

LIVER FLUKE

KEY MESSAGES

1. Liver fluke costs the cattle industry tens of millions of dollars every year.
2. Losses occur on farm due to lower growth rates in young cattle and occasionally deaths.
3. Losses at the abattoirs are due to condemnation of affected livers.

What is liver fluke?

Liver fluke is a large flat worm parasite that infects sheep and cattle in 'flukey' areas throughout the higher rainfall areas (>600mm) and irrigated areas of south eastern Australia. Liver flukes require permanent water and specific snails for the life cycle to occur.

Disease on-farm

Liver fluke have a complex life cycle that requires a definitive host (usually sheep or cattle), specific freshwater snails and permanent water to maintain the snails. Cattle become infected when they ingest fluke larvae on pasture. The immature flukes leave the gut and migrate through the liver for 6-7 weeks causing damage and subsequent scarring. At about 8-10 weeks after ingestion the now fully mature adult liver fluke starts to produce eggs in the bile duct. If suitable wet conditions are present, larvae hatch, then they must find a specific snail species to complete their life cycle. After 3 -4 months in the snail, the larvae transform into an infective cyst on pasture.

Most of the costs of liver fluke are due to the direct effects of the fluke and occur on-farm (or in feedlots when cattle are later moved to them). The signs can include ill thrift, anaemia (pale mucous membranes), bottle jaw and in severe infestations, or sudden death. Liver fluke also make cattle more susceptible to one of the clostridial diseases, black disease.

Disease picture at the abattoir

Livers which are affected by active liver fluke or scarring, are condemned.

Treatment

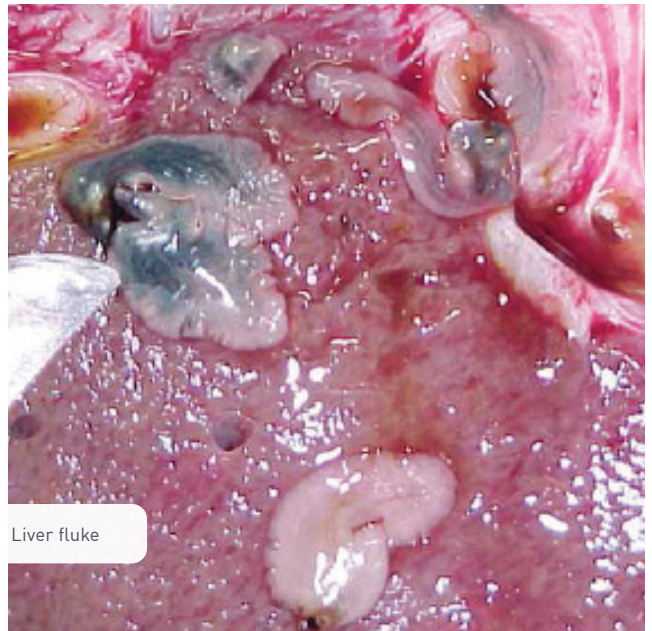
Liver fluke is best prevented through an Integrated Parasite Management (IPM) approach with a mixture of strategic drenches and grazing management. The drenching regime will depend upon the seasonal conditions, level of infection and pasture contamination on farm. Strategic drenching aims to reduce pasture contamination and build-up of infective larvae.

Most infections are picked up over summer and early autumn. A triclabendazole based drench is usually recommended for the late autumn drench for its ability to target both mature and immature fluke. However, resistance to fluke drenches has been documented and drench groups should be rotated where possible. Consult with your veterinarian or local animal health officer on developing a drenching program.

Prevention

- Good biosecurity with stock introductions
 - » Avoid introducing sheep or cattle infected with fluke onto your property.
 - » Quarantine and drench all cattle that come from a liver fluke area with an effective drench.

- Snail habitat control
 - » Minimise snail habitat by improving drainage where possible.
 - » Alternatively convert areas to deeper, faster moving water and keep drains clean so water can flow freely.
 - » Fix broken pipes/leaking troughs to stop permanent wet areas.
- Grazing management
 - » Exclude stock from swampy areas. Fencing off or improving drainage in areas that have potential to have snails such as wet marshes.
 - » Provide clean trough water as an alternative to drinking from dams, swamps and drains.
 - » If infested paddocks must be used, consider using more resistant adult cattle or graze uninfected sheep over contaminated areas, moving them to a snail-free paddock after 8-10 weeks and drench. This prevents fluke eggs from reaching the snails and continuing their life cycle.
- Monitor fluke status
 - » Utilise fluke egg counts (or blood tests for early infections) and abattoir surveillance reports.



Liver fluke

Source: MINTRAC

- Vaccination to prevent black disease
 - » Ensure stock are fully vaccinated, including correct timing of boosters, against black disease. Commercial 5-in-1 and 6-in-1 vaccines cover black disease.

See www.wormboss.com.au or talk to your veterinary advisor.

