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Liver Fluke Newsletter

The liver fluke parasite requires a mud snail to complete its lifecycle. Wetter and milder climate trends have led to a dramatic increase in mud snail habitats and numbers; resulting in large increases in liver fluke disease in recent years, especially in lowland areas.

We advise people to remain vigilant for signs of liver fluke, even if it has not been a problem in the past:

Signs of Liver Fluke Infection

Liver fluke attacks and causes disease in the liver of animals. Clinical signs depend on the time of year and how quickly/severely infection occurs:

Autumn Time

Immature liver fluke begin infecting animals. If the infection rate is high then signs of **acute liver fluke disease** will occur → Colic / Jaundice / Anaemia / Sudden death

Winter Time

If infection rate during Autumn was slow and mild then animals may not develop signs of disease until Winter-time, once the liver fluke have achieved adulthood. In this case signs of **chronic liver fluke disease** will occur → Weight loss / Diarrhoea / Poor performance / Bottlejaw

Diagnosis

Autumn-time = Clinical signs / Blood (or milk) sample for liver fluke antibodies / Coproantigen testing of individual faecal samples (*tests for the presence of liver fluke proteins in faeces*).

Winter-time = Clinical signs / Faecal sample to look for fluke eggs / Coproantigen ELISA on individual faecal samples.

Unlike the situation with worms, cattle and sheep do not develop very good immunity against liver fluke and are therefore always susceptible to liver fluke infection even as adult animals.

Herds/flocks with a known liver fluke problem require strategic grazing strategies around autumn/winter time to reduce the risk of fluke infection: If possible avoid grazing high-risk wet lowland fields during autumn time and fence off boggy areas / streams in fields.

Strategic treatments with specific flukicides may be required during autumn/winter to reduce liver fluke challenge:

Table 7.2 Efficacy of flukicides available for use in sheep in the UK against susceptible fluke populations (adapted from Fairweather and Boray, 1999).

Flukicide	Age of fluke (weeks)													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Albendazole										50 - 70%		80 - 99%		
Oxyclozanide														
Nitroxylin								50 - 90%				91 - 99%		
Closantel														
Triclabendazole (TCB)		90 - 99%								99 - 99.9%				

Triclabendazole ('Fasinex') is the only flukicide capable of killing **immature fluke**. Its use must be strictly reserved for treating known/diagnosed fluke infections during Autumn-time, when immature fluke are responsible for disease. Overuse of Triclabendazole in other parts of the UK has rapidly led to the development of resistant liver fluke!

Chronic fluke infections during Winter-time, when **adult fluke** are predominantly responsible for disease, should be treated with alternative flukicides like Nitroxylin ('Trodox') or Closantel ('Flukiver' – *sheep only*).

For milder/sub-clinical fluke infections an effective strategy can be to treat animals following winter housing: Depending on risk level either Triclabendazole ('Fasinex') can be given **two weeks** after housing or Nitroxylin ('Trodox') / Closantel ('Flukiver') can be given **six to eight weeks** after housing.

Unfortunately there are many **combined** worm and fluke treatments on the market, e.g. Closamectin / Cydectin Triclamox / Fasimec Duo / Supaverm. It is uncommon that both worms and fluke require treatment at the same time of year, although there may be occasions during Autumn when combined treatment is indicated in lambs/calves. Unless tests confirm that combined treatment is necessary please endeavour to use **targeted products**; i.e. flukicides for fluke treatment, wormers for worming.

Please contact us to discuss liver fluke control and treatment options for your farm.