

Position of Cattle Grub Beneath the Skin. Control materials must gain entrance through this opening.

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While the results of this survey indicate a much lower percentage of cattle in North Dakota infested by grubs than for the United States as a whole, the percentage is sufficiently high to justify the increasing emphasis placed upon the eradication of this pest in various counties by the N.D.A.C. Extension Service, county extension agents and livestock owners. Statistics fur-nished by Mr. Ben Kienholz of the U. S. Bureau of Agricultural Economics show a total of 412,092 head of cattle marketed from North Dakota in 1943. Of this, about 82 percent, or 337,915 cattle came from counties outside the Red River Val-The recent survey indicates that 34 percent or 114,690 of the hides taken from these cattle contained 5 or more grub-holes each. On the basis of the lowered grade and depreciation of 75 cents per hide this represents a loss of at least \$86,017. for grub damage to the hides. This is probably only a small portion of the additional losses due to lowered milk and meat production chargeable to the meat production chargeable to the activity of this all too common insect pest of cattle.

Bearing in mind that cattle grubs have no other way of wintering over than in the backs of animals, every cattle owner would do well to cooperate fully in community or county campaigns conducted during the winter months to eradicate the grubs.

Cattle grubs are readily located as lumps along the backs of cattle and may be easily felt by passing the hand lightly over the infested animal. Destruction of the grubs is obtained by dusting the backs of the cattle from time to time during the winter with a dusting mixture containing rotenone. Squeezing the grubs from the backs of the animals is also effective but because of the labor involved is practicable only for small herds.

According to Dr. F. Gray Butcher, N.D.A.C. Extension Entomologist, the timing of applications is most important. The treatments must be applied after the grubs appear on the backs of the animals, but before any of the grubs emerge and fall to the ground. All infested cattle in a local community must be treated to eliminate the flies which cause the grub infestations. Treating only a few animals in a community will not result in any noticeable benefits.

In 7 Years Trials at Fargo (1935 to 1942) T. E. Stoa, Station agronomist, found that Early Sumac sorghum produced 4.59 tons per acre of air dried fodder, Dakota Amber sorghum 3.35 tons per acre and Sudan grass (domestic No. 448) 2.73 tons per acre. In the same 7-year period Mercer flint corn produced 2.83 tons per acre of fodder. Since the sorghums differ in degree of maturity reached and in palatability, there is great need for feeding tests on the sweet sorghums as compared with corn.—[H.L.W.]