

TEA CULTIVATION :

EXPERIMENTS IN MANURING.

We sent Mr. John Hughes, the eminent Analytical Chemist, a copy of Mr. Kelway-Bamber's new book on tea, published under the auspices of the Indian Tea Association, feeling assured that Mr. Hughes would take a special interest in the contents of the volume and favour us and our tea planting community with his criticism on the same. That our anticipation was well-justified, Mr. Hughes' interesting, though only preliminary, letter (see page 57) fully shews. His ready seizure of the weak points in the author's Manuring Experiments, his shrewd observations, and his keen, critical analysis of the same, cannot fail to impress all careful readers. The Indian Tea Association and the Assam planters who are inclined to regard the new book as a standard authority—and very valuable it is in many departments—should be obliged to Mr. Hughes for shewing them where the Experiments recorded therein, are deficient. For ourselves, we have all along regarded most of Mr. Kelway-Bamber's deductions in respect of cultivation, and in connection with some others of his experiments, as based on too limited a period of observation and record. We must have in Ceylon experience in manuring and results, more valuable, if not more trustworthy, than those recorded in the volume under notice, because carried on systematically, over a greater number of years. On Mariawatte plantation for instance, and on the "K.A.W." group, and under the careful direction of the managing proprietor of Dambullagalla and Pitakanda, and again under the auspices of the experienced Manager of Great Western—than whom no man in Ceylon or India knows more of practical agriculture or believes more in due cultivation and "tillage,"—manuring has been carried on for a long time, the record of which, if published, could not fail to prove of the greatest value for general guidance. But managers and proprietors in such cases often do not feel justified in going directly into print, though we feel sure that to an agent of the Planters' Association, the results would be given for his guidance and for indirect reference.

We mean that the time has come for the Planters' Association of Ceylon to follow the example of the Indian Tea Association and to institute experiments both by analysis of soils and experimental manuring plots, such as Mr. Hughes has so often pressed on the attention of the Ceylon planters. The experimentalist, if he visited our different tea districts, could pick up, from planters of the stamp referred to, a great deal of information bearing on his work, and without giving names, he could well utilize the results in his Report.

Turning more particularly to the contents of Mr. Hughes' present letter, it will be observed that he considers, in the Chittagong experiments, the manures—apart from results—were too concentrated and applied in too large a quantity. So much was this the case, that "wasteful and positively injurious" are the terms applied; while Mr. Hughes is confident that judicious (that is moderate) and regular manuring of tea will be found to pay, inasmuch as it tends to permanently improve the fertility of the soil. In the case of a good many of our tea planters of the present day—who pooh-pooh the idea of applying manure to their tea so long as they see no appreciable difference in their crops,—is there not the danger of delaying too long? When a marked difference in the crops comes to be observed, it may be too late to apply manures after "the moderate, judicious fashion" recommended by Mr. Hughes,

because both the soil and trees have been neglected so long that they are nearly played out. Of course, there are very great differences in soils, and full allowance has to be made for the effect of tillage in burying prunings and other rubbish, and for the benefit derived from our highly-charged tropical rains and atmosphere; but allowing for all this, it cannot be right to go on taking, year by year, heavy crops per acre of made tea from Ceylon tea plantations without doing something by way of return, in moderate, "judicious and regular manuring."

COCOA AND COCOA CURING.

JAMAICA AND TRINIDAD COMPARED.

INTERVIEW WITH A PROMINENT TRINIDADIAN.

Of increased importance has become in these latter days what are called "the minor products" of Jamaica. The declension from its former status of the banana trade, the decadence of the sugar and the comparative failure of oranges, has led the agriculturist of Jamaica, to devote more of his attention than formerly to the smaller forms of trade. Of these minor products the cocoa or cacao is the chief and highest in commercial value.

We in Jamaica have not devoted much of our attention to this most profitable product, and what attention we have displayed, and the results arising therefrom, have not been of much material commercial benefit to ourselves. We can grow the tree better probably better than any country in the world; our seeds for plumpness and size come well out of the comparison, but our methods of curing—in drying and fermenting—are carried out with such a combination of carelessness and ignorance that our cocoa has neither a name in the market, nor can command a competitive price with the product of other countries.

