

Working towards net zero carbon emissions

Managing parasites in beef cattle: Liver fluke

Practical Guide



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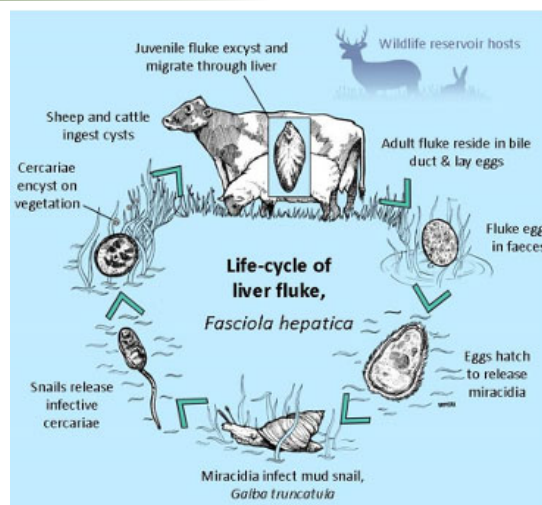
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This Practical Guide highlights the need to manage internal parasites such as liver fluke in cattle

Lifecycle

Liver fluke lives in the liver of infected animals and has a complex life cycle. It requires a mud snail to act as an intermediate host. The mud snail thrives in damp and mild conditions. Fluke also need mild conditions to aid their development.

The cycle begins with liver fluke eggs being shed by infected cattle onto the pasture. Given the correct conditions (damp and mild), the eggs develop then hatch, releasing larvae (miracidia). The larvae then have to find a mud snail to further develop and replicate. Once developed, the infected larvae (cercaria) break out from the snail and attach themselves to the nearest solid object they can find, which is usually grass or other vegetation. When attached to the grass or other vegetation, cercaria encase



The life-cycle of the liver fluke, *Fasciola hepatica*. ©Moredun Research Institute. bit.ly/45EKgbn

themselves in a protective layer and this is when they become the cyst stage of the lifecycle.

Grazing cattle will ingest these cysts. Once ingested, the cysts hatch in the rumen and then burrow their way through the gut to the liver and bile ducts where they can then shed eggs into the digestive system, causing the cycle to start all over again.

This same fluke can also infect sheep.

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Websites

www.farmingforabetterclimate.org

See also:

[Practical Guide: 'How do we reduce emissions from beef?'](#)

[Practical Guide: Maximising growth rates](#)

www.cattleparasites.org.uk

[Faecal egg counts for cattle](#)

Technical Note (TN677) [Fluke treatment and control](#)



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Clinical signs

In beef cattle, obvious signs of infection would include:

- Weight loss
- Loss of body condition
- Anaemia
- Oedema under the jaw

In cow - calf systems, the milk yield of the cows can be reduced which in turn can reduce the growth of the suckling calf.

With such symptoms there are both profitability and carbon emission improvements to be made with efficient and effective management.

Diagnosis

Diagnosis can be made using faecal egg counts or blood antibody tests.

Diagnostic tests should be used to determine if treatment is necessary. If treatments are used faecal samples should be taken two weeks after dosing to check that they have been effective. See [Technical note TN677](#) for further information.

A Coproantigen ELISA test can be used to determine if there is active infection with late immature or adult liver flukes. This test can diagnose infection two to three weeks before fluke eggs can be detected in the faeces.

Prevention & Control

Some practical recommendations that can be made to prevent and control liver fluke are:

- Know the risk areas of the farm - think about creating a map highlighting areas known to be of high risk potential.
- Fence off high risk areas - this will prevent the cattle from entering such areas.
- Prevent leakages around water troughs to avoid creating muddy conditions as they will create the perfect habitat for the mud snail, even if temporary.
- Quarantine treatment for recently purchased cattle - as well as it being good practice to quarantine recently purchased cattle, testing and then treating these cattle for liver fluke is recommended to prevent it entering the main herd.

Farming for a Better Climate (FFBC) is funded by Scottish Government and delivered by SAC Consulting. Keep up to date with the project via our webpages at www.farmingforabetterclimate or on social media on Facebook and Twitter [@SACfarm4climate](#)

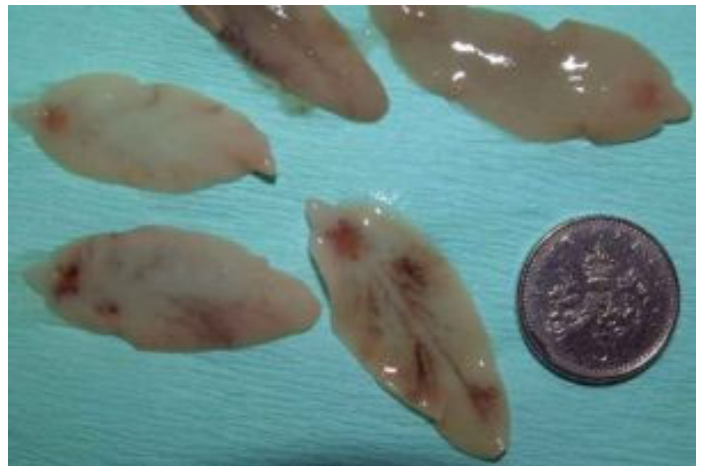
Treatment

To determine if treatment is necessary, diagnostic tests should be carried out. The timing of treatment should relate to the date of housing and the product that is chosen.

All flukicides will be effective against adult fluke. However the effectiveness against the immature stages of the fluke are variable. Options should be discussed with your vet, RAMA or SQP.

When treatment is necessary, always dose according to the data sheet and dose accurately for effective treatment. The weight of the cattle should be known for this to happen. Ensure that the product used is in date and has been stored correctly. Check that dosing equipment is correctly calibrated.

More information is available on the [COWS website](#).



The adult liver fluke can be larger than the size of a five pence piece .