Why Buyers Want Proof

Feeding failures trace back to health and performance, but not necessarily purchase price. Buyers want proof of value added.

by Shawn Walter, CattleFax

It is becoming more common once again to see calves marketed through video sales, or even local auction markets, with a "value-added" label. Historically, these labels were driven by animal health companies and primarily based on vaccination programs or number of days weaned.

PHOTOS BY SHAUNA HERMEL

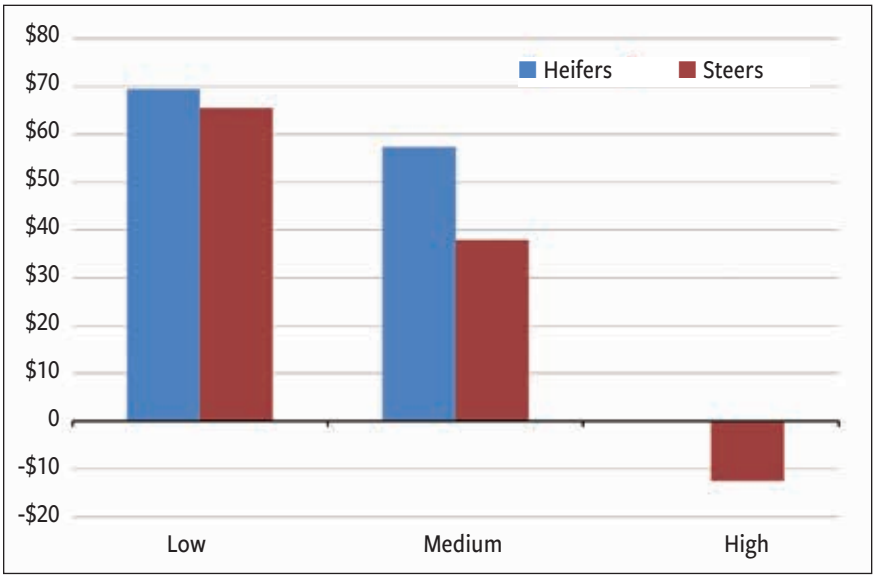
However, if you have thumbed through a feeder-cattle sale book lately, you have probably noticed the long list of programs used to differentiate *premium* calves from *commodity* cattle. In fact, it has grown to the point program badges take up more room than the printed descriptive information on the page.

The badges vary from breed association programs to natural or non-hormone-treated cattle (NHTC) claims to even programs promoting cattle care and community involvement. They all infer the cattle will either perform better in the feedlot, are likely to grade above average, or they will be eligible for special premium pricing at harvest.

Regardless of the program, if the cattle are going to be worth a premium, there is an assumption that feeding profitability will be better than average.

When that works out, everyone is happy; but there are few things more frustrating to a cattle feeder than to have a set of "value-added" weaned calves fall apart at the feedlot or close out with less-than-stellar feeding or grid performance. One of the first questions asked is, "Where did those calves come from?" If the answer to that question is known, it will put that producer permanently on their list of sources not to buy from again.

Fig. 1: Feeding profit/loss, in $/head, by treatment cost third



SOURCE: CattleFax FirstLook closeout database.

Analyzing feeding failures

Feeding failures are generally health-related or driven by a general lack of performance that drags out through the feeding period. Analysis of the CattleFax FirstLook closeout database shows just how much of an effect calf health has on feeding profitability.

For this analysis, treatment costs were selected as a primary measure of calf health. Closeouts were grouped by treatment costs each month, by 50-pound (lb.) weight groups and by sex to reduce the effects of seasonality, placement weight and sex on the outcome.

The analysis spanned the years from 2010 to 2019. The last two years were excluded because of the significant effect the COVID-19 pandemic had on market access and timing, which greatly influenced out-weights, performance and even death losses.

Also, only cattle placed weighing less than 650 lb. during October through December were included to narrow the focus to spring-born calves as much as possible.

There is a lot of information packed into Table 1. The initial objective was to determine the financial ramifications of health on the profitability of cattle feeding.

