

New Jersey Department of Agriculture – MEMO

To: Veterinarians and Cattle Producers

From: Amar Patil, DVM, MVSc, PhD, Dipl. ACVM, Director/State Veterinarian

Date: November 26, 2024

Re: First *Theileria orientalis* Ikeda Positive Cattle Case in New Jersey

(TRENTON) – The first confirmed case of *Theileria orientalis* Ikeda in New Jersey was detected via PCR in a 5-year-old Hereford cow in Warren County. Clinical signs include weight loss over the past two months, inappetence, mild pyrexia, mild icterus, and pale gums with bruising and erythema on the dental pad.

T. orientalis Ikeda is a tickborne protozoan that infects the red and white blood cells of cattle which results in anemia in affected animals. Due to anemia, infected cattle may appear similar to those affected by anaplasmosis. Common clinical signs include weakness, inappetence, pyrexia, mucosal pallor, jaundice, and elevated respiratory and heart rates. *T. orientalis* Ikeda infections have been reported to cause mortality in 1- 5% of infected cattle but can be as high as 50%. Pregnant heifers and calves are particularly susceptible to infection.

There are several types of *T. orientalis* found in the United States. To date, only *T. orientalis* genotype Ikeda has been shown to cause severe illness in animals. Confirmed cases of Theileria (*T. orientalis*, *T. parva*, and *T. annulata*) are notifiable per the National List of Reportable Animal Diseases (NLRAD) and should be reported to the NJDA Division of Animal Health at (609) 671-6400 or State.veterinarian@ag.nj.gov. As an emerging disease in New Jersey, knowing detected cases of *T. orientalis* can help determine the impact of this disease on New Jersey cattle.

T. orientalis is transmitted through the bite of an ixodid tick. An emerging vector for this disease is the Asian longhorned tick, *Haemaphysalis longicornis*. This tick was first identified in Hunterdon County in 2017 and has since been detected in 21 states and DC. This tick is active in New Jersey from March through October or early November (<https://ticks.rutgers.edu/ticks/8>).

There is no approved treatment or vaccine for *T. orientalis* in cattle in the United States. Therefore, the best method of prevention is tick control. Recommended strategies include veterinary-approved pesticide treatment (such as pour-on and ear tags), regular tick inspections, clearing of bushes, and keeping pastures and grass mowed short. A useful document, “Managing the Asian Longhorned Tick: Checklist for Best Management Practices for Cattle Producers” can be found at <https://tinyurl.com/5uj37m8h> OR <https://www.pubs.ext.vt.edu/ENTO/ENTO-382/ENTO-382.html>.

The NJDA Animal Health Diagnostic Laboratory (AHDL) can coordinate diagnostic testing for *T. orientalis*. For further information on testing, veterinarians should contact the laboratory at (609) 406-6999 or via email at jerseyvetlab@ag.nj.gov.