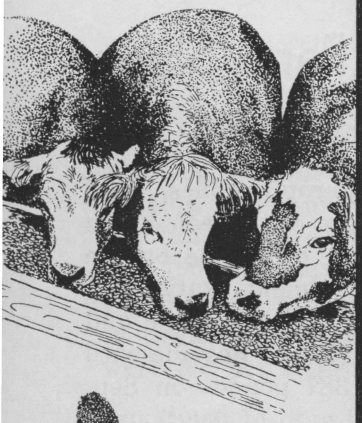
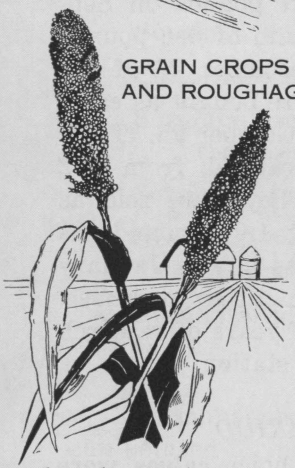
L-507



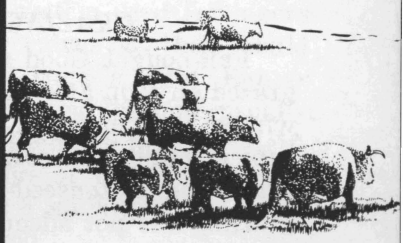
A SYSTEM OF

Farm Steer Beef Production

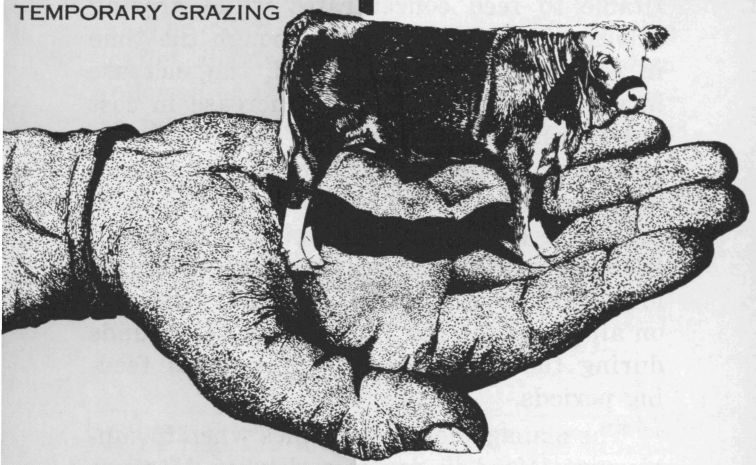
GRAIN CROPS AND ROUGHAGE



PERMANENT PASTURE



TEMPORARY GRAZING



THE AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS
J. E. Hutchison, Director,
TEXAS AGRICULTURAL EXTENSION SERVICE
College Station, Texas

A System of Farm Steer Beef Production

Utilizing farm feeds, crop residues, small grains and Sudan pasture with beef calves has proven practical and profitable by the Texas Agricultural Experiment Stations at Beeville, College Station, Spur, Temple and Amarillo. A 7-year average at Beeville with steer calves averaging 387 pounds on September 16 shows a total gain of 686 pounds by marketing time on December 23 of the following year. Calves were bought as early as July 20 and as late as October 25. Their average initial weights ranged from 282 pounds to 420 pounds. They were sold as drylot fed cattle weighing 1,073 pounds as early as December 7 and as late as January 15 of the following year after purchase. These are the facts from 7 years of research (1947-54) at the Beeville station.

GRAZING PERIOD

Fall-bought Good to Choice calves were grazed on crop aftermath in the fall, oats in winter and Sudan in summer. They were suplementally fed sorghum silage, sorghum grain and cottonseed meal in drylot when grazing was not adequate. It was not profitable to feed concentrates while grazing calves on good pasture. Although the time in feedlot could be shortened, the increase in gain did not justify the increase in cost during this growing period. The cattle were grazed until summer Sudan was exhausted and then were placed in drylot for full feeding. The objective of this plan is to get all the weight and flesh possible from crop residues and grazing crops. The average gain on all steers for the 7 years was 475 pounds during the grazing and supplemental feeding periods.

