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ANNUAL REPORT

OF THE SUPERINTENDENT OF THE

ROYAL BOTANIC GARDENS FOR 1894.

ROYAL BOTANIC GARDENS, TRINIDAD,
21st January, 1895.

SIR,

I have the honour to submit herewith the Annual Report of the Botanical Department. The year under review is from January 1st to December 31st, 1894, and the present forms the Eighth Report issued during my tenure of office.

2.—ESTABLISHMENT.

The Staff of the Gardens has undergone considerable change during the preceding period. Mr. G. Vahl, Clerk of the Department, died in the month of March, and Mr. H. C. Massy was appointed to the vacancy during the same month.

Mr. W. E. Broadway who had held the post of Assistant Superintendent for six years was promoted to the Curatorship of the Grenada Gardens, and left in July to take up his appointment. He was succeeded by Mr. Wm. Lunt from the Royal Gardens, Kew, who arrived on September 26th. Mr. Lunt has taken up his duties with commendable industry.

3.—METEOROLOGY.

This section of the work of the Department is increasing yearly. The Meteorological readings taken in the Gardens are found extremely useful from a cultivator's point of view, for giving a correct idea of the temperature and climate under which our various plants are found to thrive; and is also perhaps quite as useful in affording information as to the climate in which a plant will not thrive. Mere records of temperature are not only useless, but absolutely misleading, from a cultivator's point of view, but all the conditions of the general environment should be fully known before it can be recognized whether a plant can be profitably cultivated or not, and it is information of this kind which we place on record in our yearly register of Meteorological observations.

The Island Rainfall is also compiled by this office, from observations taken at 104 Stations. The details are more suitably given this year in a separate report, but are given as usual in Appendix.

4.—HERBARIUM.

A set of dried plants numbering over 800 mounted sheets was despatched to Kew during the year for determination.

The usual collecting, mounting of Herbarium Specimens, and work of arrangement has been carried on with the most careful attention, and a large amount of material has been properly prepared and placed in cabinets.

It will soon be needful in many of the orders to institute a careful search for already known members, so as to fill in the *genera* and *species*, which have not as yet been met with.

The aim and end of the work—which cannot be carried on in a hurried manner—is to prepare the material or groundwork for a Flora of the Island of Trinidad. This aim has been steadily kept in view for several years past, and the material now accumulated in the Herbarium is such as to give rise to many commendatory remarks from Botanical visitors and others who have seen well-kept Herbaria in various countries.

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Good cabinets of an approved pattern, constructed solely of West Indian Cedar, are the only ones used.

These have been built in the precincts of Gardens from timber grown therein and their number is added to from time to time, as the service requires.

5.—CORRESPONDENCE.

This part of our work shows a decided increase each year.

In 1888, being the first full year of which a record was kept; 1,150 communications were registered as leaving the office.

During 1894 there were sent out 3,000 or more than double that number.

This large increase is due in part to the increased issue of the Departmental Bulletin* and also to the issue of "Circular Notes" which are cyclostyled as required. Eight numbers of the latter, each number consisting of some 50 copies, were sent out. "Circular Notes" are found to be specially useful in speedily reaching local correspondents on matters relating to, or connected with, the Agricultural Industries of the Island.

6.—DECORATIVE WORK.

Plants, as in former years, have been loaned out for decorative purposes on twelve occasions, and 694 plants were used, most of which were of large size.

No charge is made for the loan of plants, but a deposit is required of the borrower, until the plants are returned, to cover any damage which may happen. This is a very liberal measure, as in some colonies they are hired at so much per dozen for each occasion.

The supply of decorative plants and flowers to the residence of His Excellency the Governor has been regularly maintained.

The total number of decorative plants in use for all purposes during the year was 3,485.

7.—FLOWER GARDEN.

The recording of flower garden work year by year is a somewhat monotonous task, as the major part consists of routine labour; clearing, cultivating, digging, manuring, pruning, watering, &c., which is practically the same each year. During 1894 this class of work has been regularly performed.

Special mention should however be made of a trial cultivation of Gladiolus.

The "bulbs" were imported in January and planted at once. In a little over a month they were in full blaze of bloom, and were fully equal in size and colour to those cultivated in a temperate climate.

Only cheap seedling varieties were selected, as, in our climate, the plant cannot be cultivated to form "bulbs" of any value for producing flowers of good quality a second season.

The experiment, which formed a new departure in flower-gardening in Trinidad, was highly successful; the beds were much admired by visitors, and it is in process of being repeated during the present year.

We have been at some pains to find the dimensions of our largest specimen of Amherstia nobilis.† They are as follows:—height from ground to top of branches, 50 feet; diameter of the spread of branches, 48 feet; circumference of stem at 2 feet from ground, 5½ feet. The tree has greatly improved in appearance during the later months of the year. Some little time ago it had assumed a wretched appearance, owing, it was found on examination, to a leaking pipe deluging its roots with water. This was remedied and a good coating of manure applied with satisfactory results. Our second tree is some 20 feet in height.

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*Issued once a quarter.

†The tree has now (January, 1895), an abundance of blossoms which we find extremely useful for decorative purposes at this season.

The following Orchids flowered in the Gardens during the year 1894 :—

Epidendrum Stamfordianum.
,, bituberculatum.
,, Schomburghii.
,, elongatum.
,, cochleatum.
,, Hartii.
,, nocturnum.
,, atropurpureum.
,, jamaicense.
,, fulgens.
,, patens.
,, indivisum.
,, fragrans.
,, variegatum.
,, macrochilum.
,, ciliare.
,, sthenopetalum.
Dendrobium densiflorum.
,, aggregatum.
,, Farmeri.
,, superbum.
,, nobile.
,, undulatum.
,, Brymerianum.
,, moschatum.
,, Pierardii.
,, fimbriatum.
,, anosmum.
,, Dalhousianum.
,, Parishii.
,, nodatum.
,, Aphrodite.
,, Jenkinsii.
Oncidium Papilio.
Oncidium Kramerianum.
,, citrinum.
,, ampliatum.
,, Sprucei.
,, altissimum.
,, Lanceanum.
,, luridum.
,, bicolor.
Phalœnopsis amabilis.
,, violacea.
,, Schilleriana.
,, grandiflora.
,, sumatrana.
Dendrobium Phalœnopsis grandiflora.
Cattleya amethystoglossa.
,, Gaskelliana.
,, gigas.
,, Mossiæ.
,, speciosissima.
,, Digbyana.
,, Skinneri.
Angrœcum Scottianum.
,, citratum.
,, Ellisii.
,, sesquipedale.
Saccolabium retusum.
,, guttatum.
,, giganteum.
Gongora maculata.
,, White form.
,, atropurpurea.
Lockhartia elegans.
,, acuta.
Vanilla planifolia.
Vanilla grandifolia.
Aerides suavissimum.
,, spp.
Brassia caudata.
,, maculata.
Catasetum Bungerothii.
,, tridentatum.
Vanda teres.
,, tricolor.
Coryanthes maculata.
,, macrantha.
Cypripedium Lawrencianum.
,, Harrisianum.
Broughtonia sanguinea.
Peristeria pendula.
Maxillaria sp.
Schomburghia undulata.
Zygopetalum cochleare.
Xylobium hyacinthiflora.
Trichocentrum Hartii
Bletia Shepherdi.
Miltonia spectabilis.
Batemannia Colleyi.
Cirrhopetalum O'Brienianum.
Stelis ophioglossioides.
Aspasia variegatum.
Camaridium ochroleucum.
Peristeria pendula.
Polystachia luteola.
Bifrenaria aurantiaca.
Rodriguezia secunda.
Pleurothallus discoidea.
Stanhopea grandiflora.
Cœlogyne flaccida.
Diacrum bicornutum.

