



AGRICULTURE NEWS

OSU Ottawa County Extension Facebook

BRRRRR Winter is Here!

This Quarter's Topics

- Asiatic Longhorn Tick
- ALT OSU Collection Trial
- January Garden Tips
- Program Highlight
- Small Ruminant Resources
- Media Center Updates



If you like the above image check out the Program Highlight on Pages 6 & 7 for more information!

If you have any ideas or topics you wish to be featured in the newsletter you can contact Reba Palmer via email, reba.palmer@okstate.edu

Reba Palmer
Ag Educator

UPCOMING EVENTS

January 9

Office Closed

February 6

OKCAN Conference

- Bartlesville, OK

February 11-12

Arklahoma Ag Lenders Conference

- Poteau, OK

February 14

Central Oklahoma Cattlemen's Conference

- Stillwater, OK

February 21

OYE Entries Due

- Ewes & Heifers MUST enter!

March 11 - 21

Oklahoma Youth Expo

May 1&2

Cowgirl Confident





ASIAN LONGHORNED TICK, HAEMAPHYSALIS LONGICORNIS, IN OKLAHOMA – AUG. 7, 2024

JONATHAN A. CAMMACK, PH.D., ASSISTANT PROFESSOR AND STATE
EXTENSION SPECIALIST

The Asian longhorned tick (ALT), (*Haemaphysalis longicornis* Neumann) (Figure 1), has recently been identified from cattle in Mayes County, in northeast Oklahoma.

Distribution

The species is native to East Asia, including China, Japan, Republic of Korea, and southeast Russia, and has been introduced to Australia, New Zealand, several Pacific Islands, and the U.S. The species was first reported in 2017 on an infested sheep in New Jersey(1), but identification of archived samples has revealed the species was present on white-tailed deer in West Virginia as early as 2010, and on a dog in New Jersey as early as 2013(1,2). Since that time, ALT has spread south and west across the United States, and is now known to occur in 21 states and Washington, D.C. (Figure 2), in 259 of the 1,462 counties within this range.

Temperature, humidity, and rainfall are the most important environmental factors regulating the distribution and spread of the species across North America. Central Oklahoma (approximately the I-35 corridor) is at the western edge of the predicted range of the species(3). Because a significant portion of the tick’s life (90%) is spent in the environment off of the host, the low humidity and soil moisture in the western portion of Oklahoma are likely to result in dehydration of the ticks, and limit the likelihood of establishment in these drier areas of the state.

Description and Biology

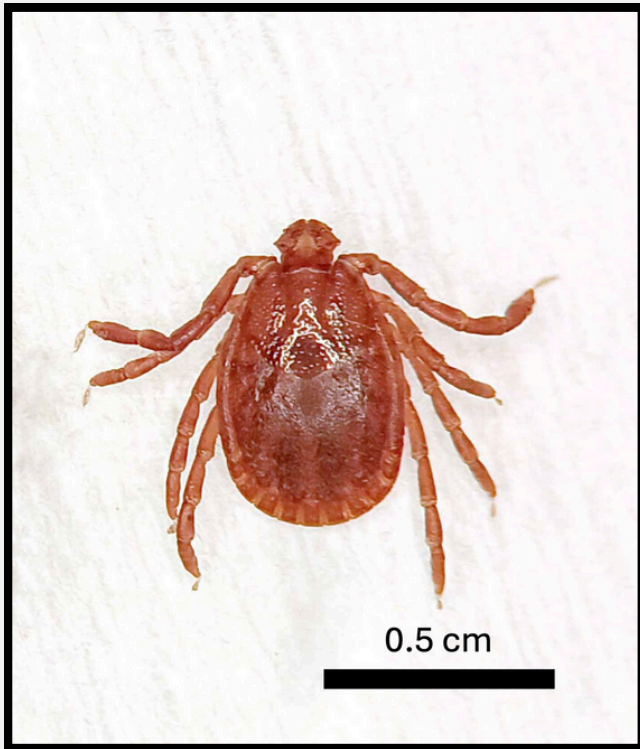
Asian longhorned ticks are three-host ticks, and can be found feeding on many species of animals, ranging from wildlife (birds to mammals), to pets (dogs and cats), to livestock (sheep, goats, horses, and cattle); to date, ALT has been collected from nearly 150 host species, including humans(2). They are light brown to reddish brown in color (Figure 1) and are very small, approximately the size of a sesame seed. The mouthparts are short and broad, resulting in a distinct, pentagonal shape of the head when viewed from above, that is characteristic of this group of ticks.

