

# Racing in hot weather (horses)



## Purpose

This Policy is intended to provide guidance to the thoroughbred racing industry in order to protect the welfare of and minimize the effects on horses racing at ALL South Australian racecourses and training venues during hot weather.

## Preamble

A common condition observed in horses as a consequence of competing in hot weather is exertional heat illness (EHI). In general, thoroughbred races are conducted over relatively short distances, so exertion in the heat only occurs for relatively short periods. EHI is most likely to occur on days when both the ambient temperature and relative humidity are high and wind speeds are low or absent (conditions of high environmental thermal load).

Metabolic heat that reaches the skin of the horse during exertion in hot weather conditions must leave by radiation, convection and the evaporation of sweat. At air temperatures below 35°C the skin temperature is higher than the air temperature, so heat is lost through convection.

When the air temperature exceeds the skin temperature, convection adds to the metabolic heat load and the evaporation of sweat becomes the only means of dissipating heat. In conditions where the ambient temperature and humidity are both high the rate of transfer of heat from the horse's body into the environment will be slower and any cooling effect will be reduced or delayed, increasing the risk of EHI.

Wind speed has a significant effect on evaporation since it disperses the hot air and vapourised sweat close to the skin, and increases the rate of convection, evaporation and therefore, heat loss.

Local experience identifies that EHI is most likely to occur on days when the ambient temperature is 35°C or above or the Wet Bulb Globe Temperature (WBGT sun) is 26°C or above. During late spring or early summer horses may exhibit EHI on days when the ambient temperature is relatively low (30°C) with relatively moderate humidity.

## Application

This Policy applies to all race meetings, official trials and approval to race jump-outs (event) conducted under the control of Racing SA Limited and the Rules of Racing.

## Date of Effect

This Policy, as amended, shall take effect from 23 November 2020 and may be repealed or amended from time to time by RSA Limited.

## Measurement of Risk

### Measurement in Degrees Celsius by a Dry Bulb thermometer

The measurement in degrees Celsius reflects air temperature, measured by a Dry Bulb thermometer – Ambient Temperature (AT). It does not provide a basis for assessing the potential risks from heat exposure.



## Effective Temperature using a Wet Bulb thermometer

The combined effects of temperature, humidity and air movement can be described on a single scale. This is the Effective Temperature. Effective Temperature is calculated using a Wet Bulb thermometer (one whose bulb is cooled by evaporation) - Wet Bulb Globe Temperature (WBGT).

### Symptoms of EHI

Some of the symptoms of EHI are:

- rapid shallow breathing (as in panting);
- very high body temperature;
- flared nostrils;
- a congestion appearance of the gum;
- staggering or weakened gait;
- abnormal, irrational behaviour such as lashing out with hooves etc.; and
- (in extreme circumstances) collapse.

### Circumstances contributing to EHI

The susceptibility of a horse to EHI may not solely be influenced by temperature or the prevailing conditions. Certain other factors may adversely affect an individual horse's ability to withstand racing in hot weather.

These include:

- travelling a horse long distances prior to or on the same day as competition;
- an excitable temperament;
- younger horses less acclimatised to heat;
- heavy sweating;
- withholding drinking water on the day of racing.

Note: Depriving a horse of water prior to racing is not a recommended practice.

### Requirements of the Stewards

The Stewards acting at an event must;

- obtain the forecast weather conditions and monitor the Thermal Comfort Observations as provided by the Australian Bureau of Meteorology on their website and use these observations as guidance during the race meeting, provided that Stewards may also use a measuring device capable of measuring AT and WBGT, on site, at any racing venue as an aid to assist in the management of the protocols under this policy.;
- initiate the Protocols under this Policy, where necessary, and ensure the provisions are appropriately observed, where applicable;
- liaise with the relevant Race Club regarding requirements;
- liaise with and take advice from the Veterinary Surgeon/s regarding the prevailing conditions and where possible the condition of any horse/s throughout an event;
- consider whether modifying the event programme may allow for improved conditions to conduct the event; and
- minimise the time that horses are required to parade and/or be held in mounting enclosures both pre- and post-event or behind the starting barriers

Note: Modification of an event programme might include the advancement or delay in the programme if it appears likely the extreme conditions might ease and/or could be avoided.

In the event a trainer, concerned at the manner in which any horse is coping with the prevailing conditions, approaches the Stewards seeking to withdraw a horse from its engagement, the Stewards shall consider all submissions on merit. Depending on the prevailing conditions, the Stewards may seek the opinion of the Veterinary Surgeon before adjudicating on any submission.



## Level 1 Protocols

This protocol will apply on all race days where the forecast/actual temperature is 35°C (AT) or 26°C (WBGT) “sun” or above.