8.—ROADS, WALKS, AND DRAINS.

The "Governor's Walk," (so named many years ago) has been straightened, and has been supplied with stone edging its entire length 630 feet. This walk runs west from the terrace of the Governor's Residence.

It was also graded into two sections, metalled, gravelled and drained. This was a lengthly and costly work, but the improved appearance amply compensates for the outlay in labour and material. Over eighty loads of gravel were used for this purpose.

The Western end of this walk would form a very appropriate situation for a statue of some eminent man, and I look forward to the time when one may be placed there.

The entrance to the Nurseries from the Orchard has been removed from its old position, and is now on the straight road leading by the Bungalow of the Assistant Superintendent, in front of which a large umbrageous tree forms a convenient shelter for carriages while visitors are going the round of the Nurseries.

Considerable additions have been made to the central paved ravine which passes through the nutmeg grove, and the sides have been raised so as to prevent the higher floods carrying away the soil from the roots of the trees. Over the lower portion of this drain, a new concrete bridge has been built. This was required in consequence of it not being large enough to carry the increased volume of water that finds its outlet by this channel, owing to improvements in the drainage which have been effected during the past few years. The road drain which runs parallel with the carriage drive to Government House, is insufficient in size to carry off the waters which accumulate and blocks frequently, and will have to be eventually replaced by one of larger size.

An improvement in the arrangement of the roads has been carried out in the experimental section of the Garden, whereby a large piece of ground has been made available for use. The improvement consisted in straightening the road and throwing into the cultivated portion a piece of ground hitherto occupied by trees of little or no value.

This portion is now being brought into use for the cultivation of Coffee, Cane, Fibres and other products.

9.—VISITORS.

The number of visitors who recorded their names in our books since the issue of last report was 401 on December 19th, which slightly exceeds the previous year's record.

Among the list are to be found the following names: Sir Arthur Birch, Mr. Phil Muntz, Mr. F. Chapman, Mr. Brewster, Admiral Sir Anthony Hiley Hoskins, Mr. and Lady H. Carbury-Evans, Mr. J. O. Potter, Mr. and Mrs. Machonochie-Wellwood, Mr. and Mrs. Malcolm Wood, Baron Eggers, Senor Somario, Mrs. E. Wetmore.

The numbers here registered are principally those calling at the office, but the numbers of visitors for promenade is probably ten times this number, excluding nurses and children, for whom the Garden is a place of regular daily resort.

Several patterns of garden seats have been imported, and a vote has been placed on the Estimates for 1895, for the provision of a large number of similar patterns which it is hoped will be in place early in the year for the accommodation of visitors. In this importation I have been joined by Mr. Meaden, the acting Superintendent of Pastures, who is procuring a similar supply for the Queen's Park. This will supply a long felt want, and I am sure the public will much appreciate the addition which has been made for their convenience.

The electric eel died in February, but has been replaced by a small specimen procured from the Orinoco. This eel, together with a few other specimens of the *fauna* of the Island collected in the vicinity of the Gardens, proves of the greatest interest to tourists and visitors in general.

For the amusement of visitors the Police Band plays in the Gardens twice each week, but there is no proper accommodation for either band or visitors, in the shape of shelter, in case of sudden showers. It is intended to submit proposals to the Government with the view of meeting this want, during the coming year, and it is hoped we may be successful in obtaining further convenience for the public.

10.—NURSERIES.

In the Reports for 1891, 1892 and 1893 we were able to record successful years of Nursery Work and increasing sales, but this year our work of distribution is somewhat smaller than previous years; we are nevertheless able to record satisfactory results in the following Tables:—

TABLE I.—*Distribution of Plants and Seeds in exchange, 1894.*

Where Distributed.	Plants.	Seeds.	
		Countable.	Packages.
To places abroad ...	1,202	178	232
,, inland ...	758	161	...
	1,960	339	232

TABLE II.—*Plants and Seeds received in exchange, 1894.*

Whence Received.	Plants.	Packages of Seeds.
From places abroad	644	399
,, inland	470	81
	1,114	480

TABLE III.—*Plants, Seeds and Flowers purchased and sold, 1894.*

Purchased.		Sold.		
Plants.	Packages of Seeds	Plants.	Boquets and Wreaths.	Countable Seeds.
3,141	28	17,877	69	14,956

TABLE IV.—*Total List of Plants and Seeds distributed by Sale and exchange, 1894.*

Plants.	Countable Seeds.	Packages of Seeds.	Bouquets, Wreaths, &c.
19,837	15,295	232	69

Although the above Tables show a smaller distribution, the receipts were less last year by £27 9 4 only.

Our sales of Nutmeg plants have been larger than for many previous years, and there seems to be a disposition among planters to extend their cultivations of this product. Steady sales have been made of Rubber stock, and reports from planters show both in Trinidad and Tobago that the Castilloa is a tree well suited to our climate, and I am not able at present to keep pace with the demand for plants. A free distribution of seeds of the Para Rubber, Hevea braziliensis, was made in October to various Planters of the Island.

The purely decorative portion of the Nurseries has been improved by the erection of a glass-house, 44 feet long, by 12 feet wide with central and side stages. This has proved of the greatest service to us in growing the more delicate plants, and it has been found so generally useful, that means will be taken to extend the glass area as soon as possible, as we find it not only convenient and useful, but much more economical than growing plants out-doors.

Besides the glass-house, a glass seed and plant shed was erected. The glass for this purpose, obtained from the Public Works' Department, is rough plate which had previously been used for lighting roofs. This structure has enabled us to grow a fine batch of Chrysanthemums, an account of which is given in our Bulletin for January, 1895. The shed is also useful for the protection of seedling plants.

The whole of the Nursery beds have been re-arranged during 1894, and some new paths and edgings have been made which must be considered an improvement. The old potting shed which had done service for many years was found to be so much decayed in places that it was hopeless to repair it. It was therefore taken down, and a new shed has been constructed of a convenient and suitable pattern, on the Eastern side of the nurseries, where it is intended to assemble in course of time all the nursery buildings as being much more convenient and suitable in all respects than the old site.

As will be seen from the list of plants received, Appendix II., we have again to record the safe receipt of a large consignment of plants from the Royal Gardens, Kew, for which we are greatly indebted to that Institution.

