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REC 3 MAR 20

417

C. A. G.
CWRING 206

1920
28th FEBRUARY

FLAX INDUSTRY

Last previous Paper.
~~10225/19~~
10225/19

The copy letter and enclosure from Director of Agriculture respecting delay in supplying and the inferior quality of seed sent by Flax Control Board. Industry has received severe set-back and planters have suffered financial loss. Requests matter be taken up with view to a refund as suggested by the Director.

Mr. King
Mr. Catt

Any others? Description for seed
Please send copy and for a refund,
but have we any chance of getting it?

LES. 3/12/20

The miller of the seed should have already been put
to the test. It is a matter of the fact is
Mr. Waggles with I do not know what the result
was. It is a matter of fact that the seed
was inferior & it would have been wise to have
insisted on a guarantee that the seed of the
177 1/2 tons shipped as given a 100% of E.A.P. It seems
clear that the batch seed was not worth \$11.5/- per bag
I think a copy of the despatch & enclosure might also

Copy of Flax Control No. 1920
18894
P. 10
of
21/60
V
1920. 5 June

Next subsequent Paper.
BT
18894

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REC'D
MAR 20

AFRICA PROTECTORATE
No 205

GOVERNMENT HOUSE,
NAIROBI,
BRITISH EAST AFRICA

28th February, 1920.

418

My Lord,

I have the honour to refer to my telegram No. 598 of 3rd May 1918, and to subsequent correspondence on the subject of the flax industry in this Protectorate, and to transmit to Your Lordship a copy of a letter and enclosures from the Director of Agriculture with reference to the supply of flax seed to this Government by the Flax Control Board.

2. From this correspondence Your Lordship will observe that the industry has received a severe set-back in its infancy, and that planters have suffered financial loss in this connection.

3. I should be grateful, therefore, if Your Lordship would take this matter up with the Flax Control Board, and press for a refund on the lines suggested by the Director of Agriculture.

I have the honour to be,
Your Lordship's
dumbly obedient servant,



ACTING GOVERNOR.

THE RIGHT HONOURABLE

VISCOUNT MILNER, P.C., G.C.B., G.C.M.G., &c. &c.

SECRETARY OF STATE FOR THE COLONIES,

DOWNING STREET,

LONDON, S.W.

2. 20
encls.

1875

419
C O
16775
MAR 20

No. 27640 Vol. II.

16th February 1920.

The Hon. Ag. Chief Secretary.

Re: Flax Seed supplied by the Flax Control Board in 1918.

Ref. your No. S 16692/30 of 14.5.18
and subsequent correspondence.

In the early part of the year 1918 representations were received from the Home Authorities that it was important that the production of Flax in this Protectorate should be increased. In response the reply quoted above was sent stating that the additional acreage could be put under flax if seed could be supplied from Home.

2. At the end of July a cable was received stating that 200 tons seed would be sent. A considerable delay ensued but on 14. 9.18 we were informed by your office that 95 tons had been shipped and the remainder would be sent as soon as possible but on 21st September 1918 we were informed that only 82½ tons had been shipped and the total amount would be 179½ tons.

3. Representations had been made that in order to encourage the industry the issue of the seed should be free, but on 6th November we were informed that this could not be considered.

4. A considerable delay ensued (entailing much correspondence) before we were informed of the cost of the seed but on 31st December 1918 approximate cost of 179 $\frac{7}{12}$

tons

No. 21/6470 Vol. II.

16th February 1920.

The Hon. Ag. Chief Secretary.

Re: Flax Seed supplied by the Flax Control Board in 1918.Ref. your No. S 16692/30 of 14.5.18
and subsequent correspondence.

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tons

Instructor had previously in April been asked to carry out a series of tests when a considerable balance of seed was still on hand, copies of two reports by the Mycologist please find attached; as stated in that of 4. 2. 20 the test by the Flax Instructor was unfortunately washed away by rain. In consequence of these tests the Department advised much thicker sowings than usual.

9. From the nature of the complaints received from responsible and highly respected settlers and firms coupled with the reports by the Mycologist, the matter was considered most serious and further investigations showed that neither lack of proper cultivation nor adverse climatic conditions were responsible for the poor germination which in certain instances compared most unfavourably with other seed sown under similar conditions.

10. Again, when the flax came into flower, certain planters reported a large quantity of white flowering inferior flax among the blue flowering, and this was found to be a fact.

11. Apart altogether from the cost of the seed the planters suffered the additional loss of failure of crop and a sum represented by the costs of cultivating the land and seeding the crop.

12. I have given the whole matter my earnest consideration and maintain that

- (a) It has been proved beyond doubt that a quantity of the seed supplied by the Flax Control Board was of poor germinating quality
- (b) That part of the seed was white flowering flax yielding a poor quality of fibre
- (c) That owing to these defects the resulting flax crop was light, coarse and uneven in quality.
- (d) That local planting conditions and cultivation cannot be held responsible for these defects.
- (e) That the whole Flax Industry of the country has received a severe set back by the issue of this seed and
- (f) That individual planters and firms have incurred heavy and unrecovered financial loss from sowing this seed.

