Questions & Answers on Vesicular Stomatitis Virus (VSV) v080420

What is VSV?
Vesicular Stomatitis Virus (VSV) is a viral disease that primarily affects horses and cattle, and occasionally swine, sheep, goats, llamas, and alpacas. Signs of VSV are slobbering, blisters, sores, and sloughing of skin in the mouth and on the tongue; raw ulcers on the muzzle, inside the ears or on the coronary bands (hairline at top of the hooves), and the teats/prepuce/vulva/anus. After lesions become established, lameness may be evident, and eventually, weight loss may be evident due to reluctance to eat or drink. Lesions will usually heal in 2 or 3 weeks and most animals recover with supportive care. Animal owners should consult their local veterinarian with questions specific to their animals.

"Why is Vesicular Stomatitis Virus (VSV) such a big deal?"
Vesicular Stomatitis Virus is highly contagious and resembles Foot-and-Mouth Disease as well as other severe Vesicular diseases such as Swine Exanthema. Animal health officials urge livestock owners and caretakers to report the signs of disease (described above) to their closest veterinarian immediately. Foreign Animal Diseases (FAD) is a threat to our livestock and related industries, and it is essential to quickly confirm a diagnosis with laboratory testing.

Of all the vesicular diseases, **VSV is the only one that affects horses.** Vesicles on equines, as well as on other farm species, are suggestive of infection. Many states and other countries restrict movement or impose additional requirements for the entry of susceptible animals from areas with known VSV cases. Before moving livestock across any border, contact the state animal health division of the desired destination for any added requirements.

Does this happen here often?
The Southwestern and Western United States have experienced several Vesicular Stomatitis outbreaks. Outbreaks usually occur during the warmer months and often along waterways. United State Department of Agriculture's Animal Plant Health Inspection Service reports that the largest VSV outbreak in more than 40 years of records occurred in 2019 while another widespread event occurred in 2015.

How does it spread?
VSV is spread by flies, gnats, and midges that are the recognized vectors. The virus can be spread by direct contact with infected livestock and indirectly through contact with contaminated water tanks, feed bunks, and tack (bits, etc.).

What can I do to prevent infection of my animals?
There is **no** vaccine available for VSV, and treatment is supportive (nursing care). Old or chronically ill animals may succumb to VSV infection. Being off feed for a week or two can impair a performance or breeding animal. Fly control directed at eliminating fly breeding habitat is the most important step in preventing the disease. When possible In locations where VSV infection is found, livestock owners should move their healthy animals away from running water (creeks, rivers) to dryer ground until the insect vector season subsides as VSV vectors like to reproduce near moving water. Generally, insect vector populations will subside in cooler weather (after a frost).

The use of "Fly Wipes" may help. Some bugs prefer the thin skin on the muzzle, ears, and prepuce/vulvar regions. Be sure to apply repellents in those regions. Others will reside near the grass and affect the feet and underbelly. Good sanitation such as clean paddocks and removal of manure piles, and the use of biosecurity measures can help avoid exposure.

Isolating animals is the easiest and most effective way to be safe and biosecure. Do not take your animals to locations that pose a risk or let other animals be transported to your location if you are not sure of the herd/group disease status. Incubation periods range from 2-10 days. A visiting animal without signs or lesions could be incubating VSV and deliver it to your animals or be bitten by your resident flies and then spread VSV on your premises. Avoid animal-related events like trail rides, rodeos, playdays, etc. in affected areas during outbreak periods.

What is done to control VSV outbreaks?

To control VSV outbreaks, premises with confirmed positive and suspect cases are quarantined and then monitored by federal veterinarians for at least 14 days from the onset of lesions in the last animal affected on the quarantined premise. The Arkansas State Veterinarian imposes a quarantine on the premises for at least 30 days after initiation of a disease investigation (first notice for a confirmed or suspected case on that premises).

Can I get VSV?

Humans rarely contract VSV, but it can happen. While uncommon, human infections may manifest in people caring for VSV infected animals. Symptoms in people are headaches, joint pain, general flu-like feelings of discomfort, and respiratory disease is possible.