

ERGOTISM AGAIN.

I desire to call the attention of farmers, in this month's Bulletin, to a somewhat prevalent trouble among cattle. Some recent cases have suggested the topic afresh to my mind. I do not present this in the light of a discovery, or with the impression that the matter will be new to the veterinary profession, nor in fact to many farmers and stock growers. Already not a few of our agricultural people have had sad experience in practical lessons with this disease, which will not admit of forgetfulness for years to come. But all have not had the experience, and all have not heard the warning. Or at least all have not heeded it. I have, from time to time, warned the public through various channels, of this source of loss, its cause and how to avoid it. Let me repeat it once more. Some days ago I received notice that a serious disease prevailed among the cattle on a farm in one of the northwest counties of the state. The farm was situated some distance from railroad communication, so that a drive of several miles over rather perilous roads was necessary to reach the place. I found, on arriving, a rather disheartening state of affairs for the farmer. In February there were eighty head of cattle on the farm. Since that time, nineteen had died and thirteen more were affected. Many of these had suffered such mutilation from the disease, that death alone could contribute anything to their value. The remainder of the herd showed no outward signs of having suffered, at least in the same way that had caused the death of the greater number of those already lost. But a general unthrifty condition of the entire lot, had to be taken into account when estimating the loss. All things considered, the loss in this herd could not be estimated at much less than fifty per cent of its original value. The crippled condition of the affected individuals, showed itself in the loss of hoofs, toes, and in several instances, one or more feet entire. The history of the cases that had already proved fatal, as given by the farmer, was for

the greater part a repetition of what was to be seen among the half living. In some of the cases, the symptoms were more of a constitutional type, unaccompanied by loss of extremities. Emaciation, faulty digestion, nervousness, and finally loss of voluntary motion were among the symptoms given as present in some of the cases. Here were clearly a large number of cases of ERGOTISM. There could be no mistaking the cause. I inquired as to the quality of forage furnished this stock. I received the answer, "Wild hay cut on bottom land." On pursuing my inquiries farther, I learned that the farmer had cut over a tract of bottom land, rather late in the season. This was wild land, and for the greater part furnished little growth except wild rye. Further investigation developed the fact that the grain of the rye plant was ergotized to a most remarkable degree. It was even sufficient to attract the farmer's attention at haying time. But it did not occur to him that this was in any sense a source of danger. Early in February, however, the results began to be manifest through the class of symptoms I have enumerated. The hay and the disease were not thought of in the order of cause and effect, and the cattle continued to receive their daily ration of slow poison till the commodity was exhausted. Had there been a little more hay or a smaller number of animals, the forage would doubtless have outlasted the herd. Shortage of hay in this instance, proved a prime blessing to the farmer.

Here is a single instance. Multiply this by any moderately large number you may chance to think of, and you have a condition that exists during the late winter and the early spring months, over an extensive area of the cattle growing section of the country. It takes a long while for all the people to learn any one particular fact, and having learned it to adopt it as a practical rule of action. Were this not true, all would have learned the lesson taught in this farmer's experience, years ago, and been receiving dividends on the stock of knowledge. From year to year, cautions and warnings have been freely given through the press, but evidently they have not yet reached all who should profit by them.

Some who have heard of this source of trouble to cattle have attributed the difficulty to the rye plant. This is a

mistake. While the rye does not yield a very nutritious or easily digested form of hay, it is not within itself poisonous. The poison resides in another form of plant, namely, the ergot, or parasitic fungus that grows within the substance of the seed of the rye plant. This fungus does not grow on the seed of the wild rye alone. It may be found on the seeds of many other grass-like plants. I have frequently seen it in great abundance on the seeds of blue grass. And the blue-grass is sometimes affected to such an extent as to develop the characteristic effects in cattle fed on the hay. So we are not to expect in every outbreak of ergotism to be able to trace the cause to feeding wild rye. In the great majority of instances, however, the cause will be found to rest here. The explanation rests in the fact that this plant has the largest development of seed of any of the wild forage plants on which the fungus grows. As the bulk of the seed is always in some sense the measure of the mass of ergot in the husk, it follows that this particular plant yields the largest crop of the poisonous principle. Hence this plant is always to be regarded with distrust. This fungus is not found on the rye every season, or at least it is not found in such quantities as to render it a source of danger. A little examination will readily determine whether it is present in great quantities or not. It is readily recognized as a black, or dark brown mass protruding from the seed husk, nearly always somewhat larger than the normal grain of the plant. If but an occasional grain shows this condition, there need be no occasion for alarm. But, if a large percentage of the heads are diseased in this way and the grains in the diseased heads are generally affected, then the forage must be discarded, at least for cattle. I have not found that horses are liable to suffer in the same way as cattle. This is probably due to the more selective habit of the horse in his eating. The horse rejects the ergotized heads. In fact he will reject the rye altogether unless the necessity becomes urgent. This is probably the explanation for the almost total escape of the horse from the most active effects of ergot. It is altogether probable that when the poison is obtained in small quantities it may produce abortions and more or less obscure nervous disorders which may be difficult to trace to the true cause. When the

grass is cut as early as July, the fungus has not, as a rule, developed to such an extent as to render it a source of danger. So, early cutting is always a precautionary measure. I would recommend this plan whenever it can be made practicable if grasses are to be utilized where the wild rye grows in considerable quantities.

I have sometimes noted the fact, that where cattle received a good ration of corn with hay that would otherwise have been highly injurious, little or no trouble resulted. The corn is in some sense a corrective for the depressing effects of the ergot. It is heating, stimulating and life-giving. Of course we are not to lose sight of the fact that where a partial supply of corn is given, a less amount of hay will be eaten, and consequently less of the poison taken. But the same absolute amount of ergot will produce less effect on an animal having strong, stimulating food than on one not so nourished.

The one prime remedy is to withhold the ergotized hay as soon as its effects are noted, and change to a rich stimulating diet. Drugs will not prove satisfactory. The sores resulting from the gangrenous sloughings should be treated by protective bandages covered with cosmoline or other bland, antiseptic dressings. If the sloughings have been so extensive as to cause the loss of one or more feet, it is better to destroy the animal, from pecuniary considerations as well as those of humanity.

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