



# MISSOURI

dept. of

# Agriculture

## VESICULAR STOMATITIS

### *Equine*

Vesicular stomatitis is a viral disease which primarily affects horses, cattle and swine. It occasionally affects sheep, goats, llamas, alpacas and people who handle affected animals. Vesicular stomatitis is found in the Western Hemisphere, where it is endemic in warmer climates and occurs sporadically in temperate climates. It is essential that veterinarians and livestock owners are aware if vesicular stomatitis occurs in their area - and be on the alert for animals displaying clinical signs of the disease. Vesicular stomatitis has been confirmed in Nebraska, Kansas, Arizona, New Mexico, Texas, Oklahoma and Missouri.

### Clinical Signs

When vesicular stomatitis occurs in horses, blister-like lesions usually develop on the tongue, mouth lining, nose or lips. In some cases, lesions can develop on the coronary bands, or on the udder or sheath. When VS is suspected, an exact diagnosis should be obtained by testing the blood for virus-specific antibodies or by testing swabs from the lesions to identify the presence of the virus. Testing is necessary to rule out the possibility that the lesions are caused by photosensitivity (sunburn), irritating feeds or weeds, or toxicity from non-steroidal anti-inflammatory medications like phenylbutazone.

The incubation period – meaning the time from exposure until the first signs appear – ranges from 2 to 8 days. A fever may develop initially as blisters form on the tongue, gums, or coronary bands. One of the most obvious clinical signs is drooling or frothing at the mouth and potentially a reluctance to eat. This occurs following rupture of the blisters that create painful ulcers in the mouth. The surface of the tongue may slough. Excessive salivation is often mistaken as a result of a dental problem just as a horse that is not eating well may be suspected as having colic. Weight loss may be a secondary effect, as a horse with mouth ulcers finds it too painful to eat. If lesions form around the coronary band, inflammation within the foot may result in lameness or laminitis. In severe (but rare) cases, the lesions on the coronary band may cause the hoof to slough.



### REPORT SUSPICIOUS CASES

Vesicular stomatitis is a reportable disease. If suspected, this disease should be immediately reported to the Missouri State Veterinarian's office at (573) 751-3377, or the USDA Area Veterinarian in Charge (AVIC) at (573) 658-9850.

# Clinical Signs

The disease generally runs its course within two weeks, although it may take as long as two months for the sores to entirely heal. Live virus can often be isolated from the lesions for up to a week after the lesions appear. During this time, the horse remains infective and the potential remains for the disease to spread to other animals.

Vesicular stomatitis is one of several disease that have similar clinical signs. One of the diseases, foot and mouth disease (FMD), is a foreign animal disease that would cause devastating economic consequences if found in the U.S. The only way to tell these diseases apart is through laboratory testing. It's important to test any animal with clinical signs to quickly identify which disease is causing illness.

# Disease Spread

How vesicular stomatitis spreads is not fully understood – insects, animal movements, and moving the virus on objects are all factors. The most common method of transmission is through biting insects. Black flies, sand flies, and biting midges have all been shown capable of transmitting the virus, but other insects may also be involved. Once the disease is introduced into a herd, it may move from animal to animal by contact or exposure to saliva or fluid from ruptured vesicles.

# Recommended Actions

There is no specific treatment or cure for vesicular stomatitis. Good sanitation and quarantine practices on affected farms usually contain the infection. When a diagnosis is confirmed on a farm, work with the State Veterinarian's office to determine necessary quarantine procedures. The following procedures are also recommended:

- Separate animals with lesions from healthy animals, preferably by stabling. Animals on pastures tend to be affected more frequently with this disease.
- Implement on-farm insect control programs that include: elimination or reduction of insect breeding areas, manure management practices, and use of insecticides or other insect prevention strategies on animals and around facilities.
- Use personal protective measures when handling affected animals to avoid human exposure to this disease.



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Livestock owners who have questions about this disease should contact their veterinarian.

More information can be found at:

[https://www.aphis.usda.gov/publications/animal\\_health/fs-vesicular-stomatitis.pdf](https://www.aphis.usda.gov/publications/animal_health/fs-vesicular-stomatitis.pdf)

