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Effects of feeding a no-roughage diet to feedlot cattle compared to traditional corn-soybean meal-hay diet

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The present experiment utilized a group of 16 Angus-based steers. The steers in group two (control group) were fed a traditional corn-soybean meal diet with free choice fescue hay available. Calves on group one (test group) were fed a no-roughage diet (blood meal and fish meal, as a primary protein source.) The experiment was conducted in two 3.5 acre lots with ad libitum access to a self-feeder within each pen. Calves were divided into two groups using randomized separation. Calves were weighed at the onset of the project (day 0), again at day 72, and then a final weight was taken on all calves prior to slaughter in one of the three selling groups (165, 216, and 264 days). Self-feeders were filled only when they were empty and feed troughs were cleaned out every 3 to 4 days or as fines were built up in the bunks. Calves were sent to slaughter at National Beef in Dodge City, Kansas. The average market price for the calves in the test group was \$148.21 versus the control group which was \$140.63. The final difference in total revenue between the two groups equaled \$1485.56. Feeding no-roughage diets is a new concept that has been shown to improve feed efficiency in research studies. This experiment was the first on-farm study that has been conducted. Feeding the no-roughage diet improved carcass quality grade which is why the carcass value was approximately \$8 greater for this group. In addition the no-roughage group had heavier carcass weights which resulted in this treatment having approximately \$1500 more value than the traditionally fed calves. There no-roughage diet cost was a \$119.17 more difference in the total feed costs than the traditional diet of the feed bill. The net advantage to nutritionally improving the diet was approximately \$1300 total, or \$162.50 per calf.