



THEILERIOSIS CAUSED BY *THEILERIA ORIENTALIS* IKEDA

WHERE IS IT?

Theileria orientalis Ikeda is found globally but is endemic in **Japan, Korea, China, and Vietnam.**

The parasite recently spread to **Australia, New Zealand,** and other Pacific islands leading to dramatic economic losses.

CONTACT US

If you suspect *Theileria orientalis* Ikeda infection in your livestock, contact the Tennessee State Veterinarian's office at 615-837-5120 or animal.health@tn.gov.



Tennessee Department of Agriculture, Authorization No. 325537, 1,000 copies, April 2022. This public document was promulgated at a cost of \$.18 per copy.

CLINICAL SIGNS

- Clinical infection is similar to Bovine Anaplasmosis
- Clinical signs include anemia, weakness, late term abortion, pale gums, and fever
- Mortality ranges from 5-90% in naïve herds

WHAT IS IT?

Theileria orientalis Ikeda is an emerging parasite in the United States that is spread by **Asian longhorned ticks** and causes **infectious anemia in cattle.**

The Asian longhorned tick has been found in 17 states. *Theileria orientalis* Ikeda has been confirmed in **Virginia, West Virginia, and Tennessee.**

The parasite infects wild and domestic animals in the Bovidae family. Pregnant heifers and calves are most susceptible.

Infections can lead to **major economic loss** due to death, illness, and decreased milk production.

Cattle that recover from illness may become carriers and spread the parasite to new ticks and other animals. They may also show clinical signs again later with anemia, abortion, and death.

There are **no approved treatments** or current vaccines for *Theileria orientalis* Ikeda infection.

LEARN MORE

Emerging Risk Notice: *Theileria orientalis* Ikeda
www.aphis.usda.gov/animal_health/downloads/theileria-orientalis-ikeda-notice.pdf



Department of
Agriculture

Animal
Health



ASIAN LONGHORNED TICKS & THEILERIOSIS

It is difficult to eliminate this tick and parasite from a property but there are actions to detect it early, prevent its spread, and manage populations.

PREVENT TICKS FROM ENTERING YOUR HERD

- Restrict movements of grazing cattle to help reduce exposure to Asian longhorned ticks.
- Closely inspect new animals before introducing them to your herd. When possible, treat new animals with an approved tick acaricide.
- Where possible, limit wildlife from interacting with herd.

DETECT TICKS AS SOON AS POSSIBLE

- Regularly inspect cattle for ticks during routine examinations (e.g., pregnancy checks, vaccines) focusing on the head, neck, flanks, and under the tail.
- Cattle with decreased weight, lethargy, pale gums, or patchy hair should always be inspected for ticks.
- Know when and where Asian longhorned ticks are active.

ISOLATE SICK ANIMALS

- Cattle exhibiting signs of Theileriosis should always be isolated from other susceptible animals.
- Contact your veterinarian immediately.

MANAGE POPULATIONS

- Keep **pastures mowed short** because long grass can enhance tick survival. Leaving pastures ungrazed will not control ticks as they can survive more than for a year without feeding.
- Use **acaricides** approved for ticks on cattle (e.g., pesticide-impregnated ear tags, backrubbers, or sprays).
- Continue to **monitor** animals and tick populations. As tick populations begin to rebound, you may need to mow again and/or apply another acaricide.

ABOUT THESE TICKS

IDENTIFICATION

- Red/brown tick
- No distinct coloration
- Sharp point on short mouth-parts detectable with microscope

UNIQUE BIOLOGY

- Female ticks can lay eggs and reproduce without mating
- Life cycle is 1 year

WHEN WILL YOU SEE THEM?

- Larvae and nymphs are active
March - October
- Females are active
April - August

WHERE WILL YOU FIND THEM?

Asian longhorned ticks have been collected from more than 20 host species (mammals and birds). In Tennessee, host animals are primarily cattle, dogs, and racoons.

Known habitats include forest-field edges, forests, and pastures.

SUBMIT TICKS

Preserve ticks in a sealable container and submit them for identification to your local Extension office or ship to:

Medical Veterinary Entomology
University of Tennessee
370 Plant Biotech Building
2505 EJ Chapman Drive
Knoxville, TN 37996