

# **Cold Weather Horse Care**

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It has been a pleasant fall and early winter, but today the wind shifted and tonight the temperature is going to dip down below freezing so it looks like winter is upon us. The good news is that horses are inherently well equipped to handle practically anything that winter can dish out as long as they have a way to get out of the wind. Their long winter hair coat traps air next to the skin, which helps insulate them against cold weather. In fact, horses in good body condition can withstand temperatures down to  $-40^{\circ}$  F without difficulty. However, problems can occur when strong winds ruffle the horse's hair and disturb the insulating layer of warm air trapped beneath it. Wet weather, especially cold driving rain or sleet, can also flatten the hair coat, chilling the horse. To prevent this, make sure your horses have access to a simple shelter such as a three-sided, southerly facing shed or a heavy tree line that can serve as a windbreak. Many horse owners prefer to blanket their horses in cold weather, but placing a blanket on a horse with a heavy winter hair coat can compress the horse's hair and reduce its natural insulating ability. The result is the blanket may actually decrease the horse's ability to ward off the cold. Of course, horses that are body clipped or worked hard enough to sweat will benefit from a blanket. Blankets are also beneficial short term in extremely, cold wet weather.

When the temperature plunges, the horse's body does have to work harder to maintain its core body temperature. This is especially true in thin horses that lack an insulating layer of fat. In order to avoid losing weight in cold weather, horses must increase their caloric intake roughly 15-20 percent for every 10-degree drop in temperature below  $30^{\circ}$ F. Contrary to popular belief it's hay, not grain, that is the best choice for helping a horse generate body heat. Forages, such as grass and hay, are digested in the large intestine by bacterial fermentation, a process that generates heat and raises the horse's core body temperature. Grain, which is digested in the stomach and small intestine creates much less heat. The key to providing much needed body heat is to provide plenty of good quality hay during very cold weather, free choice if possible. Hay also stimulates the intestinal tract to work more efficiently, thus decreasing the incidence of colic. One way to increase calorie intake in thin horses without increasing the pounds of feed the horse receives is to use more calorie-dense feedstuffs. Corn for example has 1,800 calories per pound compared with a pound of oats at 1,500 calories. High calorie (energy) content grains such as corn or corn oil also aid the horse in laying down fat and should be added to the diet of horses that are in moderate to poor condition before cold weather sets in. Because corn is a high-energy feed, it should be introduced to the diet gradually to prevent gastrointestinal problems and never make up more than 50% of the horse's grain diet. Extra calories are especially important for older horses that are more

susceptible to the cold. Providing old horses grain rations containing high levels of fat is a great way to put weight on them as is adding 1 cup of corn oil to their ration daily.

Another crucial consideration during the winter months is the horse's water intake. The incidence of impaction (constipation) colic significantly increases during the coldest months and is often due to inadequate water intake and lack of exercise. Hay has lower moisture content (less than 10% water) than grass (more than 70% water) and further adds to the problem. Contrary to popular belief, a horse cannot meet its daily water requirements by eating snow. Not only does snow not provide enough water, it requires more energy to consume, and can chill old or debilitated horses. Although a horse's water consumption varies depending on temperature, diet, and exercise, an average 1,100-pound horse requires at least 10 gallons of water each day for maintenance. Unfortunately, during cold weather many horses fail to drink enough because the water is too cold and it chills them. Recent research has demonstrated that horses will drink more water during cold weather if the water is warmed to between 45 and 65° F. There are a number of mechanical and electrical devices on the market that will keep waters or buckets ice-free. However, if an electrical device is used, ensure that the horse does not have access to the electrical cords since curious horses may chew through the cords and electrocute themselves.

Unless your horse must be shod, it will benefit from having its shoes pulled and going "barefoot" throughout the winter for two reasons. The first is that removing the shoes allows the foot to expand, especially in the heels, which in turn increases circulation and improves the overall health of the foot. The second is that a horse's bare hoof provides better traction on ice and snow than an iron shoe. If shoes must be worn, ask your farrier to place borium on the ground surface of the shoes to provide increased traction. And prior to riding, grease the soles of the horse's feet with petroleum jelly or cooking sprays to prevent snow from balling up. If the horse is shod, a domed pad will also serve the same purpose. If slick ice or compacted snow develops in a doorway or near a water tank spread kitty litter or sand to provide better traction for you and the horses. Salt works but is expensive, corrosive and tends to kill the grass.

Winter is a wonderful time to ride and enjoy our horses. However, it is imperative that for the health of our horses, we follow a few common-sense strategies to meet the special demands of cold weather. Bundle up and enjoy the unique beauty of the season.