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www.kansashorsecouncil.com
July 16, 2020
4pm to 5pm
Vesicular Stomatitis Virus Update
hosted by
Kansas Horse Council’s Region 4 Director, Chris Kaegi Stephens
and
Executive Director, Justine Staten

We welcome and give thanks to
the Kansas Department of Agriculture,
Division of Animal Health Commissioners

Dr. Justin Smith, Dr. Andy Hawkins & Dr. Sara McReynolds
Kansas
Vesicular Stomatitis
Virtual Town Hall Meeting

June 25, 2020

SERVING
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AGRICULTURE
KDA Confirms Vesicular Stomatitis in Horses in Butler County

MANHATTAN, Kansas — The Kansas Department of Agriculture has announced that vesicular stomatitis virus (VSV) was confirmed in horses in Butler County on June 16, 2020. Kansas becomes the fourth state in the U.S. to have confirmed cases of VSV this year.

The infected horses live on different private residences in south central Kansas. When clinical signs were first identified on a premises in Butler County, KDA contacted veterinarians in the region to alert them of the possibility of VSV, which led to additional suspect cases in the area. Upon receiving the laboratory confirmation, KDA established a quarantine on the three affected premises. KDA has tested a number of other animals in the region which are showing clinical signs consistent with VSV, and are awaiting final laboratory testing.

“Protecting the health and safety of horses and other livestock in Kansas is our highest priority,” Dr. Justin Smith, Animal Health Commissioner said. “We encourage all livestock owners across Kansas to be aware of the clinical signs of VSV and follow best practices to limit exposure to insects. Livestock owners should take extra precautions to limit exposure to other animals.”

VSV is a viral disease which primarily affects horses, but can also affect cattle, sheep, goats, swine, llamas and alpacas. In horses, VSV is typically characterized by lesions which appear as crusting scabs on the muzzle, lips, ears, coronary bands, or ventral abdomen. Other clinical signs of the disease include fever and the formation of blister-like lesions in the mouth and on the dental pad, tongue, lips, nostrils, ears, hooves and teats.

Infected animals may refuse to eat and drink, which can lead to weight loss. Vesicular
Vesicular Stomatitis Virus

- **Viral disease**
  - Two serotypes
    - Indiana
    - New Jersey

- **Transmission:**
  - Sand flies, Midges, Black flies

Photos by Stephen Ausmus, Paula Rozo Lopez, Daniel Mead
Vesicular Stomatitis Virus

▪ Sand Fly
  ▪ Prefer high nutrient area that remain dry (Tree holes, rock crevices, animal burrows)
  ▪ Primarily Nocturnal

Photos by Stephen Ausmus, Paula Rozo Lopez, Daniel Mead
Biting Midges
- Prefer high nutrient areas that remain wet, moist (wet leaves, compost, mud around ponds and troughs)
- Tend to move and feed around sunset and sunrise
Vesicular Stomatitis Virus

▪ Black Flies
  ▪ Prefer aquatic habitats that have flowing water (irrigation ditches, springs, rivers, streams)
  ▪ Active during the day and early evening, rarely at night
  ▪ Some species can travel up to 7 miles per day
Vesicular Stomatitis Virus

- Transmission:
  - Direct nose-to-nose contact
  - Mechanical fomites:
    - Buckets
    - Shared feed resources
    - Common water source
    - Shoes, clothing, hands
    - Contaminated equipment
Vesicular Stomatitis Virus

- **Significance:**
  - Primarily affects horses
  - Cattle, sheep, goats, swine, llamas and alpacas

- **Clinical signs:**
  - Reluctance to eat
  - Drooling
  - Frothing at mouth
  - Lameness
  - Drop in milk production
Vesicular Stomatitis Virus
Vesicular Stomatitis Virus

- **Zoonotic**
  - Not common
  - Infection from
    - Lesions
    - Saliva
    - Nasal Secretions
- **Symptoms**
  - Influenza – like illness
  - Fever
  - Muscle aches
  - Headaches
  - Malaise
- **Personal Protective Equipment**
  - Gloves
  - Masks and/or face shields
  - Wash hands frequently
Vesicular Stomatitis Virus

- Incursion vs Expansion
- Historical outbreaks
  - 2009, 2010
  - 2012
  - 2014, 2015
  - 2019
2020 Kansas VSV Response
2020 Kansas VSV Response

(Images of horse's mouth and teeth, possibly showing a dental issue or condition.)
2020 Kansas VSV Response

