



Dermatophilosis in Sheep and Goats

The Disease

Dermatophilosis — also known as “lumpy wool disease” in sheep or streptothricosis in some species — is a contagious skin disease that affects sheep and goats. It can also affect cattle, horses, dogs, cats, wild mammals, and occasionally humans. The disease is caused by a bacterium, *Dermatophilus congolensis*, which infects the skin, causes the formation of matted tufts of hair or wool, and progresses to scabs (sometimes with yellow-green pus beneath). In advanced cases, wart-like accumulations of damaged skin will form.

Lesions can occur anywhere on the body but typically appear as dense scabs along the topline. In certain areas, such as below the rectum or vulva or adjacent to the udder, moist lesions with thickened, folded skin may occur and tend to ooze. In sheep and goats, genetics influence susceptibility to dermatophilosis, especially when susceptible animals from milder weather regions of the country are introduced into warmer, more tropical regions where the disease may already be present. Immunosuppressive effects of saliva secreted during tick bites may worsen the disease. Infections in some parts of the world are related to drought and poverty.

Transmission

Chronically infected animals with few or no apparent lesions are considered to be the primary reservoir of *Dermatophilus congolensis*. The disease becomes contagious when the immune system is suppressed or skin is damaged. It is typically spread by direct contact between infected and non-infected animals or contact with contaminated environments. Shearing, dipping, or introducing an infected animal into a herd or flock can spread infection.

The *Dermatophilus* organism has been isolated only from living layers of the skin of affected animals. It can exist quietly within the skin until climatic conditions induce infection. Factors such as prolonged wetting by rain or high humidity, as well as high temperature and external parasites that reduce or penetrate the skin's natural barriers, influence development, prevalence, seasonal incidence, and transmission. Lice are major predisposing factors in sheep.

Symptoms

Characteristic sores or lesions often lead to suspicion of the disease, but accurate diagnosis may require laboratory confirmation to distinguish it from other scabby diseases such as soremouth or club lamb fungus. Animals with weakened immune systems are most at risk. Most symptoms are found in young animals in high humidity environments. Wool or hair will tend to “lump” together creating a pyramid-shaped mass bound to the wool fiber, forming a mat seen most often along the animal's back. Matting may become so thick it prevents shearing. Insects may invade these areas, causing severe skin damage and secondary infections. If animals show symptoms, contact your veterinarian to determine the proper course of action. The veterinarian can send scab samples to a diagnostic lab for disease confirmation.

Prevention, Control, and Treatment

No vaccine is available for prevention. Identification and use of genetic markers of resistance or susceptibility may reduce problems caused by the disease. Isolating animals with visible symptoms, culling affected animals, and controlling external parasites can break the transmission cycle. Provide animals with a dry environment and monitor vitamin A and zinc levels in the diet, as deficiencies of either of these important nutrients can affect skin health. Tick control may reduce disease severity.

The bacterium that causes dermatophilosis is susceptible to a wide range of antimicrobials. Repeated treatment with an injectable antimicrobial, accompanied by repeated topical treatment of lesions, may be required to clear the infection. In mild cases, the disease may be self-healing. In most cases, affected animals will recover within three weeks. Check with your local veterinarian for treatment recommendations.

Risk to Humans

Dermatophilosis can also infect humans. When handling or treating infected animals, wear gloves or other protective gear and wash hands and arms with an antibacterial soap to prevent becoming infected.

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Kansas State University Agricultural Experiment Station and Cooperative Extension Service

MF3118

December 2013

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