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AUGUST 2022 NEWSLETTER

ADAPTING TO EXCEPTIONALLY HOT WEATHER

During the recent hottest spell on record, we saw the following conditions associated with this weather. We should learn to recognise and treat these conditions, in combination with trying to prevent them, as we are likely to see such weather events with increasing regularity.

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.

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 the destruction of red blood cells and anaemia. A rapid reduction in salt concentration in the blood creates an osmotic gradient, swelling of tissues and increased pressure in the brain. Neurological signs, convulsions and death can result. Beware of thirsty animals attempting to drink foot bath/sheep dip solutions or parlour washings.

When we eventually have some rain, look out for:

Parasitic gastroenteritis (PGE). Worm larvae can become trapped within faeces during hot, dry weather. With rain, a sudden release of larvae onto pasture may lead to outbreaks of PGE and associated scour.

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 – a lack of available oxygen within the body.

Other events that we may see in the future, that are associated with hot and dry weather spells, include:

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 aeruginosae* is the most common species implicated and produces toxins which damage liver cells. Clinical signs can include colic, bloody diarrhoea, and death. Sunburn 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 in the year.

Ryegrass staggers – Perennial ryegrass that is exposed to hot dry spells then rainfall, has the potential to produce harmful levels of the fungal endophyte Lolitrem B. This toxin leads to neurological disease and potential death in cattle, sheep, horses and llamas. It is common in New Zealand and parts of Europe. Due to changes in weather patterns, it is expected to appear in the UK. The risk is greater on tightly grazed pasture, and pasture with a high proportion of seed.

HAEMONCHUS WARNING

Be vigilant for cases of haemonchosis in sheep and goats, especially if (when) we get some significant rainfall. This is caused by the gut worm *Haemonchus contortus* (or the “barber pole worm”) which lives within the abomasum. Unlike other gut worms, *Haemonchus* feeds on blood and does NOT cause diarrhoea, but rather anaemia, or blood loss. Affected animals are usually growing lambs, although adult sheep can be affected, and all ages of goats. They will present with pale, often white, mucous membranes before death. Traditionally *Haemonchus* is a tropical parasite from very hot countries including Australia and South Africa. *Haemonchus* is likely to thrive this year with the hot and dry summer we have enjoyed, whilst those worms that normally cause scour have not done as well as it has been too dry. APHA Starcross recently announced a spate of deaths in Devon confirmed at post-mortem as being caused by *Haemonchus*.

5000 adult worms are capable of consuming 250ml of blood PER DAY! For a 25kg lamb this is the equivalent of roughly 10% of its entire blood volume, so it is no wonder that severely affected animals often die. With less acute disease there will be a general wasting of animals and the development of “bottle jaw”. Liver fluke has very similar clinical signs so it is worth doing a worm egg count before treating. The disease can also be confirmed by post-mortem.

2-LV (yellow) and 3-ML (clear) wormers should be effective against the parasite UNLESS you have known resistance to these products on your farm. If we are certain that only *Haemonchus* is present and no other gut worms are involved, then it is best to use closantel or nitroxynil to slow the development of resistance to the other worming products. An egg count at an external laboratory, with the addition of a specially requested fluorescent stain, can differentiate haemonchus eggs from other egg species to guide this decision. *Haemonchus* worms will lay thousands of eggs each day and so are capable of rapidly developing a resistant population on your farm. Target treating animals based on mucus membrane colour can also be effective in slowing the rate of resistance development (FAMACHA scoring). In problem cases we can import the Barbervax vaccine from Australia to help control the disease. For any questions, speak to any of the vets.



SHOWTIME!

We look forward to seeing you all at **Okehampton Show** on Thursday 11th August and **Holsworthy Show** on Thursday 25th August. Come and join us on our stand for light refreshments, a chat with some of the team and to find out about the latest developments at the practice and what we can offer you and your livestock.

Congratulations to Jonathan for recently completing La Marmotte sportive in the Alps – a 177km route with 5000m of climbing, including the Col du Grandon, Telegraphe, Galibier and finishing on top of Alpe d’Huez. With temperatures in the high 30’s, he got round in 8.5hrs – “only” a few hours slower than the Tour de France riders that went through 10 days later!



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