



VESICULAR STOMATITIS

FACT SHEET

WHAT IS VESICULAR STOMATITIS (VSV)?

Vesicular stomatitis is a viral disease that primarily affects horses and cattle. VSV also can affect sheep, goats, llamas, alpacas, swine, deer and some other species, including bobcats, raccoons and monkeys. Humans can also become infected with the disease when handling affected animals, but this is a rare event. Vesicular stomatitis has been confirmed only in the Western Hemisphere. It is known to be an endemic disease in the warmer regions of North, Central, and South America, but outbreaks of the disease in other temperate geographic parts of the hemisphere occur sporadically.

In the past decade, the Southwestern and Western United States have experienced a number of vesicular stomatitis outbreaks. Outbreaks usually occur during the warmer months, often along waterways. In some years, only a few premises in a single state have been affected. However, in other years, multiple states and many premises have been involved.

Since there could be a vesicular stomatitis outbreak in any given year, it is essential that veterinarians and livestock owners be on the alert for animals displaying clinical signs of the disease.

FOOT-AND-MOUTH DISEASE (FMD) OR VESICULAR STOMATITIS?

At first glance, blisters, erosions in the mouth, excessive salivation, or crusty sores around an animal's muzzle, teats or hooves bring to mind the dreaded and highly contagious foreign animal virus, Foot-and-Mouth Disease (FMD). FMD has not been detected in the U.S. since 1929, but animal health officials and ranchers remain on guard for an accidental or intentional introduction of the disease. Although Vesicular Stomatitis (VSV) mimics the disease signs of FMD, VSV is endemic, or naturally occurring in the U.S. and outbreaks occur sporadically. Unlike FMD, VSV can affect horses.

THE CYCLE OF VSV

VSV normally has an incubation period of two to eight days before the infected animal develops blisters that swell and burst, leaving painful sores. The virus can be transmitted through direct contact with infected animals or by blood-feeding insects. Infected animals also can spread the virus when their saliva or the fluid from ruptured blisters contaminates feed, water or hay shared with herd mates.

Sick animals should be isolated and may need supportive care to prevent a secondary infection where blisters have broken. Painful lesions also can form around animals' hooves, resulting in temporary lameness.

Infected dairy cattle may have a dramatic drop in milk production. Although milk is not regarded as a vehicle for transmitting VSV, raw milk from infected cows should not be consumed because it may be contaminated with vesicular fluid from lesions on the teats.

Pasteurization, or heat treatment, will kill the VSV virus, making milk safe to consume. In two or three weeks, VSV infection will usually run its course and animals will begin healing. VSV outbreaks usually, but not always, end with the fall or winter's first freeze.

Ranchers, veterinarians and others who handle sick animals should wear rubber or latex gloves as a biosecurity measure to prevent the spread of disease to other animals, or to themselves. In rare instances, humans can contract VSV and develop a flu-like illness that lasts four to seven days.

HOW VSV IS DIAGNOSED

When a producer or private veterinary practitioner reports that an animal has blisters, erosions or sores, Texas Animal Health Commission (TAHC) or U.S. Department of Agriculture (USDA) veterinarians, trained as foreign animal disease diagnosticians,

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will assist in the disease investigation. They will work with the owner's private veterinary practitioner at no charge to take a health history and ask questions about the animals' recent movements to and from the premises. Finally, blood samples, swabs and/or tiny snippets of tissue will be collected from the blisters or sores on the affected animals.

In the meantime, all animals on the affected premises will be placed under a hold order by the TAHC to stop animal movement as a measure to protect against the spread of disease.

It is vitally important that livestock owners report potential cases of VSV, so that samples can be collected and tested to confirm VSV and rule out other diseases.

MORE ABOUT VSV

The good news: If VSV is confirmed, infected animals are quarantined for 14 days after clinical signs of lesions are observed. This short-term quarantine helps prevent the movement of animals and the spread of the disease to other premises, fairs or markets.

Depending on the severity of the blisters and resulting lesions, healing can be complete in two weeks but may require a month or longer.

Although VSV rarely results in death, infected animals lose condition, because they do not eat or drink when the blisters and ulcers are present. When an animal is badly infected, an owner may opt to have an animal euthanized to end its suffering.

Researchers have determined that outbreaks initially are started by a virus transmitted by arthropods, black flies and sand flies. They have not, however, been able to determine why infection occurs sporadically, and where the virus resides during the years when VSV is not present.

STRATEGIES FOR PREVENTING VSV

Even with the best defensive measures, VSV could infect a herd. However, these tips may help protect livestock:

1. Control biting flies
2. Keep equine animals stalled or under a roof at night to reduce exposure to flies
3. Keep stalls clean
4. Feed and water stock from their individual buckets
5. Disinfect borrowed equipment or tools prior to using them on your premises
6. Don't visit a ranch that's under quarantine for VSV. Wait until the animals have healed

TRADE IMPLICATIONS OF VSV

Confirmed cases of VSV must be reported to interstate and international trading partners, which may result in restrictions, additional inspections or testing requirements. Prior to shipping livestock during a VSV outbreak, check with the state of destination to ensure all entry requirements have been met. To obtain contact information for other states' animal health regulatory officials, contact the TAHC at 1-800-550-8242.