

EQUINE LINE



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What is going to be available to feed this winter after a wet, wet summer and little time to make dry hay?

By Audrey Reith, Equine & Livestock Educator,
Cornell Cooperative Extension Orange & Ulster Counties

Bale Type

Hay can be baled in a variety of ways, and depending on your storage and feeding methods; each type has pros and cons.

Small square bales (40 to 80 lbs.) are easy to handle and store, and are a common bale type used by horse owners. Small square bales, if stored and fed properly, usually have less waste than round bales and medium or large square bales. However, small square bales can be very labor intensive.

Round bales (800 to 1,200 lbs.) are also commonly used by horse owners, but because of their size, a tractor or skid loader is usually required for movement.

Round bales can be less labor intensive compared to small square bales, but excessive waste can be an issue if they are stored improperly or fed without being placed in a feeder. Round bale feeding is common in many areas of the country, and can be done very well. However, I have found both as a farm worker and an Extension Professional that round bales require some special care and attention to avoid problems.

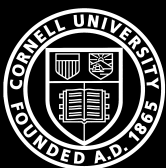
A common error is putting out more hay than can be consumed in 3-7 days (depending on weather). If the hay is getting rained on, snowed on, etc., it will go bad fast! Round bale hay quality can be just as good as small square bales. That being said, I have found a lot more variability in round bales. It is more common to find poor round-baled



hay. Critically evaluate each bale before feeding it. Even within a single round bale, the quality of nutrition it will provide can vary significantly between the "core" and the "crust." Make sure to take this into account when feeding. If you are feeding multiple horses from a round bale, it is difficult to know how much each is eating. This could become crucial information if you have, for example, an older horse which begins to lose weight.

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Storage

When it comes to hay storage, there are a few things horse owners can do to help guarantee their hay will stay in good condition and have minimum losses.

If you stack hay under a leaky roof, it will grow moldier with each rain. Stacking bales on pallets encourages air circulation beneath the bales and can help prevent the bales from "wicking-up" condensation from the ground. Hay bales stored on wet surfaces can have as much as 50% spoilage.

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. High humidity might increase moisture content and reduce storage life, so feeding hay within three years of purchase is recommended. Regardless, it's a good practice to always use older hay first. (SEE CHART A)

Chart A

Hay Storage Options	Longevity (Years)	Dry Matter Loss (%)
Conventional Shed	20	4-7
Tarped on Pallet	5	4-7
Net Wrap on Ground	1	15-25
Twine on Ground	1	25-35

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 and act as vectors for diseases, parasites, etc., but they can also chew through twine, making a mess out of your hay storage area.

Testing

Regardless of bale type, I cannot stress enough how important it is to periodically test hay.

Hay can be analyzed or tested to determine the following: moisture, protein, minerals, sugar, energy, and more. Sending forage samples to a lab for testing will provide information about nutrient composition and expected animal performance of the particular forage. This information can help you more accurately formulate rations for the animal consuming the forage and/or sell forage of a known quality.

In short, good quality hay is essential, since hay constitutes a large majority of the horse's diet. Just remember, you get what you pay for!



Forage Testing Laboratories

Cumberland Valley Analytical Services

(www.foragelab.com)

Phone: 1-800-282-7522, Fax: 301-790-1981,

Email: mail@foragelab.com.

Different addresses in Maryland for USPS and UPS/FEDEX. Call or visit website for more info.

Equi-analytical Laboratories

(www.equi-analytical.com)

Phone: 1-877-819-4110,

Email: service@equi-analytical.com

730 Warren Road, Ithaca, New York 14850

A & L Eastern Laboratory

(www.aleastern.com)

Phone: 1-804-743-9401, Fax: 804-271-6446,

E-mail: office@al-labs-eastern.com

7621 Whitepine Road, Richmond VA 23237

New Jersey Feed Lab (www.njfl.com)

Phone: 1-609-882-6800, Fax: 609-882-5530,

Email: lab@njfl.com

Different addresses in New Jersey for USPS and UPS/FEDEX. Call or visit website for more info.

