



Farmers attending annual livestock field day.

ANIMAL HUSBANDRY

Investigations carried on with livestock have been concerned with feeding and breeding problems most vital to the needs of the farmer. Most of the feeding work has been with those feeds that are produced abundantly in the Coastal Plain area. The breeding work has been such as would show the farmer and the livestock breeder the best methods of improving existing animals on the farm. At the same time, superior strains of animals are being developed. These superior strains will be used at the Station for future work. Where possible, animals from these superior strains are sold to the farmers at a nominal cost, the farmers thereby getting the advantage of any breeding work that has been carried on.

The Bureau of Animal Industry, United States Department of Agriculture, is cooperating in the beef cattle and swine work. The Bureau of Plant Industry is cooperating in some of the pasture tests with beef cattle.

BEEF CATTLE

The Station maintains three herds of beef cattle; namely, purebred Polled Herefords, grade Herefords and native cows. Purebred Polled Hereford bulls are used on all the herds. Information relative to wintering and managing these three herds is given in the following pages. The data are for the year 1938 and the winter 1938-39.

Purebred Polled Hereford Herd: Thirty head of purebred Polled Hereford cows and their calves were carried on a permanent pasture of approximately 48 acres from April 12 to October 11, 1938. The permanent pasture was composed of a mixture of carpet grass, Dallis grass, lespedeza and white clover. A phosphate fertilizer test is being made with this pasture. The 30 cows suckled 17 calves during the period. The herd was partially made up of bred heifers.

The cows are not given any dry feed during the grazing period. The calves were creep fed on a grain mixture composed of seven parts cracked shelled corn and one part cottonseed meal. The following table gives the

birth weight, weaned weight, average daily gain and average feed consumption for the calves from birth through weaning. Most of the calves were dropped before the cows were put on permanent pasture.

Polled Hereford Calves 1938

Number of calves.....	17
Period calves were dropped.....	Jan. 30 to Apr. 10
Period calves were weaned.....	Oct. 11
Average birth weight.....	81.57 Lbs.
Average weaned weight.....	557.18 Lbs.
Average ration.....	4.36 Lbs. grain
Average daily gain.....	2.03 Lbs.

At weaning, the heifer and bull calves in this herd were separated. Four of the calves were castrated during the summer and at weaning time were placed on a Record-of-Performance test. The bull calves and heifer calves were wintered on a peavine hay, white corn and cottonseed meal ration. The concentrate mixture was composed of seven parts cracked corn and one part cottonseed meal. During the winter the two groups were given as much green grazing as possible. The two groups of calves were fed enough to keep them in excellent breeding condition.

Nine yearling heifers were added to the Polled Hereford herd on November 15. The herd was carried on a winter ration of sorghum silage (from trench silo), cottonseed meal, oat straw and a small amount of ground snapped corn during the wintering period from November 15 to March 29. Table 33 shows the feed and weight record for the cows during this period. During the wintering period the cows dropped 25 calves. The calves had an average birth weight of 74.16 pounds and an average weight on March 29, of 125.80 pounds. The calves were dropped during the period January 30 to April 10, inclusive, after which the cows were taken from the wintering test and placed on permanent pasture.

TABLE 33

WINTERING PUREBRED POLLED HEREFORDS Feeding Ground Snapped Corn, Sorghum Silage, Cottonseed Meal and Oat Straw November 15, 1938 to March 29, 1939

Average number of cattle fed.....	39
Average initial weight.....	980 Lbs.
Average final weight.....	934 Lbs.
Average loss per animal.....	46 Lbs.
Average daily loss per animal.....	.344 Lb.
Average ration per animal:	
Ground snapped corn.....	1.13 Lbs.
Sorghum silage.....	35.36 Lbs.
Cottonseed meal.....	2.22 Lbs.
Oat straw.....	3.25 Lbs.

Note: 25 Calves dropped during period—final weight of calves 3145 pounds.

