

Steers That Come Back

A Stunted Animal Makes Great Gains in a Few Months

By VINTON V. DETWILER

In "The Country Gentleman"

If you were to buy a bunch of stunted, more than half-starved cattle and were to feed them well, do you know whether or not they would make a profitable growth? When Smith brings home a car of thin, forlorn-looking range cattle from the city market, Neighbor Jones hangs over the fence and tells him that native cattle with well-sprung ribs and lots of middle are the only paying investment. Such scarecrows as those Smith has, Jones insists, will absorb any quantity of grain that a man can shovel to them and will continue to look like empty bran sacks.

But is this true? Isn't it a fact that such cattle will eat less grain and make more rapid gains for the first few months than will animals that have always had excellent care? Before you answer these questions you should study carefully the results of the nutrition experiment that the Kansas State Agricultural College has been carrying on for the last four years.

Three groups of calves were entered in the experiment four years ago. These calves were all very nearly the same in development and breeding, being just at weaning age when they were placed on the experimental feed. The calves in all three groups were fed the same ration, but in different quantities. Group 1 was kept on full feed from the start. The calves in Group 2 were fed just enough the first year to maintain a

constant weight, and were then put on full feed. The calves in Group 3 were kept on a maintenance ration for two years and were then placed on full feed.

The Grain Ration

The grain ration used for all these calves were composed of corn sixty per cent., oats thirty per cent. and oil meal ten per cent. Alfalfa hay was fed with the grain at the rate of four pounds of hay for every ten pounds of grain.

The accompanying illustrations are of representative calves from these three groups. Calf Number 4 is an average product of the full-fed-from-the-start method; Number 3 is a very good example of what happened to the calves that were stunted for one year and were then given an abundance to eat; while calf Number 8 shows the effect of two years of very restricted feeding, followed by two years of eating from a full trough.

The calf that was given all the feed it wanted made the excellent development that one would expect. The first year it made an average gain of more than a pound and a half a day; the second year the rate of gain was a little less than a pound and a half a day; the third year the gain dropped down to a pound a day; and at the end of the fourth year almost no gain was being made. At the end of the fourth year steer Number 4 weighed almost a ton.

Calf Number 3 made very rapid gains when it was put on full feed, after being held on a maintenance ration for one year. In the first five months it gained 459 pounds. During the same five months the calf that had been full fed from the start gained only 240 pounds. After this first spurt the gains made by steer Number 3 came down to normal.

The year following the five months in which it gained almost three pounds a day the gain was a pound and a quarter daily. This was just about the same gain as was being made by the steer that had always been full fed. At the end of the fourth year of feeding, steer Number 3 weighed about 350 pounds less than steer Number 4, but was still making gains of about half a pound a day, while Number 4 was adding very little weight.

What the Tapeline Shows

A gain of almost two pounds and a half a day was made by steer Number 8 for the first five months after being put on full feed. This is the steer that was kept on a maintenance ration for two years. At the time it was placed on full feed it weighed 1,097 pounds less than the animal of the same age that had always eaten freely.

This steer was stunted too long to be able to come back as did steer Number 3. Its digestion became deranged at the end of the first five months of plenty and it lost its appetite. At the end of the fourth year of the experiment, after it had been on full feed for two years, it was a fair-looking little steer of almost 900 pounds; but it was making less than half a pound of gain a day and was taking but little interest in its feed.

President H. J. Waters, of the Kansas State Agricultural College, says it is true that steers that have been fed sparingly for some time will make more rapid and more economical gains when placed on

full feed than will steers that have always been liberally provided with feed. If the stunting period has not been continued too long the animal will become as large as it would have been if it had not been stunted, but he points out that it will not be the same type of steer it would have been without the stunting.

A steer that has been stunted for any considerable period will have narrower hips and lighter hind quarters, heavier shoulders and flatter ribs than it would have had otherwise. These characteristics show plainly even after the animal is finished for market.

Every thirty days measurements were taken to show what sort of growth the steers in this experiment were making. During the two years that steer Number 8 was kept on a maintenance ration it gained one inch in width of hips for every three inches it gained in height. In this same time steer Number 4, which always had been liberally fed, gained two inches in width of hips for every three inches gained in height.

Of course, during the two years of full feeding that steer Number 8 enjoyed later, it was able to regain a part of the retarded width development; but even after it was fat it was slender when compared with the mountain of flesh into which its more fortunate brother had developed.

Reversion to Type

"Sparse feeding causes the animal to revert toward the unimproved type," said President Waters in discussing this experiment. "All of our domestic animals have been highly specialized. Reversion is but another expression of the adaptation of an animal to its surroundings. It must either adapt itself to its environment or perish. If the food supply is insufficient to maintain the size, the stature must be reduced to correspond to the food supply. A highly developed race of beef animals, if put on the range, with an intermittent and inadequate food supply, will revert toward the ancestral type much more rapidly than will the same race under conditions of ample nourishment.

"The ancestral type," he continued, "toward which reversion will carry the improved beef animal is narrow chested, thin, narrow hipped, long legged and sloping crouped. The observing stockman has for many years insisted that the best-bred beef animal would, in a few generations under range conditions, take on what is commonly known as the 'sunfish' type, or an approximation to the ancestral type just described."

Tho the authorities at the Kansas State Agricultural College insist that stunting makes an animal revert toward the original type, they do not believe that the practice of roughing thru the winter cattle that are to be sold on the market for beef is to be too hastily condemned. It is true that steers receiving such treatment will not make so good development as they would have made with better care, but circumstances are sometimes such as to make this method advisable.

The feeder who is following this plan knows that he is stunting his stock; but he also knows that when they are put on cheap, excellent feed in the spring they will make rapid and economical gains. In

fact the gains will be more rapid and more economical than they would have been had the steers been fed heavily during the winter. Of course, the good stockman will never stunt his breeding stock if he can avoid it; and it is only the occasional, unusual year that finds him without at least an abundance of rough feed for the steers he is growing for market. When the lean year comes, however, he knows that it is not necessary to sacrifice his stock; they can weather thru a few hard months and then make good gains and a profit for him.

Does it pay to buy lean, hungry-eyed cattle on the city market, give them a six-months' course in hearty eating and ship them back to market? Many Western cattle feeders are doing this every year and are making money. It proves profitable because of the remarkable fact brought out by the nutrition experiment at the Kansas college—that a stunted animal makes phenomenal gains for the first few months after being placed on full feed.

Feeder Characteristics

Steers to be profitable feeders must have a wide strong back and large heart girth. They must have a strong frame and plenty of room for the vital organs,—a weak constitutioned animal could not stand a heavy feeding season,—a wide head and muzzle, short legs, heavy hind quarters and full arched spring of rib. An ideal animal should have a square set, deep blocky, almost rectangular, appearance due to its short legs and the general width and depth of frame.



Steer No. 4 at One Year Old. Weight 191 Pounds



Steer No. 3 at Two Years Old. Weight 825 Pounds



Steer No. 3 at Four Years Old. Weight 1500 Pounds



Steer No. 4 at One Year Old. Weight 900 Pounds



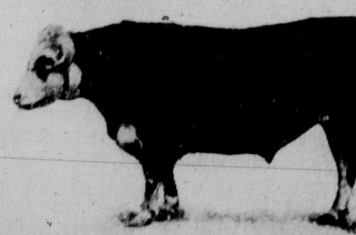
Steer No. 8 at Two Years Old. Weight 221 Pounds



Steer No. 8 at Three Years Old. Weight 730 Pounds



Steer No. 8 at Four Years Old. Weight 965 Pounds



Steer No. 4 at Four Years Old. Weight 1520 Pounds