

THREADWORMS

Parasites Infecting the Gullet of Sheep and Cattle Caused by Swallowing Insects

Sheep and cattle very frequently have threadworms in the gullet. These worms are seen in the lining of the gullet beneath the surface in a rather striking wavy pattern similar to that formed by a snake as it travels over a smooth surface. The worms are slender and threadlike, but as they measure from over an inch to 6 inches in length and raise up the surface of the lining of the gullet to form slender wavy ridges, they are readily located when an infested gullet is slit open and examined. So far as known, the damage occasioned by the presence of these parasites in sheep and cattle is rather slight, though it has been determined that a closely related parasite is intimately associated with if not the causal agent of cancer in the stomach of rats.

It has been shown by investigators and experiments in the Zoological division of the Bureau of Animal Industry that various species of dung beetles are the source from which sheep and cattle become infested with the gullet worm. These dung beetles may be found in almost any manure deposit, except during the winter in cold climates. The beetles usually crawl under the manure deposit, enter from the bottom, and feed on the inner portion of the deposit as long as it remains moist. When the beetles eat the manure they swallow the gullet worm eggs which have passed down the esophagus through the stomach and intestine and out in the manure of the infested sheep or cow. As soon as the manure becomes too dry and hard to work the dung beetles abandon it and crawl into the ground or fly to other and fresher deposits. In about a month the eggs which were eaten by the beetles have hatched and developed into an encysted stage in the body of the beetle, ready to continue their development when the infested beetle is swallowed by a cow or sheep.

The opportunity for sheep and cattle to swallow these beetles comes when the beetles fly from one manure deposit to another. The flight usually ends by the beetles landing on the pasture somewhere near a manure deposit, and as they crawl about through the grass toward the manure, attracted by the odor, they are commonly swallowed by grazing animals. The beetles are no doubt eaten unconsciously as a rule, but as sheep and cattle eat large numbers of insects, since practically every plant is the permanent home or temporary resting place of a number of insects, it is perhaps a matter of more or less indifference to them if they are conscious of the presence of insects in a mouthful of food. This is especially true of cattle, since cattle are noted for eating foreign objects, such as nails, wire, bolts, knives, rubbers, etc. Among the various kinds of insects picked up by sheep and cattle during the course of a day, dung beetles are likely to be more or less numerous, and of these some are likely to harbor larval stages of the gullet worm, now ready for the next step in development. In the digestive tract of the cow or sheep the beetles undergo partial digestion, releasing the larval worms, which make their way to the gullet and burrow into its lining. Here the worms become mature and in time the female deposits eggs which pass down the gullet and out in the manure to carry on the life cycle.

It was found that under experimental conditions the eggs of the gullet worm would develop to an infective larva in croton bugs as well as in dung beetles; but since croton bugs do not breed in manure and are house dwellers, it is evident that they do not play any part in the natural transmission of the parasite. It is interesting to note, however, that Danish scientists have found a worm, similar to the gullet worm of sheep and cattle which develops as a larva in croton bugs, cockroaches, and mealworms, and which occurs in nature in the gullet, mouth, tongue, and first portion of the stomach of rats. This worm is extremely interesting from the fact already mentioned that its development in the rat is followed by the appearance of cancer of the stomach, a fact of great importance from a scientific and medical standpoint.

While there is now a general recognition of the importance of biting insects as carriers of such diseases as malaria and yellow fever, and of such insects of the fly as carriers of the germs of typhoid fever and other bacterial diseases, the facts cited above show that insects have an importance not yet generally recognized as carriers of parasites. From such parasitic infection man himself is not immune. It has long been known that infestation with a certain kind of tapeworm only occurs as the result of eating the fleas or lice of dogs, and the list of cases of the occurrence of this tapeworm in man, and especially in children, indicates only too well that dog fleas and lice are swallowed by human beings not altogether rarely. In the case of sheep and cattle the swallowing of insects is practically unavoidable, but man can guard himself against swallowing dog fleas and lice and its rather unpleasant as well as dangerous consequences by observing greater care in his relations with pet animals, particularly by excluding them from his household, which is the only certain way of preventing the scattering of their external parasites in places from which children and even grown persons are liable to swallow them.

Notes and Comment

Of interest to Women Readers

KEEP THIS IN THE GLOVE BOX

Especially should footgear, headgear, gloves, veils and handkerchiefs be perfect. Have the gloves fitted when you buy them, for so much of their future appearance depends upon the way they are put on the first time.