The results were clear: Steer calves with the lowest health costs

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Table 1: Effect of calf health, indicated by treatment-cost grouping (low-, middle- or high-cost one-third) on feeding profitability

Sex	Treatment cost thirds	Treatment cost, $	ADG, lb.	Dry feed conv. ratio	In-wt., lb.	Out-wt., lb.	Processing cost, $	Death loss, %	Total cost of gain	Cost/ cwt., $	Profit/ loss, $
Heifers	Low	1.92	2.8	6.3	609	1,158	12.52	1.41	0.95	156.95	69.43
Heifers	Middle	7.33	2.8	6.5	609	1,182	13.76	2.92	0.96	158.82	57.40
Heifers	High	29.15	2.6	6.7	604	1,179	15.61	6.02	1.06	153.47	0.21
Steers	Low	2.07	3.0	6.1	611	1,282	13.58	1.57	0.91	163.48	65.56
Steers	Middle	8.85	3.0	6.2	604	1,302	14.16	3.00	0.91	169.32	37.89
Steers	High	30.65	2.9	6.3	606	1,303	15.72	5.61	0.98	170.17	-12.46

SOURCE: CattleFax FirstLook closeout database.

were $78.02 more profitable per head than the least-healthy steers (see Fig. 1, page 25). Heifers showed a similar trend, with the healthiest calves finishing at $69.21 more profit per head compared to the least-healthy one-third.

Table 2: Processing cost thirds by treatment cost thirds

Treatment cost one-thirds	Processing cost one-thirds		
	Low	Medium	High
Low	11%	13%	10%
Medium	13%	11%	10%
High	8%	10%	14%

SOURCE: CattleFax FirstLook closeout database.

The difference in treatment costs alone made up a good portion of the profitability difference between the least- and most-healthy calves. Treatment costs for the least-healthy steers were $30.65 per head (average by lot), compared to only $2.07 for the healthiest one-third.

Death loss was also a big factor. The least-healthy calves had about four times as much death loss, with the least-healthy steers recording an average death loss of 5.61% compared to 1.57% among the healthiest one-third. Heifers showed an even more pronounced difference, with the least-healthy group coming in at just more than 6% compared to only 1.41% for the healthier heifers.

Using processing cost to evaluate health risk revealed that calves in the high-treatment-cost group were generally not identified as high-risk any more than calves in the low-treatment-cost group were. On average, there was only about $2 difference in processing cost between the least- and the most-healthy steers, and only $3 difference between the most- and least-healthy heifers.

Calf closeouts were also grouped by processing costs. Table 2 shows calves quite evenly distributed among the processing and treatment-cost groups.

There are two takeaways here. One, there were plenty of calves purchased as fully weaned and vaccinated that were processed as such, but ended up with significant levels of pulls and death loss. Secondly, because this happens frequently enough, many feeders are going to process all calves alike, which takes away some of the value of buying weaned, preconditioned calves.

There are few things more frustrating to a cattle feeder than to have a set of "value-added" weaned calves fall apart at the feedlot or close out with less-than-stellar feeding or grid performance.

Performance issues

Calf health issues at the feedlot don't just show up in higher treatment costs and death loss. Health issues also show up in feeding performance as reduced feed efficiency and higher costs of gain.

The healthiest steer calves converted feed to gain at a ratio of 6.1 vs. 6.3. That's a 3% advantage. Healthy heifers outperformed the least-healthy group by 6%. That translates to the bottom line through cost of gain.

The healthiest steers had a cost of gain that was 8% lower than the least-healthy third. Heifer cost-of-gain advantages were even larger with an 11% spread between

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Table 3: Effect of feed efficiency, indicated by feed-conversion grouping (best, average or worst one-third) on feeding profitability

Sex	Dry feed conv. thirds	Dry feed conv. ratio	ADG, lb.	In-wt., lb.	Out-wt., lb.	Treatment cost, $	Processing cost, $	Death loss, %	Total cost of gain	Cost/ cwt., $	Profit/ loss, $
Heifers	Best	5.9	2.9	602	1,168	9.20	14.01	1.91	0.91	155.68	92.21
Heifers	Average	6.5	2.8	606	1,175	12.20	14.52	3.00	0.98	159.18	49.47
Heifers	Worst	7.3	2.5	608	1,158	18.06	13.48	5.59	1.08	153.06	-23.68
Steers	Best	5.6	3.2	609	1,307	13.02	14.74	2.07	0.86	165.32	95.15
Steers	Average	6.2	3.0	607	1,302	13.52	14.46	2.96	0.92	168.09	33.37
Steers	Worst	6.9	2.7	609	1,264	16.90	13.19	5.11	1.01	166.78	-53.09

