

Working towards net zero carbon emissions

# Managing parasites in beef cattle: Lungworm

## Practical Guide



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## Websites

[www.farmingforabetterclimate.org](http://www.farmingforabetterclimate.org)

See also:

[Practical Guide: 'How do we reduce emissions from beef?'](#)

[Practical Guide: Maximising growth rates](#)

[www.cattleparasites.org.uk](http://www.cattleparasites.org.uk)

[Faecal egg counts for cattle](#)



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Lungworm is a parasitic infection of the respiratory tract. It can also be known as Parasitic bronchitis, Dictyocaulosis, but more commonly as Husk or Hoose. Losses from outbreaks of lungworm are estimated in the region of £50 - £100 per head in growing cattle.

Classically, cases of lungworm are seen in summer months and early autumn but outbreaks can be unpredictable. Typically, young cattle in their first grazing season are at greatest risk of infection as are cattle entering their second grazing season with limited exposure. but there are increasing reports of cases in older cattle.

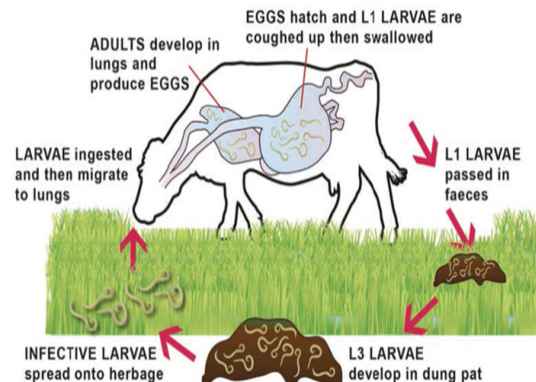
**This Practical Guide highlights the need to manage internal parasites such as lungworm in cattle**

## Lifecycle

Lungworm is caused by the nematode *Dictyocaulus viviparus* and follows a similar lifecycle to many other parasitic nematodes.

Infected cattle cough up eggs that contain the first stage larvae (L1) which are then swallowed. The L1 larvae hatch from the eggs during the passage through the digestive tract and expelled in the animal's faeces. The L1 larvae develop in the faeces over the next five to seven days given the correct environmental conditions i.e. damp and mild. The L3 stage for the larvae has now been reached.

The L3 larvae then leave the dung pat in search of herbage to attach themselves to. However, the L3 larvae can also be spread from the dung pat



**Lungworm lifecycle** Image credit: COWS Control Of Worms Sustainably ([bit.ly/3PxFaIo](http://bit.ly/3PxFaIo))

from the spores of a fungus that survives in the conditions created by the dung pat and grows on the surface of the dung. The spores can spread the larvae up to three metres. The larvae are subsequently ingested by the cattle. The larvae migrate via blood and lymph. In the lungs of the animal, they develop into adult worms after three to four weeks post infection. The adult worms lay their eggs in the lungs which the infected animal coughs up which can start the cycle again.

## Clinical signs

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In beef cattle, obvious signs of infections can include:

- Frequent and noticeable coughing
- Laboured breathing
- Weight loss
- Loss of body condition
- Reluctance to move

Symptoms can develop rapidly into more severe respiratory signs, for example stretched neck and open mouth breathing and very much relate to the number of larvae ingested. In severe cases, it can result in the death of the animal.

## Treatment

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Prevention is better than cure. If you have had cases of lungworm in the past, discuss with your vet if vaccination is appropriate in your herd. If treatment is necessary this should be done promptly. Some affected cattle may have secondary bacterial infections so check with your vet if antibacterial therapy or other supportive treatment is necessary.

Anthelmintics are effective in the treatment of lungworm. Product selection should also take into consideration any other worming requirements. Like most treatments, ensure that the right product is being used at the right time and administered at the right dosage.

## Prevention & Control

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Some practical recommendations that can be made to prevent and control lungworm are:

- Know the pasture/fields - risk assess each of the fields/pasture based on the type of stock that grazed there in the previous grazing season
- Build immunity - the most predictable method for building immunity is to vaccinate cattle before they are turned out to pasture. Exposing cattle to low levels of infection soon after vaccination will aid natural immunity
- Bought-in cattle- as well as it being good practice to quarantine newly purchased cattle, consider testing and treating all such cattle to prevent lungworm being introduced onto the holding.

## Diagnosis

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Diagnosis can be based on the clinical signs and grazing history. Usually this is sufficient for a diagnosis to be made.

However, lungworm infection can be confirmed through faecal sampling to identify the presence of the larvae.

Consider sampling the cattle that are the first to display the clinical signs as the infection in these cattle will have progressed the furthest.



**Egg containing first stage lungworm larvae (L1).**  
([www.cattleparasites.org.uk](http://www.cattleparasites.org.uk))

Treated cattle should be removed from any infected fields/pasture and if possible moved onto 'clean ground'.

More information is available on the [COWS website](#).