It is difficult to say which is uglier, a glove that is too tight or one that is too large, though the former has the additional defect of being uncomfortable.

In putting on gloves dust a little powder into them and be particular to have the seams straight, the lines on the backs properly over the center of the hand, and the fingers on clear to the tips.

In removing, pull them off carefully by turning back the tops and drawing them inside out, but be especially careful to turn them immediately ready for use again.

Do not keep them rolled.

Worth Knowing.

When next cooking greens of any kind, add just a small piece of butter to the water, and do not cover. The odor of the vegetable will not be perceptible through the house and the greens will be a better color.

It is well after using the gas stove oven for baking, to leave the door open a little. This will allow the heat to escape and so prevent the chance of sweating or rusting.

In buying an Edam cheese it will save trouble if the top is cut out at the store. When nothing but the shell remains, cut or scrape off the outside and run the cheese through the food chopper. It is delicious with noodles, mararoni or soup.

It is annoying to have one's straw or felt hat give way where it is pinned on. To prevent this, tack a band of ribbon or silk inside the hat where the pin comes. This will strengthen the hat enough to prevent unsightly holes.

In using the paper lanterns for decorative purposes it will be well to put a little sand or a few pebbles around the candle; this will prevent swaying and so reduce the chance of the lantern taking fire.

Bananas Cheap

Bananas cooked may constitute one of the principal dishes at a luncheon and a good second at a dinner. They are so cheap that families in moderate circumstances may use them freely. For two large or three small bananas use a teaspoonful or more of butter, a half teaspoonful of lemon juice and a pinch of sugar. Cut up in small pieces and put all in a graniteware skillet, cover and cook thoroughly. May be served on toast. As dessert, bananas may be baked and served in their skins. When serving slit the skin and put in a piece of butter.

To Fit New Key if One is Lost

When it is not convenient to take locks apart in the event of keys being missing, when you wish to fit a new key, take a lighted match or candle and smoke the new key in the flame, introduce it carefully into the keyhole, press it firmly against the opposing wards of the lock, withdraw it, and the indentations in the smoked part of the key will show you exactly where to file.

Milk for Gloves

A simple and effective way to clean kid gloves is to draw them on the hands and go over them with a clean cloth dipped in skim milk. Wear them until quite dry. Or moisten a small sponge or piece of cloth in skim milk, rub it on a cake of castile soap and with this sponge the gloves until they are quite clean. Wear until they are dry.

Home Made Syrup

The very best substitute for maple syrup is made in the following way: Mix together one pound of dark brown sugar, one pound of granulated sugar, one half pint of water, one teaspoonful of vanilla. Put on the fire and bring to a boil and allow to boil for two or three minutes. When cool it is ready to serve. It is very appetizing and much purer and cheaper than any other imitation of maple syrup.

To Stain Wicker

To stain wicker chairs take five cents worth of glue and five cents worth of brown-umber. Mix the glue with one pint of boiling water and when quite dissolved put in the umber and mix well. When cool apply to the wicker with a soft brush. This is also a cheap and effective floor stain.

Oil Rubbers

To lengthen the life of rubbers, before wearing rub them with vaseline, lard or sweet oil, letting it remain for a day or two. The greater part will be absorbed by the rubber.

Good Scraper

When my pans and pots need scraping I save time and finger nails by the use of jelly glass cover which is so small it can be kept in the soap dish.

White Clothes

A tablespoonful of turpentine boiled with white clothes will greatly aid in the whitening process.

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Merely Fate

"Excuse me," said the young man, making a profound bow, as he met the extremely pretty girl in a deserted part of the avenue.

The pretty girl flushed and regarded him coldly. "What for?" she demanded flatly.

The young man gazed at her apologetically. "Why," he told her, "when I departed from your house last evening—somewhat hastily, I own, due to my emotion—you ordered me never to come near you again. I merely wished to point out that the present occasion is due to no fault of mine. Thought I beg pardon for approaching you, the fact is it was entirely unintentional!"

"Well," said the pretty girl, chin in the air, "I don't see why meeting me should cause you such agonies to draw forth all this explanation! I'm sorry the sight of me affects you so disagreeably!"

