

## USAHA COMMITTEE ON EQUINE

Chair: Katie Flynn, KY

Vice Chair: Joe Fisch, FL

Udeni Balasuriya, LA; Samantha Beaty, TN; Becky Brewer-Walker, AR; Charlie Broaddus, VA; Craig Carter, KY; N Jo Chapman, MD; Duane Chappell, KY; Stephen Crawford, NH; Brandon Doss, AR; Roger Dudley, NE; Stéphanie-Anne Dulièpre, NY; Sean Eastman, SC; Dee Ellis, TX; Joe Fisch, FL; Katie Flynn, KY; Tolani Francisco, NM; Tony Frazier, AL; Joseph Garvin, VA; Robert Gerlach, AK; Scarlett Zirkle Gotwals, PA; Michael Greenlee, WA; Kristin Haas, VT; Rod Hall, OK; Steven Halstead, MI; Timothy Hanosh, NM; Andy Hawkins, KS; Carl Heckendorf, CO; Terry Hensley, TX; Michael Herrin, OK; Siddra Hines, WA; Heather Hirst, DE; Rebecca Jones, CO; Rachel Lacey, FL; T.R. Lansford, TX; Donald Lein, NY; Mary Jane Lis, CT; Karen Lopez, DE; Kevin Maher, IA; Scott Marshall, RI; Patrick McDonough, NY; Sara McReynolds, KS; Linda Mittel, NY; Richard Mock, NC; Jason Moniz, HI; Kenton Morgan, MO; Peter Mundschenk, AZ; Lee Myers, GA; Alecia Naugle, MD; Cheryl Nelson, KY; Boyd Parr, SC; Angela Pelzel-McCluskey, CO; Jeanne Rankin, MT; Grant Rezabek, OK; Jonathan Roberts, LA; Keith Roehr, CO; Susan Rollo, TX; Abby Sage, VA; Andy Schwartz, TX; Michael Short, FL; Ben Smith, WA; David Smith, NY; Justin Smith, KS; Diane Stacy, LA; Robert Stout, KY; Sandra Strilec, NJ; Tahnee Szymanski, MT; Manoel Tamassia, NJ; Jane Teichner, FL; Peter Timoney, KY; Josie Traub-Dargatz, CO; Alex Turner, CO; Kathleen Turner, FL; Charles Vail, CO; Albert van Geelen, IA; Michele Walsh, ME; James Watson, MS; Courtney Wheeler, MN; Nathaniel White, KY; Cliff Williamson, DC; Thach Winslow, TN; Ryan Wolker, AZ; Ernest Zirkle, NJ.

The Committee met on Monday October 12, 2020 virtually, from 2:30 to 4:30 p.m. Eastern Standard Time (EST). There were 152 individuals present. The meeting began with introductions and discussion of the agenda. The participants were made aware of pre-recorded presentations available to registered attendees which included the following presentations:

- a. African Horse Sickness, A threat to the United States Equine Industry by Dr. Peter Timoney
- b. EEE- An Overview and New Test Development for Improved Diagnostics by Dr. Linda Mittel
- c. Equine Disease Communication Center Update by Dr. Nat White
- d. National List of Reportable Animal Diseases (NLRAD) Update by Dr. Laura Miles
- e. AAEP COVID and Equine Infectious Disease Update by Dr. Katie Flynn

Additionally, the following resource documents were made available to the meeting participants:

- a. 2020 Equine Sector Meeting USDA Commitments Document
- b. USDA Responses to the 2019 Resolutions
- c. USDA 2020 Equine Import/Export Data Report and USDA 2020 Summary Of Advances in Equine Import and Export- Dr. Amber Headen's Reports
- d. USDA Equine Disease Summary Written Report by Dr. Angela Pelzel McCluskey
- e. Equine Viral Arteritis (EVA) UM&R Revised Draft submitted by the EVA Subcommittee Chair, Dr. Terry Hensley
- f. Farm Bill Section 12203 Q&A (Note this is USDA's response to request for information regarding the USDA Plant and Animal Pest and Disease List)

The introductory discussions were followed by Jill Stowe's presentation titled "COVID-19 and the Economic Impact to the Equine Industry". The meeting transitioned into a panel discussion with Jill Stowe, Economist with University of Kentucky, Courtney Mangano from New York Department of Agriculture and Markets, private practitioner Barbara Jones and Cliff Williamson from the American Horse Council. Upon completion of the panel discussion, four questions and answer sessions were conducted with representatives from USDA Import/Export, USDA Equine Health Team, EVA Subcommittee and Equine International Working Group. The meeting concluded with the business meeting which included discussions on the USDA responses to the 2019 resolutions and on the Equine Sector Meeting topics.

