Revalor®-XS vs. Revalor®-IS re-implanted with Revalor®-S and fed to three different levels of finish (168-189-210 days on feed)

Summary

Except for USDA Choice and Select categories, no interactions between implant treatments and serial harvest groups were noted (P>0.10), indicating that the responses associated with implant and serial harvest groups are independent. No differences (P>0.10) in any growth or carcass parameters were detected between Revalor-XS and Revalor-IS re-implant with Revalor-S implant programs. Within the early (168 days) harvest group, the percentage of Prime and Choice carcasses was higher (P<0.06) in the Revalor-XS (59.5%) treatment than in the Revalor-IS/Revalor-S (52.3%) treatment, but did not differ (P>0.10) between the implant treatments within each of the middle (189 days) and late (210 days) harvest groups.

Conclusion

Revalor-XS given solely at initial processing provides equal performance and carcass traits across days on feed as cattle that receive an implant/re-implant regimen of Revalor-IS/Revalor-S. Within the early harvest group, the percentage of Prime and Choice carcasses was higher (P<0.10) in the Revalor-XS treatment than in the Revalor-IS/Revalor-S treatment (59.5 vs. 52.3%).

Not for use in veal calves.

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Revalor®-XS vs. Revalor®-IS re-implanted with Revalor®-S and fed to three different levels of finish (168-189-210 days on feed)

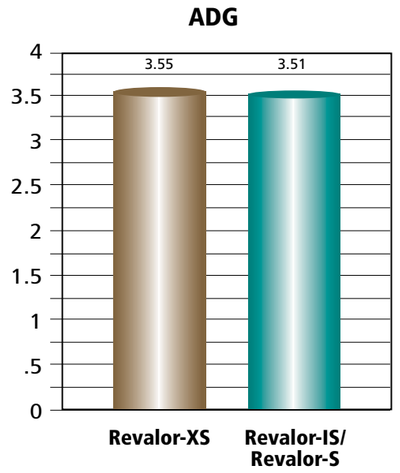
Trial protocol consisted of:

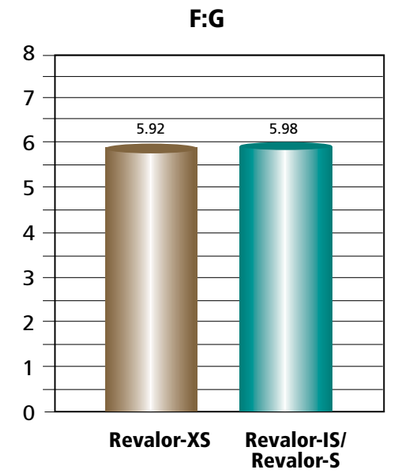
- Study conducted in Texas
- 2,088 head of cattle; 24 pens of approximately 87 head per pen
- Revalor-IS and Revalor-XS given on day 1 of trial
- Revalor-S re-implanted on day 80
- Three different harvest dates were 168, 189 and 210 days on feed
- Revalor-XS cattle were not removed from their pens on day 80
- No vaccine boosters were given

Table 1. Performance of steers implanted with Revalor-IS on day 1 followed by Revalor-S on day 80 compared to steers implanted with Revalor-XS.

Item	Revalor-XS	Revalor-IS/ Revalor-S	SEM	*P*-value for implant trait	*P*-value for interaction
Pens	12	12			
Steers	1,044	1,044			
Days on feed	189	189			
Initial BW, lbs	695	697	5	.23	.93
Live Basis					
Final BW, lbs[a]	1,361	1,354	9	.38	.43
DMI, lbs/d	20.98	21.01	.28	.93	.58
ADG, lbs/d	3.55	3.51	.05	.33	.33
F:G	5.92	5.98	.08	.39	.59
Carcass-adjusted basis					
Final BW, lbs[b]	1,363	1,359	8	.55	.62
ADG, lbs/d	3.56	3.53	.04	.46	.52
F:G	5.91	5.93	.10	.75	.99

[a]A 4% pencil shrink was applied to full weight.
[b]Final adjusted shrunk weight was calculated as pen hot carcass weight ÷ (overall dressing percent ÷100).





Data displayed on carcass adjusted basis.

Revalor®-XS vs. Revalor®-IS re-implanted with Revalor®-S and fed to three different levels of finish (168-189-210 days on feed)

Table 2. Carcass characteristics of steers implanted with Revalor-IS on day 1 followed by Revalor-S on day 80 compared to steers implanted with Revalor-XS.

Item	Revalor-XS	Revalor-IS/ Revalor-S	SEM	*P*-value for implant trait	*P*-value for interaction
Pens	12	12			
Steers	1,044	1,044			
Carcass weight, lbs	870	867	5	.55	.62
Dressing percent	63.7	63.9	.17	.28	.96
REA, in^2	14.11	14.12	.15	.94	.75
Marbling score[a]	419	414	7	.61	.57
KPH, %	1.9	1.9	.05	.93	.48
Rib fat, in	.64	.62	.02	.41	.99
Average yield grade	3.28	3.24	.66	.57	.86
Empty body fat, %[b]	31.1	30.9	.30	.37	.90
Quality Grade Distribution					
Prime, %	.8	1.0	-	.71	.93
Upper 2/3 Choice, %	11.1	11.3	-	.99	.56
Low Choice, %	49.1	46.5	-	.28	.18
Total Choice, %[c]	60.2	57.8	-	.31	.06
Select, %[c]	38.2	40.5	-	.37	.05
Standard, %	.8	.6	-	.84	.98
Yield Grade Distribution					
YG 1	7.5	8.3	-	.58	.55
YG 2	32.1	31.2	-	.69	.80
YG 3	41.2	41.8	-	.80	.40
YG 4	14.4	15.8	-	.76	.43
YG 5	4.9	3.0	-	.32	.74

[a]Slight = 300 to 399, Small = 400 to 499, etc.
[b]Calculated according to equations described by Guiroy et al. (2001; Journal of Animal Science 79:1983).
[c]Significance of interaction between harvest date and implant treatment (P<0.06).

Table 3. Effects of implant program and days on feed on USDA Choice and Select carcasses in beef steers.

	Revalor-XS			Revalor-IS/Revalor-S			*P*-value
	168	189	210	168	189	210	
Choice and >, %	59.5[b,c]	65.6[c]	57.8[a,b]	52.3[a]	61.1[b,c]	63.3[b,c]	.05
Choice, %	58.3[b]	65.3[c]	56.8[a,b]	51.1[a]	60.4[b,c]	62.1[b,c]	.06
Select, %	39.6[b,c]	33.1[c]	41.9[a,b]	47.1[a]	38.0[b,c]	36.3[b,c]	.04

[a,b,c] Means in the same row that do not have a common superscript letter differ, (P<0.06).

Revalor®-XS vs. Revalor®-IS re-implanted with Revalor®-S and fed to three different levels of finish (168-189-210 days on feed)

Table 4. Performance of steers fed 168, 189 and 210 days on feed.

	Days on Feed				
	168	189	210	SEM	p-value
Pens	8	8	8		
Steers	696	696	696		
Initial BW, lbs	700	695	693	5	.07
Live Basis					
Final BW, lbs	1,310[a]	1,352[b]	1,411[c]	9	.0001
DMI, lbs/hd/d	21.23	20.88	20.86	.28	.58
ADG, lbs	3.67[a]	3.49[b]	3.42[c]	.05	.002
F:G	5.76[a]	5.98[b]	6.11[b]	.08	.005
Carcass adjusted basis					
Final BW, lbs	1,307[a]	1,350[b]	1,426[c]	8	.0001
ADG, lbs	3.66[a]	3.48[b]	3.50[b]	.04	.001
F:G	5.77[a]	6.00[b]	5.98[b]	.10	.05

[a,b,c] Means in the same row that do not have a common superscript letter differ, (P<0.05).

Table 5. Carcass characteristics of steers fed 168, 189 or 210 days on feed.

	Days on Feed				
	168	189	210	SEM	p-value
Hot carcass Wt, lbs	834[a]	861[b]	910[c]	5	.0001
Dressing percent	63.6[a]	63.6[a]	64.2[b]	.17	.03
Carcass ADG, lb/hd/d	2.58[a]	2.44[b]	2.43[b]	.03	.0001
Ribeye area, sq in	13.94	14.09	14.32	.15	.21
Rib fat, in	.56[a]	.61[b]	.72[c]	.02	.001
KPH, %	1.86[a]	1.94[b]	2.00[c]	.05	.001
Average Yield Grade	3.00[a]	3.19[b]	3.58[c]	.66	.0001
Marbling score	404	424	422	7	.17
Empty body wt, %	29.88[a]	30.78[b]	32.34[c]	.3	.0001
USDA Quality Grade Distribution					
Prime, %	1.2	.47	1.1	-	.59
Upper 2/3 Choice, %	6.9[a]	14.5[b]	12.3[b]	-	.001
Low Choice, %	47.8	48.4	47.2	-	.92
Standard, %	.7	1.1	.3	-	.54
USDA Yield Grade Distribution					
YG 1, %	9.9[a]	9.0[a]	4.5[b]	-	.003
YG 2, %	40.4[a]	31.9[a]	22.2[b]	-	.001
YG 3, %	40.2	42.3	41.9	-	.73
YG 4+5, %	9.5	16.8	31.4	-	.11

[a,b,c] Means in the same row that do not have a common superscript letter differ, (P<0.05).
[d]Slight = 300 to 399, Small = 400 to 499, etc.