



RESPIRATORY DISEASE

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Sheep pneumonia is especially common in newborn lambs and in feedlot lambs, it can also occur in the mature ewe flock with milder clinical signs. Pneumonia is caused by a complex interaction between the environment which produces stress, microorganisms, and the sheep's immune response. Pneumonia occurs in all ages of sheep, in all breeds, in every country of the world. As the management practices become more intensive the level and risk of pneumonia become much greater. Close contact allows for rapid spread of infectious organisms from one lamb to the next. Intensive management also leads to a buildup of pathogens in the environment. Manure in sheds also leads to the production of ammonia which irritates and damages the respiratory mucosa and reduces the sheep's ability to fight the infection. In shed or semi-confinement lambing operations the pneumonia will peak towards the end of the lambing season in many operations.

In acute outbreaks of pneumonia, *Pasteurella haemolytica* is the organism most frequently isolated from the affected lung tissue, but only rarely is it the primary organism. *P. haemolytica* is a common inhabitant of upper respiratory and tonsils of normal healthy sheep. Very young lambs less than 48 hours old with acute pneumonia and septicemia are often due to biotype A *pasteurelia pneumoniae*. Death losses from newborn pneumonia can be as high as 50% in some flocks. Death is only a part of the actual losses: treatment expense, poor chronic doing lambs, reduced feed efficiency, reduced average daily gains also result from newborn pneumonia infections. Farms that have yearly pneumonia problems in their newborn lambs need to address the lambs environment and the stresses on the lamb at birth. We have had very limited success using any of the vaccination products available. The use of TSV 2 (also called Nasalgen) has been proven to booster the immunity levels in lambs for viral pneumonia, however it by itself will not stop or prevent an outbreak of pneumonia if environmental factors are poor. The use of a long acting (48 hour) antibiotic given on days 1 and 3 have helped stop lamb death losses on some farms. On farms with a history of severe newborn lamb pneumonia and high losses it can be advantageous to treat the entire ewe flock with water soluble antibiotics several times prior to the lambing season to reduce the shedding from the ewes to the newborn lambs.

"Barn cough" is a term used to describe a non-productive hacking cough in growing and finishing lambs. We do not know which organism causes the cough but we do know that certain antibiotics can relieve the clinical cough for 2 to 3 weeks. Barns cough does not cause large death losses or acute deaths, however, the incidence of rectal prolapses increases in direct proportion to the irritating cough. Factors such as crowding, dust, damp humid weather, or stress all can increase the amount of barn cough. Treating the entire group of lambs with antibiotics will reduce the cough, but the producer must be very careful of drug withdrawal times in lambs that are going to be slaughtered. In many cases we have to treat every 2 weeks to control the coughing. Once a lamb tears the supporting muscles and connective tissue around the rectum it will eventually prolapse and require treatment. Lambs that are coughing will develop immunity and eventually become resistant and not cough anymore. Frequently we hear producers referring to this as "the lambs outgrow the cough". In Minnesota when the fall weather begins and temperatures become colder the incidence of "barn cough" is greatly reduced. The cough is most likely caused by a combination of organisms such as viruses and bacteria working together to weaken the lambs' respiratory system. In our experience we have had good response to treatment with Albon (sulfadimethoxine) in the water for 3 days every two weeks. Tylan, injectable and feed grade, has also worked in some flocks. Other antibiotics that have been used with some success are tetracyclines and Naxcel.

When treating sheep for pneumonia we have very few approved drugs from which to choose and these are approved at sub-therapeutic levels. You will need to work with your veterinarian to determine which drug will work most effectively and then be careful to follow the proper drug withdrawal times. Most times we need to concentrate on the environment and reduce the exposure. The answer for sheep pneumonia does not come from vaccine or the syringe and bottle. We also know that some breeds have varying degrees of innate ability to reduce the severity of clinical signs.