### **Committee Business:**

The business meeting focused on discussion of USDA resolution responses and the Equine Sector Meeting.

Discussion regarding the 2019 Equine Viral Arteritis Import Testing Requirement Resolution included the following comments:

- Committee will send letter to USDA to request additional guidance on what constitutes a national program, for example specifically what would need to be the scope of a program, e.g. number states with control programs, would there need to be a specified number of tests performed annually by National Animal Health Laboratory Network (NAHLN) laboratories.
- Additionally, the letter will request that, USDA specify where in the 14 articles of the World Trade Organization (WTO) Sanitary and Phytosanitary (SPS) agreement, it states there must be a domestic control program for an animal disease for a country to require an import test requirement for that same disease.

Discussions regarding the 2019 Contagious Equine Metritis (CEM) resolution raised the following issues:

- Concerns raised about horses being castrated immediately prior to import resulting in a welfare issue for these horses during transport and quarantine. The industry has proposed that castration is occurring to eliminate requirement for CEM quarantine once horses as part of the importation process into the U.S. There was discussion on how long prior to importation a stallion should be castrated to avoid this problem. Proposed periods mentioned ranged from 21 to 60 days. The point was brought up that if this was a period as long as 60 days prior to import and the horse was recently purchased, it would create a logistical problem for the new owner as there would be cost and risk with keeping the recently gelded horse in its country of origin for this long.
- USDA is revising regulations to require that an animal health official oversee the live breeding of stallions while in the CEM quarantine facility.
- National Veterinary Services Laboratories (NVSL) is continuing with validation of two polymerase chain reaction (PCR) multiplex assays for testing for CEM causative agents; they verified that both tests would detect *Taylorella equigenitalis* and *T. asigenitalis*. The USDA hopes to perform testing on experimentally inoculated stallions in 2021. USDA will develop protocols to use in comparison of the PCR test results to the traditional culture methods and results of live breeding. The USAHA Committee on Equine would like to be involved in providing input to USDA as they develop of the protocols for the live animal studies.
  - o One member of the committee suggested that along with the evaluation of the PCR test perhaps there could be assessment of additional sampling method such as a prepuce lavage sample.
- A USDA representative clarified there is no plan to replace the current requirement for test breeding of stallions being imported to the U.S. with the PCR test but rather to utilize PCR as a supplemental testing method at least for the near future.

Other discussion during the business meeting included, whether we know anything at this time about the susceptibility of the equine to CoV-2 infection.

### **Subcommittee Reports**

The Subcommittee on Equine Viral Arteritis and the Equine International Movement Working Group were presented in pre-recorded presentations for the committee to view prior to the meeting. During the virtual meeting, Terry Hensley, Chair of the Equine Viral Arteritis Subcommittee, highlighted the subcommittee's work and answered questions. Also during the virtual meeting, Katie Flynn provided a brief overview of the activities of the Equine Movement Working Group in 2020.

### **Presentations**

#### **COVID 19 and the Economic Impact to the Equine Industry**

Jill Stowe, University of Kentucky

Since horses are luxury goods, equine-related markets are more volatile than many. Specifically when income increases, demand increases at an increasing rate but when income decreases, demand decreases at an increasing rate. The economic slowdown resulting from COVID-19 restrictions has had numerous impacts on equine markets. The presentation included data to support the following lessons learned from the 2008-2009 recession:

- Decline in number of mares bred/foals produced across breeds
- Decline and recovery in stud fees
- Decline in organization memberships
- Decline and recovery in sale prices/revenue
- Decline in competitions and entries

- Increased animal welfare issues

Ultimately all aspects of the equine industry experienced declines following the Great Recession of 2008 and 2009. However, some measures of equine activity showed signs of recovery, others have remained below pre-recession level.

