

Feeding Horses in Cold Weather

By Dr. John Kohnke BVSc RDA

The primary needs of grazing horses during cold weather are an adequate supply of good quality roughage, shelter from cold wind and rain, free access to clean water, and room to exercise to keep themselves warm. Older horses in particular are more likely to lose condition during cold wintery weather as they may not be able to graze for long enough each day or walk to harvest their feed due to arthritic conditions.

A horse does not start to lose significant amounts of body heat until the temperature falls below - 8°C. Horses adapt to cold conditions by growing a longer coat, grouping together to conserve body heat, and increasing their appetite and feed intake by up to 30% to provide more energy and roughage to maintain their body heat.

- A horse that is maintained in fleshy condition (condition score 2 ½ - 3) will be more comfortable under cold conditions, as subcutaneous fat helps insulate against heat loss.
- A thin horse needs more energy to maintain its body heat. Once condition is lost, it is often difficult to regain it, especially in older horses, unless the animal is stabled overnight to help conserve body warmth during cold overnight conditions.
- **It is also important to keep a horse dry during wet, cold weather, either with a water proof rug or providing a shelter shed, as the hair coat is less insulating against the cold when wet or in windy, high chill weather.**

An unlined rug actually makes a horse feel the cold because the air layer naturally trapped in the fluffed-up hair coat to shield against the cold is displaced by the weight of the rug. A lined insulated or double rug is beneficial, especially during wet, high wind chill conditions.

Feeding Roughage

- **Feeds that have a higher “heat waste” produced during hindgut fibre fermentation, such as cereal chaff, lucerne and clover hay, will help to provide extra energy and internal warmth during cold weather as it is digested.**
- During bleak, wet or windy weather, or for a horse losing condition, concentrate feeds containing fibrous foods, such as chaff and oats that provide additional energy and heat waste are suitable, along with good quality hay, for a pastured horse. If meadow hay is used, then lucerne chaff and oats will provide extra energy and adequate protein.
- Hay alone provided at the rate of 1-1½ kg/100kg (3-4 biscuits for a 500kg horse) on sparse, winter pasture will usually maintain condition. Only good quality, leafy hay should be provided, preferably in a hay rack or trough to reduce wastage.

Feeding Concentrates

During very cold or wet weather, a concentrate mix of 50:50 lucerne chaff and oats (or alternatively pellets) by volume can be provided at the rate of 500g/100kg body weight in addition to hay, when the maximum daily temperature remains below 10°C.

- Feed bins should be located on the leeward side of a hill, sheltered from prevailing winds by a windbreak or warm comfortable shelter shed. Horses often stand at feeders for a number of hours to consume their feeds, and windy exposed sites can significantly increase the chill factor in wet weather. Avoid watercourses and boggy gullies as horses standing for 1-2 hours at a time in wet conditions may develop hoof abscess and become lame. When hand feeding is necessary on short winter pasture, give at least two feeds daily to provide a more continuous supply of feed and maintain the warming effect and enjoyment that eating provides in cold weather. This is particularly important in mares and foals, weanlings and yearlings, where heat loss from cold weather will sap energy for growth in young horses and development of the unborn foal in late pregnant mares.
- Do not feed large amounts of ad-lib concentrates such as oats or pellets, to hungry, cold horses, as they may ingest the ration too quickly and suffer digestive upset and colic. Alternatively, provide them with a portion of hay to eat first to fill them up, then provide a measured portion of concentrates.
- Aged horses at pasture, and horses in work, should be double rugged overnight, or preferably stabled and given concentrates and hay depending on their exercise level.
- Under wet conditions, check regularly for skin conditions such as rain scald on the topline, and mud fever or greasy heel on the limbs below the fetlocks. The immunity defence in the skin of very young or aged horses may not be adequate to resist fungal and microbial invasion.
- A supplement of trace-minerals with zinc, copper, selenium and vitamins with vitamin A and E, such as in Kohnke's Own **Cell-Vital®** or **Cell-Provide®** (with extra calcium for aged horses) may help maintain immunity, appetite, health and vitality under very cold conditions.