

Good Herd Health through Good Management

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Cattle producers understand that keeping cattle healthy is a goal that we all strive toward. A good herd health program is an essential part of any farm or ranch management program. Not having a good herd health program in place also has a big impact on profit margins. Mississippi Farm to Feedlot program results show just how large of an impact sickness can have on profitability. Steers that were treated twice or more had lower gains, and lost an average of \$141.95 net return from finishing. Calves which remained healthy during the feeding period returned an average of \$46.74. Fortunately there are numerous management practices which can aid in keeping cattle healthy. At the core of any management strategy for good herd health is a close relationship with your local veterinarian, who can tailor a herd health program to best meet the needs of a particular herd.

Although disease prevention programs may appear to be a costly investment initially, a good program will ultimately be more cost effective than treating a disease outbreak. For example, treating an outbreak of respiratory disease costs considerably more than proper management of calves at weaning or receiving. Developing a good herd health program is centered around disease prevention, diagnosis, and treatment. Working closely with a veterinarian is critical in this process. Successful treatment of a disease or infection is dependent on an accurate diagnosis. If you have a good working relationship with your veterinarian, he or she will be familiar with the history of the herd, which can aid in diagnosis.

Several management strategies for a good herd health program focus on minimizing stress for the animal. It has been well demonstrated that stress compromises immune function. For example, if calves are vaccinated only while subjected to the stress of weaning, full immunity may not be established, and that calf may not be equipped to fight off that disease when encountered. In fact, the underlying goal of many preconditioning programs is to minimize stress and enable that calf to reach its peak performance. Both environmental and nutritional stressors should be considered.

Laying the groundwork for good herd health should begin early in a calf's life. Routine practices such as dehorning and castration should be done early in life rather than closer to weaning time. Calves should be castrated at 3 months of age or less to minimize stress. When bulls are castrated beyond 400 lbs., there is an increased risk of sickness and death, in addition to reduced gains and efficiency. The least stressful dehorning technique is of course the use of polled genetics. However, when horns are present it is best to remove them earlier in the calf's lifetime, ideally between 2 and 4 months of age, and to choose the method based on calf age and size of the horns. If possible, avoid dehorning and castration during fly season to reduce the risk of infection.

The event of weaning in itself is also a very stressful time early in a calf's life. There are numerous management practices that can reduce the stress of weaning. Sorting and hauling freshly weaned calves to the sale facility the day before the auction can result in increased shrink compared to preconditioned calves. Stress at weaning can increase the likelihood of calves developing respiratory infections. Additional stress results when calves are introduced to unfamiliar surroundings post-weaning. Give calves access to the weaning area a few days before

weaning. Corrals, drylots, or small pastures can serve as weaning facilities. Good fences will prevent calves from returning to their mothers to nurse. Small lots may reduce fence walking or pacing, but dust or mud can become problems in dry or wet conditions.

Fenceline weaning, where calves remain in sight of and close to their mothers, may reduce weaning stress. Cows will initially graze close to their calves gradually moving further away during the days after weaning. One strategy involves initial nose-to-nose contact between cows and calves followed by gradual increases in separation distance by moving electrified wires or tapes further from each side. Train cattle to respect electric fencing prior to weaning to facilitate the weaning process. Fenceline weaning also allows high-quality pastures to be used as weaning facilities in place of dusty drylots. Allow calves to creep-graze into these high-quality pastures prior to weaning to give calves time to become familiar with their surroundings prior to weaning, at which point the creep-gate can simply be closed. Properly weaned calves are “bawled out” and readily consuming feed and water well before the preconditioning period ends.

When cows or calves are not provided adequate nutrients to meet their needs, they experience a nutritional stress. Calves, young cows, older cows, pregnant cows, and lactating cows all have increased requirements. Forage alone may not be enough to meet increased requirements. In addition, stressed calves, following weaning, eat less or not at all, therefore it is important to provide a more concentrated source of energy and protein for these calves, as well as a good quality source of hay. A good mineral program is important for all stages of production. Minerals and vitamins are vital for numerous functions, such as the immune system, reproductive performance, and growth.

Calves also experience a multitude of stressors from the environment. Providing a clean, comfortable environment can help to minimize the effects of these stressors. Temperature fluctuations outside of an animal’s comfort zone cause added stress. During periods of high heat and humidity and little wind, take actions to minimize the effects of heat stress as cattle are processed. Small practices such as providing adequate water, avoiding handling cattle when the risk of heat stress is high, and if cattle must be handled work them before the Heat Index reaches 84, can make a big difference. Heat management tools, such as shades and sprinklers, should be considered if sufficient natural shade is not available. Extreme cold and wind conditions exist when the wind chill index is below 0°F. These extreme conditions can have drastic adverse effects on cattle health and can dramatically increase cattle maintenance energy requirements. If cattle are wet, the danger is even greater.

Another environmental factor which can negatively impact herd health is mud. Excessive muddy conditions creates disease/health risks by harboring disease-causing pathogens, and can lead to increased problems with foot rot, scours, or naval ill. Areas where cattle congregate such as around feeding troughs, water sources, or shade are particularly susceptible to trampling damage and mud accumulation. Lanes where cattle move through in groups are also areas that are likely to become muddy. Mud creates hazards for newborn calves to become chilled or trapped. In addition, mud has negative impacts on animal performance by impacting feeding behavior. Mud causes suction on hooves, making it more difficult to move. For example, just 4 to 8 inches of mud can cause a 4 to 8% lower feed intake and 14% lower ADG, while belly deep mud (12+ inches) can cause 30% lower feed intake.

Often management strategies are not included in a herd health program. Many producers consider only vaccines, dewormers, or treatment strategies when developing a plan, but proper management practices can save money through reducing treatment costs, and may ultimately lead to increased profits through increased animal performance.

For more information about beef cattle production, contact an office of the Mississippi State University Extension Service, and visit extension.msstate.edu/beef