



# ARDENE HOUSE

VET PRACTICE LTD

Farm Newsletter  
August 2020

Tel: 01224 740700



## Everyone is back!

Ardene House is back 100% with all staff now back from furlough, so familiar faces can be found in all departments!

This includes Lyn in the farm office, who is also our recently qualified SQP. This means that, even if all our vets are busy, Lyn is able to directly assist our clients with advice on worming programmes and prescription of wormers, flukicides, and products for skin parasites.

## Newsletter updates

As you may have noticed this year, we now have two different looking newsletters alternating each month. The newsletters such as this one are our newsletters developed by the vets at Ardene House for Ardene House farm clients. The others are developed by our parent company IVC for all IVC farm clients across the UK.

We will begin sending out all of these monthly newsletters by email as well as by post with invoices. This is to ensure all of our clients can be kept up to date with news and articles from us, and it allows the ability to directly click on links to resources and further information on each topic.

If you would like to provide an update to our email list, or if you would like to opt out of emailed newsletters, please let us know by phone or email to [farmandequine@ardenehouse.co.uk](mailto:farmandequine@ardenehouse.co.uk) at any time.

## PSGHS Testing update

PSGHS has announced the catch-up period for flocks participating in the MV/CAE accreditation scheme that missed their testing earlier this year due to COVID delays.



This official 3-month catch up for missed tests is to start from 1st September 2020 and finish on 30th November 2020.

Please contact us to book a visit when it is best to obtain these samples for your flock.

## In this issue:

- Staffing update
- Newsletter update
- PSGHS MV/EAE testing update
- Endoparasites
- Flock Health Club and Cattle Parasite Package

If you would like to opt out of receiving our newsletters by email please send an email to [farmandequine@ardenehouse.co.uk](mailto:farmandequine@ardenehouse.co.uk)

You can find previous newsletters on our website [www.ardenehouse.co.uk](http://www.ardenehouse.co.uk)

**24 Hour  
Emergency Service  
01224 740700**

# Endoparasites: How to minimize cost of wormers while maximizing their effect

**Endoparasites are parasites that** live inside the body of an animal. They are an inevitable part of farm life, small numbers of which can coexist with animals with no problems. However, larger numbers of parasites infecting an animal can cause disease that varies from a minor decrease in liveweight gains, to diarrhoea and a significant loss of condition, to even death. Understanding how to efficiently control these complex parasites is a key part of managing cattle and sheep.

## Types of worms

There are 2 main types of worms that affect both sheep and cattle here in the North East of Scotland: Roundworms (which include several different species) and liver fluke. Another important endoparasite for cattle is lungworm.

### Roundworms: Gut Worms



Roundworms, also called nematodes, are a large group of endoparasites made up of several different species. It is a various combination of these species that infect the gastrointestinal tract of cattle and sheep and can cause diarrhoea, poor weight gains in growing animals, and loss of condition in adults. Heavy burdens of these

parasites in adults can also affect fertility, and in severe cases particularly in

youngstock, can result in death.

<https://www.cattleparasites.org.uk/gut-and-lung-worms/>

### Roundworms: Lungworm (*Dictyocaulus viviparus*)

Lungworms are a type of roundworm that, once ingested, migrate from the intestines through the body into the lungs. Once in the lungs, the worms can cause a parasitic pneumonia. The damage caused by the worms also open up the lungs to a secondary infection causing bacterial pneumonia.



<https://www.nadis.org.uk/disease-a-z/cattle/pge-lungworm-in-cattle/>

The most common sign of parasitic pneumonia is a cough in a group of young animals turned out to grass. Once the animals have been exposed, they typically develop an immunity that protects them in future grazing seasons. Therefore, disease is most common in youngstock on grass for their first full grazing season (autumn calves' first summer, or spring calves' second summer.)

## Risk periods: When endoparasites cause disease

While diseases caused by these parasites all begin by them being eaten on grass during summer grazing, they cause disease at different times of the year depending on their life cycle. Understanding when these risk periods occur is key to identifying when is best to treat the animals to minimize the risk of the animals suffering ill effects from the parasites.

### Risk period for gut worms

Roundworms can cause disease at any time while out at grazing. There is increased risk later in the grazing season particularly for the lambs and calves, because as they begin grazing more, the more eggs they are likely to ingest.

