

# KANSAS TICK GUIDE



# Kansas Tick Guide

Ticks are small, external parasites that survive by attaching to and feeding on the blood of people, pets, livestock, wildlife, birds, reptiles and amphibians. Most ticks have three separate blood-feeding life stages: larva, nymph and adult. When all three life stages feed on a different host, they are considered three-host ticks. While the larvae only have six legs, the nymph and adult stages of ticks have eight, which make them more closely related to spiders and mites (*Arachnida*), than true insects.

There are two major families of ticks: hard ticks and soft ticks. The hard ticks are of greater importance to human and animal health, as they are the most common type of tick found in the United States and responsible for spreading the majority of tick-borne illnesses to humans and animals. The five hard ticks of veterinary or medical importance that live in Kansas are outlined in this guide.

*Compiled by* Sasha S Thomason, DVM at the Kansas State Veterinary Diagnostic Laboratory, Clinical Assistant Professor of Client Services and Outreach.

*Designed by* Audrey Hambright, Public Information Officer for the Dean's Office in the College of Veterinary Medicine at Kansas State University.

*Special thanks to* Brian Herrin, DVM, PhD, DACVM (Parasitology) at the Kansas State Veterinary Diagnostic Laboratory, Parasitology Section for his subject matter expertise and tick images.

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### Additional References:

Ludek Zurek, et al. Ticks in Kansas, Kansas State University, June 2004.

[https://www.cdc.gov/ticks/geographic\\_distribution.html](https://www.cdc.gov/ticks/geographic_distribution.html)

# PREVENTING

# Tick-Borne Diseases

The best way to prevent tick-borne diseases in people and animals is to use appropriate measures to prevent ticks from ever attaching or feeding. There is no safe amount of time for a tick to be attached. Therefore, prompt removal of ticks from a person or animal's body is paramount.

## TIPS:

Ticks become active once the ground temperature reaches 45°F. They live in grassy, brushy, or wooded areas, where they opportunistically search (quest) for an animal to feed on. They will crawl onto long blades of grass, brush or bushes and wait for a person or animal to brush up against the foliage so they can hitch a ride. You can avoid tick-infested areas to reduce your risk. If that is not possible, take the following precautions.

- Check yourself, your children and your pets frequently for ticks when outdoors and again once you return indoors. Also check any clothing or gear for ticks. Additional information can be found at [https://www.cdc.gov/ticks/avoid/on\\_people.html](https://www.cdc.gov/ticks/avoid/on_people.html)
- Carefully remove any ticks. Information detailing the proper way to remove a tick is shown here: [https://www.cdc.gov/ticks/removing\\_a\\_tick.html](https://www.cdc.gov/ticks/removing_a_tick.html)
- While outdoors, use Environmental Protection Agency-registered repellants such as DEET to repel ticks. A list of products and a tool to help select the best product can be found on the EPA website <https://www.epa.gov/insect-repellents/find-repellent-right-you>. Certain products should not be used on pets or in children under three years old, so read product labels carefully. Similar to sunscreen, these products often need to be reapplied throughout the day to remain effective.
- Walk in the center of trails.
- Tuck pant legs into socks and wear light-colored protective clothing, which should help make ticks more visible.
- Keep your pets on a flea and tick preventative recommended by your veterinarian. Products should only be given according to the label, and dog products should never be used on cats. You have to treat every pet in the household to prevent or control infestations.
- Additional information can be found at: <https://ksoutdoors.com/Outdoor-Activities/Outdoor-Health-and-Safety/Tick-Bite-Prevention>

## References:

Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases (NCEZID), Division of Vector-Borne Diseases (DVBD). [https://www.cdc.gov/ticks/avoid/on\\_people.html](https://www.cdc.gov/ticks/avoid/on_people.html)

# Lone Star Tick

## **(*Amblyomma americanum*)**

- Three-host tick
- Aggressive tick that commonly bites humans

## **Diseases found in Kansas spread by the Lone Star Tick:**

### **HUMAN DISEASES:**

- Human Monocytic Ehrlichiosis (*Ehrlichia chaffeensis*)
- Tularemia (*Francisella tularensis*)
- Heartland virus in people
- Bourbon virus in people
- Southern tick-associated rash illness (STARI) in people
- Also associated with red meat allergies in people

