



## Asian Longhorned Tick and *Theileria orientalis*



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The Asian longhorned tick (*Haemaphysalis longicornis*) was discovered in the U.S. in 2017. It has been confirmed in 17 states in the east, including Arkansas and Tennessee. This tick species thrives in temperate locales with moderate temperature, humidity and precipitation. These climactic conditions also support forested and shrubby vegetation, which are prime environments for ticks. Northern parishes in Louisiana are moderately suitable as habitat for the longhorned tick with suitability decreasing as you move south where average temperatures are higher.

Longhorned ticks are light reddish-brown in color, have no distinct markings and are very small. Nonengorged females are about 3 to 4 mm in length (about the size of a sesame seed), and engorged females are about the size of a pea. Females can reproduce without males, laying 1,000 to 2,000 eggs per female. One female tick can start a severe infestation on an animal and set up this tick species in a new location.

Longhorned ticks have been found on cattle, sheep, goats, horses, pigs, poultry, dogs, cats — a variety of wildlife species and people. They form large infestations, causing stress, decreased growth and production, and death from severe blood loss. These ticks are known to transmit *Theileria orientalis* genotype Ikeda in cattle in the U.S. and have the potential to transmit anaplasmosis, babesiosis, ehrlichiosis, rickettsiosis and viruses in animals and people.

*Theileria orientalis* genotype Ikeda is a protozoan parasite that causes bovine infectious anemia in cattle. Clinical signs are like those of anaplasmosis — anemia, jaundice, weakness, abortions and death. Pregnant heifers and calves are particularly susceptible. Like anaplasmosis, cattle that recover from *T. orientalis* become lifelong carriers of the disease and a source of infection for other cattle. It's important to prevent blood transfer by changing needles between each animal and disinfecting surgical tools and taggers.

The first reported cases in the U.S. were in Virginia in 2017 and coincided with the discovery of the Asian longhorned tick (*Haemaphysalis longicornis*). *T. orientalis* has not been confirmed in all states that have the longhorned tick, but it may only be a matter of time.

Whole blood from suspected cases can be submitted to the Louisiana Animal Disease Diagnostic Laboratory (LADDL) for diagnosis of *T. orientalis*. There is no effective treatment, and prevention involves controlling longhorned ticks.

Ranchers should have a biosecurity program that includes quarantine and tick checks for any incoming cattle. Also regularly check all livestock for ticks on the head, neck, flanks, armpits, groin and under the tail. If you suspect ticks are Asian longhorned ticks, submit ticks to your local extension agent, veterinarian or the Louisiana Animal Disease Diagnostic Laboratory (LADDL). Collect several ticks and place them in a rigid container in ethanol or rubbing alcohol. Double seal in two plastic bags for shipping. If you see cattle with signs consistent with *T. orientalis*, contact your veterinarian. Cattle should be tested for both anaplasmosis and *T. orientalis* as concurrent infections are possible.

Report any suspicion of Asian longhorn ticks or *T. orientalis* to the Louisiana Department of Agriculture (LDAF) at 225-925-3980. LDAF is currently surveilling for these ticks at livestock markets across Louisiana.

Prevention of tick infestations involves keeping pastures mowed and brush to a minimum. Ask your veterinarian for advice about pesticides for treatment and prevention. For a more information, go to “Managing the Asian Longhorned Tick: Checklist for Best Management Practices for Cattle Producers” at <https://www.pubs.ext.vt.edu/ENTO/ENTO-382/ENTO-382.html>.

For more information about prevention and treatment of tick infestations and tick-transmitted diseases in people and pets, go to <https://www.cdc.gov/ticks/index.html>.

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