

## Cooperative Extension

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As fall arrives and temperatures are cooling, many horse-people may be wondering if blanketing their horses is appropriate. The answer really depends on the individual horse, its physiology, shelter type, tolerance to cold and its activity schedule. Typically in early fall, horse's coats get a little thicker. Despite even warm fall temperatures, horses naturally begin to grow more hair as the days get shorter. There are no scientific rules about what temperature a horse should have a particular blanket, but if one decides to do so, there are several things to consider.

### Clipping

Many owners/riders clip their horses to prevent them from getting a chill if their long winter coats are wet after a workout. Sounds ironic, but clipping a horse for winter can actually help the horse cool out from a workout and prevent a chill caused by a wet coat. However, proper management of a clipped horse is necessary. Whether your horse has a full body clip, trace clip, hunter clip or any kind of clip, one should blanket when the temperature drops, especially for turnout. Some people recommend starting to put sheets on clipped horses when temperatures drop below 60 degrees Fahrenheit, however, you should monitor your horse to decide what is best.

If one dreads clipping their horse, but doesn't want a sweaty horse in January, one can blanket to help prevent a thick winter coat. Training intensity usually diminishes in the winter, and some horses rarely work up a lathered sweat. The catch with this approach is, once the sheeting and blanketing begins, it must continue throughout the season. When horses wear blankets and sheets all the time, it can tend to "flatten" the coat, causing it to lose insulating ability. That doesn't mean that blanketing this year means an obligation to blanket next year, but once one starts blanketing, expect blanket duty all season long. Another option to help thin a heavy winter hair coat is to implement an artificial light regime, which will lengthen the amount of light in a day to 16 hours; this protocol is similar to that used to stimulate the reproductive cycle earlier in the spring.

### Cold Adaptation

There are lots of other factors one can consider when deciding on winter horse clothing. Does your horse have trouble keeping weight on? Does the aged horse have trouble staying warm? Or, will the horse just tear the clothing off its body 30 seconds after

it is in place? In any case, one can find a solution that works best for each individual horse.

Remember that when temperatures drop, horses have an increased energy (calorie) requirement to stay warm. Horses ferment fiber in their large intestine, and a byproduct of this process is heat. Thus, more hay added to the diet will help keep the horse warm during cold months. This process only works for hay; so increase hay and NOT grain. As a general rule, a 1% increase in energy requirement is needed to replace energy loss from cold weather for each degree the temperature falls below the horse's critical temperature. Critical temperature is the temperature below which a horse starts to expend additional energy to provide warmth. This temperature for individual horses will vary because of fat cover, hair thickness, acclimatization of the horse to cold, wetness, and wind-chill.

Adaptation to cold is also important. The climate in the Northeast usually changes gradually, so horses have time to adjust to temperature changes. If one opts not to blanket, the horse will grow its coat naturally. If blanketing, one may find changing blankets is needed in response to day/night temperature changes during seasonal transitions. Studies in beef cattle concluded that the lowest comfortable temperature an animal with a full, dry winter coat can stay comfortable at is 18°F. However, this temperature is 59°F if the animal is wet, clipped, or has a summer coat. It is likely that the numbers are similar in horses.

How does one know if a horse should have a blanket? Just because a person is cold doesn't necessarily mean that a horse is cold. Imagine a horse with snow on its back. Normally, the snow should be accumulating on its back. If the snow melts and the horse's coat is getting wet, it is losing heat and is at risk for getting too cold. A note of caution here – you don't want to put a blanket on a wet horse. Wet blankets will keep in the wetness creating an even colder horse, and potentially create a skin fungus if not allowed to dry out properly. In this case, coolers come in handy. Fleece or wool coolers will wick the moisture away from the horse, keeping it warm while it dries. Once the coat is dry, a heavier blanket can be put on.

