

VS, CEM, EP, FAD...what does this all mean?

By now you have probably heard these acronyms floating around and reports of these diseases affecting horses and other livestock and rumors of farm quarantines and interstate movement restrictions. The United States has for many years been free of certain diseases, such as Contagious Equine Metritis (CEM) and Equine Piroplasmiasis that are common in other countries, thus are classified as Foreign Animal Diseases (FADs). The state of Arizona has, for a few years, been free of the disease Vesicular Stomatitis (VS) that is seen most often in bordering states like New Mexico. A better understanding of these diseases and their potential consequences is necessary to understand why they are important and why the United States Department of Agriculture has to impose travel restrictions and testing protocols.

First off, what exactly is CEM? CEM is a highly contagious venereally transmitted disease caused by the bacteria *Taylorella equigenitalis*. The disease was first discovered in Europe in 1977, and until recently, the last known cases of the disease in the United States occurred in 1979 in Missouri. Due to the restrictions on artificial insemination in Thoroughbred horses, it is most prevalent in the TB industry but can affect all breeds of horses. Stallions may be carriers of the disease and exhibit no symptoms, but mares affected with the disease can show symptoms that range from vulvar discharge to infertility. It is not known to directly cause abortion, but there is always that risk. The bacteria are present on the external genitalia, so it can not only be transmitted during live cover, but via breeding equipment and transported semen. Diagnosis involves taking swab samples and sending them to an approved lab for culture. Often a series of cultures is necessary for definitive diagnosis. Should CEM become firmly established in the United States, the horse industry stands to suffer large economic losses, especially on breeding farms. There is an effective treatment available that involves disinfection and application of antibiotics to the external genitalia of both mares and stallions. The disease is easily preventable with proper testing and quarantine procedures and sanitation in the breeding shed.

Equine Piroplasmiasis (EP) is a disease caused by the blood parasites *Babesia caballi* and *Theileria equi* that can affect horses, mules, donkeys and zebras. It is endemic to Central and South America, the Middle East, Africa and Southern Europe. EP was considered eradicated from the US in 1988. Recently there have been outbreaks in Florida, Missouri, Texas and New Mexico. It is transmitted from horse to horse by ticks, blood transfusions, contaminated needles or in rare instances, in-utero from mare to foal. Since the US has not readily seen this disease in the last two decades, our horses are more susceptible to the acute form of the disease. The symptoms range from weakness to fever, anemia, jaundice, swollen abdomens, central nervous system disturbances or acute death. Horses that overcome the acute phase of the disease can become carriers for an unknown length of time. Diagnosis is difficult as the above symptoms are common to many other diseases but there are laboratory tests available. While there is a treatment available, there is no vaccine or reliable method of prevention other than insect control and quarantine of carrier animals.

Vesicular Stomatitis (VS) is a disease caused by a virus of the genus *Vesiculovirus* and has the common names of "Sore Mouth of Cattle and Horses" and "Indiana fever". This disease can affect many species of livestock, domestic animals and humans. It is generally not life threatening but will cause vesicles or blisters on the mouth, tongue, udders and coronary bands. It will run its course in two to three weeks without major treatment, other than supportive care for the transient fevers that occur and the pain of the lesions themselves. It is introduced to a population via insects, but once established can be transmitted by direct contact from animal to animal. It is difficult to distinguish from other vesicular diseases of livestock, such as Foot and Mouth or Swine Exanthema. The economic losses in the beef, dairy and pork industries can be devastating with an outbreak of VS. While not available in the US yet, there is a vaccine being used in Central and South America.

While the individual state requirements for transport seem to change daily, it is important to plan ahead if you are attending horse shows, rodeos or taking vacations with your horses to make sure the proper testing and paperwork is issued to make your travel as uneventful as possible. Any questions or concerns you may have will be readily addressed by any member of the Equine Veterinary Services team. More information can also be found at the USDA's website www.aphis.usda.gov.