

Respiratory Disease aka "The Snots"

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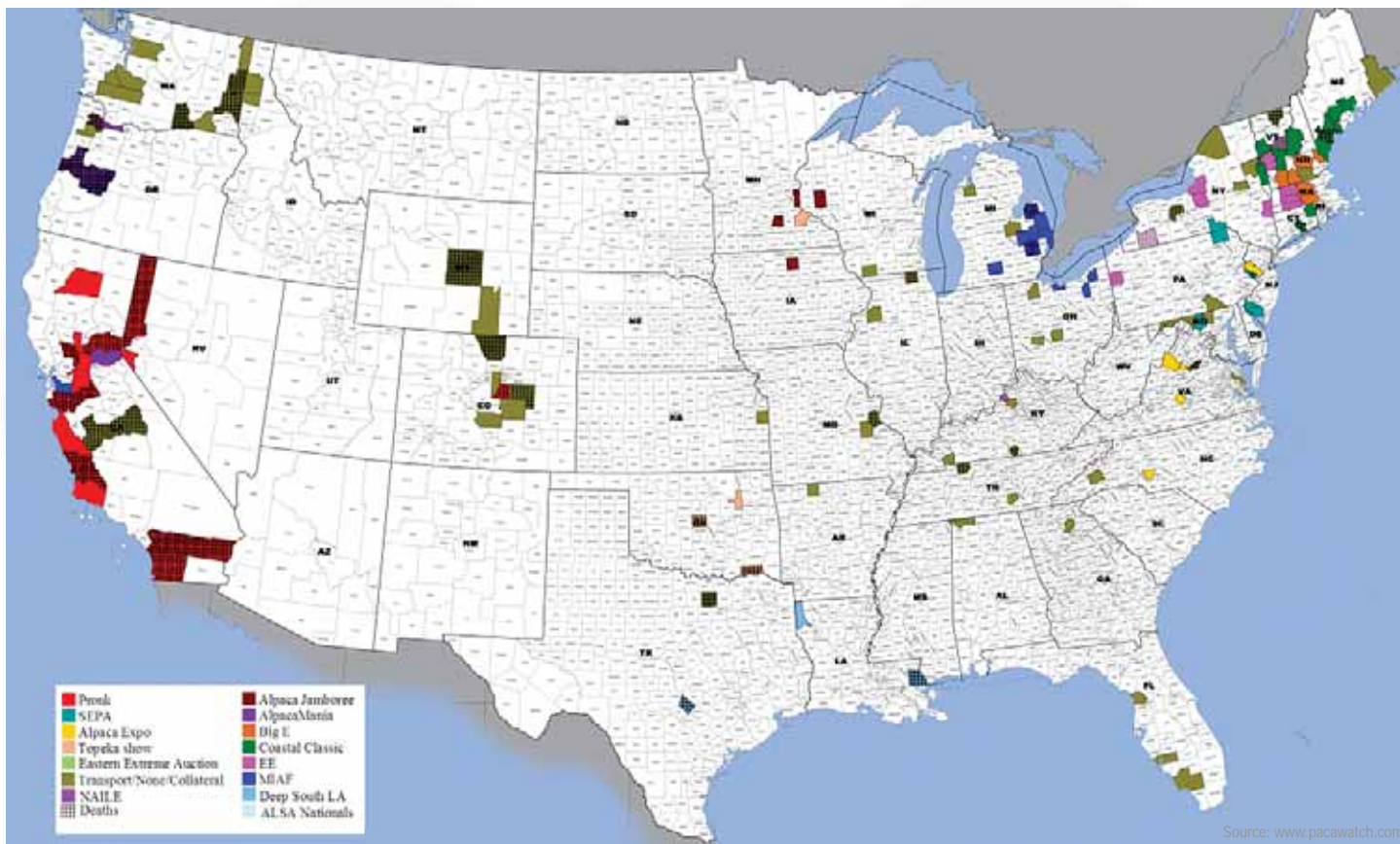
The upper respiratory tract disease referred to as "the snots" by many alpaca owners was observed in the Inland Pacific Northwest at the beginning of October. Owners from Walla Walla, Washington, to the Sandpoint, Idaho area reported runny noses in alpacas and llamas. At that time, no cases were reported in Western Washington or Southeast Idaho. Now in mid-October, there are cases being reported in Western Washington. At approximately the same time, it appears cases were emerging in other areas of the country (New England, Montana, Wisconsin, Colorado, and California).



