

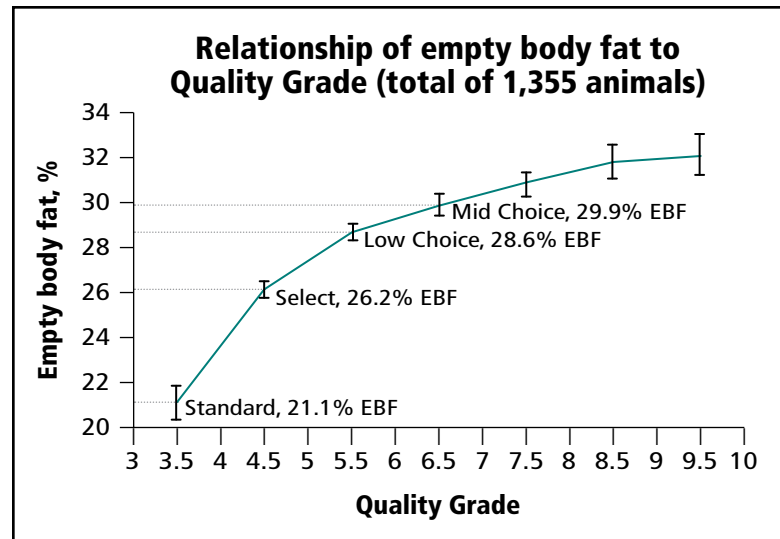
# Implant Strategies for Finishing Cattle

W.T. Nichols, Ph.D., J. Hodgen, Ph.D., J.P. Hutcheson, Ph.D., M.N. Streeeter, Ph.D., Kyle J. Vander Pol, Ph.D., D.A. Yates, Ph.D.

**Figure 3.** This table illustrates the finishing weight by frame score relationship for an animal to reach 28% empty body fat.

Weight (lb) at 28% fat									
	Frame Size								
	1	2	3	4	5	6	7	8	9
Steer	882	954	1029	1102	1175	1250	1322	1395	1470
Heifer	705	763	824	882	939	1001	1058	1115	1177

**Figure 4.** Graph depicting amount of EBF needed to reach a particular USDA quality grade (Guiroy et al. 2001, JAS 79: 1983-1995).



A withdrawal period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for veal. For complete information, refer to packaging insert.

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## Revalor®, Ralgro® and Finaplix®

### IMPLANT STRATEGIES FOR STEERS AND HEIFERS

The following information is designed to help you determine which implant program(s) work best for your feedyard:

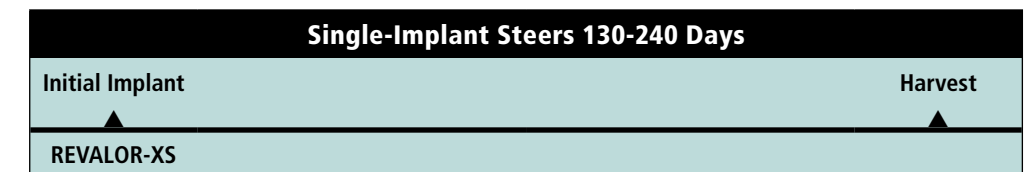
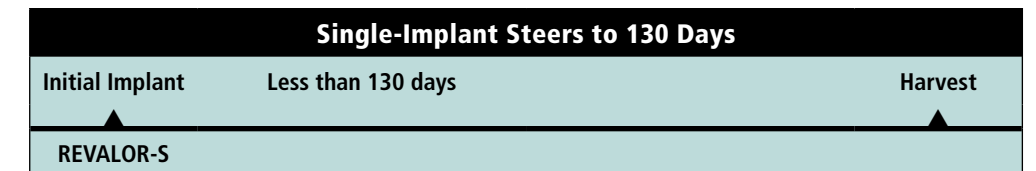
- Part 1: Steer Implant Strategies 130-240 Days**
- Part 2: Steer Implant / Re-Implant Strategies**
- Part 3: Heifer Implant / Re-Implant Strategies**
- Part 4: Implant Strategies Summary**
- Part 5: Implant Strategy Selection Criteria**

For more information, be sure to discuss with your consulting nutritionist, consulting veterinarian, and your Intervet/Schering-Plough Animal Health representative.

