

NADIS Health Bulletin



Knowledge transfer to farmers

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Nematodirosis is an important disease affecting young lambs managed on pasture grazed by young lambs the previously year (Fig 1). Infestation causes profuse diarrhoea during the late spring /early summer months and lambs deaths may reach 5 per cent, lambs that survive suffer a marked check in growth rate.

Clinical presentation

Only lambs are affected by nematodirosis, ewes do not show disease. There is sudden onset of profuse watery diarrhoea in young lambs with faecal staining of the wool of the tail and perineum. The lambs are dull and depressed, stop sucking, and rapidly develop a gaunt appearance with obvious dehydration and condition loss. If left untreated during the early stages of disease, deaths occur from dehydration and there is considerable weight loss in the remaining lambs. It is not unusual with severe larval challenge, for 5 per cent of lambs to die within a few days. Convalescence following anthelmintic treatment is protracted with affected lambs taking an extra 2 to 3 months to market, further contributing to financial losses (Figs 2-4).

Diagnosis

Diagnosis is based upon clinical findings of severe diarrhoea in lambs grazing infested pasture. Faecal worm egg counts are not helpful because acute disease is caused by developing larvae and adults before they start laying eggs. Postmortem examination may reveal very large numbers of developing larval stages and adults within the lumen of the small intestine.

Treatment

Sheep should be moved from infested pastures whenever possible and treated with an anthelmintic immediately, as directed by a veterinary surgeon.

Management/Prevention/Control measures

Prevention is based upon avoidance of pastures grazed by lambs during the previous grazing season because adult sheep are highly resistant to infection and only lambs produce significant numbers of eggs.

The infective larval stage is very resistant to desiccation and low temperatures and is able to survive the winter on pasture still within the egg. After a period of cold exposure, the larva hatches once the maximum environmental temperature exceeds 10°C over a period of several days. While this simultaneous hatch occurs every



Fig1: Pasture grazed by young lambs (photograph taken in early winter)



Fig 2: Lambs slow to recover after nematodirosis



Fig 3: Protracted convalescence of affected lambs proves costly

year on permanent pasture, nematodiosis only results when the mass hatch coincides with grazing activity of young susceptible lambs. Warm spring weather results in larvae hatching en masse before lambs start grazing, while in cold spring weather hatching is delayed and lambs are becoming age-immune from three months-old when they ingest larvae.

Anthelmintic administration of lambs is guided by your veterinary surgeon and environmental temperature and disease forecasts. Typically, for lambs born from mid-March onwards in "normal risk" years anthelmintic treatments are given three weeks apart during May. In "high risk" years, three anthelmintic treatments are given extending the drenching period into June.

Economics

Anthelmintic treatment is relatively inexpensive (2 pence to 20 pence depending upon class of anthelmintic chosen) but drenching is time consuming especially when attempting to gather large numbers of young lambs from a semi-extensive grazing system. Over-use of anthelmintics has led to resistance in certain classes of drugs – an integrated approach to parasite control is the best approach and must be planned for the whole farm as part of the flock health plan.

Fig5: Anthelmintic administration of lambs is guided by your veterinary surgeon and environmental temperature and disease forecasts



Fig 4: Poor parasite control means extended periods to slaughter weight. Lambs prices in 2007 have been very disappointing – it is important to fatten lambs quickly by correct flock planning



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