

## Inside:

- **Is early weaning an option this year?**
- **Retailers score profits by reorganizing beef cases**
- **Montana Beef Network update**
- **Ranch Profile: Kevin and Shirley Halverson, Big Timber**

## Hay, get me out of this drought!

Dennis Cash\*, MSU Animal & Range Sciences Extension Specialist



Spring 2001 has sprung, and recent snow and rain showers have made us all optimistic about the upcoming growing season. Unfortunately, much of Montana remains under drought alert, with low water levels in reservoirs, streams and our topsoil. Many areas have experienced three consecutive dry springs, and this has taken a toll on range condition, as well as pasture and hay production.

In the last two issues of *Beef: Questions and Answers*, experts have written about the importance of spring precipitation on forage production and offered some grazing strategies during and coming out of drought. In short, pasture production is highly correlated to precipitation in April and May, but some over-used stands may not fully recover this year, even with abundant moisture. So, by the time you read this newsletter, you should have some early assessment of forage availability. However, you have a limited time to react and prepare for some emergency forage.

### **I can't afford \$90 hay. Should I be doing more farming?**

Yes. \$90 hay is like \$1.25 calves—maybe you should be selling some! Hopefully, you have done some thoughtful farming this spring. In 1999 and 2000, hay production declined in Montana. In many

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# Should I Early Wean My Calves This Year?

by John Paterson, MSU Extension Beef Specialist



*With continued drought and lack of available forage for the cow herd, early weaning may be one option for ranchers to consider this year. The following excerpts about the pros and cons of early weaning were summarized from recommendations made by beef extension specialists from around the United States.*

## **Russ Danielson, North Dakota State University**

Weaning calves early may become a necessary option when forage supplies are limited as a result of drought conditions. Early weaning lowers the nutrient requirements of the cow and increases the carrying capacity of stressed pasture. Weaning calves prior to the traditional age of six to seven months can increase stress and reduce calf performance if proper health, nutrition and management practices are not followed. Conversely, weaning after pastures have severely deteriorated will also result in poor calf performance. From the standpoint of the cow, the advantage of early weaning during drought periods is usually reflected in less body condition loss and improved conception rates. Overgrazing drought-stressed pastures will have long-term effects on forage production by reducing plant vigor and increasing less desirable plant populations.

## **How early can calves be weaned?**

Calves have been weaned successfully at less than two months of age, but this is younger than is practical under most conditions. The rumens of calves are normally functioning sufficiently at 120 days of age to provide satisfactory gains without the benefit of milk or milk replacers. Therefore, weaning March- and April-born calves in late July/early August is preferred to an earlier weaning date.

## **Are there special health considerations?**

The stress of early weaning directly influences the health and well-being of the calf after weaning. Complete castration, dehorning and branding at least 10 to 14

days prior to weaning. Provide protection from clostridial and viral infection by vaccinating calves prior to weaning with a seven-way clostridial injection, IBR-BVD vaccines and other veterinarian-recommended protection. If a “booster” or re-vaccination is required for any vaccine, it is essential that label recommendations are followed. Calves should always have access to clean water, and a complete mineral package should be offered in loose form. Monitor calves regularly for signs of respiratory problems, digestive disturbances, scours, coccidiosis and sorting of feed.

## **What is the best bunk management?**

The palatability and acceptance of offered feed is critical to ensuring adequate feed intake by early weaned calves. Calves need to consume 2.5 to 3.0 percent of body weight in dry feed daily to have satisfactory performance. Offering high-quality, easily digested feeds and roughages in a form that calves will consume is important bunk management. Calves should be creep fed starting three weeks before weaning to minimize stress and ensure adequate feed intake following weaning. Initially, newly weaned calves should be offered long-stem grass hay, the form they are most familiar with. Once weaned and on feed, calves will prefer chopped forage to long-stem hay. Add alfalfa gradually over a 14-day period as calves start on feed. Mix the grain portion with the forage to encourage consumption of the concentrate. If the calves sort and consume the grain leaving the forage, adjust the type of forage to make the total ration more palatable. Over-consumption of grain can lead to bloat and/or acidosis in the calves. Minimize dust in the ration and control it by adding three to five percent molasses. Calves weighing 300 pounds should consume eight to nine pounds of dry feed daily. A 50:50 roughage-grain mix containing 13 to 15 percent protein generally will provide satisfactory calf performance, provided the feeds are high quality and not stale or rancid. A minimum average daily gain of two pounds is required to compete with calves weaned at six to seven months of age. Hand feeding whole oats or a commercial starter

