

1926

E. AFRICA
TANGANYIKA

X. 1634

15 FEB 1926

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13th January 1926.

VETERINARY RESEARCH

Enclosed copy memorandum by the
Chief Veterinary Officer dealing with the
recommendations of the E.A. Commission and
comments on one or two points.

Paper

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GOVERNMENT HOUSE.

DAR ES SALAAM.

X. 1634
15 FEB 1926

January, 1926.

TANGANYIKA TERRITORY

No 31

Sir,

cc 19/4/26

With reference to your despatch No.445 of the 7th of August asking for my comments on the recommendations of the East Africa Commission as to veterinary research, I have the honour to transmit to you a copy of a memorandum by the Chief Veterinary Officer on the subject.

2. I would invite your attention to the incorrectness of the remarks in the Report of the Commission in regard to experiments for the improvement of stock and co-operation with the veterinary services of neighbouring Dependencies.

3. As regards the statement in the Report that the Veterinary Department is better staffed than any other technical department it will be observed that Mr. McCall maintains that his staff has not been sufficient in the past to undertake the many and varied duties which are expected of it. Next year, however, the field staff

OPRABLE

C. ALERY, P.C., M.P.,

&c.,

&c.,

DOWNING STREET,

S. W.

staff will be up to the requirements of the Department if the draft Estimates are approved, and will suffice for such development as can reasonably be anticipated.

4. In regard to the Laboratory Staff the Chief Veterinary Officer advocates the appointment of an Entomologist, and also of a Field Research Officer whose special duty would be to tackle the problem of pleure-pneumonia among the herds in the Masai country, and who would release the Pathologist and his Assistant for other even more important branches of research work. Although on general principles concentration in research is no doubt preferable to separate research departments in each territory, it seems to me that as we have Mpwapwa, which no one would think of closing, a good case for adding these appointments to the Tanganyika Staff has been established.

5. As stated by the Commission it is not possible in this Territory to bring the veterinary and medical research work into one building.

I have the honour to be,

Sir,

Your most obedient, humble Servant,

Handwritten signature

G O V E R N O R .

Enclosure to despatch No. 31 - 322
of 13 January 1926.

S. 42/1.

27th October, 1925.

The Hon'ble,

The Chief Secretary to the Government,
Dar-es-Salaam.

I am glad of the opportunity afforded of commenting upon page 84 of the East African Commission Report, as misconceptions seem to have crept into the context and certain of the findings would appear to be based on somewhat inadequate data.

2. While deferring to the opinion expressed by the East African Commission to the effect that the Veterinary Department are better staffed than other Technical Departments in East Africa; nevertheless it is maintained that the Veterinary Department of Tanganyika ^{has hitherto been} is understaffed and inadequate to permit of the thorough performance of its duties. Of the truth of this contention ^{in the past} the figures below it is thought, will prove, and the reasons adduced will explain.

3. Tabulated hereunder is a list of the Field Staff, of the number of square miles to be supervised, and of the numbers of livestock to be treated and safeguarded. The figures would seem to speak for themselves, even though admittedly much of the Territory contains little or no stock, since such areas must also be patrolled.

Staff.	No. of square miles to be supervised per Man.	No. of live stock per Man.	Total area Under Surveillance.	Total No. of Livestock in the Territory.
4 Field Veterinary Officers on leave	-	-		
7 Field Veterinary Officers on duty	53,285	1,142,857		
5 Stock Inspectors on leave	-	-		
11 Stock Inspectors on duty	33,909	727,272		
20 Quarantine Guards on leave or transfer	-	-		
120 Quarantine Guards on duty	3,108	66,666		
			373,000 Square miles	4,000,000 Cattle 4,000,000 Sheep & Goats

* Plus one new Veterinary Officer who has just arrived on first appointment.

† Plus three new Stock Inspectors who only arrived last month.

