

Kansas Agricultural Experiment Station Research Reports

Volume 0
Issue 1 *Cattleman's Day (1993-2014)*

Article 820

1991

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Recommended Citation

Brandt, Robert T. Jr.; Anderson, S.J.; and Elliott, J.K. (1991) "Comparison of Synovex-S® and steer-oid® in finishing yearling steers," *Kansas Agricultural Experiment Station Research Reports*: Vol. 0: Iss. 1. <https://doi.org/10.4148/2378-5977.2223>

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Abstract

Synovex-S (SS) and STEER-oid (SO) were compared in a 122-d finishing study. No differences were observed over the entire study for animal performance or carcass traits. However, in the final period (d 91-122), steers implanted with SO gained 8.4% faster ($P=.17$) and 8.7% more efficiently ($P=.10$) than steers implanted with SS, suggesting that estradiol payout in this period was less diminished for SO implants. The importance of this finding is unknown, because it is generally recommended that steers fed for longer periods of time be reimplanted midway through the finishing period to maintain maximal implant response.

Keywords

Cattlemen's Day, 1991; Kansas Agricultural Experiment Station contribution; no. 91-355-S; Report of progress (Kansas State University. Agricultural Experiment Station and Cooperative Extension Service); 623; Beef; Implant; Estradiol comparison; Feedlot; Cattle

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COMPARISON OF SYNOVEX-S® AND STEER-OID® IN FINISHING YEARLING STEERS

*R. T. Brandt, Jr., S. J. Anderson¹,
and J. K. Elliott²*

Summary

Synovex-S (SS) and STEER-oid (SO) were compared in a 122-d finishing study. No differences were observed over the entire study for animal performance or carcass traits. However, in the final period (d 91-122), steers implanted with SO gained 8.4% faster ($P = .17$) and 8.7% more efficiently ($P = .10$) than steers implanted with SS, suggesting that estradiol payout in this period was less diminished for SO implants. The importance of this finding is unknown, because it is generally recommended that steers fed for longer periods of time be reimplanted midway through the finishing period to maintain maximal implant response.

(Key Words: Implant, Estradiol Comparison, Feedlot, Cattle.)

Introduction

Synovex-S® and STEER-oid® are commercially available anabolic ear implants. Both contain 20 mg estradiol benzoate and 200 mg progesterone as the active anabolic compounds. However, they are manufactured by different companies³ using different processes. This has led to some discussion regarding differences in continuity and length of implant payout. Our study was conducted to evaluate efficacy of the two implants in a 122 d finishing trial.

Experimental Procedures

One hundred twelve yearling, English × Exotic crossbred steers (813 lb) were used to compare Synovex-S (SS) and STEER-oid (SO) in a finishing study. This study was superimposed on a previously reported study evaluating animal response to different sources of supplemental fat. Steers in eight pens (seven steers/pen) each were implanted with SS or SO at the initiation of the study, such that pens assigned to nutritional treatments were equally represented within each implant group. Steers were fed once daily a steam-flaked milo-based finishing diet with supplemental fat.

Initial and final weights were the average of two consecutive day full weights. Final weights were pencil shrunk 4% to reflect payweight performance. At the conclusion of the study (122 d), steers were slaughtered at IBP, Inc., Holcomb, and carcass data were collected following a 24 h chill.

Results and Discussion

Because the effective payout period of both implants is considered to be 70-100 d, data are presented for d 0-90, d 91-122 and for the overall study (d 0-122).

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³Synovex-S® is marketed by Syntex Animal Health, West Des Moines, IA. STEER-oid® is marketed by Anchor Laboratories, St. Joseph, MO.

For the initial 90 d on feed, no differences were detected between implants for daily gain, feed consumption, or feed efficiency (Table 1). During the period from 91-122 d, however, steers implanted with SO gained 8.4% faster (P= .17) and 8.7% more efficiently (P= .10) than steers implanted with SS. These data suggest that the hormonal release rate may have begun to diminish for SS implants in this period.

Overall (0-122 d), there were no differences (P> .27) between implants in steer daily

gain, feed consumption, feed efficiency, or carcass traits. We conclude that, for yearling steers fed for less than 122 d, SS and SO implants have similar effects on performance and carcass traits. Although data for the 91-122 d period suggested that hormone release may be extended for SO implants, steers fed for longer periods of time (130-160 d) should be reimplanted midway through the feeding period anyway to maintain maximal response and cost effectiveness of implants.

Table 1. Comparison of Synovex-S® and STEER-oid® on Performance and Carcass Traits of Finishing Yearling Steers

Item	Synovex-S	STEER-oid	SE ^d
No. pens	8	8	
No. steers	56	56	
Initial wt, lb	813	812	7.5
Final wt, lb ^a	1192	1195	5.2
<u>0-90 d</u>			
Daily gain, lb	3.68	3.63	.09
Daily feed, lb DM	19.32	18.94	.31
Feed/gain	5.28	5.22	.13
<u>91-122 d</u>			
Daily gain, lb ^b	3.09	3.35	.13
Daily feed, lb DM	20.40	20.31	.46
Feed/gain ^c	6.67	6.09	.24
<u>0-122 d</u>			
Daily gain, lb ^a	3.36	3.41	.06
Daily feed, lb DM	19.58	19.30	.30
Feed/gain	5.83	5.67	.10
<u>Carcass data</u>			
Hot wt, lb	764	764	6.6
Dressing percent	64.1	63.8	.31
Backfat, in.	.34	.34	.02
Marbling	SI ⁹⁸	Sm ¹⁴	.07
Percent choice	61	62	8.6

^aFinal weights pencil shrunk 4%.

^bSTEER-oid vs Synovex-S (P= .17).

^cSTEER-oid vs Synovex-S (P= .10).

^dStandard error.