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# Retailers buy in to cooking methods at the meat case

by Charlene Schuster, Executive Director, Montana Beef Council



Retailers who have reorganized their fresh meat cases by cooking method have seen continuous sales gains and greater customer satisfaction, according to research paid for by Montana producers through their beef checkoff dollars.

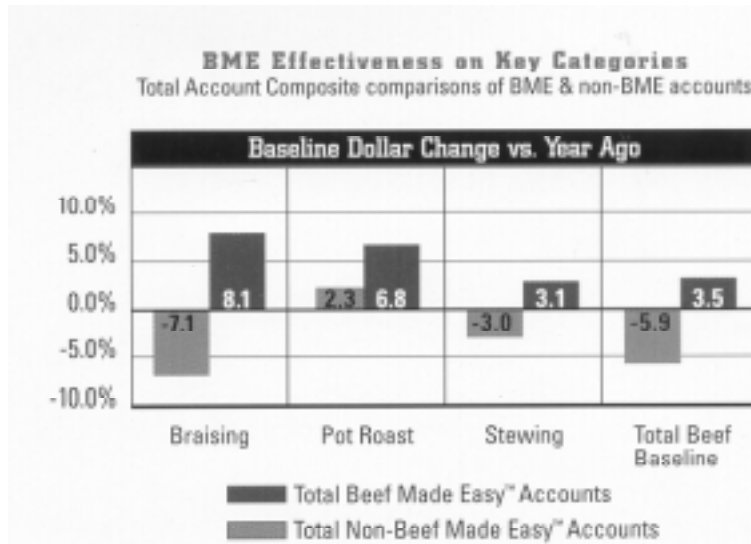
With two years of beef sales to analyze, NCBA and the Montana Beef Council tracked the performance of eight separate retail accounts where the industry's meat case simplification program, Beef Made Easy™ or a similar concept, had been implemented. Beef Made Easy is a retail program to help consumers take the guesswork out of shopping for and preparing beef.

Launched in April 1999, the Beef Made Easy campaign was introduced to Montana retailers by the Montana Beef Council to help take the guesswork out of shopping for and preparing beef. The program helps retailers re-set the entire beef section by cooking method, which is more in line with how consumers think about meals. Store-level staff uses a series of color-coded merchandising tools to convert and maintain the new meat case layout.

Today more than 9,500 retail outlets, including many top retail chains and all foreign and domestic military commissaries, have implemented Beef Made Easy or a similar concept.

The recent analysis compared the performance of eight BME accounts to other retailers in their respective markets that did not adopt the concept.

- After the first six months of implementation, baseline beef sales in the eight Beef Made Easy accounts collectively increased 3.5 percent from the previous year. The non-Beef Made Easy accounts saw its collective baseline sales drop 5.9 percent.
- Of the former group, seven of the eight experienced positive growth gains, with the largest being an increase in baseline sales of 9 percent.
- Beef Made Easy accounts also saw significant increases in baseline sales for the chuck and round cuts, which are often the most intimidating beef cuts to consumers and traditionally have required deep discounting.



fact, consumer feedback indicated that organizing the beef section by cooking method not only makes shopping easier, but also improved perceptions of the retailer's product quality.

During June, July and August Montana retailers will be building on the success of recent retail promotions with numerous grilling and value-added product promotions.

*Beef: Questions and Answers is a joint project between MSU Extension and the Montana Beef Council. This column informs producers about current consumer education, promotion and research projects funded through the \$1 per head checkoff. For more information, contact the Montana Beef Council at (406) 442-5111 or at [beefcncl@mt.net](mailto:beefcncl@mt.net).*

**Hay! cont. from page 1**

counties, hay yields were reduced by up to 70 percent in 2000, so consequently, hay prices were high through the winter. With increasing energy costs and potentially limited irrigation water in 2001, hay prices are expected to remain strong through 2001 unless conditions improve for an abundant dryland hay crop. New seedings of irrigated alfalfa and grass pastures have increased this spring, but these will not be fully productive until 2002.

