



Theileria orientalis ikeda Fact Sheet

Theileria orientalis ikeda has been found in Arkansas

Theileria orientalis ikeda (Theileria) is a protozoal organism that is new in the United States, first found in 2017 in a Virginia cow-calf operation. It has since spread across the United States and has been identified in 16 States. Theileria is spread by the Asian Longhorn tick (*Haemaphysalis longicornis*), which has been found in three counties in Arkansas – Benton, Independence, and Washington.

Theileria causes anemia in infected cattle. This anemia can range from very mild to very severe and can result in death. Theileria is not zoonotic, meaning it does not affect people.



Clinical Signs

- Many infected cattle have limited or minimal clinical signs, which are very similar to clinical signs of anaplasmosis
 - Anemia, pale or jaundiced (yellow) mucous membranes
 - Increased respiratory and heart rates
 - Exercise intolerance, lagging behind the herd, and/or lying down in the field
 - Off feed, have a fever, and decreased milk production
 - Sudden death, abortions
- Theileria affects calves, which is different from anaplasmosis



Transmission

- Arthropod vectors
 - Asian Longhorned tick is the primary route of transmission from infected to uninfected animals
 - Other biting flies, mosquitoes, lice, and different tick species implicated as potential vectors
- Mechanical
 - Potential threat of transfer from infected to uninfected animals through blood contaminated equipment, including needles, dehorning, castration, and tagging equipment

Prevention

Vector control (tick) and herd management are important to reduce the rapid spread of *Theileria*. [Virginia Cooperative Extension](#) has created a publication that describes tick management practices for cattle producers: pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/ENTO/ento-382/ENTO-382.pdf.

Inspection

- Regularly inspect cattle for ticks. The Asian Longhorn tick is small so thorough inspection is necessary.
- Focus on animals that are thin, lethargic, or anemic; have patchy hair; or generally look unhealthy.
- Inspect all cattle moving into your herd for ticks and/or request test for *Theileria* and other tick-borne diseases.

Herd Management

- Keep pastures mowed and limit exposure to wooded areas.
- Consult with your veterinarian for recommendations about quarantining new animals coming into your herd.

Chemical Control

- Use multiple pesticide applications; a single pesticide application method is not fully effective. Employ backrubbers and siderubbers.
- Use abamectin or beta-cyfluthrin ear tags for cattle with low numbers of ticks. Use permethrin ear tags for cattle with higher numbers.
- Use pour-ons for heavy and extreme tick numbers.

Follow all label recommendations for each product.

Diagnosis



- Various tests exist for diagnosing *Theileria*, with PCR being used for confirmation. Advanced testing is needed to identify the existing subtypes of interest.



Treatment

- There is not an approved treatment for *Theileria*; therefore, prevention is the key.

Reference: [USDA Emerging Risk Notice "Theileria orientalis Ikeda"](https://aphis.usda.gov/sites/default/files/theileria-orientalis-ikedda-notice.pdf): aphis.usda.gov/sites/default/files/theileria-orientalis-ikedda-notice.pdf



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