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**“Stocker Cents” article**

**Consider All the Effects of Temperament When Sourcing Stockers**

*Justin Rhinehart – Beef Cattle Specialist; Mississippi State University Extension Service*

Temperament of stocker cattle has long been recognized to influence production efficiency by having an impact on cattle handling and performance. More recently, scientists have suggested that flighty behavior of individual calves can also affect the performance of the entire group. So, letting just one flighty calf slip passed the sort could decrease the performance of the entire group. For humans, temperament is defined as the way a person thinks, behaves or reacts. For cattle, a good definition for temperament is the intensity of their “fight or flight” instinct.

Some of the performance measures that are impacted by temperament are health, feed efficiency, weight gain, dressing percentage and meat quality. Before discussing trials that have reported the effects of temperament on performance, it is important to understand how it is measured in research settings and how that translates to real-world application when buying stockers. Scientists that study disposition in cattle often use three methods to grade temperament: 1) pen scores, 2) chute scores and 3) exit velocity.

Pen and chute scores use a 1 to 5 ranking where 1 is calm and 5 is flighty. Pen scores are taken by a person entering a pen with a group of cattle and applying a score between 1 and 5 where a score of 1 indicates that the cattle are not excited by humans and a score of 5 signifies that the cattle run into fences or charge humans when approached. Chute scores evaluate cattle on how they react to being secured in a working chute. Exit velocity is a measurement of how quickly cattle cover a set distance when released from a working chute. The faster they leave the chute, the more temperamental they are expected to be. As a practical matter, pen scores will likely be the best tool for stocker operators and order buyers to evaluate cattle temperament at the sale barn or ranch.

Dr. Rhonda Vann, a research scientist at Mississippi State University’s Brown Loam Experiment Station, has teamed up with Texas A&M University scientists to evaluate the effect of temperament on many of the traits mentioned above. In one study, Dr. Vann and her colleagues evaluated how temperament impacted gain for 44 steers during a 168-day grazing period. Their results indicated that temperamental calves have reduced average daily gains on several different types of forage. A trial by Colorado State University researchers showed that feedlot cattle with the most calm temperaments gained 0.41 lbs per day more than the cattle in that trial with the most excitable temperaments. Many other studies support the notion that calm cattle gain more rapidly and efficiently on grass and in the feedlot.

Carcass quality potential is becoming a more important measure for stocker operators regardless of whether or not they retain ownership through the feeding phase. Especially as that information flows back “upstream” when packers place more pressure on feedlots to source cattle that will produce a more desirable end product. It is common knowledge that extremely excitable cattle are more apt to produce dark cutting beef that is considerably less valuable. But dark cutters are not the only negative result from temperamental cattle. A calf that is more flighty, and more severely stressed by handling or human presence, will produce less marbling and tougher beef when finished.

Even if the quality of end product does not directly impact the profitability of a grazing or backgrounding operation, health certainly does. Cattle immunity and health performance is negatively impacted by poor temperament. The 2004 Mississippi Farm to Feedlot data showed that cattle assigned a pen score of 2 and 3 (calm temperament) had lower health treatment costs during feeding compared with cattle assigned a pen score of 4 and 5 (excitable temperament). The group of Mississippi State and Texas A&M scientists showed that antibody response to clostridial vaccinations lasted longer in calm calves than in temperamental calves. So, the decreased health performance of flighty calves is probably due to poor immune system response to vaccinations.

The negative effect of excitable temperament is not limited to the individual flighty animal. More recent unpublished data for the Mississippi State University Brown Loam experiment station shows that pairing an excitable calf with a calm calf during grazing studies makes the calm calf become more excitable. Most observant cattlemen have seen this in the cow herd and calf crop alike. If this influence of excitable temperament persists through the stockering and feeding phases, the negative influence of temperamental cattle on performance will be amplified. In essence, one bad apple can spoil the barrel. Furthermore, excitable temperament does not seem to change over time in most of the published cattle behavior research.

All these examples illustrate the fact that flighty calves hurt the bottom line for stocker operators and backgrounders. Most experienced buyers and managers avoid purchasing notoriously temperamental cattle but this selection criterion should also be applied to groups of cattle with only one or two “high-headed” calves. Paying close attention to temperament in selecting stockers should also stimulate cow-calf producers to use it as a genetic selection tool that will eventually bring calmer calves to the sale.