Most animals have a runny nose for 3-7 days which resolves without complications. Owners have reported 15-50% of their herds exhibiting these signs, with both sexes and all age groups

affected. There have been a minority of animals that developed more severe complications including death. Complications involve pneumonia, sometimes leading to subcutaneous emphysema (air under the skin) due to the lung damage; "open mouth" breathing or gasping when stressed or handled; increased inspiratory effort changing to expiratory effort; anorexia; dehydration; increased recumbency, and low body temperatures. Owners have also reported stillbirths and premature crias.

Due to the acute onset and recovery of most animals, a viral infection is suspected as the initial infectious agent; however some bacteria can cause similar primary signs. A small number of animals are either developing more severe disease from the initial agent or developing a secondary infection. This commonly occurs in other species where a viral respiratory infection predisposes to a bacterial infection. The severely ill animals seen at WSU VTH and reported elsewhere appear to have had another major health problem or were in late stage pregnancy. These conditions lead to weakened immune systems and decreased ability to compensate when confronted with an additional disease. The still



Source: www.pacawatch.com

births, premature crias, and weak full term crias may be due to fetal stress from insufficient oxygen supply with respiratory disease in the dam, direct action of the agent on the placenta or fetus, or another unknown mechanism.

At this time, there are still more questions than answers. We know that camelids can be infected by bovine and equine respiratory disease agents and a few camelid specific respiratory agents have been identified previously. In order to determine the cause of this problem, assistance is needed. This requires a financial investment by owners and breeders to attempt to identify the disease agent and allow us to develop better treatments and possible protection. Any camelid that dies or is euthanized for respiratory disease should have a necropsy and tissue samples submitted to WADDL. In case of an outbreak, we recommend that samples (swabs from the nose and blood) be submitted from animals showing symptoms. This will help determine the organism responsible. Two blood samples are needed, 2-3 weeks apart, to examine if "titers" representing

exposure are changing. Changes in titers can indicate an active infection or recovery from an infection. Bovine, camelid, and equine respiratory serology panels should be requested in addition to virology and bacteriology. Since the agent may be camelid in origin, note the species on the submission form. WADDL is aware of the respiratory disease problem and can provide additional advice regarding sample submissions. Diagnostic work on samples from cases seen at Washington State University Veterinary Teaching Hospital is pending.

Antibiotics have not been warranted in most cases. A majority of animals recover without treatments however any animal that appears to be experiencing a more severe case should be examined by a veterinarian and treated as appropriate.

Our other recommendations include practicing good management and biosecurity protocols. This is something that has been repeatedly discussed due to the recent bovine viral diarrhea virus problems, *Eimeria macusaniensis* re-emergence, and other communicable diseases. Do not transport sick animals to

shows or breeders. Show "vet checks" will, and should, deny entry to sick animals. Do not transport "at risk" animals, including dams with nursing crias and pregnant animals, until this problem settles down. Quarantine new and returning animals. Isolate sick animals from healthy animals. Monitor eating, recumbency, and attitude of the late stage pregnant animals and contact your veterinarian if any changes are noticed. Provide supportive care to sick animals: minimize stress, provide high quality feed and clean water, housing if inclement weather or at night with the decreasing temperatures. Finally, attend to sick animals after the healthy ones, do not share equipment between the sick pen and the healthy pens, wash your hands and change clothes after handling the sick animals.

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