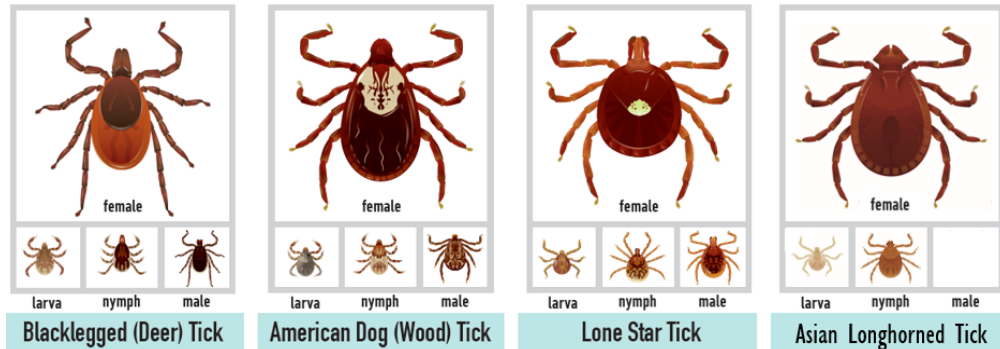


# Don't Get Ticked on the Farm

## Ticks of New York

There are currently four species of ticks in NY that are of human and domestic animal health importance.



Each species, life stage, and, for adults, whether it is a male versus female have different color patterns. The length of the mouthparts vary between ticks. As ticks are freakishly small, and we are looking at even smaller parts of their body, it is handy to have a magnifying lens, a good smartphone camera and a steady hand, or, better yet, a microscope. Don't have one? There are options for having someone identify the tick for you. They include:

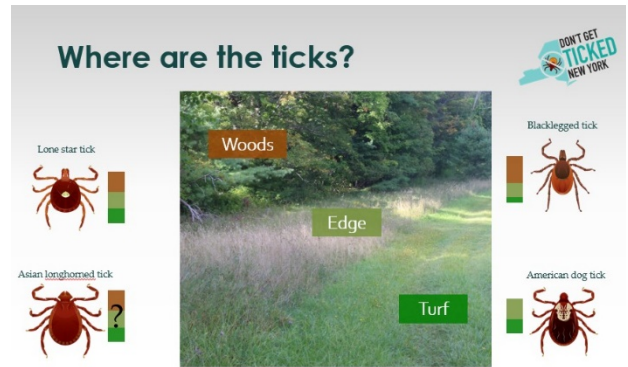
- Most County Cornell Cooperative Extension offices
- Cornell University Insect Diagnostic Laboratory (<http://idl.entomology.cornell.edu/>)
- The Tick App (<https://thetickapp.org/>) – a citizen science project with a free smartphone app collecting information on how and where people are becoming exposed to ticks
- Tick Identification at TickEncounter Resource Center ([http://www.tickencounter.org/tick\\_identification](http://www.tickencounter.org/tick_identification))

## Tick Habitat

Different tick species prefer different habitats, but that does not mean that you won't find them in other areas as well.

We can find ticks in tall grass, but we are less likely to find blacklegged ticks. They prefer shady, moist areas. Dehydration is their greatest enemy, and so you are most likely to encounter them in the woods. But that doesn't mean you won't find them in a lawn or pasture, especially in areas that receive significant shade.

And species matter because different species carry different...



## Tick-borne Diseases

Different tick species host different pathogens. Importantly, ticks can transmit more than one pathogen at a time. A poster of this information is available at <https://tinyurl.com/TickBD>.

Tick Species	Tick-borne Disease	Non-pathogenic Impact
Blacklegged Tick	Lyme disease, anaplasmosis, babesiosis, powassan virus, <i>Borrelia miyamotoi</i> , ehrlichiosis	Tick paralysis
Lone Star Tick	Ehrlichiosis, Canine ehrlichiosis, tularemia, Rocky Mountain Spotted Fever (?)	Tick bite-induced allergy, Southern Tick Associated Rash Illness (?), Tick paralysis
American Dog Tick	Tularemia, Rocky Mountain Spotted Fever	Tick paralysis
Aisan Longhorned Tick	None detected in US at this time	Anemia, exsanguination

For information on specific diseases, refer to the Center for Disease Control and Prevention's Tickborne Diseases of the United States website (<https://www.cdc.gov/ticks/tickbornediseases/index.html>)

## Should I get attached ticks tested?

We follow the Center for Disease Control recommendation of **not** having attached ticks tested for diagnostic purposes. The reasons include:

- Positive results showing that the tick contains a disease-causing organism do not necessarily mean that you have been infected.
- Negative results can lead to false assurance. You may have been unknowingly bitten by a different tick that was infected.
- If you have been infected, you will probably develop symptoms before results of the tick test are available. If you do become ill, you should not wait for tick testing results before beginning appropriate treatment.

