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—Brian Bentley

PHOTOS BY STEVE SUTHER

Convenience Pays

Profits are higher for producers with calm feedlot cattle.

by Lance Zimmerman

Joints getting stiff? When you don't move as fast as you used to, wild cows don't find a home on the ranch. The reason? You prefer to watch rodeos, not host them at processing time. Your motivation is safety, but is it profitable, too?

Most producers cull wild cattle rather than risk injury or facility damage, but they consider temperament a convenience trait. However, a recent analysis of Iowa's Tri-County Steer Carcass Futurity (TCSCF) suggests higher profits can be obtained by feeding calm cattle.

The study evaluated disposition, feedlot performance and carcass data on 13,530 cattle fed in eight Iowa feedyards in 2002 to 2004. The results point to producer losses of more than \$62 per head on aggressive cattle, according to Iowa State University Extension specialist and TCSCF manager Darrell Busby.

Docile calves are more likely to earn higher grid premiums and perform better in the feedlot — advantages for quality-focused producers. Their more aggressive penmates tend to be leaner, but producers pay for higher death loss, carcass quality discounts and higher feed-to-gain ratios.

Economics behind the trait

Brian Bentley owns S and B Feedyard, one of the TCSCF cooperators near Macedonia, Iowa. “Disposition is becoming more important every day,” he says, as the industry realizes the costs associated with wild cattle. He can relate to the data showing producer losses.

“Higher-disposition-score cattle are not going to convert as well as the lower-disposition cattle, just because of their flightiness,” Bentley explains. “They are the ones that get worked up all the time and stand at the back of the pen instead of staying up at the bunk.”

That kind of behavior can mask symptoms, he says. “It's hard

to tell the difference between wild and sick if you have a half-psycho steer with a temperature of 106.”

The TCSCF results show decreased gain of 0.26 pounds (lb.) per day for aggressive calves and a 1.8% increase in feed-to-gain ratio. That translates to \$38 per head of additional profit for calm cattle, based on value-based pricing from Grid-Max, a service of Cattle-Fax (see Table 1).

Docile cattle were actually identified for treatment more often, but experienced less than half the death loss of the wildest cattle (see Table 2).

“Given the nature of aggressive cattle, I am sure we are seeing fewer pulls,” Busby says. “Who wants to go into the pen and have a rodeo to get a wild steer up and get him worked? That has something to do with it.”

Attention to grid marketing makes the study's results more appealing to producers, who only make a management change when it is profitable, Busby notes.

The relationship between disposition and carcass quality illustrates the economics of temperament, with calm cattle having a \$17 advantage over nervous to aggressive cattle when comparing characteristics measured on a grid market.

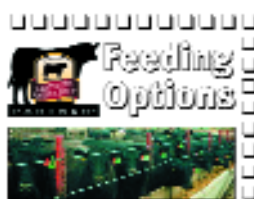
A grid suited for carcass quality favors docile cattle. Higher quality grades are more attainable for calm cattle, and the wild ones are more likely to grade Select or Standard.

Gentle-disposition, Angus-influenced cattle are twice as likely to be accepted for the *Certified Angus Beef*® (CAB®) brand when compared to aggressive cattle (see Table 3). Calm cattle reached

29.1% CAB acceptance during a time when the industry average for Angus-influenced cattle was 17.4%.

Busby says temperament makes a significant difference in the carcass characteristics of cattle.

“Compared to calm penmates, aggressive calves are 15 percentage points lower on Choice, with double the Standards. That means we are taking more discounts on these cattle,” he says. “The cattle are leaner, but we are cutting the percentage of CABs in half for Angus-influenced calves when we look at disposition alone.”



Adjusting attitudes

The good news is that temperament can be manipulated through adjustments in genetics and management, Busby says.

Breeding selection provides a moderate effect. Past studies indicate that heritability of temperament is around 40%, and while research is

Table 1: Effect of disposition on the difference in net dollars returned per head

| | Disposition score | | |
|-------------------------------------|-------------------|----------|-----------------------|
| | Docile | Restless | Nervous to aggressive |
| Quality Grade premium | \$18.73 | \$12.29 | PAR |
| Yield Grade premium | PAR | \$0.87 | \$3.50 |
| Light/heavy carcass weight discount | -\$0.16 | PAR | -\$1.29 |
| Dark cutter/hardbone discount | PAR | -\$0.19 | -\$0.72 |
| ADG bonus ^a | \$37.80 | \$28.91 | PAR |
| Death loss discount ^b | -\$0.90 | PAR | -\$8.75 |
| Treatment cost ^c | -\$0.54 | -\$0.08 | PAR |
| Net dollars returned | \$54.93 | \$41.80 | -\$7.26 |
| \$ difference | \$62.19 | \$49.06 | PAR |

^aBased on pounds of additional carcass weight gained during the feeding period.

^bAccounts for cost of gain investment and lost carcass value.

^cIncludes medicine, labor and chute/equipment charges.

inconclusive on whether certain breeds are calmer than others, Busby believes the attitudes of sires within breeds can vary.

Bentley has seen similar results in the feedlot. “We had a group of cattle that went through the chute, and you could tell which calves were out of each sire based on the disposition score,” he says. “They were each of the same breed, but one bull obviously had a higher temperament than the other.”

Janice Swanson, interim department head of animal sciences and industry at Kansas State University, recommends producers consider their production styles before they cull on temperament. Environment can influence livestock attitudes as well.

