

THE MASON REPORT 1921

Your Excellency,

I have the honour to enclose a report on the agriculture of the Island of St. Helena and in this connection the following observations and recommendations for the improvement of the farming conditions are respectfully submitted:

1. In any consideration of the farming possibilities of the Colony it is important that a true perspective of the area available for such purpose should be obtained. From the 30,300 acres of which the Island consists, barren pastures and Crown waste account for 22,016 and forests and trees absorb 558 leaving only 7,726 acres available for farming. Of this 7,726 acres over 1,000 acres have been planted to flax and a considerable deduction still falls to be made for land which is in private hands but which is of little value even as grazing. Not more than 500 acres under present methods of farming can be considered arable though with a real necessity and an intensive system of farming this could at least be doubled. It is thus evident that we are dealing with a very small proportion and any statements must not be taken as applying to large possibilities but to small propositions on which detail management is of prime importance and for which the land available is strictly limited.

2. At the outset of an enquiry one is met with the peculiar conditions that despite a population of over 3,600 souls living in a land with not more than 300 acres under cultivation the farming community is more concerned with the export of its produce than with the feeding of its own people. This is accounted for by the fact that the inhabitants are poor and unable to pay the same price for foodstuffs as the passing ships, or the people of Ascension are willing to give, and also because they prefer - either from choice or necessity - imported articles such as flour, rice, samp and sugar to the almost total exclusion from their dietary of what is home produced. This living on imported foods was no doubt economical when rice could be had at 11d per pound and other articles were correspondingly cheap, but now that it has reached 61d and bread is 5d per pound, the town dweller finds it almost an impossibility to make ends meet, and to some extent finds it necessary to adjust his menu in favour of such articles as beans, sweet potatoes and potatoes. The following rations obtained from working men in Jamestown will illustrate the point:

a) weekly wage 18/- family of 4 (balance met by mother and sister at laundry work)

Bread	221 lbs.	9	41
Sugar	4 "	3	6
Tea	1 "	1	0
Rice	1 "	6	1
Flour	1 "	6	1
Salt etc		6	
Tobacco		9	
Benefit society sub.		9	

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b) man and wife - wage 18/- per week (wife does needle work to meet balance)

Bread	161 lbs.	6	101
Sugar	4 "	3	6
Flour	4 "	2	2
Rice	2 "	1	11
Samp	2 "	8	
Tea	1 "	1	0
Grease	1 "	2	0
Margarine	1 "	1	0
Salt, candles etc		1	0

Fish	2	6
Wood	1	0
Rent	2	6
Benefit society sub.	1	0

	L1	6 4

c) man with wife and 7 children (wage 15/- per week, wife works at laundry for balance)

Bread	161 lbs.	6	7
Sugar	3 "	2	71
Rice	7 "	3	91
Bush tea	1 "		6
Grease	1 "	2	0
Salt, candles etc		1	0
Wood		1	6
Rent		2	0
Benefit society sub.			6

	L1	1	0

Of the three cases cited not a single article of food is the produce of the soil of St. Helena. Under such circumstances it is conceivable that at times there may actually be over production and it becomes clear why one of the chief reasons given for not raising more foodstuffs is the fear of a glut in the market. We find on the one hand a problem in which prices of agricultural produce are high yet much land remains uncultivated or inefficiently worked, whilst on the other hand we have a very high percentage of the people willing to work for a small wage but who are actually unemployed and in a state of semi-starvation, in the presence of a soil and climate favourable for production.

3. The population is composed of about 1/10th white and the balance are coloured. Of the inhabitants Melliss writing in 1875 said "The early history of the St. Helenians was that of slavery and as might be expected they possess few of the qualifications which are absolutely necessary to commend success in settlers. They respect and look up to the European but consider themselves as occupying a much higher step on the ladder of social position than the African. They are a quiet, tractable, inoffensive people amongst whom crime is small". This description appears to be correct today as it was when written nearly fifty years ago, and in dealing with such a race it is vitally important in anything which the Government may inaugurate for their benefit to remember that self-reliance and initiative are - with a few exceptions - to a great degree lacking. One instance I saw of a man in possession of 22 acres of some of the best land in the Island who was working on the Government roads at 2/3 per day whilst his property was largely uncultivated and overrun with weeds. His outlook was that his crops might fail or there might be no market for anything he produced, whereas his 2/3 was sure. The majority of people if left to themselves would not make successful settlers and any movement for settling them on the land would need to remain for many years under supervision and control.

4. There are two methods of increasing production. One is to take more lands into cultivation and the other is to put more care and labour into the land in use. There is ample room for both the extension of cultivation and for a more intensive system of farming. Areas, which were formerly arable have been allowed to go for grazing and if these were again broken up the food supply could be increased. There are also lands, which if cleared of bush and shrub could be turned to good account. In this respect the area producing crops might be doubled. Further the system of agriculture is capable of improvement. Implements are mostly antiquated and worn out, ploughing is shallow and no attempt is made to increase the feeding areas of the plant, the manner of cultivation for the preservation of moisture is not understood, artificial manures, with the exception of guano by one or two farmers, is not applied and there is a general lack of attention to detail work. When it is considered that there is land well adapted for cultivation, with a rainfall of 40" or more during the year, and that two crops may be annually taken from the same ground it can only be concluded that the value and possibilities of such land are not fully realised. As I shall attempt to show, in the review of the agricultural resources of the Island, improvement is not only possible, but would, if business considerations had their proper weight, be soon attained. The position is complicated by the condition of land ownership and occupation; 73% of the useful land being in the possession of four owners, whilst two of these are in occupation of no less than 57.7%. The largest owner has in his hands thirty separate agricultural holdings. Formerly, each of these, presumably, supported a family and helped to increase the food supplies, but they are now managed as one concern. Many

of the houses have been allowed to go to ruin or to get into a bad state of repair; fences have done away with and a considerable area of land which has at one time or other been cultivated is being used as pasturage or has been planted to flax. Another land proprietor owning approximately 800 acres in fifteen separate portions is stated to employ on his farm only 7 men in regular work. That this process of land monopoly - for so it is in effect if not in intention - still in progress is shown by the records, which disclose that no less than ten out of the thirty holdings above referred to have been acquired since 1911. With the exception of Longwood - leased from the Government - the country is not adapted for farming on an extensive scale except it be as a grazing ground. The arable land is too scattered and in too small patches to admit of economical working under a single management. It is a country for the smallholder who is prepared to labour in his own plot and whose wages would form a portion of the return which he expects from his land.