After summarizing some lessons learned from the Great Recession in '08-'09, the discussion turned to immediate impacts of COVID-19. The immediate effects of COVID-19 shut down discussions included competition cancellations, decrease in sales and breeding, modifications to veterinary services and potential equine welfare impacts. On a positive side, the horse industry has been very innovative by including expanded bidding options in auctions, increasing the use of online sales videos, and developing ways to host virtual lessons and virtual horse shows.

As the pandemic is continuing, the long-term outlook is unknown. It will depend on the future handling of the human pandemic. The longer the restrictions last, the larger the impact will be to the equine industry. The aftermath of the Great Recession prompted the 2012 Kentucky Equine Survey and hopefully there will be a national survey post COVID-19 to inform policymakers, research and equine stakeholders on the state of the equine industry.

### **Panel Discussion on the Economic Impact of COVID 19 to the Equine Industry**

Panel included: Jill Stow, Associate Professor Agricultural Economics, University of Kentucky; Courtney Mangano, Program Manager, New York State Department of Agriculture and Markets; Cliff Williamson, American Horse Council; and Barbara Jones, Private Practitioner

The panel members were asked the following three questions and provided the following insights:

1. What specific equine issues did you or your organization address during the COVID-19 pandemic?
  - a. American Horse Council - Weekly newsletters with educational material and reporting
  - b. Private practitioner - Addressing the governor's orders regarding what was emergency/essential services, protocols for reopening veterinary practices and equine facilities safely and working to implement equine patient telemedicine options.
  - c. SAHO - Provide policy makers with guidance on veterinary practice, stable owners with information on safety standards. Expanded guidelines as part of phase 1 reopening. Worked with equine business to obtain essential business status.
2. What were some of the identified challenges for you or your organization during COVID-19 pandemic?
  - a. American Horse Council - National crisis related to animal care and care givers traveling to animal's location.
  - b. Private practitioner - Telemedicine facilitated continued veterinary care but some aspects of veterinary care of equids is better done in person. Many curbside services will continue for to facilitate risk mitigation.
  - c. SAHO - Enforcement of guidance was at the local level and not the state level and necessary for communications across many entities. Found new entities to work with during a future animal health event based on the contacts they made during the COVID 19 pandemic.
3. What are some lessons learned by you or your agency during this pandemic?
  - a. AHC - sharing of non-verified information is a problem, we need improved baseline reports to better access current the issue.
  - b. Private practitioner - Don't be afraid to say what you don't know. Specifically related to animals being infected with CoV-2. As we have learned some animals such as mink and cats may show clinical signs and test positive for CoV-2 after an exposure to infected people.
  - c. SAHO - Improve networking as there were more entities impacted than previous communications on equine health issues.
  - d. Participant comment - Transportation needs of racing horses changed based on a shift of where racing was occurring in order to get animals where they were able to train and race.

USDA has made many advancements to promote the international movement of equine while protecting the equine population and decreasing the risk of foreign disease introduction or exposure. The USDA has worked with industry to address many of the current import, export and animal health concerns. USDA worked this fiscal year to streamline the import process for U.S. horses returning from CEM affected countries and for European Union (EU) origin horses entering the U.S. This included updating the documentation requirements which has positively impacted the import process for U.S. and E.U. origin horses. USDA also implemented and posted fillable health certificates for public viewing on the APHIS website that can be used by importers, exporters, and our trading partners to ensure all import requirements are met. We continuously work with individual countries to negotiate bilateral health certificates for both live equine and germplasm shipments.

USDA increased communication with equine stakeholders through multiple opportunities and platforms for stakeholders to provide their concerns and feedback and to receive updates. APHIS host a bi-monthly call with equine stakeholders to discuss topics previously received, issues observed in the quarantine facilities or with the general import process. APHIS also host port specific monthly meetings with equine stakeholders to provide information and answer questions related to that port.

USDA also worked on multiple policy and regulatory updates. This includes the guidance for the national CEM program and the equine quarantine facilities along the U.S. Mexico border which both went into effect January 1, 2020. Since implementation, all 17 approved states for Contagious Equine Metritis (CEM) quarantine have signed a memorandum of understanding (MOU) with APHIS and are carrying out CEM activities in accordance to the MOU and guidance. In addition, USDA updated and enacted sick horse procedures for all quarantine facilities and standardized the import permit process for all commodities at all port offices.