- **152** Total Investigations
- **10** Positive Counties (Butler, Chase, Cowley, Greenwood, Marion, Miami, Montgomery, Morris, Sedgwick, Sumner)
- **64** Positive Premises
  - **371** Head of Horses and **407+ additional livestock**
- **36** Premises – Suspect &/or Pending Lab Results

www.agriculture.ks.gov/VSV
Vesicular Stomatitis Virus – July 9

- Incubation period 2 to 8 days
- Viral shedding up to 10 days
- Treatment:
  - Supportive care
  - Anti-inflammatories
  - Antibiotics
- Immunity is not protective
- No vaccine
**2020 Kansas VSV Response**

- **Non - Positive Counties**
  - Index case must be examined by regulatory veterinarian and have laboratory confirmation

- **Positive Counties**
  - Accredited Veterinarian Sample Collection Protocol
  - Management as Suspect Premises in lieu of testing
  - Quarantines will remain in place for 14 days from the onset of lesions in the last affected animal
  - Quarantine release inspection by veterinarian
Quarantine established on all affected premises
  - No susceptible livestock movement on or off premises
  - Violations

K.S.A. 47-604 Any person who knowingly and intentionally violates, disregards or evades, or attempts to violate, disregard or evade any order establishing or regulating a quarantine issued pursuant to article 6 of chapter 47 of the Kansas Statutes Annotated, and amendments thereto, upon conviction of a violation of this section, such person shall be guilty of a severity level 7 nonperson felony.
2020 Kansas VSV Response

- No restrictions for shows/events
  - VSV Guidelines for Shows and Fairs
    - Recommend exhibitions have pre-entry exam
    - or -
    - Certificate of Veterinary Inspection (Health Certificate) issued within last 48 hours
  - Post signage on good biosecurity practices
  - Consider limiting exhibitions to one day events

- Provide situational awareness and manage current stats on website
  www.agriculture.ks.gov/VSV
2020 Kansas VSV Response

VESICULAR STOMATITIS VIRUS

STOP THE SPREAD OF VSV: CONTROL INSECTS!
Focus on clean pens, especially manure removal.
Use appropriate fly spray and fly traps.
Utilize summer sheets and hoods when possible.

VESICULAR STOMATITIS VIRUS

WATCH THESE HOT SPOTS FOR VSV SYMPTOMS!
VSV is characterized by crusty sores or lesions on the mouth, tongue, nostrils, ears, coronary bands, hooves, teats or ventral abdomen.
Other symptoms include drooling/foaming at the mouth, lameness, fever and refusal to eat and drink, which can lead to weight loss.

VESICULAR STOMATITIS VIRUS

STOP THE SPREAD OF VSV: BIOSECURITY
- Separate affected animals
- Control insects
- Handle healthy animals before sick animals
- Wash and disinfect hands, boots, equipment, stalls
- Don’t share equipment (water buckets, brushes, etc.)
- Change clothes between healthy and sick animals

www.agriculture.ks.gov/vsv

KANSAS DEPARTMENT OF AGRICULTURE
DIVISION OF ANIMAL HEALTH
785-564-4401

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Biosecurity – Increased Vigor

• Separate affected horse(s)
• Controlling insects
  • fly spray
  • fly traps
  • maintaining clean pens, manure removal
  • utilizing summer sheets, hoods, leggings
• Handle all healthy animals before sick animals
• Practice personal biosecurity measures
  • Wash and disinfect hands, boots, equipment, stalls
  • Change clothes between affected and non-affected animals
Biosecurity – Increased Vigor

• Premises Management
  • Improve drainage
  • Remove standing vegetation
  • Provide indoor shelter during peak vector feeding times
  • Reduce artificial lighting
  • Increase air movement in barns
  • Increase daily observation of your horses
2020 Kansas VSV Additional Info.

- Interstate import restrictions
  - Check with destination state for requirements
  - KS additional import requirements for livestock from a known positive state

All horses, cattle, sheep, goats and swine originating from any county where vesicular stomatitis (VS) has been diagnosed in the past 30 days, (except cattle and swine transported directly to slaughter), must be accompanied by a health certificate (certificate of veterinary inspection), permit, and signed by an accredited veterinarian that includes the following statement: "All animals identified on this certificate have been examined by me and found to be free of vesicular stomatitis. These animals have not been exposed to vesicular stomatitis nor located on premises where vesicular stomatitis has been diagnosed within thirty (30) days."

- Canadian import restrictions
  - Regarding Vesicular stomatitis (VS), all states in which the animal(s) have resided in the past twenty-one (21) days were free from clinical and epidemiological evidence of vesicular stomatitis during the twenty-one (21) days immediately prior to export to Canada.
www.agriculture.ks.gov/VSV

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Thank You