



**Parasite
Control**

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BULLETIN No.3

Aug 2019

Lungworm in cattle in Northern Ireland

The parasites

Lungworm infection (also known as hoose or husk) is an important respiratory disease of cattle. It can cause severe economic losses due to a loss of performance in young cattle, a reduced milk yield in lactating cattle and can result in death.

Disease occurrence

The disease is caused by a small roundworm, *Dictyocaulus viviparus*. It is usually seen in calves during their first season at grass however older animals can be affected if there are large numbers of larvae present. Outbreaks are often seen from July to October and are more common in wetter areas.

Infection is acquired when infective larvae are eaten. The larvae penetrate the intestinal wall, travelling to the lungs in the circulation. Coughing and rapid breathing are associated with developing young adults climbing up the air passages. Adult lungworms remain in the airways where they lay eggs which hatch into larvae that are then coughed up, swallowed and are passed in the dung on to pasture where they are able to infect further cattle.

Clinical signs

Clinical signs vary according to the severity of the disease:

Mildly affected animals

- Intermittent cough often precipitated by exercise such as moving

Moderately affected animals

- cough frequently even at rest, and have an increased breathing rate

Severely affected animals

- harsh and persistent cough
- increased temperature
- decreased appetite and weight loss
- distinctive stance, with back arched and mouths open.

Occasionally a massive infective dose can cause severe signs in calves, with death within a few days.

The time taken for the clinical signs to develop following ingestion of the parasite can be from 10 to 15 days.

Diagnosis

Clinical signs of coughing in cattle at pasture in the second half of summer is a strong indication of infection though other causes of respiratory diseases should be excluded. Larvae may be detected in the dung of the animal from approximately 25 days after initial ingestion. In any cases of sudden death, post-mortem examinations should be carried out. It should be noted that faecal tests will be negative in the early stages of infection. In all cases you should consult your vet for advice and to assist with diagnosis.

Treatment

When an outbreak of lungworm is suspected or diagnosed, the following steps should be taken:

- Remove cattle from infected land
- Consider whether housing is necessary, depending on the severity of infection
- Dose with anthelmintic in consultation with your vet. Even when an anthelmintic is given, the damage caused by the lungworms may be so severe that the animals will not recover fully.

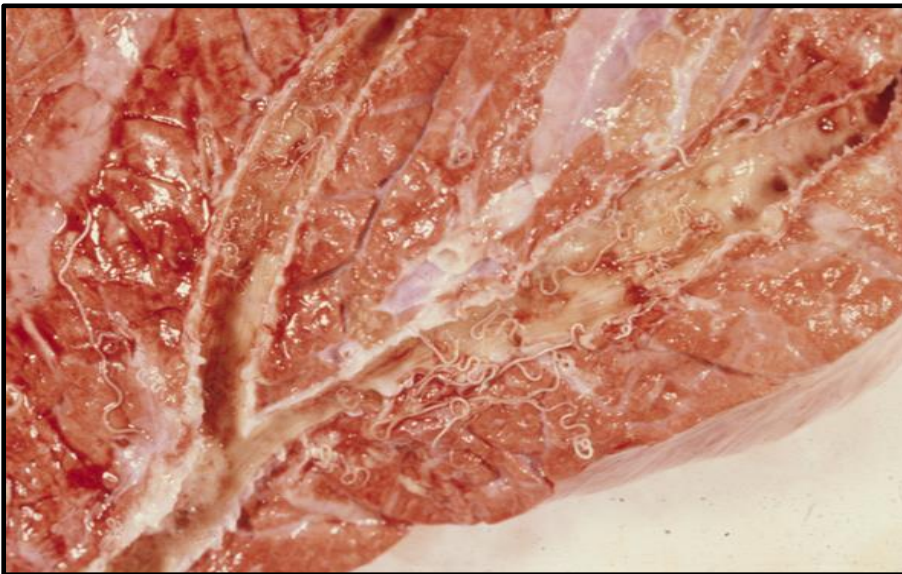
In some heavily infected cattle, there can be a flare-up of clinical signs following treatment which can be due to reactions to dead and dying worms in the air passageways or from secondary pneumonias. Therefore, having a strategy to prevent infection is always preferable to treating clinically affected animals.

Prevention

It is difficult to predict when outbreaks of disease will occur, however infection can build up rapidly. Vaccination is a reliable way of preventing lungworm provided it is completed before the likely period of infection and ideally before turnout.

Good management practices, such as turnout of first grazing season calves on to clean pasture (where no cattle grazed during the previous season) and maintaining animals in one age group without mixing with older animals are valuable in reducing risk.

In all cases herdowners should consult their vet to develop a bespoke plan for their herd to prevent lungworm infection.



Post-mortem specimen of lungworm infection in a bovine lung

*Photo courtesy of AFBI:
Acknowledgement Dr R Hanna*