



U of M Horse Newsletter

Providing research-based information to Minnesota Horse Owners

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Research Update - Round-bale Feeder Design

Many horse owners find round bales less labor intensive, more convenient, and less expensive than other hay types. However, some round bale users report excessive hay waste, overeating, and uncontrollable horse weight gain. The objectives of this study, conducted at the University of Minnesota, were to compare hay waste and economics of nine round-bale feeder designs and a no feeder control when fed to horses.

Nine round-bale feeders were tested, including Cinch Net, Cone, Covered Cradle, Hayhut, Hay Sleigh, Ring, Tombstone, Tombstone Saver, and Waste Less. The tenth treatment was a no feeder control. Feeders were placed in individual outdoor dirt paddocks and herds of five horses fed in rotation for four days from each feeder. Every fourth day, horse groups rotated among paddocks and a new round bale was placed in each feeder. Horses had unlimited access to water, a trace mineralized salt block, and hay in the feeder. Hay on the ground surrounding the feeder was considered waste and collected daily. Care was taken to avoid collection of manure and dirt. Hay remaining in the feeder at the end of the 4 day period was removed and weighed. Total 4 day hay waste was reported as percent of consumed hay. Months for waste reduction to pay back feeder cost (payback) was calculated using hay valued at \$100 per ton and based on mean waste from the no feeder control.

No injuries were observed from any feeder. Cosmetic rub marks along the sides of faces were observed on many horses feeding from the Waste Less feeder. Bales collapsed after two days in the Cinch Net and horses were able to stand and defecate on the remaining hay. The Cinch Net should be used in

combination with another feeder to eliminate horse access.

Hay waste differed between round-bale feeder designs. Mean percent waste was, in increasing order, Waste Less, 5%; Cinch Net, 6%; Hayhut, 9%; Covered Cradle, 11%; Tombstone Saver, 13%; Tombstone, Cone, and Ring, 19%; Hay Sleigh, 33%; and no feeder control, 57%. All feeders reduced waste compared to the no feeder control.

Feeder design affected payback. The Cinch Net paid for itself in less than 1 month; Tombstone and Ring, 2 months; Hayhut and Tombstone Saver, 4 months; Hay Sleigh, 5 months; Waste Less, 8 months; Cone, 9 months; and Covered Cradle, 19 month. Although the Cinch Net paid for itself in the shortest amount of time, it is only guaranteed for three years. All other feeders claim to last indefinitely, however, longevity was not measured nor accounted for in the payback.

The use of a round-bale feeder is necessary to avoid excessive hay waste. Round-bale feeders reduced hay waste compared to not utilizing a feeder, and most repaid their cost within a few months.

For more information and to see photos of the round-bale feeders, visit:

www.extension.umn.edu/horse/components/pdfs/round_bale1.pdf

This project was funded by a grant from the Minnesota Horse Council and with cooperation from the University of Wisconsin River Falls.

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Upcoming Events

Advanced Hands-on Evening Workshops

6:00 to 8:30 pm

Leatherdale Equine Center

Wound Management

Thursday, March 8th

Ration Balancing

Thursday, March 15th

\$15 per workshop or \$25

for both

www.regonline.com/AdvancedHandsOn

Equine Pasture

Management Program

Customized pasture and grazing management plans.

Contact Jennifer at

612-624-7455 or

jeearing@umn.edu

Minnesota Horse Expo

April 27 - 29, 2012

St. Paul, MN

www.mnhorseexpo.org

Equine Castration Clinic

May 19, 2012

Central, MN

Must have referral to participate in the free clinic

Contact Krishona at

krishona@umn.edu

or 612-625-6776

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Biosecurity During Horse Events

By: Dr. Roberta Dwyer, University of Kentucky

Summer months are prime time for large, organized trail rides, horse shows, sales, parades, and other events where horses congregate. Following are biosecurity measures to implement when horses are congregated at events:

- Minimize nose-to-nose contact between horses. Do not allow another horse to sniff your horse's nose "to get acquainted."
- Do not share equipment for use with other people's horses. Alternatively, if any equipment is loaned, keep it away from your horses until it is cleaned with a detergent, rinsed, and properly disinfected.
- Do not use common water

troughs. Bring your own water and feed buckets.

- Avoid common-use areas such as tack stalls used to groom and tack multiple horses. If these common areas must be used, use cross ties instead of tying horses to a post, wall, or other nose-to-nose contact area.
- Halters, lead shanks, and face grooming towels should be used on one animal only and not shared between animals.
- Wash your hands or use a 62% ethyl alcohol hand gel before and after handling or riding other people's horses.
- Early detection of disease is paramount, especially contagious

infectious diseases. Take horses' temperatures twice daily (morning and night) during the event and for two weeks after return to the stable.

- Quarantine horses when they return to the barn or training facility after an event.
- Clean and disinfect horse trailers before they're used by other horses.

These precautions do involve more work, more time, and more awareness. However, it will help reduce the risk of horses being exposed to multiple viral and bacterial diseases while on the road.

Original Source: *Equine Disease Quarterly Newsletter*

Ask the Expert: Vaccinating for Strangles

Q: My 22 year old mare had strangles two and a half years ago. I am wondering if it is safe to vaccinate her for strangles now.

R: Since your mare had strangles relatively recently, I would recommend having her antibody

levels tested to see if they are still high. If they are 1,600 or higher, vaccination is unnecessary and use of vaccine could trigger an episode of purpura hemorrhagica. For more information on purpura hemorrhagica, refer to the 2011 October newsletter.

Without testing, there is no way for sure to say if vaccination will be safe. Your veterinarian will be able to evaluate the antibody levels with a single blood test.

Author: *Christie Ward, DVM, PhD, University of Minnesota*

Equine Back Pain

By: K. Searcy, Veterinary Student, Univ. of Minn.

Just as in people, back pain in horses is common and can be related to a variety of problems. Common complaints associated with back pain in horses include: restricted mobility; "cold-backed" behavior; refusing work; stiffness when making sharp turns; unwilling to change leads; loss of hind limb propulsion; and sourness with saddling or riding.

If back pain appears to be an issue, owners should consider improper saddle fit, rider imbalance, sprains of the ligaments along the back, muscle injuries, vertebral

fractures and bilateral lameness. To diagnose back pain, veterinarians can use a variety of methods, including direct palpation, radiographs, ultrasound, bone scans (scintigraphy), local anesthetics, physical examination, and thermography, to rule other sources of pain. Treatments for back pain can include:

- A combination of a muscle relaxant and an NSAID (phenylbutazone or flunixin meglumine)
- Regional injection of a steroid to decrease inflammation

- Dynamic stretches to engage and strengthen back muscles
- Shockwave therapy to improve circulation to the area and relieve muscle spasms
- Surgery to remove accessible bony eminences to alleviate pressure
- Acupuncture and/or chiropractic therapies to help with the pain and muscle spasms
- Aqua treadmill therapy to strengthen the back musculature
- Saddle fit adjustments
- Modified warm ups prior to exercise.