

EXTERNAL PARASITES OF SHEEP AND GOATS



These diseases are known to occur in Afghanistan.



1. Definition

External parasites, for the most part, are a nuisance and can cause reduce weight gain and weight loss simply because the animal spends more time and energy combating them than feeding. Physical injury occurs when irritation and scratching result in open wounds that then can become infected or subject to infestation with fly larvae.

2. Etiology

There are a number of fly species which are primarily a nuisance. Blood loss due to large numbers of feeding mosquitoes may lead to anemia, unthriftiness, and weight loss/reduced gains.

Lice and mites (mange) are relatively permanent residents on the animal. Infestation (commonly called mange when mites are involved) may be seen as intense irritation with the animal scratching and chewing creating skin lesions that can become ugly.

Ticks thrive on blood obtained from the host. They are subdivided into hard and soft ticks according to structural characteristics.

The sheep nose botfly, *Oestrus ovis*, is a parasite that in its larval stages inhabits the nasal passages and sinuses of sheep and goats.

3. Transmission

Lice and mites thrive and reproduce during the cooler months of the year. Transmission from animal to animal is by contact, so crowding should be avoided. The female nose botfly deposits larvae in and about the nostrils. These small, clear-white larvae migrate into the nasal cavity. As the larvae (bots) mature, they become cream-colored, and then darken. When mature, the larvae leave the nasal passages, drop to the ground, burrow down a few inches, and pupate.

4. Species affected

Both sheep and goats can be affected.

5. Clinical signs

Affected animals may be distracted by external parasites and rub or scratch. Some external parasites produce crusting, hair loss, dullness, lethargy, weakness, and signs of anemia.

In nosebot infestation cases, a profuse discharge occurs, at first clear and mucoid, but later mucopurulent and frequently tinged with fine streaks of blood. Continuing activity of the larvae, particularly if they are numerous, causes a thickening of the nasal mucosa that, together with the mucopurulent discharge, impairs respiration. Larvae present in the sinuses are sometimes unable to escape; they die and may gradually become calcified or lead to a septic sinusitis. The purulent inflammation produced in the sinuses occasionally may spread to the brain with fatal results.

6. Pathologic findings

There are no specific gross findings except lesions associated with anemia.

7. Diagnosis

In general, most external parasites can be collected with various equipments for diagnosis such as nets, jars, traps, combs and forceps. For mites, skin scrapings are used. Most external parasites can be seen readily and identified using published descriptions and keys. However, the use of a microscope is usually necessary.

8. Treatment

Insecticides for ectoparasites will control flies, lice, mites and ticks. Dipping or high pressure sprays provide the best results. Sheep and goats may have to be treated every 3 weeks in endemic areas. Insecticide impregnated ear tags and pour-ons are also available in some areas. Ivermectin is highly effective against all stages of the nose botfly larvae for treatment.

9. Prevention and control

There are many insecticides that can be used for control when necessary. Routine disposal of manure and organic materials will help control nuisance flies and mosquitoes.



Hair loss in sheep due to external parasites



Sheep with nosebot infestation