



OVINE PROGRESSIVE PNEUMONIA

Gates' Practical Guide to Sheep Disease Management

Pipestone Veterinary Clinic

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Ovine Progressive Pneumonia and its economic implications may be one of the most controversial diseases in the sheep industry. OPP has been implicated as the cause of wasting disease, lactation failure, arthritis, and brain lesions, however few if any signs may be evident in an infected flock.

CAUSE - OPP is caused by a slow acting virus that has an incubation period of one to two years. Infection is thought to occur by inhalation of virus shed from positive sheep or consumption of milk or colostrum containing the virus. After the extended incubation period the virus begins to cause damage to the lung resulting in a sheep that has chronic pneumonia, loses weight and eventually is culled, dies or is euthanized. Due to the long incubation period OPP rarely affects sheep less than 2 years old.

OCCURANCE - It is estimated that over 50% of the flocks in the U.S. are infected with OPP with the number of sheep infected within a positive flock anywhere between 1% to 70%. It is important to realize that the vast majority of infected sheep will never show respiratory disease or a wasting syndrome. They are ewes that are positive for the OPP virus and lead a normal productive life and eventually get culled from the flock for reasons other than OPP.

SYMPTOMS - OPP can cause increased respiration, weight loss, poor milk production and a general wasting disease. Arthritis and neurologic disease are more uncommon symptoms that have been attributed to OPP. It is important to realize that there are other diseases in sheep that can cause similar presentations such as chronic pneumonia, parasites and Caseous Lymphadenitis. On post-mortem exam the most remarkable lesion is that the lungs of the sheep fail to collapse. OPP can be diagnosed by different types of blood tests. The authors have experienced conflicting results and given the long incubation period of the virus a sheep can be infected for several months and still have a negative blood test.

TREATMENT - There is no treatment for OPP. Early culling of clinical animals and euthanasia of terminal poor doers are the only options available.

CONTROL - Some veterinarians have encouraged test and removal of positives or depopulation of flocks that are positive for OPP. Generally speaking the authors do not support such a recommendation because: 1) It is very difficult to determine the economic cost of being infected with OPP. 2) Finding OPP negative replacements is very difficult and severely limits the genetic pool from which you can choose. 3) The tests are not accurate enough to confidently conduct a test and removal program. OPP negative lambs can be raised from positive ewes. The flock must be split into two groups, one positive and one negative and confined in separate facilities. The lambs are removed from the positive ewes at birth and fed colostrum from negative ewes and artificially reared or grafted onto negative ewes. The additional labor, facilities and cost involved from keeping two separate flocks are difficult to justify, as the economic benefit of having the flock free of OPP is small.