



U of M Horse Newsletter

Providing research-based information to Minnesota Horse Owners

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Just under 600 horse owners attended the 2007 U of M Regional Horse Owner Programs in St. Paul, Crookston, Foley, Cloquet, and Rochester. Based on the evaluations, future topics horse owners want to learn about are: horse behavior, fly and pest control, tack fitting, trail riding, hoof care, poisonous plants, trailer safety, and nutrition. Seventy-nine percent of participants were female, with a majority (57%) between the ages of 40 and 60. Participants owned an average of 4.5 horses and 21 acres. Over 50% of the participants chose to register on-line, an option that will be offered again next year. Participants expressed a

Your Input Matters!

need for more specific topics with more time for questions, including a session or two devoted to "Ask the Vet" or "Ask the Expert". Participants also expressed a desire for more advanced topics. In 2008, participants can expect one entire program, most likely at the new Equine Center in St. Paul, devoted to advanced topics, including; research updates, metabolic syndrome, therapeutic riding, advanced medical treatments, plant identification, hay analysis, and more. Some advanced topics will also be presented at other locations based on local planning committee recommendations. Finally,

participants expressed a need to know in advance when and where future programs would take place. For 2008, Regional Horse Owner Programs are being planned for St. Paul (2 sessions), Morris, Bemidji, and Mankato, or surrounding areas. U of M Regional Horse Owner Programs will continue to be held on Saturdays in February and March, with a potential for the advance topic program occurring in the fall. Again, thank you for your feedback, it is extremely valuable as we continue to plan and improve the Regional Horse Owner Programs.

Ask the Expert

By: Erin Malone, DVM, U of M

Q: My quarterhorse has had a problem with founder and laminitis. His front left coffin bone has stabilized. He also has a thyroid problem, but current medication has that stabilized. My question is, when we do trail ride, which is mainly walking, but some light trotting up hills, he breaks out in severe sweats with little or no riding. When we stop, his front section will go into slight tremors or leg shakes. I am wondering if I should have further testing done, or if this is normal considering his past issues.

A: How old is your horse? Older horses with founder should be considered as potentially having Cushings disease. These horses will not shed out well, may drink/urinate more, and can have what we used to consider a low thyroid appearance. The disease makes them more prone to repeat founder episodes but can be controlled with medication. These horses do tend to sweat more, too. Have you tried him on pain meds to see if he still shakes? He may not be handling the trail ride well and it is becoming too painful or too tiring. If it is pain related, he should be better on a test dose of bute (discuss extended use with your vet). If the bute helps, he needs further testing to see if the pain is from his foot or someplace else in his leg. Continuing to ride him on the bute can put him at risk for further injury until you know why he is painful. If the bute doesn't help, he may not be able to handle the work due to his condition. In this case, a good overall exam may help determine his muscle condition and strength. Cushings horses tend to lose muscle tone. Muscle biopsies can help diagnose underlying problems and should be considered in younger horses. Electrolyte abnormalities in the blood could also cause the shakes but he would likely be a low risk candidate for this. Finally, if his foot is the issue, there are surgeries to help realign the bone in the hoof to make it less painful for him. We do think that the malalignment leads to stress and pain.

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Up Coming Events

Equine Center Update
To view the latest Equine Center Newsletter, *Equine Connection*, go to www.cvm.umn.edu/umec/news

Managing Horses on Small Acreages On-Line Chat
May 23rd at 2:00 pm
www.extension.org/horses

Hands-on Pasture Workshop
Milaca, MN
Thursday, June 14th
5:45 pm to 9:00 pm
Contact Lynn at 320-983-6120 to register.

