



IN THIS MONTH'S ISSUE - 1. RUGGING 2. TESTIMONIALS

TO RUG OR NOT TO RUG, THAT IS THE QUESTION?!!

With winter finally being upon us, and night time temperatures reaching lower levels, should horses be rugged up? Possibly not. As a rule of thumb, we should not be judging what our horses need based on how cold we feel, and here is why:

- **Firstly, horses are very adaptable and can be found in some of the coldest and hottest regions of the world, ranging from temperatures as low as -40°C and as high as 60°C.**
- **Secondly, horses are bigger than we are and don't lose heat as quickly as we would.**
- **Thirdly, horses have the added protection of a thick fur coat.**

Horses are warm blooded animals and therefore try to keep their core temperature as close to a constant 38°C as possible, they also have what is called a Thermoneutral Zone. Within this zone horses are easily able to control their body temperature by simply opening or closing blood vessels in the skin to lose or lock in heat. Outside of this zone and the horse may need to use other ways of keeping warm or cool.

The lower critical temperature (LCT -when the horse would start to feel cold) is 0°C and the upper critical temperature (UCT- when the horse would start to feel hot) of 25°C. Research has also shown

that lower critical temperature can vary both within a breed and between different breeds for example, pony breeds have a LCT of 1.4°C-10.8°C, -2.1°C – 7.9°C for Thoroughbreds and -3.4°C-7.4°C for Warmbloods (Marlin, 2018). It's easier to lose heat when your body size is small and harder when the body size is large so small animals have the advantage in warmer climates and big horses in colder ones. However, as we said horses can adapt to ranges but in general this applies.

The LCT for an unclothed person would be 25°C.

It has also been shown that the LCT may even change during the winter period once the horse becomes accustomed to the colder temperatures.

As you can see most healthy, unclipped horses with a good body condition would be able to withstand much colder temperatures than we would and thus many horses may not need rugging at all.

Obviously, there are many factors which may alter this including:

Weather- the coldest condition for any horse would be low air temperatures combined with strong winds and rain, as the colder the air temp the bigger the difference between the horses' skin/coat temp and the air, thus the faster heat moves from hot to cold.

Add in wind and heat is lost even quicker.

Age- generally older and younger horses will not cope with colder temperatures as well as the average horse. Generally younger horses are smaller and have less body fat and older horses may be less efficient at controlling their body temperature, may have health problems and/or have less body fat.

Coat- clearly coat will play a big factor in the horse's ability to retain heat, and whether a horse has a thick coat, hasn't grown one yet or has been clipped should be considered before deciding on a rug. Studies have shown that air temperature has the biggest influence on the development of a winter coat.

Shelter- obviously shelter plays an important role in horses needing additional help with keeping warm.

Diet- Diet can play a big part in winter. Providing a diet high in fibre is the best way of helping your horse to keep warm, as the fermentation process of fibre within the gut produces more heat than it would from a concentrate meal, so rather than increasing hard feed we should always look at providing more roughage to help horses in the winter months. The nutritional value of hay and grazing may drop during winter months and so you would need to provide more than normal to ensure they receive as much value from it, so always keep this in mind when buying your hay and allow for more than you would in summer.

However, keeping warm uses a lot of energy/calories and so for some (older, younger, poor doers) they may need more energy added to their diet sooner than the average. An increase in energy/calories for the average horse would only need to be considered once the LCT (lower critical temperature) of the horse is reached.

Adding extra energy/calories can be done in several ways:

1. Increasing the current feed. This is perfectly fine for those not receiving much feed (0.25-0.75% of body weight or 1.25kg-3.5kg of feed for a 500kg horse) and a simple increase may be all that's needed.
2. Changing feed- for horses working harder in winter or for those that are being fed higher amounts of food currently, changing

the horses feed to one which contains more energy per kg will allow you to provide more energy while feeding the same amount. This allows you to keep kg amount down while still providing more.

If you are concerned that your horse will become "hot" temperament wise then look towards a feed that has a higher energy level per kg but that provides that extra energy through high fat and fibre levels. This will help you to provide more in a calming fashion.

3. Provide additional oil- fat is a great way of adding additional energy/calories without changing the horse's temperament. Feeding for coat condition would require 50-100ml but feeding for additional energy/calories would need a level of 150ml-300ml per day to assist.

Tips for rugging in winter

- Don't rug based on how cold you feel.
- Provide rugs for younger, older, clipped horses and those in poor condition before others.
- For healthy unclipped horses rugging shouldn't be considered until temperatures drop below 5°C.
- Don't use your horses face, legs and ears to feel how warm they are. These areas are not accurate as they can be colder due to the horse purposely reducing the extremities by controlling how much blood flows through them to conserve heat. Always feel inside the rug to gauge how well it is working.
- If the horse is sweating, he is likely to be over rugged. Damp skin can cause the horse to feel colder as well as being more prone to damage and infection.
- Considering clipping as well for those horse in work as it will allow them to dry quicker after work. There are different clips depending on your horse's workload so ensure you choose the correct one for the right needs.
- Ensure rugs are correctly fitting so rubbing doesn't happen
- Be careful when rugging "Good doers" or those that are overweight. The horse uses a lot of energy to keep warm. Over rugging means that less energy is lost, and instead could be deposited as fat. For those that are over weight this could cause an unhealthy increase in weight. Horses with a high body condition score will be better "insulated" than those that don't and will need less rugging. However, for those horses struggling with weight loss rugging heavily would reduce the energy lost and help them to pick up weight.
- Horses can adapt to the cold and thus you may find your needs to change from a heavier to lighter rug after a few weeks.

- Its suggested that a horse's winter coat has a tog rating of 1-2. Therefore, if a rug is added with a rating of 4.5 this will already be increasing the insulation of the horse by a factor of 2-3times, so always look at the rating of the rug before using.
- As daytime temperatures in South Africa generally rise enough for horses to be out during the day without a rug, for those that still go out fully rugged consider this carefully.

"Rugs and stabling prevent sunlight reaching the skin which is necessary for generation of Vitamin D. Vitamin D is involved in the regulation of calcium and phosphorus in bone and deficiency can lead to decreased bone strength and so ensure the horse is at least allowed exposure without a rug for at least 1 hour per day" (Marlin, 2018)

Research information taken from Dr David Marlin 2018, <https://www.facebook.com/233421046862124/posts/91757288446493>

TESTIMONIALS

CLAIRE WEBB

"I have fed my horses on Epol concentrates for at least 30 years. Its reassuring to know that the quality is top class and to know that I have access to a knowledgeable equine feed consultant whenever I may need"

Claire is an EQASA level 3 coach and chief examiner for the coaching exams, as well as being a FEI coach and FEI trained tutor. Waterside Snapdragon owned by Helena Pieterse is pictured below after placing 2nd and becoming Reserve champion gelding in the General breed class at Autumn Festival. Waterside Snapdragon is Epol Cool Cubes.

