

Weaning In A Time Of Need

Drought Conditions May Shift Producers' Strategies

By Katie Allen

The calf in the pasture is used to getting nutrients from its mother and drinking out of an open water source, likely a pond or stream. When that calf is weaned, it may be moved to a dry lot and comingled with other calves. It may have plenty of shade to stay out of direct sunlight, but it isn't used to eating out of a bunk or using the livestock waterer that limits one or a few head at a time to drink. The calf becomes severely heat stressed and dies.

Heat stress is among the many problems a producer could encounter at weaning time. Eric Bailey, state beef extension specialist at the University of Missouri (MU), said due to drought conditions throughout Missouri this year, producers may be considering weaning earlier than normal. The U.S. Drought Monitor showed more than 90 percent of Missouri in some form of drought as of the end of July. The summer drought impacts across the state, however, are varied, with the northern part of the state showing the most drought severity.

An early weaning situation means not only would calves be lighter weight at weaning, but they might be forced to combat a number of other issues such as heat stress during the early fall. Weaning calves early means producers need to be more diligent with managing stress, nutrition and the health of their weaned calves.

In this heat stress scenario, single-access waterers being the only source of water in the pen may be efficient from a water conservation standpoint, Bailey said, but open-top tanks, even if producers have to haul water to fill them, are important to have during warmer months for weaned calves.

"The amount of water cattle drink in a day can surprise you," Bailey said. "In a heat stress event, cattle will drink two gallons per 100 pounds of bodyweight per day."

In addition to providing appropriate water access, producers will need to think about how they will distribute their forage resources to provide calves with enough nutrients once weaned. Weaning calves earlier than normal could help producers better manage their resources and allow for some rest on pastures.

"August is historically a lean month in terms of forage in Missouri, so one of the things we can do to ease the burden on these pastures is to wean calves early," Bailey said. "The challenge for producers is that if you wean your calves 60 days earlier than normal, they may be 100 pounds lighter than what you would normally expect to sell them for if you are selling around weaning time."

Some producers who calve their cows at the beginning of the year may have weaned calves by early fall or are at the point of transitioning to a weaning period on their operation. Bailey said producers can typically wean calves at 100 days of age with minimal health or production risk, but if the calves do need to put on pounds to catch up to the producer's ideal weaning weight,

preconditioning or backgrounding will be necessary at a time when the dry environment may mean less feed resources.

“Managing calves separately from the cows is a more efficient way in this time of feed shortage,” Bailey said. “Rather than pouring more feed to the cow-calf pair, get those calves off on their own and background them. A cow’s nutrient requirements will be reduced by 40 percent when you wean the calf off her, because she doesn’t need as much feed to produce milk. Essentially, for every two-and-a-half days a calf is weaned early, you save a day of feed for the cow.”

Mike John is a commercial beef producer as general manager of John Ranch, Inc. in Huntsville, Mo., and is also director of Health Track at MFA, Inc. He said in visiting with other producers across the state, early weaning is a popular consideration given the current environmental conditions.

“It’s no secret that if you’re trying to grow the calf through the cow it takes a lot more feed than it does if you’re trying to feed that calf directly,” John said. “Your feed conversion can benefit and your cost of gain reduced greatly in a forage-short situation.”

John said he’s seen a dramatic shortage of forages statewide but especially in the drier areas. Hay is typically a high-cost item anyway, but that is especially true in times of shortage when demand is well above supply. Many producers he has visited with are getting phone calls immediately after they have baled hay from others wanting to know if they plan to sell. There are alternatives to grazing and feeding hay through supplementation, but this could also be costly.

“The alternatives I’ve seen people use and have had some success with include reducing forage usage and replacing some of it with lower-cost feeds, including corn,” John said. “(Ration) mixes with DDGs (distiller’s dried grains), soy hulls and corn can replace lots of pounds of hay.”

Targeted Outcomes

Calves may get a better start in the weaning period if they experience creep feeding in pastures ahead of time, John said, as this practice can drastically reduce stress at weaning and give calves a head start. There could be a financial advantage to the practice, as the calves would be used to seeking out food other than milk and grass. However, producers should make sure to not overdo creep feeding and have too much cost involved to make it financially feasible.

Bailey said in the weaning facilities, it’s his opinion that best practice is feeding in one place. A TMR, or total mixed ration, is not practical for some producers, however, and most will put out hay in round bales and feed a supplement out of the bunk.

“If you’re doing that, try to feed them at least 1 percent of their body weight per day in supplement and allow for about 18 inches of bunk space per head,” Bailey said. “That allows all the animals to come up in the bunk at the same time and get a bite to eat. Two foot (of bunk space per head) would be even better if possible.”

If using corn to supplement hay, a rule of thumb is about a pound of corn will replace two pounds of hay for cattle, Bailey said. Producers should speak with MU Extension to develop an optimum ration for cows and calves.

“Use the best hay you have for these calves, because they’re going to be the chance to make you some money,” Bailey said. “Cows are much more equipped to handle lower-quality hay to maintain body weight; they don’t need to gain or lose.”

John agrees with the mindset that higher quality forages should be used for calves because “you have to sell pounds to pay the bill,” and added that producers should also be mindful not to short cows too much from a nutritional standpoint prior to calving. Producers should consider the longer term effects of a short nutrition period in those cows. They will need to calve healthy calves and maintain proper body condition to rebreed effectively as well.

