NLRP 2018: Horses and the Livestock Industry



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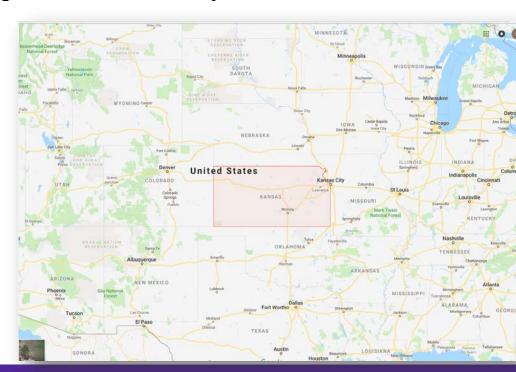
Equine Industry in Kansas

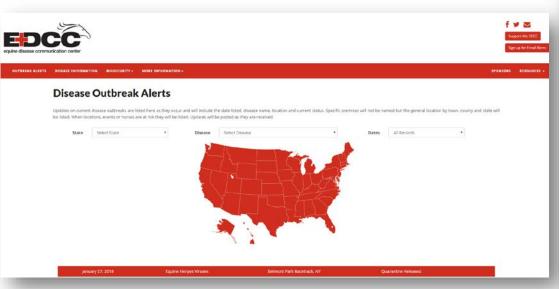
- Ranch
- Cow calf
- Feedlot
- Pleasure
- Professional competition
 - Cutting
 - Reining
 - Rodeo



Equine Infectious Disease in 2018

- Impact of infectious disease on equine use / industry
 - Streptococcus equi subsp. equi
 - Strangles outbreaks in 2017
 - KS and nationally
 - EIA
 - Serious issues in 2017-2018
 - WNV
 - Annual, unvaccinated individuals
 - C. pseudotuberculosis
 - Drought conditions
 - EHV-1
 - Group housing, stress
 - Vesicular Stomatitis









February 06, 2018 Equine Herpes Viruses Chesterfield County, VA Outbreak Update

Source: Virginia Department of Agriculture and Consumer Services

On February 1, 2018 a horse boarding stable in Chesterfield County was placed under quarantine after a horse with fever and neurologic signs tested positive to the equine herpes virus-1 (EHV) that causes Equine Herpes Myeloncephalopathy (EHM). Since that time, nine horses in the stable have developed fevers, but none have exhibited neurologic signs. Three of these horses have been tested for EHV and one has tested positive. Testing for the remainder of the febrile horses will continue over the next several days. The facility will remain under quarantine for 21 days past the last positive finding of EHV. The febrile horses have been isolated on the farm and are under veterinary care. Four of these febrile horses have been transferred under quarantine to the isolation unit at Marion Dupont Scott Equine Medical Center in Leesburg for additional care and monitoring. Because these horses were admitted under the established isolation protocol, the Equine Medical Center is not under quarantine and is admitting and treating patients normally. Neither of these facilities pose a risk to the Virginia horse population.

February 06, 2018 Equine Herpes Viruses Campbell County, WY Confirmed Case(s): No Quarantine

Source: Wyoming Department of Agriculture

The Office of the Wyoming State Veterinarian confirmed a case of Equine Herpesvirus Myeloencephalopathy (EHM) at a private facility in Campbell County, Wyoming. On January 30, 2018 a 6-year-old QH gelding of unknown vaccination status at a private facility had rapid progression of hind leg ataxia, weakness, recumbency and normal cranial nerve response. The Wyoming Livestock Board was informed on Friday 2/3/18 of a horse in the Gillette area seen by a practitioner for rapidly progressive neurologic signs which upon referral was ultimately euthanized and transported to Colorado State University for necropsy. Nasal swabs taken before euthanasia were positive on PCR for EHV-1 wild type. On 2/5/18, a second horse in the Gillette area seen by another practitioner was reported as having a sudden onset of neurologic signs and is currently being treated and held in isolation at the veterinary facility. Results from nasal swabs and blood samples are pending from the Wyoming State Veterinary Laboratory. Horses stabled at the premise where the positive horses originated are being monitored with temperatures taken twice daily and recorded. Self-imposed quarantines at the recommendation of the Livestock Board are in place pending final necropsy report and test results respectively. Both of the positive horses had competed at the Cam-Plex in Gillette within the past three weeks, though neither had been stabled at the facility. There are no known affected horses at the Cam-Plex which will be instituting enhanced biosecurity measures and public awareness as well as releasing a precautionary statement to the public and those that may have been potentially exposed.

