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MADRAS RECORD OFFICE.

Government of Madras.

Revenue. DEPARTMENT.

G.O. No. 280Press
~~Mis.~~Dated 14.2.

1871.

Not to be folded or roughly handled

(1)

*Proceedings of the Madras Government, Revenue Department,
14th February 1871.*

No. 152. Read the following Proceedings of the Board of Revenue, dated 9th January 1871, No. 98:—

Read the following letter from the Veterinary Surgeon, to the Acting Secretary to the Board of Revenue, dated Coonoor, 14th November 1870.

I HAVE the honour to forward my Report of Cattle Disease for the half-year ending September 30th. I also forward the narrative account called for by the Board; also the information desired by the Cattle Plague Commission, with a copy of the narrative account of cattle diseases.

ENCLOSURE No. 1.

Report of Cattle Disease.

IN forwarding the present report for the past six months, I am glad to be able to state that cattle epizootic disease has been brought more under control. The prompt adoption of remedies, preventive and curative, has frequently stopped outbreaks at the very onset. It has also been a most favourable season from the abundance of rain; forage has been plentiful, and there have not been, therefore, the same climatic influences in operation to develop the disease.

2. SOUTH CANARA—*Udipi Taluq.*—A report was received from this place on the 4th of April of 42 cases of Dodda Roga. The healthy cattle were separated into small herds. This segregation moderated the type of the disease, so that, although no medicine was used, only 20 animals died.

3. Sickness broke out in a herd of cattle belonging to the Hillgrove estate, Neilgherries, in March. At this time I was on duty in North Arcot District, and was not able, until the 12th of April, to visit the outbreak. It had then partially ceased. Segregation was so successfully carried out that only six cattle died.

4. 9th.—At the request of the Collector, I sent 500 doses of medicine for the disease "Saraku" in Sidhout Taluq, Cuddapah.

5. The disease, "Dodda Roga," appeared in two herds of cattle belonging to Shirangur and Kodladi villages, Cundapur Taluq, South Canara. The animals being immediately segregated, there were only three deaths in the former village and two in the latter.

6. 13th.—A very serious and fatal disease broke out among the cattle of Kolumby estate. Medicine was at once supplied. I visited the herd on the 16th and had the animals carefully segregated, after which there were no more cases of sickness.

7. A hundred doses of medicine were applied for and despatched for the cattle of Peraganaud estate. Segregation was also fully explained.

8. In Gooty Taluq of Bellary there was an outbreak of "Murrain" in a herd of 250 animals; 500 doses of medicine were sent; there were 46 deaths.

9. May 12th.—"Moosera" appeared in two herds of 498 and 510 cattle in Koilkuntla and Patticonda Taluqs of Kurnool. These were treated, and there were only 14 deaths; also in Nundial Taluq the same disease attacked 78 cattle. Segregation was adopted and 500 doses of medicine distributed.

10. Some disease among cattle on the Pulney Hills was reported by the Officiating Collector of Madura. He had already issued orders to have the animals segregated. I forwarded 500 doses of medicine.

11. On the 15th May, at the request of the Acting Collector of Bellary, I sent 1,000 doses of medicine, part for distribution in Hindupur Taluq, and part to be kept for future use.

12. The Acting Head Assistant Collector in charge of Kurnool District requested me to furnish him with a small supply of medicine for distribution among the ryots of Munagalapad and Modappur. I sent 500 doses.

13. The Executive Commissariat Officer at Secunderabad applied for a further supply of medicine for use among the bullocks of the Artillery; 500 doses were forwarded.

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14. 17th.—Received four reports of "Peria Novoo" in Athakarutta, Thanilay, Kodaroo, and Mailoor villages of Maikanaud. There had been 145 animals attacked, of which 77 had died. These village herds were visited by me from time to time; segregation was carefully carried out; the disease altogether ceased in three weeks.

15. In a herd of 76 "Komari" attacked six animals at Gollapilly in Oosoor of Salem District. Segregation was immediately adopted; there were no fatal cases.

