

# FROM BEETS TO BEEF

## Al Lane

An old world practice has found new application in Arizona. The feeding of sugar beets in a modern feeding regime has proved intriguing. We have learned that beets can produce lots of pounds of beef per acre.

A trial conducted at the Yuma Experiment Station in the summer of 1961 shows a gross per-acre return of almost \$300, but let's look at the more complete picture before plunging into action.

### Castro Started It

Circumstances that led to this trial in 1961 were (1), restrictions on importations of Cuban sugar which prompted interest in more domestic sugar production, and (2), a need to utilize the sugar beets produced in the absence of sugar beet processing facilities in Arizona.

Our table gives a summary of the summer feeding trial from May 26 through September 16. In this trial, the beets were fed at the rate of approximately 22 pounds per head per day. A normal dry ration, either 65 to 85 percent concentrate, fed free choice, made up the rest of the feed. The 22 pounds of fresh beets

treatments. The average yield of all of these treatments was about 26 tons per acre. With four different feeding programs (only two listed here) the average value was over \$12 per ton of beets. This gives a gross return in excess of \$300 per acre.

### Didn't Include Tops

In this trial, the tops were not fed. Sugar beet tops, however, can be used a number of different ways, all of which have some limitations.

They can be pastured, but this is wasteful. They can be partially field cured in small piles in the field. This is labor consuming; or they can be made into silage. Ensiling preserves the most feed value, but is more costly.

Though beet top silage analyzes much higher in protein and TDN than hegari silage, actual feeding has shown it to be worth considerably less than good sorghum or corn silage. It is too laxative, and contains liberal amounts of oxalic acid.

### You Haul a Lot of Water

The greatest problem with feeding sugar beets is labor and management. Beets are a high moisture content feed-

	No Beets		With Beets	
	65% Conc.	85% Conc.	65% Conc.	85% Conc.
No. of steers	16	16	16	16
Avg. Daily Gain*	2.58 lbs.	2.52 lbs.	2.62 lbs.	2.84 lbs.
Mixed Ration/Day (without beets)	20.8 lbs.	18.9 lbs.	16.8 lbs.	14.8 lbs.
Conc. mix cost/cwt. gain	\$20.67	\$20.20	\$16.48	\$14.02
Value of beets/cwt. gain			\$ 4.19	\$ 6.18
Value of beets/ton			\$ 9.30/ton	\$15.24/ton

\*No Shrink

amounted to about 4½ pounds of dry feed. Figures in the table are on the dry basis.

Carcass evaluations showed no difference in quality between beet-fed steers and those fed the more usual feedlot rations.

In this trial, the sugar beets were grown under several different fertilizer

stuff. For every pound of dry feed dug, loaded, hauled and fed, the feeder is transporting four pounds of water. Also, beets need to be stored until they can be used. Storage in the ground for almost four months after the tops were removed was only partially satisfactory. There was severe loss due to field spoilage late in the feeding period.

When beets are stored where grown, it ties up the use of that land until the beets are removed, an expensive practice. A new procedure for storage needs to be developed. Also, to insure a fresh supply, we

## Coolidge Boy Champ At Livestock Show

Phil Lewis, 21-year-old youth from Coolidge, captured the grand championship showman trophy at the Little Arizona National Livestock Show at Tucson.

Lewis won out over about 50 University of Arizona students competing in the fitting and showing contests. He is a junior majoring in Agricultural Education at The U of A.

Reserve Champion Showman was Jack Crews of Tucson.

Class winners were as follows:

Angus cattle: Betty Kramer, Chicago, first place; Howard Stauffer, Tucson, second.

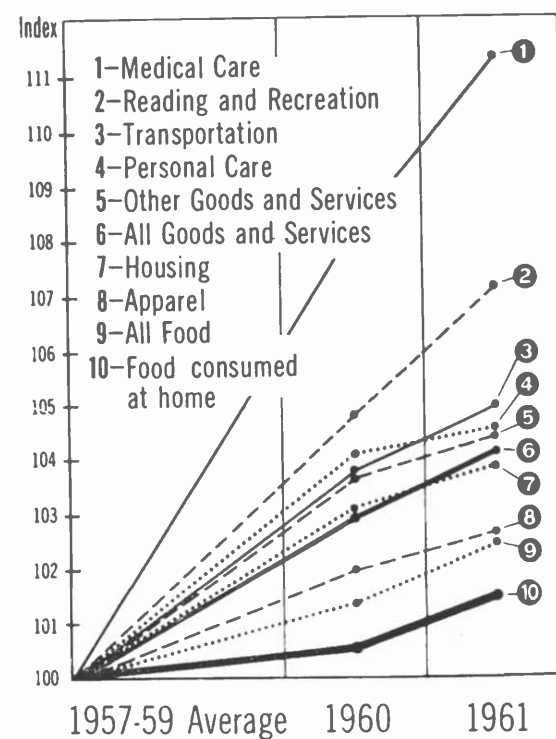
Hereford cattle: Jerry Tool, Elm Creek, Nebr., first; Ellen Richmond, Silver City, N. M., second.

Dairy cattle: Susan Gustafson, Tucson, first; Don Varney, Glendale, second.

Horses, girls: Ruth Ann Moody, Yuma, first; Karen Kinkaid, second.

Horses, boys: Phil Lewis, Coolidge, first; Jack Crews, Tucson, second.

Judge was Leon Wagley, state adviser, Arizona Future Farmers of America, Phoenix.



(Chart prepared by Super Market Institute shows that "Food is a Bargain" compared to other goods and services on Government Consumer Price Index. Base Period 1957-59 = 100.)

need more information on staggered planting dates. September planting is best in the Yuma area. These and other problems complicate the management of the rest of the farm.

If management can lick the land, handling, storage and feeding problems, then sugar beets have a real value in the diet of fattening cattle during the summer months. Until these problems are solved, the cattle feeder should be very cautious in using beets for beef.

Al Lane, veteran livestock specialist in the U.A. Agricultural Extension Service, is well known to cattlemen throughout Arizona.