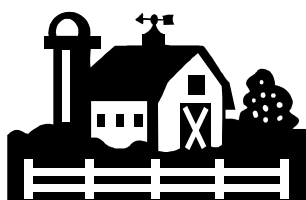


GREEN COUNTY AGRICULTURE NEWS

Cold-Weather Horse Nutrition

**February
2009**



Winter is officially here. Consider yourselves lucky that your horses don't have to deal with temperatures that consistently dip into the negative digits. However, do you consider your horse's nutritional needs and how they change with even mild Kentucky winters? Here are some ideas to consider when feeding your horses this winter.

The first thing every horse owner should do is assess your horses' body condition scores, or the amount of fat they are carrying. This is simple numeric system, ranging from 1 to 9 that will help you adjust your horses' diets so they are carrying the perfect amount of body weight. If you need help with this, the University of Kentucky Cooperative Extension Service published a fact sheet titled, "Condition Scoring Your Horse," and you can contact someone here at the Green County Cooperative Extension office to look for ASC-145. Using this system will help you keep feed costs down and your horses' health and well-being in top shape.

No matter your horses' body condition scores, one of the most important aspects of feeding horses during the winter is being able to provide a source of good-quality forage. Without question, this is a difficult task considering the current availability of affordable, good-quality hay. But unless you have a well-planned rotational grazing system in place and have stockpiled forage that will last until spring, purchasing hay is essential. Square or round bales are perfectly acceptable when correctly managed; however, you will have a better idea of how much hay your horses are eating when providing them with square bales on a daily basis.

Unless you are raising broodmares or growing horses, most horses should be fed at least 50 percent of their total daily diet as forage. For an average 1,000-pound horse fed at 2 percent body weight per day, that would be at least 10 pounds of hay per day. In addition to providing nutrients, hay also supplies heat to the horses through the digestive process.

It's best to provide hay in some sort of feeder when you are group feeding your horses outside. In most situations, a hay feeder will reduce the amount of wasted hay by 20 percent or more. Horse owners have a couple of other forage alternatives to hay such as hay cubes or complete feeds that contain a high level of fiber, such as beet pulp. These may be more expensive in the long run, but offer another way to provide a source of fiber to your horses.

If your hay is of high-nutritive value and your horses are maintaining their body condition scores throughout the winter, you may not have to provide a source of grain at all. However, if your horses are not meeting their nutritional needs with hay alone, you can add grain to their diet. Remember, grain should supplement a horse's diet as a majority of their nutrient needs should be met by the forage source.

Water is an essential nutrient that you need to monitor very carefully during the winter months. In general, horses tend to increase their consumption of water when consuming more dry matter or harvested forages. But, they tend to not want to drink really, really cold water. Therefore, it's important to make sure you provide fresh water daily on a free-choice basis. When the temperature dips into the 30s and below, water tanks may freeze up. Be sure to check them at least twice a day and break the ice up if needed so the horses can drink. You can also install a water tub or bucket heater to keep the water from freezing. When installed properly and monitored closely, these can be helpful tools to keep fresh water available at all times for your four-legged friends.

Make sure you especially monitor older horses that have trouble keeping weight on during the year. They may need some special attention to keep them in good weight throughout the winter. Using these simple tools can help you and your herd make it through the winter in good health and body condition.

**Green County
Cooperative Extension
Service**

**106 S. Public Square
Greensburg, KY 42743**

**Telephone:
(270) 932-5311**

**Fax:
(270) 932-4390**

**Email:
bnewman@uky.edu**

**Website:
[http://ces.ca.uky.edu/
green/](http://ces.ca.uky.edu/green/)**

Brian S. Newman

Brian S. Newman,
County Extension Agent
for Agriculture &
Natural Resources

When to Use Antibiotics

Certain diseases in cattle, like pneumonia, foot rot and pinkeye are caused by bacteria. Dairy and beef cattlemen usually treat these illnesses with antibiotics. Some antibiotics kill bacteria, while others inhibit bacteria growth. It's important to know when an antibiotic will help and what drugs might work best for certain conditions. Work with your veterinarian for a proper diagnosis and recommendations for the most effective treatment. Remember that antibiotics have no effect on viral infections.

