

VESICULAR STOMATITIS HITS THE SOUTHWEST

Late in May, Vesicular Stomatitis (VS) was confirmed in Reeves County in west Texas. By the time this article is printed you may have seen many newspaper articles about this problem. This column will provide background on this important disease that may affect California beef producers either directly or indirectly.

Vesicular Stomatitis (VS) is a disease that is caused by a virus and it affects cattle, horses, and pigs, and occasionally, sheep, goats, and deer. The VS virus is classified as a rhabdovirus because of its bullet shape. The clinical 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 look just like the vesicles caused by the Foot and Mouth Disease (FMD) virus. The VS virus can cause flu-like symptoms in people with the occasional blister around the nose or mouth. Because VS in cattle and livestock other than horses looks identical to FMD it is extremely important that all precautions are taken to quarantine affected animals and accurately diagnose the condition. The last outbreak of FMD in the United States occurred in 1929 (in California). It is important to note that VS causes disease in horses, while FMD does not affect horses.

The disease has an incubation period of about 9 days (range 3-14 days). 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, but can occur with beef cows also. 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 1998 and before that outbreaks occurred in 1995, 1982 & 1983. In 19882-83 VS 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, recovery can take longer. One of the main considerations with VS is that it cannot easily be distinguished from FMD, which is an extremely serious disease both for the individual animals and for the affected herds.

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 and the outbreak is being handled very efficiently.

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 antibiotic therapy to control secondary bacterial invaders.

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. Wear disposable latex gloves to handle any animals that have blisters and be sure to wash your hands well afterwards. Your veterinarian can then contact the California State Veterinarian's office and/or the California Animal Health and Food Safety Laboratory, as needed. If the current outbreak expands to other states, restrictions on the movement of cattle, horses, and/or swine coming into California will 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 cattle or horses 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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