**Should I plant some new dryland alfalfa?**

No. In much of Montana, early May is likely too late to plant a new stand of dryland alfalfa or grass. This is due to poor stored soil moisture, plus the diminishing likelihood of significant precipitation in June to sustain a new stand. During our winter meetings with ranchers, we encouraged producers to consider planting cereal forages like hay barley to come out of a forage deficit. These annual forages are less risky in terms of establishment and production costs, plus they may withstand dry conditions.

**Should I grow some Horsford barley?**

No. For the past 10 years, the MAES research stations have evaluated cereal crops for forage production. They have paid particular attention to awnless species such as oat or spelt, awnless varieties of barley (Haybet, Westford or Horsford), and short-awned varieties of wheat or triticale. A high point of the recent drought in central Montana is that hay barley actually out-produced good stands of well-managed alfalfa or grass in 1999 and

**Table 1. Forage yield and quality of second and third-year stands of well-managed alfalfa or perennial grasses compared to annual cereal forages at the Central Ag Research Center in 1999-2000.**

	Alfalfa	Grasses	Spring Barley	Winter Grain
<b>Tons/A</b>	<b>0.8</b>	<b>0.6</b>	<b>1.5</b>	<b>2.0</b>
<b>(%CP)</b>	<b>(17%)</b>	<b>(6%)</b>	<b>(10%)</b>	<b>(10%)</b>
<b>(%TDN)</b>	<b>(58%)</b>	<b>(51%)</b>	<b>(53%)</b>	<b>(52%)</b>

2000 (see Table 1 above). Besides having good yields, the forage quality of hay barley provides for good backgrounding or maintenance diets.

Grow Haybet or Westford. Horsford is about 100 years old. Across 18 recent forage yield trials, Horsford yielded an average of 12 percent (0.25 ton) less hay than Haybet barley. Hay barley seed is in short supply, but if hay is processed for feeding, the awns on feed barley should not be a problem. Barley is typically sown in March or April, but it can be planted for hay until mid-May.

**What are my other options for emergency grazing?**

There are several options, and they should be considered for post-drought conditions, too. Annual forages can overcome a forage deficit in 2001 and could also be used to rest native pastures in the fall or next spring. Many producers planted winter wheat the last two falls for pasture the following spring, and this seven to 10 days of grazing has "saved" their native pastures. Other producers plan to pasture or hay spring wheat, barley, peas, lentils, annual ryegrass, etc. Assuming adequate precipitation, most of these crops will only produce a limited amount (0.2 to 0.5 tons) of

forage by early June, but this could be a critical level of forage if native pasture is short. Cautions on grazing lush growth of any cereal crop would be grass tetany or nitrate accumulation, and possible bloat on the legumes.

Some other options for central and eastern Montana are annual warm season forages such as millet, sudangrass or sorghum-sudangrass. These must be planted after the soil temperatures are consistently above 60 degrees. With timely moisture, these forages can produce from three to seven tons. Monitor these crops for nitrate levels. Sudangrass or sorghum can have problems with prussic acid. A trend in the West is to grow warm season annuals on irrigated or dryland ground, then defer them for fall pasture after a killing frost. Another option on irrigated ground is to take one cut of hay, then defer the aftermath for fall pasture. Swath or windrow grazing of these crops limits waste and increases efficiency. A major advantage of annual forages for pasture is that high quality forage can be fed with limited or no machinery costs. If hay or haying costs remain high, more ranchers will be looking at these annual crops.