Consequent upon my visit to the British Guiana Garden in April, 1894, I was able to procure a number of plants wanted for our gardens and to make a similar return to Mr. Jenman.

I found the short visit I made of the greatest service in procuring information and in comparing notes on various subjects for the benefit of the establishment under my care.

The character of the British Guiana Garden is totally different to that of Trinidad, as it is laid out in low-lying lands with a large proportion of water area. The lakes contain innumerable fine specimens of aquatic plants. The notable Victoria regia, Red and White Nymphœas, and the celebrated "Lotus" or Nelumbium being equally conspicuous. From this source alone sufficient flowers can be obtained in a single morning to dress a Church or decorate a Ball-room.

The provisions necessary for the proper growth of aquatic plants, are unfortunately absent from our gardens. Several proposals for supplying this deficiency emanated from my immediate predecessor but were unsuccessful.

Among the plants which the erection of a glass-house has enabled us to raise, are many tender seedlings, the most notable of which are young plants of the different species of Anthurium.

We have now seedlings in large numbers, of Anthurium magnificum, A. crystallinum, A. Andreanum, and others. These show the usual variation found among seedling plants, and there is good reason to hope that some novelties will be produced.

A small set of the best varieties of Achimenes found a congenial home under our glass roof, and Foliage Begonias have also made a fair show. The number of varieties of the latter have been increased by consignments from Kew and other establishments.

ARAUCARIA EXCELSA.* Norfolk Island Pine. About two years ago we made an importation of young plants of this *Araucaria*. The tree is one which thrives well and grows rapidly, and the consignment was rapidly disposed of, a large number being bought up by Venezuelan correspondents for planting in and about the neighbourhood of the city of Caraccas, and it may be mentioned that the "Junta de Acclimatation" of that city is now in correspondence with our office regarding the supply of plants, intended for a new Garden, which is to be established there with the support of the Government.

Our largest specimen of this tree measures over 92 feet in height, with a circumference at the base of the stem of 7 feet. From one of our trees we have lately collected a quantity of resin many pounds in weight, and one tree has produced cones.

11.—BULLETIN.

The issue of this publication has been continued at quarterly intervals.

The subjects treated upon were as follows :—

Article	34	—Black-pepper.	
,,	35	Logwood.	
,,	36	Banana disease.	
,,	37	Cacao Beetle.	
,,	38	Vanilla.	
,,	39	Grafted Nutmegs.	
,,	40	Sisal Hemp.	
,,	41	Long Pepper.	
,,	42	A recording Thermometer.	
,,	43	A Cassava Grater.	
,,	44	Cacao Seed experiment.	
,,	45	Weakened vitality in seeds.	
,,	46	Circular Notes.	
,,	47	Darwin's Letters.	
,,	48	Cruger's Publications.	
,,	49	Criollo Cacao.	
,,	50	Cacao disease.	
,,	51	Epidendrums.	
,,	52	Natural enemies of the Parasol Ant.	
,,	53	Parasol Ants.	
,,	54	Nicaraguan Cacao.	
,,	55	Cane disease.	
,,	56	Liberian Coffee.	
,,	57	Cacao Drying.	
,,	58	Gladiolus culture.	
,,	59	Yam culture.	
,,	60	Nicaraguan Cacao Shade.	
,,	61	"Bete-rouge."	
Article	62	—Pepper.	
,,	63	Peas for Tropical Culture.	
,,	64	Glass for the Tropics.	
,,	65	West Indian Fruits.	
,,	66	Central American Rubber.	
,,	67	Cane disease.	
,,	68	Coffea sp. Sierra Leone.	
,,	69	Swamp Planting.	
,,	70	Personal.	
,,	71	Agricultural Society of Trinidad.	
,,	72	Vanda teres.	
,,	73	Pancratium caribœum.	
,,	74	Araucaria excelsa.	
,,	75	Macadamia ternifolia.	
,,	76	Madera.	
,,	77	The Cashew.	
,,	78	Cyperus rotundus.	
,,	79	Ampullaria cornuarieties.	
,,	80	The Botany of a Tree.	
,,	81	Attacus cynthia.	
,,	82	West Indian Fruits.	
,,	83	Trinidad Meteorology.	
,,	84	Chicago Exposition awards.	
,,	85	"Calalue."	
,,	86	Manures.	
,,	87	Cane Cultivation.	
,,	88	Ganja.	
,,	89	A new drier for Coffee, Cacao, &c.	

The circulation of the Bulletin is steadily increasing, which in itself is the best testimony of its usefulness as a means of distributing information and it will be continued on similar lines during the coming year. It will be the endeavour of this Department to make it as valuable as possible to the general public by publishing, not only local records of experience, but suitable extracts from similar publications received in exchange from other Colonies.

These exchanges are very valuable as affording means of knowing what is being done in other parts of the world, and valuable information on various points is made accessible to Trinidad planters in this way.

The form which our Bulletin now takes, is, as near as possible, the handy form given to the Bulletin issued by the Kew authorities.

Records, experiments, or notes published in such form, are, it cannot be doubted, more likely to become of permanent value, than if published in the columns of the newspapers, which as a rule are read and thrown away and the information forgotten; while by exchange we procure a large amount of valuable information not otherwise obtainable.

12.—ECONOMIC SECTION.

The record of work in the Economic Section has been so fully discussed in the Bulletins for 1893, that there is less to report upon than usual.

SUGAR.—The year just passed has been a trying one for this industry. The "Cane diseases" known as Trichosphœria Sacchari, and Colletotrichum (now said to be forms of one organism) have been prevalent.

* We have lately received from London a small consignment of young plants which are now on sale.

Our plot of canes in the Garden has been attacked, and the presence of the destructive fungus is easily recognised by the red and spotted state of the foliage as well as by microscopic characters.

There are among our planters some, who disregard the serious view taken of the disease, and assume that it will disappear under favourable circumstances, or that its attacks may be practically disregarded where good cultivation is the rule.

There are others who incline to the more serious view. One fact however is evident. The fungus *is present* and *it can* destroy the cane alone and unaided by other influences.

Close observation is however still needed to show the extent of its spread and the measure of its destructiveness. To obtain such details, is a work which presents features of difficulty which can hardly be realized except by those intimate and conversant with the local interests involved in the question.

It has been stated by one of our largest sugar planters at the table of the Agricultural Board (on whose opinion many of lesser note will rest their action), that he saw no cause for any alarm with regard to the disease, and on the other hand, it cannot be denied that able men have taken an opposite view.

The Agricultural Board has endeavoured to obtain united action for further examination of the question but so far with little success. Such is the state of the case at the end of the year 1894.

If the disease increases it cannot be urged that no measures of relief were proposed.

If on the other the disease disappears, as all hope it may, no one can possibly regret the time devoted to its examination, even if looked at from a purely botanical point of view.

With the view of recording the effect of good cultivation, every attention will be given during 1895 to ensure our small garden plot getting the highest cultivation possible.