#### Part 1: Steer Implant Strategies 130-240 Days

##### I. THE MOST CONSISTENT ALL-AROUND IMPLANT PROGRAM

Revalor®-XS is the most consistent all-around implant on the market today. Its timed release of active ingredients from the coated pellets on approximately Day 70 gives you the absolute best in terms of consistent carcass growth and quality, with exceptional feedyard growth performance. It is absolutely the most consistent, reliable, and value-based implant on the market today.





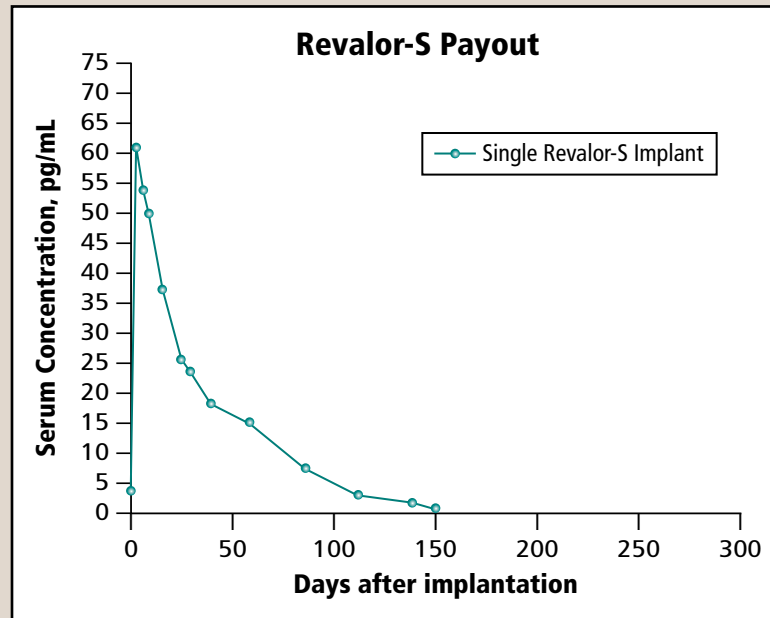
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**Payout Data:** Payout characteristics versus non-implanted steers with a single Revalor-S implant.



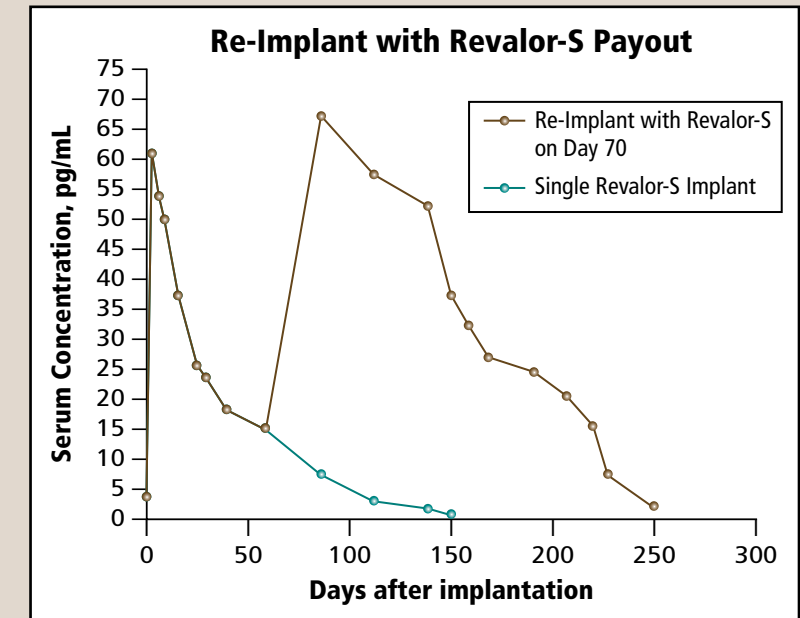
### Period Gain Data

**Average Daily Gain (ADG) period response versus non-implanted steers with a single Revalor-S implant.**

Period	Daily Gain Response
0-35 days	+28%
35-70 days	+23%
70-105 days	+17%
105-135 days	+10%

