

# The Buzz About Environmental Diseases

## The Risk Lingers Long After Summer Ends

By Victoria Socia

While summer may be coming to an end, disease risks in Virginia aren't dying down just yet. Thanks to the hot -- and a few very humid -- days this summer, Virginia and the surrounding regions should still be on alert for a few diseases that will be lingering around the farm, including West Nile Virus (WNV), Potomac Horse Fever (PHF) and Equine Protozoal Myeloencephalitis (EPM).

West Nile Virus (WNV) is transmitted by mosquitoes. Although it is not spread through horse to horse contact, horses from the same barns or local regions are at risk of contracting the virus once it is confirmed in the area due to the presence of infected mosquitoes and reservoir bird hosts. Stagnant water such as ponds, water troughs, old tires, and other equipment sitting around the farm are breeding grounds for mosquitoes that can carry West Nile Virus.



PHOTO COURTESY: BY VICTORIA SOCIA

**Lakes, ponds and other bodies of water make for great landscapes but are also home to many insects that can be troublesome for horses.**

From July to October, excessive moisture and increased temperatures result in increased mosquito activity, adding to horses' risks of contracting West

Nile Virus. Nearly one third of horses that contract WNV will die due to the disease. Recent mild winters are also contributing to a higher population of mosquitoes.

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Symptoms can range from depression, lethargy, colic, a lack of appetite, and neurological symptoms that can be sudden and progressive, including tremors, facial paralysis, weakness, dribbling urine, and a lack of coordination.

By practicing mosquito reduction management around the farm and keeping horses on a semi-annual to annual vaccination program, owners can lessen the risk of horses contracting West Nile Virus. Dr. Jay Joyce of Total Equine Veterinary Associates recently released a change to the practice's WNV vaccination protocol. Dr. Joyce says, "Based on regional disease statistics, university research, and best medical practices, we are recommending local horse owners vaccinate against WNV as well as Eastern and Western Encephalitis (EWE), another regional mosquito transmitted disease, twice this year and have added the WNV to the fall vaccine protocol for all TEVA clients."

The frequency and effectiveness of vaccination depends in part on the vaccine manufacturer and local disease prevalence. Spending about \$35-\$45 per WNV vaccine, owners can avoid anywhere from \$2,000 - \$10,000 in vet bills as well as the costs associated with a referral to their

nearest hospital, which is often required to treat the disease.

Potomac Horse Fever (PHF) is another serious, seasonal, and regional problem for horses in the Virginia region. The onset of hotter weather typically from July through September can lead to an increase in aquatic insects that carry PHF. Just as with WNV, PHF is not contagious through horse to horse contact. But whatever one horse on the property is ingesting, it is possible that others are too!

Horses that contract PHF may show symptoms including high fever, sudden onset diarrhea, depression, colic, decreased gut sounds, severe laminitis, abortion in pregnant mares, and death. For just \$30-\$40 twice a year to vaccinate horses against PHF, as well as avoiding creeks and rivers as main drinking sources, owners can help protect horses from the disease. Owners of horses don't die from PHF will find that vet bills can quickly add up to around \$1,500 if there are no complications.



**It's difficult to control wildlife on the farm (especially opossums) however EPM can be transmitted to a horse when grazing, by ingesting infected opossum feces.**

Much larger than mosquitoes and aquatic insects, opossums carry a deadly threat to horses. Equine Protozoal Myeloencephalitis, or EPM, is transmitted through opossum feces. Horses accidentally ingest the infected feces while grazing, or through contaminated food or water. EPM attacks a horse's central nervous system which can create a wide array of symptoms that can range in severity. A lack of coordination that is amplified up or down hills, muscle atrophy, and poor balance

### Prevention is Better than the Cure

- Practice Insect and Rodent Control
- Vaccinate
- Clear Standing Water
- Properly Secure Food

are some symptoms of EPM. Not only is there no vaccine available for EPM, but treatments can range from \$1,500-\$3,000 and may require 12 months of rehabilitation for even the least complicated cases.

Progression of EPM depends on the extent of the infection, points of the central nervous system that are damaged, and how long the horse has had EPM before receiving a diagnosis and treatment. While some of the symptoms mimic other health problems, diagnosing for EPM can be difficult. Avoid feeding horses directly on the ground as

well as keeping feed properly closed and stored, aiding in rodent control. Stressful events can result in EPM flare ups.

By practicing good insect and rodent control, employing appropriate vaccination programs, clearing out standing water, and keeping food properly secured, owners can take significant steps to avoid pain and suffering for their horse and major vet bills that quickly add up over the treatment of one of these diseases. Prevention is always better than the cure.