Pine Ridge Ranch



Improving U.S. Beef Production

U.S. beef production sets a high standard for production efficiency. Worldwide, it is recognized that our production systems for growing beef is highly developed. But could the cattle industry further increase productivity? That's a practice that would add more revenue for producers.

In recent years, packers have developed systems to harvest a larger steer more efficiently. "The old packer box" was to produce a hot carcass weight (HCW) between 650 lbs. to 850 lbs. A penalty was given to both lighter weight and heavier carcasses. Today, packers are able to efficiently process a 1,000 lb. hot carcass weight. This large carcass is more cost efficient and a positive for the industry. With a reduced number of cattle, the U.S. is maintaining the pounds of beef produced annually.

The question remains, Could the cattle industry further increase productivity? One idea that could help the cattle industry further increase productivity is to develop livestock that produce a large marbled carcass and eliminate the Yield Grade 4 and 5 carcass. The most expensive waste on a carcass is back fat and organ fat. And the removal of organ fat is expensive. Thus, the elimination of YG 4 and YG 5 should be addressed.

The basic source of YG 4 and YG 5 fat is genetics. There are cattle that obtain a 1,500 lb. harvest weight and maintain YG 1, YG 2 and YG 3. However, many are unable reach a carcass quality grade of Choice or Prime. Certain cattle are able to reach Choice or Prime at a harvest weight of 1,150 lb. to 1,300 lb. However, cattle fed to a 1,500 lb. weight would produce a higher percentage of YG 4 and YG 5 carcasses and receive a noticeable discount.

An efficiency objective is to harvest a large, marbled steer at 1,500 lb. and reduce the third stage organ fat.

Genetics: Cattle should be bred to limit organ fat.

The solution: *Precession, the act of preceeding.* The nature of fat deposition is a sequence that is singular and simultaneous: Intramuscular fat, followed by back fat, followed by organ fat.

Many cattle are harvested based on the thickness of back fat. When a steer reaches a feedlot's specification, they are harvested, generally resulting in the 1,150 lb. to 1,250 lb. harvest weight. The degree of organ fat is controlled by back fat measurements. If such cattle were fed to a 1,500 lb. harvest weight, there is a probability of producing excessive organ fat.

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The seed stock breeder is able to study the precession of his cattle. To enhance this practice, he or she should retain ownership, feed-out steers, obtain harvest data and chart the data, citing Age vs. HCW, and indicate the quality grade of each steer. (If steers have a 75-day range in age, more predictable data is obtained. See Example Chart pg. 3)

Cattle that marble at a low HCW would be removed from production. Genetics that marble at about 750 lb. HCW would continue in the breeding program.

Packers could reduce production costs by hundreds of millions of dollars, annually, by greatly limiting the YG 4 and YG 5 carcass. Based on grid payments, the producer would receive additional money for their steers.

It's a practice that should benefit all facets of the beef industry.

- Article By Bill Travis

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