



Animal &
Plant Health
Agency

Information Note

Hot weather and potential risks to livestock health and welfare

May 2020

Some associated livestock health, welfare and production problems that may arise during periods of hot weather are listed below.

Water shortages

All animals require an adequate supply of water. The use of alternative water supplies in dry weather could lead to accidental intoxications. For example, if transporting water in bowsers, ensure they have been adequately cleaned beforehand, especially if they have previously contained fertilisers.

Heat stress

Heat stress can affect fertility and cause production losses in all animals, in particular in high producing dairy cattle and can lead to welfare problems. Provide shade, minimise the time animals are held in strong sunlight and ensure good ventilation for those which are housed.

Flies and Strike

Flies may exacerbate the spread of infections, for example New Forest Eye and summer mastitis. However, a key risk to the health and welfare of sheep is blowfly strike. SCOPS have produced a product guide that provides treatment and control options for this condition: http://www.scops.org.uk/workspace/pdfs/product-options-table_3.pdf.

Plant poisonings

Weeds survive remarkably well in dry weather, probably due to their often deep seated roots. Ragwort may be eaten if dried out in the pasture, when it becomes more palatable

to stock. Hedgerow plants such as the nightshades or bryonies may be browsed as animals are seeking shade cast by hedges. Animals may also break out of fields in their search for feed and gain access to gardens and potentially become poisoned by ornamental plants most commonly *Pieris* spp, rhododendron and yew. As grazing becomes scarce animals may turn to bracken. Blue green algal blooms on lakes and ponds can be lethal. The Environment Agency issues alerts when blooms are seen, but they can occur in very small water bodies.

Photosensitisation and sunburn

Primary photosensitisation occurs due to the ingestion of lush green plants containing photodynamic agents, such as St John's Wort (*Hypericum perforatum*) or Bog Asphodel (*Narthecium ossifragum*). Secondary photosensitisation is the most common type seen in animals and occurs due to liver or bile duct damage, most often as a result of ingestion of hepatotoxic plants such as Ragwort (*Senecio jacobea*). Direct exposure to UV radiation can damage the skin in cattle, sheep, pigs and horses with light colouration.

Once a period of dry weather ends there is the potential for localised flooding due to water run-off from dry land. In addition, a number of conditions may occur:

Haemonchosis

The possibility of haemonchosis in grazing sheep, goats and calves could increase, particularly after heavy rains, as this parasite is able to survive in warmer temperatures. Clinical signs are anaemia, with no diarrhoea, and subcutaneous oedema (bottle jaw). There is little immunity to this parasite, so disease can be seen in lambs and adult sheep. All classes of anthelmintics have activity against *Haemonchus contortus*, but anthelmintic resistance in this parasite is recognised.

Ryegrass staggers

Ryegrass staggers is a neurotoxicosis of animals grazing perennial ryegrass (*Lolium perenne*) infected with a seed-borne endophytic fungus *Acremonium lolii*. It may be encountered in cattle, ewes and fattening lambs in late summer, usually after periods of prolonged dry weather when the grass is under drought stress. The condition may also occur following periods of rain that allow production of the endophytes on the ryegrass.

Diagnosis of ryegrass staggers is based mainly on a clinical history of ataxia, tremors and collapse, although brain histopathology at postmortem examination may be helpful in differential diagnosis. If suspected and animals are moved to another pasture they may improve but the neurotoxin can persist in hay/silage.

Useful links and further information

- Potential impacts on ruminant health and welfare during hot weather – article: <https://veterinaryrecord.bmj.com/content/183/5/154.full?ijkey=okcC151jKHBM&keytype=ref&siteid=bmjournals>
- SCOPS: <http://www.scops.org.uk/>
- COWS: <http://www.cattleparasites.org.uk/>
- NADIS parasite forecasts: <http://www.nadis.org.uk/>
- NFU Fodder Bank: <https://www.nfuonline.com/sectors/crops/crops-news/the-nfu-fodder-bank-is-now-open/>

Information about the APHA, SAC-CVS and AFBI veterinary laboratory networks in the UK:

- APHA in England & Wales: <http://apha.defra.gov.uk/vet-gateway/surveillance/diagnostic/index.htm>
- SRUC Veterinary Services in Scotland: https://www.sruc.ac.uk/info/120144/farm_animal_diagnostics
- AFBI in Northern Ireland: <https://www.afbini.gov.uk/articles/animal-disease-diagnostic-services>



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