USDA is currently developing a new guidance for equine import procedures outlining the complete process for importation of horses into the U.S. USDA is updating the permanent privately owned horse quarantine facility guidance and the testing of equine during import quarantine guidance. The target implementation date of these documents is early 2021.

While there have been many advancements during this fiscal year, one of the challenges to which USDA has been working to address is the import of sick and injured horses. USDA understands the potential risk of disease introduction and the impact to receiving states and domestic horses this can present. The import of sick horses also requires the use of extra resources to ensure these horses meet import requirements prior to release. USDA is collaborating with the European Union and other affected countries to identify solutions that can be implemented pre-export to prevent the arrival of sick and injured horses. USDA is also committed to keeping our personnel and imported horses safe. Horses that are fractious and cannot be handled appropriately not only cause safety concerns but may also delay import processing and release from quarantine. We are continuously working with exporting countries and importers to reduce the import of fractious, injured and ill horses.

USDA considers Africa (excluding Morocco), Oman, Yemen, Thailand and Malaysia countries affected with African Horse Sickness (AHS). Thailand and Malaysia were added to this list during early 2020 due to recent disease outbreaks. All horses that are imported from these affected regions or transit these countries must follow the AHS protocol for entry into the U.S. This includes a minimum 60-day quarantine at the New York Animal Import Center.

The equine import regulations are being updated to better align with international standards and improve flexibility for both the equine industry and USDA which includes the 60-90 days proposed regulation change for U.S. returning horses from CEM affected regions. The update to these regulations is currently going through the internal regulatory process. We understand the benefits these updates will be for the equine industry.

USDA has opened and expanded multiple markets this fiscal year for the export of live horses and semen from the U.S. This includes new markets to North Macedonia, expanded markets to Australia, Brazil, Taiwan, Peru, Philippines and others. There have been several retained markets as well for live horses and semen including export to Saudi Arabia, Argentina, New Zealand and Ecuador.

USDA created a new history page for live animal export updates where all stakeholders can search and find any export protocol update by species and by country. The new site has seen over 7,000 views since its creation. Stakeholders can also sign up for automatic GovDelivery notifications to stay up to date on export updates in real time.

During fiscal year 2020 there were outbreaks of Vesicular Stomatitis in eight states including Arizona, Arkansas, Kansas, Missouri, Nebraska, New Mexico, Oklahoma and Texas. Most countries restricted

U.S. export at the affected premises level or premises plus a defined radius around the premises. However, some trading partners including Canada restricted export at the state level. At this time, only Kansas and Missouri are affected by Canadian restrictions and are ineligible for export to Canada.

USDA is consistently improving the customer experience using the Veterinary Export Health Certification System (VEHCS). As of this fiscal year, all live animal export certificates can be issued and submitted by USDA accredited veterinarians through VEHCS. In addition, 33 countries also accept APHIS digital endorsement. To ensure stakeholders are aware of what the requirements are for each country, there is a color-coded banner on the top of each country page located on the export regulation website. The orange color banner indicates that an original APHIS signature is required, and an embossed seal must be applied. Green banners indicate that APHIS digital signatures are accepted by the receiving country. Purple banners indicate digital APHIS signatures are accepted only for certain commodities, and original signatures are required for others. VEHCS also offers the receiving country the capability to pre-clear shipments. Port of arrival border inspection personnel can verify the authenticity of a digitally issued and endorsed U.S. origin health certificate using the VEHCS Certificate Viewer. If the paper hardcopy health certificate in hand at the port of arrival matches the document displayed in the VEHCS Certificate Viewer, the paper document is authentic. USDA is committed to facilitate the growth in international movement of equine by staying engaged with our stakeholders, opening and expanding markets, and working to find solutions.

