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TICKS ON LIVESTOCK

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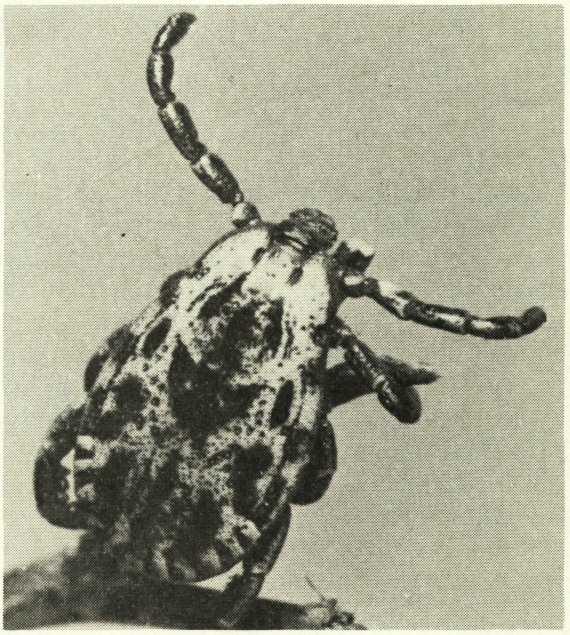
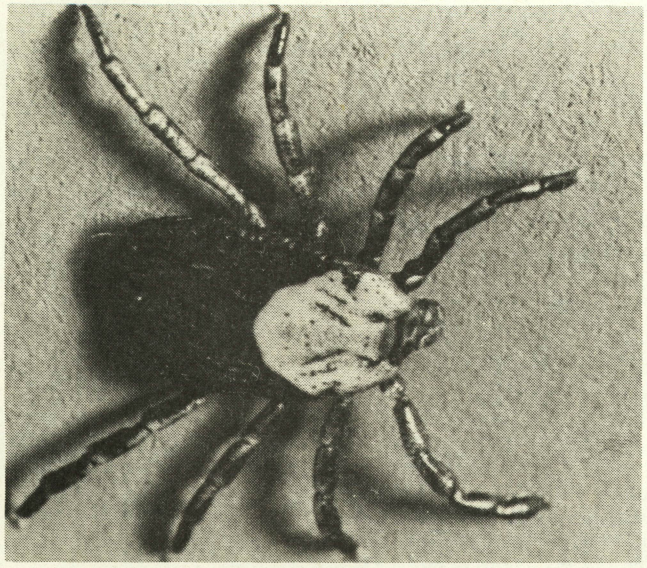


Male adult Rocky Mountain tick.

Ticks attack all Idaho livestock in range and pasture situations. Cattle, sheep, horses and goats can be heavily infested and may suffer severe irritation in certain years. Weight gains and milk production can be substantially reduced. Since ticks are bloodsuckers, large numbers on an animal can cause significant blood loss, secondary anemia and sometimes death. Ticks can also cause paralysis which may lead to the death of the animal. Ticks transmit many diseases of animals and man. Among them in Idaho are anaplasmosis, tularemia and Rocky Mountain spotted fever. Tularemia was reported to have killed 5,000 sheep in Idaho in one year with ticks the primary vector in that outbreak.



Female adult Rocky Mountain tick.

American dog tick has been found only in the Clearwater River Valley. The winter tick and spinose ear tick occurs statewide, but their numbers seldom reach economically important levels. Rocky Mountain wood tick is the tick we are primarily concerned with because of its high numbers and potential for disease transmission.

Life History

Rocky Mountain wood tick development generally requires 2 years and 3 feeding periods on different hosts. Overwintering adults seek hosts in late spring, mate during the feeding period after which the engorged females drop from the host. Depending on the species, the female will lay from 200 to 18,000 eggs. In about a month the eggs hatch into 6-legged tick larvae (seed ticks). Larvae seek out small mammals and feed for 1 to 2 weeks. After feeding they drop to the ground and molt to nymphs (8 legs) in about a week. The nymphs attach to a new host and, after feeding for about 6 days, drop to the ground where they spend the winter. The following

spring, the nymphs feed, drop to the ground and molt to adults. This process may take all summer. The adults then overwinter and start the cycle again the following spring.

Adult ticks can live for several years and can withstand long periods of starvation. The nymphs can live approximately a year and the newly hatched seed ticks will live only one season without feeding.

Appearance

There are two basic tick types — hard-bodied and soft-bodied. The Rocky Mountain wood tick is a hard-bodied tick. Males, females and nymphs have 4 pair of legs and mouthparts that protrude forward from the head. Females are flattened, shiny and brownish red with the front third of the body covered by a whitish shield. The shield generally has reddish or brownish markings. Males are the same size as an unengorged female, but appear greyish white with red-brown markings because the entire top of the body is covered by the shield. Adults are about 1/16-inch long before engorging. Engorged females reach sizes of 1/2-inch long and 1/3-inch wide. Seed ticks have only 6 legs and become dark grey after feeding.

Soft-bodied ticks, such as the spinose ear tick, are raisin-like in appearance. The skin is usually wrinkled, leathery, spiny or granulated. Males and females look the same. When viewed from above, the mouthparts are not apparent as they would be on hard-bodied ticks. Instead, the mouthparts are downward under the head. These ticks also have 8 legs, except the larva stage.

Tick Paralysis

This condition results from the female hard tick feeding for about 5 days at the base of the skull. Sometimes the animal can no longer stand and will die unless the ticks are removed. Quick, complete recovery follows removal of the tick.

Control

Tick control measures for livestock on summer ranges in Idaho are usually neither feasible nor widely used. Chemical control is primarily used to control infestations on animals and is more effective when livestock are in confined situations and can be handled. However, treatment before turning livestock onto heavily infested pastures may be necessary to prevent losses. Several chemicals are available to be used as sprays, dips or dusts. These chemicals and the animals which can be treated with each product are listed in the accompanying table.

CHEMICAL CONTROL OF TICKS ON LIVESTOCK

Chemical*	Beef cattle	Sheep	Goats	Horses	Lactating dairy cattle
Delnav + DDVP	X			X	
CoRal	X	X	X	X	
Delnav	X	X	X	X	
Lindane	X	X	X	X	
Malathion	X	X	X	X	
Ronnel	X			X	
Ciodrin	X	X	X		X
Prolate	X				
Toxaphene	X	X	X	X	
Toxaphene + Lindane	X	X	X		
Toxaphene + Malathion	X			X	
Malathion + Methoxychlor	X	X		X	

*Do not use any product unless the label states it can be used on the ticks and livestock you are treating.

Caution—Poison

All pesticides are poisonous and must be handled with care in order to protect the applicator, livestock, adjacent property and the consumer. Read and follow the label carefully each time a material is used. Keep accurate records of the pesticides you apply.

Pesticide Residues. These recommendations are based on the best information currently available for each chemical listed. If followed carefully, residues should not exceed the tolerance established for any particular chemical.

To simplify information, trade names have been used. No endorsement of named products is intended, nor is criticism implied of similar products not mentioned.

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