

Pieces of the Puzzle



Health programs, mineral management, water, feed sources and animal handling are important pieces for calves on feed.

Story by
KINDRA GORDON

Genetics often get the spotlight when it comes to animal performance. Producers aim to select sires that will have progeny with heavy weaning and yearling weights and desirable carcass traits. But management is a big factor influencing the end beef product — and overall profitability — as well. Several industry experts recently shared their advice for managing calves on feed at the “Making Bottomline Adjustments” feedlot conference in Mandan, N.D.

Monitor health

Industry estimates indicate there can be up to a \$90 difference per

head in the return on sick calves, compared to healthy calves. Those lost dollars underscore the importance of a herd vaccination program at the ranch prior to calves going on feed.

But once animals are in the backgrounding or finishing phase, they’ll need some additional health inputs and should continue to be monitored for signs of sickness and treated quickly, says Gerald Stokka, former Kansas State University (K-State) Extension beef veterinarian and current senior veterinarian with Pfizer Animal Health.

When receiving calves, Stokka suggests metaphylaxis (mass medication with antibiotics) for high-risk animals, along with a modified-live virus (MLV) vaccine and dewormer. Once in the lot, monitoring health and following up with treatment is the best management strategy. Stokka says in most cases the cause of treatment failure is usually due to not treating an animal early enough during the course of the illness.

To that end, Stokka says, “It is important to recognize the behavior of healthy animals.” Healthy animals should be bright-eyed, have good hair coats, demonstrate curiosity, and groom themselves and others.

Appetite can also be a big indicator. “Bunk management is critical. A lot of times, with high-performing calves the temptation is to feed the daylights out of them. But we can push calves too much and create respiratory disease by the way we feed them. So it is important to monitor historical feed intakes,” he says.

Calves with droopy ears, dull coats, poor appetites, and runny eyes and noses should be pulled, have their temperatures taken and be

further evaluated and treated if necessary. Stokka points out that a temperature of 101.5° F is normal for a calf; however, in feeding situations, up to 103° can be considered normal for a calf because environmental temperatures can influence rectal temperatures of calves. Thus, on a hot day, calves might have a slightly higher temperature. High-risk animals may need to spend time in recovery or hospital pens, and Stokka suggests considering revaccination in problem pens.

Overall, he says to watch animals’ treatment responses before treating them with a different antibiotic. “We do have to make sure we treat animals for a long enough period of time to ensure they get better,” he says.

To gauge an animal’s response, monitoring temperature alone after treatment isn’t enough, Stokka says, because a fever may persist for a few days after treatment. Instead, weight gain is one of the most important things to which to pay attention. Therefore, it is a good idea to have a scale on your chute.

“If the animal is back on feed and gaining after treatment, that’s the best indicator,” Stokka says.

Parasites can also be a factor, suppressing appetite and the immune system, so be certain parasite control is part of your health program, both at the ranch and in the feedyard.

Minerals make a difference

Even if animals have had proper vaccinations, some still may have disease “breaks” in the feedlot. Montana State University’s (MSU’s) Extension beef specialist John Paterson cites a Colorado study showing that among preconditioned calves, about one-third were still getting sick at the feedlot. Paterson attributes that to poor mineral supplementation.

Specifically, he says, “The reason we often see sickness in the feedlot is probably due to lack of mineral management starting in the cow herd. Trace minerals can have a significant carryover effect on feedlot performance and health of calves.”

He says mineral supplementation is an important focus at the cow-calf level to enhance fertility, fetal development and the calf’s future

disease resistance. Paterson adds, “A nutrition program is important from conception through the feedyard so the animal’s genetics can be fully expressed.”

For trace minerals, he says copper, zinc and phosphorus are the big three. During drought, vitamins A, D and E may also need to be supplemented.

Because some of these minerals can have secondary interactions that limit nutrient uptake or interact with soil micronutrients that cause toxicity, Paterson advises working with a nutritionist to develop a balanced nutrition program that optimizes production.

He adds, “Trace minerals by themselves won’t cure all morbidity problems. Producers still need to consider vaccination programs, genetics and environmental factors as well.”

Ensure quality water, feed

Supplying good, quality water and feed may sound like a no-brainer, but these are critical steps that require a feeder’s attention.

“The number one thing that affects feed intake by cattle is water,” says Gary Sides, who has worked as a nutritionist for several institutions and is presently with Pfizer Animal Health. He advocates testing water sources for sulfates and other nutrients that may limit animal performance.

Paterson issues the same advice and points out that high sulfate levels in water can inhibit trace mineral uptake and further affect animal performance.

Additionally, Sides says producers need to pay attention to energy and protein in rations. “Overfeeding leads to severe declines in intake, and calves will eat that way the rest of the time they’re on feed. Overall feed intake is therefore reduced, which can really affect carcass quality because the last place energy is put down is marbling. So, if animals are not fed right, carcass quality can be affected,” he says.

Sides says a crude protein source can also affect animal performance and quality grades. Depending on the specific diet, oil meal proteins tend to help drive intake and give a performance and quality kick compared to feeding only protein from urea, Sides says. “Soybean meal may cost more to feed, but it may be worth it,” he adds.

North Dakota State University



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(NDSU) Extension beef specialist Greg Lardy cautions producers feeding byproducts to pay attention to the nutrient analysis of these feedstuffs.

“The milling procedures that produce these byproducts are different and can make a lot of variation in the nutrient value of byproduct feeds,” Lardy says.

Additionally, he says producers need to consider price, transportation costs and storage to determine if byproducts fit a specific feeding operation.

Lardy says the industry will see more and more byproduct feeds available as ethanol production continues to increase, and there are economically viable opportunities to use these feedstuffs. But, he advises that anyone feeding new feeds make ration changes gradually so cattle can adjust.

Handling considerations

Lastly, Sides says, “In utero is when a calf begins to be impacted for carcass quality. Environment, morbidity and nutrition all play a role in impacting carcass yield and quality.” He points out that the way in which animals are handled is equally important.

As an example, research has shown that the older cattle are at castration, the lower percentage there will be grading Choice at harvest.

If cattle are implanted, they may also need to be on feed longer to grade Choice. “Implants do make cattle bigger. They change the growth curve of the animal, so to reach their genetic potential to grade they may need more days on feed,” Sides says.

He advocates Bud Williams-style animal handling to keep cattle calm, on feed and performing well. “When you first get cattle into a lot, walk through them for 30 minutes and show them the water and feedbunk. Teach them you are a caretaker and not a predator,” Sides says.

Finally, follow up on carcass performance and the genetics that produced the premiums and/or the discounts. Sides says, “If you get rid of the bottom 20% of your cows every year, you’ll take home more money from your calves.”



The way cattle are handled plays a role in the resulting carcass quality. Procedures such as castration and implantation need to be carefully considered and performed.



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