



Club Lamb Fungus

Ringworm

Ovine dermatophytosis, lumpy wool, sheep ringworm, woolrot, was first recognized in the late 1980's. It occurs most commonly in sheep exhibited at fairs and other shows. The disease is contagious to humans and other animals.

Cause of the Disease

Disease occurs when the fungus, a *Trichophyton*, invades the skin and hair follicles. Similar fungi cause ringworm in humans, cattle, horses, dogs, cats, and other animals. Nicks and cuts from shearing, handling, or environmental hazards allow the fungus to enter the skin. Slick shearing, repetitive washing, and stress make animals more susceptible to infection. Washing removes protective oils (primarily lanolin) that are part of the animal's natural defenses against fungal infection. Long or frequent travel, shows, and changes in diet are stressful and reduce the animals immunity and resistance to disease.

Spread of the Disease

The spread of disease occurs mostly at shows, sales, and exhibitions. Susceptible lambs are infected by contact with other lambs, contaminated equipment, surroundings (pens, stalls, etc.), and humans. *Trichophyton* spores can survive several years on animals and in the environment - in barns, trucks, trailers, tack, grooming tools, wool, feeders, and in bedding, soil, and manure. Spores resist destruction, particularly if lodged in cracks or hidden from direct sunlight. Shearing equipment is very important in spreading disease between sheep. Humans can be infected from contact with the fungus on the sheep. If human infection is suspected, contact a physician and inform them that there has been contact with infected sheep.

Diagnosing the Disease

It is much easier to identify the disease in shorn sheep. Lesions can appear anywhere, but are most common on the head, neck, and back. The skin is initially thick, red, and "weeping," and later, there is the appearance of crusty and scaly skin, and usually in circular lesions. Sometimes the wool appears "clumped," as well. Hairs break easily and are usually lost beginning in the center of the lesion. The "spots" are first seen in 4-8 weeks and the infection usually heals spontaneously in 8-16 weeks. Hair may regrow black in the affected areas. All stages of the fungal infection are contagious until the skin surface appears normal and growth of hair or wool has begun.

Culturing the *Trichophyton* species confirms the diagnosis. However, a presumptive diagnosis is based on clinical signs and history. Secondary bacterial infections often contaminate cultures because the lesions are open and exposed to the environment. Contact your veterinarian for proper diagnostic procedures.

Treatment of the Disease

There is no specific treatment for club lamb fungus. Antifungal medications inhibit fungal growth and reduce the spread of infection. Using antifungal medication in sheep is considered an extra-label drug use and requires a valid veterinary-client-patient relationship. Most cases of club lamb fungus recover over time if give the proper nutrition, rest, and appropriate treatment.

Prevention and Control

- Clean facilities and equipment with antifungal disinfectants.
- Keep facilities free of sharp edges and exposed wires.
- Minimize stress on animals.
- Use separate equipment for each lamb.
- Isolate infected animals.
- Wear rubber gloves and long sleeves when handling infected animals.
- Use different equipment and clothes for infected and non-infected animals.



Surveillance at Events

Pre-admission health examinations by licensed, knowledgeable veterinarians should occur at all shows and sales. Animals should be examined immediately upon arrival and before penning. People handling animals should use a separate pair of disposable gloves for each exhibitors' sheep. Animals with active lesions should be immediately removed from the premises. Strict adherence to these practices greatly reduces the risk of admitting a clinically-affected animal, but will not identify asymptomatic carries. Owners should not bring sheep to exhibitions that have been in contact with infected animals.

Animal Health and Food Safety Services

Animal Health Branch

Headquarters - (916) 900-5002

Redding District - (530) 225-2140

Modesto District - (209) 491-9350

Tulare District - (559) 685-3500

Ontario District - (909) 947-4462

USDA-APHIS-VS - (916) 854-3950 or (877) 741-3690

For more information, please visit: www.cdfa.ca.gov/ah