4. To illustrate further the peculiar difficulties under which the Veterinary Departmental staff labour, in their efforts to control animal disease, it is scarcely necessary to remark that, whereas natives can come to the medical man to be treated and can voice their complaints to the Administrative Officer at Headquarters, the cattle must be personally visited by the Veterinarian who has got to find out in each case on the spot what really is wrong. The amount of travelling thus entailed would of itself keep the staff fully occupied even were disease outbreaks negligible and other duties non-existent.

5. When rinderpest becomes rife and cattle die wholesale the situation becomes extremely trying and the work most arduous. Disease conditions approximating to rinderpest in virulence, rapidity of spread, and heavy attendant mortality fortunately do not commonly occur as frequently amongst men as amongst cattle. A thousand cattle may die from cattle plague, yet no one except the unfortunate native owner, whose very existence depends on his animals, is seriously perturbed, and the Veterinary staff is left to plough its weary furrow harassed by dissatisfied traders and active quarantine breakers. If, however, 20 men die from human plague the whole country is in a ferment; every one hastens to assist and cheerfully submits to all manner of necessary restrictions, no matter how vexatious.

6. It is stated, almost as though it were a matter for regret, that the time of the Veterinary Officer is for practical purposes wholly occupied in dealing with common animal diseases, since the common diseases in the past have accounted for fully 90% of the total preventable death rate. It is well that such is the case and that the District Veterinary Officer should be so employed. When we have eliminated the 90% factor we shall tackle even more extensively than hitherto the remaining 10%. I would, however, remark that at the present moment even the more obscure diseases are receiving attention both in the field and in the laboratory.

EUGENICS - BREEDING EXPERIMENTS.

7. When in Dar-es-Salaam the members of the Commission were invited by me through Major Church to visit the Government Stock Farm, Pugu Road,

("Hesse Farm"), four miles from the town. It is regretted that lack of time apparently barred this visit from materialising since such first hand information on the subject might have been gained and any misunderstanding with regard to the subject abviated.

8. It is realized that a report such as that under review must, by reason of its nature, generalise, but it is unfortunate that such a misconception with regard to our Departmental attitude towards animal husbandry should have arisen and that the work already done in this Territory in connection with the breeding of immune cattle and the improvement of native stock both by the introduction of fresh blood and by selection as applied to the indigenous zebu should have been overlooked. More especially am I perturbed as hitherto it was considered that the Tanganyika Veterinary Department was premier in such work in as far as Veterinary Departments in Africa are concerned.

9. Experimentation into the field of animal eugenics to be profitable takes time and cannot be rushed if authentic data is sought.

10. In the case of cattle, from the date on which an experiment is commenced by the purchase and mating of suitable stock, until the time when the first generation can be re-mated a period of about 5 years must elapse.

11. Even after several generations have been bred, culled, selected and re-mated, it would still be rash to attach more than relative importance to the tentative conclusions arrived at.

12. The Veterinary Department of Tanganyika has only been in existence for five years and during the first two years of this period, the staff was merely nuclear.

13. Three years ago the foundation of the herds and flocks, now accommodated at the Experimental Stock Farm in Pugu Road, was laid by the purchase of 60 selected native cows from Singida.

14. The stock districts were searched for suitable native sires, An Ayrshire and a Friesland bull were imported from Kenya and a commencement was made. The work has been systematically extended until to-day some 500 cattle, 300 sheep and 200 goats divided into suitable herds and flocks are mated to selected indigenous and also to imported sires.

15. The following herds and flocks are at present under observation and records of results will in due course be published.

Native Saba Herds.

(a) Fifty selected yellow Kkalama saba cows of dairy type mated to a native bull with a view to breeding to standard type. Culling is being practised and milking qualities fostered.

(b) Fifty selected white Singida saba cows mated to a bull of the same type with a view to improving milk production - these are also being bred to standard.

