

Farm news

July 2025

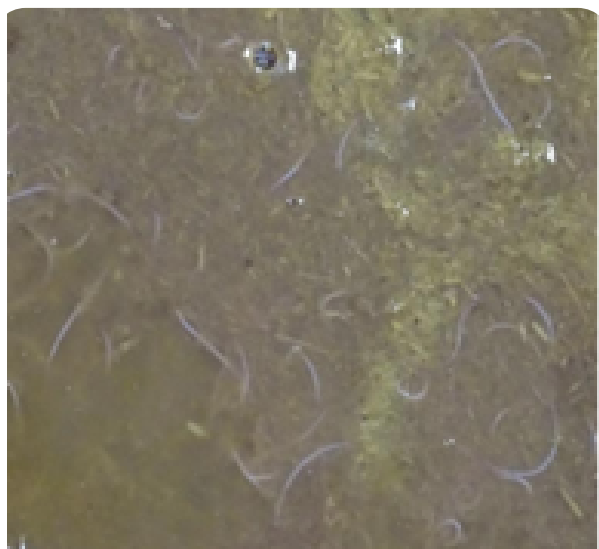
Hookworms in Cattle

Erin Beever MRCVS



In the UK, the most important gut worms in cattle tend to be *Ostertagia ostertagi* and *Cooperia oncophora*. These infections are seen in calves in their first, or sometimes second, grazing season. When we think of gut worm infections, we tend to think that housed calves aren't at risk for infections, but we've recently discovered that this may not be the case!

Last September, I went to visit one of our dairy farms to see an ill calf. While there, we got into a discussion about several calves across groups who didn't seem to be doing as well as expected. Historically on farm there had been problems with pneumonia and scour, but it wasn't clear to me that this problem was directly related to either of those. There were two calves in particular that stood out – the one that the call out was for, and a 12-month-old calf that was only 97kg. These calves were the typical ill-thrift calves that are often sick but tend to respond to treatment in the short term before falling ill again later. From a herd perspective, I wasn't sure what exactly we were dealing with, was it primarily a pneumonia problem, and if so, what pathogens were present? Did the animals have chronic gut damage from coccidia infections that were preventing them from growing? Was there a mineral deficiency? Was the rumen development adequate in the animals? Because there were so many unknowns, we decided that the best way forward would be to humanely euthanize the two animals that were most severely affected to send them for post-mortem.



Hookworms in small intestinal contents

While the main finding on the post-mortem was underdeveloped rumens, a very curious finding was that the small intestine of one of the calves was full of worms despite never having been outside to graze.

The WEC of the calf was 2450epg (with a low count being < 200epg). The worms were sent off to speciate and came back as *Bunostomum phlebotomum*, the cattle hookworm. Hookworm infections in cattle are seen in tropical regions such as Australia but aren't commonly recognised in the UK. Prior to this case, the last published evidence of *B. phlebotomum* in the UK was in 2009. However, it is important to note that most worms can't be differentiated on WECs so it is possible that *B. phlebotomum* is circulating, but we aren't catching it from our main way of diagnosing worms.

Hookworm eggs are excreted in the faeces, and in warm weather conditions (21-27°C) the larvae hatch and become infective. Calves then either ingest the larvae while grazing, or the larvae penetrate the skin, are transported to the lungs via the blood stream where they are coughed up by the calf, swallowed and end up in the small intestines. In the small intestine they suck the blood which causes signs of anaemia, scour, and ill thrift. In this case, we hypothesised that the hookworm larvae were washed into the calf shed when there was recent heavy rainfall and flooding. WECs on the rest of the groups of calves showed low infection levels (<50epg), so we theorized that animals that were ill for another reason (scour, pneumonia, etc) tend to lay down more, and therefore tend to get covered in more muck, and are more at risk for infection via the skin.

Since the case at Scarsdale, APHA has found *B. phlebotomum* on another dairy farm in replacement heifers that have never grazed. On that farm, the whole group of animals were showing signs of hookworm infection and WECs were around 1000epg. They thought that overstocking on wet, soiled bedding was contributing to the infections.

Hookworms are susceptible to most anthelmintics and while infection is likely rare, I think this case teaches us a few different lessons -

1. Post-mortems are an invaluable tool, especially when there may be multiple issues occurring at once
2. Think outside of the box. Animal agriculture and veterinary medicine are always changing, don't rule things out just because they aren't 'typical'
3. Keep your sheds clean and well bedded!



View on a microscope of a hookworm's mouth and teeth.

Photo from parasitipedia.com

Latest 'best practice' protocols aim to double down on cattle disease: An industry update from CHECS

New CHECS 'best practice' protocols to control infectious cattle disease were released on 12 June, coinciding with a step-up of pressure on tackling Bovine Viral Diarrhoea (BVD) across UK and Ireland.