I am of opinion that no liability rests with this Government, and that the Flax Growers have a sound claim for redress. In my judgment the Flax Control Board are responsible. There is evidence to show that the seed did not go wrong in transit and I can come to no other conclusion than that in addition to containing seed of an undesirable type much of the consignment was of bad germinating power before shipment. On this point it would be interesting to know whether germination tests of the seed were made and if so what is the record of them.

14. In addition to the claims made by individuals strong representations have been made on the subject from a representative organisation. It was explained that the matter had already been engaging my attention and the meeting was satisfied to leave it in my hands at this stage.

I have no hesitation in urging that an imperative request be conveyed to the Flax Control Board for a substantial refund on the cost of the seed, and in this connection I do not consider that it will be sufficient to consider only the prime cost of the seed. The original cost of the seed amounted to £23,561 and the cost delivered at Nairobi was £26,790. Unfortunately no records are available showing accurately the proportion of good and bad seed, but in my opinion the claims will not be fairly met unless a refund representing not less than 1/3 of the total cost of £26,790, viz, £8,930 is made.

15. Until it is known that a refund has been made I do not consider it advisable to invite all users of this seed to state their case. It will be understood that there are doubtless numbers of growers who have not made direct complaint to this Department. Care will have to be exercised and difficulties will be experienced in distributing the refund.

refund which is returned on the ground that in support of each claim sworn affidavits should be made supported by other documentary evidence that the seed was of inferior quality and that serious loss resulted.

If it should be found that the amount refunded is more than sufficient to meet accredited claims an undertaking might be given that the balance should be remitted to the Flax Control Board.

(Sd) Alex Holm.

Director of Agriculture.

201.

CO.	583
	230
<small> RECEIVED FILED FEBRUARY 1934 </small>	

Nairobi, 4.2.20.

Ref. year No. 27/64/116 dated 2nd Feb. 1920
Re: Flax Importation 1918-19.

A detailed account of the seed testing in the Laboratory will be found in my report to the Director, a copy of which I do not possess, but as far as I can remember two tests were carried out, the first on the arrival of the seed and at the request of Mr. Powell, the second some six months later at the instigation of Mr. Macdonald.

The first test was carried out in glass trays and consisted of 500 seeds of Canadian flax and 500 seeds of the Dutch variety brought into my Laboratory by Mr. Powell. The results were as follows, so far as I can remember: - 98% Canadian germinated in 6 days, 30% Dutch in the same time.

The second test was carried out both in glass trays and between wet blankets and involved a much larger number of seeds namely 10,000. The results were I believe 80 - 90% Canadian, and 0-70% Dutch. It was this test which indicated the mixed quality of the Dutch seed, for out of every bag tested a 100 seeds were taken, and in some cases germinated and in others not, as 70 did so.

A third test was next started at Kabeta with Mr. Johnson in the nursery but was washed away by rain. Finally the test detailed below was undertaken in May last at my Laboratory in boxes of Earth in the open. This concerns the Dutch seeds only as the Canadian has been by that time disposed of.

When this test was commenced there were in the flax store 20 bags of 140 lbs weight, and some 20 tons of 200 lbs bags. Ten samples from the smaller bags were taken, in all 200 seeds and from the 200 lb bags 18 samples were taken, each of a 100 seeds or 1800 seeds in all.

On 21st May these were sown in boxes of red soil outside the Laboratory and were watered every evening. The 200 seeds were sown in one box and the 1800 in another. On the 27th May 5 seedlings appeared, and counts were made at various dates as shown in the table below:-

Date	Days after sowing	Seeds	Germinated	Percentage
		21	21	100%
	7 days	100	100	100%
	14 days	200	180	90%
14/6/19		200	200	100%
		1800	1800	100%
26/6/19	36 days	200	200	100%
		1800	236	13%

From the above table it will be seen at once that (a) the seed in the smaller bags was superior in germinating power to that in the large sacks, and (b) the germinative value was very low.

The dark colour of the seed indicated that it was old and the

the further fact that after the 6th day of sowing only a seedlings had appeared proved that the seed was not normal. Fresh mature seed will be "up" to the extent of 90% by the 6th day.

In my previous tests made in the laboratory from a large number of seeds - larger because there were more bags in the stores to take samples from - the appearance of the Dutch seed was not uniform. A few bags contained light seed which seemed to be normal; but the majority was dark coloured and in the opinion of Mr. Simpson, the Instructor of Flax, who helped to take the samples was some years old. The germination tests confirmed these views for I obtained numbers ranging from no germination at all up to 70%.

The consignment of Dutch seed was evidently of very unequal quality, a little being fairly fresh, but most of it very old. The experience of some Settlers who sowed some of this seed further confirms the above, for on more than one occasion I was told of one bag of seed not coming up at all, while the next bag sown on the same fields produced about 60%.