16. "Pedda Moosera" broke out in two herds of cattle in Koilkuntla Taluq. The medicine which had been supplied was used in some instances with favourable results; there were only 19 deaths.

17. June 1st.—Among 1,240 head of cattle in Soogoor of Bellary Taluq "Moosera" attacked 56 animals; 36 died; only 8 remained sick, for which medicine was supplied.

18. In Karamala and Burricoonta of Pattikonda Taluq "Moosera" attacked 57 animals. The villagers refused to receive any medicine; the mortality was great; only 13 recovered.

19. There was a slight outbreak of disease among 3,385 head of cattle in Ernad Taluq of Malabar, affecting 127 animals, for which medicine was supplied; 63 died.

20. In two herds consisting of 1,974 and 384 cattle in Gooty Taluq, Bellary, 37 cases of "Murrain" occurred; 20 died.

21. "Dodda Roga" broke out on the 23rd of June in two herds of cattle in Nadorhutti and Thoorutti in Maikanaud. These I visited, and had the animals segregated. In seventeen days the sickness entirely ceased.

22. In Koilkuntla and Pattikonda Taluqs there were slight outbreaks of "Moosera" in herds consisting of 1,910 cattle; 64 of these were attacked; 49 died. The Deputy-Collector reported great indifference on the part of the people about the matter.

23. July 13th.—The Deputy-Collector of Peapally reported that, owing to the ignorance and stubbornness of the people, the system of segregation was not being thoroughly carried out in his division of the Kurnool District. I at once proceeded there, with a view of establishing it if possible. On arriving at Gooty on my way the Acting Sub-Collector of Bellary reported "Moosera" at Abaidoly in his sub-division, and kindly accompanied me to the village. In a herd of about 400 animals 132 had been attacked with the disease, and of these 83 had died. Segregation was fully explained to the people.

24. From thence I went, on the 23rd, to Pattikonda of Kurnool District. Here 20 cattle had been attacked; 5 died and 13 recovered; the remaining sick were kept aloof from the other cattle and treated.

25. I next visited Ramalkota Taluq. Accompanied by the Tahsildar I went to the village of Ooleridakonda where sickness had broken out about fifteen days previously; ten cattle had been attacked in a herd of 500; six died. Segregation was adopted, and those cattle to which medicine was administered recovered. Some of the owners refused to use the medicine, and their animals died. On the 9th of August the disease had subsided.

26. The village of Yaparlapad was next visited by me; 40 animals had died of "Moosera." In endeavouring to induce the people to carry out segregation, they told me that about ten years ago on two occasions they had tried it and found it unsuccessful. On inquiring into the matter I found the failure to have arisen from the fact that the same people were in attendance upon both the sick and healthy cattle. I explained the error of this to them, and they at once expressed their willingness to try the segregation again, with the precaution of separate attendance. Medicine was administered to the sick, and from this time up to the 27th of August there were no fresh cases of sickness, and none died.

27. The Sub-Collector of Bellary informed me of sickness having broken out at Ootacal, and accompanied me there. Of 16 animals attacked nine had already died, the remaining seven in various stages of the disease were put under treatment and separated from the healthy cattle. On future visits three more animals were reported sick. Of the 10 cattle treated five died, a large mortality, partly owing to the virulent type of the disease, and partly from exposure to rain

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in a tope where the animals were picketted. The preventive measures adopted were successful in putting a stop to the disease.

28. I now attended to an outbreak of disease at Puggadroy, a village in the Kurnool District. Before it was reported 50 animals out of 90 attacked had died in a herd of 500. I found 27 sick; the treatment of these was at once commenced, and 24 eventually recovered. The owners were persuaded to remove all the healthy cattle of the village to their fields. From these segregated animals, only two were afterwards attacked with the disease. These were brought back to the village, and receiving immediate treatment recovered, and at the end of August the disease had ceased.