5. Included in the useful land of the Island is 1,950 acres - approximately 25% of the whole - still in the possession of the Crown. This is given out upon short leases, which are subject to cancellation, by giving out six months notice. The fact of the Government retaining the ownership of this land does not lead to its being used to the best advantage. With the exception of Longwood and a small area in Mulberry Gut and Little Deadwood these lands are left in pasturage and, as there can be no incentive to a tenant to improve under a short lease, this quarter of the available land cannot be expected to produce a maximum return. In former years a rental in the Colony would be commuted into a cash purchase but this practice has now lapsed. Unless there are sound reasons for the retention of this land - other than agricultural - I am of the opinion that it would, under private ownership, be made to yield much more than it is at present doing and the advisability of splitting it up into suitable portions might be considered. It does not appear that public tenders are at any time called for but that the leases are renewed periodically as a matter of form. Some of the rents appear small but the probability is that for the larger areas there would be no competition as there are very few people on this Island who could command the necessary capital or stock with which to work them.

6. The labour supply is more than ample; in fact there is a large number of the working population in a more or less constant state of unemployment - either looking for casual labour or charity. There is at all times more labour offering than can be absorbed with the result that wages when judged by what they actually purchase, are so low as to scarcely provide a living ration. It is argued by those pay low wages that it is better to pay two men 2/- a day than one man 4/-, and under the prevailing conditions there is reason in the contention. The most evident fact in connection with the labour supply is that the Government is faced with the alternative of an exportation of a proportion of the population or with the necessity of seeing that employment is provided. There need be no fear then that in any attempt to increase production that labour will be scarce. On the other hand agriculture stands in need of every encouragement so as to absorb as large a number of these people as is consistent under the prevailing conditions.

7. The capital employed in agricultural pursuits - exclusive of the value of lands - is far too small and at a rough estimate I should say, on the average, not more than L2.10s per acre. Land has been bought in many instances and heavily mortgaged when there was little or no surplus capital with which to work it. It is useless to expect a return from fixed capital unless it is supported by working capital and here in my view is one of the essential difficulties of the Island - most of the farmers would do more if they had the money to do it with, both in the way of planting flax and producing food. Such a position can only be met in one of two ways; either by the Government on well considered and secured loans or by the introduction of new private capital.

8. With few exceptions the management of the farms leaves something to be desired. A number of the occupiers of the farms over 100 acres are not primarily concerned with farming, but have other commercial or Government business to attend to; whilst the smallholder only gives his spare time to his garden and is always willing to accept work. The result is that the labour supply is badly organised and worse supervised. Though labour is cheap - from 2/- to 2/6 per day - in result it is in most cases very expensive, in fact some of the ordinary farming operations cost so much as to render any ultimate profit doubtful. In far too many cases a sovereign is being spent to make 19/- or less and as no attempt is made to calculate the cost of production, the farmer is probably under the impression that he is making a handsome profit. There is no co-operative effort of any description nor does the farmer view suggestions of this kind with favour. The founder of a Farmer's Advising Committee seems a step in the right direction and if the opinions of all sections can be ventilated it should work for the good of the people. The decision to hold an annual agricultural show is also an augury of progress and is calculated, if combination of effort is obtained, to have far reaching results.

9. From an agricultural point of view the need is not so much the introduction of new crops as encouragement of better methods of dealing with what is already grown, and, as a first step towards increasing production I recommend that an agricultural instructor should be appointed. His duties would involve a general supervision

of the agriculture of the Island. He could demonstrate the advantages of better methods of cultivation and give instructions upon them, and generally work for the improvement of agriculture. He could be stationed at Plantation, where there is ample room for demonstration plots and he should at all times be available to the public.

10. With 76% of the agricultural land in four hands, it is evident that if any great result is to accrue, the goodwill and assistance of these men will need to be obtained. In the first instance, with the exception of Longwood, the land is not suited to agriculture on a large scale. It is a country of steep hills and narrow valleys with a very limited amount of cultivable ground lying in pockets; transport movements between the various portions is difficult, and cannot be economically worked as a whole. Further I have come to the conclusion that the very best thing which could happen would be to find men with agricultural experience, energy and with capital drifting in; and if the Government could by any means bring such a state of affairs about they would go far to solve the problems which they have to face. Much of the success of such a scheme depends upon the attitude of the large owners though it must not be forgotten that the Government have in their possession a considerable acreage of ground, some of which could be used for this purpose. In my view the privately held properties would yield more to their owners under lease to good tenants than they are at present doing, and in their own interests they should be willing to assist. If possible any lease should include an option of purchase so as to give justification for and stimulus to improvement. This would not be absolutely essential as the lessees would no doubt be able at a later date to pick up other properties as they came into the market. That many of these properties are suitable for this purpose cannot be doubted and an immigrant with from L1,000 to L2,500 would have every chance of success. The fact that land is still cheap and labour plentiful, that there is little taxation and that there are good possibilities to the man who will take them, should be sufficient inducement. No difficulty should be experienced in obtaining such men from England - who, for preference, should be married - and I suggest that the Dominion Overseas Committee might be willing to assist in the selection and rewarding of men as they could be placed.

11. The St. Helenian, as the local inhabitant, also requires consideration and may justly be said to have certain claims on the land. It has frequently been brought to my notice that there is a distinct unfilled demand for smallholdings from these people, and I am convinced that any provision of this nature, which might be made, would be readily taken advantage of. I suggest that to meet this want and to test its utility that Mulberry Gut and Little Deadwood should be taken over. This would give acreage of 87 acres which could be divided up into approximately 20 plots - One acre suitable for the production of foodstuffs and 3 acres (1 acre to be planted annually) for the growth of flax. The conditions for success are all present - there is the flax Mill adjoining which will require labour, there is a water supply, there is land suitable for cultivation and for flax and if pasturage was required a portion of Great Deadwood could be taken in as a communal grazing. It would be necessary to build small cottages on each plot, as the tenants must live on the holding; but these need not be expensive. The conditions of tenure would need to be carefully drawn up and to be strictly adhered to. The leases would be annual and a condition of renewal would be that full use was being made of the ground - an advantage of this - to which I shall refer later - is that an additional 60 acres of flax would be obtained, which could be secured for the Government, in the vicinity of the Mill, and grown under the supervision of the Mill Manager. The cost would not exceed L2,500 and it should not be difficult to secure a rent which would give good interest on the money invested, together with more than is at present being obtained for the land. The funds could legitimately be provided from the accrued profit of the flax mill. If this scheme proved successful - as under good management it undoubtedly would - a further extension of Government land on these lines should be contemplated. The labour demand of the Island is always erratic and under such a scheme the labourer, when out of employment, would be able to occupy his time to advantage.

