



U of M Horse Newsletter

Providing research-based information to Minnesota Horse Owners

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Volume 5, Issue 1

January 2009

UNIVERSITY OF MINNESOTA
EXTENSION

Issues Fueling Feed Price Increases

If you've paid careful attention to your receipts from the feed store, you certainly have noticed that the price of horse feed has increased. There are five key factors that account for skyrocketing grain prices: biofuel production, extreme weather patterns across the globe, high oil prices, currency fluctuations, and a surge in global food demand.

Biofuel production. Ethanol is the most widely used renewable biofuel today. The US grows approximately one-half of the world's corn. In 2008, nearly one-third of the harvest is expected to be used for the production of ethanol. Because of the demand for ethanol, corn prices (and other grain prices) have risen significantly.

Extreme weather patterns. Despite the advances made in cultivating crops over the last several decades, little can be achieved without the cooperation of the weather. A series of unfortunate global weather occurrences have been a factor in rising feed costs.

High oil prices. The recent spike in oil prices has a direct effect on rising feed costs. Foremost, oil prices impact the cost of planting, cultivating, harvesting and transporting crops.

Currency fluctuations. Most grains are traded internationally in dollars. In recent years, the value of the U.S. dollar has plummeted while, the values of other currencies have increased. Some economists postulate that about *one-third* of the recent rise in grain prices is a reflection of the weak US dollar.

Surge in global food demand. Billions of people are buying more food than ever before, especially in flourishing China and India. These countries are now importing large quantities of grain. Increasing meat consumption in these countries has helped boost the demand for grain as well.

Economists theorize that increased grain prices can be attributed *equally* among these five factors.

By taking a few minutes to closely examine your management schemes, you might be able to find ways to cut costs. Here are a few examples.

Take a critical look at body condition. Horses that maintain their weight on forage-only diets do not usually require any concentrate (grain). A well-formulated balancer will ensure that vitamin and mineral needs are being met.

Maximize forage use. Horses have evolved on diets composed entirely of forage. Therefore, forage should be the primary component of a horse's diet (at least 2/3 of their diet). While all forage offered to horses should be free of dust, mold, weeds, and foreign debris, the quality of the forage can vary depending on the type of horses being fed. Keep in mind, the price of hay has also risen significantly (about \$100/ton) over the last year. Have your hay tested for quality to help determine how much and what type is best to feed. Higher quality hay usually demands a premium. Such hay is not needed by all groups of horses.

Be suspicious of feed manufacturers that have not raised their prices. Historically, when one feed ingredient became too pricey to include in horse feeds, an alternate was available. Not so today. The prices of all feed ingredients have increased. Lower-quality, inexpensive grain substitutes can lower the nutritional content of feed.

Buy high-quality horse feed. Certain horses require fortified concentrates to grow and work. When concentrates are necessary, be sure you are feeding high-quality, fully fortified feeds.

Reevaluate how many horses you can afford to care for. A recent economic analysis (November 2008 Newsletter) suggested that the cost to own one healthy horse is approximately \$6,400 a year.

A special thank you to guest authors Joe Pagan, PhD and Mark Llewellyn of Kentucky Equine Research.

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Upcoming Events

2009 WINTER HORSE OWNER PROGRAMS

Saturday, January 31st

Leatherdale Equine Center

Univ. of MN – St. Paul
St. Paul, MN

Registration deadline:
Wednesday, Jan .28th

Saturday, February 21st

UW-River Falls
Agricultural Science Building
River Falls, WI

Registration deadline:
Wednesday, Feb. 18th

Saturday, March 14th

Thumper Pond Resort
Ottertail, MN

Registration deadline:
Wednesday, March 11th

Register online at

www.extension.umn.edu/horse

**U of M Horse Team
Quarterly "Lunch and
Learn Webinar"**

Wednesday January 21st
at Noon

"Optimizing Your Hay
Supply"

<https://umconnect.umn.edu/horsewebinars/>

Next webinar on April 15th.
Topic: Equine Genetics



Dry Lot and Shelter Sizes

Dry lots, or sacrifice paddocks, provide an opportunity to move horses off the pasture during winter months, wet or dry times, and /or time of needed pasture rest.

