



HRNZ HOT WEATHER POLICY

1. Introduction

The safety and welfare of drivers and horses are critical factors for Harness Racing New Zealand in assessing whether a race meeting (or trials meeting) should proceed or be abandoned in hot weather conditions.

While heat stress is occasionally seen in racehorses in hot weather conditions, most fit racehorses will cope well in hot weather. In comparison to Thoroughbred races, Harness races are conducted over longer distances. This requires maximal exertion in the heat for a longer period, increasing the risk of heat stress. The amount of heat generated, and body water lost during racing is relatively low compared to many other equine activities.

2. Factors that may contribute to Heat Stress in Racehorses

There are various factors that must be considered when deciding upon the safety of racing in hot weather conditions:

- Ambient temperature
- Humidity
- Breeze/air movement
- Individual horse factors
- Transport distances
- Racecourse facilities, particularly the availability of shade and cold water, and micro-climates
- Duration of the race
- Time of year and horse adaptation to weather conditions

3. Responsibility for Risk Assessment and Implementation of Hot Weather Procedures

It is the overall responsibility of the Chief Stipendiary Steward acting at any race meeting to monitor weather conditions – using weather forecasts, and by obtaining expert advice from the on-course veterinarian and/or racecourse manager, during the meeting.

4. Assessing Heat Stress Risk Factors

4.1 Weather Conditions

Heat stress after exercising is most likely to be seen on days when both the ambient temperature and humidity are high, and wind speeds are low, or absent.

As horses cool themselves by evaporative cooling (sweating), high ambient temperatures and humidity will slow the rate that the heat is transferred from the horse's body to the environment.

It should also be noted that heat stress can occasionally be seen during the cooler months, especially in spring when the days can be quite warm. Horses may still be carrying a winter coat, are trained in cooler hours of the morning, and may not have adapted to the warmer daytime temperatures.

4.2 Individual Horse Factors

Risk of heat stress in racehorses does not solely seem to be influenced by temperature. Certain factors can adversely affect an individual horse's ability to withstand racing in hot weather can include:

- (i) Travelling conditions prior to competition including distances, ventilation, hydration, temperature, and duration
- (ii) An excitable temperament
- (iii) Younger horses may be less acclimatised to heat
- (iv) Heavy sweating
- (v) Withholding drinking water on the day of racing (this is not a recommended practice in hot weather)
- (vi) Horses that are unable to sweat well ('dry coated') are at particular risk of suffering from heat stress conditions.
- (vii) Coat length

5. Decision Making Guides

5.1 Ambient Temperature

The use of ambient temperatures in degrees Celsius is not a reliable guide alone for assessing the safety of racing for reasons mentioned above.

Nevertheless, HRNZ and the RIU should assess the safety of racing in hot weather, with reference to the following guidelines:

1. If the ambient temperature is forecast to 35°C or higher on the day of racing, at midday the day before racing, consideration (including assessment of forecast humidity and wind ground speed) must be given to transferring or abandoning the race meeting; and
2. If the ambient temperature is forecast to 30°C or higher on the day of racing, at midday the day before racing, the racing club should consider putting in place measures as outlined in this document to minimise risks and manage instances of heat stress.

5.2 Cases of Heat Stress

The occurrence of a case of heat stress during a race meeting is an obvious sign that weather conditions may be unsuitable for racing. Individual horse factors must be considered, e.g. are there any factors such as co-existing conditions or other circumstances that may have contributed to the distress of the individual. A single case of heat exhaustion should raise the level of alert and should result in an investigation of the individual circumstance of the incident.

An investigation into the ambient temperature conditions and expert advice from the on-course veterinarian and racecourse manager should be obtained. The results of the investigation should be used in consideration of the continuation of racing.

6. Race day procedures where the forecast or ambient temperature reaches 30°C or above.

Extra precautions should be implemented when the forecast or ambient temperature is 30°C or above.