Included in the latest version of the CHECS 'Technical Document' is a new way for dairy herds to indicate low risk for BVD to their buyers following the end of the BVDFree programme, and updated risk categories for Johne's Disease.

Vet James Russell, who is a CHECS board member as well as non-executive director of the Animal Health & Welfare Board for England, says CHECS disease protocols are an industry 'bedrock', and the latest update is well-timed for a number of changes taking place in 2025.

"CHECS has been accrediting and setting industry standards for infectious cattle disease control since 1999," says Mr Russell. "We're in a unique situation globally, in that standards are developed through consensus by a volunteer group of veterinary and scientific specialists under the CHECS umbrella, then adopted as a single 'best practice' across the whole of UK and Ireland."

He says that even if farmers aren't part of a CHECS-accredited cattle health scheme, the chances are the labs they send samples to are licensed with CHECS, and the vets they work with should be observing CHECS protocols.

"All this means consistency across UK and Ireland about how insidious diseases such as BVD, Infectious Bovine Rhinotracheitis and Johne's Disease should be tackled, and how the risk of herds having those diseases is communicated."



BVD persistently infected calf with ringworm due to suppressed immunity (Credit: NADIS)

The updated protocols include the new Dairy BVD Negative programme based on quarterly bulk milk testing and youngstock screening. Although it is primarily aimed at farmers who were involved in the now-defunct BVDFree England, it lands at a time when BVD is a particularly hot topic with devolved and Irish control programmes ramping up action on the disease.

Mr Russell says the reason BVD is being targeted by governments is it's extremely 'eradicable'—and there are very high returns for farmers in doing so.

"The suppressed immunity BVD causes has been calculated to cost UK farmers up to £61 million per year; that's £6.50 for every single bovine. In Ireland the cost estimate is even higher at over £13/£11 per animal.

"Yet the biggest risk with BVD remains not looking for it because it hides in plain sight, amplifying cases of pneumonia or scours, and preventing animals recovering despite treatment. Hence identifying whether BVD is the cause of other health issues in your herd is one of the most cost-beneficial steps a cattle farmer can take."

While BVD is dominating the headlines at the moment, other diseases continue to cause not just economic but emotional loss. One of the most challenging remains Johne's Disease—and a second major change in the new protocols is the introduction of an additional level of Johne's Disease Risk-Level Certification, Risk Level 1*.

This development follows several years of divergence among industry experts about how risk from Johne's Disease—which is extremely complex and difficult to control—can be accurately and consistently communicated.

As before, Risk Level 1 (R1) for Johne's Disease is awarded to low risk herds passing three consecutive annual herd tests whether on faecal matter or blood. However, R1 herds that also have no positive blood tests for more than 12 months will become Risk Level 1* (R1*), the lowest level of risk.

CHECS veterinary director Keith Cutler says the changes to CHECS's Johne's Disease risk levels are robust but very fair. "Most importantly, they will help vets and farmers more accurately gauge risk," he says.

R1* will be published on herd certificates and pen cards from 1 October 2025 onwards, with the number of years the herd has been at that level stated in brackets. For example, for a herd that has had no animal testing blood positive for four years, its classification will be R1*(4 years).

"Agreeing this change was a tough and lengthy process, but Johne's Disease is such an important and costly disease to both dairy and beef sectors, it was worth persevering," explains Mr Cutler. "If anything, the process has shown the resilience of the CHECS technical group in that its members will stand up for what they believe in, but do so for the good of those who keep cattle."

"That's why, as a practising vet, I would urge farmers to use CHECS protocols where they can. Even if you don't want to go the lengths of joining a CHECS-accredited cattle health scheme, make sure your vet is incorporating CHECS protocols into your herd health plan. It's best practice for free."

The new CHECS technical document can be downloaded from the resources pages at www.checs.co.uk.

For further information about CHECS schemes, contact Charlotte Bullock: info@checs.co.uk; or Amy Jackson: amy@oxtale.co.uk, 07917 773756.

For further information about BVD control through Defra's Pathway programme, visit <https://www.gov.uk/government/publications/animal-health-and-welfarepathway/animal-health-and-welfare-pathway>. For a summary of the wider changes to BVD control programmes across UK and Ireland, visit www.bvdplatform.org.

Farm and Equine Centre

Markeaton Lane, Markeaton, Derby DE22 4NH
01332 294929

Alfreton
01773 304900

Pride Veterinary Centre
01332 678333

Allestree
01332 554422

Shelton Lock
01332 700321

Hilton
01283 732999

Stapenhill
01283 568162

Langley Mill
01773 304914

Mickleover
01332 518585

Oakwood
01332 666500