“Producers need to figure out what ‘wild’ really is,” Swanson says. “Sometimes we are talking about range cattle that haven’t had a lot of exposure to people. That means you may have to be more attentive when you work them.”

Breeding adjustments should come into play when repeated exposure shows attitude — not environment — is to blame. Swanson adds that selecting for calmness is not the same as selecting against survivability.

“Producers can still select animals for calm temperaments and have them survive well,” Swanson says. “It doesn’t have to diminish their ability to respond to threatening situations. They do not turn into lumps of coal because you selected them based on temperament.”

Scoring cattle on temperament is an easy task, Busby says. The TCSCF used a six-point chute scoring system developed by the Beef Improvement Federation (BIF). Cattle receiving a 1 are “very docile,” while a 6 is considered “aggressive.” The study evaluated each calf’s temperament at least three times.

Producers could initiate disposition scoring at the farm, Busby says. That way, they don’t have to wait for input from TCSCF to make bull-buying adjustments before the next breeding season. The American Angus Association has incorporated the BIF scoring system into the Angus Herd Improvement Records (AHIR) yearling report (see “Tracking Temper,” pages 93-95, December 2004 *Angus Journal*).

Indeed, it makes sense to impose some disposition scoring on prospective herd sires. A bull’s reaction prior to the auction ring can

provide buyers with insight to how his calves will act at home, Busby says.

Flighty animals tend to be more reactive to sudden movements and noises from unexpected sources. “Cattle are animals of prey,” he stresses. “Understanding how they see the world can go a long way to improving handling techniques.”

Understanding cattle

Genetic selection is only part of the solution. Human behavior can play an equally important role in setting cattle dispositions. “It is always a good idea to check your attitude at the pickup door,” Busby says. “If things aren’t going well for you, taking it out on the cattle will not help at all.”

Assuming a calm posture, using a cattle-friendly working facility and finding knowledgeable employees can help cattle understand that no harm is intended.

There are certain elements of cattle processing that producers should approach with caution, Busby says. One problem involves the use of dogs in processing areas.

“When cattle are standing in the alleyway and a dog is nipping at their heels, I don’t think it does one bit of good,” he says. “That calf has no idea what it is supposed to be doing.”

Electric prods are another tool that falls into the caution category. “Feedlot audits consider four uses per 100 head acceptable and two times per 100 head excellent,” Busby says. “There are some feedlots that do not use them at all.”

Taking the time to walk through feedlot pens and interact with cattle has improved disposition at Bentley’s yard.

“My grandfather always taught me that the more time you spend with the cattle, the better they get,” Bentley says. “It is a proven fact. If you walk through the pens, the calves will know you’re coming; they will know who you are.”

No one likes high-headed cattle, and Bentley says feedlots will bid accordingly when the profit potential for calm cattle becomes more noticeable.



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CONTINUED ON PAGE 62

Table 2: Effect of disposition on ADG, feed-to-gain, pulls and death loss

| Item | Disposition score | | |
|----------------|-------------------|----------|-----------------------|
| | Docile | Restless | Nervous to aggressive |
| No. of head | 9,791 | 2,954 | 785 |
| % of total | 72.4% | 21.8% | 5.8% |
| Arrival weight | 631 | 626 | 611 |
| Overall ADG | 3.17 | 3.11 | 2.91 |
| Feed to gain | 7.10 | 7.13 | 7.23 |
| Morbidity rate | 19.2% | 16.8% | 16.2% |
| Mortality rate | 1.09% | 1.02% | 1.91% |

Table 3: Effect of disposition on quality grade

| Item | Disposition score | | |
|----------------|-------------------|----------|-----------------------|
| | Docile | Restless | Nervous to aggressive |
| No. of head | 9,791 | 2,954 | 785 |
| % of total | 72.4% | 21.8% | 5.8% |
| % Prime | 1.69% | 1.17% | 0.13% |
| % Upper Choice | 22.62% | 17.67% | 12.02% |
| % Lower Choice | 49.83% | 50.24% | 46.10% |
| % Select | 23.29% | 27.49% | 36.20% |
| % Standard | 2.55% | 3.43% | 5.55% |
| % CAB | 29.07% | 22.83% | 14.31% |

Convenience Pays CONTINUED FROM PAGE 61

“You will see more and more feedlots shy away from aggressive animals,” he predicts. “Quieter cattle are going to perform better. High-disposition-score calves just cause the profitability of the whole pen to go down.”

Swanson agrees that a disposition-based market incentive may develop.

“The beef industry today is selecting and paying premiums on a number of traits. Why not disposition?” Swanson says.

“It means a lot to feedlot owners if you think about it. They pay the expenses on employees that cannot come back because a calf busted them up the day before.”

Management variables change from producer to producer, creating opportunities for cow-calf operators with quieter cattle.

“Anybody who is breeding cattle bears a direct responsibility for what they are breeding,” she says. “We have great breeders out there and those who don’t care. Some

produce whatever they can get on the ground and take whatever money they can get for it.”

The responsible producer doesn’t follow a take-what-I-can-get philosophy, Swanson says. As safety and high quality continue to gain importance on the consumer side, those issues are increasingly linked to profitability and reputation on the producer side.

Temperament is a convenience trait, and those who pursue it have fewer headaches — in the corral and at the bank. **AJ**