Fact Sheets Available
The following fact sheets are now available for viewing and purchase on our website www/extension.umn.edu/horse

- Care of the Broodmare
- First Aid:
- Management of Established Pastures.
- Top Ten Things Every Horse Owner Should Know About Nutrition.
- Nutrition for Weanlings and Yearlings.
- Care of Elderly Horses
- Hoof Care
- Buying & Storing Hay
- NAIS - Equine



MN Horse Owner Survey Results Published By: Krishona Martinson, PhD, U of M

The University of Minnesota conducted a statewide survey of 1,008 Minnesota horse owners to characterize their preferences for education on equine topics. The majority of horse owners currently obtain

information from equine magazines, other horse owners, and veterinarians. When asked how they would like to obtain horse-related information, horse owners preferred short publications, the internet, and evening seminars. Top

topics respondents want to learn about were: basic training, vaccinations, hoof care, horse nutrition, colic, behavior, and proper tack fitting. The survey indicated that 49% of horse owners have part of their income generated from horse sales.

To the best of our knowledge, this is the first survey conducted to determine the educational needs of horse owners in the United States. To view the entire publication, go to <http://www.joe.org/joe/2006december/rb4.shtml>.

Feeding Weanlings & Yearlings By: Marcia Hathaway, PhD, U of M

For the rapidly growing horse, the period between weaning and 2 years of age is a critical one in terms of nutrition. Energy and nutrients are first used to meet maintenance requirements. Any energy and nutrients remaining will be used for growth. The dietary ratio of calcium (Ca) to phosphorus (P) (Ca:P) should range from 1:1 – 3:1. Legumes tend to be higher in Ca than P and higher in Ca than the grasses. Grains are typically much higher in P than Ca. Therefore any change in forage or grains in the diet would be expected to alter the Ca:P ratio. There is an increased incidence of defective bone and associated tissue formation if one or more of the following conditions exist. **1.** the quantity of Ca and P is inadequate; **2.** the ratio of Ca:P is inverted; **3.** the diet is low in zinc (Zn) or copper (Cu). The ideal ratio of Zn:Cu is 3:1 to 4:1; and **4.** the energy content of the diet exceeds 120 to 130% of that recommended by the National Research Council (NRC). High quality

forages are an excellent way to provide the young horse with much of the energy and nutrients it needs. The forage component of a weanling's diet should never be less than 30% as measured by weight and ideally should be much greater. While it is possible to determine the energy and nutrient content of hay by laboratory analysis, it is very difficult to get a handle on the quantity of nutrients that pasture contributes to the nutrition of the young horse. This is because the conditions of the pasture vary over time due to temperatures, rainfall and pasture management practices etc. Consequently, pasture alone should not be considered adequate to meet all of the young horse's nutrient requirements. Because the ability to efficiently utilize forages develops over time, young, growing horses need higher quantities of sugars compared to mature horses. Frequently, when more energy than can be supplied via forages is needed, cereal grains such as oats and corn are increased at the expense of the forage component.

However, there is a very real and practical limit to how much cereal grain can be fed to a horse without causing serious nutrient-related ailments, and the grain ration should contain supplemental fat. You can either formulate your own concentrate ration or purchase a commercially prepared concentrate specifically formulated for horses at different stages of growth. The total quantity of concentrates should be kept at the minimum possible to achieve the desired growth rate and maintain a moderate body condition score. Ribs should be visible on weanlings and yearlings. There should be fat covering the top 1/3 to 1/2 of the ribs below the flat of the back. Additional fat may indicate the horse is too heavy. Maximizing forage consumption will mimic natural feeding behavior and facilitate gastrointestinal tract health. Because of their small stomachs, young horses should be fed the concentrate part of their ration multiple times throughout the day, and any concentrate not eaten

should be removed and replaced with fresh concentrate the next feeding. It is important that you take the expected feed consumption of the horse into account when calculating your horse's daily ration. The horse requires a number of different minerals in its diet. Some of the minerals, especially the major minerals, may be supplied in adequate amounts via natural feedstuffs. Common feedstuffs are not usually a reliable source of the required trace minerals, so supplementation is usually recommended. Salt or sodium chloride (NaCl) should always be provided free choice as a horse will regulate their own intake. It is also recommended that vitamins be supplemented to most young horses. Additionally, young, rapidly growing horses should always have access to a fresh, clean supply of water.

Next month, maximal growth vs optimal growth of young horses will be discussed.