

# Sheep Scab and Wool Production

LEONARD HASEMAN

Sheep scab is an ancient disease or affliction of sheep caused by very small skin mites. In fact, there are four different types of scab or scabies affecting sheep, each produced by a different species of mite. The common and most injurious form is known as psoroptic scab. The mites causing it (*Psoroptes equi* var. *ovis*) are scarcely large enough to be seen without magnification and are yellowish-white in color. They live on the surface of the skin mostly on the back, sides, withers and rump. Here they prick the skin to obtain food and when abundant cause much irritation and the escape of serum which dries forming scabs. If not taken in hand these diseased areas spread, often involving most of the sheep's body. The severe irritation causes the sheep to rub and soon the wool begins to come loose in slender tags. As the disease progresses large areas become involved. The fleece becomes matted and, in time, it may be pulled out by the sheep, or shed, exposing large patches of hard, thickened, and cracked and bleeding skin. Much of the fleece may be lost and, in severe cases, the sheep lose weight and even die where treatment is not promptly applied.

These small mites continue to breed on the host, each female laying a dozen or two eggs. These hatch in a few days and the young begin to feed. The young mites may mature and begin to breed in 10 to 12 days. In other words, a new generation of mites are matured every two or three weeks, which should be kept in mind in treating sheep to control scab. If any farmer in Missouri has reason to suspect that any of his sheep are affected with scab, he should report it to the nearest deputy state veterinarian, as an earnest effort is being made to stamp out sheep scab in the state. While scab is exceedingly contagious among sheep and goats, the mite does not live long off of these hosts. However, as a precaution, clean sheep should not be placed in so-called infested premises for a month or until such premises have been thoroughly cleaned. Sheep scab develops and may be transferred from infested to clean

sheep at any season of the year, though it is usually worse in cool, rainy weather.

### Treatment

Internal medication has no effect on the mites. The only effective treatment for common scab is the external application of a chemical which will kill the mites. Two applications should be made since the eggs are not always killed by the treatment. The second application should be made in 10 days which allows time for any eggs, not killed by the first treatment, to hatch, but not time enough for the young to mature and lay more eggs.

Dipping is the recognized treatment for sheep scab in this country. Exposed flocks should be treated, as well as those showing cases of scab. The only solutions officially approved are nicotine and lime sulfur. If lime sulfur is used, and it is generally preferred, it should be kept at a temperature of 95° to 105° F. and the solution should contain not less than 2 per cent of "sulfide sulfur." If nicotine is used the solution should be kept at the above temperature and it should contain no less than one-twentieth of 1 per cent of nicotine, or 1 part of 40 per cent nicotine sulfate in 800 parts of water.

The dipping vat should contain enough solution to completely submerge the animals. Keep each animal in the vat 2 to 3 minutes or until the wool is thoroughly saturated and submerge its head a few times. Animals with hard scabs should have such patches moistened with the dipping solution to soften them before they enter the dipping vat. Preferably select a warm day and, when possible, dip following shearing. By being careful to avoid introducing it into the flock on new animals, by keeping a close watch for the first signs of its appearance in the flock, and by promptly dipping the flock when it shows up one can prevent sheep scab from causing any serious loss.

Where a dipping vat is not available, or when one has only a few animals, he can treat them by hand. While the results are less satisfactory, usually hand treatment will help prevent loss from scab. All animals showing any signs of scab should be thoroughly mopped and wet with warm lime sulfur solution, as used in a dipping vat. In a week or ten days, repeat the application and carefully check those animals in the flock which were not previously infested and treated. Immediately following shearing it is much easier to detect early signs of scab. Even after repeated hand treatments have apparently rid the flock of scab, keep a close watch for it as the mites sometimes seem to remain inactive during hot, dry spells, only to flare up later with cool, rainy weather.