"It does," agreed the young man, instantly. "Always when I see you the most unaccountable thrill pervades me—and anything unaccountable is disagreeable in a way; I suppose, isn't it? I want to make sure, though, before we part, that it is quite clear to you that fate alone led to this meeting. I wouldn't for the world have you think—"

"Oh don't worry," interrupted the young woman, frigidly. "Nothing would make me fancy you would go out of your way one foot for the pleasure of meeting me—after the things you said last night! I am sure I have no wish to detain you."

"My time is yours," insisted the young man, politely. "Misunderstandings are such miserable affairs and when people will have no future chance to clear them up, as in our case, it is well to do so instantly. I am glad that you understand about my simply chancing to pass along this way, not dreaming you had chosen the same street."

"I understand perfectly," insisted the pretty girl. "It would be quite beyond you to put yourself out in the least to me!"

The young man regarded her mournfully. He sighed. "I hope I'm a gentleman," he said. "After being told by a lady never to look at her again, wouldn't it be positively rude to do otherwise, no matter what my feelings were? Of course, I might be dying to see her—and again I might not. That would make no difference in the face of her orders. Naturally, I couldn't go against them!"

The pretty girl bit her lip and frowned. "Of course, it's nothing to me," she said, "but just as a matter of personal curiosity I'd like to know whether you don't think that it's man enough for a girl he—he'd pay no attention to orders or anything else?"

The young man looked shocked. "Why, Marie—pardon—Miss Jellics—you don't grasp the first principle of devotion and—er—all that!" His tone did not question why, his but to do or die—in other words, he wouldn't stop to think what he wanted at all—he would just do as the girl told him. Of course, I mean in a situation like this one, where everything is over between us."

"Well!" she flashed, "I must say I don't think much of such regular jellyfish affection!"

"Do you mean?" began the young man, in great surprise, "that you didn't mean what you said last night?"

"Certainly not!" stormed the young woman. "Of course I meant it! How dare you assume I ever wanted to see you again? I am in a terrible hurry. Goodby!"

"Goodby," echoed the young man, conversationally. "Well, that's just what I thought. No, I said to myself, I couldn't dream of doing such a thing. Marie distinctly said she hated men, and I wasn't to approach her again, so—"

"Then you did think of walking in this direction on the chance of meeting me!" triumphantly cried the pretty girl. "I knew it."

"Why shouldn't I have dared?" protested the young man, earnestly.

"Well, didn't you?" she asked a bit doubtfully.

The young man coughed and turned around facing the direction in which she was going. "This question really must be cleared up," he murmured. "It may take some time, so I'd better walk along with you."

"Oh, my goodness," said the pretty girl, "come along! I knew that's what you'd come for when I met you."

Optimistic.

Among the passengers on a train on a one-track road in the middle West was a talkative jewelry drummer.

Presently the train stopped to take on water and the conductor neglected to send back a flagman. An express came along, and, before it could be stopped, bumped the rear end of the first train.

The drummer was lifted from his seat and pitched head first into the seat ahead. His silk hat was jammed clear down over his ears.

He picked himself up and settled back in his seat. No bones had been broken. He drew a long breath, straightened up, and said:

"Well, they didn't get by us, any way."

Fixing the Responsibility.

"My husband tells me that he was out late last night with your husband."

"That isn't so. I want you to understand that my husband was out with your husband."

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Household Notes.

To clean a light pompadour, rub magnesia through it, or wash it in gasoline.

Fresh buttermilk diluted with water is excellent for washing linoleum and leaves a polish.

If it is necessary to water flowers from a well or pump water, pump enough in the morning and allow it to get warm in the sun. It kills flowers or retards their growth if watered with the cold well water.

Lemonade is enriched with the juice of raspberries.

A quick icing for the dinner cake is made by stirring pulverized sugar into berry juice or sweetened cream, applying it to the cake before it hardens.

To Butter Crackers.

To butter crackers it is necessary to have the proper proportion of butter and crackers, otherwise the crumbs will be butter soaked. Melt one fourth cup of butter, for one cup of crackers. Pour it evenly over the crackers and stir until the butter is well distributed over all the crackers. Pour them into a pan to cool and sprinkle lightly over prepared food before baking.

When cheese is added to a food that is covered with cracker crumbs, it is grated and added just long enough before the food is removed from the fire to melt into the crumbs.

When Soutaching a Dress.

When doing this work at home buy the patterns that transfer to the material when pressed with a hot iron.

The designs come in the bolt, two different patterns on one strip of paper four yards long. Press it on the wrong side of the material.

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