

# CATTLE LUNGWORM

## *Dictyocaulus viviparus*



In the past lungworm (also known as hoose or husk) was a disease of calves but nowadays we often see outbreaks in adult cattle. The disease is caused by the worm *Dictyocaulus viviparus*. Adult worms live in the animal's lungs where they produce first stage larvae which move up the windpipe, are swallowed and pass out in the faeces. These then mature on the pasture to stage three larvae, which if they are eaten mature to adults in the lungs. Climatic conditions usually result in disease being commonly (but not exclusively) seen during August and September. All cattle are at risk of lungworm until they have been exposed to lungworms and have developed immunity. It is essential that cattle keep this immunity but it can be lost if they do not receive exposure to lungworm infection each year.

### Causes of disease

**In practice outbreaks of lungworm are often unpredictable.** There are two main situations that can lead to an outbreak.

1. High lungworm challenge caused by:

- The introduction of infection into a naïve herd (cattle have not been exposed to lungworm recently)
- Naïve animals joining an infected herd
- Inadequate anthelmintic control when at pasture
- Increasing the stocking rate of the farm
- Warm, wet weather

2. Inadequate immunity to lungworm caused by:

- Failure to vaccinate (Bovilis Huskvac)
- Prolonged dry weather leading to reduced larval dispersion
- Excessive anthelmintic usage which eliminates infection completely so no immunity is stimulated. Over use of anthelmintics in 2<sup>nd</sup> grazing season replacement heifers is often implicated.

### Clinical signs

A dry cough is often the first sign then an increased rate and depth of breathing in cattle at grass. In cows the only signs may be a drop in milk yield, weight loss and occasional coughing. On rare occasions lungworm can be seen in housed cattle.

### Diagnosis

Diagnosis requires veterinary examination. Laboratory testing of faeces for larvae is useful in youngstock but not in adults which may have disease without larvae in the faeces. Accurate and fast diagnosis is important in order to provide effective treatment of affected.

### Treatment

This is with anthelmintics, however, cure is not always immediate. Cattle can take several weeks to recover and stop coughing after successful treatment. Furthermore, some individuals become significantly worse a few days after treatment as they react excessively to the dead worms – these animals need urgent veterinary attention. On rare occasions cattle can develop severe respiratory distress and, if not treated rapidly, die approximately 3-weeks after apparently successful initial treatment.

### Prevention

Every farm should have a control programme in place which not only prevents disease but allows a low level of lungworm infection to develop to stimulate immunity. Vaccination and / or strategic anthelmintic treatment are used to prevent / control lungworm disease.