

GROUSE NEWSLETTER 2021



Grouse update

Grouse numbers are significantly down on all but a handful of moors this year, with few young birds due to poor broods and high levels of chick mortality over spring-summer.



The hard weather and poor heather quality in recent years are believed to be the underlying issue causing sub-nutrition and suppressed immunity. Grouse have come into the spring in poor condition and then have been hit by further harsh weather and limited food resources at a critical time. In addition, adult grouse mortality has been very high due to high Strongyle worm levels.

We have seen an increasing number of grouse submitted for routine Post-mortem examination over the last few years, along with increasing strongyle worm and caecal pat counts.

Strongyle worms

Since Strongyle worms are generally better controlled these days, we do not routinely see the *widespread* high worm counts and crashes we once did. Having said that, this year we are seeing many high and some very high worm counts with significant gut damage and losses due to strongylosis.



Left: Inflamed caecal surface with erosions. Right: Hugely swollen caeca due to high worm numbers and inflammation.

It is advisable to have worm counts carried out in early and late autumn and follow this up with Caecal pat worm egg counts after Christmas. Sufficient birds/intestines must be submitted to give a true picture of worm burden across the moor. It is recommended that samples from 10 young and 10 old representative, randomly selected birds are submitted from each area of the moor.



Wormer should be restricted unless counts are high to help prevent wormer resistance forming. There is currently no proven wormer resistance in grouse Strongyle worms.

As several moors are not shooting or have stopped early, this presents an opportunity on moors with high worm burdens to use medicated grit earlier and reduce the larval burden on the moor in the run up to winter. The wormer's main action is to kill larvae in the caecal pat or stop its development and reduce further infections. This therefore works better in warm and wet conditions when the larvae are most active (Autumn and Spring). In cold winters the frost and snow will vastly reduce new infections by freezing and inhibiting larvae. Also, snow may cover the grit meaning intakes will not be sufficient to be effective.

Medicated grit must be used with care to ensure its effectiveness and to help reduce resistance. This includes using only fresh grit and discarding old grit. Ensure good grit station management by removing all non-medicated grit from the estate prior to introducing medicated grit.

Louping Ill

Louping ill is a constant issue in certain areas and since the sheep Louping ill vaccine went off the market, the prevalence may be rising. The mainstay for controlling Louping ill is firstly knowing how active Louping ill is in your area, limiting tick hosts and controlling ticks effectively. A new sheep Louping Ill vaccine is due to be available in the coming years.



Grouse can be blood sampled for Louping Ill antibody, which is the best form of surveillance. However, it should be noted that due to the high death rate (80%) most infected birds will die young. Therefore, it is mostly birds that have not had the infection which are shot and blood sampled giving a falsely low result.

We can also test grouse for Louping ill that have been brought in for post-mortem. This PCR will confirm if a bird had the virus present when it died. This is particularly useful in the spring and summer when young birds are found dead or weak.

We can provide instruction on how to take the blood samples from shot birds and supply the required equipment.

Cryptosporidium infection (Bulgy eye)



Taking conjunctival scrapes for testing

Cryptosporidium baileyi is a common finding across northern England and we regularly find the parasite in our routine testing of birds with and without clinical bulgy eye.

Where birds are not showing signs of disease, it is unclear how significant this disease is. However, it is thought that infected birds only rear half the number of chicks that healthy birds do.

The mainstay of *Cryptosporidium* control is good hygiene, particularly around grit stations.



Other diseases we are seeing in Grouse

Over the last few years we have also found a range of more unusual findings including oxalate toxicity, enteritis (with Spirochaete bacteria and Hexamita present), Necrotic enteritis and Coccidiosis. Infrequently we see tapeworms causing blockages but generally do not consider tapeworms a problem.



Grouse intestines full of Tapeworms – a very common finding that generally doesn't affect the health of the grouse

We believe that these syndromes are multifactorial. Not only are birds' suffering from poor nutrition and lack of resource, causing sub optimal immunity, but birds are also potentially concentrated into smaller areas of resource, meaning increased risk of disease spread, either directly, or more likely by contact with contaminated droppings.

Please speak to us for more information on grouse health and how we can test and help control the above diseases.

Grouse Veterinary Health plans - NEW

In order to provide veterinary advice and prescribe medication (wormer) responsibly we must have a good understanding of the workings of each estate and the relevant disease issues. We use health plans in poultry and in farmed game for this very reason.

The health plan is a place to summarise each year's important information such as:

- Grouse numbers – breeding success and survival
- Caecal pat and Worm count results
- Post-mortem, Louping Ill & Cryptosporidium testing results
- Medicated grit records
- Annual veterinary review and suggestions for the future

Additionally, a vet health plan acts as a legal document and proof of best practice – something which is increasingly important in our sector.

We are encouraging all grouse moors and estates to have a veterinary health plan in place. Please speak to us for more information.

Medicated grit testing

We have had some examples of medicated grit being used that is not at the effective dose. This may be due to poor or extended storage. We can now test grit to check the level of Flubendazole, either as part of an investigation or for routine quality control. Please speak to us for more information.



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