Correspondence.

To the Editor.

TEA CULTIVATION: MANURING EXPERIMENTS.

London, E.C., May 25.

DEAR SIR,—Thank you for the copy of Bamber's book on the Chemistry and Agriculture of Tea. It appears to be an interesting and highly suggestive work and I shall have much pleasure in carefully reading it through.

As regards the MANURING EXPERIMENTS referred to on pages 87 to 93, a brief examination is sufficient to impress one with the following points:—

1. That the manures use were both too concentrated and applied in too large a quantity.

2. That the increased yield from the application of such manure was naturally confined to the 1st and 2nd years.

3. That in calculating the profit due to such manuring a serious mistake has been made in treating the increased yield of tea as net profit, from which the cost of the manure only should be deducted, whereas it should have been treated as a gross profit from which the extra cost of manufacture, packages and carriage to place of sale, as well as the actual cost of the manure should be deducted before arriving at the net profit due to manuring. Thus on page 90 experiments with cotton seed on a garden at Chandore, Chittagong in 1882 and 1883 are given as follows from ¼ acre plots:—

COTTON SEED (FERMENTED).

Plot A received 2 lb. per bush equl to 68 maunds per acre.

Taking a maund at 82 lb. this would represent 5,576 lb. per acre, an enormous dressing which not even a Jersey farmer would think profitable to apply to raise a valuable crop like early potatoes for the London market.

In Plot B, however, as much as 3 lb. of cotton seed per bush were applied, equal to 102 maunds per acre.

In Plot C the cotton seed was reduced to 1 lb. and mixed with 5 lb. of Gobur per bush, making the full dressing up to 204 maunds per acre, on upwards of 7 tons!

Now let us see what the returns from these extraordinary dressing were:

RETURNS PER ACRE 1ST SEASON 1882.

		Plot A	Plot B	Plot C
Tea form manured plot	lb.	694	831	730
Tea from unmanured plot	,,	564	554	633
Increase from manure	,,	130	277	97
Increase per cent	,,	23	50	15

RETURNS PER ACRE 2ND SEASON 1893.

	,,	A	B	C
Tea from managed plot	lb.	471	571	500
Tea from unmanured plot	,,	457	427	438
Increase from manure	,,	14	144	62
Increase per cent	,,	3	33⅓	14

It is stated that the results from these plots were not registered after the 2nd season; but it was noticeable that the bushes were benefited through the third year, but (though it is much to be regretted) that no figures have been given.

Coming to the profits we find the following statement:—

PROFITS FOR THE 1ST YEAR.

	A R	B R	C R
Manured plot—tea at 8 annas per lb.	347	415	365
Unmanured plot ,,	282	277	317
	65	138	48
Less total cost of manure	48	71	40
Amount in favour of manured plot	17	67	8
Profit per acre per cent on cost of manure	36¼	94½	22

PROFIT FOR THE 2ND YEAR.

	A R	B R	C R
Manured plot—tea at 8 annas per lb.	235	285	250
Unmanured plot ,, ,,	228	213	219
	7	72	31
Less total cost of manure	nil	nil	nil
Amount in favour of manured plot	7	72	31
Profit per acre per cent on cost of manure	15	101	77

The above figures are accompanied by the following statement:—"These experiments show that manuring in certain cases is profitable and that a comparatively large outlay in the first instance as in the case Plot B is more profitable in the end than the smaller outlay for plot A.

This is an important statement to make, and before planters accept it as a fact the figures quoted should be inquired into.

If we assume the extra cost of manufacture, packing and cost of freight to place of sale to be 25 cents (R¼) per lb. we have to add the following for the 1st year:—

Plot A	130	lb. at 25 cents	=	R32½
Do B	277	do	do =	62¼
Do C	97	do	do =	24¼

And if these figures are added to the cost of the manure it will be seen that the total exceeds the money realised by the sale of the increased yield of tea from manuring thus:—

In Plot A	R32½	added to	R47	cost of manure	=	R79½
Do B	69¼	do	71	do	do =	140¼
Do C	24¼	do	40	do	do —	64¼

And if these figures are deducted from those representing the value of the tea yielded by manuring, there appears a loss rather than a profit for the first year.

In assuming 25 cents as the cost of producing the extra yield of tea, I may be putting too high a figure; but that planter can make allowance for and only wish to point out what appears to me to be a serious mistake in estimating the true value of the extra quantity of tea resulting from manuring.

Judicious and regular manuring no doubt will be found to pay, inasmuch as it tends to permanently improve the fertility of the soil; but excessive manuring such as that referred to in these Chittagong experiments must be regarded as wastefull and positively injurious by reason of the exhausting tendencies which must be specially marked in a hot and forcing climate like that of India and Ceylon.

In a future communication I shall hope to refer more fully to these Manuring Experiments as well as to other points of interest in Mr. Bamber's book.—Yours faithfully,

JOHN HUGHES.

NEWS FROM BRITISH NORTH BORNEO.

Kandy, June 15.

