



Epizootic Hemorrhagic Disease of Cervids

This disease is arguably the most devastating disease in Whitetails in North America. It causes high mortality and significant population effects. It is caused by a highly pathogenic virus in the orbivirus Reoviridae family. It is transmitted from animal to animal through bites/blood meals from biting midges in the Culicoides family. Mortality levels can reach 70% or greater in naive populations.

Clinical signs appear 5-7 days post infection. The virus replicates and creates the most damage in small blood vessels creating swelling and inflammation. This is evident in the feet, tongue, throat, eyes, and the capillaries in the intestinal tract and lungs. Many times these small vessels rupture ... hence the name "hemorrhagic disease". Sporadically prevalent but widespread in a specific population -is the definition of "epizootic".

Of the ten serotypes in the world, approximately three are regularly detected in the USA: serotypes 1,2, and 6. Deer farmers whose deer are routinely exposed to the virus have written impressions that each serotype has their own tissue affinities and semi-unique set of symptoms or clinical signs.

To date there is NO federally licensed or highly effective vaccine available to combat this viral agent. Routine controlled exposure appears to offer the best protection in endemic areas. This builds antibody to the specific serotype of exposure. Does that are routinely exposed pass antibody to their young through the colostrum or first milk which is ANTIBODY RICH. This transfer from doe or dam to offspring is called passive transfer. Unfortunately the lifespan of this passively acquired antibody is weeks or at best several months. In areas with constant exposure, if the passive antibody is of the same serotype as the next exposure then protection or partial protection is conferred. Little cross protection between serotypes apparently exists unless antibody titers are very very high.

Over the last few years our veterinary practice has been searching for solutions to the devastating effects of exposure. We have left no stone unturned. At the moment the most practical solution appears to be PREVENTION through elimination of breeding grounds for the midge, cutting down on midge populations in a scientifically sound manner and through a COMBINATION of CAREFUL OBSERVATION OF THE HERD, PROPER NUTRITION, and the use of ANTIBODY THERAPY.

Our clients now identify those individuals who have been affected between March and September and we provide diagnostic testing. Depending upon the results of the diagnostic tests, a CUSTOM HARVEST of HYPER IMMUNE (high antibody titered) SERUM is taken from your deer. This serum is harvested by us on site and completely returned to you in sterile packaging for your use in your herd (the exact herd from which it was harvested). Specific instructions are provided for best use. To date those ranches where we have harvested serum AND who have closely followed our instructions for its use have been afforded a high degree of success in preventing mortality and morbidity.

If you have experience exposure over the March to September period and can identify those animals for us and are interested in our services please do not hesitate to ask us. We remain dedicated to our industry through volunteering our skills and time, continuing education, herd health, reproductive, and immunotherapy services.

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