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## BeefTalk: When Early Weaning, Adapt Calves and Provide Right Nutrition

**Early weaned calves need to be adapted physically and behaviorally to their new environment.**

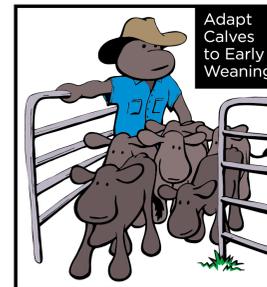
By Kris Ringwall, Beef Specialist

NDSU Extension Service

While we are dry in the upper Great Plains, and the lack of moisture is depressing, much of cattle country, especially the eastern and western portions of the U.S., have adequate moisture and feed supply.

On a long drive from Saskatoon, Saskatchewan, through Montana and over to eastern North Dakota, the contrast was vivid: The situation was good for

## Images



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Adapt Calves to Early Weaning



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Adapt Calves to Early Weaning

## columns

**[BeefTalk: BeefTalk: When Early Weaning, Adapt Calves and Provide Right Nutrition](#)** (2017-06-29) Early weaned calves need to be adapted physically and behaviorally to their new environment. [FULL STORY](#)

**[Prairie Fare: Prairie Fare: Have You Enjoyed Any Anthocyanins Lately?](#)** (2017-06-29) Anthocyanins are the pigments responsible for the color in many flowers, fruits and vegetables. [FULL STORY](#)

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those who have grass and disappointing for those who do not.

This week, the Dickinson Research Extension Center began reducing inventory, selling 66 yearling steers at the local auction. Historically, we grazed these yearling steers into early December and then placed them in a feed yard for early spring finishing. The marketing date shift limits income opportunity, but the reduction is part of the center's long-term grazing plan in response to drought.

The heart of the center's plan is to keep 70 percent of its resources more stable and 30 percent more flexible. In the good years, the flexible cattle add opportunity; in the dry years such as this year, the center loses opportunity but avoids intrusion into the long-term center objectives.

The same approach could be applied to producer drought plans. Yearling cattle make good flex cattle. Drought is a stark reality in the semiarid area of southwestern North Dakota. A drought plan is a necessity for those dependent on grass.

The steers' pastures will rest with the anticipation of rain so cows and calves can graze later this summer. Rain will come; we just do not know when. Moisture brings grass and hay, and those without them look for some accessibility of grass and hay from the areas that have adequate moisture.

Trucks today can deliver feed that helps fine-tune rations and tweak some grazing plans to give a

producer time when pastures are dry. But always keep in mind that additional inputs come with a cost, and reality always must be noted if one opts to incur more expense versus converting cattle to income.

The center is not planning on early weaning, but pulling the calves off the cows in late August to mid-September is a potential option. The center calves in May and June, so that would put the calves past the 3-months-of-age window and certainly eligible for weaning.

In anticipation, I contacted NDSU Extension area livestock specialist Karl Hoppe for a better understanding of caring for early weaned calves.

“Early weaned calf rations need not be complex, although using a multitude of feed ingredients is certainly an option,” Hoppe said.

He also noted a major challenge: “The main item to remember is the calf was receiving a substantial amount of nutrients from milk. High energy, high protein, fat, vitamins and minerals from the milk are supplementing the grass, hay or creep feed the calf is also eating. The early weaned calf ration needs to have enough energy, most likely sourced from grain, to replace the energy that was being provided by milk.”

For the center, and most livestock operations, grain can be blended with the various forage components, but the lack of higher-quality forages also is an issue when moisture is short.

Remember, the early weaned calf does not eat much. Purchasing higher-quality hay to blend with local grain certainly would be a good option. And one may want to consider purchasing a commercially available feed.

“An early weaned calf does have a functioning rumen, but the rumen may not be developed as much as needed,” Hoppe said. “Energy that is fermented into volatile fatty acids in the rumen stimulates growth of the rumen villi, which leads to more absorption of nutrients. In addition, feeding forage increases the muscles in the rumen walls. So both forage and grain are needed for proper rumen development.

“You might think that the milk should provide the energy to grow rumen villi,” he continued. “However, nursing calves have a muscle reflex called the esophageal groove that directs the milk into the abomasum (true stomach). Milk is absorbed directly by the small intestine instead of being fermented in the rumen. Some milk does spill into the rumen as the calf’s rumen matures and the groove’s closure reflex is not as complete.”

Early weaned calves, like preconditioned calves, need to be adapted physically and behaviorally to the new environment.

“Young calves also eat what they have been exposed to,” Hoppe said. “If they have never seen a feed bunk or corn, it may take several days before they try the feed. Meanwhile, they fill up on hay that provides

a huge belly but limits nutrients for growth. A complete ration will limit sorting at the feed bunk. Feed intake limiters that use grain are an excellent choice for starting out hungry calves that have never seen grain.”

When early weaning, prepare in advance, and consult your local nutritionist and veterinarian for a positive experience.

May you find all your ear tags.

For more information, contact your local NDSU Extension Service agent (<https://www.ag.ndsu.edu/extension/directory>) or Ringwall at the Dickinson Research Extension Center, 1041 State Ave., Dickinson, ND 58601; 701-456-1103; or [✉kris.ringwall@ndsu.edu](mailto:kris.ringwall@ndsu.edu).

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#### Attachments



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### Weaning

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### Weaning

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