

EAST AFR. PROT.

8701

Recd. sig  
14 Mar 13

Montgomery R.R.

1913

March

Last previous Paper.

8779

### Windup Serum.

Considers it certain that large quantities will be required in the future. States as to buildings & appliances necessary for the production of large quantities. Provides Governor's estimate with supplementary items detailed in this letter essential.

~~Mr. Burt~~ Mr. Lambert  
Mr. A. Just  
Mr. Anderson

Had had discussed this fully with Mr. Montgomery this afternoon.

The following were the main points which emerged at the discussion:-

1. The East scheme must not be carried through regardless of what may be done in S. Africa, as to which see (copy of 8993) U.S.A. 22.2.13  
specimens papers.

2. If it is decided to have a serum station for South Africa, no serum can be made until Windup actually reaches

3. and cons)  
Copy Exp 249 cons 2 April 1913  
Copy above letter to Montgomery cons 249  
Copy cover paper to my house

400  
10241

that country - because you cannot send the virus for its preparation from one country to another: the virus will not live at most more than 7 days.

3. If it is decided to have a S. A. serum station, it will in all probability be next December before they can get to work.

4. The present sources of supply of serum are India - Cairo - Nairobi and ? German East Africa. Mr Montgomery cd. not say what progress, if any, the Germans had made with the institution of a serum station in G. E. A.

5. As to cost of serum, that produced at Nairobi is the cheapest. Cairo charges 3/- India charges 2/- for a dose (50 c.c.); Nairobi charges about 8/- for a dose (20 c.c.). The size of the doses, it will be noted, is different: but there is a distinct

difference in favor of Nairobi - as the Nairobi dose though smaller may well be as efficacious as the larger Cairo dose. The exact amount of serum required in a dose will vary with local conditions. 153

6. Rinderpest may be regarded as having 'come to stay' in E. A. In India it has existed for many, many years - & you cannot hope for its entire disappearance from E. A.

7. The possible requirements of E. A., Uganda + Nyasaland <sup>may be placed at</sup> ~~about 300,000~~ <sup>300,000</sup> doses of Nairobi serum is impossible to estimate with any accuracy what demand will be made for serum during a year, but this total number of doses shd. suffice - & allow possibly a margin for sale (at a profit) to G. E. A. or Congo Free State.

8. It appeared to be desirable to

to make provision for East Uganda  
Nyassaland from the Nairobi  
depository, leaving out of account  
9.8.4. Congo Free State.

As to finance - Mr Montgomery  
thought the estimate in para 6  
of the disp. could be reduced,  
if 300000 instead of  
400000 doses were to be  
made annually, in the following  
items.

European Apprentices

Equip. apparatus etc.

Purchase of cattle

Feeding of cattle

For last-named item he  
suggested a considerable  
reduction - viz. £2500 instead  
of £2200.

But other items must be  
added as in his letter of  
18 March.

viz. Steam & Electrical Plant - £850.  
Installation of gas. 200  
Housing for Apprentices (?) 1400.  
Housing for animals. (?) 1400

Probably the total figure wd.

and therefore remain somewhere  
about £6000 as originally  
estimated by the Governor.

154

10. Serum. Mr Montgomery stated,  
with least all right for 12  
months undisturbed cows in  
for 2-3 years under laboratory  
conditions.

2 Sept. tel. beneath for concision  
on verbal instructions.

A.P.H.  
19/2/13

So far as our Prote are  
concerned I do not think  
that we shd. complicate matters  
by coming into any scheme for  
the production of serum in S. Africa.  
We have got a serum producing station in  
being at Nairobi & we can probably produce  
cheaper than anyone else. If ~~we could~~  
find that we have more serum than we  
require at Nairobi, we shd. of course be  
happy to dispose of it to S. Africa. I am  
S. Africa, or Congo, at (say) cost price  
+ 20% for admin. charges - & even then it  
wd. probably be cheap at the money £7.00

A similar basis of contribution might be  
adopted in the case of Uganda -  
Kenya.

A. J. R.

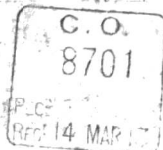
20/11

13th March 1913

The Under Secretary of State,

Colonial Office,

Sir,



I have the honour to acknowledge receipt of your letter No: 7879/1913 of March 12th, forwarding a copy of despatch from East Africa, No: 91 on the subject of Rinderpest.