**cont. p. 7, bottom**

# Using Science and Marketing in Producing and Delivering Value-Added Products for the Consumer

June 20, 2001  
MSU-Bozeman

## Marketing Value-Added Products in the New Economy

### **The Changing Market Structure for the American Beef Industry**

Dr. Harlan Hughes, Livestock Economist & Professor Emeritus, North Dakota State University

### **Value-Added Beef Production: What Incentives are Needed to Pull Production Systems into the Changing Market?**

Dr. Wayne Purcell, Alumni Distinguished Professor, Agricultural & Applied Economics, Virginia Tech

### **Future Beef: A Case Study in Beef Production Alliances**

Dr. Ronnie Green, Future Beef Operations, LLC, Parker, Colorado

## Adding Value to Beef with Technology to Meet Market Needs

### **Available Technology Tools to Produce and Deliver Final Products**

Dr. Harlan Ritchie, Department of Animal Science, Michigan State University

### **Using DNA Markers, Carcass EPDs and Carcass Value Indices in Meeting Market Targets Without Sacrificing Maternal Production Traits**

Dr. Mike Tess, Department of Animal and Range Sciences, Montana State University

### **Integrating Innovative Management Strategies (Implants, Nutrition, Sorting, etc.) to Alter Growth Patterns and Meet Market Targets**

Dr. Robbi Pritchard, Department of Animal & Range Sciences, South Dakota State University

### **Integrating Harvest and Post-Harvest Technologies to Meet Market Needs**

Dr. Tommy Wheeler, Research Scientist, Agricultural Research Service, USDA-Meat Animal Research Center, Clay Center

## Putting It Together

### **Panel Discussion: Creating and Marketing Value-Added Products**

Panel Moderator: Dr. John Paterson, Department of Animal & Range Sciences, Montana State University

### **Improving Competitiveness of Domestic Beef by Adding Value**

Mr. Jim Peterson, Peterson Ranch, Buffalo, Montana

### **New Product Development for the Consumer**

Ms. Charlene Schuster, Executive Director, Montana Beef Council, Helena

### **Role of Seedstock Breeder in Supplying Genetics for Value-Added Products**

Mr. Lee Leachman, Leachman Cattle Co., Billings, Montana. Other Panel Members: Dr. Harlan Hughes, Dr. Wayne Purcell, Dr. Harlan Ritchie, Dr. Ronnie Green

The Symposium is open to everyone interested in future marketing systems for the U.S. beef cattle industry. You can register for the Symposium (\$30) and the Annual Meeting of the Western Section (\$175) on-line at <http://www.asas.org/western01/index.html> or by contacting: Dr. Pat Hatfield at (406) 994-7952.

# **Kevin & Shirley Halverson Ranch, Big Timber**

*Compiled by Marc King, Sweet Grass County Extension agent*

**Q. Give a brief description of your ranch.**

A. We own 5,200 acres of range and crop ground and lease 3,000 acres of mainly summer range ground. Of the owned ground, roughly 2/3 is rangeland and the balance is a mix of irrigated and dryland crop ground that we use to put up hay and very limited grain production (mainly barley). We run approximately 250 head of commercial Angus mother cows and 300 head of commercial ewes. The ranch is operated by my family, which includes my wife, daughter, son and myself, with extra help during busy times from my sister and brother-in-law.

**Q. What technologies are you using to monitor or improve your cow herd? Why?**

A. We use 205-day weights to monitor growth in our calves, along with a nursing ratio to help cull unproductive females from our herd. We also ultrasound all yearling bulls that are purchased so that we know what these bulls will actually provide to our cow base in terms of carcass merit. We also use artificial insemination so that we can use proven genetics as much as possible, and it helps to minimize our bull costs. Further, we have been using the electronic ID tags through the Montana Beef Network for the past two years to monitor our carcass data on all calves that we have shipped. Finally, we test all our winter feeds for nutritional quality and utilize our county agent and Dr. John Paterson to help us feed our cows a balanced diet that meets their needs during the winter without over feeding certain nutrients.

**Q. Why do you run sheep?**

A. We run sheep on the ranch for a variety of reasons. My family has had sheep on the ranch for over 100 years, and I feel that it is important to remain diversified. Most importantly, the sheep are a management tool that save the ranch a significant amount of money every year in weed control costs. The sheep have cut our spray bill for leafy spurge control in half, and we couple them with biological control agents to maximize control of our spurge. The sheep have also added income for the ranch as we run them on other properties for weed control purposes with the landowner paying us for the weed control.