Skyview Laboratory (www.skyviewlab.com)

Phone: 1-814-629-5441, Fax: 814-629-7460,

Email: skyviewlab@hotmail.com

480 Willison Rd., Boswell PA 15531 (different address for mail - call or visit website for more info)

Some offer both wet chemistry (WC) and near infrared reflectance spectroscopy (NIR) analysis. *Be sure to request an equine analysis and remember that the analysis is only as good as the sample you submit.*



Youth Get 'Inside Look' at Standardbred Industry During Day Clinic

Ten youth from across the region recently participated in the 2011 4-H Standardbred Day Clinic, which was presented by Cornell Cooperative Extension of Ulster and Orange counties and made possible via a grant from the Agriculture and New York State Horse Breeding Development Fund. The programs offered an inside look at the Standardbred Industry and its history, culture and business operations.

The youth, along with parents and chaperones, began the day with a tour of the Harness Racing Museum and Hall of Fame, located in Goshen at the site of the Historic Track - considered to be the cradle of harness racing in the U.S.

The participants learned about the famed "Hambletonian" - known as the "the daddy of 'em all as well as the roots of harness racing with its early Dutch and English influences. Museum educators explained how the sulky developed over the past 100 years and described some of the key traits of Standardbred pedigrees. The youth also got a chance to participate in a "mock auction."

On the track, the youth met with Ashley Fagan, 4-H alum from Chenango County, who now works at the Ray Schnitkker Stables. Fagan demonstrated how to outfit a Standardbred for the training on the track and gave the enthusiastic youth some tips on handling.

The day included a tour of the track's blacksmith shop where a Standardbred was being fitted with shoes. During lunch the participants attended a lecture by Jean Brown, senior vice president of operations at Blue Chip Farms. Brown explained the breeding process and how Standardbreds are raised on the farm as well as the auction process. Bernie White, President of the Board of Directors for the Goshen Historic Track, shared some of the historical points of Goshen, NY and how the racetrack and museum were formed.



Stall Floor Materials

Excerpted from Horse Stable Flooring Materials, Penn State University; Prepared by Eileen Wheeler, associate professor of agricultural and biological engineering, and Jennifer Smith Zajaczkowski, senior research technologist in agricultural and biological engineering.

Opinions differ on which type of stall flooring material is the best, but there is one thing most owners agree upon: a good floor is important to the horse's well-being. No one type of material seems to offer all the attributes of an ideal floor. Material selection depends on which disadvantage you are willing to work with. For example, concrete may meet most of your stall flooring criteria, but more bedding or solid rubber mats will be needed to protect the horse's legs.

Characteristics of the ideal floor

These are ranked in importance from the horse's well-being, followed by the owner's interest.

- ◆ Easy on legs; has some "give" to decrease tendon and feet strain.
- ◆ Dry
- ◆ Non-odor retentive
- ◆ Provides traction; nonslippery to encourage the horse to lie down.
- ◆ Durable; stays level, resists damage from horse pawing, and has a long life.
- ◆ Low maintenance
- ◆ Easy to clean
- ◆ Affordable



Stable management for stall floors

Consider manure and urine management when selecting the stall flooring material. On average, a horse produces 0.5 oz of feces and 0.3 fluid oz of urine per pound of body weight every day. So a 1,000-pound horse produces about 31 pounds of feces and 2.4 gallons of urine daily. Floors that allow urine to be absorbed and travel down through the flooring material layers can retain odors. A well-bedded stall will have less odor problem since the urine is more readily absorbed into the bedding.

Clay

This is traditionally the horse owner's favorite flooring. The types of clay locally available will vary. Pure clay tends to pack too tightly and become impervious to drainage. Pure packed clay is slick when wet. It is recommended to mix clay with other soils. A mix of 1–3 fine stone dust and

2–3 clay is common over a sub-layer of gravel to aid drainage. Areas of frequent urination are most likely to develop dips and holes. The urine softens the clay and reduces compaction. As the horse steps in these areas, the clay is pushed towards the drier area, creating a pit or hole. Promote drainage by sloping the floor (1 inch per 5 feet) toward an alley channel, although maintaining an even slope is difficult. If pawing at the stall door is a problem, a concrete or asphalt apron can be a deterrent.