Regarding the age of the seed I am aware that a few labels had been discovered in repacking the damaged bags which certified the seed as being the product of the 1917 crop. This fact I am inclined to question for the following reason, unless as is possible, the labels referred to those few bags which did contain seed of 60% germination.

In the ordinary way any bag of dutch seed bears a mark on the outside of the bag as well as a label inside with the seed, and these marks are well recognised as belonging to the firms of growers supplying the seed. These bags however only bore the marks of the Crown Agents on the outside; so that it is evident that for some reason the seed had been re-bagged before shipment to this country.

It has also been stated that the dutch seed may have been affected in some way by the action of the sea air in transit, so as to lessen its vitality, in which case beyond a doubt the seed was certainly older than the 1917 crop; for the Canadian seed which arrived at the same time and gave a very high percentage of germination had to travel a greater distance by sea.

I am at a loss to understand why the Crown Agents or whoever was responsible for the purchase of this particular seed did not have the same tested at any of the numerous government seed testing stations, a proceeding which the same Government strenuously urged every farmer in the United Kingdom to do.

In addition to this the seed should not have been sent out to East Africa without a certificate of its purity and its germinative value.

W. C. Dawson.

Agrologist.

5th May 1929.

The Hon. Director of Agriculture,
Karnal.

Germination test of Dutch Flax Seed. 426

With reference to the germination of Dutch Flax seed which you requested me to ascertain as accurately as possible. I beg to submit the following report:-

In the flax store at the time I took samples, there were approximately 600 bags of Dutch seed. The exact number could not be ascertained owing to the fact that the bags were piled up in such large heaps that the under-lying bags could not be counted.

From 100 bags chosen at random from all available parts of the heaps, samples were extracted, and from each of these 100 seeds were carefully counted out, making a total of 10,000 seeds to be tested.

The method of testing was as follows:-

As no proper seed testing apparatus was available it was necessary to set up a substitute.

Groups of 100 seeds each were placed under such conditions of moisture as to bring about germination. (1) Some were placed in glass dishes on damp filter paper and covered over with glass. (2) Some were put between the folds of wet blankets and (3) others were put on the top of a wet blanket but covered by an inverted glass dish.

On the 4th day after sowing the seeds which had germinated were taken out of the vessels and carefully counted. The remaining seeds were damp and covered up again. On the 12th day had elapsed a second count was made in the same manner.

Of these three methods No. 1 was the best. In No. 2 the seeds were covered with water which was probably the cause of the bacterial rot. In No. 3 the seeds were covered with water and bacteria thus materially preventing any further germination. This would not have affected the result in the case of normal seeds which germinate within 24 hours, but most of these took 4 days.

In all, three counts were made after which (12 days from sowing) no more seeds germinated.

The following is a detailed account of the treatment of the

10,000 seeds:-

C.O. 522/231

15 000 seeds.

1. Out of 1500 seeds placed between the folds of a wet blanket upon the 25th April, counted three times, the final count being on the 5th May (i. e. after 12 days) 721 germinated i. e. 40%.

2. Out of 2100 seeds under identically similar conditions 854 germinated i. e. 40%.

3. Out of 800 seeds in lots of 100 placed upon the top of a wet blanket and covered by a small glass dish 409 germinated i. e. 51%. In this case the highest individual number in the 8 lots was 75 and the lowest 31.

4. Out of 6100 seeds placed in glass dishes on moist filter paper and covered with glass 1085 germinated i. e. 20%.

The last experiment (IV) should be discarded as being too low on account of the presence of bacteria and moulds; but at the same time it should be borne in mind that under similar conditions the American Flax germinated in 48 hours and gave 90%.

From these tests I am of the opinion that the actual germinative value of the Dutch Flax is somewhere between 40 and 50% on the acreage.

This figure is very low for high class seed and is possibly due to the fact that this particular seed was not quite ripe when gathered.

It may be also due to its age, and as the American seed had further to travel than the Dutch variety this would indicate that the latter was old seed to start with. Great stress cannot be laid on this however, as we do not know to what degree the germination power of flax seed diminishes with keeping.

In my opinion a germination test of both varieties should have been made before sending the seed to this country, and in future it would be desirable that all such consignments should be accompanied by a certificate of purity and germinative power.

This could be checked on arrival in this country, and with these figures available the Department would know exactly what sort of seed it was dealing with.

I am etc

(Sd) W. J. Dowson.
Mycologist.

and steps will be taken to
be furnished with any
about in the matter which
to British Empire Glass Growing
Committee which wish to

DRAFT.

The Secretary
New Zealand Board

8 April 1920

MINUTE.

- Mr. Secretary
- Mr. Brattin
- Mr. Grindle
- Sir H. Lambert
- Sir H. Ross
- Mr. G. Fisher
- Mr. G. Fisher
- Mr. G. Fisher

but ref to your letter to
124/3/1310 of the 7th Jan 1919
your survey comes regarding
the necessity of seed
to be sent to the
to be collected before
to New Zealand Board, the
and copy of a report with
enclosures from the Dept
with regard to the investigation
and action of the seed supply
2. Land owners trusts that
in the case the New

105-
for London
5/6

