

Technical Bulletin 12

Revalor® Implant Strategies

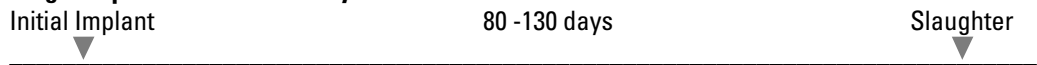
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Steer Implant Strategies

I. All-Around Implant Program - Steers

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

Single implant steers to 130 days



REVALOR-S

Reimplant steers 130 - 170 days



REVALOR-IS

REVALOR-IS

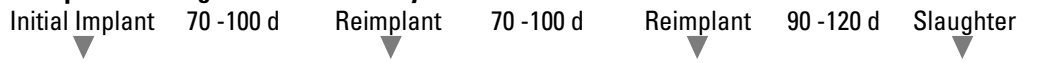
Reimplant steers 170-230 days



REVALOR-IS

REVALOR-S

Reimplant steers greater than 230 days on feed



**RALGRO® or
SYNOVEX®-C**

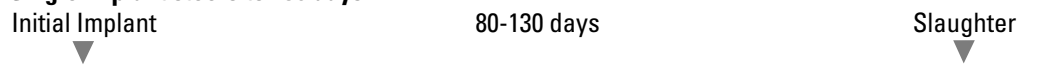
REVALOR-IS

REVALOR-S

II. Special-Aggressive Implant Program - Steers

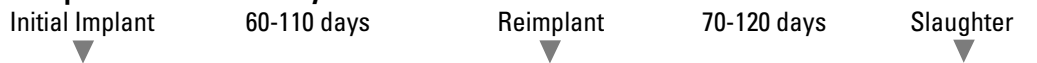
Superior performance in terms of average daily gain (ADG) and feed efficiency (F/G) is the main goal. Heavier weights will need to be achieved to minimize grade reduction.

