



# U of M Horse Newsletter

Providing research-based information to Minnesota Horse Owners

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## Six Horse Hay Storage Tips By: Krishona Martinson, PhD, U of M

You buy (or harvest it), haul, carry and stack it. Now make sure that your hard-earned hay will be usable when you need it with these six hay storage tips. **First of all, buy high quality hay.** Reject hay that feels damp, warm or steamy, and be especially careful not to buy hay that is moldy. If the hay is moldy or wet, it will not improve once stacked in your barn. Hay conditioners such as propionic acid or calcium carbonate are okay for horses, and help prevent mold. **Second, make the roof watertight.** If you stack hay under a leaky roof, it will grow moldier with each rain. Have the leaky roof material patched or replaced. **Third, animal-proof the area.** Plug rat and mouse holes and attempt to detour larger wildlife, such as raccoons, from moving in during winter months. Not only do these animals deposit feces, but they can also chew through twine, making a mess out of your

hay area. **Fourth, use pallets to increase ventilation and decrease ground condensation.** Stacking bales on pallets encourages air circulation beneath the bales. However, spaces beneath and within the pallets can create a perfect habitat for rodents. If your loft or shed floor has a tendency to "sweat" as daily temperature changes, condensation can occur. Pallets can help prevent the bales from "wicking-up" this condensation from the ground. Hay bales stored on wet surfaces can lead to as much as 50% spoilage. **Fifth, bring older bales up front.** As long as moisture entry is completely avoided from any direction, and the hay was adequately dry when put into storage, it should keep indefinitely. However, high humidity might increase moisture content and reduce storage life. However, it's a good practice to always use older hay first. **Sixth, stack bales for circulation.** Place

small square bales on their sides so the "nonstring" surface rests on the floor or underlying bales. Leave a bit of a space between the bales in each row, and alternate the orientation of successive layers so they sit at right angles with layers above and below. This pattern "ties" the stack together, while also keeping the bales from packing together too tightly. Store round bales end-to-end. If more than one line of bales is needed, space adjacent lines at least 3 ft apart. This will increase the air flow and allow the sun to reach the back row. A gently sloping site (for good drainage) with a southern or southeasterly exposure is preferable to maximize solar drying. Finally, if bales are to be marketed or stored for more than one season, indoor storage or bale covers (ie tarps) are recommended. This information was adapted from Virginia Tech Extension.

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### Rotational Grazing Demonstration Workshop Series Greenfield, MN

#### Session 1

Tuesday June 6<sup>th</sup> 6:30 to 9:00 PM

#### Session 2

Tuesday September 19<sup>th</sup> 6:30 to 9:00 PM

There is a \$10 fee for each session.

Contact Betsy to sign up or with questions at: 612-596-1175 or [eliza003@umn.edu](mailto:eliza003@umn.edu)

## Ask The Expert

By: Krishona Martinson, PhD, U of M

Q: What is certified hay and where must it be used?

A: The certified noxious weed seed free forage program is designated to assure that certified forage meets the minimum standards designed to limit the spread of noxious weeds. In Minnesota, there are no areas where certified forage (hay) must be used. When trail riding and camping in public parks, it is considered voluntary to use certified hay. However, if you are planning a trail ride or camping trip with your horse to Wyoming, Idaho, Kansas, Montana, South Dakota, North Dakota, Nebraska, Utah or Colorado to ride on public lands, then certified hay must be used. The penalty for using non-certified hay ranges from \$68 to \$1,370, and the offender could also be responsible for the recovery costs to wildlife habitat. For a current list of producers of certified noxious weed seed free forage in Minnesota, please call the MN Crop Improvement Association at 800-510-6242. For more information, visit the horse team website ([www.extension.umn.edu/horse](http://www.extension.umn.edu/horse)).