### **ANIMAL DISEASES:**

- Canine Granulocytic Ehrlichiosis (*E. ewingii*)
- Tularemia (*Francisella tularensis*) in cats and sheep
- Cytauxzoonosis (*Cytauxoon felis*) in cats

## **Range of the Lone Star tick as reported to the CDC:**

- Eastern half of Kansas

## **Life Stages that feed on humans/domestic animals:**

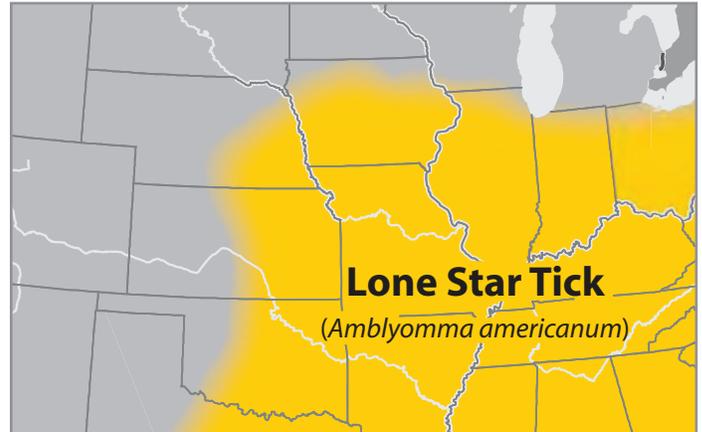
- Larvae, nymph and adult

## **Active late February through fall**

- Adults – spring to summer
- Nymphs – spring to summer
- Larvae – late summer to early fall

## **Coloring:**

- Adult females have a brown body with a white spot on their back
- Adult males have white markings around the outside of their back
- Nymphs are small, brown and round



source: [https://www.cdc.gov/ticks/maps/lone\\_star\\_tick.pdf](https://www.cdc.gov/ticks/maps/lone_star_tick.pdf)



# Brown Dog Tick

## *(Rhipicephalus sanguineus)*

- Three-host tick
- All life stages prefer to bite dogs
- Only species of tick in North America that can infest homes and kennels

## Diseases found in Kansas spread by the Brown Dog Tick:

- Rocky Mountain Spotted Fever (*Rickettsia rickettsii*) in people and dogs
- Canine Monocytic Ehrlichiosis (*Ehrlichia canis*)
- Canine Thrombocytic Anaplasmosis (*Anaplasma platys*)
- Babesiosis in dogs (*Babesia canis* and potentially *B. gibsoni*/*B. conradae*)

## Range of the Brown Dog Tick as Reported to the CDC:

- Entire state of Kansas

## Life Stages that feed on humans/domestic animals (mainly dogs):

- Larvae, nymph and adult

## Active year-round:

- Infest climate-controlled environments like homes and kennels

## Coloring:

- Reddish brown in color with no dorsal markings



source: [https://www.cdc.gov/ticks/maps/brown\\_dog\\_tick.pdf](https://www.cdc.gov/ticks/maps/brown_dog_tick.pdf)



# American Dog Tick

## *(Dermacentor variabilis)*

- Three-host tick
- Commonly bites humans

## Diseases found in Kansas spread by the American Dog Tick:

- Rocky Mountain Spotted Fever (*Rickettsia rickettsia*) in people and dogs
- Cytauxzoonosis (*Cytauxzoon felis*) in bobcats
- Anaplasmosis (*Anaplasma marginale*) in cattle
- Can cause tick paralysis in people and dogs

## Range of the American Dog Tick as reported to the CDC:

- Most of the state of Kansas

## Life stages that feed on humans/domestic animals:

- Adults

## Active from March through September

- Adults – spring to summer
- Nymphs – probably spring to summer

## Coloring:

- Brown to tan with obvious white mottled markings on the back



source: [https://www.cdc.gov/ticks/maps/american\\_dog\\_tick.pdf](https://www.cdc.gov/ticks/maps/american_dog_tick.pdf)