**“Sheep have cut our spray bill for leafy spurge in half.”**

**Q. What has the drought done to your ranch and management practices?**

A. The drought has caused us to cut our cow numbers by 1/3. We also have not saved many replacement females over this period as we have not had the forage or water to run them. As for grazing practices, we are currently evaluating the potential of early weaning our calves to save grass and maintain our weaning weights. We have paid closer attention to our cow and calf nutritional programs, focusing on maintaining adequate mineral levels in our cattle as well as feeding the cows to meet requirements based on their stage of the biological cycle. We have also used least-cost ingredients in our diets during this time, using corn, barley and wheat midds as alternatives to high-priced hay.

**Q. What do you see as the biggest challenges facing your operation?**

A. Our main challenges are maintaining and lowering our cost of production and improvements. Another challenge is estate planning, taxes and the value of our land. The land values make it hard to continue to operate a ranch.

**Q. What do you see as the biggest challenges facing the livestock industry?**

A. The main challenge facing the industry is maintaining our high quality of food safety. With all of the disease risk from foreign countries it will be imperative that we maintain control of all animals and products entering our borders. Country-of-origin labeling needs to be passed and implemented to help consumers remain confident in the safety of the food that they are purchasing. I also believe that source verification and beef quality assurance need to be practiced by every rancher, if for no other reason than to protect themselves. Branded products will become a bigger segment of our industry and those that know how their cattle fit into each program will be able to take advantage of any premiums that are offered by marketing their cattle into programs that fit each calf’s genetic potential, thus maximizing returns for each group or type of animal produced on the ranch. 🐄

# What's new with Montana Beef Network?



by Cheyenne Cundall, MBN Coordinator

The beef industry is changing rapidly and Montana producers are positioning themselves to take advantage of those changes through the Montana Beef Network. With the outbreaks of BSE and foot-and-mouth disease, it is clear that our industry is headed toward individual identification with source and process verification. The Montana Beef Network (MBN)—through Beef Quality Assurance training, feeder cattle certification, individual identification, and information collection and feedback—has addressed these issues.

The MBN is well into its second year of data collection with more than 20,000 calves enrolled in the program this year. Of the 476 producers that are BQA certified, 115 enrolled cattle in the program. The majority of the 115 producers identified their animals with electronic (EID) tags, designed to help producers collect carcass data. Tagged cattle are in 79 feedyards and eight different states (Colorado, Iowa, Kansas, Minnesota, Montana, Nebraska, South Dakota and Wyoming), as well as Alberta. As of May 8, almost 3,000 head are scheduled to be harvested.

This year we are collecting extended carcass data on all cattle enrolled in the program. Through our cost share program, producers can receive data for \$2 a head; the

MBN picks up the remaining \$3 per head. Extended carcass data includes Hot Carcass Weight, Yield Grade, Quality Grade, Ribeye Area, Back Fat and Kidney, Pelvic, Heart Fat measurements. We hope that through this information producers can make production or management changes that will position them to take advantage of the changing marketplace.

An exciting new component added to the MBN this year are data analysis services. An MBN representative will be available to help producers analyze their data. After receiving your data you can meet with the representative in small groups or one-on-one to discuss the data. We want the producers to be as informed as possible to

help turn that data into knowledge.

If you have not checked out the MBN website yet, you can find it at [www.mtbeef.org/beefnetwork](http://www.mtbeef.org/beefnetwork). Be sure to look at the BQA Certified Producers list and the MBN Certified Cattle Listing to see the advertising provided for MBN producers.

For questions or comments on the Montana Beef Network please contact Cheyenne Cundall, MBN coordinator, at (406) 442-3420 or [cheyenne@mtbeef.org](mailto:cheyenne@mtbeef.org).