Advantages

- ◆ Closest to a natural tread
- ◆ Easy on legs
- ◆ Noiseless
- ◆ No dust
- ◆ Keeps hooves moist
- ◆ Highly absorbent
- ◆ Relatively warm
- ◆ Resists wear when dry and compacted
- ◆ Affords a firm footing unless wet
- ◆ Inexpensive

Disadvantages

- ◆ Can be difficult to keep clean
- ◆ Needs to be leveled and repacked each year
- ◆ Needs to be replaced every few years due to holes and pockets from constant pawing
- ◆ May retain odors
- ◆ Remains damp longer moist than desirable



Sand

Sand is one of the most forgiving floor materials for a horse's legs and has excellent drainage. However, pure sand does not compact and will move easily creating tracks and pockets with repeated use. The uneven surface should be raked smooth daily. Sand can become mixed with bedding materials (especially shavings and sawdust), making cleaning difficult and creating a need for frequent replacement. If sand is used, monitor horses for signs of intestinal impaction and colic. New horses and those fed off the floor may be especially prone to ingesting the sand.

Sand may have a drying effect on horse hooves with more hoof wall cracks and splits.

Advantages

- ◆ Highly absorbent
- ◆ Soft surface
- ◆ Noiseless
- ◆ Good drainage
- ◆ Nonslip

Disadvantages

- ◆ Does not pack well
- ◆ Damp in a cold climate
- ◆ Drying effect on hooves
- ◆ Mixes with bedding, so harder to clean stall
- ◆ Must frequently replace discarded sand when stall cleaning
- ◆ Sand colic can develop when horses eat sand with dropped food or by habit.



Horse Trailer Maintenance and Trailering Safety

By Marjorie R. Margentino, Program Associate in Animal Science; Karyn Malinowski, Ph.D., Director Equine Science Center; and Carey A. Williams, Ph.D., Extension Specialist in Equine Management

Horse owners will usually find it necessary at some point in time to trailer their horses. Trailering may be necessary at time of purchase, for horse shows, trail riding, or a medical emergency. Whatever the need, it is important to be prepared and knowledgeable about trailering safety. Poor preparation of the horse, trailer or towing vehicle can turn a pleasurable outing into a horse owner's nightmare. Poor truck and trailer maintenance can result in traffic accidents or breakdowns such as a flat tire; a broken axle, spindle or spring; and motor failure. In more extreme cases, broken welds can cause a trailer to become detached from the towing vehicle. Perhaps the most serious problem that can result from improper trailer upkeep is having a horse fall through rotted floorboards, especially during travel. This fact sheet will provide the basic concerns involved in horse trailer maintenance and trailering safety.

The Trailer

When purchasing a horse trailer consider the following needs:

- ◆ First, when selecting a towing vehicle it is important to make sure that the weight of the trailer and load (horses) does not exceed that of the towing vehicle. Often smaller pulling vehicles, like sport utility vehicles, have the power to "pull" the load but not to stop it, and often end up jack-knifed or in a ditch when the trailer pushes them down the road.
- ◆ Ample height (7-8 feet) and width (6-8 feet) for the horse(s) being hauled.
- ◆ Rubber mats on the floor and loading ramp to provide traction and cushion during loading, unloading and travel.
- ◆ Tie ropes or chains of adequate length with quick release safety snaps.
- ◆ Adequate padding on chest bar and stall sides.
- ◆ Interior lights for night time hauling.
- ◆ Air vents on the roof and along side panels.

Regular maintenance checks should be performed on a horse trailer every time it is used. Routine items include:



- ◆ Tires need a minimum amount of 1/4" of tread (check with your state Division of Motor Vehicles for the measurement); they should be adequately inflated and have no signs of dry rot cracks. Spare tires also should be checked.
- ◆ Jacks and safety triangles or reflectors should be in good working order in case of breakdown. (Ignitable flares should not be stored in the horse trailer because of fire potential).
Floorboards should not be rotted or in weak condition. Replace any boards that are questionable. To help lengthen the life of a trailer floor, mats should be lifted after use and the floor swept or hosed out. If the floor is hosed be sure it is dry before the mats are replaced. Yearly applications of a weather sealer on the floorboards will also extend their life.
- ◆ Any screws, bolts or nails that may have worked loose and are protruding from the inside of the trailer should be removed.
- ◆ All lights (marker, tail, brake, directional and interior) should be working and bright.
- ◆ Hitch welds, safety chain welds and snaps should be in good repair.
- ◆ Grease hitch ball as necessary.



- ◆ Wheel chocks should be in good condition. Use them any time the trailer is unhitched from the towing vehicle.