(c) Fifty grey saba cows principally derived from the dry arid areas of Ugogo and Masailand. Endeavours are

are being made to improve the standard and increase the milking properties of the herd by selection of sires and by culling the young stock while at the same time preserving the natural hardiness of the breed.

Grade Cattle.

- (d) Seventy red Iringa cows mated to an imported red Afrikander bull, the object in this herd being to increase and improve the beef type without impairing the natural suitability for the poorer districts of the Territory.
- (e), (f), and (g) Three herds each of fifty Singida zebu cows mated to 3 Friesland imported bulls with the object of increasing milk production in the better pastured areas of the Territory and for producing grade sires for experimentation and distribution to the natives of such areas as are deemed suitable.
- (h) and (i) Two herds, of fifty each, picked zebu cows with two pure bred Ayreshire bulls, the aim being to attempt the production of a hardy grade dairy type of cattle for the higher colder altitudes. As an experiment high grade bulls have been stationed at Dodoma and at Singida to stand at stud free of charge to native owners. If this innovation proves successful the scheme will be extended.

16. Sheep Breeding and Grading Experiments.

- (a) Fifty black-headed ewes from the Shinyanga area mated to an imported woolled Persian ram.
- (b) Fifty brown Masai ewes mated to an imported Romney Marsh ram.
- (c) Three flocks, each of fifty Shinyanga native ewes, mated to imported Romney rams for mutton production and with a view to increasing the size and hardiness of the breed.

17. Goat Breeding and Grading Experiments.

- (a) Two flocks of native goats mated to four Angora imported goats.
- (b) Fifty native ewe goats mated to an imported Swiss goat.

18. About a hundred and fifty European grade calves, Ayrshire and Friesland have already been born and a good crop of lambs and kids is anticipated.

19. A few pure-bred females of each breed of cattle, sheep and goats used at stud have also been imported to form the nucleus of pure bred herds and flocks of European animals.

20. The possibility of crossing zebra with donkey has been attempted and one zebra mare is due to foal to a Masait donkey within a month of the date of writing.

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21. In addition to these activities an attempt has been made to mate the wild African buffalo to the Indian buffalo with the object of evolving a breed tolerant to Trypanosomes for use in the fly belts of the Territory. Unfortunately, the young African buffalo died, the result of an accident just when he reached

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reached two years of age. In collaboration with the Game Department endeavours are being made to catch buffalo calves in the fly belts with the object of resuming our experiments in that direction.

22. At present the purchase and importation of Indian Zebu cattle of the Krishna Valley type and buffalo of known milking properties is being negotiated with the Veterinary Department of Bombay.

23. As can readily be understood, the whole question of animal husbandry is one in which it behoves us to move with the utmost caution and to be certain of our ground work ere attempting to build up a superstructure which may ultimately prove most unsuitable.

24. Especially to be borne in mind is the influence which local conditions, climatic and dietetic, exert on the type of animal suited to a given area. In no place in the world is "Darwin's law of environment" more inexorable than in Tropical Africa. It can be accepted as a general axiom that the type of domestic animal encountered in any part of Tanganyika is the product of eliminative selection and is the animal most suited to the conditions of life under which it thrives.

25. In order to avoid disappointment, it is necessary to adopt measures directed towards the amelioration of the conditions under which domesticated animals are reared and kept before improved strains can be introduced with safety into the sphere of "African livestock economics".

26. To this end it is essential to augment the natural foodstuffs available, especially during the dry season, and to educate the native owner along lines of better stock management. Both these processes must be gradual and must synchronise, as it would be disastrous to allow the improvement in the breed of livestock to outstrip the improvement in the methods of feeding and management.

27. The most valuable attributes of the ordinary native domesticated animals of the country are those which are constitutional and hidden rather than the ^{structural physical} ones which reveal themselves on the surface, and justification exists for regarding as of primary importance those associated with immunity to disease and ability to survive under unfavourable conditions.