12. There is little use in making any effort to increase the agricultural output of the Island unless it is sure that a market can be found for what is produced. With the exception of the flax the only export which takes place is of a certain amount of foodstuffs to Ascension and to calling steamers - neither of these are of any great dimensions, but they appear to be important on account of the high prices which are obtained. The trade with shipping is most irregular and is really negligible, whilst about L1,000 worth of food stuffs appear to be sent annually to Ascension. The outstanding fact in connection with the market is that, if the people of the Island lived on home production, they would be able to consume more than could possibly be produced, so here is the natural market at the door of the farmer. The question is how to bring about what seems to be obvious. In the first instance the people must be educated to induce them to look more favourably on local produce, and, if necessary, a certain amount of compulsion might be exercised through taxation of imports. Simultaneously, the farmer must alter his point of view when he will see that it is better for him to have a regular home market at a moderate profit, rather than an erratic one at exorbitant prices. These high prices are one cause of the St. Helenian looking askance at local produce. With such a market at the farmer's door it is only necessary to make

sure that the consumer is able to consume - he must have the wherewithal to purchase these supplies when produced and this can only be brought about by the regular and continuous employment of the population. To this end additional attention to the land will in itself provide more work. Flax can be extended where it does not entrench on land not suitable for other purposes, which in its turn will provide more work, at the mills. The fibre when produced could be worked up into ropes, binder twine, brushes, fishing nets or whatever it was considered most profitable to devote attention to. The lace industry can be made to assume a much more important position than it at present does whilst fisheries are surely capable of lending a hand.

13. Acting Governor Dixon in his annual report for 1918 wrote "It is much to be regretted that two or three owners of land on the ridges commenced considerable clearing of the indigenous ferns and vegetation growing there in order to plant flax. Setting aside the interest from a botanical point of view of this vegetation its great importance due to its effect on the rainfall and water supply of the Island should never be overlooked and great stress was laid on it by Sir D. Morris in a report made by him in 1884. The condition which the Island, its crops and its population would be in with a much reduced rainfall needs no explanation and it is to be hoped that no more clearing on the ridge lands will be carried out." In spite of this warning the clearing of the highest peaks still continues and it is a matter, which merits the serious attention of the Government. All rain which the Island receives is by means of the southeast trades which were it not for condensation on these high ridges would largely blow over without any deposit. The vegetation on them which, under ordinary conditions, is very dense, is a vital factor in causing both rain and fog and if means are not found to stop the clearing in process, and to bring the hills back to their original condition, the springs are likely to be reduced and the rainfall lessened, both of which would have serious results.

14. Whilst it would be unreasonable to expect the Government to support a fully equipped experimental farm in the Island much good could be done by the purchase of stud animals which could be kept at Plantation and placed at the disposal of the farmer for the service of their females at a reasonable fee. In this respect a donkey jack, a good pure bred dairy bull and a couple of boars suggest themselves. They could further set themselves to test new varieties of farm crop, and if these were found suitable seed could be distributed and their growth advocated. The agricultural instructor, whom I have recommended, could supervise the whole of such work and no very great outlay would be involved.

15. Flax industry: Flax is the one industry in the Island which provides an export of any importance. It may be said that the people are today largely dependent upon the returns which it brings. The war with its enormously inflated prices gave a stimulus to flax planting. It has been established in suitable and unsuitable places and many of the latter when prices become normal are likely to go out of cultivation. On the other hand these high prices have led to the planting of ground which under normal conditions would yield a much better return if devoted to the production of ordinary agricultural crops. The exceptionally favourable conditions of 1917 and 1918 led to the wholesale harvesting of short and immature leaves and in consequence a shortage of supply was only to be anticipated in the immediately succeeding years. In the Governor's report for 1919 we read "Prospects are however better for next year when there should be an abundance of mature leaves to keep the mill running throughout the year". This anticipation has not been realised and now in 1921 the position is rather accentuated than improved due to the desire of the millers to keep their mills in regular employment, and one finds flax as young as one year and six months being cut whereas before the war nothing less than three years old was reckoned suitable for milling, and in New Zealand it is considered that 4-5 years is the correct age to cut. For the good of the industry a slowing down is necessary at the mills until a normal position can again be brought about, but unfortunately this cannot be done without still further adding to unemployment and distress and interfering with the stability of the smaller growers. The Government does not appear to be in possession of any reports on the quality and condition of the fibre on its arrival in London. These should be obtained regularly in regard to all shipments whether by Government or by private firms so that the effects of the milling of young leaves can be carefully watched. The New Zealand Government, owing to complaints with regard to the lack of uniformity of its hemp passed an Act in 1901 providing for the establishment of a grading station or the compulsory grading of all hemp exported - as a result the quality of the fibre rapidly improved and the confidence of the buyers was secured. This compulsory grading has been extended to tow. I strongly recommend similar action by the authorities in St. Helena as this is the only way to protect and maintain the markets which have been established. The system employed in grading for shipment consists in giving points according to the following scale: stripping 25, colour 25, scutching 25, strength 25 - total 100. The highest grade "superior" must score 90 points or over, "fine" 80-90, "good fair" 70-80, "fair" 60-69, "common" 50-59 and "rejected" under 50. All flax is paid for on the basis of 5% per ton on the selling price of fibre on the London market and no distinction in price is made as regards the age or length of the leaves. It will considerably help in the effort to get back to normal conditions if fully matured flax could be paid for at a higher rate than inferior leaves.

16. The Government flax mill was started in 1908 by a grant from the Imperial Government of £4,070 of which L500 was given as free gift to growers to encourage planting. It is entirely due to this policy that the industry is in existence, but the position of the mill is not today altogether a satisfactory one. Three other mills have been started by private firms, who are themselves the largest growers. These private mills are thus to a great extent independent of outside supplies and in addition they have succeeded in obtaining a share of the other crops. The Government has lost these sources of supply and is unable to obtain sufficient flax to keep the mill regularly employed. In 1919 the mill was only able to work on 74 days and in 1920 on 178 days. As the cost of production largely depends upon a regular supply of leaves and the working of full hours any further fall in price is likely to render the operations unprofitable. Now the private firms are unable to handle the output, the continuance of the mill by the Government lays them open to the charge of competing against the public. This charge is well founded and under ordinary circumstances it would seem that its period of usefulness had been served. However St. Helena is not in any sense an ordinary business community, and monopoly is very easy, and as the Government has been responsible for the starting and encouragement of the industry they are called upon to give protection to the farmers who have embarked upon the business. If the Government mill ceased work prices paid for flax would immediately fall until with the expensive transport involved the grower might find the business unproductive. Such a result may appear doubtful, but it is a fairly general opinion amongst the growers that such would be the consequences. Under the circumstances the Government should take stock of its position. It should obtain a reliable estimate of what is already annually in sight and should then proceed to entrench itself by planting on its own land sufficient flax to ensure the regular working of the plant. This might be achieved either by the Government undertaking the work on its own or by assisting growers on the small holding plan which I have previously outlined. In the latter case it would need to be a condition of such assistance that the crop should be delivered to the Government mill. The manufacture of rope from the locally produced flax has recently been started by a private firm. The success of such a venture should mean much for the Island and should be fostered. Binder twine and other articles might also be produced and the possibilities of their manufacture should be considered as a means of filling in the time now lost at the Government mill.

