



Here In the "Real Time" World

Carcass value ultimately determines the value of fed cattle, the price of feeder cattle and combined with costs of production, the profitability of each and every stage in the chain, from cow/calf, to feeder to processor. Looking at recent boxed beef prices and the choice/select spread shows that there are significant differences in value of carcasses sired between bulls. As a rough example two sires produce 25 feeder calves at 1250 pounds each. Using October 15th, 2005 boxed beef values, if one sire produces 5% more AAA progeny with 2% more lean yield he will generate roughly \$1000 more revenue. Obviously this must be balanced against the role the sire will play in the herd, but it is sufficient to realize that there are significant value differences between sires.

Real Time Ultrasound is a non-invasive technology that uses high frequency sound waves to allow us to look at these value differences in young seedstock. Ultrasound is highly related to carcass progeny results, but it is important to realize that ultrasound on a young bull is not the same as a carcass record on a harvest steer; for one thing we would hope that the feed rations are significantly different and thus fat and marbling levels usually less in a bull than in a feeder steer. What is important is that the relative difference between potential sires is expressed.

The basic traits measured with ultrasound are the same as those used for carcass valuation (Yield Grade and Quality Grade)

Rib-Eye Area and Back Fat are major components of Yield Grade

Intramuscular Fat is an indicative measure of marbling or Quality Grade

Relationship of % IMF to Marbling

% IMF	Carcass Quality Grade
9.8 +	Prime (AAAA)
4.0 - 9.7	AAA
2.3 - 3.9	AA
< 2.3	A

Average Ultrasound Values for Simmental Yearling Bulls

	REA	Fat	IMF
Age Adjusted Ultrasound	13.6 in ²	0.19in / 4.7mm	3.13 %

When comparing animals with ultrasound, it is recommended that raw data only be compared within your bull supplier's herd and not across herds. This is because different rations, ages, and other management factors can affect absolute ultrasound measurements. These management factors will not affect relative ranking within herd. EPD are a better method for determining relative carcass merit and **for comparison of carcass characteristics across herds it is strongly recommended that EPD be used.** All available ultrasound and carcass data are combined in the North American Simmental evaluation in order to accurately determine animals' relative genetic merit for carcass traits.

Average Carcass EPD for Yearling and Two Year Old Simmental Bulls

	CWT	REA	Fat	MS	YG
EPD	-2.3	0.06	0.01	0.08	-0.01

CWT carcass weight (pounds) A higher value indicates heavier carcasses.

REA rib-eye area (square inches) A larger value indicates larger rib-eye muscle.

Fat backfat (tenths of inches or millimetres) A smaller number indicates less backfat.

MS marbling (marbling score units) A higher number means that a bull's offspring will have more marbling.

YG Yield Grade - a smaller yield grade EPD means more cattle will reach Yield Grade 1. Thus a smaller number indicates more lean meat in the carcass.

The emphasis placed on carcass characteristics should vary depending on what the bull is being used for. In the case of producing feeder calves, emphasis on carcass characteristics should be fairly heavy. For a sire used exclusively to produce replacement females, the emphasis should be somewhat less, with more focus on maternal characteristics. For a multi-purpose sire, focus on carcass characteristics will probably fall somewhere in the middle of these two.



Carcasses that are worth more, mean more gross revenue to operators selling carcasses on the rail. Some knowledge of the carcass genetics entering the herd, can not only add value, but it can also help to reduce risk associated with retaining ownership in the future.

Cattle that have been scanned through the UGC program will have clip marks in the following locations. These marks mean that your seedstock seller is concerned about the carcass characteristics of his cattle and ultimately of yours.

1. Intramuscular Fat
2. Rib- Eye, Back Fat
3. Rump Fat