Rains, J.R., R.L. Preston, Revalor-S Tech Bulletin 10

**Payout Data:** Payout characteristics comparing non-implanted steers with a single Revalor-S or Revalor-S initial with a re-implant on Day 70.



### Period Gain Response

**Daily Gain (ADG) period response versus non-implanted steers with a single Revalor-S or Revalor-S initial with a re-implant on Day 70.**

Period	Daily Gain Response
0-35 days	+28%
35-70 days	+23%
70-105 days	+30%
105-135 days	+32%

Rains, J.R., R.L. Preston, Revalor-S Tech Bulletin 10



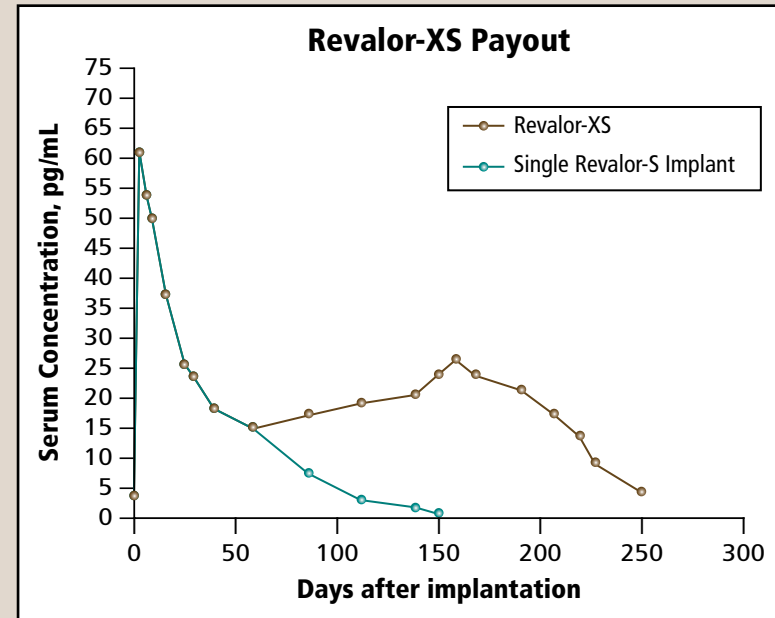
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**Payout Data:** Theoretical payout characteristics of non-implanted steers compared with a single Revalor-S or Revalor-XS.



