



Ranvet

HORSING AROUND

FEEDING HORSES IN HOT WEATHER

Feeding to Minimize Heat Waste

Specific feeding adjustments are useful in hot climates, whereby horses are subject to performance stress, dehydration, excessive electrolyte loss and premature fatigue. In particular, certain individuals such as hyper-energetic horses or those with a disposition to be nervous or excitable have a propensity to be more severely affected by hot, humid environmental conditions.

In a hard working horse or those horses working over long distance, additional digestive heat increases the 'heat load' which needs to be lost for effective cooling. If this heat load is not lost, severe repercussions such as **elevated heart rate, increased respiratory rate** and **poor post-exercise recovery** may be experienced.

As a guide, energy loss as heat produced during fermentation wastes approximately 20-30% energy from cereal grain and 70% from fibrous roughage such as chaffs and hays as the feed ferments in the large bowel.

General Feeding Principles in Hot & Humid Climates

Minimize Heat Waste

In a horse being heavily exercised, the amount of fibrous feed may be reduced to a **MINIMUM SAFE LEVEL** in order to ensure maintenance of gastro-intestinal health (0.5%-1% of body weight daily). This will ensure adequate gut health and function whilst simultaneously storing adequate water and electrolyte reserves to prevent dehydration, in the absence of unnecessary heat production.

Tailored Dietary Requirements

- Ensure the total amount of roughage as hay and chaff is maintained at a minimum of 25-30% by weight of the ration.
- Reduce the weight and volume of the ration by substituting lower energy containing feeds such as chaff and oats for higher energy dense grains such as barley (extruded preferably) and corn (cracked or extruded preferably).
- Aim to achieve a ration containing approximately 3% fat. Horses are able to utilize up to 30% of the diet substituted as fats however, introduction of oils should be done progressively at 30-40mL increments weekly until the desired level is achieved.
- Dampen feeds where possible to minimize respiratory burden while also increasing the involuntary daily fluid intake.
- Provide a balanced electrolyte daily.

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Feeding Practices

- Where possible, it is preferable to divide the total daily feed volume of concentrate (grain/protein meals), hay, chaff and electrolytes into three small meals. This prevents excessive overloading of the digestive tract while also minimizing the heat of digestion which may increase core body temperature.
- Consider that higher energy density feeds provide a smaller volume and reduced heat waste while providing the necessary caloric intake for adequate energy provision.



General Management Guidelines

- ✓ Remove all tack, particularly that restricting breathing (girth) and impeding heat loss from the lower limbs such as bandaging or padding. This will allow a quicker recovery and allow the tendons and lower limbs to lose heat rapidly.
- ✓ Hose the horse immediately following exercise and scrape off excess fluid to facilitate the evaporative process, particularly around the pulsatile areas of the gut, limbs and neck. Additionally, walking the horse will further aid air flow and encourage evaporation.
- ✓ Allow the horse to adequately cool prior to transporting. Confinement, particularly with other heated horses will increase the trapped heat within a confined space such as a trailer or truck and encourage further sweating and therefore valuable electrolyte losses. Adequate air flow should be ensured whilst travelling.
- ✓ Pre-cooling the horse prior to exercise aids in delaying the accumulation of body heat as the core temperature increases during exercise. The evaporation of water from the coat during work also aids to lower the core temperature and may significantly reduce sweat loss under hot and humid conditions.



SUPPLEMENTS TO INCLUDE IN HOT & HUMID CONDITIONS

Salkavite® provides all essential electrolytes that a horse in work loses including sodium, potassium, calcium, magnesium, chloride, phosphate and sulfate as well as additional B-Group vitamins.

Racing Oil® supplies a palatable supplementary source of energy with Linolenic (Omega 3) and Linoleic (Omega 6) fatty acids in appropriate balance. Additionally, the supplementation of dietary oil has beneficial effects to aerobic performance whereby the use of dietary fats spare muscle glycogen stores, thus extending endurance and minimizing lactic acid build-up.

L-Carnitine® enhances the ability of skeletal muscle to oxidize fatty acids and ensures optimal carbohydrate metabolism. Additionally, L-Carnitine aids liver synthesis and helps reduce the storage of body fat and the amount of fat in the blood, assisting utilization of body fats for energy production rather than depleting more critical energy reserves of glycogen.

Electropaste® provides a concentrated, portable source of B-Group vitamins, electrolytes and anti-oxidants including Vitamin E, to rapidly replenish body stores depleted by hard exercise or transportation.



Ranvet's Nutritional Consultation Service for your horse's every need;

- Customised diets
- Energetic demands
- Vitamin & electrolyte requirement
- Growth & development needs
- Correcting metabolic disturbance

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