February 05, 2018 Equine Infectious Anemia Wilson and Walker Counties, TX Information Only

Source: Texas Animal Health Commission

Texas Animal Health Commission (TAHC) officials confirmed Equine Infectious Anemia in one Wilson County Quarter Horse and in one Walker County Quarter Horse.

February 05, 2018 Equine Herpes Viruses Warren and Hancock Counties, OH Confirmed case(s): Quarantine

Source: Ohio Department of Agriculture

The Ohio Department of Agriculture (ODA) has confirmed positive cases of Equine Herpes Virus (EHV) in four horses at separate locations around the state. ODA has placed multiple facilities under quarantine and is actively investigating where these animals have been and what other animals might have been exposed. ODA has confirmed two of the positive horses raced at the Meadows Racetrack and Casino in Washington, Pennsylvania. Those animals are currently under quarantine at separate facilities. One of the two raced at Miami Valley Gaming near Lebanon January 13 and 24. Testing confirms they have EHV-1 but neither animal is showing clinical signs of illness. Additionally, two horses at the University of Findlay have tested positive for EHV. These animals are also not showing clinical symptoms. ODA has placed the University of Findlay equine facilities under quarantine. Currently, the department does not believe these animals are connected to the other positive tests, but epidemiological investigations are underway. For more information view the press release at

http://www.agri.ohio.gov/public_docs/news/2018/02.2.18%20EHV%20Confirmed%20in%20Ohio%20Horses.pdf

February 04, 2018 Equine Herpes Viruses Turfway Park, KY Outbreak Update

Source: Kentucky Department of Agriculture

The quarantine for EHV-1 at and biosecurity on the affected barn at Turfway Park was raised to Alert Status, which restricts entry only to persons having essential tasks using proper biosecurity measures. Security personnel are



January 30, 2018 Equine Infectious Anemia Finney County, KS Quarantine Released

Source: Kansas Department of Agriculture

The EIA quarantine in Finney County, Kanasa has been lifted.

October 26, 2017 Equine Infectious Anemia Finney County, KS Outbreak Update

Source: Kansas Department of Agriculture

All horses on a premises under official quarantine by the Kansas Department of Agriculture for EIA in Finney County were retested for 60-day retesting protocol. Two horses, which were previously EIA-negative, tested positive at this retest. Both of the confirmed EIA-positive horses have been humanely euthanized. Both horses had been maintained on the premises under the official quarantine since August 11, 2017 pending the 60-day retest. All other horses from this premises will remain under official quarantine for an additional 60 days pending a negative EIA test. For more info go to: http://agriculture.ks.gov/divisions-programs/division-of-animal-health/animal-disease-control-and-traceability/equine-infectious-anemia

September 01, 2017 Equine Infectious Anemia Finney and Kearny Counties, KS Confirmed case(s): Quarantine

Source: Kansas Department of Agriculture Division of Animal Health

On August 29th The Kansas Department of Agriculture Division of Animal Health (KDA-DAH) confirmed two horses were positive for Equine Infectious Anemia (EIA). One horse is located in Finney County, and the other is located in Kearny County; both premises are under quarantine, and all other horses on site are being tested. For more information go to: http://agriculture.ks.gov/AllNewsItems/2017/08/30/additional-horses-test-positive-for-equine-infectious-anemia

