

no record 1/58

MISCELLANEOUS PUBLICATION 63
TEXAS AGRICULTURAL EXPERIMENT STATION-THE TEXAS A&M COLLEGE SYSTEM
R. D. Lewis, Director, College Station, Texas, December 19, 1950

COOPERATIVE DAIRY PROGRAM FOR EAST TEXAS, 1951-52

LIBRARY
A. & M. COLLEGE OF TEXAS

Shannon E. Carpenter, Dairy Husbandman, Texas Agricultural
Experiment Station and Texas Agricultural Extension Service
Substation No. 2, Tyler, Texas

The East Texas Dairy Program was started February 1, 1950. This program is supported by the East Texas Agricultural Council, and by progressive dairymen and other citizens of Smith County in cooperation with the Agricultural Experiment Station and the Agricultural Extension Service of the Texas A&M College System.

The first thing we did was to conduct a survey among the dairy farmers of Smith County. The survey revealed our major problems were:

1. The need of pasture improvement.
2. A shortage of high quality roughage.
3. A shortage of good herd replacements.
4. The need of a more balanced dairy operation.

In planning a program that we think will solve these problems within 3 to 5 years, we have accomplished the following:

Control of Sage Grass. Used 4 levels of fertilizer and 4 methods of tillage. Our cows are eating the highly fertilized sage grass, and we think grazing will eradicate it.

Summer Pasture. On the J. W. Wilkinson dairy farm, we compared 200 pounds of 5-10-5 on 36-inch rows of Sudan with no fertilizer on Sudan. The fertilized Sudan produced 62 percent more grazing. In 1951, we want to try 400 and 600 pounds per acre of 5-10-5.

Pasture. On the Tooke dairy farm, we compared no fertilizer with 5-10-5 and barn-yard manure on permanent sod pasture. The weights of green matter produced in six months (July-November) were:

No fertilizer	10,000 pounds
5-10-5	34,000 pounds
Barn-yard manure	32,200 pounds

This indicates that it will pay East Texas dairymen to use a complete fertilizer on their pastures.

On the C. Bayless dairy farm, we received a 15 percent increase of green matter by the use of one sack of 60 percent muriate of potash per acre. We plan to check this type of demonstration in 1951.

0. 72
5m
3

Silage. On the Kidd Brothers dairy farm, a silage crop showed the following:

Cost of seed, planting, plowing, fertilizer and harvesting - - - -	\$1002.
Value of crop in the silo - - - -	2500.

Four hundred pounds of 5-10-5 and up to 200 pounds of ammonium nitrate were used per acre. To test the value of side-dressing, we staked off 16 plots in one field. Average yields, in tons per acre, were:

4 plots with no ammonium nitrate	20.4
4 plots with 100 pounds ammonium nitrate	25.8
4 plots with 150 pounds ammonium nitrate	26.7
4 plots with 200 pounds ammonium nitrate	27.7

The plots with 100 pounds of ammonium nitrate shows the greatest increase in yield; however the plots with higher applications also were profitable.

At Substation No. 2 near Tyler, we planted seven crops with and without cowpeas. Red Top sorgho and Starr millet without cowpeas made the highest yield, with about 12 tons per acre. There was no significant difference in the yield of the crops with or without cowpeas. The silage is being analyzed to determine the difference in composition of each crop.

To check the best way to seal a pit or trench silo, we covered some with metal covers, one with old hay, two had oats planted on them, and some were left without any cover. We have less waste this year in the silos with no cover. We want to check this each year and compare weather conditions to reach a definite conclusion.

Farm Visits. From February to December 1950, I made 202 farm visits in Smith County. I talked on dairying at 25 of the 58 meetings attended.

Publications. Progress Report 1239, "Conception Rate From Natural Breeding of Dairy Cows," was published during the year. This report was compiled from records of the dairy herd at Substation No. 2, 1937 through 1949.

We had one article published in the August issue of the Farm and Ranch magazine. The title of this article was "Monthly vs Daily Milk Weights," and was compiled from records of the dairy herd on Substation No. 2.

Looking to the Future. I have planned a pasture test to begin in 1951, with some cows in the Tyler station's herd.

Two groups of cows -- equal in age, weight, calving period and previous records -- will be placed on improved and unimproved pastures. The milk and all feed, except pasture forage, will be weighed to determine the cost of milk produced in each pasture. This test will be continued for 3 years.

Fertilizer tests on pasture grasses will be carried on at Substation No. 2 and on six farms of Smith County dairymen.

Silage demonstrations will be carried on at Substation No. 2 and on two outlying farms.

This program will help dairymen of Smith County balance their dairy operations by extending the grazing period, obtain more even production throughout the year, and encourage the keeping of records to eliminate unprofitable cows.

We will continue to cooperate with county agents and others in promoting 4-H club work through the Smith County Junior Dairy Club.

MP 64 IS NOT AVAILABLE