**YEAR 2001-2002**

**HARRISON COUNTY WINTER FORAGE VARIETY TRIALS**
**TITLE**

**BRYAN CONAWAY**
**COOPERATOR**

| MARSHALL | RANDY REEVES | 1 |
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| **COMMUNITY** | **AGENT** | **PRECINCT** |

**HARRISON**
**COUNTY**

## I. SUMMARY:

Beef and forage production ranks high in the total agricultural income generated in Harrison county, with an estimated value of $13,600,000. Beef Producers are looking for ways to lower feed and nutritional cost, on way is to plant winter pasture forage, such as ryegrass, clover and small grains, or a combination of the three. Planting of these, will help to supplement the feeding of beef cattle and keep cattle “out of the feed sack”.

## II. PROBLEM:

Beef producers in many cases underutilize pastures for winter grazing, or do not plant winter pasture to supplement beef cattle to help lower feed or nutritional cost. Variety selection is also a problem in many cases, deciding which varieties to choose that will give the greatest benefit for the dollar spent and a selection that will perform in our part of the state.

## III. OBJECTIVE:

To evaluate the performance of selected varieties of winter pasture, especially; Ribeye and Tam-90 ryegrass, as well as the following clovers; Rose, Apache, and Crimson. It might also be noted that the Apache Arrowleaf clover, is a new clover that was developed at the Research & Extension Center in Overton, by the Texas Agricultural Experiment Station and Dr. Ray Smith, Professor and Legume Breeder with the Texas Agricultural Experiment Station.

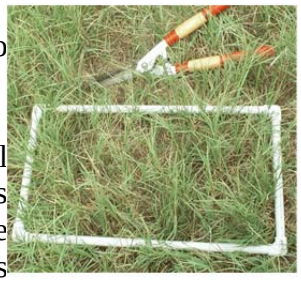
## IV. MATERIALS / METHODS:

On or about the first week of October, the area were the plots were to be established, was limed at a rate of 2.87 tons per acre, (ECCE factor of 100%), then plot area was then disked to incorporate the lime into the soil. On October 24, 2001, the plot area was measured and marked with stakes, then disked several times to make prepared seedbed prior to planting. The area was disked to a depth of three to four inches. There were a total of six plots, each one was replicated three times for a total of eighteen plots, each measuring ten feet wide and

twenty feet in length. The following seeding rates were used;

**Tam-90 Ryegrass - 35 pounds per acre**
**Ribeye Ryegrass - 35 pounds per acre**
**Rose Clover - 12 pounds per acre**
**Dixie Crimson Clover - 20 pounds**
**Apache Arrowleaf Clover - 12 pounds per acre**

After disking the plots, the area was dragged with a harrow to smooth the plots and help remove any large clumps of grass and weeds from the area. The plots were individually planted with a hand-held broadcast seeder and a seed packer was rolled over-the-top of the planted plots to firm the soil in the planted plots. The day of October 24th was warm, about 70 degrees, windy with 15 to 20 mph gust.



The ryegrass plots were fertilized on January 11, 2002, at a rate of 60 pounds of actual nitrogen (N) per acre, ammonium nitrate (175 Pounds of 33-0-0 was used). Clippings were taken to determine harvest yield off of the plots on the dates listed below, the clippings were weighed in grams per acre and converted to pounds per acre. The process was repeated again on March 22, 2002, being fertilized with 21-0-0 (285 Pounds of 21-0-0) at a rate of 60 pounds per acre and clippings being harvested.

## V. RESULTS / DISCUSSION:

***Listed below is the average data from the replicated plots;***
*The grass samples collected were allowed to air-dry for three (3) days at room temperature prior to being weighed.*

| Forage Variety | Harvest I | Harvest II | Harvest III | Total Yield |
|---|---|---|---|---|
| Harvest Dates ☞ | February 21, 2002 | March 22, 2002 | April 25, 2002 | |
| Tam-90 | ***858.60 #/Ac.*** | ***5063#/Ac.*** | ***5271.86#/Ac.*** | **11,193.46#/Ac** |
| Ribeye | ***1095.36 #/Ac.*** | ***3464#/Ac.*** | ***7817.65#/Ac.*** | **12,377.01#/Ac** |
| Rose Clover | N/A * | N/A * | ***1613.72#/Ac.*** | **1613.72#/Ac.** |
| Dixie Crimson | N/A * | N/A * | ***3582.79#/Ac.*** | **3582.79#/Ac.** |
| Apache Arrowleaf | N/A * | N/A * | ***4856.27#/Ac.*** | **4856.27#/Ac.** |
| Apache/Dixie Mix | N/A * | N/A * | ***3493.95#/Ac.*** | **3493.95#/Ac.** |

**** N/A - Not enough forage in plots to clip at that time.***

From the data that has been recorded thus far, the results are close and as the spring season approaches, more reliable data will be available. Spring is also when the forages in this demonstration will be making their maximum growth. It also needs to be stated that for real comparisons, the data needs to be collected over several years, not just one. It might also be noted that a fourth harvest was planned, but due to dry conditions, the grass made little, if any growth after the April harvest.

## VI. ECONOMIC ANALYSIS & IMPACT:

The complete demonstration will be in the 2002 Harrison County Result Demonstration Handbook.

## VII. ACKNOWLEDGMENTS:

We would like to thank Mr. Brian Conaway for the use of his pasture and time and effort he devoted to establishing and evaluating this demonstration. We would also like to thank Dr. Ray Smith, Texas Agricultural Experiment Station in Overton, Texas for his help in establishing and evaluating the demonstration, as well as providing the clover seed that was used in this study. Also, we would like to thank Dr. Larry Redmon, Extension Forage Specialist in Overton for his help in evaluating the yield data in this demonstration as well.