**More than 20,000 head of cattle are currently enrolled in the Montana Beef Network. 3,000 head are scheduled to be harvested.**

## Hay! continued from page 5

### Should I replace my dryland pasture next fall?

Maybe, but wait and see what precipitation this summer brings. Dormant frost seeding is an effective time to plant native and introduced grass seed. Your ranch plan may dictate that a new pasture goes in this year, but there are some other considerations. Dryland fields are typically summer-fallowed for a year or two prior to planting grass. Depending on the crop sequence in 1999 and 2000, deep soil moisture could be so limited that no net gain in soil moisture would occur in 2001. Further, the moisture deficit has limited any weed control benefits of summer fallow. Be flexible, and consider using an annual forage on at least part of your acreage.

\* The opinions expressed here are the author's, and he frequently disagrees with them. For example this drought information most recently appeared in "Is this a drought?" preceding the 1997 crop year, when precipitation was above-normal in much of Montana.

**Early weaning, cont. from page 2**

ration with free choice, quality grass hay is an excellent way to start calves on feed. Once through the weaning process and on feed, calves may be switched to a balanced mixed ration offered in a self feeder.

**What are the facility requirements?**

Initially, calves should be penned in a small, secure, well-sheltered pen or pasture when weaned. A more confined area will reduce the amount of pen travel. In drought conditions, respiratory problems caused by dust are a real possibility. Provide sufficient, accessible bunk space and water sources. Locate the feed bunks and water source near the perimeter fence, forcing calves to access feed and water as they travel the fence line. If possible, place one or two older calves that are accustomed to bunk feeding with the younger calves to teach by example. Initially, limit the number of calves to 20 to 25 per pen for the first few days. Smaller, more timid calves may not be able to eat or drink adequate amounts when competing with a large number of calves. After 10 to 14 days, calves can be successfully grouped in a larger pen.

**Weaning calves during or soon after the breeding season in drought years is an accepted practice for stretching a limited forage supply.**

**Jack Whittier, Colorado State University**

Oklahoma researchers reported a 37 percent advantage (97% vs 59%) in conception rate for first-calf heifers that began calving in February and then had their calves weaned every two weeks at six to eight weeks of age compared to heifers whose calves were weaned at seven months. Additionally, the average interval from calving to conception was shortened by 18 days (91 vs. 73 days).

The positive results of this study are likely because the heifers were in thin or marginal body condition at calving. To evaluate the potential long-term effect of early weaning on reproduction in first-calf heifers, an experiment was conducted by Missouri researchers.

The objective of this study was to determine if weaning calves from first-calf heifers at the beginning of the breeding season following their first calving would allow them to gain sufficient weight and body condition

to improve rebreeding in subsequent years with minimum feed inputs to the dam. Angus-sired heifers (n = 141) were assigned at breeding time to either normal weaning at seven to eight months or early weaning at the beginning of the breeding season. All heifers were synchronized for estrus using Syncro-Mate-B. At the time of implant removal, all calves were temporarily weaned for 48 hours. After 48 hours, the normal weaned calves were returned to their dams while the early weaned calves were placed in a drylot for feeding.

The early weaned dams were heavier and higher in body condition at their first weaning than the normal weaned dams. However, by their second weaning there was no differences between cows. There was no statistical difference in pregnancy rate at any year. However, the normal weaned dams had numerically lower pregnancy rates each year following the weaning management treatment. Remember, the only difference in

management between the two treatments occurred during their first lactation.

**Early Weaning in Mature Cows**

There has been a good deal of research done with early weaning programs in mature cows. The results vary depending on available quality and quantity of forage and body condition of the cows. Weaning calves during or soon after the breeding season in drought years is an accepted practice for stretching a limited forage supply.

Success and performance of calves weaned from two to four months of age is greatest when high concentrate, highly palatable diets are fed. It is not necessary to use a milk substitute in calves at this age since their rumen is capable of some function by this age and will adapt rather quickly to a high concentrate diet. Calves older than four months will digest forages adequately, but their nutrient requirements are high and may not be met by only forage diets.