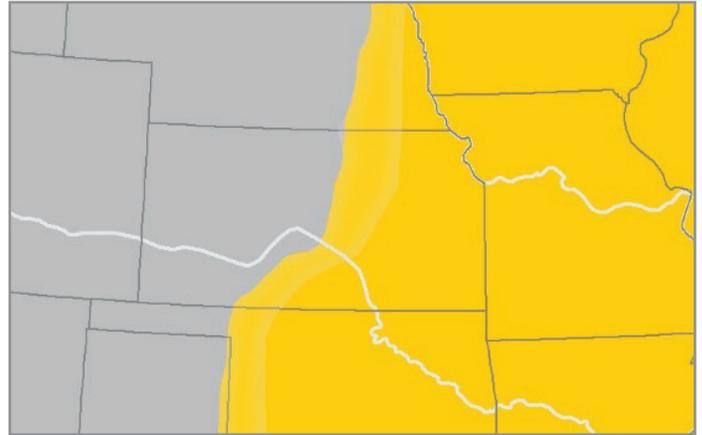
# Black-legged Tick

## *(Ixodes scapularis)*

- Small, three-host tick

## Diseases found in Kansas spread by the Black-legged tick:

- Lyme disease (*Borrelia burgdorferi*) in people, dogs and horses
- Human granulocytic ehrlichiosis (*Anaplasma phagocytophilum*) in people, dogs, cats and horses
- Powassan Virus
- Babesiosis in humans (*Babesia microti*)
- Ehrlichiosis in humans (*Ehrlichia muris*)



source: [https://www.cdc.gov/ticks/maps/blacklegged\\_tick.pdf](https://www.cdc.gov/ticks/maps/blacklegged_tick.pdf)

## Range of the black-legged tick as reported by the CDC:

- Eastern half of Kansas

## Activity varies:

- Adults – late fall (Oct-Nov) and again late winter (Jan-Mar)
- Nymphs – spring to summer

## Life stages that feed on humans/domestic animals:

- Nymphs and adults

## Coloring:

- Adult males are dark brown, almost black.
- Adult females are two-toned with a dark to black dorsal shield (back) covering the anterior 1/3 of the body and an orange-brown posterior.



# Gulf Coast Tick

## **(*Amblyomma maculatum*)**

- Three-host tick
- Livestock and equine infestations are common

## **Diseases found in Kansas spread by the Gulf Coast Tick:**

- *Rickettsia parkeri* rickettsiosis, a form of spotted fever in humans
- American Canine Hepatozoonosis (*Hepatozoon americanum*) in dogs
- Tick paralysis in people and dogs

## **Range of the Gulf Coast tick as reported by the CDC:**

- Southeastern Kansas

## **Life Stages that feed on humans/domestic animals:**

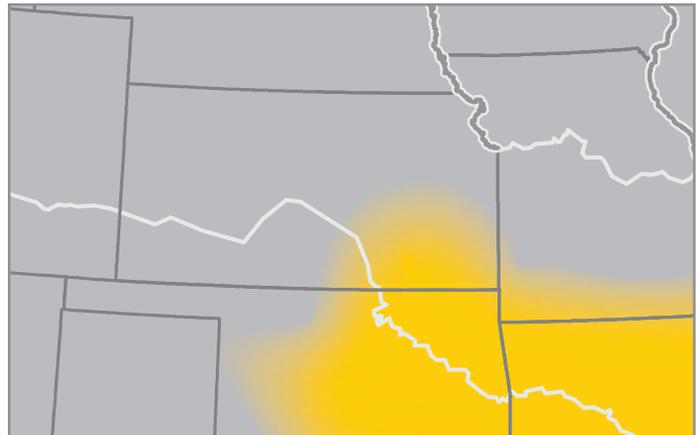
- Adults

## **Active February through October**

- Adults – late spring to summer

## **Coloring:**

- Brown to tan with obvious white mottled markings on the back



source: [https://www.cdc.gov/ticks/geographic\\_distribution.html](https://www.cdc.gov/ticks/geographic_distribution.html)

