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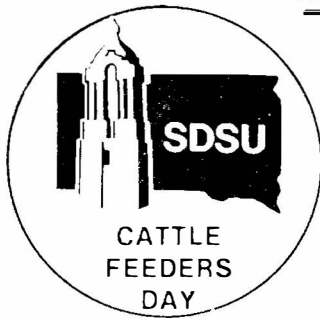
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## THE EFFECT OF SYNOVEX-S IMPLANTS ON FEEDLOT PERFORMANCE OF ANGUS BULLS AND EARLY FEEDLOT PERIOD CASTRATED ANGUS BULLS

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### Summary

One hundred Angus bulls were randomly allocated into four treatment groups of 25 head each. Two of these groups were implanted with Synovex-S (and reimplanted 100 days later) and the treatment period of 190 days began. The bulls were fed a ration of high moisture corn and corn silage that provided an energy level capable of supporting a 2.75 lb average daily gain.

One group each of the unimplanted and implanted bulls was castrated after the first 30 days of the feedlot trial and then the trial continued for an additional 160 days. The best overall average daily gain for the trial period was obtained by the bulls implanted with Synovex-S followed by the unimplanted bulls. Both groups of bulls were equally feed efficient and more efficient than the steers as a group and the implanted steers were more efficient than the nonimplanted steers. Bulls, implanted or not, outperformed steers in both average daily gain and feed efficiency.

Bulls and steers were marketed at similar weights and sold on a carcass weight basis, with bulls bringing \$88 per hundred-weight and steers \$107. Because of price differences, the best scheme would be to feed implanted steers, even though bulls perform better in the feedlot.

### Introduction

As feed and other costs of feedlot operations increase, any method for improving the profit-making potential should be explored. One technique that is cost effective for improving feedlot animal performance is implanting with growth promotants. Another technique for improving feedlot performance that is becoming well documented is that of feeding male feedlot cattle as intact males rather than as castrates. These bulls have better feedlot performance than steers. Little is known the various combinations of steers, bulls and implants. This research was designed to provide some insight into these combinations and their importance to feedlot performance.

The objective of this research was to determine the effect on feedlot performance of implanting bulls and steers with Synovex-S, and comparing steers to bulls. Profit or loss upon marketing was also studied. Responses to these treatments in terms of feedlot performance provide information to help

determine the most effective method of feeding bulls or steers and revenue in dollars upon sale assists in determining the best management scheme for profit.

### Procedures

One hundred Angus bulls were purchased in South Dakota and trucked to the Southeast Experiment and Extension Farm in Beresford, South Dakota. They were then randomly allotted into four treatment groups of 25 bulls each. The bulls were weighed, average of 625 lb, two of the four groups implanted with Synovex-S (and reimplanted 100 days later) and placed in feedlot pens. They were introduced to their ration (table 1) of corn silage and high moisture corn with a 5% soybean meal protein supplement containing monensin and tylosin. The ration provided energy levels for average daily gains of approximately 2.75 lb per head per day. After 30 days, two of the four groups (one implanted and one not) were castrated making the following four groups: (A) nonimplanted intact bulls (B) implanted intact bulls (C) nonimplanted steers and (D) implanted steers. These animals were then fed for another 160 days to market weight. They were sold on a carcass weight basis on June 24, 1982.

**TABLE 1. PROXIMATE ANALYSIS OF AVERAGE FEEDLOT RATION  
USED AND NET ENERGY FOR GAIN PER LB OF RATION  
ON DRY MATTER BASIS**

Item	Percent ration
Dry matter	44.5
Crude protein	10.0
Crude fiber	10.0
Ether extract	3.1
Ash	4.4
Nitrogen free extract	72.7
Net energy for gain (Mcal/lb)	.55

Feedlot performance data for the period were obtained by monthly weighing of the individual feedlot animals and daily weighing of consumed ration. Carcass data were collected upon slaughter and will be reported at a later date. The bulls in this study were managed together specifically to minimize aggressive behavior. When they were randomly allotted to the four treatment groups, bulls from the various groups were never allowed to mix. This prevents much of the undesirable behavior often exhibited by feedlot bulls.

## Results and Discussion

Feedlot performance data and average price received for 100 lb of carcass weight are presented in table 2. In general, bulls, whether implanted or not, outperformed steers implanted or not in feedlot performance. In terms of dollars per head received when marketed, steers outperformed bulls.

**TABLE 2. FEEDLOT PERFORMANCE AND CARCASS PRICE OF BULLS AND STEERS BY TREATMENT (DEC 16, 1981 JUNE 24, 1982, 190 DAYS)**

	<u>Steers</u>		<u>Bulls</u>	
	No implant	Synovex-S	No implant	Synovex-S
Number of animals	25	25	25	25
Initial wt, lb	624	614	617	646
Final wt, lb	1077	1120	1134	1180
Weight gain, lb	453	506	517	534
Avg daily gain, lb	2.4	2.7	2.7	2.8
Avg daily intake, lb, DMB	17.6	17.6	17.6	18.6
Feed/gain, lb	7.4	6.6	6.5	6.5
\$/100 lb carcass	107.00	107.00	88.00	88.00

Synovex-S implanted bulls gained slightly better than the nonimplanted bulls but were similar in feed efficiency. Implanted steers were significantly better than nonimplanted steers for average daily gain and feed efficiency. As a group, bulls (both implanted and nonimplanted) were better in average daily gain and feed efficiency than the steers. The Synovex-S implanted steers had very similar feedlot performance data compared to the nonimplanted bulls and slightly poorer feedlot performances than the implanted bulls. The most dramatic difference in feedlot performance when considering individual groups was between nonimplanted steers and the other three groups. In terms of dollars per 100 lb carcass weight, steers far outperformed bulls, with average steer prices of \$107 and average bull prices of \$88. Although all bulls in this study graded choice, they still brought only breaker bull prices.

Bulls outperform steers in the feedlot. With certain management steps, bulls can be easily handled in the feedlot and undesirable behavioral aspects minimized. The feedlot performance advantage does not outweigh the disadvantage in prices at the market. At the present time because of price, the best recommendation that can be made to livestock feeders is to feed implanted steers.