



News & Events	Students	Faculty	Alumni	Donors	Community Outreach
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VESICULAR STOMATITIS 1997

Two years ago, there was an outbreak of Vesicular Stomatitis in Arizona, New Mexico, and Colorado. It is typical of this disease that there are outbreaks every 10 to 12 years in these states. So, just two years later, another series of cases has occurred in Arizona, New Mexico, and Colorado. Below is a summary of information about this disease, as you will be hearing more about it in the coming months.

Vesicular Stomatitis (VS) is a disease that is caused by a virus and it affects cattle, horses, swine, deer, and humans. The VS virus is classified as a rhabdovirus because of its bullet shape. The disease in horses, cattle, swine, and deer is characterized by vesicles or blisters. These blisters form in the mouth, on the tongue and lips, on the feet, and on the teats and mammary gland of affected animals. These vesicles or blisters tend to be large and very painful. Also, the vesicles of VS are indistinguishable from those of Foot and Mouth Disease. The disease (VS) in humans causes flu-like symptoms with the occasional blister around the nose or mouth.

The disease has an incubation period lasting 9 days (range 3-14 days) usually. That is to say, that once the animals are exposed to the virus it takes about 9 days before the blisters are seen. The vesicles that occur in the mouth and around the lips cause excess salivation or slobbering and the animals do not want to eat or drink and therefore, lose weight. They are particularly reluctant to eat dry, rough feed. The lesions around the coronary band of the feet cause lameness and the animals are reluctant to walk. The lesions around the teats of the mammary gland cause the cows to be painful when nursed and the virus will be easily passed to the calves. Also, many of the vesicles occur on the teat ends and this can lead to severe mastitis in affected cows. This is particularly of importance to dairy cattle. The disease causes economic losses due to weight loss, and mastitis. While the percentage of cattle and other animals affected is usually high, the number of animals that die is quite low. The main significance of VS is that it is a foreign animal disease, it has clinical signs identical to Foot and Mouth Disease, and it can cause significant economic losses in affected animals. Swine and dairy cattle have more economically significant losses than do beef cattle and horses under most circumstances.

Vesicular Stomatitis seems to invade the United States approximately every 10 years. The last outbreak of VS in this country was in 1995 and before that in 1982 & 1983. At that time, it caused major economic losses in California, mainly in dairy cattle. The VS virus is thought to be spread by the bites of various insects and outbreaks occur most commonly in the summer and fall. However, the VS virus can also be spread by contact from one animal to the next. This direct, animal to animal, spread was particularly important in the 1982 outbreak. Most animals affected with VS recover in 2-3 weeks; however, if the vesicles become infected by bacteria or fungi, recovery can take longer. One of the main considerations with VS is that it cannot easily be distinguished from Foot-and-Mouth Disease, which is an even more serious disease both for the individual animals and for the affected herds.

The outbreak this year has affected horses for the most part. The strain of the VS virus this year is different from the strain typical in the past. This year, the outbreak is being caused by the Indiana strain for the most part, while in the past two outbreaks, the New Jersey strain was involved. The natural history of VS is not well understood and outbreaks have not been predictable. The National Cattlemen's Beef Association and CCA personnel have been very active since 1995 in encouraging Federal agencies and others to continue to do research on this important disease. The response this year has indicated this was an excellent idea. The outbreak is being handled very efficiently and the disruption to the industry is less, while control measures seem to be as effective as before.

Treatment of affected animals is symptomatic. Death loss can be avoided if ill cattle or horses are offered shade, fresh water, and soft feed. Debilitated animals may be aided by broad spectrum antibiotic therapy to control secondary bacterial invaders. Vaccines for the prevention of VS are currently available for limited use in affected areas.

If you see blisters or any of the other common signs of VS, **salivation, lameness, or mammary vesicles**, contact your veterinarian to examine the animals. Your veterinarian can then contact the California State Veterinarian's office and/or the California Veterinary Diagnostic Laboratory, as needed. If the current outbreak in expands to other states, restrictions on the movement of cattle, horses, and/or swine coming into California may go into effect. It is very important to consider the possibility of coming into contact with VS infected animals when shipping cattle or horses into areas where VS outbreaks are occurring. Your veterinarian and the State Veterinarian's office will be receiving frequent updates on the current outbreak.

Avoid moving your animals into areas where VS has been confirmed or is suspected and **do not** move or sell suspicious animals before a diagnosis can be made.

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