Trinidad is the home of the cocoa. Here is it found in all its variety and excellence, and the cocoa seeds of the Trinidad exporter find a readier buyer and a higher price than those of their competitors.

A *Gleaner* reporter had the pleasure of an interview yesterday with Mr. Edwards George Kipps, a prominent solicitor and planter, and one of Trinidad's most ardent champions of constitutional liberty, who is at present on a visit to Jamaica for the purpose of bringing to the attention of planters here the enormous possibilities of proper cocoa cultivation.

"I do not see why," said Mr. Kipps, "Jamaica cocoa should not in the course of a few years acquire as high a reputation and become so profitable a trade as it is in Trinidad at present. You have here the very climate requisite for its growth, your extent of land is more and your country more populous. Cocoa will only grow within a certain zone or belt of temperature, and you in Jamaica have in my opinion a nearer approximation to the proper climate than we have in hotter Trinidad. It would not grow well of course on your high hill ranges, but in your temperate valleys and splendid soils it would find a lucrative home. In Jamaica you have besides the advantages of bananas as a trade. We plant bananas as shade trees for our cocoa, but we cannot utilize them as a trade and have simply to throw them aside. Here you can enjoin the two industries, and make a profitable trade of both.

"What is your opinion, Mr. Kipps, of the Jamaica bean as compared with the well known Trinidad varieties?"

"Cocoa of course is like mangoes, sugar cane, etc., different species result from different classes of soils, under different conditions and with different climates. I think so far as the bean is concerned Jamaica variety will naturally outstrip the Trinidad kind. It is larger, contains as much essential oils, is as rich and delicate. But where we have the advantage is that we have a proper and scientific system of curing. You have not."

Our merchants also do not as here ship all kinds and qualities, however inferior, but select and endeavour to keep up the name of the Trinidad cocoa. It is also shipped to special houses, certain qualities are sent to one house, certain to another. Our trees are also properly pruned; they are properly and scientifically cultivated; and looked after with a care and attention necessary to their growth. Here it is not so. Your trees are first of all not carefully pruned, their situation and necessity of shade not considered. Your process of curing leaves the seeds in a bad and unmarketable condition and your trader instead of looking after the name and reputation of his industry desires but to bring in the present shilling, without foresight or look into the future. Were some of the seeds I have seen here exposed for sale in Trinidad the vender would become liable to a fine for exposing unmarketable produce. I am at present engaged in submitting some of these beans to a process of my own which as you can see has resulted in a marked improvement of the quality.

Mr. Kipps at this stage submitted several samples of Cocoa at various periods of the process of curing, the most interesting of these was the ordinary Jamaica bean as it is put on the market by our native growers in three stages of Mr Kipp's process. First was the ordinary bean, second was the intermediate stage, third the final and improved result of the process. The completed stage of the bean was certainly a marked improvement and to the unskilled eye no difference between it and the famous Trinidad cocoa detected. It had acquired a rich brown color, the cotyledons were full and plump, and the aroma delicate and pervading. The chance was great and would most certainly add to the commercial value of the product. Mr. Kipps states that the process is entirely a natural one, is not expensive or protracted, and can be made available by every one.

We are glad to state that Mr. Kipps has consented to deliver a public lecture on the subject to which we shall draw attention.—*Mauritius Gazette.*

ELECTRIC LIGHT AND POWER IN CEYLON.

So successful have been Mr. J. Torr Todman's operations so far, that Messrs. Boustead Brothers are about to enter into several considerable contracts: the Grand Oriental and Galle Face Hotels are expected to follow the example of the Bristol, and no doubt certain official contracts—for Queen's House, part of the Customs premises and new General Post Office—will follow; as well as some of the local manufactories—oil-mills—where night work is often necessary and the needful power is already available. Meantime, Mr. Todman has gone upcountry to see what can be done about utilising the power from waterfalls and streams to drive electric motors, and it is stated that he is also to see Matakelle Factory supplied with electric light. Mr. J. M. Boustead deserves credit for going into the matter so energetically; but he has always displayed a great interest in electric motors and appliances. It is quite time that the great amount of power running waste in our rivers and falls in the planting country should be freely utilized.

