

FULL THROTTLE PERFORMANCE

START TO FINISH

Revalor[®]-XS (trenbolone acetate and estradiol) works the first time, every time. The country's best cattle feeders rely on it - and so can you.



Revalor[®]-XS
(trenbolone acetate and estradiol)

 **MERCK**
Animal Health

REVALOR-XS - THE MOST CONSISTENT ALL-AROUND IMPLANT PROGRAM

Designed specifically for steers fed in confinement, Revalor-XS is the most consistent all-around implant on the market today. Its timed release of active ingredients from coated pellets provides you with the carcass quality you need, and feedyard growth performance you can rely on.

Every time your crew re-implants, it impacts time, labor and resources that could be used somewhere else. By taking that second implant off your schedule, you'll benefit from uninterrupted feeding and more consistent growth.

The Smart Business Choice

In 2008, only 3.4 %¹ of steers weighing more than 800 lb. at placement received Revalor-XS. Seven years later, in 2015 out-weights² increased by 95 lb. and 26% of steers

with placement weights over 800 lb. were implanted with Revalor-XS.³

With unmatched flexibility that allows cattle feeders to take advantage of market conditions by holding cattle plus its ability to maximize feed efficiency well beyond a 132-day schedule, Revalor-XS is the most consistently reliable, value-based implant available. It just makes good business sense.

Data from studies conducted with 32,083 head of cattle (an average of 1,688 head of cattle per trial) in every major cattle-feeding region in the United States and western Canada clearly demonstrate why cattle feeders make Revalor-XS their number one choice.³

¹ Implant Survey, Q1-Q4 2008

² CF Resources Factors to Watch, January 2015

³ CattleFax Implant Survey, Q3 2015

SUMMARY

$$1,688 \times 19 = 32,083$$

AVERAGE HEAD PER TRIAL NUMBER OF TRIALS TOTAL HEAD OF CATTLE

II TRIAL SUMMARY

Region	TOTAL HEAD	PENS
ID	21,230	225
NE		
TX		
CO		
OK		
KS		

TEXAS TRIAL

Days on Feed	TOTAL HEAD	PENS
131	5,996	30
168-189-210	2,088	24
174	1,961	21
197	1,887	20

COLORADO TRIAL

Days on Feed	TOTAL HEAD	PENS
139	1,358	20
202	1,033	14
360	1,832	24

IDAHO TRIAL

Days on Feed	TOTAL HEAD	PENS
140	1,240	14
161	1,241	14
210	1,007	10
214	2,147	28

NEBRASKA TRIAL

Days on Feed	TOTAL HEAD	PENS
160	1,342	16
173	1,405	18
195	1,408	18
204	1,339	18

KANSAS TRIAL

Days on Feed	TOTAL HEAD	PENS
184	745	8

WESTERN CANADA TRIAL

Days on Feed	TOTAL HEAD	PENS
196	971	20

MONTANA TRIAL

Days on Feed	TOTAL HEAD	PENS
217	1,858	32

OKLAHOMA TRIAL

Days on Feed	TOTAL HEAD	PENS
243	1,225	16

CONSISTENT QUALITY, DELIVERED CONSISTENTLY

Revalor-XS combines the proven performance of trenbolone acetate (TBA) and estradiol with the convenience of delayed-release technology. Each implant contains 10 pellets: four uncoated (first dose) and six coated (second dose). Just like Revalor-IS, the first dose goes to work immediately after implanting. The second dose, shielded by the patented X7™

staged-release polymer coating, then goes to work 70 to 80 days later.

Each pellet contains 20 mg of trenbolone acetate and 4 mg of estradiol for a total of 200 mg of trenbolone acetate and 40 mg of estradiol per implant.

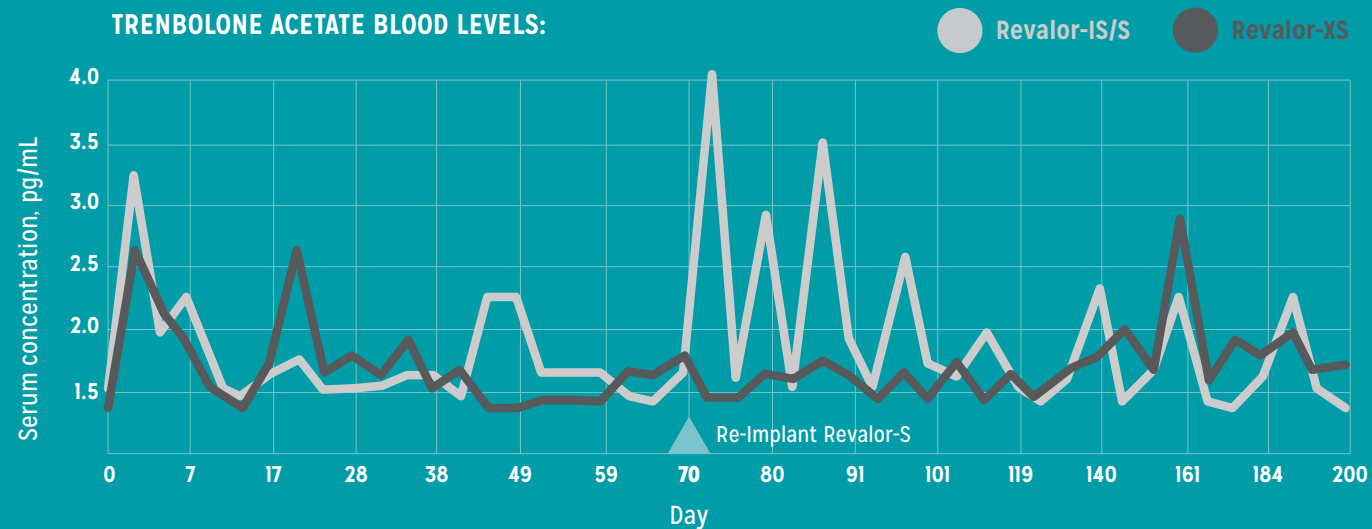


By using a staged-release process, Revalor-XS delivers a dosage that more accurately meets the animal's supplemental anabolic needs.

In a blood level study, Revalor-XS was shown to deliver more consistent levels of trenbolone acetate and estradiol compared to a Revalor-IS/Revalor-S re-implant combination.

Blood levels for both groups were measured for trenbolone acetate and estradiol twice a week for 200 days.

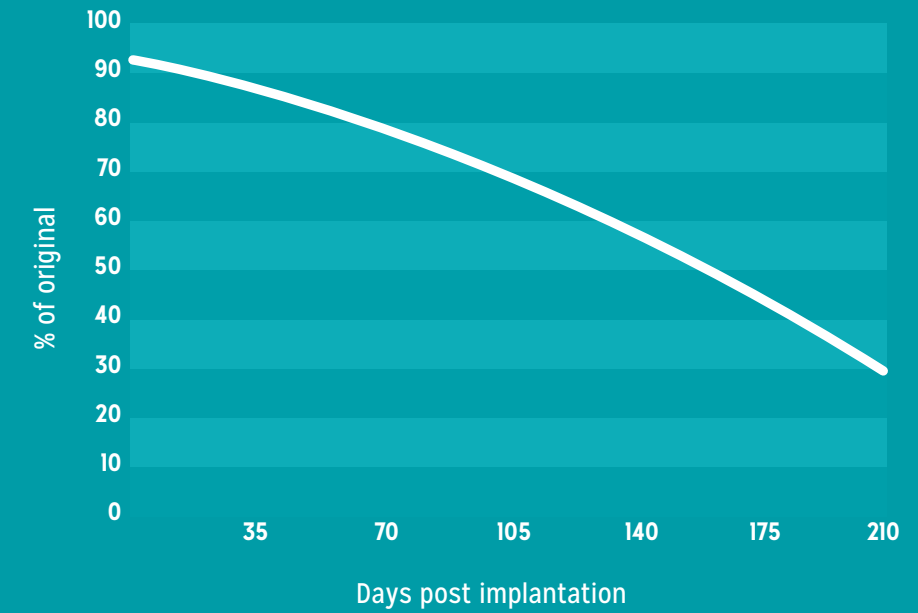
Phase 1 measured Day zero - when 10 animals were treated with Revalor-XS and 10 were treated with Revalor-IS - to Day 70. Phase 2 measured Day 71 - when Revalor-S was administered to the second set of cattle to Day 200.



