

Fasciolosis

Fasciola hepatica (30 × 2–12 mm and leaf-shaped) is distributed worldwide and has a broad host range, including people. Economically important infections are seen in cattle, sheep and goats in three forms: chronic, subacute or acute. Liver fluke impose a major impact on global economies through the reduction of animal welfare and agricultural productivity. Whilst *Fasciola hepatica* is most common in temperate regions, *Fasciola gigantica* is one of the most important parasites of ruminants in the tropics. The host get infected by ingestion of metacercaria, usually with herbage, young fluke's excyst in the duodenum, penetrate the intestinal wall, and enter the peritoneal cavity, where they migrate to the liver and destroy tissues. There is great economic loss to farmers by reduction in milk production and concurrent infection with other diseases lead to death of animals.

Control:

- Control measure includes reduction of the intermediate host snail population, and prevention of livestock access to snail-infested pasture
- Although current control measures rely on anthelmintic, their use is financially unsustainable in developing countries and is further undermined by increasing drug resistance, leaving profound deficiencies in liver fluke control
- Vaccine: Target proteins present in the majority of pooled geographical isolates and individuals were validated using an integrated gene silencing/proteomics platform to select the most promising candidates for vaccine for future control strategies.



Intermediate host : Snail



Infective larvae of *Fasciola* sp