Agricultural Resources of St. Helena

Area and Population

The Island of St. Helena comprises an area of 47 square miles. It is divided by a mountainous ridge ranging in height from 2,500-2,700 feet from southeast to southwest and from here the land slopes down to the sea on all sides. For a distance of approximately one mile from the coast - with the exception of a few fertile valleys - the soil is barren and unsuited for cultivation. Excluding this barren area the agricultural and pastoral lands do not exceed 10,000 acres and the resources are entirely dependent upon this acreage. The estimated population on 31 December 1919 was 3,468; no statistics were taken of white and coloured, but they are in about the proportion of one white to ten coloured. The whole Island is hilly and the distance to be travelled in getting from one place to another is surprising, the roads following more or less the general contour of the country. There are no rivers, but a large number of streams exist, upon which the water supply is dependent. In a dry season many of these fail and water may at such times be scarce. The narrow valleys leading from the higher to the lower areas usually contain running water, the amount being entirely dependent upon the rainfall. The facilities for irrigation are small, the catchment areas are small and the amount of land which is capable of being placed under water is extremely limited. Except in the Jamestown Valley no attempt is made to make use of such water as there is, though there are many places where it could be taken out by furrow and advantageously used.

The average mean temperature at St. Matthew's church is 61.50F and at Jamestown 62.0F. There is no frost and thunderstorms are practically unknown. It is doubtful if a more equable climate could be found in any part of the world. Seasons are not easy to locate, but residents distinguish two rainy periods, the first during February, March and April and the second July and August extending into September. November and December are usually the driest months of the year. It is evident that the variations in rainfall and in temperature will produce a diverse agriculture and it may almost be said that anything requiring from an equatorial to a temperate climate will grow provided the right selection of climate is made. At Jamestown we find the date palm thriving and producing abundant fruit whilst at Longwood the swede, which is more suited to Scotland and the north of England than to the south, is grown as a

regular farm crop.

Soils of the Island

The Island is purely of volcanic origin and the soils are derived from basaltic lavas. Some of these are hard, but the majority are of a high felspathic composition and are readily decomposed under the atmospheric influences and rapidly form soils. Owing to the extremely steep slopes and a fairly heavy rainfall there is a process of denudation in constant operation and the soil - especially on the barren ground which lacks vegetation - is washed down to the valleys and out into the sea almost as rapidly as it is formed. The soils - except in a few favoured localities - are shallow, resting on an impervious subsoil, known locally as marl. In many instances this marl reaches the surface and gives rise to a barren soil. Most volcanic soils are rich, but this is not the case on St. Helena. With constant leaching they have been depleted of their soluble food constituents and it is only where we find them thickly covered by vegetation as on the highest peaks that they are of exceptional agricultural value. At Longwood a rather different type of soil is found, containing an ironstone gravel. With proper management the soils yield satisfactory returns. They are fairly heavy and somewhat difficult to reduce to a good tilth, but they are capable of being considerably improved in this respect by careful cultivation and manuring.

Land

The area of the Island is 47 square miles or 30,300 acres and is made up as follows:

Gardens and orchards	575	acres	
Forests and trees	558	"	
Pasture	7,151	"	
Barren pasture	1,816	"	
Crown waste	20,200	"	= 30,300 acres

This is distributed:

In permanent tenure	6,100	acres	
Crown waste	20,200	"	
Crown lease	1,950	"	
Common pasturage	1,800	"	
Government (Plantation)	250	"	= 30,300 acres

The area of arable land is given as 575 acres but this is a far greater quantity than is under cultivation, 300 acres probably being an outside estimate. A portion of this 575 acres has been planted with flax so there is not more than 500 acres which can be used for cultivation, except exceptional methods such as terracing were resorted to. Thus a cultivable area of 500 acres is called upon to support a population of 3,468 souls or at the rate of 7 individuals to the cultivable acre. What this involves may be seen by a comparison with Japan which has a population of 5 to the cultivable acre. There a dense mass lives on what it produces and as much food is required as is produced. This in its turn has made necessary careful cultivation, intensive methods, the return to the soil of what is taken from it and a high yield is the result. In St. Helena one fails to notice any response to this urgent call

- land is allowed to go out of cultivation, wasteful methods of production are practised and the result is a people in a state of semi-starvation looking anxiously for a passing ship on which they can prey. The people have come to look on the calling steamer as their natural market, imported food as their natural food and their attention has been diverted from the land. The calling steamer is becoming a thing of the past and the altered circumstances make this mode of life most precarious and there are only three possibilities open to the inhabitants:

- i) production of foodstuffs on a more extensive scale;
- ii) the establishment of an industry in their midst which would provide regular employment and give an exportable product which would in turn provide the wherewithal to obtain either local or imported goods; or
- iii) emigration.

There is little hope that the Island will ever produce more food than the present inhabitants could consume - on a home-produced diet, so any development of its agricultural resources would need to go hand in hand with industrial work and it is on this account that flax has proved of such great service to the Colony.

Recent figures as to the distribution of the land held on private tenure and crown lease are not obtainable, but they are approximately:

1	occupier	holds	over	2,500	acres
1	"	"	between	2,000	and 2,500 acres
1	"	"	"	750	" 1,000 "
1	"	"	"	400	" 500 "
1	"	"	"	200	" 250 "
3	"	"	"	100	" 200 "
11	"	"	"	50	" 100 "
11	"	"	"	25	" 50 "
11	"	"	"	10	" 25 "
14	"	"	"	5	" 10 "
76	"	"	under	5	acres.

It will be noticed that two owners between them are in occupation of almost 60% of the useful land. There is every indication that a process of absorption by the largest owners is in progress by which the farms are gradually but surely drifting into very few hands. The result is that one sees everywhere land going out of cultivation, farm houses in a state of dilapidation, fences neglected and some parts of the Island becoming one large range for sheep. Needless to say whilst such a system may be justified from the individual point of view it does not tend to either maximum production of foodstuffs or to full employment of the people and is not in the best interests of the community.

In this connection attention may be drawn to the position of the Crown leased lands. 1,372 acres out of 1,950 acres are leased to the 2 largest occupiers as follows:-

Acres	Rent
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Messrs Deason Bros.

Longwood Estate	516	L123. 0. 0.
Great Deadwood	595	37. 0. 0.
Little Deadwood	61	28. 10. 0.
Lowes' Garden	27	15. 0. 0.
Upper & Lower Pounces	56	31. 0. 0.
Land near Alarm House	5	1. 0. 0.

	1,260	235. 10. 0.

Messrs Solomon & Co.

Cason's & Harding's	67	L 45. 0. 0.
High Peak Lands	45	26. 0. 0.

	112	71. 0. 0.

The rents which Messrs Deason Bros. pay appear small but the probability is that no other tenant could be found who would rent them in such large areas.

The Common Pasturage: Of about 1,800 acres situated at Botley's and Man & Horse is inferior grazing and incapable of fattening animals. In dry seasons losses from poverty are frequent. There are about 400 sheep and 30 head of cattle regularly run there and a revenue of about L100 pa is produced.