28. From the foregoing remarks it will be seen that data solely deduced from the study of milk records and the figures revealed by avoirdupois scales, unless intelligently interpreted in relationship to available food supplies and local conditions, will only furnish information of restricted value.

29. It is obvious, for example, that the English Shorthorn with his level lines, his capacity for carrying beef on the sides of the best "joints", his fattening capabilities and the many other attributes which so endear him to a midland farmer, is at a decided discount in areas where ability to survive on a few mouthfuls of thorn bushes and to travel 25 miles per day to water are the qualities that really count.

MPAPWA LABORATORY.

30. It is gratifying to observe that the Laboratory at Mpapwa meets with the approval of the Commission, but I would like to explain that the laboratory when taken over by the British Administration was in reality only the skeleton of the present Institution.

31. The buildings have all been re-designed and trebled in extent, while the entire plant which is essentially new had to be ordered from home, installed and put in operation, since the inception of the present Veterinary Service of Tanganyika.

32. Commenting on the alleged lack of co-operation between the various services of Eastern Africa, I would venture to point out that, on the contrary, a monthly exchange of bulletins and disease reports takes place as a routine. It is scarcely fair to overlook the close co-operation which exists between the Kenya and the Mpapwa Research Institutes.

Well-attended conferences have been held on more than one occasion in Nairobi, and particularly would I refer to the recent Pan-African Veterinary Conference in which the Union of South Africa, Madagascar, Nyasaland, Portuguese East Africa, The Sudan, Tanganyika Territory, and Kenya all participated. In fact I am unaware that equally well attended representative conferences have as yet been held by other Technical Departments. The officers of Mpapwa on several occasions have visited and sojourned at Nairobi, while to-day Mpapwa is producing anti-rinderpest serum on

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on a large scale for Kenya, Uganda and Zanzibar. For instance, 90,000 doses are being supplied to Kenya alone during the last six months of the current year. The attached extract from a memorandum to the Commission on the subject of a Central Scientific Institution is forwarded.

Sgd: F. J. MCCALL

CHIEF VETERINARY OFFICER.

(on tour)

Malangali.

27.10.25

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Extract from a report by the Chief Veterinary Officer
to the East African Commission, dated 27th September,
1924.

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L a b o r a t o r i a s .

The desirability of Establishing a Central
Research Institute.

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The existing Serum Institute at Mpapua was built
for and efficiently serves a specific purpose, viz.
departmental diagnosis and the production of anti-
rinderpest serum; local conditions permit of this
production at what is believed to be a lower cost than
can be accomplished elsewhere, the actual estimate of
the Pathologist being from 9d. to 1/- per dosage-unit
of 50 c.c. It is therefore evident that the establish-
ment of a central research institute could not usurp
this function.

Admittedly much research work at present carried
on in a modest manner at Mpapua might be more
efficiently dealt with by a more ambitious institute,
since the overshadowing influence of the important
economic diseases dealt with such as Rinderpest, East
Coast Fever, and Trypanosomiasis, may somewhat obscure
our vision concerning abstruse but possible equally
vital issues. In this respect therefore the
opportunities afforded for the exchange of views
together with the intensive academic atmosphere of a
purely scientific laboratory, as opposed to the economic
financial outlook of our institute would make for the
more efficient study of pure science. Nevertheless,
it is well to bear in mind the importance of investi-

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investigating problems on the spot, in the surroundings in which the specific disease under observation actually occurs.

The Laboratory at Mpapua bulks largely in the life of the Veterinary Department of Tanganyika and its importance as a training ground for newly appointed officers cannot be overestimated, while the facilities it affords for teaching the Native Staff of Veterinary Guards are valuable.

For these reasons it is confidently believed that the acceptance of a wider scheme and inauguration of a central laboratory while conferring a boon on East Africa in general will in no way tend to upset our present departmental domestic policy or deprive us of what we believe to be one of our most valued and useful assets.

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