U of M Horse Newsletter

Providing research-based information to Minnesota Horse Owners

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University of Minnesota Extension

Research Update: Shelter Use and Flies

In many areas of the world, there is are requirements for summer shelter to protect horses from heat and insects. However, access to shelter for horses kept completely outdoors during winter is commonly required. This study, conducted in Sweden, investigated horses' daytime shelter-seeking behavior in relation to weather conditions and insect activity during the summer.

Eight Warmblood riding horses had access to 2 shelters of different designs to test which shelter design was preferred by horses. In addition, rectal and skin temperatures and insect-defensive behaviors were recorded to determine if horses benefited from the shelter. The horses were kept alone in paddocks and had access to 2 shelter types, an open shelter with roof and uncovered sides and a closed shelter with roof, wind nets on 2 sides, and opaque plastic opposite the entrance. Weather conditions were recorded every 10 minutes. The number of insects were counted from insect traps placed inside and outside of each shelter. Behavior (shelter use, insect-defensive behavior, locomotion, grazing) was recorded at 5 minute intervals for three hours in both the morning and afternoon. Rectal and skin temperatures were measured at 8:00am, noon and 4:00 pm.

Ambient temperature ranged from 61 to 77°F. Five horses preferred the closed shelter and were observed inside up to 2.5 hours continuously. Greater wind speed and lower numbers of flies decreased the likelihood of observing horses inside the shelter. The insect-defensive behaviors (skin shiver and ear flick) were performed less frequently when horses were using the closed shelter, indicating that they were less disturbed by insects.

Based on these results, horses did make use of shelters during the summer, even when weather conditions were moderate. A shelter with roof and covers on 3 sides was preferred over a shelter with roof only and can reduce insect-defensive behavior.

For more information, click here.

Summarized by: Krishona Martinson, PhD, University of Minnesota

Ask the Expert: Is It Too Early To Start Grazing?

Question: I've heard conflicting recommendations on when to start grazing my horses. Is April 1st too early to start grazing?

Response: Spring grazing should be introduced slowly and delayed until grasses reach 6 to 8" to optimize both the health of the horse and pasture. Calendar date is not important as weather conditions and grass growth can very greatly from year to year.

When 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.

We also recommend feeding horses their normal hay diet before turning them out to pasture during the first several grazing events of the year. This strategy should help avoid rapid intake of pasture grasses.

Even though hay and pasture are both forms of forages, there are significant differences. A gradual change from one feedstuff to another provides enough time for the microbial populations to adjust, reducing the chance of colic and laminitis. For more information on spring grazing, click here.

By: K. Martinson, PhD, UMN

Inside This Issue

Upcoming Events

Equine Pasture Management Program
One farm visit and a customized pasture and grazing management plan
April 1 - August 1, 2017
$650 per farm
To register, click here.

Visit our Facebook page for "Research Update Monday", "Tip of the Week Wednesday", "Friday Funny" and special events.

Visit (and share) our Webinar Library for recorded lectures on over 20 horse-related topics.

Check out our latest horse-related videos on our **YouTube Channel**!

Economic Contribution of Minnesota's Horse Racing Industry

The Minnesota Racing Commission (MRC) contracted with University of Minnesota Extension to conduct an economic contribution study of Minnesota's horse racing industry. The horse racing industry in Minnesota is successful compared to other states, but it is part of a rapidly changing environment. The analysis found the industry currently contributes $409.2 million and 5,590 jobs to Minnesota's economy. Understanding the industry's significant role in the state's economy is valuable for future planning by industry leaders and policymakers.

To measure contributions, Extension surveyed race horse owners, breeders, and trainers. Minnesota's premier horse racing venues, Canterbury Park and Running Aces, along with MRC, provided their employment and spending data for analysis. Total economic contribution included direct, indirect, and induced effects. Direct effects resulted from spending by owners, breeders, trainers, race tracks, and MRC. Indirect and induced effects were across all industries and are measured using the input-output model IMPLAN.

In 2015, Minnesota's horse racing industry generated an estimated $409.2 million of economic activity in the state. Of this, $176.1 million was the result of direct spending by the horse racing industry including owners, trainers, breeders, Canterbury Park, Running Aces, and the MRC. Additionally, the industry stimulated an estimated $233.1 million in economic activity at non-race horse related industries across the state. At $409.2 million, the industry's total annual economic contribution significantly impacts the state. The industry accounts for 2% of Minnesota's leisure and hospitality industry.

The biggest benefits from the horse racing industry occur in Minnesota's manufacturing, health and social services, and agriculture industries. Impacts in the agriculture industry are notable, as they reflect the horse racing industry's connections to agricultural production. The industry also has higher impacts on Minnesota businesses than typical entertainment businesses and activities.

In 2015, Minnesota's horse racing industry supported an estimated 5,590 full and part-time jobs in the state. Of this, the industry directly employed an estimated 3,960 people. Additionally, the industry supported 1,630 jobs in non-horse related industries.

Minnesota has 1,472 licensed race horse owners, 211 licensed race horse trainers, and 214 race horse breeders. In 2015, 348 foals were registered as Minnesota born. On average, survey results indicate each owner has eight horses, three of which are in training in Minnesota. According to the survey, each trainer is responsible for an average of 15 horses, nine of which are in active training. Horse breeders also report an average of 11 horses on their farms.

Univ. of Minnesota Speakers and Topics at the MN Horse Expo

Date and Time	Topic	Speaker	Location
Friday, April 28 1:00 pm	Costs and Considerations When Rescuing a Horse	Krishona Martinson, PhD	DNR Building
Friday, April 28 3:00 pm	Pasture Management	Amanda Grev, MS	DNR Building
Saturday, April 29 11:00 am	Managing Easy Keepers	Marcia Hathaway, PhD	DNR Building
Saturday, April 29 3:00 pm	Pasture Management	Krishona Martinson, PhD	DNR Building
Sunday, April 30 11:00 am	Costs and Considerations When Rescuing a Horse	Michelle DeBoer, MS	DNR Building
Sunday, April 30 1:00 pm	Managing Easy Keepers	Devan Catalano, MS	DNR Building