With proper management, it is possible for young, early weaned calves to perform well. Oklahoma researchers compared several management schemes. One

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group of steers was weaned at 3.5 months of age and placed in a feedlot, while the other groups were weaned at eight months of age and managed on various growing and finishing programs. All steers were fed to similar fat thickness and slaughtered. The feedlot feed efficiency greatly favored the early weaned calves (5.3 pounds of feed per pound of gain) over older cattle (feed/gain of 8.4 for those weaned at eight months and grazed on native range the full season before entering the feedlot). There was also a significant economic advantage to the early weaned calves: They returned \$176.62 per head, while the least favorable comparative group lost \$106.56.

Other studies have shown reduced performance in calves that were early weaned. In most of these studies calves were not fed or managed intensively. Certainly the cost of more intensive feeding and management must be balanced against the benefits received. The potential cost savings or improved reproduction from the dam whose calf is early weaned must also be factored when evaluating calf performance.

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### **Daryl Strohbehn, Dan Loy and Nolan Hartwig, Iowa State University**

Early weaning trials at Iowa State University have shown that separating the calf from the cow at 45 days of age brought on heat 12 days earlier and improved conception rates six percent. In addition, cows were in a positive state of gain due to lower nutrient requirements. Calf performance up to 200 days was similar for early vs. late weaned calves, and that was during normal moisture years. In drought years, there is every reason to expect early weaned calves to perform better.

In order to accomplish early weaning, proper facilities and techniques are a must. An excellent fenced area is required. During the first week under dry conditions, the walking of calves will pulverize the top soil, causing dusty conditions. It would be best to wet down the lot every day to minimize the dust problem, causing less irritation to the calves' respiratory tracts. Feed bunks are important. Bunks for lightweight, early weaned calves should not be over 18 inches tall. Allow at least 18 to 24 inches of bunk side for each calf.

### **At what age should you wean?**

Results from Iowa State University and other universities show calves can be effectively weaned as early as 45 days. However, results are best when they are 90 to

120 days of age. No matter what age, it is best if the calves have been exposed to grain at least 10 days before weaning. Hopefully, within 10 days the calves will be consuming about one pound of grain mix daily per head. In starting early weaned calves on the feed ration, go slowly with gradual increases in feed offered. Don't load the feedbunk and leave it until the ration is gone. Remember, a one-pound change in feed intake with a light weight calf is considerable and can lead to digestive upsets. Light calves (200 to 300 pounds), need a ration that contains 14 to 17 percent crude protein and 70 to 80 percent TDN. This can not be done with a straight hay diet.

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### **F.L. Fluharty, Department of Animal Sciences, The Ohio State University**

#### **Effects on Subsequent Performance**

An experiment was conducted to determine the effects of diet on calves weaned at either 100 days of age (early-weaned) or 205 days of age (normal-weaned). Early-weaned calves had a greater average daily gain (ADG) than normal-weaned calves from 100 to 205 days of age. This resulted in early-weaned calves having heavier weights at 205 days of age if fed either 100% or 90% concentrate diets compared with normal-weaned calves. At slaughter, early-weaned calves had a higher quality grade than normal-weaned calves. Backfat, ribeye area, dressing percentage, and yield grade were not affected by age at weaning or diet prior to 205 days of age.

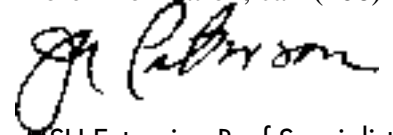
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### **Keith Lusby, former Extension Beef Specialist, Oklahoma State University**

Early weaning could have obvious economic benefits when forage for the lactating cows is lacking or when cows are in such poor condition at breeding that adequate rebreeding performance is impossible. However, the limiting factor for wide use of early weaning has been efficient management of the early-weaned calf. The benefits of early weaning to the cow can be realized only if weaned calves can be successfully and economically raised with minimal facilities, labor and feed costs.

*If you would like to receive additional information on early weaning strategies, please call John Paterson (406-994-5562) or Rick Funston (406-232-8223).*

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John Paterson, MSU Extension Beef Specialist  
and Newsletter Editor, MSU Bozeman  
(406) 994-5562  
johnp@montana.edu

**This is the last issue of Beef: Questions & Answers for this year. Look for us again in December 2001!**

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Dr. John Paterson  
Extension Beef Specialist  
PO Box 172820  
Montana State University  
Bozeman, MT 59717