



What's "High Quality" Worth?

BY STEVE SUTHER

Commercial Angus cow-calf producers found themselves in a favorable position last fall. They had opportunity to take advantage of a general \$10/hundredweight (cwt.) run-up in calf prices after corn harvest. On top of that, they were selling Angus calves — a fact that tended to add at least \$7/cwt. over non-Angus contemporaries. Several potloads of middle-five-weight Angus steers sold for \$105/cwt. last fall, with 700-pounders just a shade under \$90/cwt.

Why did cattle feeders bid **blacks** so high? They didn't. They may have bid a little higher for a black-hided calf that was clearly not Angus-type, compared to a straight Continental. But most of the excitement was over black calves of known **Angus** background. Buyers are wise to the breed-

type differences by now, and another factor is beginning to surface: information on the calves.

Cattle feeders may have reduced their performance risk by purchasing Angus calves with a solid health program behind them, but there is still a world of difference to be discovered between the top end and the bottom end of genuine Angus-sired calves.

That's why buyers are evolving new demands on their order cards: not just black, not just Angus, but half-brother steers from sires that are positive for marbling, ribeye area and percent retail product. Deliver that package along with the ideal health program, and you have calves worth the risk of a higher bid.

The American Angus Association's *Sire*

Evaluation Report can help you plan how to get there without sacrificing production efficiency.

As it stands this winter, virtually all cattle feeders who paid dearly for Angus calves did so without the benefit of known genetic potential beyond breed averages. But if they lose money, they will look for more justification before bidding for those calves next fall.

The real difference

The American Angus Association commissioned a study that gets at the real value differences in calves. Submitted last May by Oklahoma State University (OSU) animal scientists Bilynn Schutte, Sally Dolezal, Glen Dolezal and David Buchanan, the report, "Characterization of Boxed-Beef Value in Angus Field Data," shows average boxed-beef values in 1995-97 for progeny of the 1,087 Angus sires with 10 or more carcass-data records.

There is a potential \$205.91/head difference (see Table 1) in average boxed-beef value between the top 10% and the bottom 10% of those sires, and that may be understated in light of today's relatively higher quality premiums and better performance, according to the authors.

Still, yield grade made more difference in the study because it used the OSU Boxed Beef Calculator (BBC) and based projections on actual prices paid for 100% closely trimmed boxed-beef cuts as reported from the three largest beef packers. As a function of the further processing, changes in yield grade have a greater effect on this boxed-beef value than in the current market's carcass grid tables, more than double the dollar premiums paid.

"The [BBC] yield-grade premiums are very progressive," Sally Dolezal says. "But futuristically, the 100% closely trimmed product will become the commodity."

Benchmarking of the Angus field data also showed that yield grade is an area of carcass value that could use a lot of attention.

In ranking the 1,087 sires, discounts for USDA Yield Grade (YG) 4s and 5s, heavies,

Table 1: Top 10% vs. bottom 10% of sires
[average Choice-Select spread]

Traits	Top 10%	Bottom 10%	Difference
Number of progeny	2,728	1,751	...
Number of sires	109	110	...
Carcass price, \$/cwt.	110.19	94.15	16.04*
Carcass value, \$/head	822.27	616.36	205.91*
Marbling score ^a	6.29	5.05	1.24*
Quality Grade ^b	2.44	3.53	-1.09*
Prime, %	7.7	0.7	...
Premium Choice, %	47.4	0.7	...
Commodity Choice, %	38.5	32.7	...
Select, %	6.1	35.0	...
Standard, %	0.2	16.9	...
Yield Grade	2.84	3.29	-0.45*
1.00-1.99, %	6.2	3.9	...
2.00-2.99, %	53.8	34.3	...
3.00-3.99, %	38.5	41.3	...
4.00-4.99, %	1.4	18.2	...
5.00-5.99, %	0.0	2.3	...
Fat thickness, in.	0.48	0.55	-0.07*
Ribeye area, sq. in.	12.92	11.31	1.61*
Carcass weight, lb.	748.6	645.7	102.9*
< 550 lb., %	0.3	20.2	-19.9*
550-949 lb., %	99.4	79.4	20.0
950-999 lb., %	0.3	0.5	-0.2
> 1,000 lb., %	0.0	0.0	...
KPH ^c , %	2.22	2.96	-0.74*