## Payout Data

**Average Daily Gain (ADG) period response versus non-implanted steers compared with Revalor-XS.**

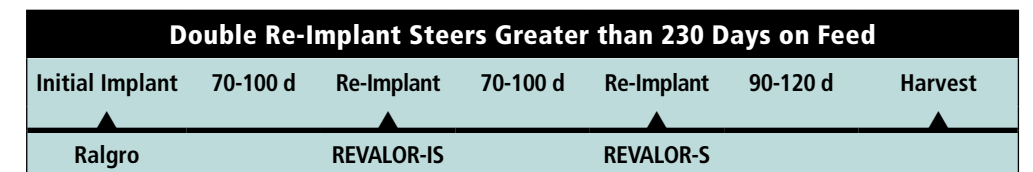
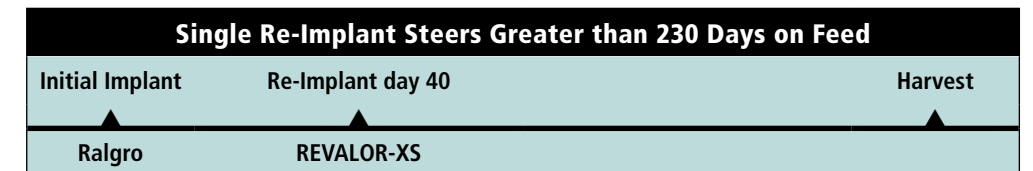
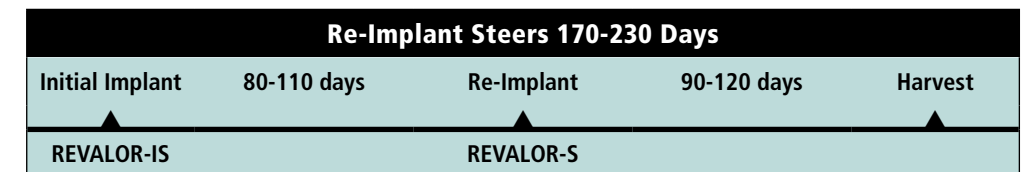
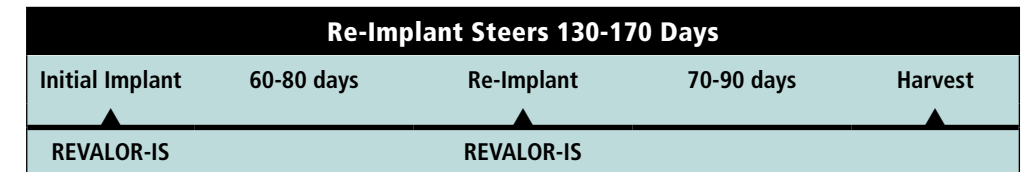
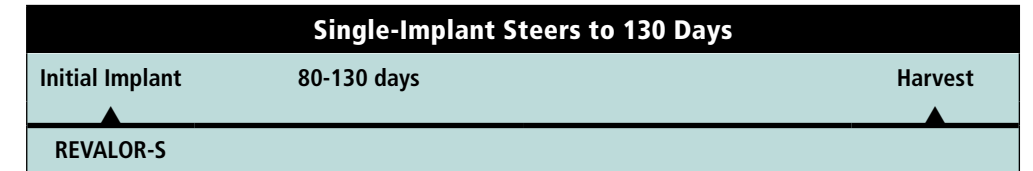
Period	Daily Gain Response
0-35 days	+28%
35-75 days	+18%
75-140 days	+30%
140-177 days	+27%

2009 Feedlot Study Data on File

## Part 2: Steer Implant / Re-Implant Strategies

### I. ALL-AROUND RE-IMPLANT PROGRAM

Excellent performance in terms of ADG and feed efficiency (F:G). Minimal to no quality grade reduction as long as cattle are finished to their physiological/biological end-points.





# Implant Strategies for Finishing Cattle

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## II. SPECIAL-AGGRESSIVE RE-IMPLANT PROGRAM

Superior performance in terms of ADG and F:G is the main goal. Heavier weights will need to be achieved to minimize grade reduction.

Single-Implant Steers to 130 Days		
Initial Implant	80-130 days	Harvest
REVALOR-200		

Re-Implant Steers 130-230 Days Moderate Agressive				
Initial Implant	60-110 days	Re-Implant	70-120 days	Harvest
REVALOR-S		REVALOR-S		

Re-Implant Steers 130-230 Days Agressive				
Initial Implant	60-110 days	Re-Implant	70-120 days	Harvest
REVALOR-IS		REVALOR-200		

Double Re-Implant Steers Greater than 230 Days						
Initial Implant	70-100 d	Re-Implant	70-100 d	Re-Implant	90-120 d	Harvest
REVALOR-IS		REVALOR-S		REVALOR-S or REVALOR-200		

## Part 3: Heifer Implant / Re-Implant Strategies

### I. ALL-AROUND IMPLANT PROGRAM

Excellent performance in terms of ADG and F:G. Minimal to no quality grade reduction as long as cattle are finished to their physiological/biological end-points.