Yearly maintenance checks include:

- ◆ Inspection of frame for cracks, and wires for loose connections and frayed covering.
- ◆ Repair or replacement of rotted or rusted metal.
- ◆ Greasing of all hinges, springs, etc.
- ◆ Inspection of ramp hinges and springs for weakness and cracks.
- ◆ Wheels should be pulled and bearings checked and repacked.
- ◆ Inspection of spring shackles for wear.
- ◆ Inspection of brakes and emergency break-away cable, pin and control box.

Need a Run in Shed for Your Horse?

The Horse Facilities Handbook (MWPS-60), is filled with the latest facts about building facilities for all phases of equine breeding, care, and control. This book is the work of Cooperative Extension engineers, animal scientists, and equine specialists at major U.S. universities.

Topics include:

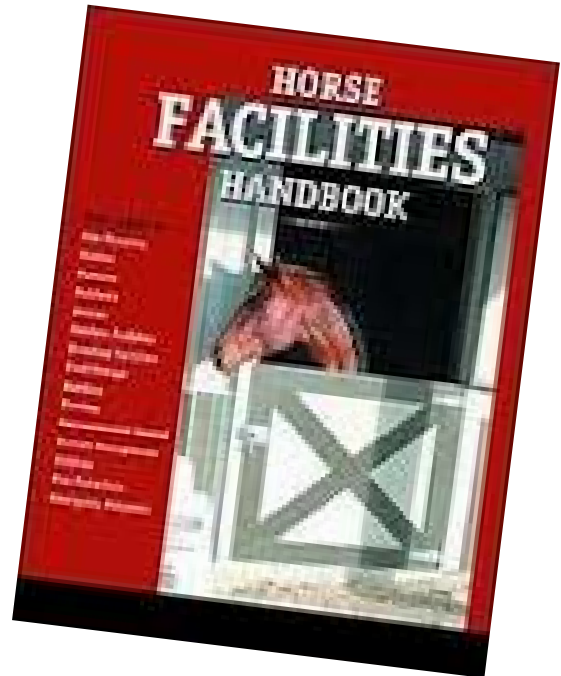
- ◆ Site planning
- ◆ Design and construction of stables, paddocks, and other outdoor and indoor facilities
- ◆ Manure management
- ◆ Storage
- ◆ Fencing
- ◆ Utilities
- ◆ Fire protection

An easy-to-use format, more than 50 full-color and black-and-white photographs, 111 drawings, 84 tables, and a comprehensive bibliography and index highlight the book. The text features easy reading type and style. It comes in softcover only; ISBN 0-89373-098-X

Here are some general rules of thumb:

- ◆ Face the shed away from prevailing winds.
- ◆ Allow 90 to 150 square feet per horse.
- ◆ Install gutters and drains to divert runoff.
- ◆ Make sure the base is made of a material that drains well.

You will have to check with your land-grant university's local Cooperative Extension office to see if your run-in shelter plans require oversight by local officials



Drylots for Horses

By Ann Swinker,
Extension Horse Specialist,
Penn State University

Drylots, or exercise paddocks, provide an opportunity to move horses off the pasture during high stress periods to protect pastures from being overgrazed. Drylots can vary in size but should provide a minimum of 400-500 square feet per horse. The size should be increased proportionally as the number of horses increase. These paddocks are typically situated near barns, are used only to provide exercise, and generally contain a limited amount of vegetation. Drylots can also serve as holding areas during periods of heavy rainfall and drought until pasture conditions improve. Extremely wet pasture can be damaged by the tearing action of horse's hooves while cantering. Forage growth is reduced during drought conditions. Continued grazing during droughts will destroy the plant growth reserves.

Drylot Location

Drylots should be located adjacent to pasture areas with a common gate opening into each pasture. A permanent perimeter fence should be used to enclose the drylot area. Corral panels, four board fence, woven wire with a support board, etc. are recommended. Permanent electric fence systems, that are highly visible, provide an inexpensive option.