- Where possible horses should be stabled out of the sun, in an area with suitable airflow to encourage body temperature regulation
- Tie up stalls should be hosed down at the start of the day to reduce the heating of the concrete
- Sufficient water to be readily available for horses and staff members working
- Adequate wash bays supplied to horses in need of rapid post-race cool-down
- Cold water hose(s) with suitable nozzle(s) situated in the birdcage to attend to horse's immediately post-race
- Cold drinking water provided at the start for drivers and attendants

7. The Signs of Heat Stress

The signs of heat stress include:

- Rapid panting
- Flared nostrils
- A 'glassy', vacant look to the eyes
- Staggering, apparently uncontrollable gait
- Very high body temperature (the skin can be hot to touch)
- Agitated and distressed appearance
- Irrational behaviour such as lashing out with hind limbs
- Occasionally collapsing

8. Reporting of Cases of Heat Stress

Heat stress in racehorses is evident from a range of signs which may be described as an effect of 'slower than normal recovery'.

HRNZ applies the following scale to assist the Raceday Veterinarian (RV) in reporting the signs of heat distress in a consistent manner.

(i). Slower than normal recovery – this relates to a horse showing mild signs of distress/exhaustion and a degree of tachycardia (raised heart rate) and tachypnea (raised respiratory rate) inconsistent with the recovery period. This may or may not be related to heat stress.

(ii). Heat Exhaustion – this describes horses that show moderate distress, hyperthermia, tachycardia, tachypnea, lashing out with the hind limbs and fatigue. Affected horses may require cold hosing and other cooling aids but usually respond quickly to appropriate first aid treatment.

9. The role of the Raceday Veterinarian (RV)

The RV should assist the Stipendiary Stewards by monitoring the weather conditions and providing expert advice on the possible effect on the racehorses. The RV must endeavour to inspect all horses that are presented in the birdcage, mounting areas, barriers, enclosures post-race and while being detained in sampling area for whatever reason.

If a horse seems to be affected by heat and/or humidity in the pre-race period, the RV must report his or her observations to the Stipendiary Stewards immediately and assess the horse's suitability to race.

The RV should provide appropriate treatment as soon as is practicably possible to any horse found to be exhibiting signs of heat stress post-race.

When hot and humid weather conditions are forecast the RV must take extra precautions ensuring that the racehorses competing have the least possibility to exhibit signs of heat stress or exhaustion. This consists of general equine welfare practises being upheld.

10. Veterinary Treatment of Heat Stress

The RV should ensure that they have an adequate supply of relevant treatments on hand to provide effective treatment of heat stressed horses.

The key objective of treating heat stress in an acutely affected horse is to cool the blood travelling to the brain. Cold water and evaporative cooling are critical for effectively managing heat stress in racehorses.

- (i) Application of ice water to the head, neck, and over major superficial veins.
- (ii) Hosing off and walking the horse to a shaded, well ventilated area. Not letting the water on the horse's body heat up from body heat – creating an insulating effect.
- (iii) The use of a fan where sufficient airflow is hindered by still weather conditions
- (iv) Only post-race and only administered by the RV:
 - a. Anti-inflammatory treatment including corticosteroid therapy – though only post-race; and/or

- b. Sedation in seriously affected horses
- (v) Allow a horse to have sufficient time to recover before being floated back to their home stables.

11. General Horse Welfare

Careful management practices should be implemented during hot weather to reduce the risk of heat stress

- (i) Rugging in hot weather should be done so carefully. Over-rugging in summer can become a welfare issue as horses rely on sweating to maintain a safe core body temperature. When a rug is used, air cannot pass over their body to evaporate the sweat and cool their body.
- (ii) Synthetic or heavy canvas rugs are rarely suitable for use on a hot day.
- (iii) A white, summer cool sheet can be effective in reflecting the heat and harmful UV rays, particularly if the horse has areas of sensitive pink skin or the horse has a dark coloured coat.
- (iv) On average horses in hot weather at rest can drink up to 60L a day. This will increase if the horse is exercised, and electrolyte replenishment must be included if the horse is worked/trailed/raced on a hot day.
- (v) Horses turned out should have access to shade otherwise if possible, move them inside to a well ventilated stable or covered yard.

Horses with pink areas of skin, particularly in the muzzle area are prone to burning. Like human sunburn this is extremely painful. Zinc or shade flaps should be considered as a preventative measure.

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