It is known that the disease is present with us, but if it can be shown that under high cultivation canes are able to withstand its attack, a point of no little importance will be gained.

I do not wish to anticipate in the matter; but I feel sure that the trial will be one which will prove the measure of security of those who rest their opinion on the *non*-serious character of the disease.

SEEDLING CANES.—Our experience so far, shows that seedling canes have resisted the attack of diseases of all kinds much better than older varieties, and on a visit to British Guiana in April last, I made arrangements to secure some of these, from the cultivation under the care of Mr. G. S. Jenman who sent me towards the latter end of the year (38) thirty-eight varieties.

Some of these (in comparison with the variety known as the Bourbon so commonly cultivated hitherto throughout the West Indies) showed a remarkable percentage of sugar contents.

Taking the yield of the Bourbon as 100, analysis shows as follows:—

Bourbon	...	...	...	... 100.
No. 102	...	...	...	... 110.
No. 74	...	...	...	... 112·7.
No. 95	...	...	...	... 118.
No. 78	...	...	...	... 127·6.

If these results are maintained by the seedling varieties, and there is no reason at present shown why they should not be; it marks a distinct advance in the productive capabilities of the cane.

The cuttings received from Mr. Jenman have been planted, and most of them are thriving, so that we may expect to be able to propagate them at a rapid rate, and distribute freely among our planters at no distant date.

While writing this Report I have received confirmation of the correctness of the results obtained by Messrs. Jenman and Harrison from Professor W. C. Stubbs of the Sugar Experiment Station, Baton Rouge, Audubon Park, New Orleans.

The Professor writes—"*Out of twenty varieties sent me No. 95 was by far the "richest followed by 74. I did not receive 78 and 102. No. 95 gave Sucrose 15·0, "Glucose ·70. No. 74 gave Sucrose 12·2, Glucose 1·02. I am delighted to see this "concurrence.*"

CACAO.—The varieties of Cacao obtained from Nicaragua in 1893 are doing fairly well with the exception of Theobroma bicolor which appears to be particularly tender

in the Gardens. Plants of the old Ceylon Red obtained for comparison with our varieties, are growing vigorously. In December Baron Eggers, a Danish Botanist, who has interested himself largely in economic Botany, visited the Gardens. He was accompanied by Senor Seminario from Ecuador who is largely interested in Cacao in that country.

I learnt from him that they have several varieties under cultivation which are not present in Trinidad, and I have made arrangements to obtain these with a view to comparing their quality with our own produce.

It should be remembered that Trinidad depends for the major portion of her crop upon the introduced variety known as Forastero or Foreign Cacao, and it is quite possible that other introduced varieties will thrive as well as the Forastero, and, it may be, better, and that "new blood" will be of the greatest service.

It is stated that in Ecuador the Cacao tree grows naturally, attains a large size and cultivation is of the most primitive character, the crop being taken practically from real Cacao Forests.

If such is the case there must be an amount of vital energy in the trees which our varieties do not possess, and it becomes desirable in the interests of our planters to test the value of the varieties cultivated. A special variety mentioned, is known as "Esmeralda" which I am informed is thin-skinned, and of fine quality.

Under the head of Nurseries in the Annual Report for 1890, I mentioned that I had secured pods of a peculiar clustered form, and that the seeds had been sown for the purpose of testing the character of tree they would produce—one of these seedlings fruited during the past year—it is a small tree but very fruitful, producing a large number of medium sized pods, but there is nothing of an unusual character in their appearance and the clustered character has disappeared. Whether other trees yet to fruit will differ in their produce remains to be seen.

COFFEE.—The demand for Coffee plants has not been large this year, and so far as I am aware, no systematic planting has been started.

Our seedlings in the Nurseries have suffered from the disease known as *Cercospora coffeeicola*, a leaf fungus. This is not the leaf fungus of Ceylon, and is probably not to be regarded in a very serious light, for although it does considerable damage to young seedlings, it has not been found to injure fruiting trees to any appreciable extent. We have fruiting trees the picture of health with scarcely a leaf injured, while close beside these, are nursery beds where the fungus has done considerable damage.

It thus appears that once the plant gets beyond the seedling stage it is practically safe from attack.

YAMS.—Our experiment with yams last year as recorded in No. 9 and published in Bulletin No. 23 is deserving of mention in Annual Report.

It shows that 644 lbs. of "yam" was obtained from 3½ square perches of ground.

The experiment has been continued with other varieties, and it is hoped to record results during 1895.

So far the growth of the plants has been eminently successful, but as the crop will not be ripe for some months to come, we cannot anticipate the final result. Several fine imported kinds are under cultivation which are never seen in our local markets, the supply for which is furnished chiefly by St. Lucia, St. Vincent, Grenada and Tobago, very little being grown in Trinidad. One of the chief obstacles to its growth has been the attack of the *Parasol Ant* which cuts yam leaves in preference to any other, but it is hoped that with modern appliances this pest may in future years be held in check so as to allow of such cultivations being carried on.

GAMBIR. *Uncaria Gambir.*—The plants which we noted in last year's report as growing freely, have continued in good health, and have twice produced flowers without producing seed, but it is hoped that as they grow stronger, we may be able to secure good seed from them.

VANILLA.—In our report for 1892 we gave a description of the Vanillas under cultivation.

1. Under the name of *Vanilla planifolia, Aud.*, was included plants of the "Sion House variety" which is known to be one of the best under cultivation.

It is without doubt the true Mexican species, and produces long thin pods which contain a large proportion of Vaniline.

Under the name of *Vanilla planifolia, Aud.*, was also included several plants received from Kew under the name of Vanilla sp. (Singapore). Received in 1892.

Another kind also to be placed here is *Vanilla planifolia, Aud.*, "Mauritius." From vegetative characters all the above appear to be identical with the true Mexican variety, but this of course cannot be correctly determined until each has fruited.

Another variety received from Kew under the name of *Vanilla sp.* "Macassar" may also have to be included, but its characters in the primary stages of growth differ somewhat from those first mentioned. As the growth lengthens however, many of the characters of *Vanilla planifolia* are becoming apparent.

This change in the form of growth is very common among the Vanillas. While of small size, it is extremely hazardous to attempt to name them from vegetative characters alone, and it is only when they have put on the foliage leaves characteristic of the flowering stage, and when they have produced flower and fruit, that they can be properly determined.

Those who wish to commence this culture can obtain plants of the varieties mentioned.

Besides these varieties we have on hand *Vanilla phænantha* and *Vanilla grandifolia*, the latter producing a fine, sweet, and what is termed in the markets a "meaty" pod.

THE BRAZIL NUT. *Bertholetia excelsa* —Our trees have given an excellent crop during the past year, and we have been able to supply many of the neighbouring Islands with plants and seeds.

Our finest tree has a stem of 4 feet in diameter, its height is over 105 feet and the spread of its branches has a radius of 47 feet.