PLANTING IN SOUTH SYLHET.

The manager of a "Fibre Concern" in this district of Northern India, writes to us:—

"We are going largely in for Sisal and Fourcroya and other hems at this garden as well as experimenting with coffee, rubber, &c. I have been hitherto unsuccessful in procuring seeds of the

following plants:—Cocoa, Brazil nuts, (*Bertholletia Excelsa*) Kolanut, (*Kola Acuminata*) Coca, (*Erythroxylon Coca*) Gambier, (*Uncaria Gambir*). This should be a chance for Messrs. J. P. William Bros. of Henaratgoda.

THE JAMAICA COURT AT CHICAGO.

In the report of the Hon. O. J. Ward, Honorary Commissioner of Jamaica at the World's Fair, which was presented to the Legislative Council on Tuesday, we have, for the first time and probably also for the last, a full authoritative account of the Jamaica Court and some of the results attained by the representation of the Island's products at the great exposition. Part of the preliminary work was the preparation of the illustrated guide-book and brochures, which was accomplished in the Island. Col. Ward mentions his indebtedness. The guide-book assuredly has obtained a wide circulation. It was given away in the Court, and was sent to the Governor of every State in the Union, to the Mayor of every important city, to the leading medical men in the cities of New York and Chicago, to every recognised university, to libraries and school clubs, to foreign commissioners, Governors of British Colonies, &c. &c. Col. Ward states that he has reason to believe that the information thus circulated will not fail to be productive of good to the colony.

The remarks on the pioneer exhibits are of extreme interest. Much was hoped from the banana meal and on this product the report says:—"The banana meal engaged the careful attention of several of the leading grocers in Chicago, and elsewhere. One large house in Chicago, Sprague, Warner & Co., after testing samples of this meal, was so pleased with the result that it offered to undertake to introduce it as a food for infants and invalids, provided the producers would guarantee to supply the necessary amount to advertise it extensively throughout the United States. Messrs. Sprague, Warner & Co. estimated that a sum of not less than \$25,000 would be necessary to launch this new product on the American market, and unless this sum were forthcoming they did not see their way to dealing with it on the ground that no sales in any quantity could be expected. This proposal was in due course submitted to the exhibitors whose meal had been experimented upon; but unfortunately those gentlemen were unable at the time to adopt the course proposed, and the matter is still in abeyance. I am strongly of opinion that with a judicious outlay of capital, and with a reasonable certainty that no sudden changes will be made in tariff regulations there is a market open for banana meal in the United States. This would also benefit both directly, and indirectly the growers of bananas here; inasmuch as the quantity of fruit now rejected by the shippers as not being up to the standard, as regards the number of hands on each bunch, could be utilised for conversion into meal. At present the cost of producing banana meal is very heavy; but the cost would be appreciably reduced were large quantities manufactured and the necessary evaporating and grinding machinery introduced." There is less hope of a market for dried bananas. They do not stand the test of time. Perhaps as long as the ripe fruit is so popular—and it is becoming more and more an economical staple fruit of the people—there will be no chance of this delicacy making its way. Col. Ward states that he has seen bananas sold in the streets of Chicago for almost the same price as in Kingston, but naturally of inferior quality. The kola exhibit received some attention and the supply of Machado's cigars was easily disposed of, but there is no field for cigars under the existing tariff. A considerable amount of dagger and lace-bark work could be disposed of in the States if the duty were lowered. The experience of the Commissioner was that the Americans are attracted by this artistic class of goods. It is satisfactory to learn that our display of fibres was considered to be the finest in the Fair. Samples of the sisal hemp, penguin, &c., were asked for