



Winning at Weaning

Raising high-quality calves starts from day one.

by Megan Silveira, editorial intern

A hoarse call echoes across the ranch, signaling the rise of the sun even before the rooster can crow. The single sound is soon joined by answering bellows, each so loud you can almost feel the ground rumble beneath you. Ranchers everywhere know what these repeated cries signal: the start of weaning season.

Why we wean

“It is important to decide when and how calves will be separated from their dams,” says John Jaeger, beef cattle scientist at Kansas State University (K-State). “The method of weaning can have a significant impact on the health and subsequent performance of the calf.”

David Lalman, Extension beef cattle specialist at Oklahoma State University (OSU), describes weaning as the process of “removing the calf from the dam so that it no longer receives nutrition or companionship from the mother.”

The weaning process is crucial to help calves prepare for their future in the production chain. While he jokes and says “they can’t stay with their mothers forever,” weaning is also crucial for keeping both cows and calves in good health.

As calves get older, they become less dependent on their dams, explains Rick Rasby, associate dean of Extension and beef specialist at the University of Nebraska–Lincoln

(UNL). He says separating the dams from their offspring allows for both of the animals to prepare for the next phase of beef production.

Cows need time without a suckling calf to recuperate and focus on providing nutrients to next year’s calf as they go through the gestation process. Weaning gives the females a chance to prepare for winter by gaining weight and supplying nutrients for fetal development.

When to wean

Rasby says weaning calves at 180 to 200 days of age is typical for most ranchers. This puts the weaning process of spring-born calves between August and November.

At the age Rasby suggests, Lalman says calves are capable of gaining the nutrients they need by grazing rather than nursing. He confirms milk is only making up a small portion of the calves' diets at this time.

This is also close to the time in the gestation period when cows need to focus on fetal development rather than the calf on the ground. Lalman says ranchers will be able to ensure cows and calves are not wasting energy if they are weaned on time.

Jaeger emphasizes the importance of weaning calves at the correct age, saying the timing of the process will greatly affect the body condition of the dam. This timing can change the amount of winter supplement cows will need and, in turn, potentially affect the upcoming year's conception rate.

Welcoming early weaning

On the other hand, research has shown Jaeger "early weaning" might actually be more beneficial for both the cows and calves. He suggests weaning calves at 150 days of age instead of between 180-200 days.

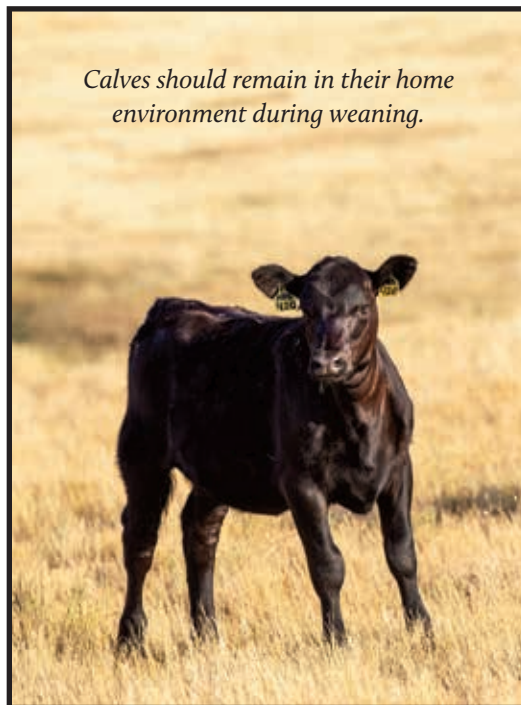
At this age, the weaning process occurs during the earlier half of August, a time known for having more consistent daily temperatures. This leads to less stress and fewer cases of respiratory illness. These early-weaned calves are also better at putting on weight and tend to be more efficient in the feedlot.

The benefits of early weaning do not stop at the calf level.

"Cow body weight and body condition score is significantly greater for cows early weaned in August compared to those traditionally weaned in October," Jaeger explains.

He says this is true for two reasons: 1) early-weaned cows have no energy requirement for lactation and are

able to utilize the added energy for increased gain and improved body condition score, and 2) removal of the early-weaned grazing calf reduces competition for the reduced quantity and lower-quality forage typically found during the latter part of the grazing season.



Calves should remain in their home environment during weaning.

Where to wean

Lalman says he supports fenceline weaning and has found great success with the method at OSU's beef facility. He describes the fenceline weaning process as a way of providing calves "nose-to-nose access" to their dams while still encouraging gradual separation.

Rasby offers drylot weaning as a more traditional weaning method. With this process, however, Rasby says ranchers have to monitor dust levels to prevent respiratory problems in calves.

Jaeger suggests ranchers split drylots into half their normal size when weaning calves with this method. He says this will take advantage of the weaned calves' normal behavior of walking around the perimeter of the pen.

