

Fluke - when and how to treat to reduce impact on your livestock



Climate change has led to an increase in habitat for the host (mud snails) in which the fluke reproduce, and resistance to the most important liver fluke treatment has been recorded in some areas. This guide will help you understand more about the impact liver fluke can have and how you can control it in your stock.

Acute infection usually occurs in the autumn when the sheep encounter a huge number of liver fluke on the pasture at the same time. As these fluke migrate through the sheep's intestine into the liver they cause massive damage to the tissues, and these animals may die suddenly due to

Chronic infection occurs when adult liver fluke are living in the bile ducts, sometimes with younger fluke still migrating through the liver. The liver is often affected by scarring and the animals may be scouring, thin and at risk of other diseases. Often fertility can be negatively affected, and lactating animals with liver fluke burdens will produce less milk.

How to tell if your stock have a fluke burden?

There are several methods—none of which are expensive, listed in the table below.

Detecting infection early in the course of disease allows treatment to be given before there are eggs to contaminate the pasture, and hopefully before the fluke have the chance to inflict long term damage on the liver.

Signs	Animals with a heavy or longstanding liver fluke burden may exhibit bottlejaw. This sign should prompt further testing before treatment, as it is not specific to fluke and could be caused by other diseases.
Testing dung for eggs	This is an economical way to determine whether infection is present in winter or spring. However, negative results are expected from animals in which the fluke are immature. For this reason, dung sampling is of limited value in late summer and autumn, when the fluke present are not old enough to be shedding eggs yet.
Testing dung for coproantigen	This substance is released by liver fluke as they feed. The test shows the presence of liver fluke at a slightly earlier stage of infection than testing dung for eggs.
Blood testing	Blood sampling a few animals to detect antibody to the liver fluke is a good way to tell when animals are being exposed to fluke, but is only suitable in their first grazing season.
Postmortem examination	Acutely affected animals may simply present as sudden deaths, from severe bleeding and liver damage. Postmortem examination is an instant way to confirm the diagnosis, and is recommended when unexplained deaths occur.
Abattoir feedback	The abattoir can let you know if livers are condemned.

Treatment choices

Drug	Age of fluke in weeks													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Oxyclozanide										50-70%		80-99%		
Albendazole										50-70%		80-99%		
Clorsulon (Inj)										50-70%		80-99%		
Nitroxylinil							50-90%			91-99%				
Closantel							50-90%			91-99%				
Triclabendazole		90-99%		99-100%										

Fairweather and Boray 1999

The chart shows that flukicides fall into two broad groups – those which are **effective mostly against adult liver fluke** (adulticide flukicides) and one treatment (triclabendazole, yellow bar) which is **effective against all ages of liver fluke** including immature ones. Check product names at www.SCOPS.org.uk



In the autumn, when the liver fluke are young, the adulticide flukicides will not be effective because the fluke are too young to be killed.

Only triclabendazole will be effective, making it a vital product for fluke control. It is important to preserve this product for the future, so its use must be avoided at other times of the year, when the adulticide products will work just as well.

If in doubt ask your vet what they recommend.

Timing of treatment

It is tempting to set a date in the calendar for routine liver fluke treatment, but because the fluke relies on climate to determine when its lifecycle progresses, there may be variation in the timing of high risk periods from year to year. Put simply, wetter weather means higher fluke risk, because the mud snails have a wider range of habitat. Dry summers can mean the fluke risk peaks later in the year, so the treatment date may need to be adjusted.

Using resources such as the NADIS fluke forecast and discussing testing and timing of treatment with your vet are important to make sure you get the best results from any dosing.

<https://www.nadis.org.uk/parasite-forecast.aspx>

How to prevent resistance

Purchasing sheep presents a risk of introducing triclabendazole resistance into your own flock.



To help prevent this, you can use one of the adulticide drugs such as closantel or nitroxylinil on arrival, while the animals are in quarantine. You should repeat this treatment after six weeks (if using closantel) or 7-8 weeks (if using nitroxylinil), and then continue to quarantine the new stock for a further three weeks before they join the main flock.

For further information head to ww.fas.scot

or contact us on 0300 323 0161.