferred rate for the cost. Weather, and the time of year also played a big part in this demonstration. The main purpose was to find out how much growth the grass would make and how time and forage maturity would play on the quality of the forage, as well as the cost per pound of forage produced.

VII. ACKNOWLEDGMENTS:

We would like to thank Tony and Winston Whitlow for the use of their pasture and for suppling the 16-6-12 fertilizer used in this demonstration. We would also like to thank Dr. Larry Redmon for assisting in the economic analysis portion of this demonstration as well as his overall guidance.