2. From the previous history of this disease in Africa it is almost certain that large quantities of preventive serum will be required in the various Colonies and Protectorates adjacent to East Africa, and the demand in the country itself is increasing owing to the continued presence of the disease in the outlying Native Reserves where efficient control cannot be guaranteed.

3. While some provision for the manufacture of 150,000 doses has been made in the draft Estimates 1913 - 14 I would observe that certain items necessary to their production have been deleted. In the draft Departmental Estimates which were submitted to the Director of Agriculture on September 14th last I asked that the following items be included under the head of the Public Works Department:-

|                            |                             |
|----------------------------|-----------------------------|
| Extension to Laboratory    | £ 1,500                     |
| Steam and Electrical Plant | 850                         |
| Installation of Gas        | 200                         |
| Housing for Assistants     | ? [The bungalows asked for] |
| Housing for animals        | 750                         |

In the sanctioned Estimates the sum of £2,000 appears under Vote 31, Public Works Extraordinary, Major Works. This



amount will provide the buildings for serum manipulation and the greater proportion of the accommodation for animals, but the necessary plant, i.e. steam, electric, and gas wherewith to produce the serum, and the House accommodation for Assistants is lacking.

It has only been with the greatest difficulty that 100,000 doses of serum have been produced annually in the past two years. The difficulty has lain in the paucity of cattle [now provided for in 1913-14] and lack of appliances for manipulating the blood as obtained from these cattle. On a small scale it is possible to obtain a satisfactory yield without mechanical intervention, but only at an expenditure of time and labour disproportionate to the result. For large amounts, such as 150,000 doses per annum, or where the investigation of other diseases requires a devotion of time and labour not hitherto possible, it is absolutely essential that mechanical means be employed.

To meet the requirements of seven permanent Europeans, the Colonist's sons, resident for training, and any temporarily engaged officials only four bungalows exist. The laboratory is situated too far distant [about eight miles] for housing in Nairobi to be of any use, and the climatic conditions make it impossible for a man to retain his health and interest if compelled to live in a fixed tent for more than a few months, even in the dry weather.

4. For the manufacture of the present estimated requirements of 400,000 doses, the above expenditure is more than ever necessary, and in its absence the production of such a quantity of serum could not be contemplated.

The mechanical installation consists of a steam plant for use in sterilisers capable of containing the very large amount of glass ware in daily use and for driving the dynamo for electrical power. The centrifuges for the separation of serum from blood require to have a capacity capable of dealing with upwards of sixty litres of blood per diem. These

can only be efficiently driven by electricity, which in addition reduces the danger of contamination by means of dust to a minimum. For use with instrument sterilisers, small apparatus not required to be on the main steam supply and for maintaining the heat of incubators at an exact level, the introduction of gas [an expenditure sanctioned in 1911-12], is essential.

The total cost of this installation may be put at approximately £1,000, being about £800 for the steam and electricity, and £200 for the gas.

I notice that His Excellency in para. 6 of his despatch makes provision for accommodation for the Laboratory Assistants; but I consider it necessary to augment the sum [£500] sanctioned in the forthcoming Estimates for accommodation for stock [the balance of the £2,000 appearing as Extension to Laboratory]. Upwards of four hundred cattle will be under observation if the larger amount of serum be required. Our existing buildings cannot hold more than a quarter of that number and the vote of the ensuing year will not suffice for more than an additional 60 or 70. It has been our experience that more and richer serum is obtained from cattle well fed and comfortably housed, while the direct loss to Government, through death and sickness, is considerably minimised.

The remaining figures in the despatch as to Annual Expenditure, appear to be approximately correct, as the cost per dose of serum with this expenditure is shown to be between 40 and 46 cents.

5. Should it be the Secretary of State's intention to sanction the continuance of Rinderpest serum production at Nairobi, I look upon the Estimates furnished by His Excellency the Governor and the supplementary items detailed in this

letter as expenditure absolutely essential.

