Genus : Stilesia

Instructor:

Dr R. K. Sharma

Assistant Professor

Veterinary Parasitology

Bihar Veterinary College, Patna.

Stilesia : Morphology

- Adult are 25 to 50 cm long and about 3 mm wide.
- The head (scolex) has four prominent suckers. The segments (proglottids) are short.
- They are hermaphroditic) with two **parauterine organs** filled with eggs.
- Each segment has also **excretory cells** known as **flame cells** (*protonephridia*).
- The reproductive organs in each segment have a common opening called the **genital pore**.
- Mature gravid segments are full of eggs (several thousands) and detach from the strobila (i.e. the chain of segments) to be shed outside the host with its feces.
- They have **neither a digestive tube**, nor a **circulatory** or **respiratory systems**.
- They Individual gravid segments in the feces are visible by the naked eye.

Stilesia hepatica

Source – Google

Dr. R. K .Sharma

Stilesia : Life cycle

- They an indirect life cycle with ruminants as final hosts.
- Oribatid mites are suspected to be the main intermediate hosts.
- The adult worms produce eggs that are shed with the feces of the host, mostly in the form of gravid segments.
- Depending on the species and the region they can survive for months in the environment and some may survive even in cold winters.
- The intermediate hosts ingest the eggs, which develop to infective cysticercoids in their body cavity.
- The final host becomes infected after ingesting such contaminated intermediate hosts while grazing.
- After digestion the released cysticercoids attach to the gut's wall and develop to adult tapeworms within a several weeks.

Stilesia :Pathogenesis

- Infections with *Stilesia hepatica* are **not pathogenic** even in case of massive infections.
- Clinical signs are very seldom.
- The only major harm is condemnation of the livers at slaughter, more for esthetic than for safety reasons, since these worms are not contagious for humans.

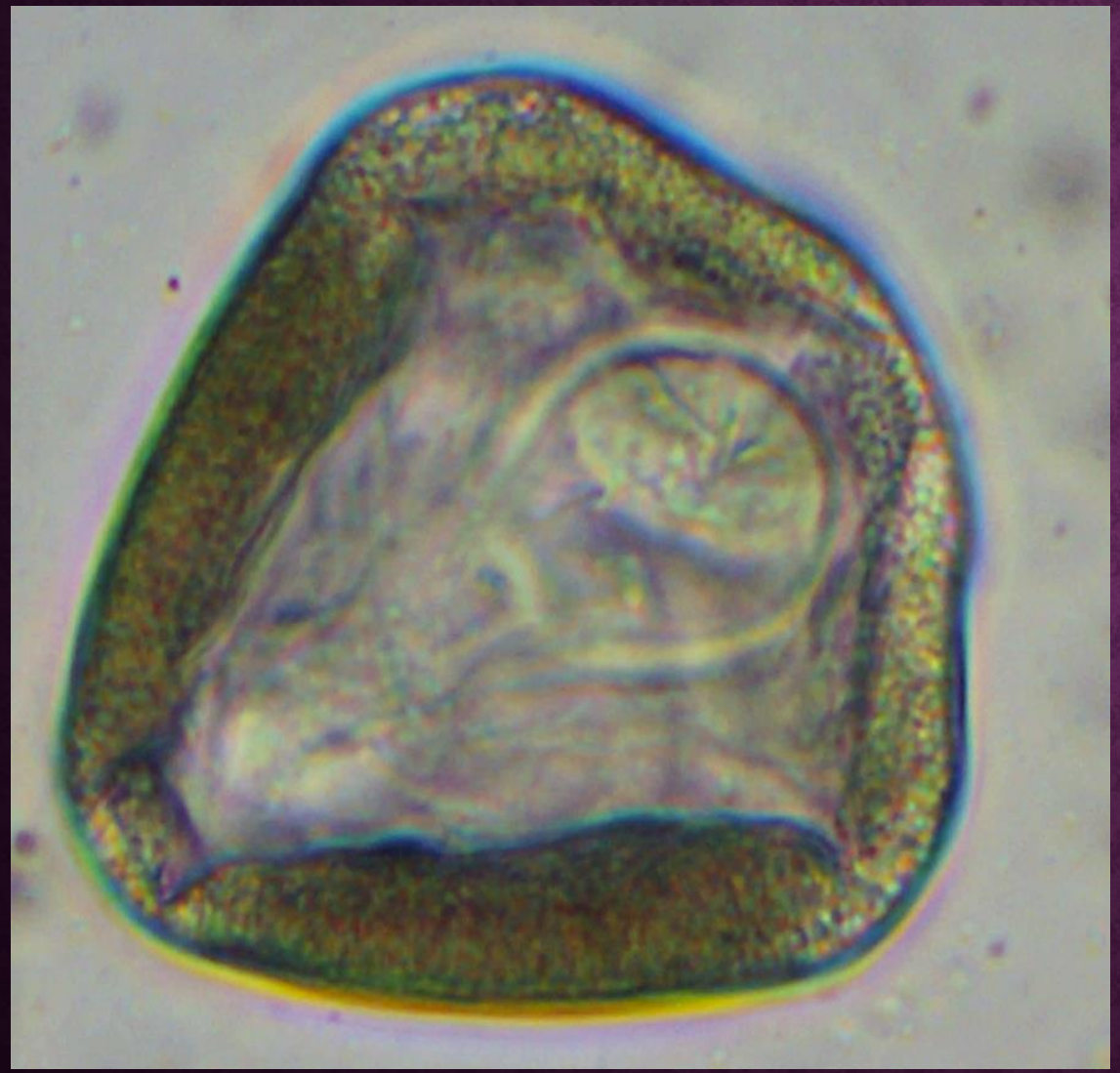
Stilesia : Diagnosis

- Examination of fecal sample for the presence of gravid segments (proglottids)
- The gravid segments look lice rice grains.
- Examination of faecal sample for detection of eggs with a characteristic morphology.
- After necropsy the large tapeworms are easily seen inside the gut.
- Diagnosis is usually made only after slaughter.

Stilesia : eggs

Source –Google

Dr. R.K.Sharma



Moniezia benedini : eggs

Source –Google

Dr. R.K.Sharma

Stilesia : Prevention and control

- It is not possible to eliminate the oribatid mites in the pastures.
- The use of insecticides is more expensive than the potential economic loss due to the infections, and also detrimental effect on the environment. So for this purpose it is not advisable.
- Since the mites prefer humid pastures and avoid light as well as dryness, they are more active early in the morning, so this time grazing should be avoided.
- Susceptible livestock can be treated with broad-spectrum anthelmintics e.g. albendazole, fenbendazole, mebendazole, oxfendazole, etc. or specific taenicides e.g., niclosamide, praziquantel, etc. Specific taenicides are also used in mixtures with nematicides e.g. ivermectin, levamisole, etc.