

particularly if Nematodirus has been diagnosed in the past.

Points to remember include:

- Nematodirus can cause clinical symptoms in lambs before the larvae they are carrying have matured into egg laying adults, therefore faecal egg counts from scouring lambs cannot be relied on to diagnose acute Nematodirus infection.
- Re-infection with larvae can occur rapidly if lambs are kept on the same pasture so that a second treatment may be necessary after 7-10 days.
- Concurrent coccidiosis infection will lead to more severe disease and increase losses. Nematodirus is the dose limiting parasite for many wormers therefore under-dosing is very likely to result in treatment failures.
- On most farms white drenches (e.g. Tramazole or Rycoben) should remain the drug of choice for treating Nematodirus. No anthelmintics have a persistent effect against Nematodirus.
- Death from dehydration (early in an outbreak death can occur suddenly and without obvious signs of scour)

Prevention & Treatment

If possible, move lambs to clean grazing (i.e. pasture that has not been grazed by lambs in the previous year) If lambs can't be moved to clean grazing, treat all 'at risk' lambs. Repeat treatment 2 weeks later may be required (speak to one of the vets to help make this decision). White (1-BZ) wormers are still the recommended treatment of choice unless other worm species are present and resistance is confirmed. We will advise you of this if you are carrying out faecal egg counts on your farm. Some other commonly used wormers aren't as effective as white wormers against Nematodirus. Take a Faecal Egg Count 14 days after treatment to monitor if it has been effective. This will also tell us about your coccidiosis and other worms infection level.

Carrying out a post drench test to ensure the drug is working and to check there are not any other gut worms or coccidiosis present is always worthwhile. It is very common for lambs to scour at this time of year due to cocci and Nematodirus at the same time.

Judith Lee

Turnout 2021 now seems well underway, despite the delayed start! It's nice to see various videos around on social media showing groups of cattle frolicking around as they see fresh grass for the first time in a while. Keep posting those videos and photos!



The dehorning shears are also getting a good workout, as is the scalpel blade for castrations. When thinking about dehorning, there's plenty

of research to show that early disbudding in cattle is much less detrimental to growth rates than late dehorning. Within the first couple of weeks of age is good, but within the first seven days if possible is best. In the first week of life the calf is in a different stage of behavioural development and will adapt more quickly to what is happening to it than it will later. The soreness around a horn after removal, including disbudding and thermal cautery, can persist for up to 42 days after the event- this is lessened by administering anti-inflammatories before dehorning. This 42 day time frame is based on pain perception research from hot-branding cattle in the USA. The parallels between the two procedures are defensible, with a hot brand being less traumatic to tissues. Castration at a young age can also be less detrimental to the calf when compared to the effects of later castration. When the slaughter weights of two large groups of cattle were compared in a study (one group castrated at less than 10 days of age and the other group castrated at several months of age) there was no difference in slaughter weight between the two groups. The effect of later castration has a bigger check on short term growth, but market forces seem to reward a more masculine shaped beast. If market purchasers attitudes to shape change, then I can see castration at a very young age becoming the norm, often with rubber rings. The market seems to have accepted this for

lambs long ago.

Hopefully this year's silo time will be one for you to remember for all the right reasons!

Richard Knight



Parasitic Gastroenteritis

Parasitic gastroenteritis (PGE; gut worms) in dairy herds usually affects calves grazing contaminated pasture during their first summer at grass. The same pastures are typically used for this class of stock every year.

Typically these fields are often too small, or are away from the home farm and not suitable for the main dairy herd. This pasture has been grazed by young cattle during the previous season with over-wintering of infection.

Key points for dairy herds:

- Dairy cattle
- First summer at grass
- Contaminated pastures
- Same pastures are used for this class of stock every year



In spring-calving beef herds, early season pasture contamination of developing larvae is ingested by immune adult cows, resulting in restricted egg output and subsequent low larval challenge to the calves later in the grazing season.

Autumn-born beef calves graze little before housing and are generally weaned at turnout before a larval challenge occurs during the next summer. Problems arise when these weaned beef calves graze contaminated pasture during their second season if they have not gained sufficient immunity as young calves during the previous autumn.

Key points for beef herds:

- Weaned autumn-born beef calves
- Contaminated pasture during their second season
- Insufficient immunity as young calves

The disease is broadly split into two types.

Type I: Typically seen during late summer/early autumn caused by the ingestion and immediate maturation of very large numbers of infective larvae by susceptible calves or yearlings. Disease is more severe after dry early summer months followed by wet weather during August/September because of mass emergence of larvae and ingestion by grazing cattle. There is loss of appetite with sudden and profuse green diarrhoea, affecting most animals within the group within several days. In growing cattle economic losses result from a marked loss of body condition (up to 10 percent bodyweight; 20 to 40 kgs in growing cattle) and convalescence is protracted with extended periods to slaughter weights (up to three months). Sudden death caused by PGE is rare.

Type II: Infective larvae ingested from pasture from autumn onwards do not mature to adult worms immediately but undergo a period of delayed development within the stomach wall and then emerge in the late winter months to cause disease. The treatment response in type II disease is poor. This form of the disease is prevented by routine anthelmintic treatment at housing during late autumn/early winter.

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Prompt anthelmintic treatment is essential for both types of disease. While type I disease is susceptible to all anthelmintics, a group 3 (ivermectin/milbemycin group) should be used for type II disease.

Diagnosis is based upon the grazing pattern and history of previous anthelmintic treatments. Faecal egg counts are generally high in type I but can be absent in type II disease. Blood tests can be used to determine whether there is significant parasitic damage to the abomasal lining.

Rebecca Howard

NEMATODIRUS ALERT - HIGH RISK PERIOD FACTS ABOUT NEMATODIRUS

Nematodirus Battus has a unique life cycle as the larvae develop on the pasture within an egg, unlike most parasitic worms, whose development from the egg occurs after it has been ingested.



The Nematodirus larva stage is resistant to extreme temperature and survives even harsh winters on pasture within the egg. In wet and cool conditions, the larvae can survive for months on the pasture, however larvae will hatch in large numbers after a period of cold exposure followed by a temperature exceeding 10°C over a period of days. This is predicted to occur within the next week in our local area.

This mass hatch occurs annually on permanent pasture, but the level of disease depends on it coinciding with grazing activity of young susceptible lambs. The cold spring this year has resulted in a delayed hatching of the larvae. If lambs are 6-12 weeks old at the time of the hatch, they are likely to experience problems. Lambs typically become immune to the effects of Nematodirus from exposure by about 3 months old and so are less likely to be affected if they are older when the mass hatch occurs.

The Nematodirus parasite has a simple life-cycle. Adult worms live in the intestines of sheep/lambs lay eggs that are deposited on pasture in faeces. The Nematodirus eggs will only hatch out to release infective larvae after a period of cold weather followed by warmer weather with average daily temperatures above 10°C. This can result in a massive challenge of infective larvae on pasture in the spring when young lambs, which have no resistance to the parasite, start grazing. In most years this occurs in mid to late May.

Acute Nematodirus infection can be a cause of sudden death but more often results in a profuse watery yellow-green scour and ill thrift. The concern is that the performance of young lambs that receive an early season check in growth due to Nematodirus may have reduced growth rates for the rest of the grazing season due to intestinal damage. Highest risk fields are those grazed by young lambs the previous year which could harbour dangerous levels of larvae

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