Populations of this species that have been documented in the U.S. are able to reproduce asexually (i.e. without mating), through a process known as parthenogenesis. Females can lay over 3,000 eggs, and development from egg to adult occurs in as little as 82 days at temperatures between 26-28°C (78-82°F)(4). Their unique reproductive strategy (reproduction without mating) and high rate of reproduction are characteristics that can lead to large populations occurring in the environment or on animals in a relatively short period of time.

As a three-host tick, the immature life stages (six-legged larva, eight-legged nymph) will attach to a host, bloodfeed, and drop off the host to digest the meal and molt to the next stage, and eventually to an adult. During this time of digesting and molting, the ticks will rest in protected areas with higher humidity, such as leaf litter and the thatch layer of grass. Over 90% of a three-host tick’s life is spent off of the host. Once molted to the next life stage, the ticks will then climb back up vegetation (grasses, shrubs) and wait for a host animal to pass by. Although the immature life stages will typically feed on smaller animals than the adult, all life stages have been found feeding together on the same host species.

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CONFIRMED CASES IN CRAIG AND MAYES COUNTIES

FIGURE 1. AN ADULT FEMALE
ASIAN LONGHORNED TICK
(ALT) (HAEMAPHYSALIS
LONGICORNIS).
PHOTOGRAPH BY J.A. CAMMACK.

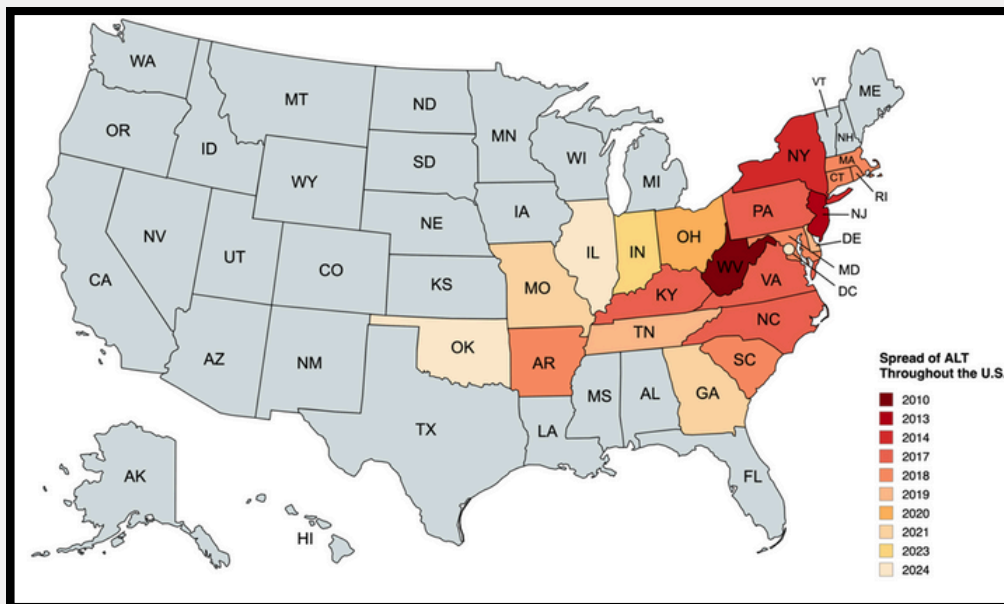


FIGURE 2. DISTRIBUTION OF THE ASIAN LONGHORNED TICK (ALT)
(HAEMAPHYSALIS LONGICORNIS) WITHIN THE UNITED STATES, AND
YEAR OF FIRST DOCUMENTATION.