29. At the request of the Collector of Kurnool I sent 200 doses of medicine for the disease "Domma Tegulu."

30. The Deputy-Collector of Peapally informed me that "Moosera" had broken out at Sabasaporem. On visiting the place I found 60 animals had been attacked; three only had recovered; the sick were put under treatment; the herd consisting of 350 was segregated. From this time two animals only were brought into the village by their owners, supposed to have become infected with the disease; these were afterwards found to be suffering simply from ordinary fever, brought on by the inclement weather to which they had been exposed; they soon recovered. In about twenty days the outbreak ceased. There being now no further sickness, and having established segregation by practically showing its advantages, I left these districts.

31. I attribute the successful introduction of segregation in these villages to the influence and valuable help given in the matter by the Deputy-Collector of Peapally. Could the same assistance be rendered by local officers at all times it is possible that many of the objections now raised by the people to segregation might, in a great measure, be overcome.

32. Segregation has been, wherever adopted, invariably successful in stopping outbreaks of disease. It is a preventive measure of incalculable value to the country. It would save the lives of thousands of cattle, and I exceedingly regret that, under present circumstances, it cannot at all times be carried out.

33. In compliance with the Order of Government, I attach a simple Narrative of Cattle Diseases for publication in the *District Gazettes*. I also forward the report desired by the Cattle Plague Commission at Calcutta, embodying, as far as I am able, the information specially called for by them.

(Signed) J. THACKER,
Veterinary Surgeon.

A narrative account of Cattle Disease.

The losses sustained by the people of this country through cattle diseases has been enormous. In 1866 the Government, in the interests of the people, appointed an officer specially for the investigation of these diseases, with a view to ascertain the best mode of preventing and curing them. A Manual of these has been published.

The chief disease to which I would refer, and which prevails throughout this part of India, is murrain. It is known to the people in different districts by various names, such as "Pedda Moosera Rogum," "Vekkai," "Peria Novoo," "Dodda Rogum," "Vasuri," "Thukam," etc.

Many thousands of cattle suffering under this disease have been cured by medicine distributed to the different Collectorates. In nearly 200 outbreaks it has been examined by me personally, and I have carefully watched and treated, through the different stages of the disease, 2,541 cases. Of these 1,763 recovered and 778 died, showing only about 30 per cent. of casualties. When the animals are left without proper treatment the deaths will amount to from 80 to 90 per cent.

The following are some of the ways in which this disease is propagated and carried about:—

On one occasion, when sickness had broken out in a herd of cattle, I advised the owner to remove the healthy animals. One of these was sent about 15 miles away, and unfortunately put in a herd of 120, all in apparent health. Within a fortnight 70 were attacked with murrain. The disease was thus communicated by this cow carrying in some way the infection about her, though she herself was never sick.

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Fairs and markets are often the means by which the sickness is spread. Cattle are brought to them from infected villages or herds for sale, and thus the disease is conveyed to other places.

Another and very common way in which I have seen the disease propagated is by allowing healthy animals to graze on pasture grounds previously occupied by diseased cattle.

The very contagious nature of this disease is well known to the people of this country, but no effort is made towards prevention, and the isolation of sick animals is never attempted. I have seen a miserable buffalo calf, not worth five Rs., suffering under this disease in close contact with a healthy bullock, thus risking the life of an animal worth 100 Rs. Many more instances such as this might be related.

This is the more surprising when it has been seen what an invaluable preventive we have in segregation, so simple, so costless, and attended with so little trouble.

It is impossible to say what has been the loss of cattle from the apathy and indifference of the people in not taking advantage of this preventive. On the other hand, where the system has been carried out, it has been thoroughly effective in saving many herds.

In a village of the Salem District, murrain attacked some animals in a herd of 3,000 cattle. The sick were removed, and the rest of the herd fully and systematically segregated, after which there was not another case of sickness.

Again, in a village in South Arcot District, disease appeared in a herd of 400 cattle. When I visited them 52 had already died and 40 were sick. The healthy cattle were segregated and not another animal was attacked and in twenty days the sickness had entirely ceased.

The removal of healthy cattle from a village has also a most beneficial effect in mitigating the type of the sickness. I would quote, as an instance of this that of the 40 sick animals above mentioned only five died.

