



Ridin' Herd

► by **Rick Rasby**, University of Nebraska

Weaning beef calves early

In areas where forage quantity is not adequate for spring, summer and early-fall grazing, early-weaning could be a management practice to consider, especially for young cows raising their first calf. It may also be a management strategy to consider during drought when forage quantity is reduced due to weather conditions. Increases in grain price and the subsequent impact on land values and lease rates have challenged the long-term availability of forage for summer grazing. Recent drought conditions have decreased forage production and diminished rangeland carrying capacity in certain areas.

During drought conditions

Early weaning is still a logical management strategy during drought. It may mean the cow herd can remain on pasture.

Usually pasture grasses in drought condition are dried up and non-vegetative. Although the quality appears to be compromised during drought, non-lactating cows with low energy and protein requirements can at least maintain body condition. The data would suggest that for a 1,200-pound (lb.) cow with a 250- to 300-lb. calf, for each 2.5 days that the calf is weaned, there is one more day of grazing for the cow. In most areas of the United States, forage production for the grazing season can be estimated in early spring and is, mostly, a function of the amount of moisture received.

Early doesn't have to be an "all or none" management strategy. After evaluating forage availability for the grazing season, it may be determined that not all the calves need to be weaned early. If this were the case, the group of females that producers should consider weaning early would be first- and second-calf females. This group of females is usually the most challenged group in a cow herd. In addition, these females typically have the lowest body condition at weaning in the fall when normal weaning occurs.

How old is old enough?

The dairy industry has successfully weaned calves at very young ages. Calves weaned at these young ages require special facilities.



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

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 24-48 hours after separation. Bunk and waterer heights need 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. Creep-feeding in this manner will train calves to eat from a bunk and teach them to eat.

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 during drought or poor range conditions. Removing

the calf early improves body condition. This effect has the potential to carry over through the winter, increasing body condition at calving, which is also evident during the next breeding season.

Weaning calves before the start of the breeding season or early in the breeding season is not a common management strategy. Again, it is usually considered a last-resort effort to correct a management problem that is usually related to inadequate nutrition prior to and after parturition. Reducing nutrient requirements of the dam associated with lactation and eliminating the suckling stimulus has the potential to allow noncyclic, thin cows to resume estrous cycles and become pregnant.

Calf performances

Early-weaned calves can be grown for a period of time before entering the feedlot or put back on grass pasture. 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 lb. of feed dry matter per 1 lb. of gain) and a high proportion grade USDA average Choice or better.

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

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

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At the University of Nebraska, we have drylotted cow-calf pairs (*2014 Nebraska Beef Cattle Report*). Many times producers develop an area on their operation to drylot cows during drought conditions and don't have pens to wean and feed the calves separate from the cows. The research looked at the efficiency of feeding the cow and calf together or separately (cows in one pen and calves in another pen) in a drylot situation. One year of data says that pairs are as efficient when fed together as when fed separately. When pairs are fed together, there

needs to be about 3.5 feet of bunk space allocated per pair.

Final thoughts

Most studies of early-weaning have concluded that ownership of early-weaned calves needs 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 are efficient at converting feed to gain, especially when stepped up on

a finishing diet using only a short growing period. As a producer, try to take advantage of this efficiency. Evaluate the quantity of the grass available for the grazing season and plan accordingly. Early-weaning may be the most practical option.



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