



# U of M Horse Newsletter

*Providing research-based information to Minnesota Horse Owners*

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## Spring Pasture Turn-Out Guidelines

By: Paul Peterson

Recent rains and warm temperatures have pastures green and growing. Introduce horses to lush spring pasture gradually for the sake of the horse and the pasture. Spring turn-out should be determined by: stocking rate (how many horses and how much total pasture acreage), pasture species and condition, and ability and availability of mowing/haying equipment for paddocks that may get too tall/mature for effective pasturing. Turn horses into the pasture slowly over a several week period. Begin with short (15 min.) grazing periods and work your way up to the full day over the several week period. Gradual pasture introduction in the spring will cause fewer health problem for your horse (i.e. colic and founder). On

average, 1 to 2 acres of well-managed pasture can provide the forage needs for one horse from spring to fall. "Well managed" means subdivided into at least 3 paddocks, fertilizing according to soil tests, and controlling weeds. If you have that much or more acreage per horse, you may want to start grazing early to get a jump on the spring flush of pasture growth. If you have less than 1 to 2 pasture acres per horse, as is the case for many of us, the pasture cannot be expected to meet all the forage needs for your horses during the grazing season. Plan to provide some hay and designate a sacrifice area/paddock to feed horses as needed to allow adequate rest (on average 30 days) for the remaining paddocks. If you

are overstocked, it may make sense to wait until you have more spring growth before grazing, since staying ahead of the spring flush will be less of a concern. Grass pastures with good stands of Kentucky bluegrass or smooth brome grass can handle early spring grazing. "Early" means when bluegrass is 3-4" tall and brome grass is about 6" inches tall. These grasses are sod-forming and tolerant of horse hoof damage. Pastures dominated by bunchy-growing grasses like orchardgrass and timothy should be taller (about 10"). These grasses are more easily damaged by hoof action and grazing. If conditions are really wet, its best to wait, regardless of plant height.

## Ask The Expert

By: Stephanie Valberg, DVM, PhD

Q: What is the relationship between grazing on pasture and laminitis?

A: One of the factors that can predispose horses to laminitis is the rapid intake of nonstructural carbohydrates (sugars and starches). Intake of starches or fructans (a sugar) stored in pasture can cause laminitis. Fructans are the primary reserve carbohydrate stored in cool season grasses like fescue and bluegrass. Grazing management is important for horses predisposed to laminitis (often ponies and overweight horses). This includes limiting grazing during the times of day when fructans are at their highest level a in grasses. Generally, horses predisposed to laminitis should graze in the evening and over night and be inside or in dry lots during daylight hours. Grazing should also be limited during times of environmental stress on plants such as drought or cool temperatures. Rotational grazing is recommended where regrowth is limited to 4 to 6". It is important not to over graze pastures as the lowest stems often contain the highest amount of sugar. Avoid grazing on pastures with lots of seed heads as they also contain high amounts of sugar.

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## Up Coming Events

Pasture Plant and Weed ID Class. May 17 in Buffalo. For more information, please contact Kristi at 763-767-3837.

## Volunteer Opportunity

A new program has been launched partnering horse enthusiasts with the U of M's neonatal intensive care program for large animals. The cases are predominately foals, but at times include calves and crias. Please contact Vivian Neige at [neige001@umn.edu](mailto:neige001@umn.edu) or 612-624-3928 for more information.



The University of Minnesota has opened Lone Rock Trail to horse riding and hiking for the summer season on April 1, 2005. Lone Rock Trail offers horse riders, hikers and cross country skiers a pleasant, scenic experience in a natural setting just minutes away from the heart of the Twin Cities. Celebrating its second year, the trail is located within UMore Park, a 7686-acre research and outreach center of the

Founder, also known as laminitis, is an inflammation of the laminae or tissues that connects the hoof wall to the coffin bone. Because the laminae are between a rock and a hard place (hoof wall and coffin bone) they have nowhere to expand to accommodate the swelling. This causes pressure on the blood vessels in the laminae, and if it persists, will cause the laminae to die. The laminae in the front of the hoof, which carry most of the weight, will stretch and

First, test the soils in the pasture to determine how much fertilizer you will need. Your local cooperative can take the soil test for you, or you can send a sample into the U of M Soil Testing Lab. They can be reached at 612-625-3101. The soil test will determine how much nitrogen (N), phosphorus (P) and potassium (K) you will need, the three major elements that effect plant growth. If fertilizer is

## Lone Rock Trail Is Open

University of Minnesota in Rosemount, Minnesota. Lone Rock Trail offers nature lovers the chance to experience gently rolling terrain, wooded areas, agricultural land and two wetlands that flow into the Vermillion River. It's a wonderful place where everyone, especially horse riders, can enjoy a wide array of wildlife species. Trail

users pay \$5.00 for a daily or \$25.00 for an annual pass. A vehicle hangtag will be sent to individuals that purchase an annual pass and is good through March 30, 2006. The 10.8-mile trail is open 30 minutes before sunrise and closes 30 minutes after sunset. The trailhead has ample parking for horse trailers, restroom facilities and horse

By: Patricia Banttari

watering facilities. All pets must be kept on a leash and are allowed only in the parking area of the trail. Due to the desire to preserve the trail in its natural pristine state, off road vehicles are prohibited for use on the trail. For directions and information see the UMore Park website at [www.umorepark.umn.edu](http://www.umorepark.umn.edu) or phone 651-423-2455.

## Founder

tear allowing the front part of the coffin bone to pull away from the hoof wall. This is called "rotation". In severe cases, all laminae die allowing the coffin bone to drop through the bottom of the hoof. This is called vertical displacement or sinking. Most vets say a horse has "foundered" when either rotation or sinking has occurred. Accurate diagnosis of

By: Darrell Zehrer, DVM

laminitis is done by a veterinarian exam, and x-rays are helpful in determining the degree and severity of laminitis. Prompt treatment is critical and is aimed at controlling pain and inflammation. Limiting inflammation to the laminae is important as well as stabilizing the foot and coffin bone. Recovery of laminitis depends on the amount of damage done to

the laminae. Severe cases may require corrective trimming and shoeing and/or surgery. Management of a foundered horse is best accomplished through cooperation of the horse owner, vet and farrier. Prevention is dependent on identifying and correcting an underlying cause, as laminitis can be triggered by diverse events including grain overload, retained placenta, colic, or insulin resistance.

## Fertilizing Your Pasture

needed, a good fertilizer program to follow is to divide your recommended fertilizer amount in three and fertilize on the major summer holidays: Memorial Day, 4<sup>th</sup> of July and Labor Day. The later first application will slow the growth in the spring and boost productivity in the heat of summer. The application in September will help extend the

grazing season and help the grass store up reserves for over-wintering and the following spring. This routine will help keep the grass from getting ahead of your horses in the spring, and supply more forage in heat of summer. It is important to be careful in the timing of the fertilizer application. Applying N during a dry spell can burn the grass. Avoid fertilizing

By: Betsy Gilkerson

right before a large storm event, as this can increase the chance the fertilizer may be washed away before the grass can absorb it. The ideal time to fertilize is right before a gentle, soaking rain. You should keep your horses off of the pasture until the fertilizer has dissolved so they do not accidentally ingest the fertilizer while grazing.