From the shells of these nuts can be made many useful and ornamental articles. They are especially useful for making Tobacco jars and similar articles, and when properly cut and polished they are very pretty.

They are especially sought for as *souvenirs* by visitors. The "nuts" are for the greater part used for raising seedling plants. They are larger in size and fully equal in flavour to the Brazilian product, as generally seen on the markets.

As an ornamental tree, the "Brazil Nut" can hold its own with any of its neighbours; in its proportions it ranks with the largest and in general contour, and in the beauty of its foliage, it "carries the Palm" among trees in the Trinidad Gardens.

COLA. *Sterculia acuminata.*—Among the plants to which especial attention has been directed during the past year has been *Sterculia acuminata*, or the "Cola Nut," and a "Circular Note" was issued calling attention to the advancing price of the marketable article.

The Cola tree thrives well in Trinidad, as it simply requires the same conditions and soil as suit its "first cousin" the Cacao tree.

There cannot be a doubt that Trinidad can in a very few years put a large quantity of this article upon the market, if prices continue to rule high enough to make it remunerative to the grower.

Produce sent home during the past year from the Botanical Department was valued at 1/3 per lb., and on this becoming known, many urgent enquiries for plants were received at this office, the greater proportion of which we were able to supply, and we are now making provision for a large increase. Eighty of our nuts make a pound when dry, and one of our trees produced last year nuts to the number of 990 or over 12 lbs. of dry produce, this at 1/3 per lb. gives 15/- per tree.

The tree bearing this quantity of nuts is not larger than the average size Cacao tree of Trinidad, but is somewhat taller, and has received no special culture whatever. The nuts fall when ripe, when they should be at once collected, peeled and placed in the sun to dry, no fermentation being necessary. When they have become partially dry the outer skin of the "nut" or seed should be removed, and the cotyledons divided. When this stage is reached the drying process should proceed as rapidly as possible, and when the nuts have become hard and brittle, they are fit for market.

J. H. HART, F.L.S.,
Superintendent Royal Botanic Gardens.

APPENDIX I.

Plant and Seed Distribution and Exchange.

Plants and seeds were distributed to the following correspondents during the year :—

Royal Gardens,	...Kew.
Botanic Gardens	...Jamaica.
,, ,,	...Antigua.
,, ,,	...Barbados.
,, ,,	...St. Vincent.
,, ,,	...Grenada.
,, ,,	...St. Lucia.
,, ,,	...Queensland.
,, ,,	...Melbourne.
,, ,,	...Sydney.
,, ,,	...Adelaide.
,, ,	...Port Darwin.
,, ,,	...Ceylon.
,, ,,	...Hong Kong.
,, ,,	...Singapore.
,, ,,	...Demerara.
,, ,,	...Mauritius.
,, ,,	...Java.
,, ,,	...Brisbane.
,, ,,	...Straits Settlements.
,, ,,	...Bombay.
,, ,,	...Durban, Natal.
,, ,,	...Fiji.
,, ,,	...Bangalore.
,, ,,	...Lagos.
Sydney Courtauld, Esq.	...England.
M. Buysman	...Holland.
Revd. Père Beyrinns	...Martinique.
Dr. M. M. Child	...Santa Barbara, U.S.A.
R. V. Sherring, Esq.	...England.
Messrs. Haage & Schmidt	..Germany.
,, Vilmorin-Andrieux & Cie.	...France.
,, J. Veitch & Sons	...England.
L'Horticulture Internationelle	...Belgium.
J. O'Brien, Esq.	...England.
Messrs. Hugh Low & Co.	.. ,,
Hon'ble. W. Low	...Tobago.
S. R. Blois, Esq.	... ,,
Mr. McDonald	...St. Vincent.
Rev. Father Reginald	...Tobago.
Messrs. T. Christy & Co.	..England.
Secretary Pharmaceutical Society	... ,,
A. Arguello, Esq.	...Granada, Nicaragua
Aristakes Azarini, Esq.	...Constantinople.
E. Purchase, Esq.	...Jamaica.
Sir F. Abel. Bart. Bart	...London.
Messrs. Parke Davis & Co.	.U. S. A.

APPENDIX II.

Plants and seeds were received from correspondents according to the following List, which forms annually a permanent record of introductions made, and is also an acknowledgment to our correspondents in the various Institutions which favour us with exchanges, and present similar returns :—

Names.	Names.
From Royal Gardens, Kew.	**From Royal Gardens, Kew.**—*Continued.*
Alphitonia excelsa	Orania macrocladus
Atalantia monophylla	Phœnix sp. recd. as P. Rœbelliana
Balsamodendron Roxburghii	Pritchardia Thurstoni
Baphia nitida	Raphia vinifera
Butyrospermum Parkii	Rhopalostylis sapida
Cæsalpinia echinata	Begonia coccinea
Copaifera Mopane	,, Haageana
Dialium guineense	,, erythrophylla
Dioscorea sp.	,, sanguinea
Gardenia sp. Lagos	,, Scharffiana
,, gummifera	Begonia Paul Bruant
Landolphia Heudelotii	,, Rex, 5 new varieties
Macaranga sp. W. Trop. Africa	Beschorneria viridifolia
"Oil Berry," Caffraria	Centaurea crassifolia
Pilocarpus pinnatifolius	Crassula tetragona
Shorea talura	Dracæna Draco
Strophanthus sp. Lagos	Echidnopsis cereiformis
Styrax Benzoin	Greyia Sutherlandii
Tree 20 feet high, Lagos	Kalanchœ glaucescens
Vanilla sp. Macassar	Phyllocactus—12 named vars.
Areca glandiformis	Pitcairnea cœrulea
Bactris sp. Mexico	Sanseviera Kirkii
Calamus sp. Andamans	Xanthorrhea Preissii
Caryota Cummingii	
,, Rumphiana	**From Botanic Gardens, British Guiana.**
,, sp. Siam	
Chamærops humilis var. chinensis	Amarantus viridis
,, ,, ,, elegans	Hydriastele Wendlandiana
,, ,, ,, flexuosa	Victoria regia
Corypha Gebanga	Xanthosoma atrovirens
Licuala grandis	Passiflora Jenmani
Nephrosperma, Van Houtteana	

APPENDIX II.—*Continued.*

NAMES.

From Botanic Gardens, British Guiana.—*Continued.*

Begonia kewensis
Thrinax excelsa
Selaginella Lobbii
Chrysalidocarpus lutescens
Plumbago rosea
Petræa alba
Davallia sp.
Anthurium magnificum
Selaginella concinna
Crinum album
Euphorbia sp.
Nipa fruticans
Euterpe edulis
Capsicums
Selaginella Brownii
,, concinna
,, rubella
,, caulescens
,, uncinata
,, fulcrata
,, bellula
,, viticulosa
,, apus var. minor
,, Lobbii
,, phymatodes
,, Kraussiana
Mimusops globosa
Eranthemum eldorado
Arenga saccharifera
Erythroxylon Coca
Euterpe stenophylla
Eichornea speciosa
Utricularia oligosperma
Salvinia natans
Cabomba aquatica
Amarantus globosus
Eichornea tricolor
Caryota urens
Chinese eddoes
Yellow tannia
Afoo yam
Barbados white yam
Buck yam
Horn yam

The following list of seedling Sugar Canes was also received:—

Seedling Canes of 1889.

