



# Ridin' Herd

► by **Rick Rasby**, Extension beef specialist, University of Nebraska

## Drought management, early weaning

*For the most part, summer has passed. While this topic may not appear applicable right now, now may be the best time for you to design a drought management plan. In Nebraska there is a drought somewhere every year. I know the Southeast United States was hit hard this year. Because nutritional inputs are the biggest expense for the cow-calf enterprise and drought has a major effect on feed expenses, a plan must be in place to avoid knee-jerk reactions that may cripple the enterprise. Early weaning calves should be part of every drought management plan.*

### Why early wean?

Typically calves are weaned from their dams when they are between 180 and 220 days of age. Calves weaned before they are 180 days of age are usually considered early weaned. Calves have been successfully weaned from their dam when the youngest calf was 45 days of age.

From a rancher's perspective, if a management technique is to be incorporated into the system, the management technique should result in an overall increase in profit potential or have the potential to reduce stress on a primary resource — the grazed forage resource, for example.

There are limited data on the effects of early weaning on the grazed forage resource.

Data from the University of Wyoming suggest that weaning results in a forage-sparing effect.

The National Research Council (NRC, 2000) estimates dry-matter (DM) intake by a 1,200-pound (lb.) beef cow (peak milk production = 20 lb.) averages approximately 27 lb. per day during lactation. The same animal, not lactating, consumes an average of 24 lb. DM per day during mid-gestation. Using this scenario, the savings in range forage accrued on a daily basis averages 3.1 lb. per day, or about 92 lb. per month.

But, remember, the calf is not with the dam, and there is a calculated forage-sparing effect due to the calf being weaned. Pasture

forage intake by the calf is estimated to be between 4.2 lb. and 5.3 lb. per head per day on a DM basis. So, if forage intake of the calf is 4.2 lb. per day, that's approximately 126 lb. per month.

So, conservatively, the combined effects of reduced nutrient requirements by the cow and removal of the calf could reduce demand for pasture forage by 7.3 lb. DM per day, or 219 lb. per month. Using this logic, there is one day of grazing for pregnant, dry beef cows for every 2.5 to 3.0 days the calf is weaned.

Early weaning calves in these situations is a tool that takes nutrient demands off the lactating female and allows her to gain, or at least maintain, body condition and weight. We have data to suggest that for every two weeks that the calf remains on a spring-calving cow, she loses 0.1 of a body condition score (BCS) unit (9-point scale, where BCS 1 = thin, BCS 9 = obese). Body condition score at calving affects the length of the postpartum interval in beef cattle. On average, cows that calve in a BCS 5 have a 30-day shorter postpartum interval compared to cows that calve in a BCS 3.

A drought management plan might include early weaning in phases. First-calf females are still growing during their first lactation. As pasture quality declines from summer to fall, these females will be the first to lose weight and body condition. Early weaning would allow young females to pick up condition before calving.

### When to implement

This is a tough question to answer, but there are data that might help decide when to pull the trigger. These kinds of decisions should be driven by objective observations of both precipitation and forage condition.

In the Northern Plains states, the variation in annual range forage production can be explained by the total precipitation during the months of April and May. It has been estimated that 79% of annual production by perennial grasses is achieved by July.

A rancher who was part of a grazing conference indicated one of the critical measurements on his ranch was estimation of the forage available on July 1. He

CONTINUED ON PAGE 264

estimated 70% of his annual pasture forage would have occurred by this time. He based his grazing strategies and management techniques off the July measurement.

He had both yearlings and cow-calf pairs. If forage was limited, the first group to be removed were the yearlings, followed by early weaning calves. After that the decision would have to be made to destock (find other pasture or dry-lot cows) or depopulate (sell cows).

So, when to implement early weaning should be a function of timely forage production measurements, which are usually a function of rainfall. Local range and forage specialists can help you assess when critical forage production measurements need to be taken for your area and grass type(s).

### **Managing early-weaned calves**

Calves can adapt quickly if a management plan has been carefully developed. The quicker calves start eating after they are weaned, the lower the morbidity and mortality. This is true even

for calves that are weaned at an older age.

In addition, herd health programs, the type of diet, bunk height and space, watering system, and location where the calves will be managed need careful consideration. Do not use low-quality forages, especially straws, slew hay, cornstalk or soybean stubble hay, or hay harvested when it is very mature. Also, avoid grain screenings and moldy, dusty or damaged feeds.

Rations need to be high-quality and dust-free, and ration ingredients need to be similar in size so that calves can't sort. Early-weaned calves can be picky eaters and, at

## ▣ RIDIN' HERD

first, may want to sort through a ration. This is exactly what you don't want to have happen. Calves need to consume the entire ration.

Calves will not adapt quickly to rations that are dusty. Most diets will be hand-fed to the calves. Data suggests that early-weaned calves need to be retained for some time after weaning to generate enough revenue to increase the profit potential of the cow-calf enterprise. This is because they

are light and, even with a price slide, usually can't generate enough dollars to cover cow expenses. Retaining them is not a bad plan, as they are efficient at converting feed to gain.

### **Final thoughts**

Managing through a drought is one of the biggest challenges for cow-calf producers because of its effect on profit potential and the grass resource. As part of the drought plan, have a livestock marketing plan. If you sell when everyone else does, price will likely be lower. Don't consider early weaning calves as a "last resort," but as a carefully thought-

out management technique that will allow the cow-calf enterprise to be viable. Have trigger points in the drought management plan that put the plan in motion.



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**Editor's Note:** "Ridin' Herd" is a monthly column written by Rick Rasby, professor of animal science at the University of Nebraska. The column focuses on beef nutrition and its effects on performance and profitability.