I have the honour

Sir,

Your obedient servant,

*R. Eustace L. ...*

Veterinary Pathologist,

East Africa Protectorate.



my 2701 Cal

~~ret~~  
~~1/27/13~~

DRAFT

Telegram

Governor

Nairobi

Dec 10 1911

pp 1/25  
20/13  
v. 40 km

March 1913

MINUTE

Sept 1912

Mr. Peadar 19

Mr. Peadar 20

Sir G. Baines

X Sir H. Just.

X Sir J. Anderson.

Lord Esmott.

Mr. Harcourt.

you wrote 12 February 1913

understand that South African  
ports including Natal

are about to consider  
question of establishing

serum station for supply  
of South Africa and  
neighbouring countries

that I would observe  
that serum cannot

be

20/13  
24/13  
Copy from  
Copy from

20/13

be manufactured  
until <sup>manufactures</sup> ~~understand~~  
actually reaches  
~~the~~ country <sup>that</sup>  
seems delay would

(where it is to be  
transported)

in any case occur  
earliest

before new serum

station could be  
constituted

started stop Am

disposed to make

Nairobi centre for

serum production for

East Uganda  
earliest tentative

Nyataland this

would mean probably

annual output  $\frac{1}{2}$

30000 doses <sup>wolf dog</sup> <sup>silvergray</sup>  
stop

is

comitaban if <sup>city</sup>  $\frac{1}{2}$   
estimate in <sup>paranas</sup>  $\frac{1}{2}$   
resultate 160  
would require revision

<sup>silvergray</sup> stop <sup>heart dead</sup>  
matter the  
disparity  
been discussed with

Montgomery who

agrees but considers

extra provision essential

for machinery

<sup>pietola</sup>  $\frac{1}{2}$  50 <sup>iniquity</sup>  
gas installation

$\frac{1}{2}$  200 housing

<sup>abdicent</sup>  
accommodation possibly

<sup>pickmeup</sup>  $\frac{1}{2}$  200 and <sup>abdicent</sup> stock accommodation

possibly  $\frac{1}{2}$  1000 <sup>post face</sup>

<sup>silvergray</sup> stop <sup>telegraph</sup>

<sup>tentative</sup>  
reply as soon as  
<sup>(with mail/forwarding)</sup>

possible and at

Summitless  
at same time inform

me of <sup>Ichidom</sup> can

Whether <sup>geminavero</sup> German East

Africa has <sup>taken</sup> made

any steps <sup>steps</sup> for

establishment of <sup>embrocada</sup> a local

serum station

War court

MAR 20

M/F 707 Lab

Amber 16/4/33

DRAFT.

Governor Zomba <sup>6 40 km</sup> Nyasaland

MINUTE.

- Mr. Acland 12/3/33
- Mr. Bottrill 19
- Mr. Reed 20
- Sir G. Panton
- Mr. Lambert 20
- Sir H. Just.
- Sir J. Anderson.
- Lord Emmott.
- Mr. Harcourt.

March 1933.

Question of <sup>supply</sup> <sup>snow gauge</sup> of serum for Nyasa-  
land <sup>may be</sup> <sup>requirable</sup> <sup>and</sup> required <sup>and</sup>  
conjoining <sup>with</sup> under command <sup>with</sup>  
gingerness <sup>silvergray</sup> <sup>stop</sup>  
Gov. of Lab. <sup>disrepair</sup>  
that disposed to <sup>make</sup>  
Nairobi <sup>centre</sup> <sup>for</sup>  
serum <sup>production</sup> <sup>for</sup>

Copy Mr. Harcourt 2 April 1933

eddy

<sup>earl</sup> East Uganda  
and Nyasaland  
<sup>silvergray</sup> stop <sup>annulet</sup> as to  
<sup>emp</sup> procado  
establishment of

serum station in

Rhodesia are

<sup>indorated</sup>  
informed that serum  
<sup>cagmag</sup> cannot be <sup>manfulness</sup> manufactured  
until <sup>rilosinger</sup> independent

reaches the country  
<sup>foruman</sup> where it is <sup>magpieperc</sup> to be made

<sup>alejar</sup> that serum delay  
would <sup>cantreth</sup> in any case

occur before near  
serum station <sup>cristati</sup> could

the started <sup>silvergray</sup> stop with  
<sup>cloudiness</sup>  
communicate again  
<sup>tracorsi</sup>  
with you in receipt  
of reply from at all

162

Account