Land values are difficult to ascertain and would seem to depend more on the lack of a seller finding a willing purchaser than anything else. A property with a good house and 65 acres has recently changed hands for L700. If the house is valued at L700 the land is thrown in or if the land is valued at about L10 per acre the house is obtained for nothing. The Government report for 1918 quotes two examples - "The Oak Bank Estate comprising the dwelling house and 40 acres of land mostly pasture and wooded changed hands during the year at a figure representing approximately L27.15/- per acre with the house". (The house is a very good one and no doubt was responsible for the price paid.) "Another freehold property in the west of the Island of 69 acres of pasture land without buildings changed hands at about L5. 4/- per acre". It is certain that no great standard of value based on the producing capacity of the land is in operation. Most of the land, especially that in the possession of the smaller proprietors, is mortgaged.

Livestock: The livestock consists of horses, donkeys, cattle, sheep, goats, poultry and rabbits. Statistics taken on the outbreak of war in 1914 which are the latest obtainable show:

Cattle	1,069
Sheep	4,025
Goats	550
Swine	114

as compared with the following in 1911:

Horses	152
Mules	36
Cattle	1,271
Sheep	4,446
Goats	1,138
Swine	282
Asses	1,149

The 1914 return is admittedly incomplete and especially so in the case of goats and swine. The goats and the donkeys mostly eke out an existence on the barren land and the cattle and sheep live on the occupied country. The stock is, as would be expected, chiefly in the hands of the large owners, 71% of the cattle and 90% of the sheep being found in 3 hands. Under the present methods of management the land is stocked as far as is reasonably safe and no large increase in numbers is to be looked for. In fact in times of drought losses are somewhat heavy and have been frequently recorded in the history of the Island. Livestock will always occupy an important place in the agriculture of St. Helena on account of the high percentage of land which is only suited to grazing. It is the only way in which the ground can be turned to use and the pasture made to produce human food. Horses are bred but not in sufficient numbers to meet the local demand. Importation from the Cape is common. It is not likely that horse breeding will ever develop into a matter of importance as it can only be done at the expense of the cattle.

Mules and Donkeys: It is surprising that no attention has been given to the mule as it would prove of great service in a hilly country such as is found here. Donkeys, as would be expected, are numerous. They are used by rich and poor alike. He is used for the transport of flax to the mill, for the carrying of produce to and from the market, for riding and general agricultural work. He lives mostly on the barren ground and costs little or nothing to maintain and his initial cost is not high. His load is about 100 lbs. and it is common to see teams of from 10 to 16 in number carrying their loads to the mill. The stamp of donkey is small and inferior. Encouragement should be given to the production of a bigger and better stamp of donkey by the importation of a Catalonian Jack. Horned cattle are kept for draught purposes, for milk and for beef, but little attempt is made to breed along any special lines, the result is that we find a useful mixed type which are not specially profitable. At various times importations of bulls have been made by farmers and Shorthorn, Friesian, Kerry and Dexter Kerry blood has been introduced. On the whole the shorthorn type predominates.

No particular attention has been given to the milking qualities and many cows are today being milked and fed which if tested would be found not to pay expenses. A general custom is to allow the calf to run with the mother during the day time and to take it away at night - thus milking is only practised once a day.

Almost all beef produced is disposed of to Ascension or to the shipping. High prices are obtained and the inhabitants see very little - no doubt due to their inability to pay the same price as is obtainable from outside sources. A farmer is at present able to get as much as 1/- per lb. for his beef and at such prices the production of 4 year old oxen at from 500 to 600 lbs. may be profitable but it is not one which commends itself as the best practise. There is no comparison in cash return between a dairy cow and a beef animal or

in the amount of human food which can be produced per acre.

The large Shorthorn does not strike me as the best cow for the purpose in a hilly country and with somewhat sparse pasturage and I think the Ayrshire cow of good milking strain would give better results - on the smaller properties with limited grazing the Guernsey or the Jersey should find themselves at home and be able to give a good account of themselves. The general improvement of the cattle of the Island in the direction of greater milk production should be seriously considered and at the same time the value of feeding must not be lost sight of. It is much better to keep one good milk cow and feed her well than two moderate ones - a fact which the average dairy farmer here has yet to realise. Except as a side line in dairying in order to get rid of old cows and young calves and steers there is no room for beef production.

Sheep: Whatever may have been the origin of the sheep they are now grades from different English breeds - at various times Down sheep as well as the white-faced Romney Marsh and Cotswold have been introduced. The results of sheep farming do not appear to be very satisfactory - an ordinary sheep at 2 years of age killing not more than 32-36 lbs., whilst at the same age a better class grade may run to 45 or 55 lbs. The western side of the Island is pre-eminently a sheep country although not of the highest quality. I would suggest that more attention should be given to the production of sheep for market at an earlier age. The position appears to me to be that whilst most of the sheep country is healthy and well suited to sheep its fattening qualities are not good. It should therefore be used for the running of a flock of hardy sheep which should be mated to a pure bred ram of mutton type. This breeding flock could be run for the greater part of the year on the pastures but at weaning time the lambs intended for slaughter should be removed to better grazing and received additional food. In this way it would be found possible to market at 6 or 8 months old at say from 45-60 lbs. each. The original flock should not be allowed to become too pure but should be kept on the common side and be as hardy as possible. There need be no fear with mutton at anything like its present price that such a system would not pay even if the farmer could not produce all the food and it was found necessary to purchase outside.

Such a plan I consider would not only be found more profitable but it would allow of a considerable increase in the output of mutton on account of the shorter time required. The common grazing ground at Botleys and Man & Horse could also be used for the running of the dry ewes after weaning to a greater extent than at present is done. In connection with sheep farming I should like to draw attention to the question of fences. These should be kept in a good state of repair so as to allow of some discrimination as to where the sheep shall run and also to be able to provide a reserve vamp or two in the event of drought.

Pigs compete in some degree with man for food but there is a distinct place for them in the Island. The pigs' role is to turn to account waste or damaged food and to be prepared to consume any surplus produce should there be a glut of any particular article in the market at any time. The pigs as a class are not of high standard, though many show evidence of the introduction of the Berkshire. They are not however of the razor-backed type and could easily be improved by the introduction of better blood. It should be the duty of the Government to encourage the breeding of good pigs suitable for bacon. Yams,

sweet potatoes, mangolds and other foodstuffs can be readily grown and the grain for their finishing can be grown or purchased. The small gardener should certainly find the pig a profitable animal to keep. Bacon can be readily cured in the climate without refrigeration and there is no reason why hams, bacon and salted pork should be imported.

