

Preventing Disease Transmission in Livestock and Poultry

VECTORS: TICKS



Ticks are important carriers of diseases affecting livestock, poultry and people. They can also cause economic losses from poor weight gain, damage to the skin, or secondary infections.

Efforts to control ticks on your farm can help protect your animals.

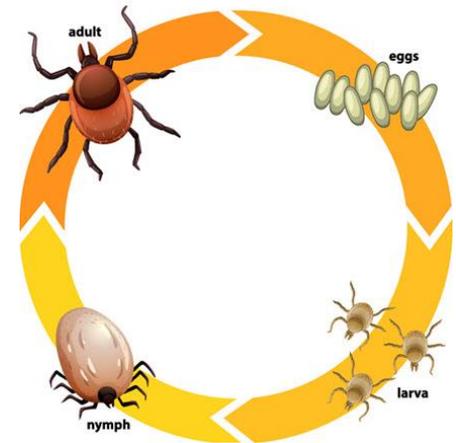
THE TICK LIFE CYCLE?

Ticks develop through 4 life stages: egg, larva, nymph, and adult.

The egg, larval and nymph stages of ticks are very small, making them difficult to see with the naked eye. Several would fit on the head of a pin. Adults are often bigger, but can range from a pin head to the length of a dime if full of blood.

Each life stage, except the egg, attaches itself to an animal (or human), feeds on blood, then drops off to change or “molt” to a new life stage. Many ticks molt on the ground in grass or areas with abundant vegetation.

The tick may live on a different animal for each stage. Each stage varies in length, but may take one year to complete. Ticks pass disease pathogens to animals (and humans) during blood feeding.



Examples of Ticks of the United States

Tick name	Lone star tick	Rocky Mountain wood tick	American dog tick	Asian longhorned tick	Western blacklegged tick	Blacklegged or deer tick	Brown dog tick
Latin name	<i>Amblyomma americanum</i>	<i>Dermacentor andersoni</i>	<i>Dermacentor variabilis</i>	<i>Haemaphysalis longicornis</i>	<i>Ixodes pacificus</i>	<i>Ixodes scapularis</i>	<i>Rhipicephalus sanguineus</i>
Image							
Species and disease	Cats (cytauxzoonosis, tularemia) Dogs (ehrlichiosis), Rocky Mountain Spotted Fever (RMSF) Rabbits (tularemia)	Cattle, other ruminants (anaplasmosis) Dogs (RMSF) Cats and rabbits (tularemia)	Dogs (RMSF) Cats and rabbits (tularemia)	Cattle (theileriosis) Dogs (RMSF)	Dogs (Lyme disease, anaplasmosis) Horses (Lyme disease)	Dogs (Lyme disease, anaplasmosis, ehrlichiosis) Horses (Lyme disease)	Dogs (ehrlichiosis and RMSF)

Photos: CDC Public Health Image Library

TICK CONTROL ON THE FARM

The elimination of ticks on the farm is not likely, however various prevention and control measures can reduce exposure of your animals and prevent disease spread. Tick control measures should focus on three key areas: exclusion, source reduction, and control of adults.

Exclusion

Limiting livestock and poultry exposure to ticks can prevent attachment and decrease disease transmission risks. Keep animals indoors, especially during peak activity times (e.g., spring through fall) to minimize exposure.



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Source Reduction

Ticks require specific conditions in order to develop. Disrupting, eliminating or reducing these areas can reduce population growth. Ticks live and hide in vegetation, such as leaf litter or grassy areas. Control tick populations by removing leaf litter, minimizing or removing tall grass and brush around animal areas, and mowing fields and pastures frequently to keep grass short.

Control of Adults

Controlling adult ticks often involves the use of acaricides. Acaricides are products that kill ticks. Many products are available. This approach is generally less effective long-term, compared to reducing the source, but it can provide a short-term solution in many cases. Talk with your veterinarian or local extension office for approved products in your area.

As with the use of any chemical, product labels should be read for proper use and any safety issues to animals or people. Proper precautions must be used when handling or applying them; some can be harmful or deadly to humans.

Directly applied animal products

- Many pour-ons, sprays, or powders/dusts are approved for use on food producing animals. Always read all label directions and apply accordingly.
- Whole body dips are common for full coverage, but can be expensive and labor intensive.

Insecticidal ear tags

- Read all labels and apply accordingly (only specifically labeled ear tags are to be used with lactating dairy animals). One tag in each ear is recommended for ear tick prevention.
- Work with your veterinarian to select the best ear tags for your livestock.

It is a violation of state and federal law to use a pesticide in any manner that differs from the product label. Use only according to label directions to avoid meat or milk residue hazards, environmental damage, and animal or human injury.

TICK REMOVAL AND IDENTIFICATION

Animals should be examined regularly for the presence of ticks. Prompt and proper tick removal is essential to stop the transmission of disease.

Gloves should be worn during the removal of any tick; if gloves are not available, use a disposable towel or tissue.

To remove a tick attached to an animal (or a person), use narrow-tipped tweezers.

- Grab the head of the tick as close to the skin as possible.
- Apply slow, steady pressure and pull the tick out of the skin.
- Place the tick into a container of rubbing alcohol or in a sealed bag or container.
- Wash the area well with soap and water.

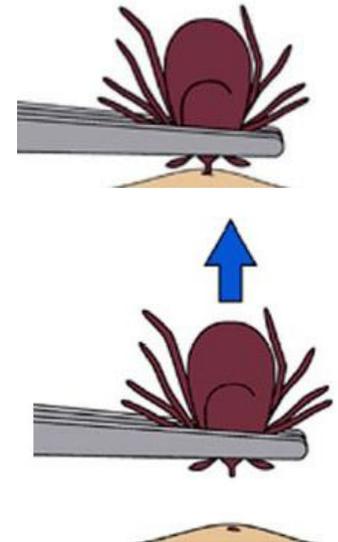
Avoid

- Avoid squeezing the body of an attached tick. If it is carrying a disease, this could spread it by injecting the tick's body fluids into the animal.
- Avoid leaving part of the tick embedded in the skin. It can cause an infection.

Tick identification

Identification of ticks can be important because many can look alike, and different ticks can spread different diseases. Follow these steps, if you want to try to have the tick identified.

- Place the tick into a sealed container filled with rubbing alcohol.
- Place the container in a sealed bag and give it to your local veterinarian or extension office for identification.



Illustrations from the Centers for Disease Control and Prevention

PERSONAL PROTECTION

Protect yourself, your family and your employees from ticks by taking the following actions:

- Avoid tick-infested areas (e.g., wooded or long vegetation)
- If these areas cannot be avoided,
 - Wear long sleeved shirts, long socks, and long pants. Tuck pant legs into socks to protect your skin.
 - Perform regular tick checks after leaving the area
 - Use EPA-approved tick repellants (e.g., DEET) or permethrin on clothing
- Showering after being outdoors can also aid in removing ticks from the body.

FOR MORE INFORMATION

[Tickborne Diseases of the United States](#). The Centers for Disease Control and Prevention

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