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**RAPID ADULT-TO-ADULT VIRAL TRANSMISSION &
REDUCED LAMB GAINS ATTRIBUTED TO MAEDI-VISNA**
Review by Robert Leder, DVM

The effects of indurative lymphocytic mastitis caused by maedi-visna (OPP) virus were evaluated by Dutch researchers recently.

A flock of 148 three-year old Texel ewes was assembled in October. Seventy-three (73) ewes were infected but clinically normal, and seventy-five (75) ewes were from maedi-visna accredited free flocks.

The ewes were exposed to 6 rams from one sire, obtained from a maedi-visna accredited free flock for March lambing. They were kept on pasture until 2 weeks prior to lambing at which point they were housed in an open front shed. Ewes and lambs were individually penned for the first couple days then group penned for 4 days. By 2 weeks they were back out on pasture. (This is a common management practice.) No supplemental milk was provided.

The lambs' weight gains were monitored until 80 days of age - at which point they were weaned. The ewes were bled at 6 week intervals, and the lambs at weaning, and were tested for antibodies using ELISA. After weaning the ewes were sacrificed and the udders examined histologically (microscopically) for lymphocytic follicles typical of maedi-visna. The ewes were grouped in 4 groups, based on udder lesions. (Group 1 - no lesions; group 4 - severe lesions.)

Here are some of the results:

1) Within 9 months after the flock was established 76% of the ewes from the 'free' flocks had seroconverted. (The flock infection rate rose from 50% to 87%.)

2) Lesions developed soon after infection were detectable. In fact some of the newly infected ewes had severe udder lesions by the end of the experiment.

3) 14 lambs died in the first 3 weeks of age in the experiment. Seven (1/2) were attributed to starvation, and the dams' udders had severe lesions when they were examined.

4) 6 ewes died within the experiment due to clinical maedi. These were from the originally infectious portion of the flock. Remember that this was a flock of 3 year old ewes.

5) 44 of 188 lambs at weaning were seropositive. 43 of these came from positive ewes.

6) Growth rates were lowest in the lambs from ewes with the most severe udder lesions (group 1 vs group 4). The difference over 80 days was approximately 7#/lamb. When expressed on pounds weaned per ewe, the difference was approximately 12# in favor of the unaffected ewe.

This experiment documented premature ewe losses, lamb mortality, and reduced daily weight gains of lambs born to maedi infected ewes. It also documented the rapid spread of the virus in the newly assembled flock, and the usual transmission from dam to offspring.

J.J. Pekelder et al. Vet Record 134:348-350, 1994

Editor's note: "Indurative mastitis" is veterinary terminology referring to what producers sometimes call "hard bag".

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