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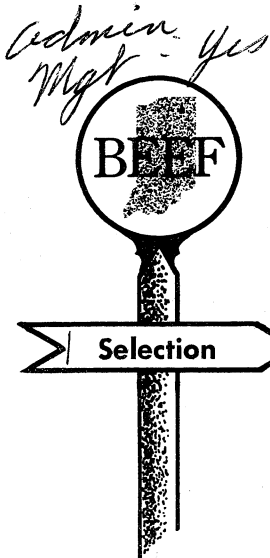
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Beef

Growth Carcass Requirements of the "Modern Steer"

Roger E. Hunsley, Animal Sciences Department

The "Modern Steer" which is a money maker for the breeder, producer, and packer and has desirable cuts for the homemaker, must perform well in the feedlot and cut out well on the rail.

The following are some of the requirements which the "Modern Steer" should meet:

- (1) The "Modern Steer" should wean at 475-500 pounds at 7 months.
- (2) He should weigh 1000 pounds at 14-15 months of age--no older, preferably 1000 pounds at 12 to 13 months of age.
- (3) During the post-weaning feedlot period (up to 1000 pounds) the "Modern Steer" should gain 1 pound for every 6 pounds of feed consumed, or he should put on a pound of gain throughout the post-weaning feeding period for an average cost of 15 cents/pound.
- (4) a. "The Modern Steer" should yield (dressing per cent) 60 per cent or higher.
b. He should have a minimum of 2 square inches of ribeye area per 100 pounds of carcass. For example: 1000 pound live steer dressed 60 per cent = 600 pound carcass. This steer would have to cut 12 square inches of ribeye area to meet the minimum desired standard.
c. He could have a maximum of .1 inch of backfat (measured over the ribeye between the 12th and 13th rib) per 100 pounds of carcass. For example: a 600 pound carcass could have a maximum of .6 inch of backfat over the ribeye. A 600 pound carcass with .4 to .5 inch of backfat over the ribeye would be even more acceptable and would yield a higher ratio of lean to fat than the above mentioned carcass.
- d. The "Modern Steer" should have no more than 2.5 per cent of his carcass weight in the form of kidney knob, heart fat and pelvic fat. Two per cent kidney, heart and pelvic fat would be even more desirable.
- e. The carcass should grade USDA Choice at slaughter. This would require a small (score of 5) amount of marbling with a choice conformation grade and an "A" maturity (young) grouping. A modest (score of 6) amount of marbling would be preferable but not a necessity. It would definitely be desirable to have the carcass grade at least USDA Low Choice.
- f. Carcass quality factors which are desired are:
 1. Marbling - small amount (score of 5) or above. Preferably modest amount (score of 6) or above.
 2. Texture - fine
 3. Color - bright cherry red
 4. Firmness - firm
 5. Maturity - young (red, flat, soft bone)
- g. Other carcass measurements, the

"Modern Steer" carcass should yield at least:

1. 60 per cent boneless lean as a per cent of the carcass.
2. 70 per cent retail yield as a per cent of the carcass.
3. 50 per cent of carcass weight in boneless, closely trimmed, retail cuts from round, loin, rib and chuck (yield grade of 3). Preferable 52 per cent (yield grade of 2.15).

The USDA has a formula which may be used to predict the per cent of carcass weight in boneless, closely trimmed, retail cuts from round, loin, rib and chuck. The cutability formula is as follows:
$$\% \text{ cutability} = 51.34 - (\text{in. fat thickness} \times 5.78) - (\% \text{ kidney and pelvic fat} \times .462) + (\text{sq. in. ribeye} \times .740) - (\text{warm carcass wt.} \times .0093)$$

4. 20 per cent of carcass weight should be in the wholesale cut termed the "round," preferably 25 per cent of the carcass weight in the round.

Other Desirable Goals:

1. 52 per cent of carcass weight should be in the rear-quarters and 48 per cent in the fore-quarters. This is reversed at the present time.

2. Minimum gains from birth to slaughter are as follows:

Heifers 2.15 pounds/day of age - birth weight

Steers 2.25 pounds/day of age - birth weight

Bulls 2.35 pounds/day of age - birth weight

Minimum pounds of carcass produced per day of age are as follows:

Heifers 1.15-1.20 pounds of carcass per day of age

Steers 1.25-1.30 pounds of carcass per day of age

Bulls 1.35-1.40 pounds of carcass per day of age

Desired live weights at 1 year (365 days) of age are as follows:

Heifers 900-950 pounds at 365 days

Steers 950-1000 pounds at 365 days

Bulls 1000-1100 pounds at 365 days