

Potomac Horse Fever Update

Many of you already know about Potomac Horse Fever, or PHF. It is a bacterial infection that horses contract when they accidentally ingest the bacteria, *Neorickettsia risticii*, that is living inside an insect, snail, or slug host. The insects that have been most commonly implicated in the disease are all aquatic—that is, they begin their life cycle as a larval stage in water (mayflies, stoneflies, caddisflies, damselflies, dragonflies). Outbreaks of PHF have occurred at large shows in the Midwest when mayflies hatched in large numbers and contaminated hay and drinking water. We have found *N. risticii* DNA in samples of slugs collected from pastures where PHF has occurred in horses in this practice. PHF infection in vaccinated horses is usually relatively mild compared to infection in unvaccinated horses. Classic signs include acute onset fever, depression, diarrhea and laminitis. The diarrhea, or colitis, can make horses extremely ill, some requiring intravenous fluids, plasma (or protein) transfusions, and supportive care. In this part of Vermont, most of the cases are seen starting in late July and extending into the late summer and fall. We have seen cases as late as December, however. Fortunately, the illness can be much less severe in vaccinated horses. Most of the time, we diagnose the infection by clinical signs of fever and depression. Other tests are used to confirm infection such as detecting the antibody response during and two weeks after illness. Newer tests are also available to test for specific *N. risticii* DNA sequences in blood and feces (called PCR).

Although it has been around for a long time, it is still important to vaccinate three times a year in this part of the country. We recommend **spring, mid-summer, and fall vaccination** for your horses. Last summer, there appears to have emerged a more severe illness syndrome with PHF. This is most likely due to genetic variation or strain differences in *N. risticii*. There are several management practices that can help reduce the chance of your horse getting PHF. Keep water troughs cleaned out and keep water fresh. Keep all barn lights and other outdoor lights off at night. The lights attract many insects, some of which will carry *N. risticii*. Most of the time, these insects only live a short time, but their bodies will still carry the organism and can end up in water or hay. Please call if you have questions about PHF and your horse, or vaccination programs to prevent the infection.