When horse owners are looking for ways to extend their hay, it is important to remember that horses need 'roughage.' Fifty to 100% of their diet should be forage of some sort. Lower amounts of forages can lead to an increased risk for ulcers and colic. The easiest approach to lack of hay is to avoid the situation by planning ahead. Know how much you need. Horses eat roughly 2-3% of their body weight a day, for example an average 1000 lb horse will eat around 20-30 lbs of feed daily, plus water. When calculating your hay needs add 10% for wasted hay. There is less waste when using feeders and small square bales, compared to round bales. Ask your hay supplier how

Scratches affects the backs of the pasterns and bulbs of heels and is most commonly found in horses exposed to moisture for long periods of time, whether from standing in a muddy field or a wet stall. Constant moisture can become an irritant as it penetrates delicate skin, causing inflammation, redness, and ulcerations. When coupled with muddy or dirty surroundings, it can be an ideal situation for invasion of bacteria and fungi. Mild cases are usually amenable to simple cleaning and topical treatment. In severe cases, or if the leg becomes hot, swollen, and painful, it is a sign that the infection has become more serious. In such cases, it is important to consult with

## Forage Options for Horses

By: Betsy Gilkerson, U of M

much the bales weight and calculate your hay needs before ordering. If you do experience a shortage of hay, it is best to extend the good hay you have with other fiber sources. A slow transition to other forages is essential for horses rather than to switch when you run out. To help evaluate your options, following is a list of common alternatives to regular baled hay for horses along with benefits and disadvantages of each. Hay cubes- Pros- little waste, easily handled and transported, good baled hay extender or replacement. Think of them as very small hay bales. Cons- can be expensive Older hay -

Pros- can be quite healthy for horses. Cons-vitamins break down with time and minerals can leach out if bales get wet. You may want to test for nutrient levels to balance the hay with supplements. Beet pulp- Pros- Good source of energy and protein, you can feed 5-10 lbs a day. Cons-should soak before feeding if giving large amounts to prevent swelling while in the horse, need to supplement vitamins and minerals, particularly calcium. Complete feeds- Pros- nutrients are balanced, good hay extender. Cons- not enough total fiber, it needs to be divided up into small meals

because feeding large amounts can increase chances of colic and choking. Miscellaneous - Occasionally you hear of people feeding straw or corn stalks to horses, these are not recommended for horse feed as they have very little nutritional value. Haylage has been fed to horses, but is not recommended because it can be very risky with mold and botulism issues.



## Scratches

By: Christie Ward, DVM, U of M

your veterinarian. Regardless of the underlying cause, most cases of scratches benefit from the following management. Start by clipping the long hair from the affected skin in order to make it easier to keep clean and dry. Next, wash the area thoroughly but gently, making sure to remove dirt but being careful not to aggravate the skin. A single cleaning with an antibacterial soap such as Betadine scrub is appropriate, but the skin should not be subjected to repeated treatments with harsh cleansers or disinfectants. Follow by lightly towel-drying the area. If scabs and crusts are

present, try to soak or sweat these off rather than picking them, which seems to aggravate the inflammation. Limit your washing sessions to only once a day as additional moisture could further inflame the area. Also, try to keep your horse out of muddy or wet places and make sure that his bedding is clean and dry. In the future, avoid hosing your horse's fetlocks and pasterns, unless you have a specific reason, and always make sure to completely dry the area afterwards. You should thoroughly clean any hobbles, boots, or wraps before you use them again. For mild cases, cleaning as above followed by treatment with a

modest amount of Corona ointment is helpful. This ointment is not water soluble and can attract dirt, and shouldn't be used if the horse is turned out on a dry-lot or anywhere muddy. It is very useful if the horse is kept in a stall during treatment, as it keeps the skin soft making it less likely to split open as the horse walks. More severe cases often require topical treatment with cream that contains both antibiotics an antifungal agent, and dexamethasone to reduce inflammation. Really severe cases often benefit from a course of treatment with oral broad-spectrum antibiotics.