Single implant steers to 130 days



REVALOR-200

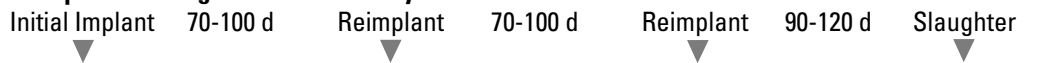
Reimplant steers 130-230 days



REVALOR-S

REVALOR-S

Reimplant steers greater than 230 days on feed



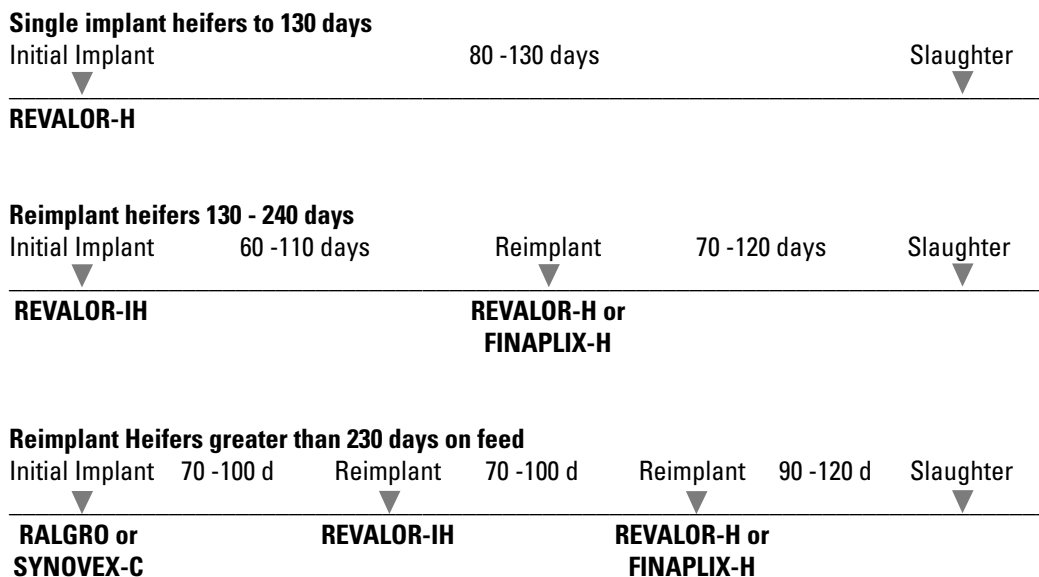
REVALOR-IS

REVALOR-S

**REVALOR-S or
REVALOR-200**

III. All-Around Implant Program - Heifers

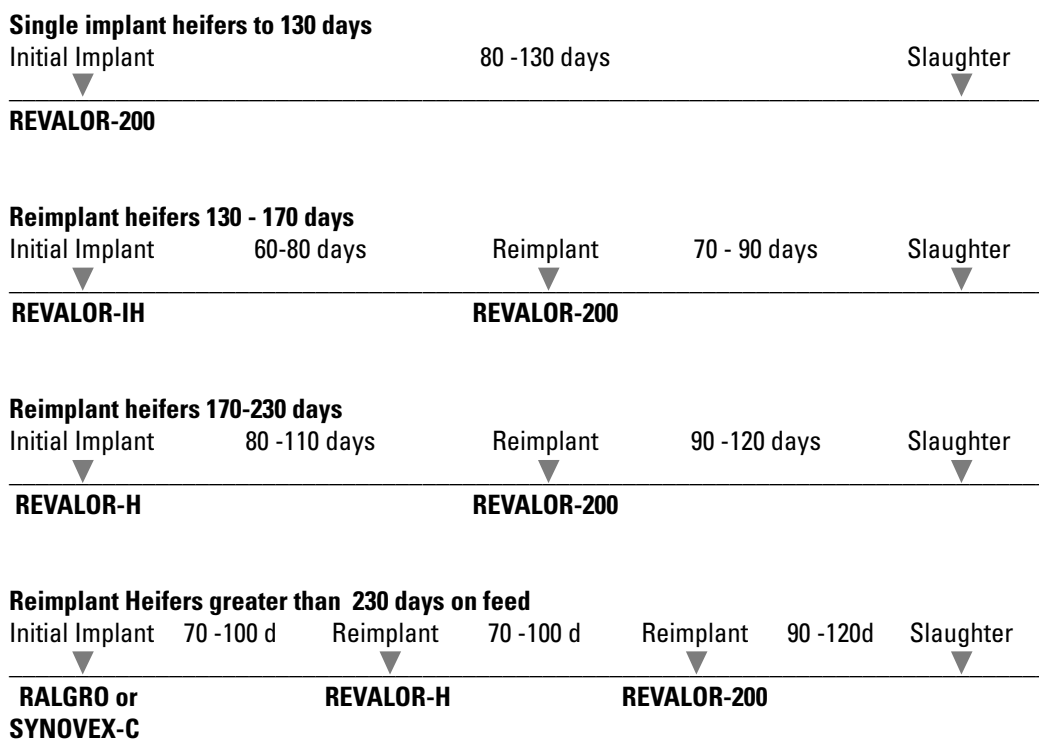
Excellent performance in terms of average daily gain (ADG) and feed efficiency (F/G) is the main goal. Minimal to no quality grade reduction as long as cattle are finished to their physiological/biological end-points.



* Finaplix-H must be utilized in conjunction with MGA (Melengestrol acetate). Revalor-IH and Revalor-H can be used with or without MGA.

IV. Special-Aggressive Implant Program - Heifers

Superior performance in terms of average daily gain (ADG) and feed efficiency (F/G) is the main goal. Heavier weights will need to be achieved to minimize grade reduction.



Implant Strategies

All the above implant strategies give you some leeway in marketing cattle. Example: A terminal Revalor-S is mostly utilized 100 days from slaughter. This gives you the ability to market cattle 20 days earlier than expected and as much as 30 days 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, i.e. 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 %, more weight, and less ADG and F/G simply because we are selling them over-finished.

EXAMPLE: Steer All Around Implanting Strategies

DOF	Initial	Day Reimp	Day Reimp	Terminal
130 or less	Revalor-S	None		None
140	Revalor-IS	Day 70		Revalor-IS
150	Revalor-IS	Day 70		Revalor-IS
160	Revalor-IS	Day 70		Revalor-IS
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 = Rev-IS	Day 140 =	Revalor-S

