233
DESPATCH.

(Subject.)

Alexandria Cotton Farm

To report by this Branch and covering desp. by Director of Agriculture, Results obtained are distinctly satisfactory.

(Minutes.)

Mr Read

Copy & encl. to B.C.G.A. in Ty for info

HAB
Aug 1

+ when desp: & enc: have been printed, send copy to the Imperial Institute, + Kew. L.T.S.

at once.
H.J.R.

C. O.
26068

Commissioner's Office,

Mombasa,

June 27th 1905.

EAST AFRICA PROTECTORATE.

No. 363

Sir,

I have the honour to transmit herewith a copy of a report on the Malindi Cotton farm by Mr. Grand together with a covering despatch by the Director of Agriculture.

2. The results attained are distinctly satisfactory and tend to show that cotton growing can be successfully undertaken at the Coast.

I have the honour to be,

Sir,

Your most obedient,

humble servant,

C. Eliot

The Principal Secretary of State

for the Colonies,

Downing Street,

LONDON.

No. 27 /05.

Agricultural & Forestry Department,

Nairobi,

June 23rd, 1905.

Sir,

I have the honour to forward Mr Brund's Report on the Malindi Cotton Farm.

On account of the late start which was made at the farm and the land only being roughly brought into cultivation the crops had scarcely a fair chance, luckily the rainfall last year was abundant and late, and this did much to make late crops a success.

Mr Brund had to attend to cotton planting in both the Yanga and Lamu districts and consequently natives were frequently left in charge of the farm. For this reason the figures obtained as to cost of cultivation etc. are meagre, and for the same reason the cotton was somewhat mixed, the natives in charge having filled up Egyptian cotton with Sea Island Seed.

Notwithstanding all the difficulties of a first seasons crop the results are very satisfactory. It must however be borne in mind that the season was a favourable one, and that in subsequent years better or worse crops may be expected. This year the rain stopped at least a month earlier than usual.

The soil on which the various areas of cotton were sown varied very much in texture and quality, and the largest crop was got from the heaviest, richest soil. This up to January 1st yielded 1406 lbs. per acre, the crop at this date was destroyed to clean the land and prepare for the present season. The crops on lighter soils did not do so

Deputy Commissioner,

Nairobi.

Report on MALINDI Cotton Farm. 1905.

The results of one years experiments upon cotton growing are sufficiently decisive to elicit the conclusions summarized at the end of this report.

By comparing the data generalized in Tables [illegible] of cotton, rainfall and weights of crops, the fact must be held to the following propositions:

(a) That [illegible]

(b) That no experience of the troubles and difficulties in carrying out such work with the ordinary native was [illegible] as there was no Settlers farm.

(c) That the season has somewhat remarkable as regards amount and continuance of rainfall as [illegible] as following the failure of the short rains in 1904.

That [illegible] a most satisfactorily timely and [illegible] more copious than was hoped for in [illegible] improved [illegible] reports is the more gratifying on account of the foregoing.

It is not too much to expect that this will result in [illegible] influx of White Settlers during the coming years, in addition to the cultivation of improved cotton. Further the natives who have hitherto produced a quality of fibre only saleable

saleable on the Indian market are now growing the long stapled cotton. It may be added that in at least two instances Settlers have already followed the lead of the Government cotton farm; while in both Malindi and Vanga districts, in neither of which was cotton grown for market previously by natives, many applications are being received for seed. It is in these two districts that experiments have been in progress during the past season.

TABLE No. I.

Soils. Description of.	Variety of Cotton.	Date of Sowing.
Sandy, free working red loam.	Egyptian.	May 22nd to 31
Mixed red less free working.	Egyptian & Sea Island. Small yield.	May 30th. re-sown June 10th to 30th.
Sandy, do. few feet lower.	Egyptian only.	June 12th to 30.
Riverside loam few inches of sand.	Do.	July 2 to 10
Do.	Sea Island.	July 10 to 12

TABLE No. 2.

Rainfall Previous Rains.	Rainfall During Rains.	Plot No.	First Seasons Crop. Oct 1905 to 1st Jan 06.	Second Seasons Crop. 1st Jan to 31st March	Total crop per acre.
4.64	Oct. 7.84	1	655 lbs.	822 lbs.	1537 lbs.
17.54	Nov. 5.78	2	444½ lbs.	444 lbs.	888½ lbs.
12.36	Dec. 4.69	3	799½ lbs.	569 lbs.	1368½ lbs.
6.80	Jan. 0.25	4	1406 lbs.	Cotton removed after first season.	
1.00	Feb. Nil.	5	555 lbs.	Do.	
36.34	18.10				

Work

Work was commenced in heavy rain about the middle of May. It was found impossible to work the low land at first in its sodden condition. The first shamba therefore was made upon a band of light, free working red soil and continued on progressively lower and heavier soils until the bottom lands of Plots 4 & 5 were reached on the banks of a small river at the base of the red hills.