At a village in Kurnool District disease broke out in a herd of 500 cattle. After these were segregated only two animals were attacked.

In another village of the same district this disease destroyed in a few days 32 animals in a herd of 350. From the time the people were induced to segregate their healthy cattle not another case of sickness occurred.

The disease is recognized by the following symptoms:—

First stage—The attack is insidious, making considerable progress before outward signs lead to a recognition of the complaint. The appetite is but little affected during the first three or four days. Dullness, rough staring coat, and drooping ears, are the premonitory signs, followed by shivering in the colder parts of the day, with a continuous peculiar twitching of the muscles of the neck and flank; eruption on the gums and inside of lips.

Second stage.—The appetite ceases; muzzle dry; visible mucous membranes congested; discharge of mucous from nostrils and eyes; purging commences, at first of an ordinary character, but which soon assumes a peculiar characteristic offensive putrid smell, is very watery, and is mixed with undigested food and mucous.

Third stage.—Great prostration, the animal constantly lying down; the evacuations are mixed with blood and passed frequently in small quantities with great pain and straining; the pulse is quick, and so weak as to be scarcely felt; the surface of the body and extremities cold, eye sunken, and respiration quick.

Treatment Preventive.—An average period of four days elapses from the time the disease has actually commenced in the system before any symptoms are noticed by ordinary observers. A number of animals in a herd thus become infected with the disease, and are a source of contamination to the remainder before it is detected. On an unmistakeable case occurring, the healthy cattle should be removed 300 yards from the village and picketted in detachments of 20 at intervals of 300 yards. The sick animals must be kept in confinement for treatment. This segregation is to be continued for fifteen days after the sickness has ceased. Whenever more convenient to the ryots, they might remove their cattle to their own fields and there divide them. Those who attend upon the sick animals should be careful to keep aloof from the healthy ones.

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Curative.—From its low typhoid tendency, and the accompanying debilitating diarrhoea, care and moderation should be observed in the use of medicine. The main object is to support the strength, and assist the powers of nature. In the first stage, if there is no purging the following medicine may be given morning and evening:—

Camphor,	2 drachms	=	(3rds of a Rupee weight).
Nitre,	2 „	=	(3rds do.).
Datura,	1 „	=	(1rd do.).
Chiretta,	2 „	=	(3rds do.).
Arrack,	4 ounces	=	(3rds do.).

Dissolve the camphor in the arrack, powder and mix the other ingredients, then add two quarts (three bottles) of gruel and carefully pour down the animal's throat with a drenching horn.

In the second stage, when the diarrhoea commences, it is not desirable to attempt suddenly to arrest it, as it is an effort of nature to relieve the system; but if allowed to go on to any large amount, the debility produced would impede recovery, so that, after it has existed about twenty-four hours, the following, finely powdered, may be added to the preceding prescription:—

Gall-nut, 2 drachms = (3rds of a Rupee weight.) As soon as there are symptoms of improvement, the medicine should be diminished or discontinued, as the recovery is generally very rapid and requires nothing beyond supporting the strength with gruel, to which may be added the dose of arrack in extreme weakness. As soon as the animal shows the slightest inclination for food he should be frequently supplied with small quantities of green grass, raggy, sugar-cane, or cholum.

(Signed) J. THACKER,
Veterinary Surgeon.

ENCLOSURE No. 2.

From the Veterinary Surgeon, to the Acting Secretary to the Board of Revenue, dated Coonoor,
5th November 1870.

In compliance with the request of the Board of Revenue, I have the honour to forward the information desired by the President of the Cattle Plague Commission in his letter to the Secretary to the Government of India, Home Department, dated Sahibgunge, 14th June 1870, No. 372.

2. *REPLY No. 1*.—Disease in an epizootic form has prevailed among cattle in almost every Collectorate of this Presidency from as remote a period as can be ascertained. It still prevails at various seasons with greater or less virulence.

