



Ridin' Herd

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Evaluate pastures now

Evaluate pastures now and make plans for implementation of management strategies. If rainfall in spring and early summer is less than needed to produce enough forage to sustain the cow-calf pair, early weaning is a management practice for producers to consider, especially for young cows raising their first calf. Early-weaning the calf in range condition may provide enough pasture so cows do not have to be drylotted. In addition, early weaning may allow beef females to regain body condition with little to no supplementation of protein and energy.

How early is early weaning?

The rumen of a newborn lacks the microbial population that enables adult cattle to process forage fiber via fermentative digestion. Rumen development proceeds rapidly once solid food consumption begins. Research suggests spring-born calves consume significant amounts of native-range forage at 45 days of age.

Weaning beef calves as early as 45 days of age is early enough to encourage the cows to cycle if they are in slightly less-than-adequate body condition. Weaning at 3-5 months of age is too late to cause early cycling; therefore, it doesn't contribute to the improvement of reproduction. However, weaning calves at 3-5 months of age may be a viable alternative if forages are scarce in the latter part of the grazing season.

There are a number of items to consider prior to early-weaning calves. Calves can



adapt quickly to the change in environment and diet if a management plan has been carefully developed. Regardless of weaning age, calves that start eating dry feed immediately after separation from their dam have fewer incidences of morbidity and mortality than calves that do not eat for 24 to 48 hours after separation. Bunk and waterer height needs to accommodate the smaller calf. Offering a creep feed three to four weeks prior to weaning will help calves adjust to eating processed feeds and make the weaning transition period less stressful.

Effect on the beef female

Early-weaning the calf significantly reduces the nutrient demands placed on

the cow and more closely matches her requirements to nutrients supplied under drought or poor range conditions. Spring-calving cows need to be in a body condition score of 5 prior to calving. Removing the calf early helps to improve body condition because nutrients needed for lactation are eliminated.

Early weaning of calves from 2-year-old, first-calf females reduces the nutrients needed for lactation. As a result, these females will be in better body condition at calving, and that should result in cows that cycle and breed back earlier in the next breeding season. For heifers bred for higher milk production, early weaning takes on greater importance. The greater the milk output, the greater the nutrient demands, the more difficult it is to keep young females in adequate body condition on a limited forage base and the subsequent impact on reproduction.

Calf performances

Early-weaned calves can be grown for a period of time before entering the feedlot. They could also be grown for a short period of time (two to three weeks) then stepped up on a finishing diet. Calves that are on this fast-track feeding program are very efficient at converting feed to gain [5.2 pounds (lb.) of feed dry matter per pound of gain], and a high proportion grade USDA average Choice or better.

It is critical to get calves to eat as soon as possible after being separated from their dam. If calves are creep-fed before weaning, they will adapt quickly to being separated from their dam. Depending on the weight of the calf, the starter ration should be fed until the calves are consuming 4 lb. to 5 lb. per animal per day (i.e., 1%-1.5% of body weight). This usually takes 10 to 14 days.

Daily gain of calves during the period that they are nursing is usually 2.1 lb. to 2.3 lb. Calves that are weaned early should be managed to gain in this range, as well. At first calves will have a low dry-matter intake (DMI) for three to 14 days following weaning. During this time, DMI will be in the range of 1% to 1.5% of body weight. Starter diets are energy-dense [i.e., 65% to 75% total digestible nutrients (TDN)], relatively rich in crude protein (i.e., 14% to 16%), and highly palatable.

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Advantages of early weaning

1. Dams of early-weaned calves are in better condition at calving.
2. Calves can be fed to grow to their genetic potential when forage conditions are not optimal for the dam.
3. It may be the key to feed use during times of drought or other periods of feed shortage.
4. Early-weaned calves are very efficient of converting feed to gain.
5. A high percentage of early-weaned calves fed a growing ration for a short period of time, then stepped-up on a high-concentrate diet, can achieve a USDA Quality Grade of average Choice or better.
6. Early weaning may permit more cows to be managed using a limited forage supply.
7. Calves weaned before or very early in the breeding season means pregnancy rates will be greater for thin cows.

Disadvantages of early weaning

1. Excellent calf nutrition and management is required.
2. More labor is necessary.
3. The facilities and feed must be available for small calves.
4. Calves spend a long time in a drylot prior to slaughter.
5. If you have developed a cow herd that has above-average milk output, the potential increase in weaning weights through milk production is not realized.
6. Information on dam performance from production records will be of limited use.

Diets for early-weaned calves need to include high-quality ingredients. Diets need to be dust-free, and the particle size of the ingredients needs to be similar so that calves cannot sort the diet components. Rations will need to include some level of forage to allow for proper rumen health. Silages and other fermented feeds need to be introduced gradually into the diets of calves that are inexperienced with such feeds. Silages, while nutritious, should only be used in limited amounts in diets for recently weaned calves.

The high moisture level and the palatability characteristics of silage make it unlikely that calves will consume silage-based diets in amounts adequate to grow at targeted levels.

Final thoughts

Most studies of early weaning have concluded that ownership of early-weaned calves need to be retained for some period of time after weaning to generate enough revenue to increase the profit potential of the cow-calf enterprise as compared to weaning calves at a more conventional age. Early-weaned calves weigh less at weaning compared to calves weaned at conventional

ages and positive price slides are usually insufficient to offset the lesser body weight. Another reason not to sell the early-weaned calf directly after weaning is that these calves are more efficient at converting feed to gain than older calves.



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