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Martin H. Muma

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SHEEP TICK CONTROL

Martin H. Muma, Extension Entomologist

The sheep tick* is perhaps the most common and most important external parasite of sheep in Nebraska. It is particularly injurious on shorn lambs to which it migrates readily from older animals after shearing time. Infested sheep are greatly reduced in vitality due to loss of blood and irritation. The irritation causes the animals to rub against projections, lose wool and generally have an unthrifty appearance. Heavily infested lambs do not develop normally, are often retarded in growth, and may even die.

Sheep ticks are reddish or grey-brown, wingless flies about one quarter of an inch long that spend their entire life cycle on the animals. The eggs hatch inside the bodies of the female ticks and the young ticks or larvae develop there. Only the large, reddish pupae, often called "eggs", and the adult ticks are seen when an examination of infested sheep is made. The pupae are attached to the wool.

The control of sheep ticks, until recent years, has been to apply, in two dippings, commercially prepared dip materials that contain various insecticides. These treatments were cumbersome and often not fully effective. Experiments carried on in the past several years by entomologists and veterinarians have demonstrated that practical sheep tick control can be obtained by dipping or spraying with either rotenone or DDT. Although the treatments may be applied at any time during the year it is generally best to dip after shearing time in the spring or early summer. Sprays applied in the fall when few pupae are present seem to be

*Melophagus ovinus.
effective if only the back, neck and shoulders are treated, while sprays applied in the spring or early summer after shearing should be both from above and below. As reinfestation may be brought in by new animals they should be treated before they are added to the flock.

A dip containing six ounces of a derris or cube dust with five per cent rotenone content for each 100 gallons of water should give control of sheep ticks with one treatment. Shorn sheep will carry between one half and three quarters of a gallon of liquid from the dipping vat. Freshly prepared dips are recommended and the animals should be submerged once or twice.

Rotenone sprays, to be effective, must be applied with a power sprayer that develops around 400 pounds of pressure. The spray nozzle should be held just above the surface of the wool. The spray mixture should contain five pounds of a five per cent rotenone dust in 100 gallons of water. If applied in the fall as indicated above, one spray treatment will give practical control of sheep ticks. Two applications may be necessary if the spray is applied after shearing in the spring.

DDT usually is more effective than rotenone when used as a spray and equally effective when used in a dip. The dip formula should contain one quarter per cent of DDT in a wettable powder or four pounds of a 50 per cent wettable DDT dust in 100 gallons of water. The same strength of DDT may also be used in a spray.

In cases where either a spray or a dip is impractical, dusts may be substituted. A one per cent rotenone or a five per cent DDT dust blown well into the wool should hold an infestation in check. This method may require several applications and is suggested only where sprays or dips cannot be used.