### **USDA Equine Regulatory Disease Update**

Angela Pelzel-McCluskey, USDA-APHIS, Veterinary Services (VS)

#### **2019 and 2020 Vesicular Stomatitis Outbreaks**

The 2019 vesicular stomatitis virus (VSV) outbreak in the United States was the largest in the past 40+ years of recorded history. The outbreak was entirely VSV-Indiana serotype, which hadn't been isolated in the U.S. since 1997-1998, it lasted from June 21 to December 27, 2019, and included 1,144 affected premises in eight states (Colorado, Kansas, Nebraska, New Mexico, Oklahoma, Texas, Utah, and Wyoming). Of the total affected premises, 1,128 premises had only equine species clinically affected, 15 premises had only clinically affected cattle, and one premises had both equids and cattle with clinical signs. Given the size and scope of the 2019 outbreak, it was expected that overwintering of the virus would occur and that new cases were likely to appear in the historically affected southwestern and Rocky Mountain region states beginning in the spring of 2020.

On April 13, 2020, the National Veterinary Services Laboratories (NVSL) in Ames, Iowa, confirmed a finding of VSV infection (Indiana serotype) on an equine premises in Dona Ana County, New Mexico. This was the index case of VSV for the 2020 outbreak and for the state of New Mexico. As the outbreak progressed, seven additional states became confirmed as VSV-affected: Arizona on April 22, Texas on April 23, Kansas on June 16, Nebraska on June 24, Oklahoma on July 7, Missouri on July 13, and Arkansas on July 27, 2020. A total of 325 premises in these eight states have been either suspected or confirmed as VSV-infected during the outbreak to date and placed under state quarantine. Quarantines remain for a period of 14 days from the onset of lesions in the last affected animal on the premises and vector mitigation strategies and enhanced biosecurity procedures are recommended on quarantined premises to reduce within-herd spread of the disease.

Of the 325 VSV-affected premises identified, 312 premises have had only equine species clinically affected, 12 premises have had only cattle clinically affected, and one premises has had both equine and cattle clinically affected. At the time of this writing, all 325 VSV-affected premises have completed the quarantine period and been released. Surveillance for additional cases potentially associated with this outbreak are ongoing.

While the overwintering event and identification of new VSV-Indiana positive cases were expected in 2020, there were several unusual occurrences associated with this outbreak that were not predicted. Firstly, in addition to the VSV-Indiana cases that occurred in New Mexico, Arizona, and far west Texas in April/May 2020, a new incursion of VSV-New Jersey virus from Mexico simultaneously appeared in south Texas and continued northward as far as south central Texas affecting seven premises in four counties. An outbreak involving both VSV-Indiana and VSV-New Jersey serotypes concurrently had not been seen in the U.S. since 1997-1998. Secondly, the expected continuation of the VSV-Indiana outbreak from 2019 in the Rocky Mountain region (Colorado, Utah, and Wyoming) never materialized in 2020. There were some severe drought indicators that presented in this region in late spring and early summer which may have had a significantly negative impact on the VSV-competent vector populations, but further study is

needed to evaluate the climate variables that may have played a role. Finally, the appearance of an outbreak cluster in the Kansas, Missouri, Oklahoma, and Arkansas region was not expected and VSV cases this far east had not been seen since the 1930s.

Analysis of these abnormalities along with other variables involved in the 2020 outbreak are planned by the VSV Grand Challenge Team, a multidisciplinary group sponsored by USDA-Agricultural Research Service (ARS) and involving four different ARS research hubs and APHIS-VS. This team, established in 2015, explores climatic, ecological, hydrological, virus, vector, host, and epidemiological variables that drive VSV incursion and expansion in the U.S. with the goal of establishing reliable predictive information on disease transmission and outbreak scope to support the state/federal field response. The team is currently producing several peer-reviewed publications per year that capture and share the research results.

Complete situation reports for the 2019 and 2020 VSV outbreaks can be accessed on the USDA-APHIS website at the following link: <https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/cattle-disease-information/vesicular-stomatitis-info>

#### **Update on Equine Piroplasmosis (EP) and Equine Infectious Anemia (EIA)**

In calendar year 2019, there were 31,391 domestic U.S. horses tested for equine piroplasmosis (EP) as part of active ongoing surveillance with much of the testing focused on the previously identified high-risk groups of sanctioned and unsanctioned Quarter Horse racehorses where iatrogenic transmission of the disease is well recognized. A total of 72 horses were found to be infected with *Theileria equi* during this time period in seven states. All 72 horses were Quarter Horse racehorses with iatrogenic transmission either confirmed or suspected to have been the cause of spread and 14 of these horses were co-infected with equine infectious anemia (EIA). Eleven (11) of the 14 co-infected EP/EIA horses were epidemiologically linked to a single racehorse trainer whose unhygienic practices of needle, syringe, and IV set re-use were determined to have caused spread within the group.

