WESTGATE LABS
WORMING FACT SHEETS

LIVER FLUKE

Fasciola hepatica

LIVER FLUKE IN HORSES

Liver Fluke (Fasciola hepatica) is a flat, leaf-like parasite found in the liver of grazing animals, most commonly sheep and cattle, where it can have a devastating impact on livestock health. The adult, which is usually about 2- 3cm long, has tiny sharp spines that irritate the bile ducts and cause damage to the liver tissue.

Temperature and moisture levels in the current and previous year have a major impact on fluke populations with animals kept in wetter, warmer locations being much more at risk, particularly those grazed in marshy or boggy fields. This is because the parasite relies on a small mudsnail as its intermediate host and these thrive on waterlogged, reedy pasture.

The disease is on the increase in many parts of the UK due to changes in weather patterns. While little is known about fluke infection in horses they appear to be somewhat more resiliant to them than cattle and sheep. Conversely detection is also more difficult.

Symptoms

Liver fluke infection in horses can be associated with general signs of ill thrift such as poor performance or growth rates in youngsters, weight loss, inappetence, colic and anaemia (due to fluke feeding on the blood of the animal). A tendency to a dry coat and mild jaundice can also be a feature. Signs consistent with liver disease appear in more advanced cases, the most obvious of these are oedema (swelling under the chin, on the chest or on the bottom of the abdomen) and severe weight loss as well as chronic diarrhoea that is watery and/or dark in appearance.

The severity of disease seen depends on the numbers of infective cysts ingested and the time period over which they are ingested. More extreme signs (including death) found with liver fluke infestation in cattle and sheep are rare in horses.

Detecting Liver Fluke

A worm egg count is the most common way to check for the presence of fluke eggs using a different solution to ensure flotation of the heavier eggs of the fluke, using a composite dung sample taken over a three day schedule.

P.T.O.

TREATMENT OF LIVER FLUKE

There are no drugs for liver fluke currently approved for use in horses. If treatment is advised Triclabendazole, a member of the benzimidazole family of anthelmintics, is one of the most effective treatments but this medication must be prescribed off licence by a vet. It should be noted that some drugs used to treat fluke in cattle and sheep can be toxic for horses.

Left:
A Liver Fluke egg under the microscope

Far left:
Reedy pasture associated with fluke risk

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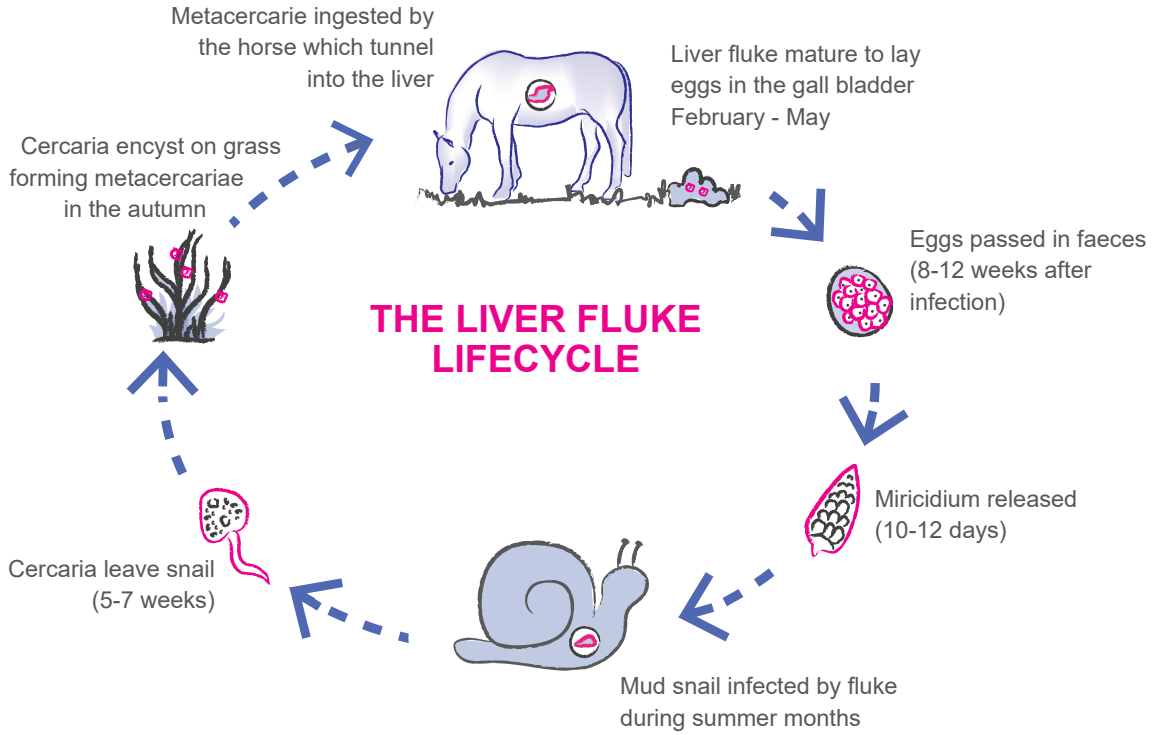

Unlike sheep and cattle, infected horses do not excrete fluke eggs in their faeces as reliably. For this reason a liver fluke test requires three separate faecal samples taken on three consecutive days to give the best chance of detection, refrigerating the first two samples before posting to the lab on the third day to give the best possible chance of detection.

Liver Fluke Sampling Instructions

Due to its complex life cycle a worm egg count test for liver fluke is best carried out between February and May to pick up adult, egg laying stages of the parasite.

1. Use the glove to pick about five small pinches from different places of a fresh dung pile.
2. Press the dung into the sample container, filling it to the top to exclude air.
3. Label the sample with the horse's name and date the sample was taken. Please write in ball point pen as water based inks may wash off. Refrigerate the sample.
4. Repeat steps 1 to 3 twice more on consecutive days until you have collected three samples in total per horse.
5. Put the containers into the plastic bag. Do not put any paperwork in with it.
6. Put samples, paperwork with payment or voucher into post-paid return bag. Pop it in the post box.
7. Test results will be returned to you on day of testing usually by email or SMS.

Even when adult egg-producing fluke are present the egg production itself can be intermittent. For this reason a negative test for fluke eggs does not mean the horse is clear. Despite this a worm egg count for liver fluke following the veterinary advised schedule is still considered a useful tool.

If there is a history of cattle and sheep in the same area being affected by fluke it would be assumed that co-grazing horses will have some degree of infestation.

Alternatively the University of Liverpool has developed an ELISA test to detect antibodies against liver fluke and indicate a current or recent infection.

Management

The Liver fluke has a complicated two host life cycle involving the water snail Lymnea truncatula, in which the larval stages develop and multiply. Successful disease reduction in sheep and cattle is seen by limiting access to waterlogged, marshy areas of grazing, either by fencing or draining of land.

THINK: liver fluke in equines on wet, reedy land, particulary where they are cross grazed with sheep or cattle.

Worming Questions? Please contact our friendly team of SQPs for free veterinary approved advice.

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