Nos. 32, 40, 49, 51, 53, 57, 61, 69, 74, 78, 80, 81, 89, 95, 102, 103, 108.

Seedling Canes of 1890.

		Parent's Name.
No. 109.	Purple, with white waxy bloom.	Rappœ.
,, 115.	Horn-coloured like Elephant.	Caledonian Queen.
,, 116.	Light green.	
,, 117.	,, ,,	
,, 119.	Purple.	Red Ribbon Canes. Striped Singapore.
,, 124.	Very dark purple.	
,, 125.	Purple passing to Horn.	
,, 128.	Purple, with white bloom.	
,, 129.	Pink, a light claret turning to Horn.	
,, 130.	Green.	
,, 132.	Pink and claret turning to variegated Horn.	
,, 185.	Green soiled with pink.	
,, 145.	Bronze claret.	—Red Ribbon
,, 170.	Green, with red blotches	—Meligeli.

NAMES.

From Botanic Gardens, British Guiana.—*Continued.*

No. 212.	Light claret.	Mani.
,, 220.	Bronze claret.	
,, 238.	Claret or light purple.	
,, 246.	Bronze claret.	—Horn.
,, 269.	Yellowish green.	
,, 282.	Green soiled.	
,, 332.	Bronze claret.	—Red Ribbon

The four best canes among this importation according to Messrs. Jenman and Harrison are Nos. 102, 74, 95, 78, and these gave yields when compared with the Bourbon cultivated on the same ground and in the same manner as follows:

Bourbon = 100·	No. 95 = 118·
No. 102 = 110·	No. 78 = 127·6
No. 74 = 112·7	

From Botanic Gardens, Mauritius.

Croton tiglium
Corypha elata
Nephrosperma Van Houtteana
Livistona humilis
Sabal Adansonii
Hyophorbe amaricaulis
Acanthophœnix crinita
Hyophorbe Verschaffeltii
Hyophorbe amaricaulis
Chrysalidocarpus lutescens
Dypsis sp.
Licuala horrida
Dictyosperma alba
Latania mauritanica
,, Commersoni
,, Loddigessii
Ravenala madagascariensis

From Botanic Gardens, Jamaica.

Diplothemium caudescens
Spathelia simplex
Pinanga Kuhlii
Areca glandiformis
Aegle marmelos
Licuala elegans
Gymnogramme sulphurea
,, calomelanos
Asplenium fragrans
,, dimidiatum
,, cicutarium
Nothochlœna trichomanoides
Davallia inæqualis
Asplenium rhizophorum
Hemionitis palmata
Anemia phyllidis
Nephrodium conterminum
,, patens
Adiantum macrophyllum
,, concinnum
Polypodium incanum
Asplenium Franconis
Nephrodium effusum
Gymnogramme rufa
Aspidium trifoliatum
Pellæa marginata
Asplenium aureum var
Oncidium ampliatum majus
Dictyosperma alba
Chrysalidocarpus lutescens

From Botanic Gardens, Grenada.

Grenadine Oranges
Yam Bean
Abutilon polyandrum
Nelumbium speciosum
Ptychosperma Alexandræ

APPENDIX II.—*Continued.*

Names.	Names.
From Botanic Gardens, Grenada.— *Continued.*	**From Botanic Gardens, St. Vincent.**
Stevensonia grandifolia	Chinese Yams
Roses. Madame Margottin	**From Botanic Gardens, Bangalore.**
The Bride	Abutilon polyandrum
Etoile de Lyon	Abroma augusta
Lady Warander	Cassia montana
Cloth of Gold	Bauhinia monandra
Marie Sisley	Ipomœa grandiflora
Alice Sisley	**From Botanic Gardens, Singapore.**
Devoniensis	Kentia McArthuri
Paul Neyron	Sterculia parviflora
Triplaris surinamensis	Artocarpus rigidus
Rhus succedanea	Baccaurea minor
Cyphomandra Betacea	Kumpassia malaccensis
Adiantum farleyense	Sterculia scaphigera
,, Victoria	**From Botanic Gardens, Ceylon.**
,, elegans	Strychnos Nux-vomica
Gymnogramme calomelanos	**From Botanic Gardens, Lagos.**
Microlepia hirta-cristata	Irvingia Barteri
Croton mutabilis	**From Botanic Gardens, Calcutta.**
Dacryodes hexandra	Phœnix paludosa
From Botanic Gardens, Durban, Natal.	**From Botanic Gardens, Dominica.**
Strelitzia augusta	Durio zibethinus
Vitis capensis	**From Agri-Horticultural Society, Madras.**
Anemone Fanniniecæ	Bauhinia acuminata
Gladiolus Ecklonii	Cassia auriculata
Dierania pendula	Myrospermum sp.
Chironia purpurascens	Gloriosa superba
Ceratotheca triloba	Dracœna succulosa maculata
Tephrosia macropoda	Adenanthera pavonina
Anomatheca crinita	Hibiscus collinus
Ophiocaulon gummifera	Sterculia alata
Thalictrum rynchocarpum	Peltophorum ferrugineum
Agapanthus umbellatus vas album	Cassia nodosa
Aristea Eckloni	,, fistula
Albuca sp.	,, glauca
Knipophia Woodii	Bauhinia purpurea
Littonia modesta	Cassia marginata
Tephrosia grandiflora	Acacia sundra
Sandersonia aurantiaca	Nyctanthes arbor-tristis
Clematis Stanleyi	Calophyllum urophyllum
Mimusops obovata	Anogeissus acuminata
Erythrina caffra	Parkia biglandulosa
Encephalartus villosus	Spathodea crispa
Encephalartus caffra	Grevillea robusta
Vernonia sp.	Pterospermum suberifolium
From Botanic Gardens, Saharunpur.	Spathodea campanulata
Mirabilis jalapa	Sclerocenyra caffra
Abies Smithiana	Spilanthes oleracea
,, Webbiana	Natal Composite
Pinus excelsa	Bauhinia tomentosa
Paullinia eriopoda	Dalbergia frondosa
Phœnix rupicola	**From C. H. Dihm, Esq., U.S.A. Nurseries, Trinidad.**
Rubus trivialis	Caryota sobolifera
Schrebera suretanoides	Areca rubra
Cochlospermum gossypium	Hyophorbe gracilis
Buchanania latifolia	Licuala peltata
Acacia intsia, var.	Areca alba
Lebidieropsis orbicularis	Mauritia flexuosa
Sterculia urens	Pandanus utilis
Terminalia arjuna	Chrysalidocarpus lutescens
,, chebula	Corypha australis
Diospyros lotus	
Ichnocarpus frutescens	
Combretum nanum	
Dalbergia paniculata	
Diospyros melanoxylon	
Soymida febrifuga	
Strychnos potatorum	
Ixora parviflora	
Dalbergia latiflora	
Schrebera succictineoides	
Flamingia gobatifera	
Xylia dolabriformis	

APPENDIX II.– *Continued.*

NAMES.

