



---

*“Riding Point  
With  
Animal Science”*

---

February, 2011

---

Volume 3, No. 1

---

## **Feeding High Fat Diets to Equine**

**Amy K. McLean, PhD**

Feeding an animal intended to eat grass 16-18 hours a day should not be a difficult task. However, when we think about how most equine are kept or managed the task at hand becomes more difficult. Many owners do not have large plots of land for their equine to graze and even if they do have a lot of land this time of the year much of it is covered in snow. So, several factors must be considered when feeding equine and trying to maintain their weight:

- 1) level of work/activity
- 2) age
- 3) reproduction status (lactating mare or 1<sup>st</sup> trimester)
- 4) weather conditions

A horse's diet should be based on forage. They are considered to be hindgut fermenters meaning, the cecum (hindgut) of the horse is the primary site of digestion, which greatly depends on microbial digestion. A horse needs long stem fiber for physiological reasons (to prevent Stereotypies such as cribbing) as well as to maintain a healthy hindgut. Often times in the winter months, owners increase the amount of grain or concentrate a horse is consuming to help maintain body weight. Although, a horse is designed to graze for 16-18 hours, so the first increase in the diet of an equine in the winter months should start with forage. During the winter months especially when grasses are not typically growing and covered in snow, owners should consider supplying an additional source of forage such as hay, hay cubes or pellets. Then if the owner still believes the horse needs additional grain or concentrates (which is very likely in harsh winter conditions) consider feeding a feed that is high in fat.

A high fat feed typically has over 10% fat on the feed tag and some feeds/supplements may go as high as 25%. The high fat diet will supply 2.5 times more energy to your horse than say an energy source such as corn. Ideally, you would like to select a high fat feed that has a vegetable source of fat versus animal fat. Most manufactures will use stabilized rice bran along with flaxseed to increase the fat content. You want to make sure the fat source has been "stabilized" so it does not go rancid. Vitamin E is typically used in this process. Horses consuming high fat diets are likely to have shiny hair coats. Although, one area of caution when feeding high fat diets is the chance your horse may consume the diet quite well at first but if he is not burning enough calories his consumption may drop. So, read the feeding instructions when feeding a high fat diet. Also, weigh your horse so you know how much to feed. High fat diets are great for older horses or any horse that's hard to keep weight on. Another advantage is the high fat diets typically do not affect your horse's behavior. Some owners claim their horses become "excited" or "hot" when consuming a lot of grain. This is often associated with diets high in soluble carbohydrates (sugars and starches). These behavioral observations are typically not noted when horses are consuming high fat diets but remember there's always an exception to the rule!

## The next challenge for the beef industry

February 10, 2011

Steve Paisley

Extension Beef Cattle Specialist

University of Wyoming

As calving is in full swing and spring is on the horizon, producers in the area are looking at current calf prices and wondering how long they can be sustained. Feed prices are forecasted to be much higher, negatively impacting feeder prices, but also recent reports suggest that despite an improved economic environment for ranchers, the national and regional cow herds continue to contract.

Demand for beef continues to be strong. While domestic beef demand has its challenges with a national recession and rising beef prices, the U.S. Beef export market continues to improve. In addition to positive developments in trade relations, the value of the dollar continues to encourage further export growth.

In the middle of one of our recent cold snaps, the National Cattlemen's Beef Association met in Denver to discuss current issues, as well as develop long range plans for continued health in the beef industry. The NCBA policy division also met, discussing many of the legislative issues facing the industry. In addition to environmental, tax and regulation items, the policy division also met to discuss ways to continue and improve on the health of the industry.

Over a year ago, a long range plan task force was established, composed of members from all segments of the industry. They were commissioned to develop strategies to keep the beef industry viable with the goal of making beef the safest, highest quality, most consumer-friendly protein source while still being produced in an environmentally and economically sustainable way. Strategies discussed include improving domestic consumer preference for beef, capitalizing on the global growth in demand for beef, strengthening the image of beef and the beef industry, and improving the industry trust with increased openness and enhanced relationships.

