



EAST ASIAN PROT.
No. 24598

24598
JUL 11 1905

1905
11 July
of previous Paper.
of paper
588

(Subject.)

Report on Government Farms

Submits above on Encloses publications on
Sheep diseases

(Minutes.)

Act: check - second copy of No. 13 of
the 30th of month, with copy of this
enc. printed on. in orig. to the
Comm: for his consideration.

at once.
H. J. R.
17/7

S-R

Country to submit
the best records of
the sheep which
have been - also to
submit a permanent body
to which all organizations
of whatever difficulty
are identified by the
Secy of State for the
British can refer any
questions of doubt or
difficulty which may
arise in carrying out
the scheme when it has
been formulated.
5. It appears to Mr Lytton
that a small committee
composed of a member
of the Topographical Section
of the General Staff, a member
of the Ordnance Survey of
the country, a member
of the Office would be
the most suitable committee
for the purpose, as he would
be partly obliged if the
Board of Agriculture & Fisheries

could place it in depend. in the creation
of a committee of the Topographical Section of the General Staff
to the Ordnance Survey
6. A similar letter has been addressed
to the Board of Agriculture, and
Mr Lytton would be glad to be furnished
with a copy when he is convenient as a family

July 22 July 24
Wood 2007

Subsequent Paper
No. 24598

THE ROYAL AGRICULTURAL SOCIETY
17, BEDFORD SQUARE, LONDON, W.1.

I am directed by the Board of Agriculture and Fisheries to forward to you the following observations on the reports which accompanied the same, and those which were subsequently forwarded from the same sources.

The Board is of the opinion that a principal object of the Government is the improvement of native stock by the use of imported animals.

With regard to the best breeds of sheep, the pathological condition of the Cape may be such as to render the low breeds of the Protectorate, in common with such districts in other parts of Africa, are probably badly infected with heartwater, and it is hopeless to attempt sheep farming with the higher breeds of sheep in these parts for many years to come.

Such operations should be confined to the high veldt. One great principle to be observed in stocking districts infected with these diseases, is, to do it only with a race born and bred in a world where the said diseases are not prevalent and disastrous.

It is also to be noted that the Transvaal after the war of 1881-1882, when the views were found to be correct, and the result will survive in the same manner as the Transvaal under the same conditions.

2459

Any further communication should be addressed to me by mail only by name.

The Secretary,
Board of Agriculture and Fisheries,
1, Whitehall Place,
London, S.W.
and Correspondence are requested—
1. To quote the Name, Date, and Number
of each letter to which they refer;
2. To be accompanied on all subjects
by the name of the person to whom
it is addressed.

BOARD OF AGRICULTURE AND FISHERIES



1, WHITEHALL PLACE,
LONDON, S.W.

11th July, 1908

A.13008/1908

Sir,

With reference to Sir Clement Hill's letter of 20th. March Past, I am directed by the Board of Agriculture and Fisheries to offer the following observations on the reports which accompanied that letter, and those which were subsequently forwarded from the Colonial Office.

The Board gather that a principal object of the Government is the improvement of native stock by the use of imported animals.

With regard to the best breeds of sheep the pathological aspect of the case must be constantly borne in mind. The low veldt parts of the Protectorate, in common with such districts in other parts of Africa, are probably badly infected with heartwater, and it will be hopeless to attempt sheep farming with the higher breeds of sheep in these parts for many years to come. Such operations should be confined to the high veldt. One great principle has to be observed in stocking districts infected with these so-called malarious diseases, viz., to do it only with a race born and reared in other parts of the world where the said diseases are prevalent. Any other policy will probably end disastrously. This has been the experience gained in stocking the Transvaal after the war. The best cattle from this point of view were found to be those bred in the Texas fever districts of Texas and those from similar districts in Queensland. They will survive in reasonable numbers the ravages of redwater, and of the two, the Queenslanders

The Under Secretary of State,
No. 10,
Whitehall Office,
S.W.

J. D. ...

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is the higher grade animal. The best animals would be the Africander cattle from the Cape Province, but it is to be doubted if any number could be spared at present. Of sheep it was found that the Persian and his cross, the Kaffir sheep, were best suited for the locality. They are highly resistant to heartwater. This is not a wool sheep; it is a butcher sheep, but the successful rearing of the wool breeds in the low country is to be doubted until a good method of giving artificial immunity against heartwater to those breeds has been discovered. It seems, however, within reach. The Persian ewes are objected to for being less prolific, but this drawback may arise largely from their "fat tails" which interfere with the sexual act. The fat tail seems to be an anachronism in their evolution, and the experiment may be suggested of docking the ewe lamb. The cross - Kaffir sheep - has a much smaller tail, and the ewes are more prolific.