Single-Implant Heifers to 130 Days		
Initial Implant	80-130 days	Harvest
REVALOR-H		

# Implant Strategies for Finishing Cattle

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Re-Implant Heifers 130-240 Days				
Initial Implant	60-110 days	Re-Implant	70-120 days	Harvest
REVALOR-IH		REVALOR-H or FINAPLIX-H		

Re-Implant Heifers Greater than 230 Days on Feed						
Initial Implant	70-100 d	Re-Implant	70-100 d	Re-Implant	90-120 d	Harvest
Ralgro		REVALOR-IH		REVALOR-H or FINAPLIX-H		

## II. SPECIAL-AGGRESSIVE IMPLANT PROGRAM

Superior performance in terms of ADG and F:G is the main goal. Heavier weights will need to be achieved to minimize grade reduction.

Single Implant Heifers to 130 Days		
Initial Implant	80-130 days	Harvest
REVALOR-200		

Re-Implant Heifers 130-170 Days				
Initial Implant	60-80 days	Re-Implant	70-90 days	Harvest
REVALOR-IH		REVALOR-200		

Re-Implant Heifers 170-230 Days				
Initial Implant	80-100 days	Re-Implant	90-120 days	Harvest
REVALOR-H		REVALOR-200		

Re-Implant Heifers Greater than 230 Days on Feed						
Initial Implant	70-100 d	Re-Implant	70-100 d	Re-Implant	90-120 d	Harvest
Ralgro		REVALOR-H		REVALOR-200		



# Implant Strategies for Finishing Cattle

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## Part 4: Implant Strategies Summary

### EXAMPLE: Steer Revalor-XS Implanting Strategies

Days on Feed	Initial	Re-Implant Day	Terminal
130 or less	Revalor-S	None	None
140	Revalor-XS	None	None
150	Revalor-XS	None	None
160	Revalor-XS	None	None
170	Revalor-XS	None	None
180	Revalor-XS	None	None
190	Revalor-XS	None	None
200	Revalor-XS	None	None
210	Revalor-XS	None	None
220	Revalor-XS	None	None
230	Revalor-XS	None	None
240	Ralgro	Day 40 = Revalor-XS	None

### EXAMPLE: Steer All-Around Re-Implanting Strategies

Days on Feed	Initial	Re-Implant Day	Terminal
130 or less	Revalor-S	None	Revalor-IS
140	Revalor-IS	Day 70	Revalor-IS
150	Revalor-IS	Day 70	Revalor-IS
160	Revalor-IS	Day 70	Revalor-S
170	Revalor-IS	Day 70	Revalor-S
180	Revalor-IS	Day 80	Revalor-S
190	Revalor-IS	Day 90	Revalor-S
200	Revalor-IS	Day 100	Revalor-S
210	Revalor-IS	Day 100	Revalor-S
220	Revalor-IS	Day 110	Revalor-S
230	Revalor-IS	Day 110	Revalor-S
240	Ralgro	Day 40 = Revalor-IS	Day 140 = Revalor-S

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### EXAMPLE: Heifer Implant Strategies

Days on Feed	Initial	Re-Implant Day	Terminal
130 or less	Revalor-H	None	None
140	Revalor-IH	Day 40	Revalor-H or Finaplix-H
150	Revalor-IH	Day 50	Revalor-H or Finaplix-H
160	Revalor-IH	Day 60	Revalor-H or Finaplix-H
170	Revalor-IH	Day 70	Revalor-H or Finaplix-H
180	Revalor-IH	Day 80	Revalor-H or Finaplix-H
190	Revalor-IH	Day 90	Revalor-H or Finaplix-H
200	Revalor-IH	Day 100	Revalor-H or Finaplix-H
210	Revalor-IH	Day 100	Revalor-H or Finaplix-H
220	Revalor-IH	Day 110	Revalor-H or Finaplix-H
230	Revalor-IH	Day 110	Revalor-H or Finaplix-H
240	Ralgro	Day 40 = Revalor-IH	Day 140 = Revalor-H or Finaplix-H