Circumstances of labour supply etc., necessitated the work of sowing being carried on at irregular intervals as clearance and cultivation allowed; most of the land being absolute bush of at least four to six years growth.

Plot No.2 was made to include the later sowings on the lower part of Shamba No.1 soil being similar to No.2 and no account is taken of the difference in yield on this plot of the two varieties of cotton it contained.

In addition part of Plot No.5 was marked off in rows at a measured distance of 4 feet apart, the remainder of the crop all being sown at a regular distance of three native foot lengths, roughly 30 inches, with the object of allowing the natives to become accustomed to an easy way of setting out their own fields.

Owing to heavy rain no burning was possible, the method followed being to cut and cart off the bush and coarser grass,

grass, which results in a considerable loss to the soil. Had burning been possible the crop would no doubt have been larger the soil being enriched by the ashes of the [illegible] supporting.

The soil was turned over as deeply as possible with a single hoeing leaving a trench between the burned and the unturned soil.

An attempt was made to ridge a part, but the heavy rain quickly washing the ridges away the remainder, with the exception of a small part of Plot No.5 where water collected, was flat on the first. The seeds were dropped two or three together into shallow holes dibbled with a short stick at 1 foot apart in the rows.

Plants on Plot No.2 failed, probably on account of some of the seed having become wetted with salt water when landing at Suliadi. It was however sown successfully on the dates mentioned in Table No.1.

The remainder of the plants invariably showed above ground four days after planting and owing to the careless[illegible] of the native planters four, six and in some cases [illegible] plants were left. A great many of these however appeared later, after thinning had been carried out; and the after [illegible] having to be left to native supervision, a great deal

of

of the crop remained too thick.

Hoeing was continuous until well on in ~~August~~ September, the continuance of small showers bringing up crop after crop of weeds the worst of these being a species of sedge, well known to the natives as "Kyasa", which flourishes persistently in damp places and especially [illegible]

A red blister caterpillar attacked the plant when about 1 foot high giving the leaves a very patchy appearance but not appreciably delaying the growth of the plant which grew through it. More serious damage might have occurred, had not immediate steps been taken to prevent it. Even a leaf eating caterpillar, (*Prodenia surgunicalis*), but the attacked plants were immediately pulled up and destroyed.

The second crop cotton and to some extent the latter picking of the first crop have considerably strained by ~~the~~ *a Dysdercus species*

The most evident point observable in the Table of produce is the comparatively heavy yield of Plot No. 1 from Egyptian cotton sown on low heavy land. This is no doubt the result of the ~~excessive~~ retentive nature of the riverside soil allowing the plant sufficient moisture to maintain its increase in spite of very late sowing. It is sufficiently obvious from the results of this and of Plot No. 2 which was late sown on upland

upland not sufficiently retentive soil, that sowing must be carried out early to be successful on the light upland soils.

It should be mentioned that the results were much more obvious in the appearance of the crop than appears from the weighed results owing to the fact that rains occurring in early October enabled the late sown plants to partially recover their lost ground. Those who visited the experimental farm in August and September were convinced that whereas the early sowings would be entirely successful, those of July would be partially or wholly a failure.

Thus we have clear indications firstly that it is of great importance to plant early so that the full benefit of the rains may be secured. Secondly later sowing is more likely to succeed if confined to retentive soils or the nature of riverside alluvium.

A point of even greater importance in favour of early sowing is that of early harvesting. It was found that exactly five months elapsed in the case of the earlier plantings from sowing to first picking. Thus only in the case of plants sown before June can picking be started in October and it may be expected to have to suffer from the smaller rains at the end of March, as we are attempting this year, it may be confidently expected that picking will commence in September.

The plant begins to throw out new flowering shoots immediately after the smaller rains, the new bolls ripening in February. As a great deal of damage to sample was caused by the brittle remains of the old bolls getting into the new pickings, through carelessness on the part of the native pickers it would appear advisable to cut away the old shoots after the picking of the first crop.

No difference in produce was found to result from planting at the wider distance between rows. The plot so marked off yielding exactly the same weight per acre as the remainder of the field in which it was sown. Some difficulty was experienced however by the pickers of the second crop in passing with their baskets, the plants having thrown forth numerous side shoots.

Loss undoubtedly occurred through the plants being too close together in the row and on the whole it would appear more advisable to sow the rows about 3' apart with single plants nearer 2' than 1' apart in the row.

Summarizing the results we have conclusive evidence of the following facts viz:-

1. That long staple cotton can be successfully grown and harvested upon the Coast districts if sown early in the season of the greater rains.

That

2. That at all events South of Latitude 5° South it may be grown upon retentive to almost light soils without irrigation in years of ordinary rainfall.

3. That while greater crops may be expected from heavier soils, light free working soils will also produce big crops if sowing is performed sufficiently early.

4. That crops sown in March, April and May will produce ripe cotton in September, October and November with a second harvest in February and March if the earlier rains of September and December do not fail.

(Signed) T. Bram.