### Risk period for lungworm

Once lungworm is ingested from the field and migrate from the intestines to the lungs, it may be anywhere from 8 days to 60 days after initial infection for disease to become apparent.

Therefore, the risk period for disease from lungworm is typically late summer and early autumn, however there is still risk of cattle developing disease up to 2 months after being brought inside for the autumn/winter.

### Liver fluke (*Fasciola hepatica*)

Liver fluke is a type of flatworm parasite that has a particularly unique and complex life cycle: Ingestion of the eggs does not cause disease in cattle and sheep, but rather mud snails must ingest the eggs first. Then the eggs hatch and develop into infective larvae in the snail, which can then infect cattle and sheep when eaten.

Once the infective larvae are ingested, the larvae migrate from the intestines into the liver. Once settled in the liver, the larvae then grow into adults and begin laying eggs which are then excreted in faeces onto the fields.

There are 2 ways liver fluke can cause disease: Acute, or chronic. Acute disease is caused by a large number of larvae causing enough damage to the liver when they initially migrate into it, that the liver ceases to function. This results in the animal becoming extremely ill and likely dying. This is more common in sheep than cattle.

Chronic disease is when the liver can still function after the initial wave of larvae, however the damage from the adult fluke scars the liver and significantly reduces the function of the liver. This causes more insidious disease such as diarrhoea, weight loss, poor fertility, and eventually death.



<https://www.scops.org.uk/internal-parasites/liver-fluke/lifecycle/>

### Risk period for liver fluke

Because liver fluke relies on the mud snail for its life cycle, the risk is dependent heavily on conditions for the snail. Wet summers creating muddy patches on fields, or fields with burns or rivers, create ideal conditions for the snail and thus increases the risk of liver fluke infecting in the livestock.

Acute disease is most common in late summer/early autumn when the cattle and sheep are first infected. However, since chronic disease is caused by the adult fluke which can take up to 12 weeks to develop, chronic disease can begin to show as late as mid-winter or even into early spring, after the animals have been housed for 3 or more months.

# Endoparasites: Getting the most from treatment

## Testing to maximize efficacy of treatment for endoparasites

As many farmers are well aware of, these endoparasites are an unavoidable part of keeping cattle and sheep. There are several different kinds of anthelmintics on the market that are used to treat these endoparasites: Some that only treat roundworms and lungworm (also known as *wormers*), some that treat only fluke (also known as *flukicides*), and some that contain both a wormer and a flukicide in a single treatment.

What is important to note, particularly for flukicides, is that different anthelmintics are effective against different ages of the endoparasites. This can allow us to target treatment based on the time of year: For example, the drug nitroxynil will treat adult fluke as well as immature fluke 6 weeks of age and older, while the drug clorsulon only treats adult fluke; If the cattle or sheep have been inside for 6 weeks, all of the fluke in their system will be at least 6 weeks old, and a flukicide with nitroxynil will be most effective.

It is best to use these anthelmintics as little as possible while gaining the maximum benefit, because not only does this reduce the cost to the farm each year in treatments, but it also will minimize the risk of creating endoparasites resistant to these treatments. In order to do this, we can test the cattle using their blood and faeces.



### Gut Worms: Faecal worm egg count (FWEC)

A faecal worm egg count is when the faeces is specially prepared and then looked at under a microscope. This allows us to see eggs from roundworms. A small number is not unusual to find in perfectly healthy animals, however large numbers may be a sign of clinical disease. This method can also detect the presence of the specific roundworm called nematodirus in lambs, as well as coccidia, which is a different kind of endoparasite that can cause disease in young calves/lambs.

### Lungworm: Baermann faecal test

Lungworm eggs are not able to be specifically identified using the faecal worm egg count method. Instead, lungworm larvae are detected using a Baermann faecal test, where the faeces is prepared for 24 hours and then checked under the microscope for the presence of larvae. In this case, a negative result cannot guarantee there are no lungworms in the herd, however a positive test does confirm its presence in the herd.

### Liver fluke: Blood testing

When an animal is exposed to a disease for the first time, this can stimulate the immune system to produce antibodies. The lab is able to detect such antibodies for liver fluke as soon as 2-4 weeks after animals are exposed for the first time. This method is only effective in animals never before exposed to fluke, as it is possible for the antibodies to be detectable from one grazing season to the next. Therefore we only use this test for calves and lambs at the end of their first summer.

