Livestock Production

Animal Anatomy, Physiology and Animal Health

Handout 9

Sheep Parasites

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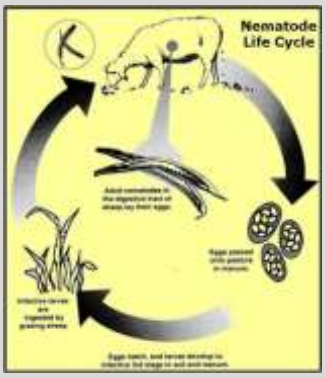
Sheep Parasites

In most sheep production areas, parasitism is the most common disease affecting sheep and lambs. Sheep are more susceptible to internal parasites than most other types of farm livestock. Their small fecal pellets disintegrate very easily thus releasing the worm larvae onto pastures, and they graze close to the soil surface and to their feces.

Internal Parasites

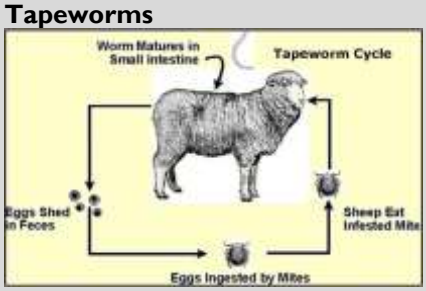


Gastro-Intestinal Nematodes

In warm, moist climates, the parasite that causes the most problems to sheep and lambs is *Haemonchus Contortus*, better known as the barber pole or wire worm. The symptom most commonly associated with barber pole worm infection is anemia, characterized by pale mucous membranes, especially in the lower eye lid; and bottle jaw, an accumulation (or swelling) of fluid under the jaw.

Stomach worms, usually of secondary importance, are *Trichostrongylus* spp. and *Ostertagia* spp. Their significance is typically as an additive effect in mixed infections with *Haemonchus*.

Tapeworms



Although dramatically large numbers of tapeworms may occupy the small intestine, damage to sheep is generally much less than that done by the gastrointestinal nematodes such as Haemonchus and Ostertagia. In extreme cases, tapeworms may cause intestinal blockages. Only certain anthelmintics are effective against tapeworms.

Lungworms

Wet, low-lying pastures and cool, damp weather favor the development of lungworm disease in sheep. Only in severe infestations do lungworms produce clinical disease, causing fever, coughing, nasal discharge, rapid breathing, and poor performance. Secondary infection by bacteria may cause death.

Liver Flukes

Liver flukes can cause death in sheep and lambs or liver damage in sub-acute cases. Liver flukes require snails as an intermediate host. Fencing sheep away from likely snail and slug habitats (e.g. ponds, swamps, wetlands, etc.) may help to prevent the problem.

Coccidia

Coccidia are single-cell protozoa that damage the lining of the small intestine. Coccidiosis is very common in sheep, especially young, growing lambs. Older sheep serve as sources of infection for young sheep.

Clinical signs include diarrhea (sometimes containing blood or mucous), dehydration, fever, weight loss, loss of appetite, anemia, and death. Outbreaks of coccidiosis are usually treated with sulfonamides and amprolium. Feed additives for the prevention of coccidiosis are also used.

Good Management

Internal parasite control starts with good management and common sense. Sheep should not be fed on the ground. Feeders which cannot easily be contaminated with feces should be utilized for grain, hay, and minerals. Water should be clean and free from fecal matter. Pastures and pens should not be overstocked. When new sheep are acquired

they should be isolated from the rest of the flock for 30 days and aggressively dewormed to prevent the introduction of drug-resistant worms.

Fecal Analysis

Fecal egg analysis is an important part of an internal parasite control program. A fecal analysis can tell you how contaminated your pasture is. It is also a valuable tool in determining if you have parasites that are resistant to the dewormers you use.

Proper Anthelmintic Use

Anthelmintics are an important part of parasite control. The weights of sheep and lambs must be known or approximated accurately in order to calculate the proper dosage of medicine. Underdosing results in the survival of worms which become resistant to the anthelmintic used. To lessen drug resistance, anthelmintics should be rotated on an annual basis.

External Parasites

Sheep louse

The sheep louse (*Bovicola ovis*) spends its entire life cycle on the sheep. Lice numbers can build up to create a heavy infestation in autumn and winter. Infected sheep can be seen rubbing against fences and often leave behind tags of wool. A lice infestation downgrades the quality of wool and the pelt. The best way to control lice is by dipping all the sheep on the farm three to four weeks after shearing, or by using a pour-on insecticide immediately after shearing.

Sheep ked

The sheep ked (*Melophagus ovinus*) is often called a tick, but is a wingless, bloodsucking fly. Its entire life cycle is spent on a sheep, and if dislodged it can survive only about four days. Blood loss from a heavy infestation of keds can cause anemia in young lambs and reduced production in older sheep. Reduced capillary flow to the skin lowers the quality and quantity of wool, while ked feces and pupae give it a dirty appearance. Ked numbers build up in cool weather in full fleeced sheep. Keds can be controlled using a pour-on insecticide immediately after shearing or a saturation dip three to four weeks later.

Fly strike

Flies are attracted to lay their eggs in dirty, urine- or dung-stained wool, and on wounds. The emerging maggots eat the flesh of the living sheep. If untreated, the sheep can die from secondary complications such as septicemia or toxemia. Fly strike can be prevented by crutching to remove dirty wool from the sheep's tail, and by the application of topical insecticides.