

**CLIMATIC INFLUENCE OF FORESTS.**

Forests improve the soil drainage and modify miasmatic conditions. Trees, like green plants, assimilate carbon and purify the air; but it is not established that forests increase ozone. They stop air currents laden with dust particles and germs; they prevent extremes of temperature; they increase humidity, precipitate rainfall and control waterflow. These data are derived from large continental forests. How far do the effects appeal to us in this island? Dr. Niebet says, "Where the rainfall is over 40 in. it is undesirable to increase the forests area." We have too many unfavourable wet years. But scientific syviculture would reap a harvest from land unsuited to agriculture, otherwise barren and waste, and therefore afforestation need not be prejudiced by increased local rainfall.—*Pro. F. D. Balfour, before the British Association, Aug. 1894.*

**JAMAICA GARDENS.**

The Hope Garden is situate at the foot of the Liguanea Hills, at an elevation of 650 feet. The mean temperature is 77° F. and the average rainfall 50 inches. It is proposed to make this garden the headquarters of the Botanical Department of Jamaica, and it is being laid out in Geographical Sections, a separate division being allotted to the plants of each country. It covers a considerable area, and when completed will be not only very beautiful but highly interesting and instructive. A considerable number of economic and ornamental plants are raised for sale, and large quantities are disposed of to the various planters in the Island and to the residents of Kingston and neighbourhood. The Nurseries are well stocked with a great variety of economic and ornamental plants, including Liberian and Arabian coffee, orange, limes, nutmegs, and various kinds of tropical fruits, such as mangoes, sapadillos, shaddock, guavas, &c. A large tract is set apart as an experimental ground for seedling sugarcanes, a considerable number of which are being tested. At the time of my visit some of the varieties were producing very large canes, but whether they possess such qualifications as will entitle them to be regarded as good sugar-producers remains yet to be seen. I noticed in this garden many old trees both of spices, such as nutmegs, cloves, cinnamon and pimenta, and also of Cacao and Liberian coffee. I was much impressed with some of the cacao trees here which have been pruned by Mr. Cradwick. Their stems and branches are clean, and they are well-opened and well-balanced trees, and besides their utility in producing large crops of fruit, they are an ornament to the garden. They are splendid examples of what a well-grown cacao tree should be, and afford a striking illustration of what can be accomplished with care and attention. An area of about 50 acres is devoted to the cultivation of Sisal Hemp (*Agave rigida*, var. *sisalana*.) There are about 28,000 plants, all of which are growing well and producing a large number of suckers. They are grown to afford material for experiments by machinery, and also to test the suitability of the soil for the growth of this class of plant.—*Report of Mr. Crowther, Curator, Botanic Station, Gold Coast Colony.*

**COTTON-SEED PRODUCTS.**

The rapidity with which the various products prepared from the seeds of the cotton bush have come into quite general use is remarkable. The cotton-seed industries have attained such a growth that a recent estimate by the Chattanooga Tradesman places the value of the products at more than \$40,000,000 a year. The progress of the seed from the bin in which it is stored to the bottles of cotton-lens, firkins of compound lard boxes of candles, or other familiar articles, is interesting.—*Bradstreet's.*

**FLORIDA ORANGE CROP.**

Mr. Ives, Manager of the Florida Fruit Exchange, who is on a visit here for a few days, says, he believes the Florida orange crop will not be as large this coming season as last, when over 5,500,000 boxes were shipped out of the State.—*American Grocer, July 25.*

**COFFEE PLANTS IN FLORIDA.**

In the grove of Mr. Sprague at Crescent City, Putman County, standing modestly apart is one tree twelve feet high, of bushy growth and narrow leaves of a bright green color, which is worthy of attention. It is a coffee tree. It is three years old, has grown well through winter and summer without the least protection or extra care, and affords every promise of abundant fruit next season. With coffee trees bearing fruit within three years, and continuing as long as these do in Brazil a new source of wealth is opened to our people, and these who dislike the slower orange culture might mingle the coffee in their groves with both profit and pleasure. It is a most beautiful tree, the crop is abundant the third year, the harvest is simple and easy, the demand for the crop is steady and ample. With coffee plantations in Florida, dotting the clearing south of us, we cannot wish for the coal and iron of Alabama and will stand abreast with Georgia in 10 years. Who will try on a large scale the experiment that has been so successful in the hands of Mr. Sprague, of Crescent City?—*Plataka News.—Florida Agriculture.*

**EXPORTS OF TEA FROM CHINA, TO THE UNITED STATES, 1893.**

Official reports for the year 1893, make the total exports of tea from China 1,087,136 piculs, or 144,951,540, pounds, of which to the United States, 202,797 piculs, 27,039,600 pounds of Black and 139,490, or 18,587,718 pounds Green, divided as follows:—

|               | Pounds.    | Green.      | Pounds.    |
|---------------|------------|-------------|------------|
| Black.        |            |             |            |
| Congou        | 7,813,376  | Young Hyson | 1,914,949  |
| Oolong        | 19,175,466 | Hyson       | 3,027,810  |
| Souchong      | 10,533     | Imperial    | 481,941    |
| Pouchong      | 727        | Gunpowder   | 13,174,028 |
| Flowery Pekoe | 267        |             |            |
| Orange Pekoe  | 31,763     | Total       | 18,598,728 |
| Scented Caper | 6,133      |             |            |
| Mixed         | 1,335      |             |            |
| Total         | 27,039,600 |             |            |

—*American Grocer.*

**PROGRESS AND COFFEE IN MEXICO.**

Many Americans are now turning their attention to Mexico, where many opportunities for making money await men of enterprise and capital. The poor man has no showing unless he goes with a capitalist or strong corporation as his patron.

Coffee receives the greatest attention and is very remunerative at the present time. But many turn from coffee after careful investigation of the prospects and enter some other line of production or trade.

Day labor is cheap; one strong young fellow offered to work for me for four dollars per month and board himself! Twenty-five cents to a dollar a day are the usual wages paid—probably 36 cents a day being a fair average. Lands in large tracts can be bought as low as \$1.25 per acre, and from that up to several hundred dollars per acre.

Near Mexico City the cultivation of the Maguey plant is doubtless of primary importance. Corn and beans are also important crops in Mexico, and with red peppers, form the bulk of the food of the lower classes—to which three-fourths of the population of the Republic belong.

Mexico is a land of strong contrast: the rich and the poor are farther apart even than in the United

States; the several zones lying one above the other offer all the vegetable growths of tropic and temperature regions within a few miles of each other; and last, but not least noticeable we are brought to contrast the ancient Aztec, the Spanish, and the more modern styles of art and customs—all side by side.

Gross ignorance and superstition still hold the lower classes in subjection. Vice and filth equally abound and disease of every description make strong inroads on the population annually. Strangers almost invariably become victims of some disease the first year of their residence, and often, as in the writer's experience, within the first month of their arrival in the country. On the 20th of May the writer was taken with a fever, and on the 8th of June he was glad to return to California to recuperate.

—*West American Scientist.*

O. R. OBICUTT.

### MR. EDMUND WOODHOUSE.

This gentleman, and veteran Ceylon planter, who has already been a great wanderer in many tropical lands, left by the A.-H. Lloyd steamer on the 25th ult. for Bombay, to cross thence to Mombassa in a steamer of the East African German line. From Mombassa, if he has encouragement, Mr. Woodhouse may proceed via Kinkiya to Uganda; or, if not, he will go on to Zanzibar and thence proceed to the Shire Highlands and Blantyre. We have arranged for some letters from Mr. Woodhouse's pen. We should not be surprised to find him crossing the Continent eventually, voyaging on the mighty Congo, and finding his way up the West Coast to look in upon Mr. Ashmore and his Aburi Gardens and plantations in the Gold Coast Dependency. It is marvellous how Mr. Woodhouse keeps his health; for he has now been over 33 years in the tropics without one change to Europe. We trust he may come well out of his African wanderings or find a peaceful prosperous home on the healthful highland country.

### PLANTING IN THE STRAITS SETTLEMENTS.

#### COFFEE—PEPPER—GAMBIER—TAPIOCA.

Mr. R. N. Bland in his Annual Report on the States of Sungei Ujong and Jelebu for 1893, states:—

**COFFEE PLANTING.**—Two blocks of land of 1,000 acres each were taken up during the year for coffee planting—one at Sinawang, four miles from Seremban, by a syndicate represented by Messrs. Dunman and Penny, and one at Paroi (close by) Mr. A. Braddon. On both, planting has been commenced.

The Ribu Estate, under new owners, has greatly improved. The Linsum and Silitau Estates (Mr. T. H. Hill) continued to be prosperous. The out-turn of coffee for the year was slightly less than in 1892 (941 pikuls against 1,061 pikuls) but there was a heavy crop taken in just at the end of the year, which could not be quickly dried owing to wet weather. The area in partial bearing was greater than in 1892 by 50 acres. I give the returns supplied to me by Mr. Hill, which speak for themselves.

It will be noticed that the average crop for the whole area in bearing is  $5\frac{1}{2}$  pikuls per acre (allowing 9 boxes to the pikul). The total export of coffee was stated to be 1,007 pikuls about 40 pikuls having been turned out on two small plantations on the Linggi River. Eight applications by natives for land for planting coffee were made in the Coast District, and many native owners both in Sungei Ujong and Jelebu are beginning to make small plantations of coffee. I am of opinion that these efforts should be encouraged, and regret that a small vote for Government coffee nurseries was cut out of the 1894 Estimates. It is

being found that Liberian coffee will grow on almost any kind of soil here. I have seen it growing on the spoil bank of an old tin mine, and, at the present prices, no form of agriculture could be more remunerative. The State is offering land in blocks up to 500 acres on merely nominal terms (as in Perak) subject to the condition that a fourth of the whole area must be planted within five years. This State benefits little directly by the prosperity of the Linsum Estate, owing to the exceptional terms under which it is held. No rent is paid, and at the present price of coffee (\$43 a pikul) the export duty is less than  $\frac{1}{2}$  per cent. Under the terms now offered to planters the duty cannot be raised above  $2\frac{1}{2}$  per cent *ad valorem*.

**TAPIOCA** is grown on a number of estates owned and worked by Chinese along the coast. The export 25,694 pikuls, is less than that of last year by 5,423 pikuls—partly owing to land being worked out, and partly to the breaking down of an engine. The total area of land leased for tapioca is about 26,000 acres (17 estates). A lease for 8,000 acres at Jimah was issued to Chan Kim Bok and Chan Ong Bee, men of capital and experience in tapioca planting, on very easy terms, and preparations for opening out on an extensive scale were made. It is a matter of regret that in the majority of leases the export duty is limited to 10 cents a pikul, as should tapioca go up in value the State will not benefit. There is not much land on the coast now available in large blocks, and what there is should be reserved for coffee.

**GAMBIER.**—The export for the year amounted to 21,419 pikuls, exceeding that of the year before by 2,300 pikuls. Of this 12,680 pikuls came from Loh Cheng Keng's estate at Tanah Merah, 4,000 from Port Dickson and Lukut, and 5,000 from Pengkalan Kempas and Sungei Raya.

**PEPPER.**—The export for 1893 amounted to 3,372 pikuls, an increase of 750 pikuls over 1892. Of this 2,331 came from Loh Cheng Keng's estate at Tanah Merah. This estate, for the cultivation of gambier and pepper, lies between Tanah Merah on the Lukut River and the Sepang River, the boundary with Selangor. It covers (in Sungei Ujong) about 15,500 acres paying an annual rental of \$1,551, in addition to the export duty of 30 cents a pikul on pepper and 15 cents on gambier. It employs about 1,000 coolies distributed in some 52 different *bangsals* or farms. The estate is flourishing and well managed. Gambier and pepper are as a rule cultivated together, but there are a number of small holdings along the coast between Lukut and Pengkalan Kempas cultivated with gambier only by Malays, who never attempt to grow pepper. Owing to low prices the small holdings both for gambier and pepper were not prosperous during 1893. Pepper to a certain extent is cultivated on some tapioca estates, and the Dato Bandar's estate at Jimah (leased to a Chinaman) turned out 102 pikuls, "Linsum" and "Ribu" turned out a small quantity. The export duty of 15 cents per pikul on pepper and 10 cents on gambier is not high, but it would not be advisable to increase it in the present state of the market. The State has been much hampered by the existence of a concession granted in 1876 to a Chinaman named Toh Eng Siew, and now owned by a Chinese merchant in Singapore, named Seah Liang Seah. Under this 11,000 acres are held free of rent, and no export duty can be levied on the pepper and gambier exported, while opium is admitted at \$1 a ball less than for the rest of the District, and spirits, gambling and pawnbroking are allowed free. In spite of these advantages only 3,000 acres have been opened up, and the export of both pepper and gambier has been steadily diminishing. Little is known of what goes on this estate, there being no access to it from any part of the District except up a muddy creek, and then only at high tide. Fortunately the concession will expire in 1896, and in the meantime it is proposed to connect it in 1894 with Port Dickson and Pengkalan Kempas by a bridle-path.