## Part 5: Implant Strategy Selection Criteria

All the above implant strategies give you some leeway in marketing cattle. As an example: For those that do not want to reimplant their steers, Revalor-XS provides the greatest marketing flexibility and for those wanting to reimplant a terminal, Revalor-S is mostly utilized 100 days from harvest. This gives you the ability to market cattle earlier than expected and longer than expected, i.e. 170-day cattle can be marketed at 150 or 200 days. There are some trade-offs that we need to be aware of, for example, 150-day cattle will have better ADG and F/G simply because we are selling them somewhat green, the 200-day cattle will have more marbling, maybe higher dressing percentage, more weight, and less ADG and F/G simply because we are selling them over-finished.

During times of low ration costs and fair live cattle prices we can feed cattle a long time and cost of gain rarely exceeds breakeven. We can be aggressive in our feeding and cattle management as well as our implant programs. Conversely, when ration costs become expensive and live cattle prices are low, we will adjust the implant strategies to finish cattle at lighter weights and less time on feed (figure 1).

The spread between choice and select carcasses can be a concern when the difference in dollars/cwt is very high. If selling on a grid that has premiums for marbling then this aspect becomes important and needs to be taken into account as well. However, finishing cattle to the correct weight will usually negate any marbling differences. As an example, figure 1 depicts **low feed-low spread**, which would indicate that we would want to feed for average grading and maximum weight. We can use an aggressive implant strategy in this



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economic example. Feeding heavier weights takes advantage of the low feed costs and the heavier weights will help negate any negative marbling effects.

Do not just look at days on feed to determine when cattle are ready for harvest. Let the cattle tell you when they are finished. Look at the cattle's body composition and feed records, since not all 700-weight animals are the same. Adjust days on feed based on animal type, body conformation, and body composition. **In addition, analyze carcass data to see if the cattle are achieving the correct end-points of production.** If the closeouts have virtually all yield grade (YG) 1's and 2's with very little YG 3's and no 4's, then in general, the cattle are too light or green to achieve their genetic potential to marble. The cattle need a percentage of YG 3's to allow them to achieve their genetic potential to marble (on the average), as well as reach a final end weight that allows the cattle to work both from a carcass perspective and a live perspective.

Figure 2 illustrates, as an example, cattle implanted differently and the final end-weights needed to achieve an empty body fat (EBF) percentage of 28.6% (Guiroy, et al. 2002, JAS 80:1791-1800). Research has indicated that an EBF of 28.6% is required for cattle to reach low choice marbling. Implanting changes the growth curve upward to a higher level. In other words, when we implant cattle that are a frame score 5, we now change their growth to mimic a frame score 6-7 (figure 3). These cattle will now need to be heavier to reach their genetic physiological/biological maturity.

