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EC63-1583 Entomology : Cattle Grub Control

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CATTLE GRUB CONTROL

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DAMAGE CAUSED BY CATTLE GRUBS

Every year cattle grubs damage thousands of dollars worth of hides in Nebraska. They decrease the amount and quality of beef produced. They greatly reduce the milk supply, waste large amounts of feed, and reduce the vitality of infested animals.

LIFE HISTORY OF GRUBS

Two species of cattle grubs are present in Nebraska, the heel fly or common cattle grub (Hypoderma lineatum), and the bomb fly or northern cattle grub (Hypoderma bovis). The habits of the two kinds are similar. Eggs are laid on hairs of the lower parts of animals from April to June.

The grubs hatch, bore through the skin and migrate through the animal's body for about 8 months. Then they appear in the backs of the animals from December to May. Soon after appearing in the backs a breathing hole is formed through the skin. Four or five weeks later the grubs come out of the openings in the back and drop to the ground where they develop into flies.

Adult flies do not sting or bite, but for some unknown reason cattle fear them. When flies are present in the spring, cattle run frantically from them, especially from the northern species. Cattle will seek shade or water to escape cattle grub flies. When grubs burrow into the skin much irritation results to animals. They will kick, stamp, and lick the infested parts. Usually a serum oozes out, matting the hair and often producing a scab.

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CATTLE GRUB CONTROL WITH SYSTEMIC INSECTICIDES

Three systemic insecticides are registered for control of cattle grubs: Ruelene, Co-Ral, and Trolene. Treatment with any of them should be done between July 15 and November 1. Early treatment is preferred. The use of each is summarized as follows:

Co-Ral

Spray: Mix 12 pounds of 25% wettable powder in 100 gallons of water. Spray entire body of animal, using high pressure. The spray must be applied so that the skin is thoroughly wet -- not just the hair. If this is not done, expect poor control.

Spray only a few animals at one time, in a small corral, spraying at a distance of 6 to 8 feet from the animals. Spraying large numbers of animals from a distance (as done for control of lice and flies) will not provide control. Be careful of eyes. High pressure at close range could injure eyes.

Use about 1 gallon per head.

Dips: Mix 8 pounds of 25% Co-Ral wettable powder to 100 gallons water for dipping vats.

Pour-on: Mix 4 pounds of 25% Co-Ral wettable powder in 3 gallons of light mineral oil. Pour down the backline, using about 1 cup per animal. Use a mineral oil that will not cause burning of the skin. Apply pour-on applications when animals are in chutes. Do not attempt to treat animals that are not contained so that a complete backline application can be made, as much of the material may be lost.

Ruelene

Spray: Mix 2 gallons of 25% Ruelene emulsifiable concentrate to 100 gallons of water. Apply as suggested for Co-Ral sprays.

Pour-on: Mix 1 part of Ruelene 25% emulsifiable concentrate to 2 parts of water. Pour along the back line at the rate of 1 fluid ounce per 100 pounds of body weight.

Trolene

Feed additive or mineral mix: To be fed at a certain strength over a certain number of days. Follow the directions on the container as to the amount per head per day to use and the number of days it is to be fed.

Applications of sprays, pour-on or dips may provide some protection against flies and lice. Sprays or dips are more effective against lice if lice are a problem. Due to reinfestation, additional treatment for lice may be necessary later.

Restrictions

1. Do not treat with Co-Ral within 7 days of slaughter.
2. Do not treat with Ruelene within 28 days of slaughter.
3. Do not treat with Trolene within 60 days of slaughter.
4. Do not treat calves under 3 months old.
5. Do not treat lactating dairy animals.
6. Do not use in conjunction with other insecticides.
7. Do not treat after October.
8. Do not treat animals under stress.
9. Do not treat animals that are sick.
10. Do not treat at time of weaning.
11. Do not treat immediately after shipping.
12. If, following treatment, a weakness in the rear legs and a staggering walk occurs, or if bloating, grunting, increased salivation or diarrhea are noted, consult your veterinarian.
13. These materials can be fatal if swallowed, and are harmful if inhaled or absorbed through the skin. Avoid all contact with insecticides. Do not contaminate food, feeds, or water. If spilled on skin, wash immediately with soap and water. Should symptoms of poisoning develop, see a physician at once. Atropine sulfate is antidotal for all three systemic materials.
14. Do, in every case read the label until it is completely understood. Then do follow the directions on the label to the letter.

CHEMICAL CONTROL

Rotenone is the only chemical recommended for control of grubs on lactating dairy animals. It can also be used to complete grub control following the use of systemics. It can be used as a dust, spray or wash.

Rotenone dusts are prepared by using 1 part of 5% rotenone to 2 parts of dusting sulfur. A duster can be made by punching holes in the lid of a quart jar. Ruffle the hair during the application and rub the dust well into the skin. One pound of dust will treat 8 to 15 head, depending on the thickness of the hair and the number of grubs.

Rotenone sprays can be prepared by mixing 7 1/2 pounds of 5% rotenone wettable powder to 100 gallons of water. Use sprayers with agitators if possible. Spray the entire back. If lice are present spray entire animal. Use 250 to 400 pounds pressure. The use of a "grub rake" instead of a gun-type nozzle is preferred. One hundred gallons will treat 125 to 200 head.

A rotenone wash can be prepared by mixing 1 pound of 5% rotenone wettable powder to 10 gallons of water. Use a pint to a quart per animal. Scrub the wash into the animals skin from shoulder to hip with a stiff-bristled brush.

Rotenone treatments should be started when the first grubs make holes through the skin of animals, then repeated every 30 days until grubs have stopped appearing in the back. Usually the first treatment is made in January then repeated two or three times at 30 day intervals.

COMMUNITY CONTROL PROGRAMS

Area cattle grub control programs are desirable. The use of new systemic insecticides may reduce cattle grubs for much longer periods of time than previously possible. Since 90% or higher control can be expected if treatments are properly made, and cattle grub adults seldom travel more than a mile or two, community efforts to treat all animals in a large area will likely reduce the grub population to low levels within 2 or 3 years.