Building a healthier weaned calf that can withstand the stresses of comingling, freight and new environments can be rewarding and profitable for producers, John said, but it takes some planning ahead of weaning to see the benefits come to fruition.

“Adding value to calves can take on a lot of different faces,” John said. “You have to decide if you’re going to get paid for added weight gain, process-verified, or some marketing program or certification. You also need to understand the market before you embark on those. Programs for weaning that focus on building immunity almost always pay, simply because those have been some of the highest cost processes in our industry for generations.”

John said it’s important to put weight on weaned calves, but temper that weight gain somewhat to build that ideal feeder calf. If a calf gains two to two-and-a-half pounds per day, it can become better framed with muscle without becoming too fleshy.

Bailey, whose doctoral degree research focused on preconditioning programs, said if producers are willing to manage their calves a bit more intensively, there’s value not just in the premium for the “preconditioned calf” at the sale barn, but also in weight gain.

“The value in backgrounding, or preconditioning, is putting weight on calves as cheaply as possible,” Bailey said. “Preconditioned calves are really efficient. If you have good hay and a good supplement in front of them, expecting them to gain a pound of weight for every five pounds of feed you put in front of them is reasonable.”

Resources

MU has several resources online about weaning and backgrounding strategies, as well as drought-related information concerning forages, silage and baleage. Those resources can be searched online at extension.missouri.edu.

John, with other beef producers, has been involved in the development of the PowerCalf app through MFA, Inc., which offers a new way for producers to collect data on their operations

from their mobile devices and be able to access that digitized data at any time to help set future goals and remain sustainable and profitable.

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Sidebar: Weaned Calf Health Check

During the 2012 drought, Craig Payne said he recalls several discussions with veterinarians about the poor overall health of calves in feedlots. Payne, the director of veterinary extension and continuing education at the University of Missouri (MU) College of Veterinary Medicine, said the calves were compounded with drought stress and nutrient deficiency. Dry, dusty conditions typically lead to more respiratory challenges in calves as well. Unfortunately, 2018 is shaping up to provide a similar poor environment.

“(In 2012), we were fighting an uphill battle just because animals were nutritionally deficient, they weren’t responding to our vaccines well, and their immune systems weren’t capable of fighting off the disease challenges they were being exposed to in those yards,” Payne said.

Ensuring calves get the feed resources they need provides a sound base for a healthy calf. That helps build strong immune systems and allows a producer’s vaccination program to also work well within the operation.

“Whether it’s a feedyard or whether it’s at weaning, the primary disease we’re concerned about is pneumonia, or respiratory disease, in calves,” Payne said. “There’s certain viruses and bacteria that can contribute to that pneumonia complex. Typically, it’s a combination of viruses and bacteria working together.”

Administering vaccines on the day of weaning is not as optimal as administering vaccines prior to weaning for added protection against disease, Payne said. Vaccinating two to four weeks ahead of weaning would likely provide the best benefit to the calf. But because weaning may be the only time the producer will be able to work the calves, vaccinating on the day of weaning is still better than waiting and administering vaccines after calves go through that weaning period.

Payne said producers need to work with their local veterinarian to come up with the best vaccination strategy, as the veterinarian would understand the individuality of each cattle operation. The veterinarian could assist with vaccination timing, how many doses to give, using killed or modified-live versions, what diseases to vaccinate against based on history of the operation, and consideration of marketing channels the calves may go through after weaning, as examples.

Another consideration this year, is that lighter-weight, earlier-weaned calves may not have their active immunity built up to where it needs to be, and therefore would be more susceptible to disease. Active immunity, Payne said, is built up once passive immunity begins to run out for calves. The passive immunity is what the calves get from their dam’s colostrum that typically lasts up to four months of age, or around weaning time.

“Producers may need to be more thoughtful about their vaccination program in these earlier weaned calves,” Payne said. “Some producers under normal weaning circumstances may be ok with not doing vaccines prior to going into weaning, but when you’re early weaning, you may be at greater risk if you take that approach.”

When processing calves, be sure to take into account the temperature indexes over several days and be sure cattle are not in a potential heat stress situation, Payne said. MU has an app called ThernalAid that can help producers understand live weather data to help understand if livestock could be affected by heat stress. The app also provides tips to help mitigate the on-set of heat stress. An Iowa State University publication, “Heat Stress in Beef Cattle,” said that anytime the Temperature-Humidity Index (THI) is above 80, cattle will be under heat stress. Therefore, cattle need time to cool down at temperatures below 80 degrees.

“Cattle have a tendency to accumulate heat,” Payne said. “If cattle don’t have the opportunity to dissipate heat, they just keep accumulating heat. By the third day if you were to process those calves, you will run a high risk of having some death loss.”

Another health matter to consider in drought years is the possibility of nitrate toxicity from forages, Payne said, and animals under stress are more susceptible to nitrate toxicity. This is caused by high nitrate concentrations in crops and some grasses brought on by environmental stresses that include drought. Particularly if producers are grazing row crops this year as a forage alternative for cows and weaned calves, they need to be on the lookout for signs of this condition, which could include reduced appetite, weight loss, diarrhea and runny eyes. However, these are symptoms of other health conditions as well, so working closely with a veterinarian on identification and treatment is important.

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