3. *REPLY No. 2*.—The names given to the disease by the Natives of the country are “Pedda Moosa Rogum,” “Vekkai,” “Peria Novoo,” “Pytchinow,” “Dodda Rogum,” “Vasuri,” “Thukam,” etc.

4. *SYMPTOMS—First stage*.—The attack is insidious, making considerable progress before outward signs lead to a recognition of the complaint; the first marked sign is a peculiar twitching of the muscles of the front of the chest and lower part of the neck; the temperature of the body, observable by a clinical thermometer, rises to as high as 105°; the pulse at first is little disturbed, but with the development of the disease in this and the second stage it increases to 100 or more, becoming smaller and weaker in tone; the respiration is somewhat quickened; the appetite is but little affected during the first three or four days; there is dullness; a rough staring coat; drooping ears; slight congestion of the visible mucous membranes; bowels somewhat costive.

5. *Second stage*.—The appetite ceases; muzzle dry; visible mucous membranes highly congested; discharge of mucous from nostrils and eyes, the latter has in it, sometimes, peculiar filamentous streaks of lymph; apthous sores on the gums and lining of the lips; purging commences at first of an ordinary kind, but it soon assumes a characteristic offensive putrid smell, is very watery, mixed with undigested food and streaks of mucous.

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6. *Third stage.*—Great prostration, the animal mostly lying down; temperature of the body falls to sometimes as low as 88°; evacuations are mixed with blood, passed frequently in small quantities with great pain and straining; pulse rapid and so weak as to be scarcely felt; surface of the body and extremities cold; eyes sunken; respiration quick.

7. The duration of the attack varies from five to ten days.

8. *REPLY No. 3.*—Post mortem appearances. The pathological appearances are principally confined to the digestive mucous membrane; the lips and gums excoriated; the back part of the mouth fauces and pharynx present a dark red congested appearance, with occasional ecchymose spots and small superficial ulcers; the mucous membrane of the larynx has a similar appearance; the trachea is slightly heightened in colour, which gradually diminishes as it approaches the lungs. The esophagus, rumen, and reticulum are healthy; the rumen is remarkably full of food, of a natural appearance; the omasum is full of hard dry food, but its structure is generally healthy, sometimes the mucous membrane peels off readily. The most striking character of the disease is in the abomasum, or true stomach, which presents in some places a dark purple appearance, and in others a dirty grey or brown, with small spots of black pigment scattered over its entire surface; here and there are patches of superficial ulceration, rather less than quarter of an inch in diameter. The small intestines have a similar character; the anterior part or duodenum is similarly congested, and in addition has occasional yellow patches of exuded lymph; these patches are attached by their centres to the mucous membrane, the circumference being loose; when removed the portion of the mucous membrane to which they have been attached is either highly congested or ulcerated; the jejunum is less affected. The ileum presents less general congestion, but is to a greater extent even than the duodenum covered with patches of exuded lymph, concealing ulceration; these increase in number as the cœcum is approached; they are quite superficial, in no case penetrating the mucous membrane; there are also at intervals patches of black discolouration surrounded by inflammatory congestion. The cœcum shows the ulceration in its greatest extent, almost its entire surface being covered with it; from this point it gradually diminishes and the rectum is generally healthy. The liver is healthy; the gall-bladder is generally distended, and its mucous surface sometimes shows an appearance similar to that of the cœcum. The blood contains less fibrine than usual, being seldom found coagulated except occasionally in the right ventricle; its colour is natural, and there is no perceptible diminution in the number of the blood corpuscles. Occasionally the serous membrane, lining the interior of the heart, is of a dull red colour with ecchymosed spots near the origin of the pulmonary artery; the portion of the pericardium lining the heart shows dark red spots over its entire surface. The lungs are sometimes emphysematous.

9. *REPLY No. 4.*—The disease has been confined to no particular district. It has existed, more or less in all the Collectorates of this Presidency.