There are several other documents and surveys that would echo the task force's recommendations. The 2005 national fed beef quality audit suggested that one of the top three comments from end users of beef were achieving a more global market access and meeting export requirements (i.e. age and source verification). Companies who export beef to foreign markets list age and source verification as their number one concern. The 2007 non-fed beef audit also makes similar comments, with end user surveys listing food safety, market availability and animal handling and welfare as their top three recommendations for future beef industry focus.

The recommendations from the task force should seem vaguely familiar to some of us in the beef industry. In the early 1980's, issues developed concerning injection site blemishes and the negative impact it was having on the beef industry. Beef Quality Assurance programs developed, and with the excellent work of many state organizations as well as national coordination, Audits, research and educational efforts encouraged producers to make the management changes that led to success. The most recent 2007 non-fed (cull cow and bull) quality audit indicated that over 98% of all beef audited was completely blemish free. The BQA and injection site story continues to be a positive reminder that we, as an industry can make changes that improve the quality of beef without immediate economic reward.

We have a similar situation right now. Consumers, exporting companies, and end product users would prefer additional assurances as to the wholesomeness of the product that they are purchasing and marketing. We, as ranchers, are proud of the product that we produce. One way that we can provide additional assurances, as well as improve the marketability of our beef, is through voluntary source and age verification programs. There are several programs available, some managed through state and local organizations, some through companies and alliances within the beef industry. Source and age verification, when documented through the 3<sup>rd</sup> party verification of an approved QSA or PVP program, seems to also have economic benefits to the rancher, with several studies showing an \$8 to \$28 per head premium for officially source and age verified calves. Keeping source and age verification a voluntary program, and utilizing source and age to improve customer confidence and marketability is an achievable goal. If you are already keeping calving records, qualifying for source and age verification is a fairly straightforward process. If you are interested or considering source and age verification for this year's calf crop, visit the USDA's agricultural marketing service website at [www.ams.usda.gov/AMSV1.0/](http://www.ams.usda.gov/AMSV1.0/), or visit with your local extension educator.

## **Points of Interest Scott Lake**

### **Research shows livestock industry is 'green'**

High Plains Journal

Livestock agriculture is green. It is time the industry stopped allowing itself to be pushed around and start using science-based information to tell what it is doing for the world, according to speakers at the recent Southwest Beef Symposium in Amarillo.

See full article at: <http://www.hpj.com/archives/2011/feb11/feb14/0203LivestockIndustryisGree.cfm>

### **AI Efficiency Hinges On Many Factors**

Burt Rutherford

BEEF

“The best thing to happen to breeding heifers is \$6 corn,” says Willie Altenburg, a northern Colorado rancher and a part of Genex, a cattle genetics and AI cooperative. While high feed costs are not good for the industry overall, \$6 corn can encourage a rancher to not get his heifers too fat before breeding season.

See full article at: <http://beefmagazine.com/cowcalfweekly/0203-ai-effeciency-factors/>

### **Cattle Feeding: Feed or filler?**

Dr. Jeff Lehmkuhler

Drovers

As the winter rolls on, we continue to see corn prices escalate having cattlemen wandering when will it come down. On the flipside, it has many folks, as I was reminded over the holidays while visiting with the in-laws, cussing the decision to sell corn at \$4.25 per bushel early this fall.

See full article at: <http://www.cattlenetwork.com/cattle-news/latest/Cattle-Feeding-Feed-or-filler.html>

### **Beef Talk: Grass and Beef – The Future?**

Kris Ringwall, Beef Specialist, NDSU Extension Service

One can only speculate, especially when it comes to the future. However, one item that is not speculation is the fact that we are changing. Reports continue of high grain and beef prices and the subsequent acknowledgement that cheap food prices very well may be a thing of the past.

Full article at: <http://www.beefstalk.com/archive/bt544.htm>