Because these antibodies are formed so quickly after exposure, by testing the youngstock we are able to identify what time of year the cattle are exposed to fluke. Ideally this test is performed once a month from August to January, however due to practical constraints of handling, one test in August/September time and another in November/December time can still be beneficial for identifying when exactly it will be best to treat the flock or herd and which kind of flukicide to use.

### Faecal sedimentation test

Another method for identifying liver fluke is by checking for the presence of eggs in the faeces using a faecal sedimentation test. As liver fluke may not begin laying eggs up until 12 weeks old, this method only detects the presence of adult liver fluke. Therefore, it is most likely to find adult fluke after the animals are indoors, and thus no longer becoming newly infected, for longer than 12 weeks. By doing this test before turnout at spring, this allows for deciding if the animals need treatment with a flukicide before being turned out after calving/lambing. Similar to the lungworm Baermann test, a negative result cannot guarantee there are no lungworms in the herd, however a positive test does indicate its presence in the herd.

In order to help maximize your herd and/or flock health, Ardene House has developed a Flock Health Club for your sheep and a Cattle Parasite Package for your cattle, which comes with faecal sampling and blood testing to identify what time of year and with which anthelmintic is best to treat your animals for endoparasites. For a single annual fee, your flock or herd will get blood testing for early detection of liver fluke (lab fee not included), and faecal testing for gut worms and lungworms. We will send you reminders when it is the time of year for the next step of testing. A free health plan is also included, as well as the blood sample fee for trace minerals and subsidized EAE/toxoplasmosis testing for Flock Health Club members.

A summary of the testing included in these packages as well as a calendar summary of the best time of year to do the different tests can be found on the following page.

# Endoparasites: Ardene House packages

## Sheep Flock Health Club 2020-2021

**Aug/Sept 2020:** Blood sample No.1 from 5 lambs for liver fluke antibodies (lab fee not included), pooled faecal worm egg count from 5 lambs for gut worms. Blood samples can also be taken for trace mineral analysis in the lambs.

**Nov/Dec 2020:** Blood sample No.2 from 5 lambs for liver fluke antibodies (lab fee not included), pooled faecal worm egg count from 5 lambs for gut worms

**Before Spring turnout 2021:** Pooled faecal sedimentation from any 10 sheep >1yr old for liver fluke eggs. Blood samples can also be taken at this time for trace mineral analysis in the ewes.

For a single fee of £80, membership in the Flock Health Club also comes with a **free health plan**, and blood sampling for **subsidized EAE/**

**Toxoplasmosis testing.** A value of over £130!



## Cattle Parasite Package 2020-2021

**Aug/Sept 2020:** Blood sample No.1 from 5 calves for liver fluke antibodies (lab fee not included), pooled faecal worm egg count from 10 calves for gut worms and 5 calves for Baermann for lungworm



**Nov/Dec 2020:** Blood sample No.2 from 5 calves for liver fluke antibodies (lab fee not included), pooled faecal worm egg count from 10 calves for gut worms and 5 calves for Baermann for lungworm. This visit can be combined with the annual BVD check test visit.

**Before Spring turnout 2021:** Pooled faecal sedimentation

from any 10 cattle >1yr old for liver fluke eggs.

For a single fee of £120, purchase of the Cattle Parasite Package also comes with a **free health plan**. A value of over £220!

### Flock Health Club Calendar

	Fluke Testing	Faecal worm egg count	Trace mineral blood test	EAE and toxoplasmosis blood test
Jan				
Feb				✓ 1-3 months post-lambing
Mar				
Apr	✓ Faecal test		✓ Ewes	
May				
June				
July				
Aug	✓ Blood test	✓	✓ Lambs	
Sept				
Oct				
Nov	✓ Blood test	✓		
Dec				

### Cattle Parasite Pack Calendar

	Fluke Testing	Faecal worm egg count	Baermann (lungworm)
Jan			
Feb			
Mar			
Apr	✓ Faecal test		
May			
June			
July			
Aug	✓ Blood test	✓	✓
Sept			
Oct			
Nov	✓ Blood test	✓	✓
Dec			

*If you have any questions about endoparasites in your herd or flock, or would like to register for the Flock Health Club or Cattle Parasite Package, contact the farm office at 01224 740700 or speak with one of our farm vets.*