

ANIMAL HUSBANDRY

Most of the livestock investigations carried on are either feeding or breeding studies. During the year, however, a series of studies was started on swine parasites and other studies begun on range-grazing problems.

In feeding work with cattle, other than pasture experiments, attempts are being made to determine the most economical methods of wintering breeding cows. Studies are also in progress to determine the best methods of calf production. For several years the Station has conducted experiments to determine satisfactory combinations of home-grown feeds for fattening steers and to study the difference in the economy of feeding steers of different grades. The swine feeding studies have had to do largely with hogging-off grain crops. Studies are in progress to determine the best mixtures of home-grown feeds for economical milk production.

TABLE 29

ANNUAL SUMMER PASTURES—SUMMER OF 1941

PASTURE	Number of Acres	Date on Test	Date off Test	Number Animals Grazed	Average Initial Weight	Average Final Weight	Average Gain per Animal	Average Live-weight Gain per Acre
					Lbs.	Lbs.	Lbs.	Lbs.
Kudzu	3	June 5	Oct. 3	3	547	738	191	191
Cat-tail Millet	6	June 19	Aug. 28	7	633	734	101	118
Otootan Soybeans	6	July 3	Sept. 18	10	661	705	44	112
Velvet Beans	6	July 3	Sept. 18	4	555	648	93	62
Common Lespedeza	6	June 19	Aug. 15	4	603	663	60	40

TABLE 30

ANNUAL SUMMER PASTURES
Seven-year Average, 1935 to 1941, Inclusive

PASTURE	Av. No. Acres Grazed	Av. No. Animals Grazed	Average Initial Weight	Average Final Weight	Average Gain per Animal	Av. Live weight Gain per Acre
			Lbs.	Lbs.	Lbs.	Lbs.
Kudzu (perennial)	3	3	507	757	250	250
Cat-tail Millet	6	8.5	528	619	91	144
Otootan Soybeans	6	7.8	551	614	63	104
Common Lespedeza	6	5.4	540	634	94	82
velvet Beans*	6	6.1	618	661	43	45

*Five-year average.

Breeding investigations have been conducted to develop superior strains of beef cattle, dairy cattle, and swine. Much progress has already been made along these lines. Several beef bulls have been proved and three dairy sires are in the process of being proved. Three or four male pigs are proved each year. With beef cattle and swine, all males are proved by feeding out groups of each sire's offspring to determine the amount of feed required to put on a pound of gain. Some males sire offspring that put on gain much more economically than others. The sires whose offspring put on gain more economically are retained to head the breeding herds until better ones are developed to take their place.

The Bureau of Animal Industry, United States Department of Agricultural

TABLE 31
ANNUAL WINTER PASTURES—WINTER 1941-42

PASTURE	Number of Acres	Date on Test	Date off Test	Number Animals Grazed	Average Initial Weight	Average Final Weight	Average Gain per Animal	Av. Live-weight Gain per Acre
					Lbs.	Lbs.	Lbs.	Lbs.
Abruzzi Rye	6	Jan. 14	May 2	9	417	575	158	237
Oats and Hairy Vetch.....	6	Jan. 14	May 2	6.6	419	577	158	184
Ryegrass	6	Jan. 14	May 2	5	438	592	154	128
Oats following Common Lespedeza.....	6	Jan. 14	May 2	4.33	400	514	114	95

TABLE 32
ANNUAL WINTER PASTURES
Seven-year Average, 1935 to 1941, Inclusive

PASTURE	Av. No. Acres Grazed	Av. No. Animals Grazed	Average Initial Weight	Average Final Weight	Average Gain per Animal	Av. Live-weight Gain per Acre
			Lbs.	Lbs.	Lbs.	Lbs.
Oats and Hairy Vetch.....	6	5.29	422	547	125	150
Abruzzi Rye	6	6.35	382	484	102	107
Oats following Common Lespedeza	6	4.34	415	523	108	89
Ryegrass	6	3.4	465	563	98	62

ture, is cooperating in the beef cattle and swine work.

BEEF CATTLE INVESTIGATIONS

The three herds of beef cattle maintained by the Station are for the purpose of studying herd management, wintering problems, pasture studies, methods of calf production, feeding experiments, and long-time breeding studies. The purebred Polled Hereford herd is maintained for breeding studies and for the production of purebred sires to be used in the various breeding tests. The grade Hereford cattle are used to make studies in herd management, in wintering, in proving purebred Polled Hereford bulls to be used later in the purebred herd, and for the production of feeder cattle for pasture and feeding tests. A native herd of cattle is used for the same purpose as the grade herd and also for studying methods of calf production.

Management of Breeding Herds

In general, the three herds of beef cattle maintained by the Station are managed in about the same manner. The cows are carried on permanent pasture from approximately April 1 to November 10. From November 10 to April 1 they are wintered on various combinations of feeds which are discussed in a following subhead.

The cattle are pasture-bred over an approximate 60-day period, April 20 to June 20. This breeding period varies somewhat but is never over 90 days. The cows that are bred during late April through May and during June will drop calves the following February and March.

There is some advantage in having the calves dropped in February and March. The cows are usually wintered in open fields where the young calves are less likely to become infested with internal parasite eggs. The cows can be watched more closely during this wintering period when there is very little

Grade Herefords of the Station grazing in the permanent Kudzu pasture. Kudzu is found to be an excellent cattle fattener.



