

The Cattle Feeding Industry

Slide 1 The Cattle Feeding Industry Douglas Raine FGBT Founder by David R. Hawkins Michigan State University

Slide 2 History In colonial America, cattle were harvested for meat after they were of limited use for milk or draft. Often, they were several years old and the meat lacked tenderness. By the early 1800's, settlements had moved across the Appalachian mountains and farming began in the fertile Ohio River valley.

Feed grains were fed to livestock because it was economically profitable to do so. U.S. consumers developed a taste preference for beef from grain fed cattle, especially when it was from young animals. From 1900 to 1950, beef cattlemen exerted great effort to improve their feeding programs and to reduce age at harvest.

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The "corn belt" states became the center of livestock feeding. Calves produced in the southwestern and northern plains states were shipped via railroad or trucks to the mid-western states to be fed or finished for market. Most of the corn belt feedlots bought calves in the fall and marketed fat cattle in summer.

In the 1950's, deep well irrigation was begun in the high plains region. The soils were fertile and crop production of feed grains flourished. The climate was ideal for cattle production and feedlots began to appear. Cattle feeding started to shift from the mid-west to the high plains..

Slide 3 Current Feedlot Situation

The eastern feedlots tend to be characterized as “farmer feeders”, in which cattle are used to market the grain and forages produced on the farm.

These are usually less than 4,000 head (one - time capacity).

Cattle are purchased locally and from the southeastern states. Farmer feeders tend to feed calves and use higher roughage rations for longer periods of time.

They tend to have a smaller workforce and perform a wide range of management tasks. The labor force is spread across all farm enterprises.

In states that have large numbers of dairy cattle, dairy steers are often fed. The high plains “commercial” feedlots tend to “custom” feed cattle for other owners or investors in addition to the cattle that they own. The lots tend to be very large, often 10,000 to 30,000 head one time capacity.

They prefer to feed yearling cattle for about 100 to 150 days and turn their inventory 2 to 3 times per year. The commercial feedlots tend to have a large workforce with very specialized jobs - Cattle buying & selling, Herd health, and Nutritionist.

They tend to feed high concentrate rations & may purchase all of the feeds they use. They can develop “least cost” rations.

USDA feedlot statistics are reported in 7 state or 12/13 state format. (AZ, CA, CO, ID, IA, KS, NE, NM, OK, SD, TX & WA)

In 1998, 97 feedlots (5.6%) marketed 43.3% of all fed cattle marketed. In 1998, 67% of the fed cattle marketed were from feedlots with over 16,000 head one time capacity.

Slide 4 Top 8 Cattle Feeders in 2001

Cactus Feeders, TX - 480,000 hd.(9-TX,KS); ConAgra Beef, CO - 440,000 hd.(5-CO,ID); Contibeef LLC, CO - 425,000 hd.(6-KS,TX); Caprock, TX - 296,000 hd.(4-KS,TX); JR Simplot, ID - 275,000 hd.(3-ID,WA); National Farms, MO - 270,000 hd.(7-KS,CO); Four States Feed, CO; 255,000 hd.(9-CO,SD); Friona Industries, TX - 235,000 hd.(5-TX)

Slide 5 U.S. FEED USE FOR LIVESTOCK

80.4% is corn; 7.5% is sorghum; 4.5% is wheat; 4.1% is oats; and 3.5% is barley

Slide 6 Stocker-Backgrounder Programs

The stocker - backgrounder segment developed to prepare newly weaned calves for the feedlot.

Some calves are weaned at 6 to 7 months of age and move directly to a feedlot. Others are backgrounded for a winter and/or summer before entering the feedlot for finishing. Backgrounding operations use large amounts of forages for summer or winter feeding.

Average daily gains usually are 1.5 to 2.0 lbs. per day. Short yearlings are 10 to 14 months of age. Long yearlings are 15 to 20 months of age.

Backgrounding programs may exist by themselves or they may be combined with other cow-calf or feedlot enterprises.

Several retained ownership or alliances may use backgrounding as part of their management strategy.

This has often been the most consistently profitable segment of the industry. Evens out supply of cattle entering feedlots since most calves are born in the spring. Fits well for small framed early maturing cattle that finish at light weights.

Does not work well for large framed cattle. May not fit some alliances and retained ownership programs since it lengthens the production cycle. Can be used to correct mismanagement of previous owner.

Requires abundant supply of low cost feeds. Land use is compatible with other ruminant. Easy entry, easy exit. Does not require long term commitment like a breeding herd. Requires a good knowledge of markets and trends.

Slide 7 Feedlot Steers and Bulls

Bulls gain more rapidly and more efficiently than steers.

Bulls produce leaner carcasses that are more variable in tenderness than steers.

Bulls are more difficult to manage than steers or heifers.

There is only a limited market for bull beef.

In Europe, most males are fed as bulls.

Slide 8 Breed Effects

Larger continental breeds gain faster than British breeds but may need to be carried to heavier weights to grade choice.

There is little difference in feed efficiency when fed to the same endpoint.

Holsteins require about 10% more feed per lb. of gain than beef breeds, but ADG is similar to beef breeds.

Slide 9 Effect of Body Condition of Feeder Cattle

When placed on comparable diets, thin cattle gain faster and more efficiently than fatter cattle. This phenomenon is called “compensatory gain.” Cattle feeders try to avoid buying fat feeder cattle unless they are priced somewhat lower per cwt. than thin feeder cattle.

Slide 10 Feedlot Issues: Nutrient Management; Environmental Issues; Quality Assurance; Captive Supply; Price Discovery; Animal Health.