The two main classes of antibiotics are bactericidal, where they kill the bacteria, and bacteriostatic, where they inhibit or slow down the bacterial growth. Bactericidal product examples include penicillin, Excenel, Baytril and A180. Bacteriostatic products include tetracycline, sulfas, erythromycin, Micotil and Nuflor. The bacteriostatic products rely on the animal's immune system to help eliminate bacteria.

In general, you should not mix drugs from these two classes or use them at the same time. Some products can be used effectively together because they are synergistic, such as two bacteriostatic products like tetracycline and sulfa boluses for treating foot rot. If you give a cidal and a static drug at the same time, they will not work well together and may not be as effective as just giving one of the drugs. An example is giving penicillin and tetracycline. We want to avoid this combination.

Whenever you use an antibiotic, a proper withdrawal time must be observed before the treated animal can be sold to avoid any meat residues. There are different withdrawal times for different products, and the time is also dependent on the dose given to the animal. Higher doses require longer withdrawal times. It is illegal to sell an animal before adequate withdrawal time has been observed. Any carcass containing drug residues will be condemned. A good resource for proper withdrawal times is the Food Animal Residue Avoidance Databank. This is a federally funded program that collects and lists every drug that is approved for food animals.

1. Here are 10 good tips for antibiotic use:
2. Identify all animals treated.
3. Record all treatments (date, animal ID, dose given, route of administration, person giving treatment, withdrawal time).
4. Strictly follow label directions for product use.
5. Use newer technology antibiotics when possible.
6. Select antibiotics with short withdrawal times when equivalent.
7. Never give more than 10 cc per injection site. If a dose is more than 10 ml, split it into multiple sites.
8. Avoid Extra Label Drug Use (ELDU) of antibiotics.
9. Avoid using multiple antibiotics at the same time.
10. Don't mix antibiotics in the same syringe.
11. Check ALL medication/treatment records before marketing.

Cattle producers know that healthy animals are the foundation of safe food. Disease prevention to keep cows well is a key to your success. When cattle get sick and antibiotic treatment is necessary, producers and veterinarians should take great care to use drugs in a responsible way.

Get the Most From Firewood Investment

Many Kentuckians burn firewood as their main source of heat during the winter. Others use it to supplement their heating sources. For many families that means purchasing the wood. To gain the most from the investment, pay attention to the seasoning, density and quantity of firewood.

Seasoning is an important consideration when purchasing firewood. Ask if the firewood has been seasoned. Wood that is seasoned, or cured, was properly cut, split and stacked for about six months to remove enough moisture so it will burn efficiently this season. Properly seasoned firewood has a gray, weathered appearance and large cracks in the log ends.

It's important to buy only seasoned firewood because burning unseasoned wood produces a smoldering fire that creates a potentially dangerous creosote buildup in the chimney. This inefficient burning also can lead to a poor draft, causing smoke to bellow into the room instead of flowing up the chimney.

Wood species have different heat values so consider what you want to accomplish with a fire before buying firewood.

Softwoods like pines ignite easily and produce a hot flame. Because pines contain so much resin, they burn out quickly so you'll need to watch the fire closely and add more wood to keep it going.

Softwoods and lighter hardwoods like yellow-poplar do have a place in your firewood buying plan. They are a good choice when you want a quick, warming fire or if your goal is a short fire that will burn out before you leave the house.

By contrast, more dense hardwoods produce a longer-lasting fire because they burn less vigorously. Hickory, black locust, oaks and ashes are among the more desirable and plentiful hardwoods. They also are easy to split.

Since wood species produce different heat values, you can combine softwoods and hardwoods to produce a fire that's both easy to ignite and long lasting. Then you can add some fruit or nut woods to produce a pleasing aroma.

Burning woods of fruit trees, such as apple or cherry, and nut trees like beech and hickory provide a pleasant, often nostalgic aroma that resembles the fragrances of their fruits or nuts. These woods produce a steady flame, but usually cost more than those with greater heating values.

How much should you pay for firewood?