^a 5.00-5.99 = small; 4.00-4.99 = Select

^b 2 = premium Choice; 3 = low Choice

^c Kidney, pelvic and heart fat

* P < 0.0001

Table 2: Average performances of three sires' progeny

Traits	High-yield sire	High-quality sire	Balanced sire
Live weight, lb.	1,230	1,133	1,176
Carcass weight, lb.	775	725	750
Dressing percentage	63.0	64.0	63.75
% Choice or better	30	90	70
% CAB®	10	40	40
Yield Grade	2.50	3.50	2.75
% YG 1 & YG 2	70	10	70
Close box yield, %	69.1	66.1	68.1
Live value, \$/cwt.	65.77	68.46	69.26
Carcass value, \$/cwt.	104.37	106.95	108.64
Value, \$/head	811.66	776.79	814.25

Table 3: Feedlot performance

In weight	765 lb.
Days fed	133
ADG	3.73 lb.
Feed/gain	5.83
Cost of gain, feedlot	\$43.18
Cost of gain, total	\$49.92
Total cost	\$247.48
Selling weight	1,263 lb.

Table 4: Stocker performance

In weight	525 lb.
Days backgrounded	100
ADG	2.40 lb.
Pasture cost of gain	\$31.67
Total gain	240 lb.
Selling weight	765 lb.
Total cost of gain (\$/cwt.)	\$45.03
Total cost (\$/hd.)	\$108.07

lights and other outliers were calculated based on average carcass grids. Red-meat yield and conformity were two of the most significant value indicators. The study concluded that improving one full marbling score in the 1995-97 market was worth \$3.64/cwt. more in carcass value. Improving one full yield grade compounded the increased value by putting more beef in the box, leading to a carcass-value increase of \$12.35/cwt.

"That doesn't say you should chase yield grade and ignore quality," Dolezal says. "But you sure don't want to ignore the yield-grade side."

Packers may not emphasize yield-grade premiums in their grids now because they are getting the average balance they want without paying more for higher quality. Moreover, they fear the loss of quality cattle should they raise yield-grade premiums because the U.S. cattle herd is characterized by a lack of balance.

Balanced approach

Dolezal points out that the balanced approach in sire selection results in the highest boxed-beef value in progeny. (See Table 2.)

"The study shows that bulls with quality-grade potential, unless they have the red-meat yield to complement that, won't do as well in boxed-beef value," she says.

There has been some discussion on generating EPDs for boxed-beef value,

Dolezal says, because the sire rankings are not well-correlated with any other carcass EPD. "It is new information, and bulls would rank differently for that than they do for either ribeye area, marbling or percent retail product." However, she explains the OSU study did not run animal models and contemporary groups, so there could be some changes in which sires would actually constitute the top 10% for boxed-beef values.

Also, the database is age-adjusted rather than fat-adjusted, Dolezal points out. "A sire may have good carcass genetics, but if management was lacking in producing the progeny carcasses, one YG 4 would greatly impact the boxed-beef-value score. It would be neat to see a fat-adjusted analysis and assess at what point a sire's progeny should be marketed to avoid discounts.

"From a producer perspective, to have 85% of the progeny conform to boxed-beef specs says a lot for the breed. But you need to know more about the cattle to say which ones were more profitable, especially performance, feed efficiency and management practices," Dolezal concludes.

Calculating their worth

You can apply the latest OSU findings to the question of what a cattle feeder can afford to pay for "quality" Angus calves. Glen Dolezal did just that at last summer's Certified Angus Beef (CAB) Program Angus University in Bozeman, Mont. The

Angus progeny carcass values in the data set of 33,350 calves were apportioned to a segmented industry model with feedlot, stocker and cow-calf phases.

"At a uniform in weight of 765 pounds, (see Table 3) you could pay \$5.40 per hundredweight more than average breakeven for feeders that you knew would grade Choice," Dolezal said. "But you would pay \$4.15 per hundredweight less than average for steers that would grade Select, and discount the misfits by \$18.41 per hundredweight." (See Chart 1.)

With animals sorted by yield grade (see Chart 2), a cattle feeder could pay a \$7.87/cwt. premium for known-outcome YG 1s and \$1.22/cwt. for YG 2s, while discounting the YG 3s by 96¢ and the YG 4s by \$13.41.

During the 100-day stocker phase, you could pay a \$7.96/cwt. premium for a 525-lb. steer that a cattle feeder knew would grade Choice or better when finished, but you could discount Select-bound calves \$6.04/cwt. and quality-grade misfits by \$26.88/cwt. (see Chart 3).

Sorted by yield grade (see Chart 4), the YG 1 steer is worth a premium of \$11.47/cwt. and the YG 2, \$1.76/cwt. The steer calf that will never cut better than a YG 3 should go for a \$1.40/cwt. discount, and the future YG 4, at \$19.54 under average breakeven.

Dolezal used Oklahoma and Texas cow-calf Standardized Performance Analysis (SPA) data to show that the top 25% of ranches for net dollar returns would have to produce calves that excelled in both quality and yield grades. A common feature of the bottom 25% for net returns was the high incidence of calves that were misfits (see charts 5 and 6).

