

1999

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Gerry L. Kuhl

A.S. Flake

James S. Drouillard

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Recommended Citation

Kuhl, Gerry L.; Flake, A.S.; and Drouillard, James S. (1999) "Comparison of Revalor®-S and Synovex® Plus™ implants for heavyweight, short-fed, yearling steers," *Kansas Agricultural Experiment Station Research Reports*: Vol. 0: Iss. 1. <https://doi.org/10.4148/2378-5977.1854>

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Comparison of Revalor®-S and Synovex® Plus™ implants for heavyweight, short-fed, yearling steers

Abstract

One hundred four Hereford x Angus steers averaging 897 lb were implanted with Revalor®- S or Synovex® Plus™ and fed a high concentrate diet for 82 days. Feed efficiencies and daily gains were not different between the two implant groups. Although most carcass characteristics were similar, Revalor-S tended ($P < .09$) to yield a higher percentage of carcasses that graded USDA Choice or better.

Keywords

Cattlemen's Day, 1999; Kansas Agricultural Experiment Station contribution; no. 99-339-S; Report of progress (Kansas State University. Agricultural Experiment Station and Cooperative Extension Service); 831; Beef; Steers; Finishing; Revalor-S; Synovex plus

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**COMPARISON OF REVALOR®-S AND
SYNOVEX® PLUS™ IMPLANTS FOR
HEAVYWEIGHT, SHORT-FED, YEARLING STEERS**

J. S. Drouillard, G. L. Kuhl, and A. S. Flake

Summary

One hundred four Hereford × Angus steers averaging 897 lb were implanted with Revalor®-S or Synovex® Plus™ and fed a high concentrate diet for 82 days. Feed efficiencies and daily gains were not different between the two implant groups. Although most carcass characteristics were similar, Revalor-S tended ($P < .09$) to yield a higher percentage of carcasses that graded USDA Choice or better.

(Key Words: Steers, Finishing, Revalor-S, Synovex Plus.)

Introduction

Combination implants containing estrogens and trenbolone acetate have become the industry standard because of their substantial effects on cattle growth and efficiency. Though extremely effective in producing rapid, efficient growth by feedlot cattle, these potent implants may degrade marbling and the resulting USDA quality grade. Our objective was to compare two commercially available implants, Revalor-S and Synovex Plus, when administered to heavy, short-fed, yearling steers.

Experimental Procedures

One hundred four Hereford × Angus steers averaging 897 lb were weighed, then divided into eight groups of 13 head each. Steers received either a Revalor-S or Synovex Plus implant. Cattle were placed into eight feedlot pens and stepped up from 50% concentrate to their final finishing diet (Table 1) over 2 weeks. Cattle were fed once daily for 82 days and then slaughtered at a commercial abattoir.

Average daily gains and feed efficiencies were computed by applying a 4% pencil shrink to the final live weight, which was determined immediately before shipment, approximately 24 hours after the last feeding. Carcass data were obtained following a 24-hour chill.

Table 1. Composition of Final Finishing Diet (Dry Basis)

Ingredient	Percent
Dry rolled corn	84.84
Ground alfalfa hay	8.92
Molasses-fat blend	3.22
Urea	.54
Dehulled soybean meal	.13
Limestone	1.61
Salt	.30
Potassium chloride	.35
Trace mineral/ vitamin premix ¹	.09

¹Provided 1 IU/lb vitamin A, .04 ppm cobalt, 10 ppm copper, .5 ppm iodine, 50 ppm manganese, .2 ppm selenium, 50 ppm zinc, 28 grams/ton Rumensin®, and 8 grams/ton Tylan®.

Results and Discussion

Performance and carcass traits for steers implanted with Revalor-S and Synovex Plus are shown in Table 2. Feed intakes and daily gains and, consequently, feed efficiencies were similar for steers implanted with Revalor-S vs. Synovex Plus. Most carcass characteristics were unchanged as a result of type of implant used. However, the Revalor-

-S groups tended ($P<.09$) to have a higher percent of carcasses graded USDA Choice or better than those implanted with Synovex Plus.

These results suggest that Revalor-S and Synovex Plus yield comparable growth performance in heavy, short-fed, yearling steers. However, under those circumstances, Revalor-S may improve carcass grade.

Table 2. Performance and Carcass Characteristics of Finishing Steers

Item	Revalor-S	Synovex Plus	SEM
No. head (pens)	52 (4)	52 (4)	
Initial weight, lbs	896	898	42
Dry matter intake, lb	23.4	22.8	.98
Average daily gain, lb	3.47	3.48	.11
Feed:gain	6.71	6.52	.25
Hot carcass weight, lb	723.4	728.2	4.8
Carcass-adjusted average daily gain, lb ¹	3.42	3.49	.13
USDA yield grade	2.35	2.23	.09
USDA Choice or better, % ²	73.1	46.2	6.4
Dark cutter, %	0	0	0
Fat over 12 th rib, in.	.42	.40	.02
Rib-eye area, square in.	12.5	12.6	.2
Kidney, pelvic & heart fat, %	2.40	2.36	.05
Marbling score	Small ¹³	Slight ⁹⁶	11

¹Computed using hot carcass weight divided by a common dressing percentage (61.5%) as the final live weight.

²Revalor-S greater than Synovex Plus ($P<.09$).