

Costs Of Producing Beef In A “Natural” Program*

There is considerable interest in programs that market beef produced from cattle that were not implanted or fed antibiotics. Researchers measured the additional costs of engaging in a natural program in which performance would be adversely affected by omitting technology that improves production efficiency.

Two trials were conducted using yearling black-hided steers. The initial weight of the steers in Trial 1 (120 head) was 1,023 lbs, and they were fed for 106 days. The initial weight of the steers in Trial 2 (108 head) was 899 lbs, and they were fed for 126 days. Steers on the conventional program were implanted with Synovex Plus at the beginning of Trial 1 and in Trial 2 with Synovex Choice at the beginning of the trial and Synovex Plus 70 days before slaughter. In both trials 300 mg Rumensin and 90 mg Tylan were fed daily to cattle on the conventional program. These practices were omitted for the natural cattle.

Feed intake was 7% higher, feed efficiency was 31% better, and dressing percentage was higher for the conventional cattle. Ribeye area was significantly higher among the conventional cattle. There was no difference between the two treatments in percent kidney, heart, and pelvic fat, but conventional cattle tended to have a greater backfat thickness. Because of greater ribeye area, calculated yield grades were lower (better) for the conventional cattle. This is important because it indicates that the natural cattle could not have been fed longer to attain larger carcass weights.

The natural cattle were credited with increases of Choice and Premium Choice proportions at \$10 and \$5 per cwt carcass weight, respectively. That treatment was also credited with the costs of

implants and costs of feeding Rumensin and Tylan in the conventional cattle. The cost of the increased feed intake by the conventional group was also considered in calculations. Other costs were the same for both treatments because cattle were fed for the same length of time.

The offsetting credit for the conventional group was the substantially higher carcass weight which was priced at \$140 per cwt. The differences in carcass weight were 66 and 85 pounds which were equivalent to 103 and 133 pounds live weight in the two trials. In an economic environment of low cost feed and expensive replacement cattle, it is essential to maximize feedlot gain, but cattle in the natural program could not have been fed longer without incurring yield grade #4 penalties.

Many feeders assess the additional costs of a natural program by the increase in cost of gain without taking into account the larger carcass weight from conventional feeding. This results in grossly underestimating the extra costs of a natural program. When the difference in carcass weight is included, the additional costs of gain averaged \$22.54 per cwt in these two trials.

Possibly a better analysis is the estimate of additional price per cwt carcass needed from a natural program. This appeared to be proportional to the length of the feeding period because it was \$7.50 in Trial 1 and \$10.08 in Trial 2. These estimates would be reduced by higher feed costs, greater premiums for higher grading cattle, or lower carcass prices.

Costs of engaging in the production of natural beef are probably greater than most cattle feeders realize.

*Adapted from: Costs of producing beef in a “natural” program without implants or antibiotics. Roundup 2005. John R. Brethour and Brittany J. Bock. KSU Agricultural Research Center – Hays and Fort Hays State University.