With reference to the introduction of fresh European blood, it has to be continuous to be successful, for it is to be remembered that for its locality the native sheep is the stronger race. If only one or two rams be introduced and their importation discontinued, the flocks will almost certainly revert to their original type under the ordinary conditions of blood-raising in a country like the Protectorate.

In stating that "no more stock will be purchased" Mr. Linton doubtless refers to native stock, and the Board conclude that this decision has been arrived at in consequence of the fact that the land is not sufficiently stocked except for the occasional addition of imported animals.

The loss of the prolific tendency is apparently a price which imported females often pay for their existence in countries like India and Africa. One sees it also in horses. Improvement is sometimes shown with years of residence, but the females are almost never as prolific as at home. The reasons are complex, and it

would be out of place to import such a disease here. If one were to import, it is best to take care of the disease, or one might take ewes which have passed in the first stages of pregnancy. That is to say, let the lambs be born on the soil, for in their first months of life they often take the diseases of the country in quite a mild form, but nevertheless become afterwards immune. The sheep disease mentioned was probably heartwater, a disease spread indirectly by certain ticks. It was probably introduced by the native sheep which are very partially immune to the disease. They suffer in a milder degree, and the death rate is less than in imported stock, but the sick ewes can infect the ticks on the ground, and the ticks in turn will give heartwater in a fatal form to non-immune flocks. What has probably happened is that the ticks on the farm, which are harmless until they have sucked on sick animals, have become infested by the native ewes. The fact that the imported stock only began to die some months after the Kishuma ewes came on to the farm, bears this out because the life history of certain ticks shows that after the immature forms drop off one animal, they spend some time on the soil before going on to another host in a more mature condition. The second host they infect if they have formerly sucked on a sick animal. Deaths will probably occur next January amongst the imported ewes, this being the month which, in the Transvaal, marks the start of the season of tick activity. It declines in July. It should also be remembered that this disease fatally affects cattle. There are large portions of the Transvaal where the ticks became so badly infested before diseases of stock were scientifically studied and attacked, that sheep farming is now impossible except with immune breeds. If Western stock (cattle or sheep) be imported and allowed to run in the usual way with native animals, it is no surprise to find a loss of 90% in the lower parts of the Transvaal. Fortunately, the tick carrier of this disease does not flourish at altitudes much above 4000 ft., and this should be kept in mind in selecting a site for a stud farm

imported animals. The Board are not aware at what season it is necessary in the Protectorate to have the ewes served, but it is possible to arrange that the rams should stay on high veldt during the dangerous season, and only go down to the native areas in the less deadly months. It is probable that the importation of stock except from countries with similar diseases will be attended with much risk for years to come. Settlers should utilize the stock of the country, and not try to modify it too suddenly, for it is to be remembered that the native stock with all its drawbacks is that which has found existence possible. This statement does not apply equally to stock in countries where there are practically no diseases of the malarious type, but it applies to Africa where the struggle for existence has been mainly against disease.

On the subject of sheep pox the Board may give an abstract from a paper about to be read before the National Veterinary Medical Association by their Chief Veterinary Officer.

As regards the zebra the results are only what were to be expected. One can never hope to domesticate wild animals in large herds. In their wild state they can support a multitude of parasites which they harbour, but immediately one domesticates them or tries to work them, the parasites get the upper hand, and the death rate is appalling. That a domesticated breed of zebras may be eventually obtained need not be doubted, but one will have to begin and breed from a remnant. It is necessarily a slow process. It was found, in the Transvaal, with herds of unworked donkeys (very domesticated animals) were obtained from the East Coast, that although they looked sleek and perfect at first, they died in alarming numbers from parasitic diseases when put to work. Better success attended the undertakings when they were subjected to a preliminary treatment for ridding their intestines of parasites, but this would be difficult with the wild zebra. From analogy the domesticated zebra seems likely to retain its immunity against fly if kept in the infected country, but a most important fact must be kept in mind, viz., that the so-called immune animals are those which may

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... carried over ...
 ... PARTY ...
 ... Had the ...
 Africa from the start been carried over by animals indigenous ...
 all the buffalo (also immune), for example, instead of the ...
 ... it would have been ...
 ...

... country possible for the healthy ...
 ... of bovine animals ...
 ... should be ...
 ... should be killed off or otherwise removed from the agricultural ...

It may be pointed out that one of the ...
 Transvaal ... with the time-honored habit of ...
 herds to trek with their flocks ...
 high to low veldt. It was in this way that diseases of the type ...
 under discussion (and which are in a sense ground infections) were ...
 carried over the country. They claimed that their animals would ...
 die if kept all the year round on the high veldt, which has been ...
 demonstrated to be incorrect.

