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Comparison of Compudose with Ralgro or Synovex-S  
Reimplant Programs for Finishing Steers<sup>1</sup>

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Summary

Finishing yearling steers reimplanted with Synovex-S or Ralgro gained 6.8 and 4.2% faster, respectively, than those implanted with Compudose. However, feed efficiency was not significantly different among treatments. Steers implanted with Compudose gained 5.1% faster and more efficiently than those implanted with a single Ralgro.

Introduction

Implanting cattle when they enter the feedyard has been a common management practice for the past 15 to 20 years. Numerous research trials have shown a positive response to single Ralgro or Synovex implants at the beginning of the finishing period. Since the major response to implanting occurs during the first 60 to 90 days, reimplanting with either Synovex or Ralgro has been shown to produce favorable results.

The recent clearance of Compudose has stimulated a great deal of interest in comparing the standard Ralgro and Synovex reimplanting programs with a single Compudose implant.

Experimental Procedure

Two hundred yearling steers averaging 627 lbs were allotted to five implant treatments: (1) control; (2) initial Ralgro; (3) initial Ralgro, Ralgro reimplant; (4) initial Synovex-S, Synovex-S reimplant; and (5) initial Compudose. The steers in groups 3 and 4 were reimplanted on day 73 of the 146 day trial. The other groups of steers were not disturbed at reimplanting time.

Each treatment group consisted of 4 pens of 10 head each. All groups were fed the same throughout the trial (June 8-Nov. 1, 1982). The final ration contained 90% concentrate with 24 grams Rumensin and 9 grams Tylan per ton.

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### Results

All implant treatments improved overall performance compared to controls (Table 23.1). Steers implanted with Compudose converted feed to gain as efficiently as those reimplanted with either Ralgro or Synovex. Reimplanting with Ralgro improved ( $P < .05$ ) feed efficiency over that of the single Ralgro group.

Rate of gain was highest for the reimplanted groups. Steers reimplanted with Synovex-S gained 6.8% faster ( $P < .05$ ) than those implanted with Compudose. Ralgro reimplanted steers tended to gain faster ( $P = .07$ ) than those implanted with Compudose. Compudose produced faster ( $P < .05$ ) gains than a single Ralgro. Compudose implant loss was 2.5%. Carcass quality was not affected by implanting.

It's interesting to note that the single Ralgro and control groups performed similarly from day 84 to 146. This observation would tend to confirm the theory that Ralgro loses its ability to stimulate performance after about 90 days. It is also noteworthy that the gain and efficiency advantage obtained during the early portion of the feeding period with a single Ralgro was maintained even though the cattle were not reimplanted.

Table 23.1. Response of Finishing Steers to Various Implant Programs

Item	Control	Ralgro	Ralgro/ <sup>1</sup> Ralgro	Synovex/ <sup>1</sup> Synovex	Compudose
Initial Weight, lbs	628	630	627	629	626
<u>Daily Gain, lbs:</u>					
Day 0-56	2.80 <sup>a</sup>	3.06 <sup>c</sup>	3.16 <sup>c</sup>	3.45 <sup>b</sup>	3.07 <sup>c</sup>
Day 84-146	2.88 <sup>a</sup>	2.95 <sup>a</sup>	3.48 <sup>b</sup>	3.41 <sup>bc</sup>	3.23 <sup>c</sup>
Day 0-146	2.75 <sup>a</sup>	2.93 <sup>b</sup>	3.21 <sup>cd</sup>	3.29 <sup>d</sup>	3.08 <sup>c</sup>
<u>Feed Intake, lbs:</u>					
Day 0-56	18.13 <sup>a</sup>	18.28 <sup>a</sup>	18.00 <sup>a</sup>	19.73 <sup>b</sup>	18.11 <sup>a</sup>
Day 84-146	20.58 <sup>a</sup>	21.49 <sup>ab</sup>	22.76 <sup>c</sup>	23.08 <sup>c</sup>	22.09 <sup>bc</sup>
Day 0-146	19.35 <sup>a</sup>	20.00 <sup>ab</sup>	20.34 <sup>b</sup>	21.38 <sup>c</sup>	19.97 <sup>ab</sup>
<u>Feed Efficiency:</u>					
Day 0-56	6.48 <sup>a</sup>	5.97 <sup>b</sup>	5.70 <sup>b</sup>	5.72 <sup>b</sup>	5.90 <sup>b</sup>
Day 84-146	7.15 <sup>a</sup>	7.28 <sup>ab</sup>	6.54 <sup>c</sup>	6.77 <sup>bc</sup>	6.84 <sup>bc</sup>
Day 0-146	7.04 <sup>a</sup>	6.83 <sup>ab</sup>	6.34 <sup>c</sup>	6.50 <sup>bc</sup>	6.48 <sup>bc</sup>
<u>Carcass Parameters:</u>					
Carcass weight, lbs	645 <sup>a</sup>	662 <sup>d</sup>	684 <sup>c</sup>	697 <sup>b</sup>	671 <sup>cd</sup>
Ribeye area, sq. in.	11.4	11.6	11.8	11.9	11.6
Backfat, in. <sup>2</sup>	.51	.52	.55	.60	.52
Quality grade <sup>2</sup>	13.1	13.2	12.9	12.9	13.0
Yield grade	2.4	2.3	2.6	2.6	2.4

abcd Means in the same row with different superscripts differ significantly ( $P < .05$ ).

<sup>1</sup> Reimplanted on day 73.

<sup>2</sup> High good = 12, Low choice = 13.