### Race Clubs:

- are to provide additional water hoses and water containers in the mounting enclosure and the horse stalls area to maximise the trainers’ ability to apply evaporative cooling techniques and opportunities for horses to drink; and
- are to ensure the swabbing stall area is as comfortable as possible by engaging cooling equipment to assist with airflow.
- are to provide cooling fans in the horse stalls area, where possible and practicable, to assist with airflow.

### Veterinary Surgeons:

Will scrutinize all horses:

- presented in the mounting enclosure pre-event;
- on arrival at the barriers;
- on return to the enclosure post-event; and
- while detained in the swabbing area (either pre- or post-event)

If the Veterinary Surgeon is concerned about a horse’s condition pre-event he/she shall immediately report his/her concern to the Stewards.

Any horse found to be exhibiting signs/symptoms of EHI will immediately be given appropriate treatment that the Veterinary Surgeon deems necessary.

## Level 2 Protocols (to be read with Level 1 Protocols)

In the event the forecast/actual temperature for a race day is 38°C (AT), or above, or 32°C (WBGT) “sun” or above, Stewards must take advice from the Veterinary Surgeon/s in considering whether to proceed with or modify the programme for that event.


Should the Stewards determine to continue the event programme, in addition to the measures listed in Level 1 protocols, they may instruct that:

- an additional Veterinary Surgeon be provided;
- additional equipment be provided to assist the comfort of horses;
- a Veterinary Surgeon be available post-event at a position as directed by the Stewards for riders to report concerns regarding a horse; and
- Riders, if they become concerned at the condition of their mount post-event, should proceed to the Veterinary Surgeon positioned for that purpose on the track at the entrance to the mounting enclosure.

The Veterinary Surgeon/s will, in addition to duties/requirements described in the Level 1 protocol, scrutinize all horses:

- upon arrival on course – paying particular regard to horses identified as travelling in excess of one hour to attend the meeting;
- pre-race - monitoring the horse for symptoms of increased body temperature. Any horse observed with a high body temperature (e.g.: in excess of 38.5°C) should continue to be monitored with particular attention to its suitability to race. If required, instruction should be provided to reduce the body temperature prior to racing;
- examine all runners upon arrival at the starting point;





## Level 2 Protocols (to be read with Level 1 Protocols) - Continued

- post-event - the Veterinary Surgeon shall take a position as instructed by the Stewards in order to respond to any concern expressed by a rider or to identify and assist any horse requiring first aid;
- while detained in the swabbing area (either pre- or post-event) to monitor horses sweating or becoming distressed when in the stall and/or during the sampling procedure; and
- subsequent to an event - ensure all horses have recovered appropriately to permit travel.

Note: No horse shall leave the course without the approval of a Veterinary Surgeon.

### Attention to and/or treatment for EHI

Trainers shall ensure that horses are cooled down promptly and adequately post-event. Trainers are alerted that unless appropriate care is provided, a horse's core temperature may continue to RISE for up to 20 minutes post-event.

Evaporative cooling, particularly sweating, is the most effective means of dissipation of body heat for the exercising horse. The liberal application of cold water in shaded, well ventilated areas will assist the processes which enables horses to lose excessive body heat on hot days.

Using the evaporation principle it is possible to assist horses to cool after racing in hot weather. Appropriate strategies include -

- continuous water application - as water evaporates from the skin surface it removes body heat causing the horse to cool. The evaporation rate improves if horses are frequently hosed, excess water scraped from the coat and then walked, preferably in shaded, breezy areas.
- horses may need to be hosed and scraped several times in between walks.
- bucketing ice cold water over the horse may assist in the recovering of a heat affected horse but is not considered mandatory.
- horses should be allowed to drink as much fresh, clean water as they require after racing.
- horses must be allowed sufficient time to adequately cool down before being floated back to their stables.
- positioning the horse in a cool area, preferably with access to breeze or air flow.

### Requirements of Race Clubs

- Race Clubs should ensure adequate wash bays and hoses are available to enable rapid post-race cooling of horses; and
- ensure adequate drinking water is available for horses; and
- provide adequate ice, water, scrapers and extra hoses. Race Club staff shall provide additional hoses in the mounting enclosure and, where requested, provide large bins at the hose bays and ensure these are continually stocked with bags of ice and water to assist in the cooling of horses; and
- ensure the swabbing stall is as cool as possible. Strategies which could be considered to cool the swabbing stall include, hosing the roof, allowing adequate ventilation and providing fans/air-conditioning (where practical).
- ensure that horses are well cooled before entering the swabbing stall.

J. PETZER  
CHAIRMAN OF STEWARDS  
Policy amended: 23/11/2020