Jaeger explains a reduced pen size will help limit dust by minimizing the total area where manure and urine is deposited, can increase feed and water intake by forcing the calf to pass by bunks and troughs more frequently, and have a soothing effect for calves, ultimately decreasing the amount of time calves spend walking the pen perimeter.

Lalman says there are a few things all ranchers should look for in a weaning location, no matter which weaning methods they choose to implement. Weaning calves in a familiar setting will be the most effective.

He explains when the only change the cattle experience is the removal of the dam, they handle the stresses of weaning much better. Keeping them in a familiar environment with a consistent feed and water source will help the calves stay calm during this stressful transitional period.

Calves should also be penned by body size, and Jaeger recommends a range of 50

pounds (lbs.) within the pens. He also says calves need a minimum of 12 inches per head of linear bunk space.

No matter which weaning method is selected, Lalman says the visual signs of the weaning process (such as bawling) will disappear in about two to three days.

Rasby encourages ranchers to ensure calves are separated from the cows for at least 45 days. He warns that a shorter period means cow and calf could easily reconnect. If the weaning process is shortened, the cows' milk production can start back up again, quickly undoing any progress made during weaning.

Worries of weaning

"Weaning can be a stressful time for the calf and the rancher," Rasby

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says, “but it doesn’t have to be.”

With all the other practices implemented in conjunction with weaning, Jaeger says this is often the most stressful period of a calf’s life. Vaccines, castration, dehorning, introduction to novel feedstuffs and exposure to various watering methods are just a few stressors he says calves are exposed to. All of these are capable of impairing the animal’s immune system.

Rasby says preparation before weaning can make all the difference. Part of this preparation includes readying the pastures or lots where the weaning will take place and potentially creep-feeding calves.

The quicker calves start to eat after being weaned, the lower the morbidity and mortality rates will be. With this in mind, if the calves are already familiar with feed and the process of eating out of a bunk, Rasby says creep-feeding has some major benefits.

“[Weaning] is a major change in their surroundings, environment, nutrients and social interactions,” Lalman says.

He adds if calves remain in their home environment, they will most likely not be exposed to any new pathogens. If ranchers can manage to minimize as many sources of stress as possible, execute a well-planned herd health and nutrition program, and minimize exposure to new pathogens, the chances of calves falling ill will be minimal.

Once the calves are placed in the area where they will stay during the weaning process, Rasby suggests placing feedbunks and water troughs along the fence line. He says calves will often pace the fence when first separated from their dams and placing these items directly in their path helps encourage them to become familiar with where can they eat and drink.

Rasby has another tip for ranchers:

let the water trough overflow slightly. The trickling sound of water alerts calves to where the water source is located in an unfamiliar area.

Calves also need to be provided with a good nutrition program during weaning, according to Lalman. He says this will help sustain their current immune systems and strengthen them going forward.

Rasby says the nutritional needs of young calves are fairly high and

“Weaning can be a stressful time for the calf and the rancher, but it doesn’t have to be.” — Rick Rasby

ranchers should be prepared to meet those demands. He encourages ranchers to offer grass hay to calves during the first few days of weaning before slowly transitioning them over to the desired ration.

“Try to limit the use of novel feedstuffs during the first week after weaning,” Jaeger elaborates. “Calves have been accustomed to grazing and consuming native forages. Managing feed intake is essential.”

Lalman says ranchers should keep calves on a “positive plane of nutrition” while they are being weaned, suggesting the calves gain between 1 to 3 lbs. a day.

Rasby says this goal can be accomplished by providing calves with a feed that is dust free, highly palatable, high in protein and energy, and mixed well enough so calves are unable to sort out ingredients.

Despite relatively high nutrient requirements, freshly weaned calves will have a low feed intake right after being separated from their dams. To keep calves healthy and gaining at a steady rate, Jaeger encourages ranchers to provide them a nutrient-dense diet.

However, weight loss is natural during the weaning process but should occur at levels so low they are undetectable.

If cattle get sick during weaning season, these symptoms become worse. Lalman says weaning requires a balance of minimizing stress and optimizing the immune functions of cattle. He encourages ranchers to have a “goal of keeping those lines from crossing.”

Ranchers should meet with their veterinarian to develop a health program designed specifically for their operation. Rasby says this step will produce favorable results during the weaning season.

Ranchers should not forget about the needs of the cows during weaning. With swollen udders, there is potential for mastitis if females are not in a clean environment.

While Rasby says the nutrient requirements of cows fall substantially when they are done lactating, ranchers should still monitor the females. He encourages ranchers to keep an especially close eye on females weaning their first calves, as the process tends to be more stressful for them.

Weaning is a process necessary to the cattle industry and one many future generations of ranchers will continue to use for years to come. Find a method capable of helping your operation maximize its success and enjoy the many inevitable mornings filled with bawling calves to come. **AJ**

Editor’s note: Photos by Mayzie Purviance.