

Column Name - The Heartland Minute

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*“Importance of Maintaining Cattle Gut Health”*

No one likes an upset stomach, feeling gassy and bloated. It almost always is guaranteed to ruin your day or even bring you down for a whole week. Just as it can affect us, we need to be mindful of digestive upset in our cattle, what we are feeding them, and how that can be problematic to their overall health and performance. The cattle stomach is divided into four compartments or chambers: the rumen, reticulum, omasum, and abomasum. The one we typically focus on in relation to gut health is the rumen.

When we think about maintaining proper rumen health, the factors that come to mind are proper pH balance and a healthy microbial growth population and environment. Unbalanced pH can lead to acidosis, and healthy microbial growth aids in digestion and absorption of nutrients. This comes from cattle chewing their cud. We also want to keep in mind the need to provide a healthy diet that promotes proper digestion throughout the gastrointestinal tract.

If a foreign pathogen is introduced at any point in cattle's digestive systems, this can interrupt the normal microflora. One symptom we might see is diarrhea caused by this imbalance. Providing a healthy diet can also prevent the digestive tract from being damaged. If damage to that lining occurs, then that can allow bad bacteria to move into the bloodstream and cause abscesses to develop in the liver.

Something else to consider is that cattle consuming diets high in starch, which typically happens in the finishing phase, have a limited capacity to absorb that in the small intestine resulting in hindgut acidosis that could lead to ulcers developing and potential cattle death loss.

Cattle digestive upset leading to liver abscesses, which typically happens in the finishing phase on a high grain/low roughage diet, can lead to economic loss at the time of slaughter. Cattle with liver abscesses do not exhibit clinical signs and the abscesses are detected only during processing. By that point in the game, it is too late to prevent that economic loss from happening.

Cattle livers containing abscesses are condemned at slaughter and represent an economic loss to the U.S. beef industry of approximately \$61.2 million a year (25.5 million fed cattle, 30% liver abscess rate, \$8 per liver), not including reduced carcass weight from the additional trimming required, reduced marbling deposition, and reduced feedlot performance.

Information comes from K-State University Beef Cattle Institute veterinarians, Dr. Brad White, Dr. Bob Larson, and Dr. Phillip Lancaster.

For more information regarding Agriculture and Natural Resources, 4-H Youth Development, or K-State Research and Extension call the office at 620-583-7455, email me, Ben Sims, at benjam63@ksu.edu, or stop by the office which is located inside the courthouse. Be sure to follow K-State Research and Extension- Greenwood County on Facebook for the most up-to-date information on Extension education programs and the Greenwood County 4-H program.