Parasitic Bronchitis in cattle

Lungworm, Husk, Hoose, Parasitic Bronchitis: there are many names for the disease caused by the nematode worm Dictyocaulus viviparous.

Infected larvae on pasture are ingested, migrate to the lungs and enter the main airways. The presence of large numbers of worms obstructing the airways causes the symptoms in affected cattle. The parasite’s lifecycle is similar to that of gut roundworms (see diagram) and most cases occur in late summer / autumn.

Parasitic Bronchitis

Cattle develop good immunity following low-level natural challenge. However, this depends on sufficient exposure to the parasite and larval levels fluctuate according to weather conditions, with higher moisture levels favouring infection. Increased reliance on anthelmintic wormers to control gut roundworms has had a major effect in reducing exposure. As a result, there has been an increase in UK outbreaks. While traditionally associated with youngstock, the disease now affects a greater proportion of older animals.

Recent figures place the cost of severe lungworm infection in dairy herds, due to lost production, at over £130 per cow.
Symptoms
Symptoms include coughing and breathing difficulties. In severe cases the disease can be fatal. Major economic losses occur through reduced weight gain and decreased milk yield.

Diagnosis
• Faecal samples can be examined for larvae, however false negatives are not uncommon. This is more likely early in disease, before adult worms are producing eggs.
• Blood samples – more useful at herd rather than individual level – can demonstrate recent exposure.
• Bulk milk samples can also be used but this should be discussed with your vet.

Control
The most effective way to control D. viviparous is to vaccinate. Two doses a month apart are required, with the second dose two weeks before first turnout. Typically it is not necessary to administer annual boosters, as natural exposure usually maintains immunity.

Care with anthelmintic use is important and ‘pulse release’ wormers are preferable to ‘sustained release’, as these will help in the stimulation of immunity to both lungworm and gut roundworms. In some herds the vaccination can be delayed until the second grazing season to avoid disease in adults, but this must be discussed with your vet.

Key Points
• Lungworms clog airways, causing coughing and production losses (a major economic consideration)
• Mainly seen in late summer / autumn in grazing cattle.
• Not just calves: now the commonest respiratory disease of adult cattle.
• Wormers provide effective treatment, but symptoms may worsen before they improve.
• Vaccination offers the most effective control.

For further information contact your local XLVets practice: