

no reason why the success attained by Kondesalle should not be possible in most cases provided sufficient care is taken in the selection of the soil. We believe that complete failure resulted from an attempt of a similar kind made by Mr. Farquharson with the same seed, the soil in his case evidently not being suitable or so long abandoned as had been much of that on Kondesalle. It is plain, therefore, that, without great care, success is not to be looked for; but, given a good soil, long abandoned and well covered with lantana and jungle growth, coffee will make a valuable feeder to cocoa whilst the latter is coming into bearing, and without affecting it in the least. We should also like to see an attempt made to grow coffee again for its own sake, both on old abandoned land in some of the lower-lying districts and in new land. With prices as high as they are at present—and there is no probability of any serious decline for many years to come—very small crops would pay handsomely; but it would be better to try coffee under light shade at a very low elevation. Anything like extensive clearings we do not now advocate, but those who have really good land at a low elevation might do worse than experiment with 15 and 20 acres in coffee. If, however, this be thought too risky, it might be planted in alternate rows with tea and taken out, after it had borne one or, say, two crops, to make way for the tea. No great loss could possibly follow such an undertaking, and, with reasonable care and foresight in the selection of the soil, such as any old coffee planter would use, it might be very remunerative. Planted in conjunction with cocoa, as has been so successfully done on Kondesalle, it evidently provides a valuable adjunct to the permanent cultivation, so much so that we can quite believe that the superintendent of that estate will sacrifice the coffee to the cocoa—as the latter grows—only with great reluctance, as befits an old experienced coffee planter. However, although it would not be prudent to open up large and unsupported clearings of coffee at any elevation, we are distinctly of opinion, from information reaching us from several sources, that it would be well to make small experiments in selected areas and under varying conditions such as those we have suggested. Care, of course, would have to be taken in the selection of seed, for it would be a great mistake to plant up Ceylon seed again. There ought to be no difficulty, however, in obtaining good Coorg seed, and we do not doubt that Mr. Hamlin—who has had a long experience of coffee planting in Southern India—would gladly be of assistance in endeavouring to get down only the best, from trees supposed to be free from disease than any others. His experience and knowledge in such a matter as that would be very valuable, for it is certainly remarkable that Southern India can still export 300,000 cwt. of coffee annually in spite of leaf-disease whilst our export has fallen from 1,000,000 cwt. to some 50,000 cwt. Whether that is due to the greater isolation of estates in India or to the general use of shade, we cannot say, but some estates in Coorg and in the Oucherlone valley are yielding large and highly remunerative crops to this day, and promise to continue doing so for many years to come.—Local "Times."

TEA GROWING IN TONKIN.

Sir,—There are several slight inaccuracies in your paragraph of the 21st headed "Over-production with a vengeance," as well as in that commented on there in and taken from the *M. Mail*. This paper has made a hash of the name of the new tea district. It is, I expect, Phu-Lang-Tuong—not "Phu-Tuong." This place is in Tonkin, not Annam, and only eight hours' steam from Hai-Phong, the commercial capital of that country. I should have heard or read in the local papers if there were a "considerable area" under tea cultivation either in Annam or Tonkin. There cannot be. What has happened is likely this—M. Mepe de Vilers, the political officer who negotiated the late Franco-Siamese Treaty, is now, or was, Acting Governor of Indo-China, which, perhaps, I had better

state comprises what I will call the four Provinces Cambodia, Cochin China, Annam, and Tonkin. He has very likely started tea planting; but, if so, it is only within the last six months, and he is a very clever chap if he has put "a considerable area" into tea in that time.

There would be no forest or heavy chena in or near Phu-Lang-Tuong, and the soil would be poor and worn-out with ages of chena cropping—for at this ruinous system of agriculture the Tonkinese can give their Sinhalese brothers long odd. The rainfall would be small—probably 50 inches—same as at Hanoi.

From this place the Government has been making for the last 2½ years a light railway to Lang Son, the French Metz of Tonkin. This place is close to the western frontier of the Chinese Empire, and only a day's march from the Sung-Chi-Kiang, or western river, which is here navigable all the way to Canton. The object of this railway is obvious. About half, or fifty miles, is now finished. Near to the place where the engineers have got, it crosses mountain ranges 3,000 feet high, and the land is all heavy forest. M. Mepe de Vilers may have started his plantation in this neighbourhood, but I doubt it. A short time since two Frenchmen were seized by the pirates here, and they still hold them, I believe, Government declining to pay any more ransoms. The last given away was for the chief engineer of the railway, seized in 1892, and kept several months in "safe custody." He did not like it, for when he returned to quieter scenes he was almost off his head, and his hair had changed from fair to grey. In this place an estate could only be opened close to a military post, and the superintendent would have to live within this (there are posts from five to ten miles along the railway for its protection) or start one on his own account. This would mean the keeping-up of a small native army not always to be depended on. The factory, too, would have to be inside the post, so as to save the expense of two garrisons. The superintendent and his assistants would have to take all care when in the fields that they did not share the fate of the engineer, with this difference—that they would have to find their own ransoms.

There are no Black Flags pirates in Tonkin now. The present pirates on the eastern frontier are nearly all Chinese, and many are regular troops from that country. I remember reading of 2,000 Chinese regulars, well-armed, having joined the pirates here; but this was in a few days contradicted by the officer commanding at Lang-Son, who stated that the number was only about 800.

China deserves a sound drubbing for her perfidy in connection with pirate supplying, and she will get it one of these days; but not before the railway to Lang-Son is completed and French steeds have sniffed or drunk the "sweet waters" of the Spree.

I was planting on the Black-river—not the Red—but I never saw Black Flags pirates "hunt the estate laborers." In the first place, as I have already stated, there are none now of this description, and if there were, they would not be so foolish as to chase common coolies, who had nothing worth taking except their lives—a form of "spoil," which would not substantially help towards the support of a gang. I was not allowed to plant tea, coffee, or cocoa, only cotton, and on land almost as swampy as the late Mr. Venn's rice fields near Colombo. For my amusement, however, I was permitted to collect tea seed from the villagers and start a small nursery. The job seemed all right. Tea is indigenous to Northern Tonkin. The natives there grow it in much the same fashion as the Sinhalese do, or did, coffee; but I never saw more than a few trees round their houses, and the greater number had none at all. It never flushed, and they did not mind in the least, when plucking, taking off coarse and bony leaves. This was sold to market women, boiled green in large pots, and ladled out in cups to the thirsty wayfarer. I was often, when traveling, precious glad to get a cup of this beverage, though strongly suspecting the water was not

of the cleanest. In my inner heart, too, I cursed the exaggerated tales of travellers about the roadside tea-houses of China—the prototype of Tonkin. Many of these were no bigger than a railway contractor's coolie lines with a square hole dug in the middle of the floor, on the bank of which the visitor sat down, his legs dangling over, or resting on the bottom. The tea-housekeeper's purse was always a hollow bamboo. When trade was brisk it was very amusing to watch the airs that this moon-eyed barmaid gave herself.

Our prunings would fetch a "power of money" in China and Tonkin, but probably we have got far enough on this line in our export of dust and red leaf.

There was no trouble bringing up the "leaden discs" or sapegues, a few of which I am sending per this post. They came by steamer (Shallope), tied in U-shaped bamboo strings called ligatures. Each ligature represented ten tiens or 600 sapegues. A ligature (1-16th of a dollar nominally—in out-of-the-way places $\frac{1}{8}$) paid two coolies for one day's work. It was not much trouble handing it to them after we had got the money to the paying place properly tied into ligatures. A good coolie's load of sapegues only paid 40 labourers, and, having some days 400 to pay, I required ten loads, say 120,000, weighing, I suspect, from five to six cwts. For a month's supply the "balance cash" ran up to seven or eight tons, and required a fairly-sized room to store it in. The most annoying feature about this wonderful currency was the easy manner in which the bamboo strings broke away when a bundle was lifted, sending the coin in showers over the floor or roads. In this way we generally lost 5 per cent. "The ways that are dark and tricks that are vain" of the natives accounted for a lot of this.

Cochin China is a pukka French colony: the rest are held under a protectorate. Until this is done away with, the French, I expect, will have to return the sapegue currency.

In conclusion, this nation can never do us much harm in tea-planting. They drink very little tea and are merely planting—I should say—to keep out the vile Chinese rubbish from their colonies. In this they are right.

I saw many new things in Tonkin—one, silk raising, particularly struck me. I do not see why we should not beat the Chinese here in this "cultivation" as we have already done in tea. I do not think it is more difficult than the manufacture of the leaf of this shrub was supposed to be. The introduction of silk-worms and mulberry is the duty of Government. Let them show in their botanic gardens that Ceylon can raise silk, and the planters will do the rest. Better begin now than wait until it becomes an absolute necessity.

Apologising for the length of this letter,—I am &c,
P. O. MACMAHON.

Deanstons, Rangalla, May 23rd, 1894.

INTERESTING FACTS ABOUT NYASSALAND.

Mr. E Woodhouse has placed at our disposal the following information received from Mr. H. P. Johnston in a letter dated 5th July:—

In regard to Nyassaland, land is very cheap at present ranging from almost nothing in the border districts to 2/6 in the settled country. The average rainfall is 55 inches annually. The country is exceeding well timbered and well watered by running streams. The morality at present among Europeans is 6.5 per cent, though this proportion is considerably reduced when the deaths of people killed in warfare or hunting accidents or in infancy are deducted. The deaths from malaria fever and dysentery—the only two diseases of any seriousness—amount to about 3 per cent.

The natural aspect of the country is exceedingly beautiful. The soil is nearly every where fertile. Native labourers are very abundant and very cheap, wages

ranging from about 2s 6d to 3s a month besides food which costs 1s per week. Customs duties, taxes, &c. are very low. Some of the planters reckon that with ordinary good luck and with present prices, 100 per cent profit may be made on coffee directly the trees come into bearing.

There is a direct line of steamers (the German mail line) between Bombay and Tshinde (Tshinde) at the mouth of the Zambesi.

At Tshinde you change into small river steamers by which you are conveyed to Katunga on the Shire and thence you ride up 25 miles to Blantyre which is to all intents and purposes the capital, though the seat of administration is at Zomba, 40 miles near to Lake Nyassa. There are about 265 Europeans settled in the country.—Local "Times."

IMPORTANT TO PLANTERS.

ORCHARDS PLANTED ON THE SEPTUPLE SYSTEM.

The following table will show the advantage of the septuple over the square system. The minimum distance between the trees is the same, but about 15 per cent more can be planted:—

Feet apart	Square Plants to an acre.	Septuple Plants to an acre.	Distance in Check Rows.	Check Rows.
8	680	782	6 feet	11 1/2 inches
9	539	619	7 "	9 1/2 "
10	435	500	8 "	8 "
11	360	514	9 "	6 1/2 "
12	302	347	10 "	4 1/2 "
13	257	295	11 "	3 "
14	222	255	12 "	1 1/2 "
15	193	222	13 "	0 "
16	170	195	13 "	10 3/4 "
17	150	172	14 "	8 1/2 "
18	134	154	15 "	7 "
19	120	133	16 "	5 3/4 "
20	109	125	17 "	3 3/4 "
21	99	114	18 "	2 1/2 "
22	90	103	19 "	0 1/2 "
23	82	94	19 "	11 "
24	75	86	20 "	9 1/2 "
25	70	80	21 "	7 1/2 "
26	64	73	22 "	6 1/2 "
27	59	68	23 "	4 1/2 "
28	55	63	24 "	3 "
29	52	60	25 "	1 1/2 "
30	48	55	26 "	11 1/2 "

Trees grow much better when sheltered—a single tree will not grow nearly so fast as if planted in a clump or belts.

This was well illustrated in the olive plantation at the Dookie Agricultural College farm, Victoria, where single trees did not make half the growth that those did which were planted in clumps, as the one sheltered the other.

Never plant badly formed or unhealthy looking trees, such trees are dear at a gift.—J. L. THOMPSON.—*Australian Agriculturist.*

PROSPECTS OF TEA.—An experienced planter writes:—"Our chief reliance must be upon better quality and a decrease of 10 per cent, that's ours may fail. This for the present; but meantime work up America." Undoubtedly, the latter advice is what every planter should take to himself; for, if promptly attended to, the Fund now started, would grow rapidly and a start be made in working up America which might mean an increased price for our teas, before the year is out.