MOORLAND
MANAGEMENT Best Practice

Tick Control in the Upland and Moorland Environments:

Part 2 – management and treatment

Key 1 MUST 2 SHOULD

Aim

This guide provides information on management plans for wildlife and livestock, blood testing, carrying out treatment programmes and record keeping.

Management Plans – mountain hare

1 You **MUST** have a licence from NatureScot in order to control mountain hare.

There is no longer an open season for this protected species under Schedule 5 of the Wildlife and Countryside Act 1981.

Mountain hare may only be culled for limited purposes listed in section 16 of the Wildlife and Countryside Act such as, preventing damage to growing timber or crops or conserving flora and fauna. NatureScot will review and assess any licence application on its merits but having reviewed the current body of knowledge, NatureScot believes that the evidence base on the role of mountain hare to prevent the spread of tick borne diseases is not sufficiently robust to allow licensing for this purpose.

Management Plans – sheep and deer

Sheep and deer management plans should be in place and be acted upon in so far as they relate to tick management. Before any decisions are made about the necessity for further action, relevant information in the management plans should be taken into account based on the Wild Deer Best Practice guidance.

Further management options should be discussed with the local deer management group in the first instance.

Even if deer are present at low densities, LIV may be maintained just by untreated sheep or grouse, provided there are more than 25 grouse per km² which would be considered low densities for land managers looking to undertake driven shoots.

1 Open and closed seasons exist for deer and these **MUST** be observed, unless a licence for out of season control has been granted.

All species of deer are recognised as potentially significant tick hosts. Any control **MUST** follow the Deer (Scotland) Act 1996 and should be in line with Wild Deer Best Practice Guidance.

Treatment

The person administering acarcide products should have a clear understanding of the management plan, have adequate training in dosing and have access to personal protective equipment.

1 Acaricide products **MUST** be kept in a locked store and managed in accordance with the manufacturer's instructions.

The products should always be used in appropriate conditions i.e. not in high winds; rainy days; during very hot weather; or onto wet fleeces – so that there is reduced risk of the chemicals directly entering the environment.

Stress associated with handling and dosing should be avoided, as it can lead to symptoms of LIV being displayed.

The use of acaricide products should be sensitive to the local environment and landscape, avoiding treating in areas with standing or running water.

1 Practitioners **MUST** also prevent recently treated sheep from gaining access to standing or running water.

Sheep flocks

Blood tests

To test for the presence of LIV, blood samples are taken from 40 sheep by a veterinary surgeon (or 10% of sheep grazing the area). The oldest age class in the flock should be tested as these animals will have most exposure to ticks.

Acaricide record keeping

1. Records of acaricide use **MUST** be kept for five years, in line with other animal husbandry records and should include:
   - identity of the chemical used
   - batch number
   - quantity purchased
   - date of purchase
   - name and address of supplier
   - expiry date(s)
   - date placed on sheep
   - location of treatment facility
   - date of animal sales / slaughter.

Administering acaricide products

1. The conditions included on the product data label **MUST** always be complied with, these include:
   - contra-indications and warnings regarding use
   - operator warnings regarding protective clothing and washing
   - withdrawal periods. These differ, depending on which acaricide product is used. The 2 main products currently in use are Dysect and Crovect. Check the individual Information Sheets for each product for the withdrawal periods for subsequent meat consumption.
   - Neither product can be administered to sheep producing milk for human consumption.

Managing moorland cattle

The most important pathogens transmitted to cattle by ticks in the UK are Babesia divergens (Red Water Fever), Anaplasma phagocytophilum (Tick-borne Fever) and Louping Ill Virus (LIV).

Infections - where they are present - are usually seen where cattle are grazed extensively in rough upland and moorland settings. Symptoms of Red Water Fever are anaemia, fever and blood in the urine. Diarrhoea and increased heart rate may also be observed. Mild cases can recover without treatment otherwise prescription medication is required.

Tick-borne Fever causes a fever, weight loss, milk drop, and pain and swelling of joints. However, cattle rarely show clinical signs. Treatment when required. Is by use of antibiotic administer within the first few days of infection.

LIV is dealt with earlier in this document in relation to sheep. It can affect cattle but is much rarer.

It is worth speaking to a veterinary surgeon about the prevalence of these diseases in your area and therefore whether preventative treatments should be considered.

Further Information:

The Moredun Research Institute information on ticks and tickborne diseases.

British Deer Society advice note about Lyme Disease and Ticks

MMBP Mountain Hare management guidance

GWCT Research: Does treating sheep for ticks reduce red grouse tick burdens

Best practice guidelines for LIV control in sheep flocks and on grouse moors in the absence of a vaccine

Policy: Sustaining Scotland's Moorlands