From C. W. Meaden, Esq., Chaguanas, Trinidad.

Bois Immortelle

From H. Caracciolo, Esq., Trinidad.

Dipteryx odorata

From M. Buysman, Holland.

Solanum elephantium

From J. H. O'Brien, Harrow-on-the-Hill, London, England.

Eucharis Mastersii
,, Sandersii
Cyrtanthus McHenni
Tecoma Smithii
Lachenalia aurea var. gigantea
Nepenthes atrosanguinea
,, Chelsoni
Allamanda Williamsii
Anthurium Schertzerianum var. Wardii
,, Andreanum superbum
Aristolochia elegans
Dipladenia amabilis
Strobilanthes Dyerianus
Croton Andreanus
Begonias—7 kinds
Cyrtodiera fulgida
Aralia sp.
Lomaria Boryana zamioides
Adiantum cuneatum variegatum
Lastrea lepidota
Pteris tremula cristata
Oncidium objurgatum
Eriopsis sp.
Amaryllis reticulata striatifolia

From Prof. Batalin, St. Petersburgh.

Eleagnus umbellatus
Berberis rotundifolia
Sophora alopecuroides
Bertolonia maculata
Ligustrum Regelianum
Phormium tenax var. Cookii
Photinia arbutifolia
Ipomæa Roxburghi
Raphiolepsis indica
Jasminum Wallichianum
Dictamnus fraxinella
Capparis herbacea
Ilex latifolia

From R. V. Sherring, Esq., England.

Melon seeds.

From Mr. Justice Nathan, Trinidad.

Cattleya Ernstii
Epidendrum ciliare
Stanhopea grandiflora
Maxillaria, sp.
Epidendrum, sp.

NAMES.

From Conrad Stollmeyer, Trinidad.

Coconut Palms

From A. Jensen, Esq., Baranquilla.

Agave sp.
Furcræa sp.

From T. Christy & Son, London.

Coffee seeds

From Dr. R. Knaggs, Trinidad.

Mandevillea sp.
Asparagus sp.

From Virgilio Casalta.

Dipteryx odorata

From Vilmorin Andrieux & Cie.

Attalea compta
Geonoma gracilis
Latania borbonica, erecta
Phœnix rupicola
Gladiolus hybrids

From Messrs. Hugh Low & Co., England.

Cypripedium Curtisii
,, callosum
,, bellatulum
,, Victoria Mariæ
,, Charlesworthii
,, Elliotianum
,, Stonei
,, Argus
,, lævigatum
,, Valonteanum
,, tonsum
Vanda Kimballiana
,, cœrulea
,, amesiana
Saccolabium bellinum
Phalænopsis amabilis
,, Schilleriana
,, grandiflora
Dendrobium-Phalænopsis Schilleriana
Dendrobium macrophylla gigantea
,, Dearei
,, thyrsiflorum
,, crassinode
,, suavissimum
,, Brymerianum
Angræcum articulatum
,, citratum
,, hyaloides
Miltonia hyaloides

From Messrs. J. Veitch & Son, England.

Vegetable and Flower Seeds

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METEOROLOGICAL REPORT FOR 1894.

Annual Report on the Meteorological Service of Trinidad for 1894 by Mr. J. H. Hart.

ROYAL BOTANIC GARDENS, TRINIDAD.

Sir,

I beg to present the Annual Report on the Meteorological Service of the Island of Trinidad for the year 1894.

This Report which for the past seven years has been issued conjointly with the Royal Botanic Gardens Report, was found to delay the publication of the latter, owing to the amount of time which is necessary for the reception, examination, and preparation of the Annual Returns; and it has been thought better this year to report separately upon the Meteorological Service.

The History of the Meteorological Service is as follows:—The only published Records of Trinidad Meteorology available are those of the Royal Botanic Gardens which were commenced in 1862 by Dr. Cruger with the aid of instruments presented by the Admiralty of Great Britain, then presided over by Admiral Fitzroy. These were given on the understanding that proper Returns should be furnished to the home office for a series of years. which I learn from documents in this office was faithfully carried out.

Instruments of various kinds appear to have been added from time to time, and even astronomical observations were provided for, a large Telescope being fitted in a proper Observatory in the Gardens for this purpose.

Owing to causes the origin of which I cannot trace, the Observatory has disappeared, and the Telescope has found quarters for several years past in an upper verandah of the Governor's Residence.

The Records of the Garden are fortunately continuous from 1862 to the present date, and afford reliable information of the meteorological conditions of the Station for the long period of thirty-three years—a record which is probably as lengthy as in many Colonies of greater importance.

The Meteorological Records for the Garden are taken as part of our Garden-Work, under directions received from the Secretary of State, and uniformly issued to all Botanic Gardens in the Colonies.

The instructions declare it a part of the duties of a Superintendent to prepare "an abstract of the mean maximum, and mean minimum temperatures of each month, with its humidity, cloudiness, amount of Rain, &c., &c.," and this work has now been continuously executed for the long period of thirty-three years as above stated.

Shortly after I assumed charge in 1887 the service was considerably improved by the introduction of Standard Instruments, and the Barometers were in turn all sent home to be tested, refilled, and, in some cases re-constructed.

The Stevenson's Thermometer-Screen—now in such general use at Meteorological Stations—was adopted for use in Trinidad, in order that our observations might be directly comparable with those taken at Jamaica, and other West Indian Stations. This is a point of the highest importance in making observations of temperature; for unless the conditions under which the Thermometers are placed are identically the same, it is not possible to arrive at any correct comparison between the various Records.

The Station is now classed, by the Meteorological Office of London, as a Station of the second class, and our returns are in constant demand for publication, and for the preparation of various Climatological Statistics.

The United States Weather Service at Washington is also (by their request) in receipt of our monthly returns, for which valuable exchanges are made, which are deposited regularly for the use of the public in the Library of the Victoria Institute.

Two Instruments have lately been added to our set which are welcome additions and afford interesting and instructive returns. The first is a Self-Registering Thermometer which was introduced by His Excellency Sir F. Napier Broome in 1893, and the second instrument is a Jordan's Sunshine Record, the usefulness of which I first saw demonstrated at the Meteorological Station in the Botanic Gardens, British Guiana, under the charge of my friend and former colleague, G. S. Jenman, Esq., Government Botanist.

The value of the Sunshine Recorder is shewn in some measure by the value set upon the returns afforded by it, by the Meteorological Office, London, of which R. H. Scott, Esq. (a brother-in-law of His Excellency Sir F. Napier Broome) is the Director.

This office has sent us printed forms for the returns with the intimation that they are quite willing to defray the expense of sending them to England, but as we are under many obligations to them for advice and assistance, it is not intended to impose this charge upon the London Office.