Goats have for long been a burning question. We read that "Goats were introduced in 1513 and in 1588 there were thousands of them". About 1810 Governor Beatson found it necessary in order to preserve the native and indigenous plants to cause to be destroyed all goats running wild or uncared for - compensation being allowed to the owner. The present goats are small and rather useless but it so happens that they are mostly in the hands of the poorest people who look to them to provide the only meat which they are ever able to obtain. They run over the barren land at no expense to the owner and do a great deal of damage by destroying all young trees and other vegetation as well as by forming tracks for the collection of water and the formation of small streams which lead to the erosion at present so evident. It is certain that no general planting of trees will prove successful so long as these goats are allowed to run uncared for. If they cannot be destroyed some compromise is called for. If the trees were planted in special areas and pasturage by goats prohibited on these lands there could be no real hardship if they were destroyed when trespassing on it. One area for the goats and another for the planting of trees should not be an arrangement impossible of achievement. All authorities on human nutrition are agreed that milk in some form or other should form part of the food of everyone, and one cannot but be struck with the fact that a very large percentage of the population never obtain it even in the smallest quantity. For this reason I strongly advocate the introduction of the Swiss Milch goat. This gives a large quantity of milk in proportion to its size. They could be kept tethered and would thus run without doing damage to plantations, and they respond readily to additional feeding. In this way a gradual substitution for the common goat could be made and the vexed problem solved without inconvenience to anyone. In some parts of the Island goats are running wild. These are constantly doing damage to the herbage and should be exterminated.

Poultry: The ordinary barnyard fowl is common and a good deal of interest is displayed in their management but there are few pure bred fowls. This is a branch of farming which should be encouraged. Fowls do not require a large area on which to roam and with proper management they pay well. Before any satisfactory results are likely to accrue there is need for the introduction of the best utility fowls and for the dissemination of information as to the most successful methods of handling them. Rabbits and hares are found and they should be encouraged. They have the advantage of being able to thrive in closer confinement than poultry. They will raise several families a year; they will thrive on any vegetables or even weeds and they would place at the disposal of the cottager a supply of fresh meat which he is at present, on account of the cost, unable to obtain. Bees do well but would only prove really successful in the hands of men who were familiar with their management. It is an industry which should be encouraged.

Farm crops: The food supply is the first necessity of mankind. When St. Helena was more prosperous and able to do a flourishing trade with the many passing ships this object was not seriously forced upon her attention. So long as money from the outside world came along regularly providing work and an outlet for anything which was produced what need was there to worry themselves about agriculture when if food was not abundant on the Island the cash was available to purchase elsewhere. But these are days that are gone and, except for the export of flax and a small market at Ascension, the people are thrown back on their own resources. There is an absolute pressing necessity to study the local food needs and the possibilities of local food production and as far as is possible to make the Colony feed itself. It is urgent that the attention of the people should be directed to the land and the agricultural resources be developed along all possible lines and to the utmost limit if the inhabitants are to be fed.

Fibre Crops

Flax Cultivation (New Zealand Hemp - Phormium Tenax). New Zealand Hemp was first successfully cultivated in St. Helena in the years 1876-80. A factory was established in Jamestown for extracting the fibre but as this was several miles distant from the plantations the cost of transport absorbed all the profit. In 1904-5 a further attempt was made to place the industry on a commercial scale but this did not meet with success, owing to the difficulty in finding the necessary capital and partly because the machinery was not altogether satisfactory. In 1908 the Government established a fibre mill and very satisfactory results have been obtained so much that there are now 4 mills working and the growing and milling of flax has become the chief industry of the Island.

It is estimated that there are at least 1,000 acres under the crop and further land is still being planted. Owing to the large profits made during the war flax has concentrated the attention of farmers to the neglect of other branches of farming. In fact it has been planted in many places which have proved unadapted for the crop, and also in land too valuable for the purpose, and which would yield better returns in other ways.

In 1917 fibre which in 1914 brought L24. 10/- per ton rose to L81 9/- and in 1918 it reached L91 17/- and even as high as L97 per ton but in 1919 the average price was only L48 15/- and at the present time it is in the region of L40 and some consignments are said to have realised less. Owing to the ease with which money could be made slackness has crept in all round and a general tightening up in business methods will be necessary if the industry is not to go through a critical period.

The greatest cause for uneasiness is as I have pointed out the general practice of milling leaves too young, and no time should be lost by the interested parties in putting their houses in good order. So far as the mills are concerned it will be necessary to study costs and the most economical way of producing fibre. We will no longer have to read as in the report for the Island of 1919: "Messrs ----- mill employed 130 males and 50 females". Even with 2 strippers such labour cannot be economical. More care would also seem to be required in the operations so as to ensure as high a quality of product as possible. That alterations are necessary may be judged from the fact that one mill in 1919 exported a larger quantity of tow than fibre, whereas under

good conditions the proportion should be as one to three or four. In most cases flax does not receive much attention from the time it is planted until it is ready for cutting. A greater yield would result if it was kept free from weeds, especially in the early stages. The flower stalks should be removed as early as possible and the wound rubbed with a little dry earth to prevent bleeding. These flower stalks if left on the plant concentrate all the sap to the detriment of the leaves. It is the general practice to cut the leaves off entirely and as low as possible. It is recommended that the central leaves should be left and in order not to injure the central sheet the knife should be inserted between the leaves and the outward leaves cut downwards and outwards.

The following gives the production in 1919 and 1920.

Fibre, tons. Tow, Tons.

1. Government Mill	1919	40.5	27
	1920	91	54
2. Messrs Deason	1919	190	45
	1920	151	214
3. Messrs Solomon	1919	220	70
	1920	206	151
Total for 2 years		898.5	561

Average yearly output:-

499.25 tons of fibre, 220.5 tons of tow.

Mauritius Hemp (*Furcraea gigantea*) grows uncultivated and is abundant and an attempt is to be made by a private firm to turn this to account. The return from the plant in fibre is only about 2.5% and as the uncultivated plant is scattered the expense of collecting and transport will form a considerable portion of the cost of production and it is doubtful if much is to be expected from it under present conditions.

Cotton of the sea islands variety grows wild at the lower altitudes and is of good quality. Its cultivation would be feasible on a limited scale.

Cereals: The oat is the only cereal crop now cultivated. It is sown in August or September and ripens towards the end of the year. It grows satisfactorily and yields good crops. It is almost entirely made into hay and used for the feeding of horses and cattle. More care might be given to its curing. The maximum amount of food value is obtained before the grain is thoroughly ripe and a more palatable food is obtained. It is also advisable that more care should be taken than is usually done to protect the reaped crop from damage by rain whilst still on the ground. In former years wheat and barley were both grown but have now gone out of cultivation. The former if sown as an early winter crop should ripen satisfactorily during the comparatively dry months of November and December, but if ripening at a wetter period a certain amount of sterility might be found to result. The high prices of imported flour should have caused the farmer to look seriously into the possibilities of wheat growing. Cape Barley and Barley Wheat should make first rate crops for the feeding of stock.

Maize, millet and sorghum: Maize is extensively cultivated but its use is more for a forage crop than for grain. In fact maize does not succeed well when the summer temperature is less than 66° and it would seem best in the colder parts of the Island to rely upon other crops for grain. The best manner of utilising the crop would seem to be to take the green cobs for human consumption and the stalks for fodder. The former would find a ready market in Jamestown and in this way the crop would prove really profitable. For the best growth of maize a deeper cultivation is required than it receives and the planting is much too close.

