

Lungworm



Introduction

Lungworm, Husk, Parasitic Bronchitis: there are many names for the cattle disease caused by the nematode worm *Dictyocaulus viviparus*.

Infective larvae on pasture are ingested, migrate to the lungs and subsequently the mainstem bronchi: disease is caused by the presence of large numbers of worms obstructing the airways of affected cattle.

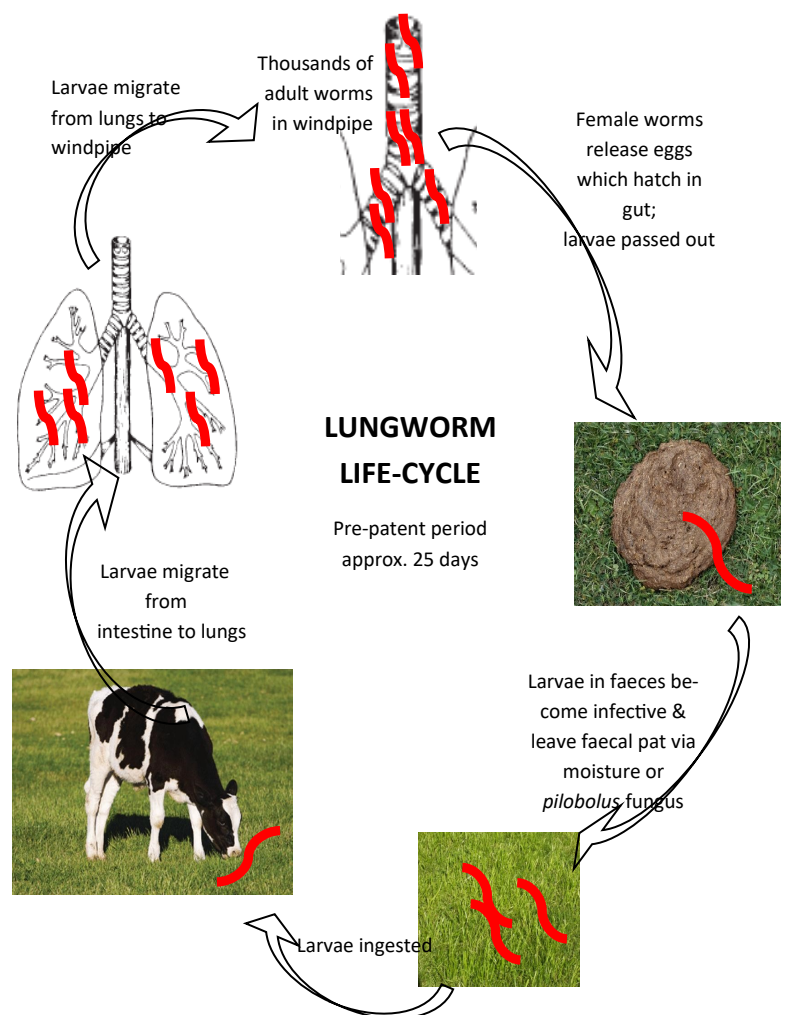
The parasite's lifecycle is similar to that of gut roundworms, as shown below. Most cases occur in late summer / autumn.

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: higher moisture levels favour infection.

More recently, increased reliance on anthelmintic wormers to control gut roundworms has also had a major effect in reducing exposure.

There has been a resultant increase in UK outbreaks, and whilst 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.



Lungworm continued

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.

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: 'pulse release' wormers are preferable to 'sustained release', as these will help in the stimulation of immunity to both lungworm and gut roundworms.



Key Points

- Lungworm 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

Treatment

All three main cattle wormer groups are effective against *D. viviparous*. However when infection is heavy, anthelmintic treatment can worsen symptoms in some animals, as the dead worms can result in an inhalation pneumonia. Levamisoles carry less risk of this, therefore are the drug of choice if withdrawal times are not critical. It is important to treat the whole group rather than just those clinically affected.

Very unwell animals should be housed, and may benefit from anti-inflammatories.