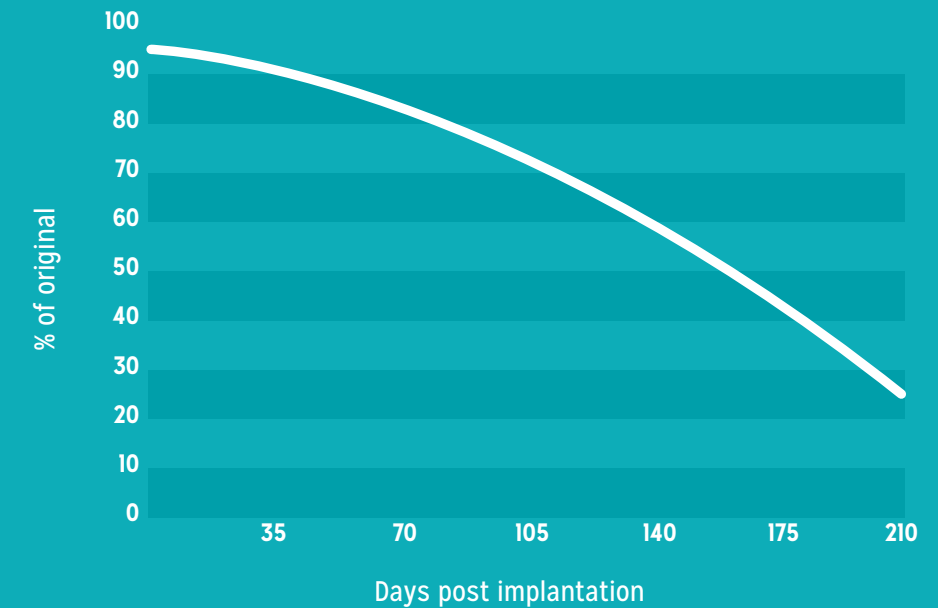
Revalor-XS Finishes on Target

From start to finish, Revalor-XS delivers a consistent payout. At the end of a 210-day study, in a group of 56 commercial beef steers, the timed-release technology provided the blood levels needed to deliver efficient feed uptake and better weight gain. Implants were ex-plantated or removed and analyzed at Days 0, 36, 70, 105, 140, 175 and 210.

TBA PAYOUT IN REVALOR-XS



ESTRADIOL PAYOUT IN REVALOR-XS



PROVEN PERFORMANCE.

Trials conducted in Texas, Idaho, Colorado, Nebraska and Oklahoma with 21,230 head of steers show how Revalor-XS performs compared to a single Revalor-S or Revalor-IS initial implant re-implanted with a Revalor-S terminal implant. The results clearly demonstrate how Revalor-XS consistently delivers results in the key areas that directly affect your bottom line – average daily gain, feed efficiency, hot carcass weight, marbling score and quality grade.

Feedyard Performance and Carcass Traits

With Revalor-XS, you can be confident knowing that you're getting it right the first time, every time. The results speak for themselves – superior carcass quality, better marbling scores, feed efficiency and average daily gain. And you can do it all without the added stress and expense of re-implanting.

132 Days On Feed Trial Results - Carcass Basis

ITEM	REVALOR-XS	REVALOR-S	REVALOR-XS ADVANTAGE	P-VALUE
Adj. ADG ^a , lb/hd/d	3.88 ^c	3.85 ^d	+0.03	0.08
Adj. F:G ^a , lb	5.82	5.83	+0.01	0.41
Hot carcass weight, lb	870 ^g	866 ^h	+4	0.10
Marbling score ^b	423 ^e	413 ^f	+10	0.03

^a Final weight adjusted to the average dressing percent across both treatments
^b Marbling score: 400 = Low Choice and 300 = Select
^{c,d} Treatment means are significantly different (p=.08).
^{e,h} Treatment means are significantly different (p=.10).
^{f,i} Treatment means are significantly different (p=.03).
 Data displayed on carcass adjusted basis.

185 Days on Feed Trial Results - Carcass Basis

ITEM	REVALOR-XS	REVALOR-S	REVALOR-XS ADVANTAGE	P-VALUE
Adj. ADG ^a , lb/hd/d	3.71 ^c	3.68 ^d	+0.03	0.03
Adj. F:G ^a , lb	5.54 ^e	5.58 ^f	-0.04	0.03
Hot carcass weight, lb	861 ^g	857 ^h	+4	0.02
Marbling score ^b	457 ⁱ	453 ^j	+4	0.07

^a Final weight adjusted to the average dressing percent across both treatments
^b Marbling score: 400 = Low Choice and 300 = Select
^{c,d} Treatment means are significantly different (p=.03).
^{e,f} Treatment means are significantly different (p=.03).
^{g,h} Treatment means are significantly different (p=.02).
^{i,j} Treatment means are significantly different (p=.07).
 Data displayed on carcass adjusted basis.



Marbling Score

Revalor-XS is proven to contribute to cattle achieving a USDA Quality Grade of Choice or higher.

132 DAYS ON FEED
(MARBLING SCORE^b)

423^e

REVALOR-XS

413^f

REVALOR-S

+10

REVALOR-XS ADVANTAGE

0.03

P-VALUE

185 DAYS ON FEED
(MARBLING SCORE^b)

457ⁱ

453^j

+4

0.07

^b Marbling score: 400 = Low Choice and 300 = Select
^{e,f} Treatment means are significantly different (p=.03).
^{i,j} Treatment means are significantly different (p=.07).



REV-X UNIVERSAL IMPLANT TOOL

Cattle feeders across the country trust the Rev-X Universal Implant Tool for implanting Revalor-XS implants.

Always remember that using correct implanting technique and sanitation is crucial to the success of any implant program. Missing implants can cost producers up to 90 pounds in carcass weight, so taking the time to use proper procedures and to check implants is definitely worth it.⁴

If you're interested in providing implant technique training to your processing crew, check out the tutorial available on ResponsibleBeef.com. If you are interested in competing in the *Rely on Revalor Implanting Team Challenge*, contact your Merck Animal Health sales representative.

⁴ Revalor-XS FOI 2007

A blurred motorcycle is shown in motion on a racetrack, with motion blur lines trailing behind it. The track has a yellow line and the word "START" painted on it. The background features a grassy field, a fence, and a cloudy sky.

FAST START.
STRONG FINISH.