

Five vital lungworm pointers as spring turnout nears

As producers prepare for spring turnout, lungworm control must be made a priority, writes University of Liverpool researcher **Catherine McLeonard**

Many unanswered questions surrounding staggering lungworm incident increases and the best practices for control led former practicing veterinarian Catherine McLeonard to pursue a PhD on the epidemiology of lungworm. Here, from her current research, she describes five factors farmers need to know before turnout.

1 INCIDENT COSTS ARE HIGH

The overall cost of an incident of lungworm per adult dairy cow is conservatively estimated at £140.

Decreases in milk production – estimated at 4kg a cow a day – takes up 50% of the costs. The other half of costs add up in laboratory fees, treatments, extra inseminations and the disposal of dead animals.

Lungworm can have knock-on effects in cow health and performance, potentially resulting in low fertility, lameness, mastitis and other secondary infections. It can also cause long-lasting production decreases due to severe irreversible lung damage.

2 LUNGWORM MORE PREVALENT

Since the mid-1990s, cases of lungworm have increased tenfold – particularly in Scotland and northern England. The disease is also no longer just a youngstock disease and is becoming more common in adult cattle.

There are two likely causes of this. The first is a change in climate, allowing northern farmers to turn cattle out longer – up to two months longer in some cases. Depending on their lungworm control methods, they may not be protected for the later part of the extended grazing season. We're also finding vets are becoming more accurate in diagnoses through increased testing.

3 FIRST INDICATORS

Coughing and rapid breathing are often seen as the first clinical signs of lungworm, but production decreases are typically the first indicator.

It can be up to a fortnight from the time cows become infected with lungworm to when they begin coughing and breathing heavily.

However, we often see milk production drop almost overnight – serving as the first signal.



Cattle are able to build immunity against lungworm if they have controlled exposure to it

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It's not common, but sudden death can also occur. Cows that have had it two to three times previously are most at risk of sudden death due to anaphylactic reactions.

4 WORM CONTROL DOWNSIDE

Long-lasting anthelmintics (also known as preventative wormers) tend to be administered as a pour-on or bolus to treat the whole herd before turnout.

They release pulses of worm control throughout the grazing period, which has the drawback of not giving cattle the parasite exposure they need to build up immunity.

We are finding that long-lasting anthelmintics are the culprits behind immunity issues.

Cattle actually have the ability to build immunity against lungworm, but to do that they must have controlled exposure to lungworm.

Since long-lasting anthelmintics only offer temporary protection against lungworm, they can lead to build-up in pastures.

Once that protection wears off or naive cattle are exposed to the pastures, producers

will be at risk for a huge lungworm outbreak.

5 VACCINATION IS ESSENTIAL

While preventive wormers have their place in practice, farmers should use them sparingly on a case-by-case basis and instead vaccinate a herd for effective long-term control.

Lungworm vaccines contain irradiated lungworm larvae that work their way into an animal's lungs in the same way lungworms would if ingested through grazing.

Because of this, cattle may even develop the signature cough temporarily when vaccinated. Since the larvae are irradiated, they can't fully develop, which allows the animal to kill it off and develop enough immunity to get them through the year.

Because vaccination success relies on lungworm exposure, preventive wormers must not be used alongside a vaccination programme.

When incorporating a vaccination programme for youngstock and adult cattle, there are many things that must be considered, so it is advisable for producers to work with their vets. ■