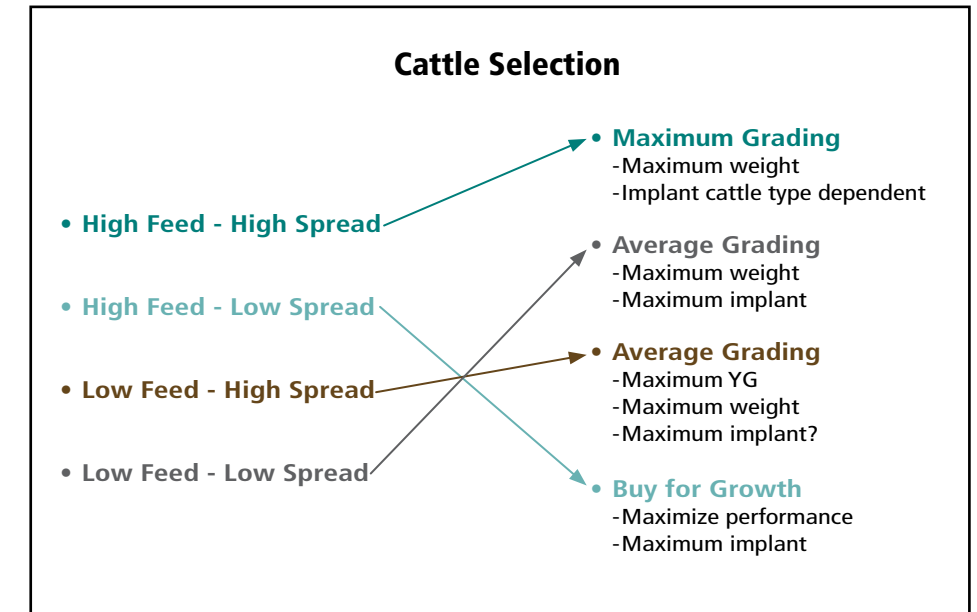
Figure 4 depicts the amount of EBF needed for cattle to grade standard, select, low-choice or mid-choice. On average, if we sell cattle that have less than 28% EBF, they will not exhibit enough finish to reach a USDA quality grade of low-choice. The majority of cattle need to have 28.5-29.5% EBF in order to grade to their genetic potential.

**Therefore, all these factors need to be taken into consideration when choosing an effective implant strategy, i.e. feed costs, animal costs, quality grade, genetics, economic advantages of weight (live & carcass), production goals, and carcass goals. There are trade-offs to all the above. Implants can help you achieve your goals and benefit you economically in all circumstances.**

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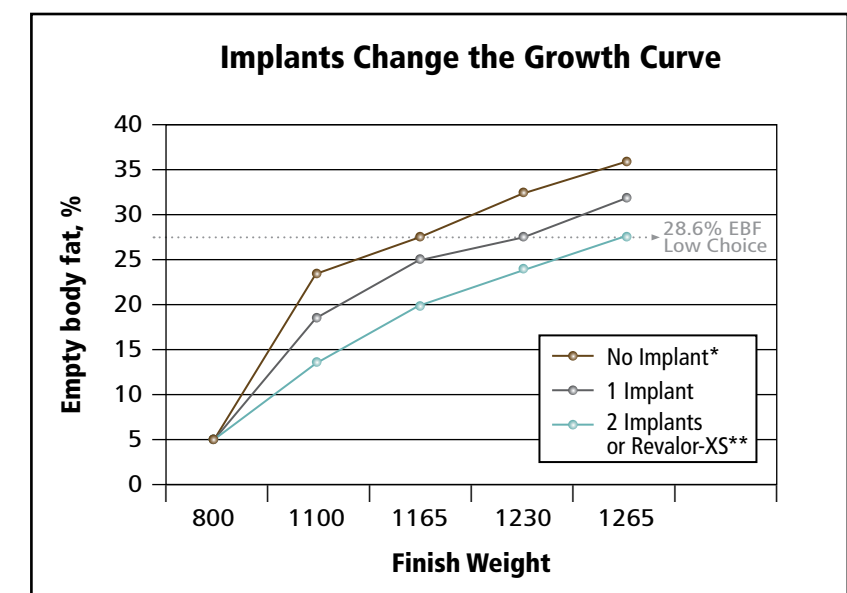
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Figure 1. A grid utilizing feed costs and choice/select spread for implant decisions.



- Adapted from schematic developed by M. Hubbert, Ganado Research, Arroyo Seco, NM
- Feed = Feed costs either high or low
- Spread = Dollars/cwt difference between choice and select carcasses

Figure 2. Growth curve graph depicting finished weights of cattle that are implanted differently.



\* Based on Guiroy, et al. 2002, JAS 80:1791-1800  
 \*\* Based on Revalor-XS Serial Harvest Study