Broom Corn is being tried on a small scale. It is a crop which requires a rich soil and high cultivation. As this crop might provide an industry it is worth further trial. It should however be sown in drills 3 feet apart and the

plants thinned out in the rows until they stand 6" apart. The heads are bent down and should be cut when the seed is just past the milky stage.

Soudan Grass should be tried as a hay or forage crop. It is an annual and will give three cuttings in the season and gives a heavy yield of forage of good feeding quality. In wet weather some difficulty might be experienced in curing it for hay. The use of Boer Manna as a catch crop might also receive a trial.

Root crops: The ordinary potato is the chief money crop of the farmer. Two crops a year can be raised in the same land. The yields are not heavy and capable of improvement by better cultivation and more liberal manuring. The regular introduction of new seed from a colder climate is a matter of importance as after a few years the potato deteriorates in vigour and producing power. The larger growers regularly import but the Government should also see that suitable seed is at the disposal of the smaller growers, as there is no need for them to be growing from exhausted seed which can only result in unsatisfactory crops.

The sweet potato is preferred on the western side of the Island to the ordinary potato as the rainfall is less certain. A new variety has recently been introduced from West Africa and distributed.

Yams were formerly largely grown and were the principal foodstuff of the slaves. Their cultivation has now diminished to small proportions and is chiefly confined to a bitter variety known as the "Pig Yam". Two varieties known as the Food Yam and the Coast Yam are found and could easily be much more extensively cultivated in suitable localities than they are. Their value as human food is generally known and I am informed that a regular market would be found locally for them.

Cassava should be experimented with.

Mangolds and swedes are grown. The former is naturally suited to the climate and gives an abundance of stock food. The swede strikes one as being a little out of place and what I saw were fibrous and not of the best quality.

Pumpkins are successfully cultivated.

Leguminous crops: Beans and peas are the two leguminous crops which are found. They thrive well but are not grown to anything like the extent which they should be. Their value as a nitrogenous food or meat substitute and their profitability should alone entitle them to more consideration than they receive. They have however an additional claim to recognition as they have the power of producing upon their roots organisms which are able to store up

nitrogen from the air and to leave the soil richer in the plant food and in organic matter than it was before they were sown. They should always find a definite place in any rotation both in the field and in the garden. In many places where I had an opportunity of examining the roots of leguminous plants I found them destitute of the organisms which are responsible for the storing up of nitrogen. An inoculation might be tried but in all probability if more attention was given to increasing the humus contents of the soil by free manuring and other means the desired result would be attained.

Lucerne is growing in one or two places but has not received the careful management which is necessary for success on account of the shallow soils with a clay sub-soil it is doubtful if this crop could be established as a permanent crop, though it might thrive satisfactorily for a season or two.

Peanuts might be considered as an additional crop in the warmer parts whilst Soy Beans should be tried.

Vegetables: All European vegetables can be successfully cultivated. There are numerous pests and fungoid diseases such as the grub, the red spider and the caterpillars but not more so than in other warm moist climates and with good management they can be kept within bounds. The onion and the shallot should be much more extensively grown and if at any time there should be a surplus they would stand export.

Coffee thrives wonderfully in sheltered spots. It grows well and bears fruit abundantly but no special care is given to it and in many instances the fruit is not even picked. The St. Helena Coffee is said to be quite as good as the best Mocha and at the London Exhibition in 1851 was awarded the prize for first quality. Whilst local supplies could be grown there is not sufficient suitable land for it to warrant its being considered a crop of importance.

Tobacco is another plant which thrives well but is not cultivated. An attempt was made at one time to cultivate it but the report on the leaves sent to England was not favourable. It was said to want flavour. Further experiment might produce a different result but the soils are not favourable for the production of high class leaf. No doubt enough rough tobacco could be grown for local consumption.

Fruit Culture: Fruit culture has not been a success. We find various references to the quantities of fruit which were formerly grown but there is little indication of it now. The soils are not generally adapted to fruit culture and it is unreasonable to expect success in situations where a depth of at least 2 feet or more is not obtainable before an impervious subsoil is reached into which the trees are unable to send down their roots and the result of planting in such situations is evident in the dying back of trees. In the Jamestown Valley tropical fruits such as the mango, the date palm and the avocado pear are found. Trees do well and bear good fruit, but there is no room for extension on any scale. Citrus trees are also found and extend well into the country. I have not seen a healthy vigorous citrus tree or a fruit which was fit to eat. They are covered with scale, unthrifty and mostly dying back.

The Common Pear (*P. chuncusin*) is an exception. It grows well throughout the Island bears fruit abundantly and finds itself at home in situations where the more delicate trees refuse to thrive - like all other fruit it is attacked by the fruit fly but by no means to the same extent. The fruit is not suitable for dessert but is good for stewing and preserving. Peaches are abundant but the trees are not thrifty and most of the trees are destroyed by the fruit

fly.

Bananas are more abundant than any other fruit and in the low valleys and in sheltered corners of the higher lands they do well. They should certainly be extended as far as conditions warrant though they will not do in situations

exposed to the wind.

The Bilberry (or Cape Gooseberry) grows well and would be worth cultivating. Other fruits which are found are the loquat, the guava, the cherimoya, the pomegranate, grenadilla, the plum and the apple, whilst raspberries and gooseberries grow wild but lack flavour.

The Grape Vine is another fruit which is said to have been abundant but it is doubtful if it ever occupied a position of much importance except perhaps in the warmer valleys. The probability is that it was killed off by the phylloxera and has not been re-established. It is not likely to be particularly successful at more than 1,000 feet on account of the want of a regular growing and resting period and the south mists which are frequent at the time at which it would ripen. The few plants which I saw were all running to wood and were not thriving at all well.

Pasture and Grass Land: The pasture lands are divided into what are known as Cow Grass lands and sheep pasture. The former consists chiefly of a species of paspalum sweet vernal (*Anthoxanthum odoratum*) and *Agrostis similaries* (*Eragrostis sexatilis*) whilst the herbage land is chiefly wire grass (*Cynodon dactylon*) and *Stenotaphrum americanum*. There is a general complaint that the pastures have deteriorated and are not of the same fattening value as formerly and this is probably true.

Indiscriminate grazing does not improve pasture. In many places moss has become abundant and useless weeds have crept in. These lands are worth more care than they receive. A good harrowing given annually would not be without effect and the question of manuring them ought to be considered. Liming would do them good but this may be an impossibility on account of the expense; basic slag might be found to answer the purpose equally well. Then more care is required in their grazing and periodical rests should be given to each portion. The grass cut for hay is not of a high quality and is very short, yielding only a light crop. When one considers that this is all cut by the scythe and watches the expensive hand methods which have to be employed in collecting it, one can only conclude that the work is scarcely worth while. It would seem far better that special lands should be prepared for hay. For this purpose Italian Rye Grass if sown with an oat crop should prove suitable or Teff Grass might be given a trial. The former would stand for 2 years but the latter for only one. Teff however yields its first crop within three or four months from sowing and gives a large yield of hay of excellent quality. The entire absence of leguminous plants such as clover from the pastures is a notable feature. It is stated that clovers have been tried and have failed and it may be that there is not sufficient lime in the soil for their successful growth. Many of the ordinary English pasture grasses such as Cocksfoot, Timothy, variety of *Festuca* etc should be found to make themselves at home on the Island and the systematic laying down of land to permanent pasture may not be impossible of achievement. Guinea Grass is the only cultivated grass and is cut green for feeding.

