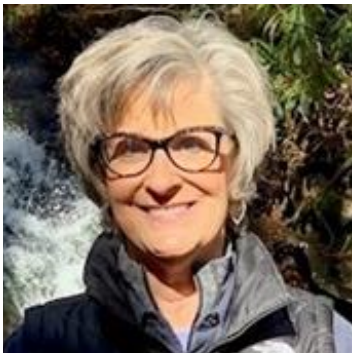
Rutherford County
FROM THE GROUND UP
May 21, 2024

Be on the lookout for ticks on livestock...



Rebekah Norman,
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We generally associate ticks with risk of disease transmission, and a new tick has arrived in Tennessee that is particularly troublesome for livestock, especially cattle.Originally from China, Japan, the Russian Far East and Korea, this tick has reached Tennessee and closer to home, Maury County in 2022. The Asian longhorned tick (Haemophysalis longicorns) is considered a severe exotic pest of livestock, but is not currently considered a risk for humans any more than any other tick.

Why the livestock threat?
This tick may carry Theileria orientalis ikeda (T. orientalis), a blood-borne parasite which causes severe infectious anemia in livestock. Similar in symptoms to anaplasmosis, producers may notice cattle with pale mucus membranes and other signs of anemia, high fever, jaundice, weakness, and lethargy, to name a few. This disease is poorly understood in the U.S. In India it is considered deadly but, in the U.S., it is not that simple.It is a death sentence for some cattle; others may have this parasite and seemingly experience no ill effects.They will, however, be carriers and a source of infection for other cattle in the herd.

This tick is parthenogenetic which means the female produces eggs without a male, and one female can lay 2,000 to 4,000 fertile eggs. Males are rare. Maturity is reached within 6 months; the average for other tick species is two to three years! Also, unlike other ticks, this tick can spread disease during any stage of its development. Ticks don't jump or rely on the wind to gain access to a host; they simply wait on tips of plants, holding their first pair of legs outstretched. When a potential host brushes them, they quickly climb aboard.This process is called "questing," and these particular ticks have been observed questing in groups as large as 50 to 100 on a single blade of grass. Ticks are most prevalent in overgrown brush in pastures and along the edge of fields and woods areas.

With no treatment and no vaccine for Theileria, the best defense is to protect as much as possible from the tick itself. Remember where ticks "quest" and remove that habitat. Keep edges of fields and brush mowed back so that there is less likelihood of brushing against tall plants. If possible, keep animals out of dense brush. Check livestock carefully for ticks, particularly on the underside of their body where contact with plants is more likely and hair is less thick.

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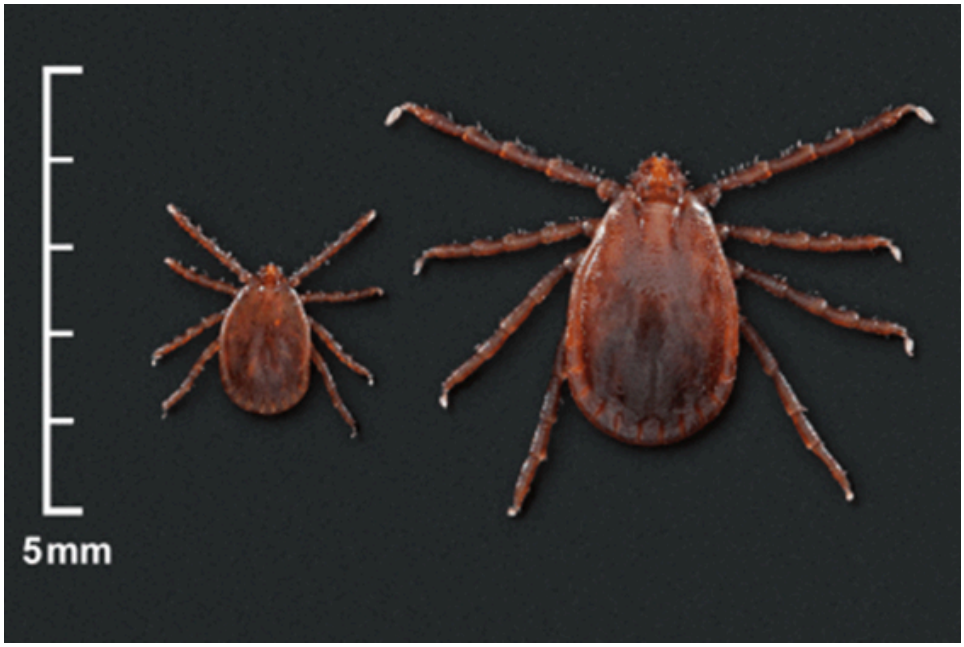
There appears to be an elevated risk of cattle disease transmission by the Asian longhorned tick in February-March and August-September; tick control is highly recommended during these time periods. However, keep in mind that ticks are active during much of the year and chemical control may be beneficial for longer periods. A single pesticide application method may not be fully effective against ticks; consider using pesticide-impregnated ear tags along with backrubbers and other devices. Additional application methods are necessary because ear tags will not be effective on the underside of animals. Use permethrin or organophosphate ear tags and use the same active ingredient in all other applications; do not mix classes of chemicals. Use the same class of chemicals for one to two years, then rotate.

Cattle and other livestock do not live in a controlled environment. These defensive strategies will not eliminate the chance of ticks, tick bites, or the possible ill effects associated with them, but these strategies can go a long way to decrease tick access to our livestock. For more information, please contact your local UT/TSU Extension office at 615-898-7710 or rutherford.tennessee.edu.



University of Maryland Extension photograph
Nymph is on the left, adult female on right. Adults are about 2.5 mm long and when fully engorged are about the size of a pea.