

## Equine



extension.usu.edu

November 2011

AG/Equine/2011-01pr

# Winterizing Your Horse's Feet

*Jim Keyes*, Extension Area Animal Scientist  
*Scott McKendrick*, Farrier Instructor, ADVS Department  
*Karmella Dolecheck*, Undergraduate Student

Very often horses are turned out to pasture for the winter months, or at least rested from use while the weather is inclement. It is not uncommon for horses to be left unshod during this period of time. Even if the animal is allowed to go barefoot, hoof care is still very important.

Here are some things to think about when winterizing your horse's feet:

### Being Turned Out or Rested During Winter

Always pull the shoes off horses that are being turned out for an extended period of time. A shoe that is left on will eventually loosen up and come off. When it does it can cause severe hoof damage. Some nails may slacken while other nails remain tight. This causes the shoe to flop and results in large chunks of hoof being torn off when the shoe finally breaks away. Worst case scenario is that the horse will be lame due to hoof wall damage. Least case scenario is that the hoof will be extremely difficult to trim and level when it comes time to shoe the horse again.

As the foot continues to grow, with the shoe still attached, snow and ice can build up in the bottom of the hoof. This is known as snowballing and can result in the horse being forced to walk with an unnatural gait, and can eventually cause damage to the foot, pastern, and especially the fetlock joint.

Snowballing can occur in barefoot horses, but is much worse in horses wearing shoes in the snow.

Horse shoes and nails, at best, are somewhat restrictive to the ever growing hoof. Pulling the shoes off and allowing the animal the freedom of being barefoot will increase circulation within the hoof. This will cause the hoof wall to thicken, the sole depth to increase, and the heels to expand resulting in improved hoof health (Poupard, D., n.d.).

When pulling shoes for the winter it is important to trim the horse's feet appropriately. When trimming the foot in preparation for a shoe, the sole is paired back to where the bottom of the foot becomes concave. If the horse is going barefoot for an extended period of time the sole should be left intact. The hoof wall should be trimmed and the edge rounded with a rasp to minimize breaking and chipping. This gives the horse padding and protection from the frozen ground and other obstacles.

### Winter Shoeing

Depending on the circumstances and the environment where the horse is being used, a horse owner has several options.

Rim shoes can provide a little more traction than plain shoes, but the groove around the shoe can often fill with snow and turn into an ice skate.



**Photo 1. Rim shoes. (Courtesy Diamond Brand Shoes)**

Regular keg shoes with permanent heel and toe calks can be very good for most conditions, but on hard icy surfaces they may not dig in. For most winter riding, heel and toe keg shoes are very adequate. The largest part of recreation riders and even working cowboys can get by using heel and toe calks.



**Photo 2. Shoes with heel and toe calks. (Courtesy Diamond Brand Shoes)**

Shoes with removable calks used to be very popular in days gone by because they had a sharper tip. They became a problem when horses were standing in close proximity to one another and happened to step on their neighbor's pastern.

Applying Borium (tungsten carbide) to regular plate shoes can be effective not only for winter traction, but for helping shoes last much longer. There are many other ways to apply Borium by drilling holes in the shoe and creating traction cleats. Special "ice nails" can be used for ultimate traction, but can also dig in too tightly and cause injuries to legs and joints.



**Photo 3. Shoes with brazed borium. (Courtesy of Parker Farrier Service)**



**Photo 4. Borium head nails. (Courtesy of Nature Farms Farrier Supply)**

Rim shoes provide more traction than plain shoes. Aluminum shoes have a slightly better grab on frozen ground because the metal is softer. Aluminum racing plates with toe grabs and/or heel stickers could be appropriate for moderate work in relatively soft footing. Rubber and plastic shoes tend to provide less traction than either the bare hoof or steel shoes and are hard and slippery in cold temperatures (Hill & Klimesh, 2008).

To prevent snowballing, making a pad out of plastic, leather or some other material that fits between the shoe and the hoof wall can keep the snow from accumulating.

In certain winter conditions it is impossible to keep snow out of the shoe and provide noticeable traction. Re-setting the horse's shoes at shorter intervals will keep the hoof wall from getting longer and creating an area for snow and ice to build up.

## Mud and Moisture Conditions

In some places and at some points during the season, winter involves more mud than ice, which can cause just as many problems with a horse's hooves. Two common mud problems are thrush and scratches which should both be looked out for during the winter months. Another common problem during this time of year is soft feet due to excessive water exposure.

Thrush is caused by anaerobic bacteria (those bacteria that live where there is no oxygen) that grow in the warm, moist, and dark areas of the hoof. It is distinguishable by its foul odor and the rotten appearance of the frog. Thrush is more common during the winter months and although usually not serious, if neglected it can eventually cause lameness. To treat thrush, the infected tissue must be cut away while the remaining tissue is cleaned and medicated. Two products that are highly regarded by farriers for their effectiveness are Kopertox and Thrush Remedy by Absorbine. Just squirting some on the hoof generally isn't enough since the liquid may not reach all the nooks and crannies of the infected frog. Instead of squirting those products onto the infected area, try applying the medication with a cotton swab. Wrapping cotton around a stick or hoof pick does the trick (Rolo, J. n.d.). The best way to prevent the formation of thrush, especially in wet conditions, is to allow horses a dry location to rest and to clean out the horse's hooves as often as possible.

Scratches (also called grease heel) is a skin irritation seen in the pastern area of the leg which is caused by constant exposure to mud. Lameness can result from scratches in severe cases. Scratches can be recognized by extensive skin chapping and scab formation on the back of the pastern below the fetlock but above the heels. This condition can be prevented by keeping the fetlock hair trimmed. When it does occur, scratches can be treated by cleaning the affected area thoroughly and stabling the animal in a dry environment.

Soft feet, depending on where you live, are most often seen in late winter when snow is melting and rain is common. Soft feet provide problems, especially when it comes to trimming and shoeing the horse. When the hoof is soaked, it is expanded and appears bigger. If shoeing is done during this

time, the shoe will move around and come loose as the hoof dries out. During trimming it is also important to reduce sole pressure in waterlogged hooves. Bringing the horse in to a dry location at night will result in stronger, harder feet.

## References

Hill C. & Klimesh R. (2008). *Maximum Hoof Power: A Horseowner's Guide to Shoeing and Soundness*. Livermore, CO: Horsekeeping LLC.

Popuard, D. (n.d.) *Northern Virginia Equine Therapeutic Farriery/Winter Hoof Care*. Retrieved at <http://www.equipodiatry.com/wintertm.htm>.

Rollo, J. (n.d.) *The Black-Hearted Monster Called Horse Thrush*. Retrieved from <http://www.alphahorse.com/horse-thrush.html>.



Utah State University is committed to providing an environment free from harassment and other forms of illegal discrimination based on race, color, religion, sex, national origin, age (40 and older), disability, and veteran's status. USU's policy also prohibits discrimination on the basis of sexual orientation in employment and academic related practices and decisions.

Utah State University employees and students cannot, because of race, color, religion, sex, national origin, age, disability, or veteran's status, refuse to hire; discharge; promote; demote; terminate; discriminate in compensation; or discriminate regarding terms, privileges, or conditions of employment, against any person otherwise qualified. Employees and students also cannot discriminate in the classroom, residence halls, or in on/off campus, USU-sponsored events and activities.

This publication is issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Noelle E. Cockett, Vice President for Extension and Agriculture, Utah State University.