The drylot area should include a holding shed, an alternative water source, and ample area to feed hay free choice. Ideally the water source and loafing shed should be at opposite ends of the drylot to encourage movement



of the horses and limit the soil erosion typically found in heavy traffic areas. The loafing or run-in shed can be one, two or three sided with a sloping roofline to repel water. Typically a three-sided run-in shed, constructed to allow expansion to accept increased stocking rates is used. Run-in sheds, 12 by 12 foot accommodate one to two horses. As horse numbers increase, run-in shed dimensions should increase by 12 feet per unit of increased horse numbers:

Run in Shed Size of Horses	Number
12' X 12'	1-2
12' X 24'	3-4
12' X 48'	4-5

Regardless of paddock size, forages planted in the drylot must be persistent and withstand close, overgrazed conditions.

Take Some Time for Yourself!

**The 2011 CCE Winter Educational Program
will be held this March at the
Harness Racing Museum in Goshen, NY!**

This year's program will offer sessions related to Winter Warm up topics like:

- ◆ Using Social Media to Benefit Your Equine Business
- ◆ Reducing Risks on the Horse Farm
- ◆ Updates from Equine Performance Research at Cornell University: Dr. Samantha Brooks
- ◆ Extension Horse Specialists from all over the Northeast!



Welcome to the New CCE Equine Website!

CCE Equine brings all facets of eastern New York's diverse horse industry under one program, creating a trusted resource for equine ventures and professional/business education. This endeavor serves all areas of the industry, and supports business using models, technology, progres-

sive marketing and advanced educational techniques.

CCE Equine is a comprehensive approach initiating applied research and collaborations between several counties to promote business opportunities and reduce barriers, while promoting understanding and support among governmental agencies and non-agrarians.

This site is made possible through funding by the New York Farm Viability Institute, the American Agriculturalist

LIVE AND ONLINE CALENDAR

8 1/2 X 11 PRINTABLE CALENDAR

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Fax: 518-885-9078

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Middletown, NY 12940
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This site is made possible through funding by the New York Farm Viability Institute, the American Agriculturalist Foundation, Inc., and several local Agribusinesses, as well as the efforts of Cornell Cooperative Extension Orange & Saratoga to further the horse industries in New York and the surrounding area.

New and Notable
Cornell Cooperative Extension Announces Forage Exchange

Internet



2012 Equine Activity Calendar

In an effort to get the calendar printed in time for the early year events, we are now gathering the information for the 2012 Equine Activity Calendar. It's easy to get your events, activities and clinics listed:

1. **Request an electronic (Microsoft Excel) form by calling 845-344-1234 or emailing cah94@cornell.edu. Please fill it out and return it by Monday, January 9, 2012.**

OR

2. **You may also fill out the form below and return by Monday, January 9, 2012 to Cornell Cooperative Extension, Attn: Equine Activity Calendar, 18 Seward Avenue, Suite 300, Middletown, NY 10940-1919.**

As a service to Cornell Cooperative Extension Orange County's Ag Focus Subscribers and other County Enrollees, events will be listed free of charge. Not a subscriber? Enrollment forms for Orange, Ulster, Dutchess, and Sullivan are available through our extension offices, or

key volunteers, and by emailing cah94@cornell.edu. Send in the form with payment by the January 9, 2012 and you will qualify for the free events listing. Since we encourage subscriptions and enrollments to be completed within the county in which you live in, please send your enrollment to the appropriate county. Listings submitted by out of state organizations or non-enrolled farms/individuals will be charged \$5.00 per event.

Cornell Cooperative Extension Subscribers and Enrollees will also have the opportunity to list their farms on the new cceequine.org website.

A follow up email or telephone call will be made by our office to facilities managers and individuals offering events in 2012 to review the calendar before publication. This communication will assist all of our farms in planning events so that each venue will attract adequate numbers of participants.

I look forward to receiving your calendar input and a successful year for our Regional Equine activities. If you have any questions, please call Audrey Reith at 845-344-1234.

2012 Equine Activity Calendar Form (copy as many as needed)

Date of Event:

Name of Activity/Event/Clinic:

Place and Physical Address of Event:

Event Sponsor:

Contact Person:

Phone:

Email:

Website:





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EQUINE LINE



Equine Line is a bi-monthly publication designed to provide the horse owner/enthusiast with timely, relevant information pertaining to the various segments of the equine industry in the upper Hudson Valley and Catskill Mountain areas of upstate New York. Contact your local Cooperative Extension office for subscription information.

This issue was prepared by Andry Reith, CCE Orange and Ulster Counties.

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