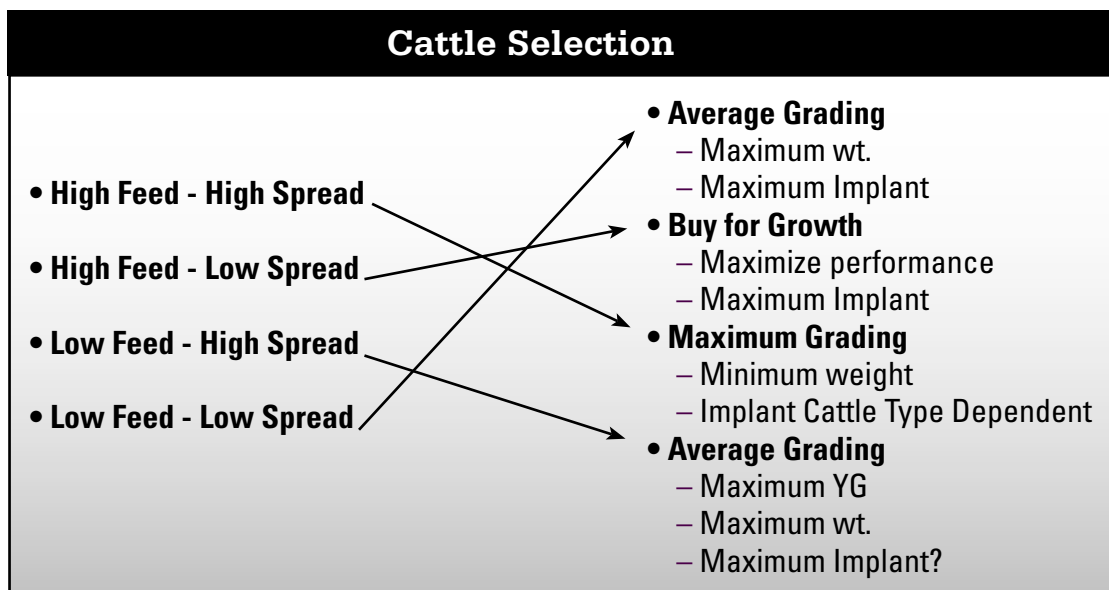
EXAMPLE: Heifer All Around Implanting Strategies

DOF	Initial	Day Reimp	Day Reimp	Terminal
130 or less	Revalor-H	None		None
140	Revalor-IH	Day 50		Revalor-H or Fin-H
150	Revalor-IH	Day 50		Revalor-H or Fin-H
160	Revalor-IH	Day 60		Revalor-H or Fin-H
170	Revalor-IH	Day 70		Revalor-H or Fin-H
180	Revalor-IH	Day 80		Revalor-H or Fin-H
190	Revalor-IH	Day 90		Revalor-H or Fin-H
200	Revalor-IH	Day 100		Revalor-H or Fin-H
210	Revalor-IH	Day 100		Revalor-H or Fin-H
220	Revalor-IH	Day 110		Revalor-H or Fin-H
230	Revalor-IH	Day 110		Revalor-H or Fin-H
240	Ralgro	Day 40 = Rev-IH	Day 140 =	Revalor-H or Fin-H

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 economic example. Simply because we are going to feed to heavier weights to take advantage of the low feed costs and the heavier weights will help negate any negative marbling effects.

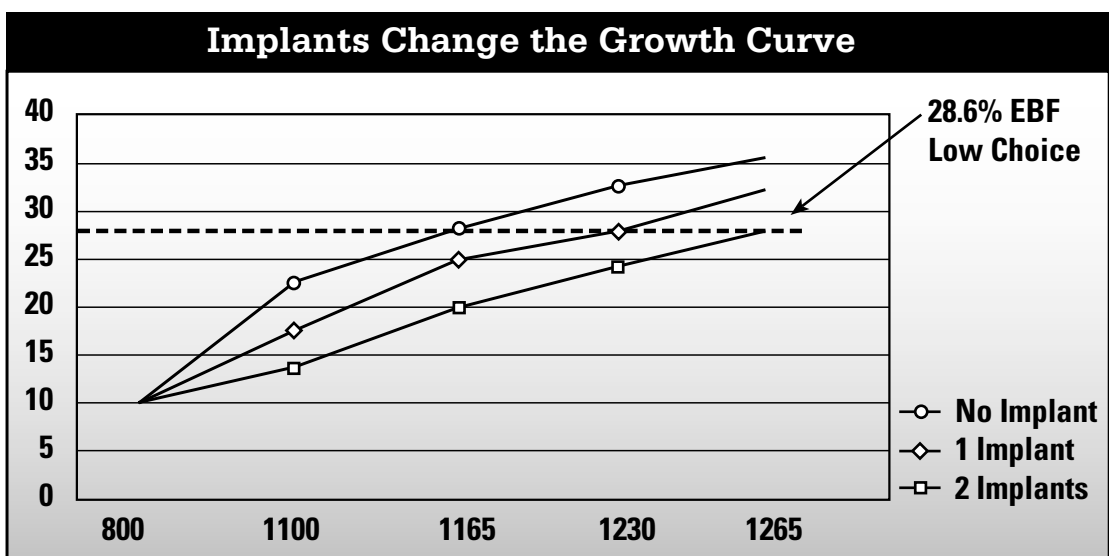
Do not just look at days on feed to determine when cattle are ready for slaughter. Let the cattle tell you when they are finished. Look at the cattle body composition and feed records. A 700 wt. animal, is not a 700 wt. animal, is not a 700 wt. animal. Adjust days on feed based on animal type, body conformation, 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 YG 1 & 2's with very little YG3'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 YG3'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, which are needed to achieve an empty body fat (EBF) percentage of 28.6% (Guiroy, et al. 2002, submitted JAS). Research has indicated that an EBF of 28.6% is required for cattle to reach low choice marbling.

