



LIVER FLUKE IN CATTLE

INTRODUCTION

The liver fluke parasite (*Fasciola hepatica*) burrows through the liver of cattle and sheep causing permanent damage. Liver fluke need to complete part of their lifecycle in snails that live in wet areas of fields, which is why some pastures are described as 'flukey'. Stock on flukey pastures should be regularly treated with a flukicide to minimise liver damage and loss of performance.

The fluke lifecycle

Cattle ingest fluke cysts from the pasture which hatch in the cattle's intestine and the immature fluke burrow through the gut wall and migrate to the liver. In the liver and bile ducts the immature fluke develop into adults, this is when all the damage is done. The immature fluke eat liver tissue and the adults sit in the bile ducts drinking blood and causing irritation. Adult fluke produce eggs which are then passed out onto the pasture in the cow's faeces. Snails are infected with the fluke eggs and they start their development to begin the cycle again.

Liver fluke damage

Chronic fluke – slowly develops due to long term presence of fluke in the bile ducts.

Acute fluke – occurs 5-6 weeks after cattle ingest fluke eggs. (RARE in cattle)

CLINICAL SIGNS

- Decreased growth rate and weight loss
- Swelling under the jaw
- Anaemia (very pale gums)
- Scour

The liver is the organ that converts food into energy. Liver fluke damage to the liver results in a reduced ability to convert food into usable energy leading to reduced milk yields, low butterfat and decreased growth rates. Fluke infections can also bring on other diseases such as Black's Disease (Clostridia) and Salmonella.



DIAGNOSIS

Several different diagnostic tests can be done to screen your farm for fluke problems:

- **Blood sampling**
- **Bulk milk serology**
- **Faecal egg samples**
- **Abattoir reports from condemned livers**

TREATMENT

Drenches and injections of flukicides are treatments for fluke. There are also some combination wormers that kill adult fluke. Different flukicides kill different stages of the fluke lifecycle, so please ask your vet which is most suitable for your stock. Some farms may have resistance to triclabendazole.

PREVENTION

1. Using flukicides twice a year will decrease adult fluke and eggs in your stock. Dairy farmers should contact their vet to discuss options; as most flukicides are not licensed for dairy cattle.
2. Control of snail hosts by fencing off their habitat is also useful.

Table of different flukicides

ACTIVE INGREDIENT	PRODUCT NAME	STAGE OF LIFECYCLE THAT IT KILLS
Albendazole	Ovispec	Adults only
Closantel	Flukiver, Closamectin	Adults and some immature
Triclabendazole	Fasinex, Combinex, Tribex	Adults and all immature fluke
Nitroxynil	Trodax	Adults and immature
Oxyclozanide	Douvistome	Adults only

KEY POINTS

Fluke damage the liver

Decreased growth rates and weight loss are the most common symptoms

Pale gums and swelling under the jaw also occur

Regular fluke treatment is essential on flukey farms

Not all flukicides kill immature fluke and some farms may have developed resistance

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