More than 17,000 U.S. horses have been tested for EP so far during the 2020 calendar year (testing numbers current through June 2020) with 19 *T. equi*-positive horses found in six states as of September 30, 2020. Eighteen (18) of the EP-positives are current or former Quarter Horse racehorses with iatrogenic transmission of the disease either suspected or confirmed. One (1) positive horse was an Arabian stallion with a life-long history of ownership by several unsanctioned racing participants in two states and it is suspected the stallion may have been used previously in this population as a blood donor horse for blood doping the racehorses. The common practice in this population of reusing a single IV blood set for blood doping often leads to blood-borne disease spread not only to the blood recipient horses but also back to the donor horse. Two (2) of these 19 EP-positive horses were found to be co-infected with EIA. The horses that were co-infected with both EP and EIA have been euthanized and many of the remaining EP-positive horses have been enrolled in the USDA-APHIS EP Treatment Program. All EP-positive horses will remain quarantined until permanent clearance of *T. equi* through high-dose imidocarb dipropionate treatment is achieved and the horse maintains *T. equi*-negative status on all diagnostic testing. To date, there have been 365 horses treated in the U.S. for EP with 320 horses having met the clearance and test negative criteria for quarantine release.

In calendar year 2019, a total of 1,151,584 EIA tests were conducted in the U.S. with 89 horses confirmed as EIA-positive in 17 states. At least 75 of the 89 EIA cases occurred in Quarter Horse racehorses with iatrogenic transmission either suspected or confirmed to have been the source of spread in those cases. So far in 2020, there have been at least 853,000 EIA tests performed in the U.S. (January-July 2020 reported test data) with 22 EIA cases confirmed in five states as of September 30, 2020. Nineteen (19) of the 22 EIA positives occurred in Quarter Horse racehorses with iatrogenic transmission of the disease either suspected or confirmed. Many of the EIA-positive horses were found to be participating in unsanctioned racing. The EIA cases identified in 2019 and 2020 further highlight our recognition of a recent shift in the epidemiology of EIA in the U.S. While prior to 2017, many of the EIA cases were found to be in untested or under-tested equine populations where natural vector-borne transmission of the disease had occurred over time, since 2017 the majority of the EIA cases are now being found in Quarter Horse racehorses with iatrogenic transmission involved. Iatrogenic transmission of EIA is a preventable occurrence and targeted educational outreach is needed in these high-risk populations to reduce the incidence of EIA.

#### **Case Studies of EP/EIA Associated with Illegal Movement**

One of the 89 EIA-positive horses in 2019 was a Thoroughbred racehorse from Florida participating in sanctioned racing and is suspected to have acquired the infection during a period of injury layup in which an unidentified platelet-rich plasma (PRP) product was administered to the horse by a foreign veterinarian not licensed in the U.S. It is suspected that the PRP product may have been illegally brought into the U.S. from another country. The same unlicensed foreign veterinarian is also linked to PRP treatment of a Thoroughbred racehorse found EIA-positive in Florida in 2017.

Several in-depth EP/EIA case studies, including the EIA-positive Florida Thoroughbred racehorse case described, were presented to the committee. These cases highlighted the ongoing challenges of illegal movement of horses from EP/EIA endemic countries, illegal interstate movement of unsanctioned racehorses and of quarantined horses for the purposes of continued racing, suspected illegal movement of blood products from other countries, and foreign veterinarians practicing in the U.S. without a license. Other challenges mentioned included: the lack of knowledge and interaction with unsanctioned racing venues in most states and the safety concerns inherent in those interactions; the apparent absence of involvement of sanctioned racing authorities in addressing EP/EIA positive horses and unsanctioned racing; and the ongoing concern about the potential for EP/EIA-positive horses to move into other equine industry sectors at the conclusion of their racing career.