10. *REPLY No. 5.*—Thousands of cattle are attacked annually. Many of these are treated with medicine distributed by me through the Revenue-officers, with an average of 50 per cent. of cures. Of 2,541 cases carefully watched and treated by myself 1,763 recovered and 778 died, giving about 70 per cent. of cures. When the animals are left without any kind of treatment the recoveries are not more than 10 or 20 per cent.

11. Several of my Reports to the Madras Government on Cattle Diseases I find have been selected and published in the records of the Government of India, Home Department, No. 69. I, therefore, now venture to annex a simple narrative, prepared for the ryots, here, in the hope that it may not be without interest to the Commission, illustrating as it does the exceeding great advantages of the system of segregation. It has been invariably successful in preventing the spread of cattle epizootic disease, and I beg most earnestly to commend it to the consideration of the Commission. It is simple, costless, and attended with little trouble. Were it thoroughly understood and carried out by the people, I feel confident it would be a priceless boon to the country.

ENCLOSURE No. 1.—A narrative account of Cattle Disease.

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SUBMITTED for the information of Government.

2. The season has been remarkably favourable, and forage being abundant, there has been less opportunity for the disease to develop itself. Nevertheless it has prevailed more or less in all the districts noted in the margin.

Malabar.	Cuddapah.	Madura.
Canara.	Bellary.	Secundrabad.
Neilgherries.	Kurnool.	Salem.

3. Mr. Thacker has personally visited cattle during the half-year under report in the districts of Bellary, Kurnool, Salem, South Canara, Malabar, and the Neilgherries, and as usual with considerable success.

4. In one case he found that segregation had failed, because the same people were kept to attend on the sick and healthy cattle. Collectors should call general attention to this point, and carefully instruct Tahsildars as to the necessity of having different herdsmen for the sick and healthy cattle.

5. The Board are glad to observe that D. Timmappa, the Deputy-Collector of Kurnool (Peapally), has shown so much zeal and intelligence in carrying out the wishes of Government in regard to segregation, and trust his example will be followed by divisional officers generally.

6. The narrative of his operations, which has been kindly prepared by Mr. Thacker, will be published in the *Gazettes* as required by Government. Great care will be required in preparing the translations.

7. The replies to questions propounded by the President of the Cattle Plague Commission, which have also been prepared by Mr. Thacker, will be forwarded to the Commission, as directed by Government in their G. O. of the 11th July 1870, No. 1,033.

No. 153. ORDER THEREON, 14th February 1871, No. 280.

Miscellaneous.

THE Government are glad to learn that success continues to attend Mr. Thacker's treatment.

2. The Board will inform Deputy-Collector D. Timmappa that the Government have noted with satisfaction Mr. Thacker's testimony to his valuable and intelligent services in checking the progress of cattle disease.

(True Extract.)

(Signed)

W. HUDLESTON,

Secretary to Government.

To the Board of Revenue.
,, J. Thacker, Esq.,

Exd. F. R. Bantleman.

PROCEEDINGS of the MADRAS GOVERNMENT.

Under date the 14th Decy 1871.

Read the following letter Proceed.

ings of the Board of Revenue.

Reviewing Report of Mr. Shacker, Veterinary Surgeon on Cattle disease in Madras Pres. Presidency for half year ending 30th September 1870.

(H.E. 9th January 1871/2:98)

The Government are glad to learn that success continues to attend Mr. Shacker's treatment.

2. The Board will inform Deputy Collector D. Simmappa that the Govt.

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REVENUE.

THE BOARD OF REVENUE.

Ac. Sec. 1

Printed February 1871.

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G. O. 14th February 1871. No. 280.

FEBRUARY.

Nos. 152-153.

Cattle disease.—Mr. Shacker's report for the half-year ending 30th Sept 1870, with orders thereon.

Government have
voted with satisfaction
Mr. Shaker's testimony
to his valuable and intelligent
services in checking the pro-
gress of cattle diseases.

L.S.

11, Lake Okauchee Ave. N.
J. Shaker.

L.S.

Mr. Thacker's
part on cattle
discovered
upon being 30th
Sept 170 -

Dec 14 - July 1871 O. S. 1872