

# New Jersey Department of Agriculture

## Memo

**To:** Veterinarians  
**From:** Nancy E. Halpern, DVM, State Veterinarian

**Date:** June 2, 2008

**Re:** Equine Infectious Anemia

In the passed few weeks, three horses on a south-central Indiana farm have tested positive for equine infectious anemia (EIA). All three positive horses have been euthanized; two herd mates have tested negative and remain under quarantine until further testing is complete.

Equine Infectious Anemia (EIA), also known as swamp fever, is an infectious, viral disease that infects horses, ponies, donkeys, mules, and other equine. Since no vaccine or treatment exists for the disease, it is untreatable and incurable.

The disease is spread via blood-to-blood transmission, not close proximity or casual contact. EIA is usually transmitted from horse to horse by large biting insects such as horseflies and deerflies. The bites from these flies stimulate defensive movement by the horse, which often results in an interruption of the flies' blood feeding. When interrupted, flies are motivated to complete feeding as soon as possible. They then attack the same or a second host and feed to complete their meal. In this manner, any infective material from the blood of the first host that is present on the mouthparts of the flies can be mechanically transmitted to the second host. Blood transfusions, unsterilized or contaminated needles and equipment contaminated with blood from an infected horse can also spread the virus.

Depending on an individual horse's immune system and the severity of its reaction, clinical signs of EIA can range dramatically. While some equidae infected with EIA show no signs of illness others display fever, weight loss, icterus (yellowing of body tissues), anemia, swelling of the limbs, weakness, rejection of feed, and sudden death.

To minimize disease transmission, all equidae should be tested for EIA before being brought onto a new premises. The animal should be isolated and observed for 45 to 60 days then retested before being introduced to the herd. In New Jersey, all imported equidae must have had a negative official test for EIA within the past 12 month; all equidae traveling on NJ roads must have a negative EIA test every 24 months, and any equidae sold/exchanged must be tested within 90 days of the sale. Equidae younger than six months and accompanied by a dam that has a negative official test within the past 12 months are exempt from EIA testing.

The "official" test for EIA means the equine infectious anemia agar gel immuno-diffusion (AGID) procedure or the Enzyme Linked Immunosorbant Assay (ELISA) procedure. Both tests are performed at the NJDA-Division of Animal Health Diagnostic Laboratory. EIA AGID testing costs \$4.00 per test and requires the submission of 3 ml of whole blood or ½ ml serum chilled (with cold pack). Results are ready within 24 hours. EIA ELISA testing costs \$18.00 per test and also requires the submission of 3 ml of whole blood or ½ ml serum chilled (will cold pack). Results are ready the day the sample is submitted. For further information, please contact Dr. Betty Miguel, Director, Animal Health Laboratory at 609-292-1270 or via email at [beatriz.miguel@ag.state.nj.us](mailto:beatriz.miguel@ag.state.nj.us).