A horse's weight should also be taken into account when deciding on blanketing. Overweight horses have an extra layer of fat under their skin that adds to their insulation and helps keep them warm. So if this is the case with a particular horse it might not need blanketing as soon as other horses in the barn. On the other hand, for a horse that is underweight, the extra layer of

insulation is not present so they may be one of the first in the barn to need blanketing. Keep this in mind when removing blankets in the spring as well.

If deciding not to blanket, remember, horses evolved without our help; and unlike us, they do already have a natural fur coat. One may even see some frozen whiskers, or ice-balls on fetlocks – as long as the horse isn't shivering and its coat is dry, it is probably doing well! It is still important to monitor the horse's well being in the cold, and to help out with some extra warmth if need be. Whether a horse is blanketed or not, it still needs some kind of shelter from the elements (stall or run-in shed). Horses in a shelter conserve up to 20% more body heat than if completely exposed to the elements, and about the same if they can lie down on clean bedding.

## Selecting a Blanket

Once blanketing is decided upon, how does one choose from the myriad of choices? What size does one buy? What style is needed (i.e. sheets, turnouts, stable blankets)? What is right for the horse?

### Size

Fit is very important for a horse's blanket. Blankets and sheets that are too big or too small can cause painful sores on the horse's withers, rubs on its shoulders and general irritation. Measuring a horse is easy. Use a flexible tape measure (one used for sewing is best.) Measure, in inches, from the center of the horse's chest, straight back along his body to the center of his thigh, just next to the tail. Ponies usually measure in the 60's, average size horses somewhere in the 70's and larger warmblood or draft breeds in the 80's. Use this number to select the size of the blanket. It may be necessary to round to the nearest even number when ordering blankets and some companies only use even numbered sized (i.e. 76, 78, 80, etc.)

### Type

Sheets are the lightest, and come in many forms. Light cotton sheets are great for the start of the fall season in dry weather. Sheets also come in tougher material which may be a good choice if the horse has a destructive streak. Sheets also come in waterproof form, and are especially useful in wet areas.

Stable blankets and medium weight turnouts are the next step up. In tack catalogs or the local tack shop, one will see medium weight turnouts in the neighborhood of 200 grams of fill. Stable blankets are typically not waterproof, however, some turnout blankets are water-resistant, and some are fully water-

proof. For turnout, a waterproof blanket is recommended. That way a roll in the snow or a sudden snow shower or cold rain won't put the horse at risk of a chill.

Heavy weight blankets are around 300 grams of fill. Their weight is noticeable when a heavy blanket is placed on the horse, or when it is washed at the end of the year! These are typically used for a fully clipped horse at the peak of winter, or during a drastic cold spell.

How does one know if a horse is too warm? This can be a problem when deciding when to remove blankets in the spring. If a horse breaks a sweat under its blanket, removing it or using a lighter one is warranted. Sweating under blankets is just as undesirable as putting a blanket on a wet horse. To be sure, check the horse a short time after blanketing. If the horse is sweating, a lighter blanket is recommended. On the other hand, if the horse is shivering, increase the warmth level. Remember in the spring, just because it is raining doesn't necessarily mean horses need to be blanketed! It is best to check the temperature and the wind chill before deciding on blanketing.

### Destructive Behavior

If the horse likes to rip blankets off (or the pasture mate does), make sure there isn't an underlying problem, such as an ill-fitting buckle or strap, which is causing the blanket-ripping behavior. Assuming all is well, one can try anti-chewing applications (that are non-toxic of course) to help stop such behavior.

Finally, don't just blanket a horse and forget it during the winter. There can be changes going on that the blankets hide (i.e. weight loss/gain, skin fungus or bacterial infections, blanket rubs, etc.). At least once a week, the blanket should be removed for a good grooming and to check for any problems.

## Suggested Reading

Cymbaluk, N. 2001. Management and Feeding of Horses in Cold Weather. Ministry of Agriculture, Food and Rural Affairs, Ontario, Canada. Online at: <http://www.omafra.gov.on.ca/english/livestock/horses/facts/info-coldweather-man.htm>

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