Two horses have tested positive for Eastern equine encephalitis, or EEE, a mosquito-borne illness caused by a virus that attacks the central nervous system, the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) announced today.

"Horse owners who have not already had their animals vaccinated this year for EEE and other mosquito-borne diseases should take this as a warning, and those who have vaccinated should check with their veterinarians to see whether a booster is indicated," said State Veterinarian Dr. Robert Ehlenfeldt.

Blood samples were sent to the National Veterinary Services Laboratories in Ames, Iowa on August 17, which reported final positive results today. The two horses were located in Clark and Lincoln counties.

"Northern Wisconsin has good mosquito habitat and since it's been a wet summer up north the mosquito populations are high," Ehlenfeldt said. "We could see a lot more cases if we experience a long fall season."

EEE may be transmitted by mosquito bite to horses, birds, and humans. Although humans may also contract EEE, no human cases have been reported in Wisconsin. EEE follows mosquito populations and normally emerges in mid- to late summer, remaining a threat until the first killing frost followed by continuing cool weather.

Symptoms in horses include depression, loss of appetite, drooping eyelids and lower lip, aimless wandering and circling, blindness and sometimes paralysis. There is no cure; the disease must run its course and has a mortality rate of 90 percent or higher.

Horses that have never been vaccinated will need two doses, two to four weeks apart, and the vaccine will take at least two weeks to build up enough antibodies to protect them. A booster should be given at least annually and takes about four days to be effective. Vaccines will not protect horses that have already been infected when they receive the injections. Vaccines are available to protect against other strains of equine encephalitis along with EEE, and a separate West Nile virus vaccine is also available.

In addition to vaccination, owners can take steps to reduce their animals' exposure to mosquitoes. They should eliminate standing water by removing objects like old tires or even the folds in tarps where water collects, and frequently changing water in water troughs, bird baths and similar containers. Owners should also keep their animals insides barns if possible from dusk through dawn, when mosquitoes are most active.