

GUIDELINES FOR EXTREME HEAT

1. The FEI Code Of Conduct For The Welfare Of The Horse only provides the following guidance

Events must not prejudice horse welfare: competitions must not take place in extreme weather conditions that may compromise welfare or safety of the horse. Provision must be made for cooling conditions and equipment for horses after competing

2. A paper titled "PREPARATION FOR AND MANAGEMENT OF HORSES AND ATHLETES DURING EQUESTRIAN EVENTS HELD IN THERMALLY CHALLENGING ENVIRONMENTS" was written by Dr David Marlin, Dr Martha Misheff & Dr Peter Whitehead in March 2018 and the following points are relevant:

- a. **Aggressive Cooling.** Aggressive cooling is almost certainly the single major factor in reducing heat related illness in horses in thermally stressful conditions. Aggressive cooling of hot horses does not cause muscle damage and can greatly reduce the risk of collapse and injury or the development of heat-related illness.

- b. **Wet Bulb Globe Temperature Index.** The WBGT index is a single "temperature" that takes into account the effects of air temperature, humidity, sun and wind all at the same time. It is the only validated heat index for equestrian sport and is calculated from a measurement of Wet Bulb temperature and a measurement of the temperature inside a Black Globe, degrees centigrade. The recommendations for different levels of the WBGT Index for the Cross-Country day of Eventing (taken from the FEI Eventing Memorandum, 8th Edition – April 2015; Updated December 2017) are as below

- **Less than 28.** No changes to the FEI recommended format for the Three-Day Event Competitions should be necessary.
- **28-30.** Some precautions to reduce heat load on horses will be necessary.
- **30-32.** Additional precautions to those above to limit overheating of horses will be necessary.
- **32-33.** These are hazardous climatic conditions for horses to compete in and will require further modifications to the Competition.
- **Above 33.** These environmental conditions are probably not compatible with safe competition. Further veterinary advice will be required before continuing.

3. The following points have been drawn from other sources (BHS, World Horse Welfare, BEVA):

- a. **Water.** A constant supply of clean and fresh water is essential to help prevent dehydration. An average horse can drink up to 50 litres of water per day in hot weather and more when exercised and working. Allowing your horse to drink immediately after exercise does not increase the risk of colic and should be encouraged.

- b. **Dehydration.** Dehydration can occur when a horse loses more water (for example lost in sweat, breath, urine and droppings) than it takes in. Knowing what is normal for your horse is important so you know when your horse isn't right.

- (i) Signs of dehydration include:

- Dark urine/reduced urination
- Reduced amount of droppings
- Lethargy and/or depression
- Dry skin and mouth
- Dull eyes
- Gums that are dark in colour

- (ii) As well as water, electrolytes are also lost in sweat, breath, urine and droppings. Electrolytes are salts and minerals that help with many different bodily functions such as urine production, digestion and muscle contraction. The major electrolytes are sodium, potassium, chloride, calcium and magnesium.
- (iii) It can be dangerous if a horse has worked hard, lost a lot of electrolytes through sweat and is not wanting to drink. If they continue not wanting to drink then giving them a concentrated electrolyte paste may help to stimulate drinking. However, be aware if your horse is prone to gastric ulcers as electrolytes can irritate the stomach. Speak with your vet for advice if you aren't sure whether electrolytes are suitable for your horse.
- (iv) Feed electrolytes daily to horses in medium work or above (for example, competing at affiliated level, eventing, polo, endurance) rather than just during times of competition. Ensure you follow the manufacturer's recommendations on use and dose. If you add electrolytes to water make sure the horse doesn't mind the taste as he may not drink anything at all - offer a bucket of plain water as well.

c. **Heat exhaustion.** Heat exhaustion can be a very serious condition and can occur if the horse is exposed/exercised in very hot or humid conditions and is often also suffering from dehydration. Signs of heat exhaustion may include the signs of dehydration above and potentially:

- Fast, shallow breathing (panting)
- Nostril flaring
- Increased rectal temperature
- An irregular heartbeat
- Decreased appetite and thirst
- Slow recovery after exercise
- Muscle spasms
- Reduced performance

If your horse is showing signs of heat related illness contact your vet immediately, move them into the shade and start to cool the horse by continuously applying cold water all over the horse's body until help arrives.

If not quickly and carefully managed, a horse suffering with heat exhaustion can progress to develop life threatening heat stroke. This may lead to the horse becoming unsteady on their feet (ataxia) and/or collapsing.

- d. **Travelling.** If you cannot avoid travelling your horse in hot weather then try to travel as early or as late as possible to avoid the hottest part of the day and take more water with you than you think you will need in case you break down or are stuck in traffic.
- e. **Shelter/Shade.** Shelter or shade is preferable in hot weather, this can be provided by trees, hedges, lorries etc but the shade will move with the sun so this needs to be monitored.