

More meat, milk and eggs by and for the poor

Preventing Fasciolosis (liver fluke)

Biruk Alemu, Gezahegn Alemayehu, Hiwot Desta and Barbara Wieland

What is Fascioliasis?

 Fasciolosis is caused by the trematode parasite Fasciola hepatica, the common liver fluke, as well as by Fasciola gigantica.

Which animals are affected? Does the disease infect humans?

- Fasciolosis affects all grazing animals, dogs, cats and humans but the main hosts are ruminants such as sheep, goats and cattle. It is particularly harmful for sheep.
- People (and dogs and cats) are normally infected by ingesting contaminated plants or drinking contaminated water. Fasciolosis in people is classified as a neglected tropical disease (NTD).

How does infection occur?

 Livestock become infected by grazing on contaminated pastures or trough contaminated hay.



Fluke infected liver and distended bile duct

What are the symptoms of Fascioliasis?

In sheep, the disease can be acute, subacute or chronic.

- Acute: sudden death or dullness, anemia, dyspnea, ascites and abdominal pain may be observed.
- Subacute: rapid weight loss, anemia, submandibular edema and ascites in some cases
- Chronic: progressive weight loss, anemia, submandibular edema, diarrhea and ascites.

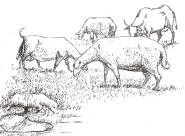
The disease is caused by the migration of large numbers of immature flukes through the liver, the presence of adult flukes in the bile duct, or both.

A post-mortem examination will usually give a very clear indication of the presence of liver fluke.



Anemic sheep

The life cycle



Adult liver fluke in sheep

Ingested by sheep, cattle, human

Fluke eggs passed in feces



Metacercaria (encyst on pasture)

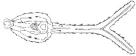
Larvae (Miracidium) (hatches after 2-4 week



Cercariae (leave the snail after about 6 weeks)

Snail (sporocysts, rediae, cercariae)







- 1 Deworm your flock with appropriate flukicide
- 2 Ensure adequate drainage to eliminate the snail
- 3 Keep the stock off the wettest fields at peak risk periods. Delay grazing on flooded pastures.

What should I do if I suspect my herd is infected?

- Use flukicides (Triclabendazole) in the whole herd combined with other preventive measures.
- Don't delay treatments until the first symptoms become evident.
- Best timing for preventative treatments depend strongly on local climatic and ecologic conditions (usually before the beginning of rainy seasons and at the end of dry seasons).

How can I prevent the disease?

- Animals grazing on communal pastures should be treated at regular intervals following a seasonal calendar.
- Deworm all newly introduced animals before allowing them to mix with the remaining flock.
- Plan rotational grazing to avoid high risk pastures (presence of snails) and ensure adequate drainage to eliminate the snail.
- If possible, delay grazing on flooded pastures until the area has been dry for at least eight weeks. Grass from these pastures can be used as hay if dried properly.
- Provide water troughs as an alternative to muddy watering holes.

Contact

Biruk Alemu **ILRI** Ethiopia b.a.gemeda@cgiar.org

Acknowledgements

This is a product of the CGIAR research programs on Livestock and the International Fund for Agricultural Development (IFAD)funded SmaRT Project - Improving the Performance of Pro-Poor Sheep and Goat Value Chains for Enhanced Livelihoods, Food and Nutrition Security in Ethiopia. We thank all donors and organizations who globally support our work through their contributions to the CGIAR Trust Fund.