Dry lots can vary in size but should provide a minimum of 400 square feet per horse. You also need to account for feeding, water, and

shelter space. Also, 400 square feet assumes the horses in the dry lot get along with each other.

A three-sided shed or lean-to, can provide adequate shelter for your horse. A 12' by 12' lean-to can accommodate 1 to 2 horses. As horse numbers increase, run-in shed dimensions should increase by 12

feet per horse.

For example, if you have 3 to 4 horses, you would need a 12' x 24', and with 5 to 6 horses, a 12' x 48' lean-to would be sufficient. Again, these recommendations assume all horses utilizing the shelter get along with each other.

By: Krishona Martinson, PhD, U of M

Winter Care

Horses prefer, and are better off, outdoors even in cold weather, and will acclimate to cold temperatures if given the opportunity. However, horses should have access to shelter from wind, sleet, and storms. Free access to a stable or open-sided shed works well.

In the absence of wind and moisture, horses tolerate temperatures at or slightly below 0°F. If horses have access to a shelter, they can tolerate temperature as low as -40°F. However, horses are most comfortable at temperatures between 18 - 59°F, depending on their hair coat.

Keep in mind that a horse's

winter coat can be an excellent insulator, but its insulating value is lost if it gets wet, so it is important to keep the horse dry and sheltered from moisture. Blanketing the horse is beneficial when the effective of wind-chill and/or temperature is less than comfortable; however during comfortable temperatures, blanketing is not beneficial.

If you house your horse in a closed and heated stable, make sure it is properly ventilated. Poorly ventilated barns can result in respiratory problems.

In terms of feeding, energy needs for maintenance horses increase 0.7% for each degree of temperature below 18°F, or increase the ration by 1 additional pound of hay for every

5°F decrease in temperature below 18°F for a 1000 pound horse.. It is best to provide the extra energy as forages (i.e. hay). Much more heat is produced when forages are fermented which helps heat the horse from the inside, compared to the digestion and absorption of grains. Most data suggest that the need for other nutrients do not change during cold weather.

Water should be kept between 45 to 65°F (use of a tank heater, etc...) to maximize water consumption. Waters should be cleaned regularly (even in the winter), and clean, fresh water should always be available, regardless of temperature.

By: Marcia Hathaway, PhD, U of M

Ask the Expert

Q: I have been seeing more about the antibiotic resistant super bugs in people. Is this something I should worry about if my horse goes to the hospital?

A: Unfortunately, bacteria are becoming more resistant to antibiotics. This is true in both people and livestock, including horses. Over the past decades, multidrug resistant bacteria have been identified in horses. This includes multidrug resistant Salmonella and methicillin resistant Staph aureus (or MRSA).

These particular bacteria can

cause serious illnesses in both horses and people. As such, we need to develop proactive steps to prevent the spread of these organisms, especially in our veterinary hospitals.

This includes isolating potentially contagious horses thorough disinfection and disease surveillance systems. Occasionally, these diseases have caused temporary closure of some veterinary hospitals. To avoid these problems it is important to use antibiotics under the supervision of a veterinarian, and promptly notify your

veterinarian if you suspect a contagious illness in your horse, and separate your potentially ill horse from healthy herd mates. These steps will help catch outbreaks early and help protect herd mates.

At the University of Minnesota Veterinarian Medical Center, we have staff dedicated to disease surveillance and measures to prevent infections while in the hospital. These measures include:

- Limiting foot traffic in certain areas of the hospital
- Encouraging good hand washing
- Disinfecting the environment
- Monitoring cultures for these organisms

By: Erin Malone, DVM, U of M