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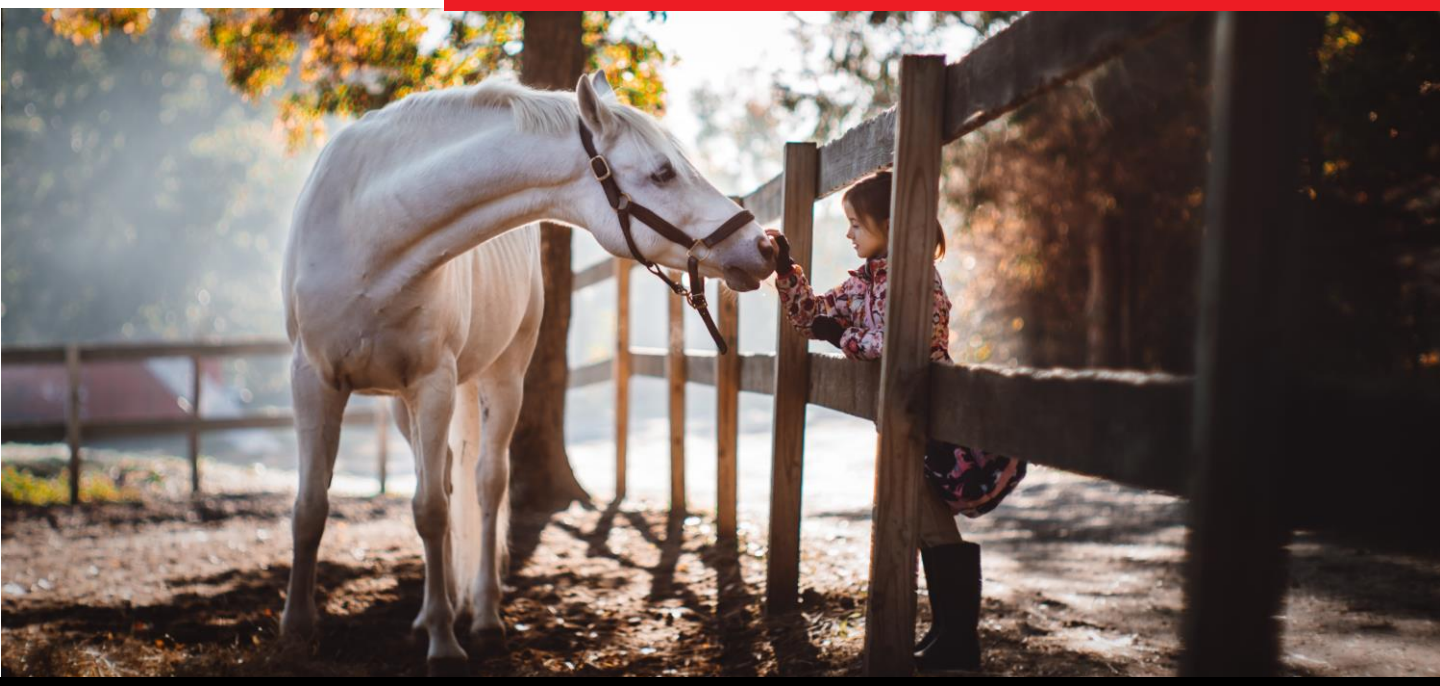
#FROMTHEHORSESMOUTH



WINTER FEEDING CONSIDERATIONS

For some horses winter involves an increase in workload, for others it means **'time off',** combine this with environmental changes including colder temperatures and poorer grazing, and it is understandable to see why you should consider diet changes in winter.

Weight loss in winter is a concern shared by many owners driven by an increase in the demand for energy as a result of increased work or cold weather or both combined with reduced nutrition available from pastures at this time. The result is that horses may need more feed inclusive of additional hay, grazing and concentrate feed to maintain body condition during the winter months.

All warm-blooded animals, including horses, have a lower critical temperature (LCT). This is the temperature below which the animal must produce extra heat to maintain its core body temperature (or when the horse starts to feel cold). This critical temperature varies from horse to horse, depending on condition, age and if it is adapted to colder temperatures or not. For mature horses in good condition, who are accustomed to a mild climate the critical temperature is around 0-5˚C. So when the outside temperature drops below this threshold the horse will need to produce extra heat to maintain its core body temperature and this requires the use of more energy. Mature horses that are unclipped and are accustomed to cold climates may have a critical temperature of as low as -15 ˚C. It has also been seen that LCT change during the course of winter as the horse becomes accustomed to the colder climate.
These critical temperatures are important because horses require a total feed increase to provide more energy/calories, as the ambient temperature falls below the horses critical temperature. It's estimated that an extra 15-20% more feed is needed for every 10-15 degrees calcium that the ambient temperature falls below critical temperature in order to produce the extra heat required. As temperatures in South Africa don't always reach these lower levels an increase in feed may not be needed for the average horse.

