



Fig 5: In severe chronic infestations, dairy cows give a reduced milk yield and have poor fertility.



Fig 6: In severe chronic infestations, dairy cows lose excessive weight and have chronic diarrhoea.

Beef cows

The clinical signs are similar to those encountered in dairy cows but can be especially severe in spring-calving beef cows where liver fluke exacerbates the metabolic demands of advanced pregnancy in cattle on marginal winter rations. This results in the birth of weakly calves to cows with little milk, causing high perinatal losses. Severely affected cows may become debilitated with an increased incidence of metabolic and infectious diseases at calving.



Fig 7: Emaciated spring-calving beef cow with chronic fluke.

Twin-bearing cows show the most severe signs due to the high demands of two foetuses. Unlike infestation in sheep, peripheral oedema is a less common finding with chronic fasciolosis in cattle. Severe infections may cause anaemia.

Bulls

Infested bulls show similar clinical signs as cows such as chronic weight loss and diarrhoea.



Fig 8: Diarrhoea and early weight loss in a Limousin bull with liver fluke.

Fattening cattle

UK slaughter plants are reporting increasing numbers of liver condemnations due to fluke damage in 12 to 18 month-old fattening cattle where reduced liveweight gains were not suspected by producers presumably due to low-moderate infestation levels.



Fig 9: UK slaughter plants are reporting to farmers increasing numbers of liver condemnations due to fluke damage in fattening cattle. (Note the mud to the knees on these cattle grazing wet areas)

Diagnosis

Weight loss and chronic diarrhoea in individual cattle will also be investigated by your veterinary surgeon for paratuberculosis and salmonellosis. Chronic liver fluke and paratuberculosis have been reported in the same animal. Other causes of chronic weight loss in adult beef cows could include other bacterial causes such as pyelonephritis, vegetative endocarditis, chronic mastitis, and chronic suppurative pneumonia.



Fig 10: Weight loss and chronic diarrhoea in individual cattle will be investigated by your veterinary surgeon.



Fig 11: Your veterinary surgeon may check for paratuberculosis and salmonellosis as well as chronic fluke.



Fig 12: Chronic weight loss in adult beef cows could be caused by other diseases such as pyelonephritis.



Fig 13: Your veterinary surgeon may also check for other causes such as vegetative endocarditis, chronic mastitis, and chronic suppurative pneumonia.

Inadequate nutrition generally presents as a whole group/herd problem of poor production and weight loss during the late winter months in beef herds with diarrhoea an uncommon finding unless poor quality silage is fed.

Chronic fasciolosis is diagnosed by demonstration of fluke eggs in faecal samples. Although fewer eggs are seen than in sheep, recent investigations have reported higher counts than generally expected from cattle. The sensitivity of egg counts in heavy fluke infestations is around 50 per cent so several samples from your herd will be examined by your veterinary surgeon.

There is a specific liver fluke blood and milk test with sensitivity and specificity values above 90 per cent but this test is expensive and may indicate prior exposure as well as active infection.

Treatment

Triclabendazole is effective at killing all stages of triclabendazole-susceptible flukes from two weeks old. Cattle may be slaughtered for human consumption only after 56 days from last treatment. Do not administer to cows producing milk for human consumption. Intensive use or misuse of preparations such as triclabendazole can give rise to drug resistance with reduced efficacy of the preparation.

Nitroxylin is licensed for the treatment of fascioliasis (infestation of mature and immature *Fasciola hepatica*). The interval between nitroxylin treatments must not be less than 60 days. Cattle may be slaughtered for human consumption only after 60 days from last treatment. Do not use in cattle producing milk for human consumption.

Clorsulon is effective against adult flukes. Advice for dosing as for nitroxylin.

Cattle may be slaughtered for human consumption only after 66 days from last treatment. Do not administer to cows producing milk for human consumption nor dairy cattle including heifers within 60 days of calving.

