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Potomac Horse Fever Identified in Tennessee

With recent cases of Potomac Horse Fever identified in Davidson County, Tennessee and Bourbon County, Kentucky, it is important for Tennessee equine owners to familiarize themselves with the disease. While Potomac Horse Fever, historically has been found on the east coast, cases of the disease have been identified in Tennessee in recently, with additional reports in surrounding southeastern states and other geographical areas of the United States.

Potomac horse fever (PHF) is an acute gastrointestinal disease that can result in mild colic, fever and diarrhea in horses of all ages, as well as abortion in pregnant mares. Initially, the disease was named due to the number of cases along the Potomac River in the eastern United States. It has also been referred to as ditch fever, Shasta river crud and equine ehrlichial colitis. The causative agent is *Neorickettsia risticii*, a gram negative bacteria that has been identified in freshwater snails. The disease is commonly seen in spring, summer and early fall and is associated with pastures bordering creeks, rivers, or irrigated pastures.

Neorickettsia risticii develops in aquatic, freshwater snails, and then is released in immature flukes from the snail. During warmer weather in spring and summer, horses drinking from rivers or streams can swallow the immature flukes, exposing them to the bacteria. Another transmission method is from aquatic insects such as caddisflies, mayflies, damselflies and dragonflies which carry the organism and deposit the bacteria on pastures. The horse then inadvertently consumes the organism as they graze and are exposed to the disease.

After exposure, horses can begin showing symptoms in as little as two days. Clinical signs of PHF include:

- Fever (102°-107°)
- Off feed (anorexia)
- Lethargy, depression
- Mild colic with decreased gut sounds
- Diarrhea

A typical result of the diarrhea and dehydration and stress is laminitis. Pregnant mares are susceptible to abortion due to fetal infection at approximately 7 months of gestation.

Horses with PHF can be treated with oxytetracycline, an antibiotic. As with any other illness, the sooner a proper diagnosis is made and treatment started, the better the results. Generally, antibiotic treatment is for no more than 5 days. In animals that have mild colic, fluids and pain relief should be administered. If laminitis develops, more aggressive therapy may be necessary.

Several killed vaccines are commercially available. Consult with your veterinarian to determine if vaccination is needed in your location. Consider fencing off pastures that are in low-lying areas where horses could easily be exposed to snails or long standing stagnant water. Use caution while riding on trails or in areas with streams, ponds, lakes or other freshwater sources. Minimizing insect ingestion in stabled horses by turning off barn lights at night, which normally attract insects.