Having said that, the Thangamani Lab in the SUNY Upstate Medical University is investigating the geographic expansion of ticks and tick-borne diseases in New York. They are conducting free tick testing (<https://thangamani-lab.com/free-tick-testing>) for research purposes. Please consider contributing to this citizen science project and visit the website for directions on how to submit your tick.

## Assessing Tick Risk

How can you determine if there are tick risky locations on your farm? You can use a simple drag cloth to monitor for ticks. Questing ticks will latch onto the cloth.

If you find locations with tick activity, you can take steps to restrict people and livestock from those areas or personal protection such as permethrin treated clothing.

## Personal Protection

Currently the best ways to protect against tick bites include:

- Using repellents on skin
- Wearing long pants and sleeves
- Wearing permethrin treated clothing
- Putting clothes in dryer to kill hitchhikers
- Showering
- Daily tick checks

## Managing Ticks

While it is known that synthetic pyrethroids are effective at killing ticks, the timing and methods of pesticide application are still being researched. Three large-scale projects are currently underway to address the effectiveness of large-scale management looking at four tick management strategies:

- Acaracides applied to the landscape
- Acaracides applied to hosts (small rodents and deer)
- Biocontrol
- Deer management

For more information on ticks, tick diseases, tick management, and personal protection, visit [www.DontGetTickedNY.org](http://www.DontGetTickedNY.org).



# Asian Longhorned Ticks

## Biology

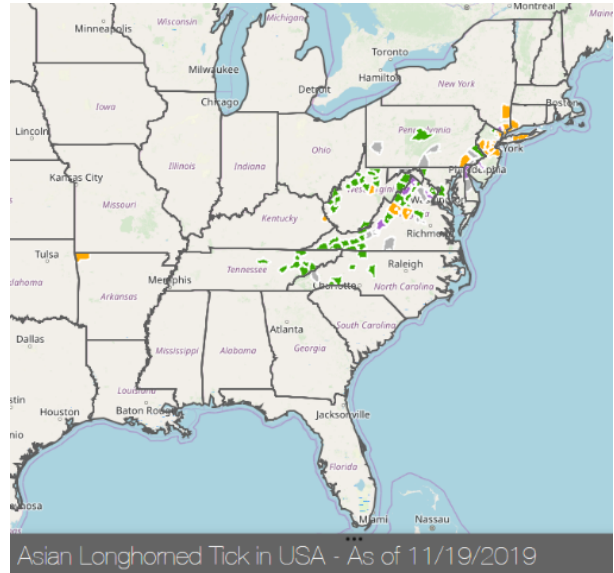
- One parthenogenic female (reproduces without males) can produce hundreds or thousands of offspring
- Cold temperature tolerance creates potential for establishment in the northeast
- Broad host range – but prefers cattle
- Attaching to birds and wildlife allow Asian longhorned ticks to spread quickly over an increasing area
- Preferred habitat: pastures, meadows

## Distribution

- Native to Eastern Asia, invasive Asian longhorned ticks became the highly problematic ‘cattle tick’ on Australia and New Zealand livestock
- Since the 2017 discovery in New Jersey, it’s now in New York and many Northern states

## Impact: Asian longhorned ticks damage livestock health and impairs milk production

- Severe infestation causes anemia or death from blood loss
- ALT feeding can transmit bovine theileriosis and parasites that cause babesiosis
- Theileriosis can significantly reduce milk production and kill calves



<https://www.aphis.usda.gov/aphis/maps/animal-health/asian-longhorned-tick>

## Management

- Monitor livestock regularly for ticks – collect and submit suspicious ticks for identification
- Typical tick insecticide treatments—ear tags, sprays, dips, pour-ons and powders—are effective against Asian longhorned ticks

## IPM for livestock ticks

- Inspect animals regularly for ticks
- When indicated, use timely application of insecticides
- Minimize tick habitat in pasture and feedlots by keeping grasses and weeds trimmed
- Pasture rotation
- Deer exclusion limits re-introduction of ticks from wildlife
- Chickens and guinea fowl in pastures eat adult ticks, but typically not nymphs



*Livestock on pasture are particularly vulnerable to tick infestations. Check pastured animals regularly.*

For more information on Asian longhorned ticks, other significant tick species in NY, tick diseases, tick management, and personal protection, visit [www.DontGetTickedNY.org](http://www.DontGetTickedNY.org).