### **West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE)**

Equine case counts for WNV and EEE are sourced from the CDC's ArboNET database and summarized by APHIS-VS in consultation with state animal health officials (SAHOs). Annual reports for each disease are compiled by calendar year and more current case counts during the active vector season are posted bi-weekly to the APHIS website. This information can be accessed at the following links:

For WNV information: <https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/equine/wnv>

For EEE information: <https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/equine/eee-wee-vee>

In calendar year 2019, there were 90 equine WNV cases identified in 25 states. So far in 2020, there have been only 20 equine WNV cases identified in four states as of September 9, 2020. For EEE, there were 184 equine cases reported in 24 states in calendar year 2019 and in 2020 a total of 77 cases in ten states have been reported as of September 9, 2020. Delays in reporting equine arboviral cases in ArboNET are routinely recognized and may be magnified this year due to the public health community's necessary prioritization of response to COVID-19.

The 2019 EEE case count in equids, while elevated, did not set any historic high records, however there were several observations surrounding EEE infections in 2019 that raised concerns both in the veterinary and human medical communities. Firstly, there were a record-setting number of human EEE infections reported in 2019; a total of 38 human cases in ten states with 15 fatalities. The number of human EEE cases across the years 2009-2018 had an average of seven cases per year recorded with the highest case count in a single year being 15 cases in 2012. Another unexplained observation was that for the first time in history, the ratio of equine WNV cases to equine EEE cases was inverted. In previous years, equine WNV cases usually outnumber equine EEE cases 2:1. In 2019, the number of EEE cases was double that of WNV in equids. Finally, the number of EEE cases confirmed in alternate and wildlife species had not been recognized at such a high level and with so many species of animals represented as were reported in 2019. These anomalies for EEE in 2019 have yet to be explained and there is concern that 2020 could also be an unusually active year for EEE infection in all species.

### **Update on African Horse Sickness (AHS) Risk Assessment**

The ongoing 2020 AHS outbreaks in Thailand and, more recently, Malaysia have elicited widespread concern in the global equine industry. For this reason, a request was made by equine stakeholders during their June 2020 meeting with the USDA-APHIS Administrator that an AHS risk assessment and modeling of potential disease spread in the U.S. be conducted. VS's Center for Epidemiology and Animal Health (CEAH) has committed to conduct a risk assessment on incursion of AHS into the U.S. with work to begin in the first quarter of FY2021. Modeling of the potential for AHS spread is a more complicated project and requires the use of vector-borne disease spread models rather than the typical direct contact and animal movement models. A vector-borne spread model for Bluetongue has been under recent development at CEAH and may be capable of revision for AHS, however key base layers of equine data will need to be solicited including equine population and density data which have historically been inaccurate or

unavailable. These challenges will take more time to work through, however APHIS-VS will continue to keep this committee updated on the progress of these proposed projects.

### **Equine Disease Communication Center (EDCC)**

Nat White, EDCC

In May, EDCC started its sixth year of operations. Since operations were started, the EDCC has sent out more than 1,800 alerts for more than 4,450 cases or outbreaks to 8,400 email subscribers and 13,880 Facebook followers. Since April 2015, there have been 1,090,044 visits to the website with 878,415 of those visits to the alert page 11,645 views on the Covid-19 resource page. Case reports have been submitted from all states except for Alaska and Vermont.

In 2019 there were 414 alerts posted for 523 cases and for Vesicular Stomatitis 440 premises were reported. The following list includes the number for the reported diseases from January 1 to September 25, 2020 there have been 274 alerts posted.

#### **Total cases in North America in 2019 - January 1, 2019 – December 31, 2019**

- Anthrax: 6 cases (6 in TX)
- Eastern Equine Encephalitis (EEE): 146 cases
- Equine Herpesvirus - Abortions: 6 cases
- Equine Herpesvirus - Neurologic: 89 cases
- Equine Herpesvirus - Respiratory: 8 cases
- Equine Infectious Anemia (EIA): 99 cases
- Equine Influenza (EI): 20 outbreaks
- Potomac Horse Fever (PHF): 3 cases
- Rabies: 1 case
- Salmonellosis: 1 case suspected
- Strangles: 110 cases
- Vesicular Stomatitis (VS): 440 Premises
- West Nile Virus (WNV): 75 cases