The management determines when to supplemental feed in drylot and when to graze by observing the cattle and grazing crops.

Cattle should not lose weight during this period but should gain at least 1 pound daily. Such a system allows maximum usage of grazing crops and silage or other roughage. Appraised values of the cattle at the end of grazing generally showed that grazing and drylot feeding were more profitable than selling after grazing only. Adding the feedlot period meant selling grain fat cattle which had made 475 pounds of grass gain at finished cattle prices.

DRYLOT FEEDING

The question frequently arises concerning the full or limited feeding of grain on excellent to good grazing. Weaned calves on good grazing usually gain 1½ to 2 pounds daily. Additional feeds during this period add little extra gain but reduce the length of time to finish in drylot. However, a given acreage of pasture will carry more cattle if they are fed. As the use of feed increases, the use of grazing decreases. This becomes a matter of resources and of management in respect to the use of feed and time of marketing. Cattle which are to be finished to Choice slaughter grade make most efficient use of concentrate feeds while in drylot rather than on pastures.

The steers went into the feedlot from grazing weighing 862 pounds to be full fed to Good and Choice slaughter grades. The lowest weight was 748 pounds with a high of 960 pounds. They were fed an average of 121 days in drylot with a range of 90 to 148 days. They finished out of drylot at an average of 1,073 pounds. The lightest weight during the 7 years was 959 pounds and the heaviest was 1,178 pounds. Rations consisted principally of sorghum grain, cottonseed meal and sorghum silage. About 60 percent concentrates and 40 percent roughage were used.

ADVANTAGES OF SYSTEM

A large amount of farm-grown roughage is marketed through cattle. Poor qual-

ity roughage has little market except as used on the farm. Grass gains are sold at grain gain prices. Fall-sown small grain yields may be increased by grazing or may be used entirely for grazing which is sometimes advantageous. Returns for farm-produced grain may be increased if sold through cattle rather than on the open market. A crop rotation system including beef cattle is advantageous to crop production. Manure from the lots is applied back to the land.

DISADVANTAGES OF SYSTEM

The farm steer beef production system involves owning two sets of cattle at the same time. The cattle in the feedlot are on hand when the new cattle are purchased. It takes about 15 months to finish each group of cattle. Additional funds for feedlot construction, fencing and watering of grazing fields, feed storage and feeding equipment are required even though some regular farm equipment would be utilized more fully.

GRAZING REQUIREMENTS

The efficient management of grass is one of the keys to success in this system. Allow from 1½ to 2 acres of small grain pasture per steer or heifer for fall, winter and spring grazing. If moisture conditions warrant fertilizer applications, this acreage probably could be reduced as much as one-half to three-fourths. The same is true under irrigation. However, internal parasites, particularly stomach worms, can become a serious problem when too many cattle are concentrated under good grazing conditions. This depends upon the extent of cattle worm infestation, moisture in the form of dews or rains, cloudy days or amount of sunshine and grazing rotation.

OTHER FEED REQUIREMENTS

Adequate stored roughages and concentrates and grass management are the three most important aspects of farm steer beef production. The amount of feeds to store

in such a system is a major consideration. The amounts will vary from year to year and only liberal estimates may be given. Cattle may have to be fed in drylot during the weaning or fall field grazing period, oat grazing period or Sundan grazing period in addition to the drylot finishing period. During 1953-54, cattle were grazed 266 days, supplementally fed 56 days and fed 94 days in drylot. The following amounts of feed were fed per steer:

Sorghum grain	1,525 pounds
Cottonseed meal	297 pounds
Sorghum gluten feed (weaning)	114 pounds
Sorghum silage	3,701 pounds
Green cut sorghum (weaning)	63 pounds
Ground alfalfa hay	80 pounds

HEIFERS

The management system used for steers can be used for heifer calves but they should be marketed in less time and at lighter weights than steers. Fed heifers usually are sold before they reach 900 pounds. Heifers have the advantage of finishing in less time but they sell at a slightly lower price and do not gain as well.

The chart on the opposite side of this leaflet illustrates the management system followed at the Beeville station. Many Texas farms are adaptable to a similar system of farm beef production.

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Results of a System of Farm Steer Beef Production, 1947-1954

Texas Agricultural Experiment Station, Substation No. 1, Beeville