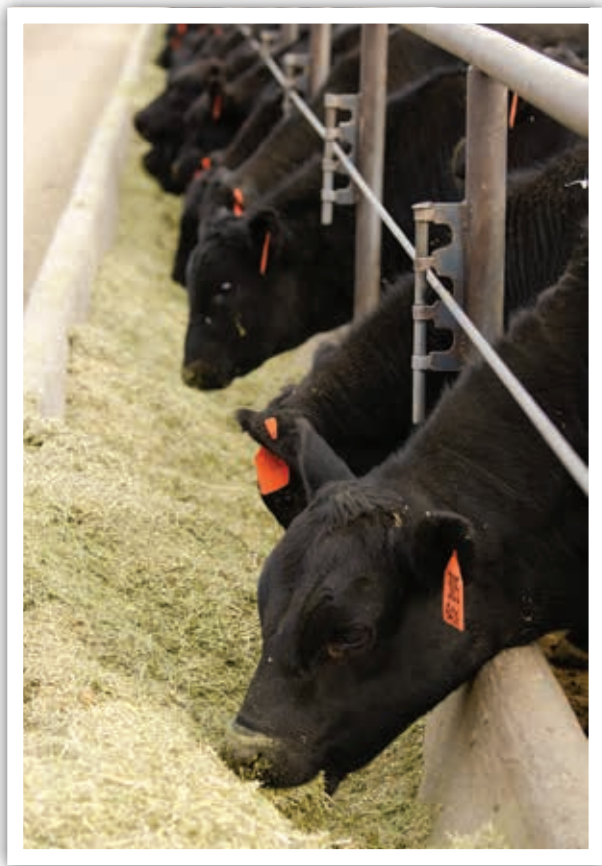
SOURCE: CattleFax FirstLook closeout database.

the high- and low-treatment-cost groups.

All measurements in this analysis are "deads-in," which means there are no adjustments to either in-weights or out-weights to offset gain lost through death loss.

One factor that always surprises me is that there is actually little difference in average daily gain (ADG) between health groups. Likewise, the least-healthy calves also tend to have the heaviest out-weights even with nearly the same in-weights. I began noticing this in the data around 2015.

One theory I have is that as we select for more growth genetics, we may be selecting for cattle that are less naturally resistant to disease. There is research ongoing today at several universities to verify this through genomics.



Anything that affects feed efficiency is going to directly affect feeding profitability — and health greatly affects feed efficiency.

Healthy & efficient

Table 1 also shows healthier calves feed more efficiently. Anything that affects feed efficiency is going to directly affect feeding profitability. Feed efficiency at the feedyard is measured as dry-matter feed conversion, which is calculated as pounds of feed required per pound of gain.

Since this is such a significant factor in profitability, we regrouped calf closeouts by dry-matter feed conversion thirds to illustrate the effect. Table 3 compares feed conversion thirds from best to worst, applying the same parameters used for the treatment-cost grouping.

The profit-loss price spread between the calves best and worst at converting feed to gain is even larger than it is for the treatment cost groups. Steer profits were $148 per head higher, on average, for the best-converting one-third compared to the worst. Heifer closeouts were $116 per head more favorable for the best converters. Even just comparing to the average third, top-converting steers netted an extra $62 per head at closeout.

To put that in terms of calf values, a group of 600-lb. steers that end up in the top one-third for conversion are worth almost $25 per hundredweight (cwt.) more compared to the bottom one-third, or $10 per cwt. more than the average steer calf.

The most efficient calves were healthier on average with fewer treatment costs and significantly less death loss. They had a better

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ADG at 3.2 lb. per day vs. 2.7 lb. for steers, and 2.9 lb. vs. 2.5 lb. for heifers. Out-weight differences were largest for steers, with the most-efficient group finishing out at 1,307 lb. — 43 lb. heavier than the least-efficient one-third.

The challenge is predicting health or feeding performance of a group of calves based on information available at the time of purchase.

Final observations

These observations are all interesting and certainly illustrate how much true value difference there is from one set of calves to another. However, the one factor that consistently shows up the same no matter what measurements are used to group closeouts from worst to best is the purchase price. There is consistently very little difference in purchase price between the high and low one-thirds for either health, feed efficiency, average daily gain, death loss, etc.

While this probably will be a surprise to many, most calf feeders have experienced this firsthand. The challenge is predicting health or feeding performance of a group of calves based on information available at the time of purchase.

However, verifiable information on calves can help predict performance and will give the buyer additional confidence in paying premiums for calves. This is also why we see growing popularity in value-added calf programs that not only include prescribed weaning programs, but also include added information such as breeding programs and even DNA-verified genomics in some cases. It helps explain the additional focus on how cattle are handled and cared for, overall herd health programs and other management practices at the producer level that are becoming a bigger part of value-added programs.

True value-added calves are healthy, have the genetics to grow efficiently and the information to go with them to prove that they are predictable. ▌

Editor's note: This article was commissioned for the *Angus Beef Bulletin*. Shawn Walter is the FirstLook data operations manager for CattleFax.