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Pest Concern

The ALT is of particular concern for livestock, especially cattle. Tick populations on cattle can become so numerous that the animals become stressed, lose weight, reduce milk production, become anemic, and in some cases, die. Animals should be monitored for any changes in behavior or body condition, and if changes are noted, should be inspected for the presence of ALT. Of greatest concern regarding the ALT and cattle is the tick’s ability to transmit the pathogenic Ikeda genotype of Theileria orientalis to cattle (cattle theileriosis). Symptoms are similar to anaplasmosis, including fever, anemia, pale coloration of the mucous membranes, and weakness. More advanced infections can result in jaundice, abortion, and even death of the animals. However, at the current time, the pathogenic Ikeda genotype of Theileria orientalis has not been documented in Oklahoma.

Additionally, under laboratory conditions, ALT is a competent vector of numerous pathogens that can cause disease in humans, including Rickettsia rickettsii (Rocky Mountain Spotted Fever)(5), Heartland Virus(6), and Powassan Virus(7).

Protection and Prevention

Currently, the best method to protect people, pets, and livestock is to limit the likelihood of contact with ALT. When outdoors or working with animals, wear permethrin treated clothing or general insect repellents. Protect pets with products approved for tick control; consult your veterinarian for approved products. For livestock, limit the movement of animals between farms/locations, and thoroughly inspect any new animals that are brought into a herd. Pesticides labeled for the control of ticks on cattle, coupled with cultural control (keeping grass mowed and brush cleared) and reducing the movement of animals, can help form the basis of an integrated pest management program for Asian longhorned tick(8).

If you suspect that your animals may be infested with Asian longhorned tick, contact your veterinarian and/or county extension office. Additionally, specimens can be collected in sealed containers such as a Ziploc bag or small water bottle; a glass vial containing 70% ethanol is the best method. If submitting samples in any container other than a glass vial, the specimens should be submitted dry/without preservative solution. Samples should be submitted for identification to the Oklahoma Animal Disease Diagnostic Laboratory using the [General Submittal Form](#). In the History section, indicate “Asian Longhorned Tick ID”, and be sure to include: the address of where the tick was found, the date collected, and the host the tick was collected from (i.e. cattle, dog, etc.). Samples can be sent to:

Oklahoma Animal Disease Diagnostic Laboratory
1950 W. Farm Road
Stillwater, OK 74078



*Scan For
Research Trial
Information!*





OTTAWA COUNTY EXTENSION

HOME GROWN
LAURA PAYNE
HORTICULTURE EDUCATOR, PAYNE COUNTY EXTENSION

HORTICULTURE TIPS FOR JANUARY

As we start another year, now is a good time to evaluate your landscape and decide on what your gardening goals are for the coming year. Do you want to add another garden bed, or maybe you are planning a long vacation and want to downsize your garden. Whatever your gardening goals are, stay focused and you can achieve them.

It's always a fun time of year when seed catalogs are showing up in the mailbox, online sales are beginning and new merchandise is in the garden centers.

Here are a few tips to get you started in the new year:

- For those with tall fescue lawns, this is a good time to remember to go out and stir around any tree leaves remaining on the ground. Heavy accumulations of leaves will tend to smother the turfgrass, depriving it of air and light.
- It's a good idea to check the status of your rain gutters, drainage grates, etc. to make sure your drainage systems are functioning properly before the spring rains.
- If you have plants that have suffered from heavy infestations of scale insects, consider making a dormant oil application when the daytime temperature is over 40 degrees. Do not apply dormant oil to evergreen plants as damage will result.
- Warm January days are a good time to control winter broadleaf weeds in your dormant bermudagrass lawn. As always, follow label directions carefully when using all pesticides.
- Prune out tree seedlings while they are obvious in the winter landscape.
- Now is a good time to look at the bones of the garden and start planning to fill in gaps in the landscape or remove plant material if it's too crowded.

