

SECTION VI-7 ENVIRONMENTAL CONTROL OF MASTITIS

7. ENVIRONMENTAL CONTROL OF MASTITIS

Environmental management is imperative on-farm to try and control mastitis caused by environmental pathogens. Manure and urine should be cleaned from the housing area regularly, so udders are not exposed to potentially harmful pathogens. Ewes should have adequate bedding in their pens as well, not only for increased comfort, but to ensure that they are not lying on the barn floor, which can be a breeding ground for pathogens. Pens should not be over-crowded, as it is imperative that each animal has adequate space to lie down. If they don't, there is a greater chance that the animal will have to lie in excess manure, which will increase their chance of acquiring an infection. Recommendations for environment and housing are provided in Table II.2.

Fig. 1. Wet and dirty environment is a risk for mastitis



If ewes are housed outdoors, particularly during the summer months, keeping them away from areas filled with excess mud is very important to control environmental mastitis. If ewes spend a large amount of time in these mud-filled areas, they are at risk for environmental infections. The heat of the summer increases the number of pathogens present, so this is an important thing to address in a pasture. If there is a large mud-filled area, moving ewes to a different pasture, or closing off this section should be done.

7.1 *PSEUDOMONAS*

Pseudomonas aeruginosa, an important cause of severe mastitis in ewes (Section II.3.2.1) is found in water sources around a barn. It is seen in contaminated wash water in a milking system; in the water trough; ponds etc. Anywhere there is standing water may be a source of infection to the ewe. This bacterium is usually resistant to most antibiotics and so treatment will not cure these infections.

7.2 *LISTERIA*

Listeria monocytogenes has been previously discussed as related to feeding (Section I.2.4.6) but ewes may become infected from the environment. *Listeria* causes mastitis but is also commonly shed in the milk without signs. Outbreaks of listeriosis in humans causing severe gastrointestinal illness and even death have been linked to eating sheep cheese. *Listeria* prefers dirty, wet conditions and readily grows in feed and manure even at cool temperatures. Contamination of the udder is associated with udder infections and contamination of the milk if the udder is not properly cleaned and disinfected (Section III.1.1).

Fig. 2. *Listeria* grows on dirty ground