This fact is mentioned as it seems to be a custom which ...
 settlers in Africa are very apt to adopt, because the change of ...
 locality with the seasons is a most productive form of existence. ...
 is a custom, however, which in Africa is very dangerous to stock ...
 raising, and in the interests of agriculture it is wise to control ...
 This has now been accomplished in the Transvaal by the ...

... the ...
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the fact that the farm is left without a representative of
important needs.

The Board observe that Scab and allied diseases have
caused considerable trouble, and in the hope that the information
may be of use, they enclose copies of the Report of a Departmental
Committee together with a leaflet on this subject. They also
submit a leaflet on the Sheep Nostril fly.

The Board observe that Fluxed causes great loss amongst
sheep, and they therefore beg to enclose a copy of Reprints of
authoritative articles on the subject, in the hope that some of the
suggestions therein contained may be of practical application in
East Africa.

Without the full facts of the case before them, the Board
are unable to criticise the decision that led to the slaughter of
the native cows which were in calf to the Polled Angus bull, but
they would suggest that drastic measures, thoroughly justifiable in
an old country full of valuable herds, may go beyond the require-
ments of the case in a country in the earliest stages of development.
The inactivity of the Polled Angus bull for some six months might
possibly have been avoided by moving him, under proper precautions,
to another district.

The testing of exotic crops and trees, and the distribution
of seed, appear to receive a satisfactory amount of attention.
In this connection it may be pointed out that but few exotic parent
trees can be expected to prove superior to indigenous species, and
the experience of other countries supplies evidence that the best
results are to be expected from the careful survey and regulation
of existing forests.

Sir,

Your obedient Servant,

J. H. [Signature]
Secretary.

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SHEEP POX

The method of vaccination in virus is that sheep-pox consists in attempting to give the animals the disease in a mild form. In this way the disease may be passed through a whole flock in a comparatively short space of time, and the duration of the outbreak is cut short. In countries where sheep pox has been long established the indigenous sheep present a high degree of resistance, the disease is widespread, the effects of inoculation are slight, and the general application of the operation is indicated. In the South of Europe, however, where sheep pox has been imported from North Africa its ravages are more serious. The death rate is reckoned at 60% and the disease will almost certainly go through the whole flock. The results of inoculation are also more serious, but they are less so than in the case of the disease naturally acquired - 1.5 to 10 & 20 per cent of loss from inoculation in new herds.

The operation should only be performed on infected flocks and those in immediate contact as it creates great centres of infection. Most administrations in fact reserve to themselves the right to say in what cases it may be performed.

The virus is prepared in quantity by the method of Soulie. A sheep is shorn and shaved over the chest and flanks, and the skin is disinfected. Virus is inoculated into the skin at several points with a syringe. Large pustules form at the sites of inoculation, and virus is collected from these about the twelfth day. It can be kept active in sealed glass pipettes in a dark cool place for about three months. For use it is diluted in ten times its volume of a 2% solution of boracic acid. It is inoculated with a lancet into a scarification made with all anti-septic precautions at the tip of the ear or tail. No more than one scarification should be in any case.

The

The death rate from inoculation is highest among
lands under four months of treatment. The effects of the
operation last about eight to ten days and the immunity derived there-
from may be expected to persist a year or more. 119

The reactions attributable to inoculation are severe
systemic disturbances accompanied by a generalised eruption which
may end in death, or a long and tedious convalescence. Recently
there has been introduced a serum method by which he claims the reactions
are reduced to a negligible quantity. The serum is prepared by
injecting recovered sheep with large quantities of virus. In
the immunising process the virus is inoculated as usual at the
ear or tail, and 10-15 cc. of the serum are injected under the
skin.

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DRAFT.



22nd July 1905

The Secretary
Bd of Agriculture

Sir.

Ma

MINUTE.

- Mr. Scoffham 18/4
- Mr. Head 19/4
- Mr. Antrobus.
- Mr. Cox.
- Mr. Lucas.
- Mr. Graham.
- Sir M. Ommamney.
- The Duke of Marlborough.
- Mr. Lytton.

I am ~~to~~ directed by Mr Secretary to
acknowledge the receipt
of your letter & enclosures
of the 11th instants, ~~and~~
~~the report on the farms~~
~~in the East of Africa~~
request you to convey his
and to thank you for
the information
contained

to the Board of
Agriculture & Fisheries
for the valuable
observations which they
have been good enough
to offer in the reports on
the 50 farms in the
East Africa Protectorate.
I am, Sir,
Yours faithfully,
R. L. ...

I am
R. L. ...