The answer depends on the volume of wood you purchase and the availability of firewood in your area.

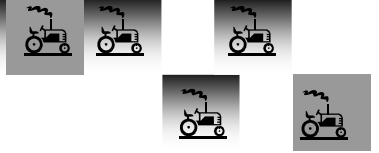
The most common firewood measurement is a "face cord," which is four feet high and eight feet long. A "face cord" normally costs about \$50 in areas where firewood is plentiful and up to \$200 or more in locations where firewood is scarce. As with most other purchases, firewood prices are negotiable.

Firewood is cut in various widths so be sure to buy a width that will fit your fireplace or wood-burning stove.

Buying properly seasoned firewood in an amount that fits your needs will ensure that you have a warm, long-burning fire, rather than seeing your investment go up in smoke.



Disabilities accommodated with prior notification.



Preparing Spring Heifers for Calving

January is an extremely important “check-point” in spring heifer development programs. The key to proper heifer development lies in understanding the factors that influence conception in yearling heifers. One key factor regulating heifer fertility is age at puberty. Most producers don’t consider age at puberty of their heifers to be a major problem, yet few know how many heifers are actually cyclic at the beginning of the breeding season.

A Nebraska study demonstrated that the proportion of heifers that were pubertal on the first day of the breeding season varied greatly over 5 consecutive years in a single herd. The percentage of heifers that were pubertal on the first day of the breeding season ranged from only 21 percent to as high as 64 percent over the 5-year period. For maximum fertility and reproductive performance, heifers must have had at least one estrus before the beginning of the breeding season. Our goal then is to incorporate reproductive management techniques to reduce the age of puberty, increase fertility and shorten the interval to conception.

One of the largest factors responsible for regulating puberty in heifers is weight. For puberty to occur, heifers must weigh at least 65 percent of their mature weight. This weight is referred to as their target weight. Most heifer development programs require that heifers reach their target weight by the onset of their first breeding season. Because fertility increases until the third estrus after puberty, heifers should reach their target weight at least 30 days before the start of the breeding season. I refer to this date as the target date.

January is the time to determine if your heifers are “on track.” Most yearling heifers will need to reach a target weight of 700 to 800 pounds by mid-April to ensure high fertility, assuming that the heifer breeding season starts in about mid-May. Weigh your heifers to determine how much they have left to gain to reach their target weight. If the heifers weighed on average 600 pounds and their target weight is 750 pounds, then they will need to gain 150 pounds or 1.5 to 1.6 pounds each day to reach their target weight by mid-April. Heifers should reach a body condition score of 5.0 to 5.5 by their target date.

The next important phase in heifer development occurs one month prior to the start of the breeding season. At this time, heifers should be vaccinated (Vibrio fetus, Leptospirosis, and the respiratory disease complex which includes PI3, BRSV, BVD and IBR; modified-live vaccine is preferred), dewormed and pelvic area measured. Heifers with small pelvic areas and especially large heifers will small pelvic areas tend to have greater difficulty calving. Now is the time to contact your local veterinarian to schedule this pre-breeding work.

Producers should consider estrus synchronization and/or artificial insemination. Estrus synchronization and artificial insemination have many advantages which include: higher pregnancy rates; heavier, more uniform calves at weaning; increased production and labor efficiency. The greatest advantage of artificial insemination is the ability to use superior, more predictable sires. Since a majority of calving problems in a herd occur when calving first-calf heifers, it seems only logical to synchronize and artificially inseminate your heifers to proven calving ease bulls. Contact your local artificial insemination technician to schedule a time to breed your heifers.

Proper heifer development is one of the key components to profitability in a beef cattle operation. Understanding the principles of heifer development can enable producers to incorporate management techniques to improve the efficiency of the operation.

Upcoming Programs

The Center of Kentucky Master Grazer program.- starting on February 5

Center of Kentucky Dairy Short Course- Starting on February 12.

Mid South Stocker Conference- Cadiz, Kentucky. February 24-25. More information at www.midsouthstocker.org.

For more general information on these upcoming activities, contact the Green County Cooperative Extension Service.



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