Did you pay too much?

Suppose you are the nervous owner of a pen full of 550-lb. Angus-sired steers, laid into the feedyard at \$105/cwt. You confided in a couple of neighbors, only to hear them whispering later, "He can't make money on those blacks, not at that kind of money." The banker wants to see your breakeven plans.

The truth is, you're going to need excellent feedlot performance, carcass quality and a friendly fed-cattle market at the end of the ride. Did you pay too much? That depends on what you know.

"There are the known-genetics, known-performance Angus-sired calves that are

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WHAT'S "HIGH QUALITY" WORTH? CONTINUED

Chart 1: Breakeven feeder-steer prices (765 lb.)

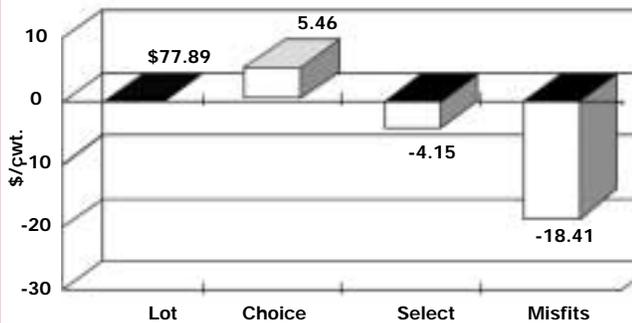


Chart 2: Breakeven feeder-steer prices (765 lb.) by YG

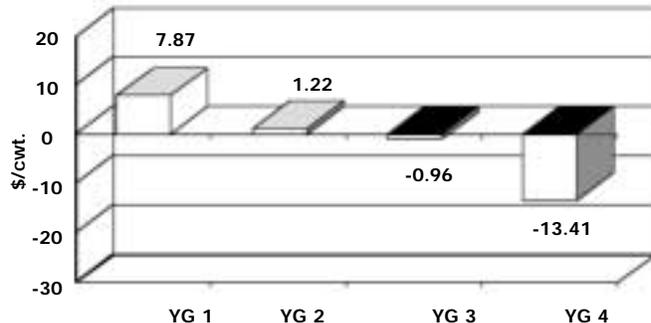


Chart 3: Breakeven stocker prices (525 lb.)

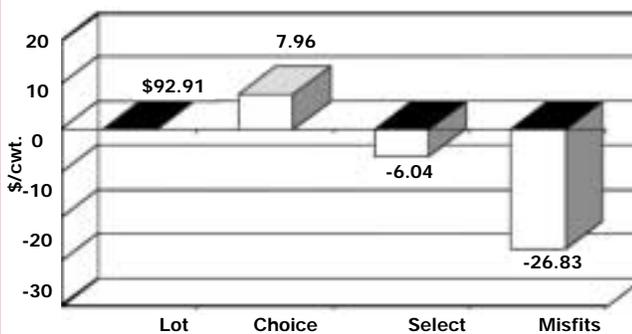


Chart 4: Breakeven stocker prices (525 lb.) by YG

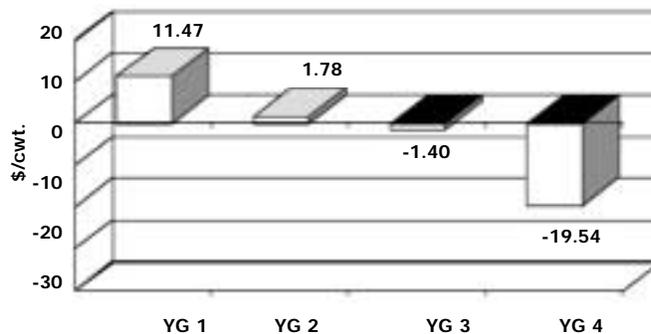


Chart 5: Net return per calf adjusted for cow cost by lot, Choice, Select and outs