Kikuyu Grass should be tried. The conditions necessary for its success seem to be present. It is propagated from cuttings but rapidly spreads and provides an abundance of food. It is of high feeding value.

Forestry: According to official statistics there are 588 acres under forests

and trees. No systematic forestry has ever been undertaken. Landscape work is responsible for some portion of this and trees generally have been planted without much thought as to their future. There are many varieties of trees on the Island but species seem to have succeeded in establishing themselves and to find themselves perfectly at home. They are the Common Island Pine (*Pinus pinaster*) and the Port Jackson Willow (*Acacia longifolia*). In any scheme for planting the barren portions of the Island these trees have special claims for consideration. Other trees which are common are Scotch Fir (*Pinus sylvestris*), Store Pine (*Pinus Pinea*), Norfolk Island Pine (*Auracaria excelsa*), Cypress (*Cupressus sepevirens*), Casuarina leptoclada, Bermuda Cedar (*Juniperus bermudiana*), Blue Gum (*Eucalyptus globulus*) and the Eucalyptus viminalis, Cape Yew (*Podocarpus elongata*), Wild Date, Olive (*Olea europea*), the Oak (*Quercus robur*), the Cork Oak (*Quercus suber*). The Chili Pine (*Cunninghamia sinensis*) appears to thrive well and in localities subject to the attack of white ants would prove successful. On the high lands in the centre of the Island the climatic conditions are suitable for the growth of the Wattle (*Acacia mormosa*). This would not only yield an exportable bark for tanning purposes which could be easily transported to the coast but the timber would materially add to the fuel supply.

The olive: One cannot but be struck with the readiness with which a species of white olive and the ordinary olive (*Olea europea*) grow and the way they are spreading throughout the country. Both yield fruit abundantly. The conditions seem to be ideal for it and there cannot be any reason to suppose that under cultivation it would not do well. It is not at all particular in regard to soil conditions and will thrive where other trees cannot exist. It is really surprising to find that olive culture has not been taken up as a serious business proposition.

Barren land: When St. Helena was first discovered in 1502 it was uninhabited and "rich vegetation clothed its surface". The interior is said to have been an entire forest with gumwood and other trees overhanging the precipices. A traveller arriving today has a very different story to tell. Two thirds of the Island is treeless waste, growing very little except prickly pear, Aloe and Hottentot Fig. The changed condition has been brought about by man's agency. The growing trees have been ruthlessly cut down for firewood and other purposes. Goats and sheep have been allowed to roam over these areas destroying the young trees and frustrating every attempt at renewal by nature of the primeval conditions. This is the beginning of the evil. Animals travelling over the ground make tracks along which at first small streams trickle and in hilly countries very soon develop into important water courses carrying down with them all the soil from the earth surface as rapidly as it is formed. The lack of vegetation allows this to go on unimpeded. Not only has the original soil disappeared but the soil which is constantly being formed from the soft underlying rock is washed away as rapidly as it is formed and finds its way down to the sea. The original conditions can only be reproduced gradually. The first need is to take steps to prevent erosion by checking all forming water courses and by planting trees, shrubs and plants which will bind and hold the soil.

Manuring: On the limited areas under cultivation crops are grown at the rate of two a year which makes a big demand upon the soil but little systematic manuring is practised. Farmyard manure is given when available and a limited amount of guano is annually collected from around the coast. This however does not exceed about two tons per month and is mostly collected by one firm for their own use. No artificial manures are imported. The result is that the soils are badly in the want of fertilising. Farmyard manure should be

used as largely as possible; green manuring should be practised and the use of the artificial fertilisers requires to be more generally appreciated.

The guano deposits at Prosperous Bay have been granted to a syndicate. I have been unable to obtain an analysis and it is only by knowing what they contain that the value can be estimated.

The flax industry provides about 9 tons of refuse for every ton of fibre which is exported. This refuse in a dry state contains about twice as much nitrogen and about 5 to 6 times as much potash as stable manure. It also contains a large amount of organic matter which would help to lighten up the clay soils and render them freer working and should be made full use of where transport is not too serious an item.

Pests: The only animal pest of any importance is the rat. They have at various times received special Government attention and rewards have been given for their destruction. It would be expected that the inhabitants would keep these in check without the necessity of reward for their destruction but the individual feels that there is little use destroying rats on his own property if his neighbours do not do likewise. The efforts of the Government have yielded good results but they have been spasmodic whereas a sustained campaign is necessary and as the rats become scarcer it would be advisable to increase the reward offered.

The mynah bird does damage to the fruit trees but as he is insectivorous the balance would seem to be largely in his favour. White ants in certain localities likewise do a great deal of damage and no satisfactory means of dealing with them seems to have been discovered. They are reported to be spreading. There are numerous insect and fungoid diseases which seriously interfere with successful farming and of these the worst is the fruit fly. Knowledge as to their habits and the best means of combating them is sadly lacking. Perhaps if periodical bulletins were issued they might prove of use. It would be hopeless to expect Government regulations to have much effect unless enforced by proper inspection.

The outlook: It is regrettable that no decided local opinion has been concentrated upon the affairs of the Colony. A Governor arrives, stays for 5 years and then departs. He is succeeded by another who usually looks at matters from a somewhat different standpoint and who straightaway neglects what has been done and starts in to put things right. So far as agriculture is concerned the results of this are everywhere evident. One introduces Cinchona which the next neglects on account of the expense; another plants trees which his successor allows to be eaten by goats whilst a third imports a donkey Jack which is not appreciated by the following Governor.

Providence has in the past been kind to St. Helena. There have been ships in the offing and Napoleon and Boer Prisoners on the land but these things are only memoirs, and scanning the horizon discloses no fairy godmother. Owing to these easy gains the people have forsaken agriculture, but necessity now dictates that they must get back to the land.

The present position is depressing but there should be no reason for despondency. St. Helena is only called upon to give up what is illusory and to do what most countries had to do - to feed itself.

In this respect the Island is capable of great development. The problem is in the first to recreate the agricultural conditions which formerly existed and

then to proceed beyond them.

The Government can do much towards this by education, assistance with capital where required on sound business lines without a hint of charity and by good administration but the result rests with the people themselves. If they will display a broad public spirit and carry on their work with business ability and hard work the result would not for one moment be in doubt.

I have the honour to be,
Sir,
Your Excellency's obedient servant,

(Signed) A.W. MASON.

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