

## Feeling Hot, Hot, Hot?

We are all feeling the heat at the moment and according to forecasts it is going to get hotter, great if you are on holiday, less so if at work! We are sending out On the Hoof's issued in previous years, but none the less important reminders just now.

Some health risks to consider are highlighted below:

**Heat Stress** - The upper critical temperature for cattle is 25°C rising to 29°C for shorn sheep. During hot weather ruminants will attempt to dissipate heat by panting to increase evaporation. The rumen is a major source of heat and in response dry matter intakes, particularly of forage, may be reduced by 10 to 30%. Milking cows will generate more heat than dry cows and the risk of heat stress is greater if humidity is also high. The consequences of heat stress include reductions in feed intake, milk yield, and fertility. For more information see:

<https://media.ahdb.org.uk/media/Default/Imported%20Publication%20Docs/AHDB-Beef-Lamb-cattle-and-sheep-hot-weather.pdf>

<http://www.nadis.org.uk/bulletins/managing-heat-stress-in-dairy-cows.aspx>

**Water intoxication/Salt poisoning** – Access to water should be unrestricted and trough volume and refill times must be adequate. If water supply is interrupted for any reason thirsty animals should not be permitted free access to water. Sudden ingestion of water can lead to intravascular haemolysis, anaemia and haemoglobinuria. A rapid reduction in plasma salt concentration creates an osmotic gradient, swelling of tissues and increased intracranial pressure. Ataxia, convulsions and death can result. Beware of thirsty animals attempting to drink foot bath/sheep dip solutions or parlour washings.

**Bluegreen algae blooms** – Sunny weather and evaporation increases the electrolyte concentration, particularly of shallow water, favouring algal blooms. Areas of fertiliser run off with high K and N are also at risk. *Microcystis aeruginosa* is the most common species implicated and produces toxins which damage liver cells. Clinical signs can include colic, haemorrhagic diarrhoea, and death. Photosensitisation may occur secondary to less severe liver damage. Pay particular attention to field with ponds and also aftermaths grazed for the first time where water troughs may not have been used yet this year.

**Botulism** – *Clostridium botulinum* proliferates in decaying animal and plant material and toxins are produced. Carcasses in troughs/forage pose a risk as does decaying plant material in ponds. Feeding waste vegetables is not without risk when temperatures are high.

When this weather breaks look out for:

**PGE** - Worm larvae can become trapped within faeces during hot, dry weather. When the rain returns a sudden release of larvae onto pasture may lead to outbreaks of parasitic gastroenteritis.

**Nitrate toxicity** - High levels of nitrate can accumulate in soil during conditions of drought and can be taken up by plants following wet weather increasing the risk of nitrate toxicity. Nitrates are converted to nitrites in the rumen and their absorption leads to anoxia secondary to methaemoglobinaemia.

If you want to discuss this further please contact us [OnTheHoof@sruc.ac.uk](mailto:OnTheHoof@sruc.ac.uk)

