



U of M Horse Newsletter

Providing research-based information to Minnesota Horse Owners

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U of M Speakers and Topics at the MN Horse Expo

Friday, April 25 Noon	Pasture Management	Craig Sheaffer, PhD	DNR Building
Friday, April 25 2:00 pm	Body Condition Scoring and Weight Estimation	Amanda Grev and Emily Glunk, MS	Horse Barn Arena
Friday, April 25 3:00 pm	Optimizing Hay Use	Krishona Martinson, PhD	DNR Building
Saturday, April 26 10:00 am	Body Condition Scoring and Weight Estimation	Amanda Grev and Emily Glunk, MS	Horse Barn Arena
Saturday, April 26 11:00 am	Feeding Horses on a Budget	Marcia Hathaway, PhD	DNR Building
Saturday, April 26 3:00 pm	From Fat to Fit: Horse Weight Loss	Krishona Martinson, PhD	DNR Building
Sunday, April 27 Noon	Feeding Horses on a Budget	Emily Glunk, MS	DNR Building
Sunday, April 27 2:00 pm	Pasture Management	Amanda Grev	DNR Building

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Upcoming Events

Equine Pasture

Management Program
One farm visit and a customized pasture and grazing management plan. Registration open from April 1 through August 1. \$650 per farm. To register: www.regonline.com/EquinePastureManag2014

Minnesota Horse Expo

April 25-27, 2014
MN State Fairgrounds
St. Paul, MN
www.mnhorseexpo.org/

MNHWC 6th Annual Free Equine Castration Clinic

Stallion owners must be referred based on an economic hardship.
Saturday, May 10, 2015
Cambridge, MN
For appointments, contact Krishona at 612-625-6776

Lunch and Learn Webinar

Wednesday, June 11, 2014
"Establishing a Horse Pasture" presented by Krishona Martinson, PhD

The University of Minnesota is an equal opportunity employer and educator.

Ask the Expert: Certified hay By: K. Martinson, PhD, U of MN

Question: What is certified hay and how do you raise it?

Response: The invasion of noxious weeds causes substantial economic loss and ecological damage. Common sources for the introduction and spread of weed seed include the transportation and utilization of contaminated forages.

In Minnesota, the state agency in charge of certified hay is the MN Crop Improvement Association (MCIA). The Noxious Weed Seed Free Forage certification program is designed to assure that forage (hay, cubes and pellets) meets minimum standards designed to limit the spread of noxious weeds. Most public lands in the western U.S. require that hay transported into these areas be certified noxious weed free.

To grow Noxious Weed Seed Free Forage, farmers must first submit an application for membership to MCIA and apply for field inspection stating the location of the field and expected harvest date. MCIA then inspects the field and intended storage site to determine conformance to standards for freedom from noxious and undesirable weeds. The farmer then harvests the eligible crop and submits a tag request for the bales harvested. Certification labels are then issued by MCIA for eligible bales. The labels must be attached to each bale prior to delivery.

The MCIA website has additional information at www.mncia.org/, or they can be contacted by phone at 1-800-510-MCIA.



Research Update: Equine Shade Preference

Provision of shade is recommended by best practice guidelines for horses living in hot, sunny environments despite a lack of research focused on potential benefits of shade for horses. A previous study showed that horses with no access to shade showed greater rectal temperature, respiration rate, and exhibited more sweat than horses that were completely shaded. Yet, this apparent benefit is dependent on horses choosing to stand under the shade provided. The objective for the study, carried out by researchers at the University of California Davis, was to assess horse preference for shaded and unshaded areas in hot, sunny, summer weather.

Twelve healthy, adult horses were used in three different trials, with four horses being used in each trial. The trials consisted of two days of acclimation and 5 to 7 days of observation. Horses were housed individually in dry lots. The southern half of each pen was covered by an open-sided shade structure. The amount of the pen shaded varied throughout the day with an average of 51% of the pen shaded throughout the day. Rectal temperature, respiration rate, skin temperature and sweat score were measured once in the morning, afternoon and evening each day. The horses' behavior was also observed and recorded. The behaviors recorded were horses' location relative to shade, and time

spent walking, foraging and standing. Horses were considered to be "in shade" if at least two hooves were shaded by the shade structure.

Results showed that more horses were located in the shade and performed more walking and foraging behavior in the shaded area. In addition, horses spent more time at night beneath the shade structure than in the uncovered area. These results indicate that individually-housed horses do prefer to utilize shade when it is available in hot, sunny environments. These results support recommendations for access to shade when developing best management practice guidelines for horses.

Summarized by Shanna Privatsky, University of Minnesota

Transitioning Horses to Spring Pasture

By: Krishona Martinson, PhD, Univ. of Minn.

It is tempting to turn horses out into spring pastures at the first sight of green grass, especially after a long winter. However, spring grazing should be introduced slowly and delayed until grasses reach 6 to 8" in height to optimize both the health of the horse and pasture.

When horse pastures reach 6 to 8", begin grazing for 15 minutes, increasing the grazing time each day by 15 minutes until 4 to 5 hours of consecutive grazing is reached. After that, unrestricted or continuous grazing can resume.

It is also recommended to feed horses their normal hay diet before turning them out to pasture during the first several grazing events of the year (along with the time restrictions). This strategy should help avoid rapid intake of pasture grasses.

Horse Health. Even though

hay and pasture are both forms of forages, there are significant differences. Dried hay is approximately 15% moisture compared to fresh pasture that is 85% moisture. The horse is a hind-gut, fermenting herbivore that relies extensively on the microbes present in its gastrointestinal tract to be able to process forages. A gradual change from one feedstuff to another provides enough time for the microbial populations to adjust.

Pasture Health. Pasture grasses need sufficient growth before grazing is allowed. Photosynthesis (the process of converting solar energy to chemical energy) occurs mainly within the leaves of plants. If the leaves are grazed too early (prior to 6" tall) or too often, plants can

lose vigor, competitiveness, and root structure due to the lack of photosynthetic ability. This will lead to eventual die back and overgrazed areas being replaced by undesirable plant species or weeds.

Grazing should cease when forages have been grazed down to 3 to 4 inches. At this time, move horses to another paddock or a dry lot. Grazing can resume when grasses regrow to 6 to 8". On average, 2 to 3 acres of well-managed pasture can provide the forage needs for one horse from spring to fall.

Conclusion. It is critical to slowly introduce horses to spring pastures. When horse pastures reach 6 to 8", begin grazing for 15 minutes, increasing the grazing time by 15 minutes each day until 4 to 5 hours of consecutive grazing is reached. Following this recommendation will help ensure both horse and pasture health.