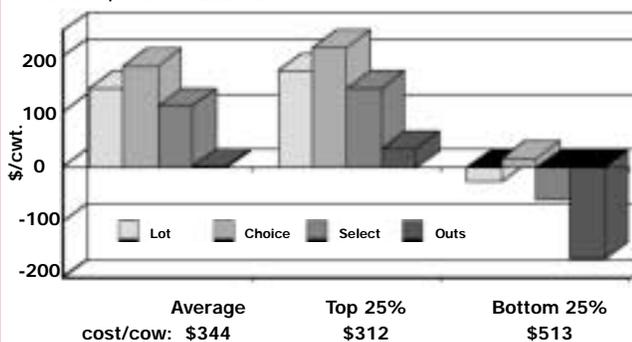
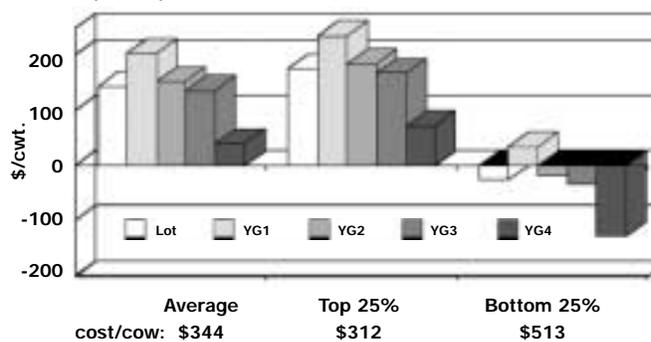


Chart 6: Net return per calf adjusted for cow cost by lot, YG 1, YG 2, YG 3 and YG 4



Source: "Characterization of Boxed-Beef Value in Angus Field Data," Oklahoma State University.

worth the premium prices, and then there are those that are just getting carried along," says Sally Dolezal. "If you don't allow for the potential performance, yield grade, quality grade and outlier premiums or discounts, you can lose money in every segment.

"The Choice-Select spread at \$13 per hundredweight places a great deal of value on cattle that will grade Choice or better," says Dolezal. "Even more if they fit the CAB® or Prime windows — assuming they meet all the other boxed-beef specifications."

The ballpark breakeven to put 600 lb. on

those steers at an overall 42¢ cost of gain requires selling at \$72.40 next June, according to Cal Siegfried, marketing manager at Heartland Cattle Co., McCook, Neb. A futures contract didn't come close to that level last fall. Based on trading the first week of December, Siegfried said you would need average premiums of \$38.53/head to make up for the projected shortfall in the commodity market — "and that ain't average!"

Siegfried says it's hard to tell what calves are really worth unless you have a history with them. He tells of a November closeout

on 340 heifers that approached the \$60/head mark for average premiums. That included payments for being 20% Prime and 40% CAB, plus they gained nearly 4 lb./day at a cost of just less than 35¢. Those cattle would have been worth more than average feeder calves, but the owner fed them.

From a commercial feeder's perspective, "If we know people who have [that] kind of calves, we encourage them to keep them (retain ownership)," Siegfried says. "I'm not willing to give half the premium away up front if I'm taking all the risk."

“If you have more information, both feeding performance and carcass quality, then you reduce your risk.”

— Ted Schroeder

Economists at Kansas State University (K-State) note that, in the long run, with average knowledge of calf potential, buyers pay too much about half the time. “Every time we crunch some numbers, we find that markets are incredibly efficient,” says Rod Jones. “The likelihood of the feeder making money on various types of cattle, adjusted for risk, will be evened out in the feeder cattle and calf markets on average.”

K-State’s Ted Schroeder says a buyer is more likely to be on the losing side of that balance the less he knows about the calves. “If you have more information, both feeding performance and carcass quality, then you reduce your risk.” Schroeder says feed price, as a variable in projecting breakevens, is “overshadowed by individual performance and market prices and premiums.”

Feeding-performance premiums may be harder to track than carcass premiums, but Jones is working on a model to suggest what higher feed efficiency is worth. “Clearly, when projected feed prices are cheap, the premium that can be paid for expected better performance is less,” Jones says. However, he notes, the high correlation between good performance and high-quality product comes into play.

“With the high Choice-Select spread, it is hard to sort the premiums currently being paid for the better calves into expected performance premiums vs. expected quality premiums,” he says. A quick look at potential breakeven projections says “average” 550-lb. steers should have been worth 95¢-97¢/lb. “Up to an 8¢ to 10¢ premium could be paid for cattle that can be expected to do well in both performance and quality.”

Schroeder cautions that there is a lot of variability in performance data, depending on type, location, management and weather, for starters. On the sale-price end, keep in mind there is typically a \$4/cwt. to \$6/cwt. price-forecast error, or \$3/cwt. either side of a prediction such as \$70/cwt. in June.

Most buyers this fall were not refining their bids with a computer program, however, Siegfried says. “They’re betting on the come of the market because everybody’s making money. But the low corn price may have been the biggest factor in the fall market,” he adds. “When corn harvest was over, the cash price of calves went up \$10 per hundredweight.

“We saw increased demand from Corn

Belt producers who may not have fed cattle before but considered it an attractive alternative to selling cash corn,” Siegfried explains. Other factors include a U.S. feeding industry that is 25%-30% overbuilt, counterbalanced this season by the Southern Plains drought that sent would-be wheat stockers to the feedyards.