DEAR SIR,—The Japanese Consul Mr. T. J. Nakagawa has visited Sandakan to make himself acquainted with the position of the Japanese who have emigrated to North Borneo. He has been struck with the capabilities of the territory for supplying what is likely to be much wanted in Japan, viz., sugar for the proposed refineries they

mean starting there. Also the planting of cotton and the exporting of hard timber suitable for ship-building, and which is much wanted in Japan. The Japanese Government have promised to encourage emigration to British North Borneo. The population of Japan is about 40,000,000 and annually increasing by 40,000. So it is hoped Japan will prove a valuable source of labour for the tobacco, coffee, and cocoa plantations in British North Borneo.

The Telegraph wire has been laid between Singapore and Labuan and it is now being extended to Hongkong which when completed will probably be selected for messages in preference to the cable from Singapore to Hongkong via Saigon, as the former is completely under British Control. It is quite within the realms of possibility says the *British North Borneo Herald* that Labuan will once again be a British military station to protect the coal industry and the cable. A service path between the British North Borneo coast opposite Labuan, and Sandakan on the East coast along the telegraph line, will be of immense benefit in the advancement of the interior.

A fleet of one hundred and fifty six depangs with 2 or 4 men in each arrived from Tawi Tawi and the islands around, in search of sea produce during the calm weather.

Sago is being worked in such quantities in the Padas and north to Papar that the shipping available at Labuan has been unable to take it away.

The following advertisement in the *Herald* shows that British North Borneo is to be a field for Indian labour :—

"Indian Coolies.—The emigration to British North Borneo of the above class of labourers having now been finally arranged, Orders can be sent to Messrs. W. Mansfield & Co., Singapore, or to the undersigned for transmission to Singapore, from whom also full particulars in regard to contracts can be obtained.—Mansfield Bogaardt & Co."

W. D. GIBBON,
Agent, British North Borneo Government.

FINE TEAS FOR AUSTRALASIA SHOULD BE IN ½ CHESTS.

Colombo, June 18.

DEAR SIR,—Certain friends of ours write us as follows :—

"We think it would be better if all the fine teas were packed in half-chests of 50 lb. on the estate. We should be glad if you would mention this to managers. You can state that after considerable trouble we have succeeded in practically knocking China tea out of this market, and we continue to push Ceylon tea all over the Colony. We think therefore our suggestions should receive *some* consideration from planters."

We ourselves would add to these remarks, that we think half-chests are better competed for in this market and that buyers here pay *better rates* for half-chests.

That half-chests *carry* better than full chests and stand the many movings and rough treatment they receive between this and the retailer and get less broken, is well-known to every one who has had the handling of tea.

As shippers we wish nothing larger than half-chests were ever used. We notice the use of full chests has been discontinued in Foochow.

To expect that the use of full chests will be given up for some years at least is perhaps to expect too much, but we would suggest to planters that they should at least pack their different grades as follows :—

Broken, broken orange pekoes, orange pekoes pekoes and *dust* in *half-chests* and pekoe souchong and any lower grades in full chests of not exceeding 100 lb. nett.—Yours faithfully,

Per Pro BATHGATE, PIM & Co.,
F. F. STREET.

LIBERIAN COFFEE IN THE MALAY PENINSULA.

KANDY, 19th June 1894.

SIR,—At the request of the Committee I enclose for publication letter from Mr. Thos. H. Hill. Straits Settlements, giving particu'ars of a record of the crops grown of Liberian Coffee on the oldest estates in the Malay Peninsula.—I am, Sir, Yours faithfully, A. PHILIP.

Secretary to the Planters' Association of Ceylon.

BUKIT NANAS, SUNGEI UJONG,
STRAITS SETTLEMENTS.
7th May 1894.

To the Secretary of the Planters Association, Ceylon.

Dear Sir.—As some members of your Association are already interested in the Malay Peninsula and it is the general hope here that many others may become so, it may prove of interest to you to have a record of the crops grown of Liberian Coffee on the oldest Estates.

It should be remembered that whilst our climate leaves little to be desired; at present, our soils often leave much; and the results shewn are those of systematic high cultivation from the 5th year.

The falling-off of crop on the older fields is not in my opinion permanent.

I have the honor to remain,
Your Obedient Servant,
THOS. H. HILL.

KAMUNING FIELDS, AGE AND CROP 1891 TO 1893.

No. of Acres.	Field No	Date Planted.	1891. Clean Coffee in Piculs and Catties.	1891. Yield per Acre.	1892. Clean Coffee in Piculs and Catties.	1892. Yield per Acre.	1893. Clean Coffee in Piculs and Catties.	1893. Yield per Acre.	Remarks.
82	1	Oct., Dec. '86	71.20	.51	137.50	1.67	356.88	4.35	Field No. 3 and 4 are only just coming into Bearing they were planted by Mr. Darby 1891, the land was cleared in 1888.
56	2	Nov. 1888.			183.80	3.28	285.45	5.09	
	3				2.80		56.70		
	4				2.25		11.60		
276	Average yield per acre ...		.51		326.35	2.32	710.58	4.65	

Acres No. 1 not in bearing		20
Do 2 do do		20
Do 3 do do		57
Do 3 Pepper		13
Do 4 not in bearing		18
Do 5 do do		10
Do 1 & 2 in bearing		138
		276