August 19, 2017 West Nile Virus Reno County, KS Confirmed Case(s): No Quarantine

Source: Kansas Department of Agriculture

The Kansas Department of Agriculture Division of Animal Health (KDA–DAH) confirmed a horse in Reno County has tested positive for West Nile virus (WNV). The horse was euthanized due to the severity of the illness. This is the first reported equine case of WNV in Kansas in 2017. Horse owners are encouraged to vaccinate their horses to prevent the spread of WNV. For more information go to: http://www.agriculture.ks.gov/divisions-programs/division-of-animal-health

August 19, 2017 Equine Infectious Anemia Finney County, KS Confirmed case(s): Quarantine

Source: Kansas Department of Agriculture

The Kansas Department of Agriculture Division of Animal Health (KDA–DAH) confirmed a horse in Finney County has tested positive for Equine Infectious Anemia (EIA). The facility is under quarantine and all the exposed horses were tested, with five additional positive EIA horses. Since the disease is not curable, the affected horses will be euthanized. The remaining horses at the facility will be observed and retested in 60 days. For more info go to: http://www.agriculture.ks.gov/divisions-programs/division-of-animal-health

consistent with EHV-1 and virus confirmed at U of KY. Kansas Department of Agriculture indicated they are not imposing restrictions on equine events or movements at this time but encourage horse owners to take precautions at upcoming events such as calling ahead to see if the scheduled event is taking place.



Equine Strangles



- Streptococcus equi subsp. equi
- Major outbreaks in 2017
- Affected several properties in central and eastern KS.
- Complete course of outbreak
 > 6 months.

S. equi Infection

- Identify disease
 - Fever, nasal d/c, swelling / abscess
- Minimize spread
 - Separate sick, T > 101.5 F
- Avoid cross contamination
- Approximately 8 weeks / horse (best case)
- Complications
 - Purpura
 - Myositis
 - Pneumonia



- Feedlot horse
- Fever, nasal discharge, lethargy.



- Nasal swab, PCR pos. KSVDL
- Recovery at 4 weeks, one swab PCR neg.
- Interpretation?
- Risk exposure to others.

ACVIM Consensus Statement

J Vet Intern Med 2005;19:123-134

Consensus Statements of the American College of Veterinary Internal Medicine (ACVIM) provide veterinarians with guidelines regarding the pathophysiology, diagnosis, or treatment of animal diseases. The foundation of the Consensus Statement is evidence-based medicine, but if such evidence is conflicting or lacking the panel provides interpretive recommendations based on their collective expertise. The Consensus Statement is intended to be a guide for veterinarians, but it is not a statement of standard of care or a substitute for clinical judgment. Topics of statements and panel members to draft the statements are selected by the Board of Regents with input from the general membership. A draft is prepared and input from Diplomates is solicited at the Forum and via the ACVIM Web site and incorporated in a final version. This Consensus Statement was approved by the Board of Regents of the ACVIM before publication.

Streptococcus equi Infections in Horses: Guidelines for Treatment, Control, and Prevention of Strangles

Corinne R. Sweeney, John F. Timoney, J. Richard Newton, and Melissa T. Hines

D isease caused by *Streptococcus equi* infection in horses, commonly referred to as strangles, was described in early veterinary science literature and first reported by Jordanus Ruffus in 1251. Although its official name is S equi subsp equi, there is compelling evidence that it is derived from an ancestral S zooepidemicus as a genovar or biovar of the latter. We have decided throughout the consensus statement to use the descriptive term S equi based on its widespread usage in the scientific literature over the past century. The following consensus statement reflects our current knowledge and opinion about clinical signs. pathogenesis, epidemiology, treatment, complications, and control of strangles. The information should aid veterinarians in devising control procedures and in the management of strangles outbreaks.

Clinical Signs

Strangles is characterized by abrupt onset of fever followed by upper respiratory tract catarrh, as evidenced by mucopurulent nasal discharge and acute swelling with subsequent abscess formation in submandibular and retropharyngeal lymph nodes. The name strangles was coined because affected horses sometimes were suffocated by enlarged lymph nodes that obstructed the airway. Severity of disease varies greatly depending on the immune status of the animal. Older horses often exhibit a mild form of the

disease characterized by nasal discharge, small abscesses, and rapid resolution of disease, whereas younger horses are more likely to develop severe lymph node abscessation that subsequently opens and drains.