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



◦ 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



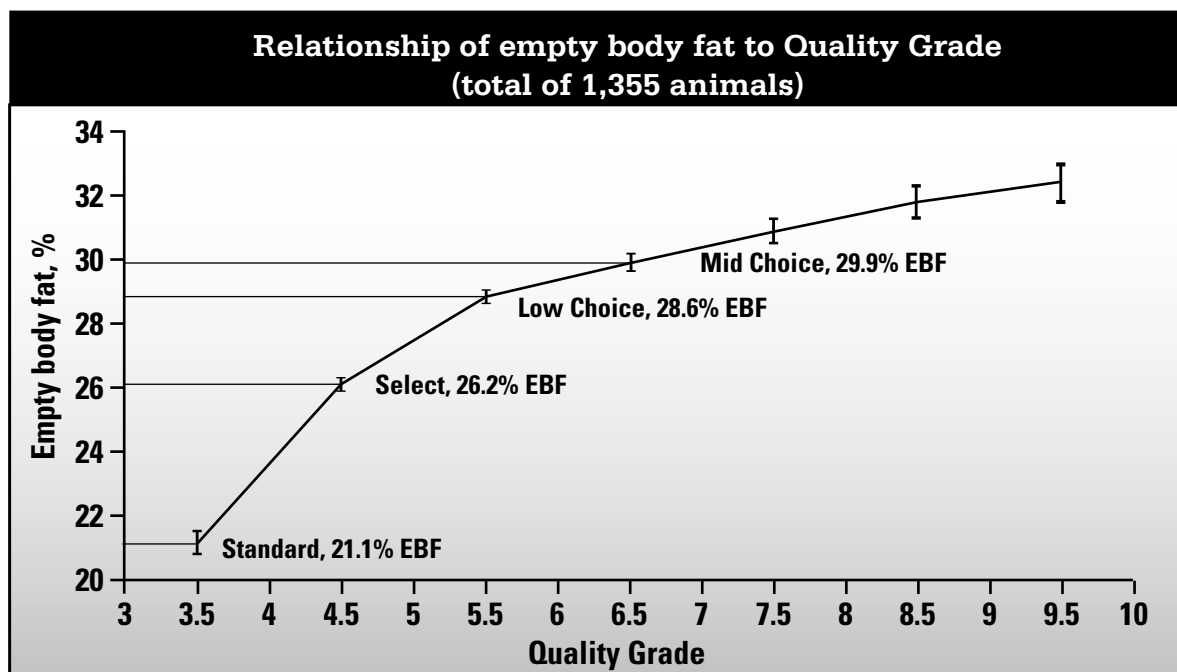
Implanting changes the growth curve upward to a higher level. In other words when we implant cattle that are a frame score 5, we now change their growth to mimic a frame score 6-7 (figure 3). The cattle will now need to be heavier to reach their genetic physiological/biological maturity. Figure 4 depicts the amount of EBF needed for cattle to grade standard, select, low choice, or mid-choice. On the 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 and implants can help you achieve your goals and benefit you economically in all circumstances.

Figure 3. Graph depicting the weight at which a certain frame score animal must reach in order to be at 28% EBF

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).



Implant Dosage Comparison

Product	Number of pellets	Amount of trenbolone acetate	Amount of estradiol
Revalor-200	10	200 mg	20 mg
Revalor-H	7	140 mg	14 mg
Revalor-S	6	120 mg	24 mg
Revalor-IS	4	80 mg	16 mg
Revalor-IH	4	80 mg	8 mg
Revalor-G	2	40 mg	8 mg
Finaplix-H	10	200 mg	—