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M. Stalker
Iowa State College

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AN APHTHOUS AFFECTION

AMONG DAIRY COWS OF THE STATE.

The following is an extract made from a report sent to the Governor's office a few days ago, concerning a disease which has recently appeared on a number of farms in the eastern and southern counties of the state.

AMES, August 12, 1891.

GOVERNOR BOIES, DES MOINES:

Dear Sir—I have just returned from a tour of inspection among the diseased cattle of Tama county. Your attention has doubtless been called to a disease that has become quite general in southeastern Iowa within the last two or three weeks. Several newspaper accounts of the trouble have appeared from time to time, some of which give a pretty clear account of the disease. So far as I have been able to learn, the disease is confined to cattle alone. Milch cows seem to be the most susceptible, but no class is entirely exempt. The disease is a form of aphtha, though differing, I think, from any form of the disease heretofore definitely described.

The most characteristic symptoms consist of soreness of the mouth, producing salivation and loss of mucus membrane of the tongue, lips and nose, soreness of the feet, eruption of the skin on the teats and udders of cows, with some elevation of temperature and rapid emaciation. The tongue in some instances becomes so swollen as to protrude from the mouth, becoming dry, cracked and very painful. Canker like ulcers invade the mucus membrane of the mouth, especially the dental pad against which the incisor teeth rest, thus rendering it impossible for the animal to crop the grass. This inability to eat causes in a large measure the rapid deterioration in flesh. The lips, tongue and nose are covered with dark-colored scabs in aggravated cases, and not unfrequently the membranes of the nasal passages are involved, causing a profuse discharge. The lesions on the udder and teats are
not of so severe a type, usually consisting of slight superficial cracks and a sunburnt appearance of the general surface. The condition, however, is evidently associated with a considerable degree of pain from the resistance the animal makes against being milked. A rapid falling off of the flow of milk is a noticeable symptom and often precedes any external evidence of the disease. In none of the cases I observed was there any abrasion of the skin of the legs or feet. Though this does not coincide with observations made by some others who have investigated the same disease. In the cases I examined, the foot trouble seemed to be confined to the deeper structures, associated with swelling and fever about the pastern joints, not unlike the effects of rheumatism.

Locomotion is performed with pain and difficulty, and often the animal will rise to its knees and stand in that position, refusing to get upon its feet from the pain induced by standing. The symptoms as given above would apply to the more severe type of the disease. In many instances the foregoing symptoms are so modified as to severity, that it would require close attention to recognize their presence. In such cases the animal continues to eat and drink, and in the course of a few days is restored to normal conditions of health.

There are two questions the farmer will invariably ask of the man who goes to his farm with the intent of investigating the outbreak. First, "What causes it?" Second, "What am I to do?" The second question is easily answered; the first is not. Let us take the easy one first. In a majority of instances the disease is of a mild type and recovery will take place in from one to two weeks without giving the case the slightest attention. The more severe forms require treatment. This, for the greater part, will consist in astringent and antiseptic applications to the diseased surfaces. For the abrasions in the mouth and on the lips, probably nothing is better than a saturated solution of borax or chlorate of potash, to which one per cent of carbolic acid may be added. This should be applied to all raw and ulcerated surfaces by means of a soft swab, and should be repeated several times each day until the patient is convalescent. Either the borax or chlorate of potash can be finely pulverized and mixed with two or three times its bulk of salt, and given to cattle with the milder
form of the disease, thus saving the labor of catching an confining a large number of refractory animals. I observed that animals suffering with the disease, even in quite a severe form, would take salt readily. For other parts of the body where abrasions occur, a mixture of carbolic acid and glycerine, in the proportion of twenty parts of glycerine to one of the acid, will be found a suitable application. Animals not able to graze from the severity of the disease should be given bran mashes or other soft food till the more active stage of the disease is passed. Other complications, as constipation, will have to be treated as they arise. If the above precautions be taken with reference to the worst cases, the loss from death will be practically nothing.

The responsibility of all parties does not end with the proper treatment of the sick. I am receiving many letters from dairymen wanting to know what they must do and whether the dairy products from such cows should be placed upon the market. Allow me to say once for all that the milk from no diseased cow should be used as an article of human food. Even an injury that would be sufficient to produce a rise in temperature is sufficient to condemn the milk of the injured animal. It is not likely that the present disease would be reproduced in the human being by the use of the milk from an affected animal, but both common prudence and common decency forbids its use as an article of food. It may with propriety be given to the lower animals after it has been boiled. I am not of the opinion the milk from any herd where the disease exists should be used, though reasonable precautions are taken to exclude the milk of animals actually suffering from the disease. There is an early febrile stage of the disease which may escape attention, and during which the danger may be quite as great as during the more active stages of the disease. It is certain that an exceedingly disagreeable odor is given off from the heated milk. This can even be detected in cheese made from such milk. I had an opportunity of examining such a product, made for the express purpose of testing the quality of the cheese. It is my judgment that local boards of health should insist on this precaution.
As to the cause of the disease, I am not able to give a satisfactory answer. In fact I have not taken the time to make a study of this feature of the subject before giving you the benefit of such facts as I believe the public should have as speedily as possible. The cause, will call for time and careful study to elucidate, or at least much time and pains may be necessary to arrive at right conclusions. This, however will make little difference in the line of work that will fall to the lot of the average cattle owner. I reserve for a later time, and after more mature study of the question, my judgment as to the cause. I have already said I do not think the disease has been described in works on veterinary science, or if so, the present outbreak is so modified by local conditions, as to produce symptoms widely different from anything coming under my observation. My attention was first called to the disease some three weeks ago, in the south-eastern part of the state, but under conditions that did not create suspicion of anything unusual. Since that time cases have been reported to me from a large number of localities in almost one-fourth of the state. From the most recent information I have, it is as far west as Monroe county, along the line of the C., B. & Q., and Tama county on the C. & N. W. Before this reaches you, the affected territory may be greatly extended. There are some facts that would indicate that the disease spreads by contagion, while other evidence would seem to point to other sources of poison. I do not anticipate any serious loss to the stock interest of the state as a result of the disease.

There will be more or less temporary embarrassment of the dairy interest, and a notable shrinkage of the product for a time. The disease runs its course quite rapidly and from what I am able to see of it, my impression is that a few weeks will bring us out of the serious part of the difficulty.

It makes its appearance in a community so suddenly and effected herds are reported in such rapid succession as to defy all attempts at quarantine, were it evident that such measures if enforced would prove availing against further spread.

M. Stalker.
Since writing the above, numerous letters of inquiry have been sent to the sections of the state where the disease is most prevalent. From the best information we are able to gather from answers to these letters, it seems there have been a number of new cases, but few have assumed an aggravated type; and the loss is trifling except in the way above indicated.

Probably the greatest injury that has resulted to the cattle interests in connection with this trouble, has come about from the indiscriminate way in which some individuals have rushed into print, giving the impression that the cattle of Iowa are affected with the contagious form of aphtha, or foot and mouth disease, so much dreaded in European countries. This has given unnecessary alarm, especially in England.