Fever is the first clinical sign and persists as lymphadenopathy develops and abscesses mature. Pharyngitis causes dysphagia, and affected animals may become anorexic or reluctant to eat and often stand with the neck extended. Attempts to swallow food and water may be followed by reflux of these substances from the nares. Depression and listlessness are common signs. Pharyngitis, laryngitis, and rhinitis may occur and contribute to bilateral nasal discharge, which is serous initially and rapidly becomes mucopurulent and then purulent, profuse, and tenacious. Accumulation of purulent exudates may cause a snuffling or rattling upper respiratory noise. Nasal and ocular mucosa may become hyperemic, and there may be purulent ocular discharge from which S equi might be isolated.

Lymphadenopathy is a major clinical sign. The submandibular and retropharyngeal lymph nodes are about equally involved in S equi infections and become swollen and painful about 1 week after infection. The first sign of lymphadenopathy is often hot, diffuse, painful edema. Serum may then ooze from the overlying skin for several days, as the lymph node abscesses mature before rupturing to drain tenacious creamy pus, which does not have a foul odor. Other lymph nodes of the rostral neck (parotid, cranial cervical, and retropharyngeal) are also frequently involved and may



- Unsanctioned horse racing
- Infectious disease risk
- Equine Infectious Anemia virus
- Piroplasmosis
 - Babesia caballi
 - Theileria equi





- Unsanctioned racing
- Illegal medications
- Infectious disease
 - Blood borne
 - Contact related









ARTURO

Occupation: Cattle Nutritionist and Custo **EDUCATION:**

Bachelor of Science in Animal Science, Te Master of Science in Animal Science, Texa PhD in Animal Science, Kansas State Univ

HOW ARE CATTLE ON PASTURES GIVEN ANTIBIOTICS?

Have you ever wondered how cattle that are grazing on pastures are given antibiotics when they're sick? There's so much out there on the rather confusing. We decided to follow a rancher for a day as he checked on the cattle grazing the pastures of the Flint Hills.

WHAT'S YOUR TYPICAL DAY LIKE?





"On this specific day we found the first group of cattle just over the ridge. During the spring and summer we're primarily checking for pink eye and foot rot, which is like athlete's foot, but in cattle. You can't prevent these diseases because they can happen naturally. Cattle can get pink eye from just scratching an eye on the grass as they're walking or grazing. They can get foot rot from standing in ponds to cool themselves on a hot day. It has nothing to do with management or hygiene; some cattle will just get sick. Fortunately, most won't."



"As a rancher, I only treat calves that are sick. I am their caretaker, so I want to make sure I'm providing them the prompt care they need. I routinely go and check the cattle in the pasture for illness. We were on our second pasture of checking a group of calves when we noticed a calf in the distance that had a slight limp. When a calf has foot rot, they might have a slight limp or be off by themselves because they can't keep up with the rest of the herd. They're in pain and they need medicine to heal."

HOW DO YOU CATCH A CALF ON THE PASTURE?

"We needed to catch the calf in order to give it the medicine that would treat its foot. We were a few miles away from the nearest holding pen, so moving that calf to a pen to treat it would have caused unnecessary pain and stress by making it walk. The most ethical and low-stress way to treat this calf would be to rope it while it was still with the other calves in the pasture. Fortunately, a friend of mine came along today to help me rope any sick calves if we found one."







- Horses and cattle are important to the state of Kansas.
 - Awareness of needs of cattlemen to continue with their business.
 - Minimizing down time and risk of disease.

Equine Core Vaccines



Rabies

- Cases occur annually
- Zoonotic risk
- EEE / WEE / WNV
 - Seasonal
 - Well protected with vac.
 - Dx in KS in 2017
- Tetanus
 - Annual booster



- Horses are important for assistance in the cattle industry.
- Caretakers and owners should be aware of outbreaks and disease(s) that may negatively impact performance.