STEP 1: FEED MORE HAY
While it might be tempting to simply increase the daily concentrate intake because it is the simplest way to add more calories. And to meet the additional 15% that would mean an increase of just 525g per day (for a horse getting 3.5kg of concentrate) so its clear that it doesn't involve large amounts of additional feed.

However, as the general concern in winter is ensuring the horse is provided with added calories to maintain temperatures (i.e. stay warm) providing a diet high in fibre is a good way to do that. This is because the fermentation process of fibre within the gut produces

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more heat than it would from a concentrate meal, so rather than simply increasing concentrate feed we should always look at providing more roughage first to help horses in the winter months. Additional roughage, in excess of their normal allocation, provides additional energy/calories, with the added benefit of being healthier for the gut.

If possible, look for more immature hay (characterised by soft stems and a larger portion of leaf matter) rather than overly mature (very stalky with little leaf) as this provides better nutritional value. This is important during winter because winter forage is often of a reduced quality meaning more hay would need to be provided to ensure the same calorific value is extracted, so factor that in when purchasing. Immature, leafy, hay, also has a higher water-holding capacity than more mature hay which can help with impaction colic which is more common in winter when horses drink less because of unpalatable cold water or even frozen.

STEP TWO: LOOK TO CONCENTRATES

Keeping warm in very low temperatures uses a lot of energy/calories and so for some (older, younger, poor doers) horses they may need more energy than can be provided from simply adding additional hay and a suitable concentrate may need to be considered. Horses that experience an increase in workload in winter may also need to have their energy levels adjusted with a change in concentrate also.

There are several ways one can look to adding extra energy/calories:

1. Increase the quantity of the current feed: This is perfectly fine for those not receiving much feed (0.25 to 0.75% of body weight or 1.25 - 3.5kg of feed for a 500kg horse) a simple increase may be all that's needed, as we said before for the average horse a small increase of around 0.5 – 1kg may be enough.
2. By changing feed: For horses working harder in winter or for those that are being fed higher amounts of food currently, changing the feed to one which contains a higher energy/calorie level per kg is more advisable. This will allow more energy to be provided while keeping within recommended feed quantities, thus avoiding the trap of simply adding more and more volume of feed to the horses diet. If there is a concern that the horse may become "hot" temperament wise, then look towards a feed that provides higher energy per kg through high fat and fibre sources. This will help provide more but in a calming fashion.
3. Add oil: If a feed change is undesirable (perhaps the horse does well on his current feed) or not possible but more calories are needed in winter this can be achieved by providing additional oil. 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. Added oil also helps to provide "calm" calories and so wont heat a hot horse.
4. Consider adding a balancer: Poorer quality winter hay can also hold reduced vitamin and mineral levels so it may be worth considering the addition of a balancer product for younger and older horses to ensure they receive their daily vitamin and mineral requirements without changing the main diet or for those horses being fed under the recommend daily amount of concentrates.
5. Forage extenders (also known as partial hay replacers) are designed to replace a portion of the forage in the horse's total daily diet in times when hay or grazing may be of a poorer quality or not available at all. Forage extenders are available in many forms such as super fibres (soya hulls and beet pulp) or chopped hay options (chaffs and cubes). Great examples are Epol's Roughage and Lucerne Cubes. Hay cubes are also an ideal alternative for horses with specific issues such as:
   - Respiratory problems as it limits their exposure to dust inhalation.
   - Inflammatory disorders of the bowel, as long stemmed hay can irritate the gut.
   - Horses with dental issues as they often struggle to chew and digest long stemmed hay and chaffs.

For horses looking at a reduction in work during winter changes to the diet may also need to be considered. For the average a simple decrease in concentrate amount will be enough, however if the horse is a good doer and going from hard to no work it may be time to decrease concentrates or remove completely and replace with a balancer type product to ensure that the daily essentials are still provided.

NEED ADVICE?

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