PROGRAM HIGHLIGHT

COWGIRL CONFIDENT CAMP OSU WORKSHOP SESSIONS

WHAT IS COWGIRL CONFIDENT?

STEMMING FROM THE COWGIRL'S GUIDE TO CONFIDENCE: EMPOWERING WOMEN IN CATTLE MANAGEMENT EVENT BY CLAYTON CORNER FARM IN AFTON, OK.

CLAYTON CORNER STATES, "OUR GOAL IS TO EMPOWER WOMEN IN CATTLE MANAGEMENT WHILE ENCOURAGING FRIENDSHIPS WITH LIKEMINDED LADIES, AS WELL AS BUILD CONFIDENCE AND SKILLS ALONG THE WAY. COWGIRL CONFIDENT PROVIDES THE PERFECT OPPORTUNITY TO GAIN HANDS-ON EXPERIENCE, ASK QUESTIONS AND LEARN FROM INDUSTRY PROFESSIONALS. YOU WILL LEARN HOW TO MOVE CATTLE SAFELY, OPERATE A CHUTE, PERFORM A BLOOD DRAW, PULL A CALF, AS WELL AS BASIC VACCINATION, HOW TO IDENTIFY AND TREAT COMMON ILLNESSES, AS WELL AS BEST PRACTICES FOR BREEDING AND REPRODUCTION, BCS SCORING, HEIFER RETENTION, POND MAINTENANCE, AND FARM MARKETING."





PROGRAM HIGHLIGHT

COWGIRL CONFIDENT CAMP OSU WORKSHOP SESSIONS



**DYSTOCIA SIMULATOR
USED TO REPRODUCE DIFFICULT
BIRTHING SITUATIONS WHILE
GIVEN GUIDANCE AND
INSTRUCTION FROM STATE &
DISTRICT SPECIALIST**

**SOIL & FORAGE TESTING
PARTICIPANTS ARE EDUCATED ON
THE DIFFERENT TYPES OF TESTING
PROVIDED BY THE OSU EXTENSION
OFFICE AND THE IMPORTANCE OF
IMPLEMENTING A TESTING
SCHEDULE INTO THEIR PROGRAMS**



**BEGINNING PRODUCTION
ECONOMICS
PARTICIPANTS GO THROUGH
DIFFERENT SCENARIOS AND ARE
ILLUSTRATED THE IMPORTANCE
OF KNOWING THE PROS AND CONS
OF BIG PURCHASES IN THEIR
OPERATIONS**





OTTAWA COUNTY EXTENSION

SMALL RUMINANT RESOURCES

1st Avian Influenza in Goats

External Parasite Fact Sheet EPP - 7019

Sheep Herd Health & Management Fact Sheet ANSI - 3860

Small Ruminant Testing at OADDL

- Biosecurity Serology Panel
- Pregnancy Testing
- Bacterial & Fungal Cultures
- PCR Testing
- Parasitology Testing
 - Fecal Egg Count
 - Centrifugal Fecal Flotation
 - Fecal Sedimentation
 - Baermann Method



MEDIA CENTER

TAP/CLICK ON THE LINKS BELOW TO TAKE YOU TO THE ONLINE RESOURCE OR YOUTUBE VIDEO

IS THERE BERMUDA IN YOUR PASTER?

GENETIC DIFFERENCES IN CATTLE BREEDS

PARASITE MANAGEMENT AFTER DROUGHT

LIVESTOCK MARKETING

NOT YOUR GRANDMA'S PETUNIAS



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