The EDCC works with the American Association of Equine Practitioners (AAEP) Infectious Disease Committee for oversight of the educational and biosecurity information on the website. Currently there are 29 domestic diseases listed on the website with 13 owner factsheets available to download and other links to AAEP and USDA guidelines. New owner factsheets to be added include Vesicular Stomatitis, Lyme Disease, and Parvovirus. Eight foreign animal diseases are listed on the website with an owner factsheet included for African Horse Sickness (AHS). The EDCC database has been moved from a Microsoft cloud service to a server at the United States Equestrian Federation which will maintain and upgrade the system. All submissions are recorded in the EDCC database, which is used to generate the alerts. Disease reports are created each month and at the end of each year. The goal is to increase the search capabilities from all the data about diseases, dates, locations, clinical signs and test results. More work is needed to refine reporting system. The goal is to have reports created upon request and to have the database linked to the website for submissions and efficient transfer of alert information. This work will require more funding than allocated in current budget. The value of these reports and the database is only as good as the information submitted. Submission of information can be by filling out the JotForm which is a link on the "reporting a disease" on the website. Submissions can be made by filling out the PDF form on the website and by including the needed information in an email. The benefit of using the JotForm is a copy of the information is sent to the submitter at the same time the information is sent to the EDCC. We realize not all the information may be available and request as much information as possible be submitted. The following information is considered the most important for veterinarians and owners:

#### **Required**

- Date
- Submitter (name, email, phone number)
- Entity represented (State Animal Health Official; Veterinary Practitioner)
- Disease
- Location: County and state or province (towns or cities are optional; public facilities are identified)
- Status of the outbreak (quarantine/quarantined, released/voluntary, quarantine/not quarantine)
- Requested
- Facility type (farm, private facility, racetrack, etc.)

- Number of horses confirmed, suspected and exposed
- Age, breed and gender of affected horses
- Clinical signs, horse status, vaccination status
- Test and test results
- Notes about current circumstances such as current biosecurity and the current risk of disease spread

Alerts for highly contagious diseases such as equine herpesvirus or influenza are sent to the subscriber email list and posted on Facebook as soon as possible. Diseases which are not contagious from horse to horse such as WNV or EEE are posted at the end of each day.

The alerts are reported in a standardized format but do have a space for information from the submitter which may be of importance to the subscriber audience. The alerts are posted on the mobile phone app which replicates the website. It is available as a download from Google Play or the Apple App Store. It has alerts, disease factsheets, biosecurity information, a filter for diseases location and date, and soon will have state veterinary contact information.

EDCC services are funding entirely by the horse industry. The current budget is \$100,000 per year however this year's expenses are decreased due to the Covid-19 pandemic. Currently the annual donations do not equal the annual budget and are not adequate to sustain the EDCC. Some form of reliable annual funding is needed to continue EDCC services. From March until August we have not actively sought funds for the EDCC due to the economic uncertainty brought about by the Covid-19 pandemic. Starting in August we are actively increasing awareness and seeking donations. This includes requests to email subscribers, Facebook followers and veterinary practices. Advertisement in publications and printed brochures are used to seek funding. Requests to owners, horse organizations, corporations and allied businesses continue. Grants to foundations have been submitted, and the American Horse Council continues to seek funding from USDA. The EDCC operations are paid from a dedicated fund with the "Foundation for the Horse" (new name for AAEP Foundation). All donations are tax deductible.

We hope you will ask questions and make suggestions for current or future EDCC services. Contact Nat White at [nawhite2@vt.edu](mailto:nawhite2@vt.edu) or call 540-454-1091 or Katie McDaniel at [edcc@aaep.org](mailto:edcc@aaep.org).

## **REPORT OF THE SUBCOMMITTEE ON EQUINE VIRAL ARTERITIS**

Chair: Terry Hensley, TX

In 2020, the Subcommittee on Equine Viral Arteritis completed the final review and revisions to the USDA EVA Uniform Methods and Rules. Additionally, the group reviewed the export rules for U.S. horses related to the requirements for EVA testing.

## **REPORT OF THE WORKING GROUP ON EQUINE INTERNATIONAL MOVEMENT**

Chair: Katie Flynn, KY

In 2020, the committee worked on reviewing the testing protocols for equine import and held a discussion with National Veterinary Services Laboratory (NVSL) regarding current diagnostics and needs for advancing diagnostics. USDA provided the working group the new standard operating procedures for managing sick horses in equine import quarantine. The committee will review these protocols in 2021 along with 2020 sick horse data.