A remark might be made on the further usefulness of the Sunshine Recorder; it is clear that the greater force of the Sun's rays at and near to the Equator has a considerable influence on the temperature for the time being, but just what this influence correctly is, does not appear to be yet known, and it is only by taking records of the duration of sunshine in any particular latitude that the direct influence of sunshine upon temperature can be ascertained.

There are also questions connected with the abundance of light needed by tropical vegetation, which can only be solved by correct and regular records of the duration of sunshine in certain latitudes.

The rainfall of the Gardens is of course included with the other observations, but the compilation of the Island Rainfall is a work which was initiated by Sir Wm. Robinson in 1886. Previous to this, Records were kept only by private persons, or on Estates; but I was able in 1889 to compile a table commencing with twelve stations from the year 1868, to 80 stations in 1888.

The returns for these stations were kindly put at my disposal by the Hon'ble G. Townsend Fenwick, and H. J. Clark, Esq.

In 1887 when at the request of Sir Wm. Robinson I took over the duty of compiling these records only ten stations were in operation; these have gradually increased, and at the present date I am able to report the receipt of returns from one hundred and five stations.

As will be seen from the table many of these records are imperfect. This arises from the constant changes of the persons in charge of the various Estates, but I have at the same time to thank the many observers who take great personal care in securing a complete record at their Station.

There is however at times great delay in the sending in of returns from several stations, and the publication of the results suffers from this in the same measure, and a delay occurs, for which, as compiler, I am not responsible.

The Government Printing Office has always done its best on receipt of the return to secure its early publication in the *Royal Gazette*, and I have to thank that office for the attention, and despatch, they have constantly given to our monthly reports when once in their hands.

The work in connection with the Meteorological Service is carried out in the Office of the Royal Botanic Gardens, and there has been sent out during the past year no less than 1,365 communications, and more than that number has been received, making a total of some 2,750 communications which have passed our hands.

These consist of course principally of returns received from observers, which have to be properly filed and recorded, and the printed monthly records, copies of which are in return sent free to all in charge of stations.

In the Report of the Chamber of Commerce for the past year it has been recorded that the timely warnings given by this office of Barometrical disturbances had been the means of saving much valuable property on the Gulf of Paria, and consultations as to the propriety of establishing a system of warnings were held, but up to the present no practical result has been attained.

I am however encouraged to think that this most desirable course may yet be adopted by voluntary assistance, and that we shall soon be able to have daily published reports of the weather for Port-of-Spain, Cedros and Mayaro, Arima and Princes Town. That news of the weather from the Eastward will be valuable to persons in Town there can be no possible doubt, as our Rains generally come with the Trade Winds, and precipitation follows from East to West. If therefore we find that heavy rain is falling in the vicinity of Mayaro, and the wind is blowing from the East, it would be with a certainty of meeting rainy weather if the traveller started to go in that direction. If no more can be done however than to give warning to the shipping interest of Port-of-Spain, that of itself is quite sufficient to warrant the maintenance of a station outside of all Botanical or Agricultural considerations, and I am glad that with our present appliances this has been done with little trouble, and we hope to maintain the same watchfulness in the future as in the past, and to render our Station as useful as possible to the general public, and to improve it as opportunity offers, to further this object.

I am,

Your obedient Servant,

J. HINCHLEY-HART, F.L.S.,

Government Observer.

HON'BLE COLONIAL SECRETARY.

Table I.

METEOROLOGICAL RESULTS FOR 1894. TAKEN AT THE ROYAL BOTANIC GARDENS.

MONTH.	BAROMETER.		THERMOMETERS.								Direction.	Humidity.	Tension of Aqueous Vapour.	Rainfall.	Dew Point, 7 A.M.	Dew Point, 3 P.M.
	Reduced Readings.		Dry & Wet Bulbs.				Maximum.	Minimum.	Mean Temperature, Blackened Bulb in Vacuo.	Mean Temperature, Thermometer on Grass.						
	7 A.M.	3 P.M.	7 A.M.		3 P.M.											
	Bar.	Bar.	D.	W.	D.	W.										
	In.	In.	°	°	°	°	°	°	°	°		°		In.	°	°
January ...	29·985	29·728	70·	68·8	81·1	74·4	86·3	67·	157·	66·6		84·	·708	3·12	67· 8	69· 7
February ...	30·037	29·962	69·	67·58	82·21	73·46	86·64	65·60	159·	64·6		76·	·661	2·36	66· 4	67· 8
March ...	30·040	29·987	68·6	67·5	81·	73·2	86·6	65·5	159·	64·6		80·	·672	3·12	66· 6	67· 7
April ...	29·979	29·942	71·7	70·2	85·6	75·4	88·	67·2	164·	66·0		72·	·696	1·22	68·00	68· 7
May ...	29·979	29·922	73·9	72·	86·4	78·	90·4	69·9	162·	68·2		75.	·759	2·69	70· 6	72· 6
June ...	30·043	30·019	73·2	71·5	85·8	75·5	89·5	69·6	158·	67·0		73·	·720	3·26	70· 2	69·00
July ...	30·058	29·928	73·3	71·4	84·1	75·9	88·5	69·4	162·	67·9		77·	·739	4·53	70·00	70· 4
August ...	30·132	29·938	73·	71·8	81·	75·5	87·5	71·1	160·	69·0		83·	·772	12·06	70·92	70·76
September...	30·071	29·937	73·4	72·1	83·2	76·4	89·1	71·4	159·	69·9		81·	·773	5·48	71· 4	71· 7
October ...	29·967	29·895	73·5	71·9	82·6	75·7	87·8	72·1	157·	70·1		79·	·746	3·93	70·72	71·08
November...	29·966	29·913	72·8	71·6	83·	76·2	86·4	70·7	153·	68·8		81·	7·72	7·28	70·72	71·65
December ...	29·967	29·906	72·4	71·2	82·4	75·4	86·9	69·8	157·	68·9		81·	·746	3·16	70· 3	70·71
	30·019	29·923	72·06	70·63	83·20	75·42	87·80	69·10	158·	67·6		78·	·730	4·35	69·47	69·80
Mean daily height of Barometer	29·971 inches.		Mean Annual Temperature				78·45						Total Rainfall		52·21 inches.	

Latitude 10·39 N. Longitude 16·30 W. Height above sea 130 feet.

Table II.

ROYAL BOTANIC GARDENS, ANNUAL RAINFALL, 1862 TO 1894, INCLUSIVE.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total Rainfall in each year in Inches.	Decades.
	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.		
1862 ...	0·00	·66	·77	·25	1·41	8·47	10·36	9·57	11·97	6·60	10·06	3·03	63·15	In the decade 6 years above and 4 years below 30 years average.
1863 ...	1·54	2·71	1·45	·85	1·26	9·12	10·12	10·53	12·11	6·24	4·30	6·57	66·80	
1864 ...	2·51	·53	·36	·04	8·15	4·96	7·17	12·06	8·04	6·53	5·94	6·61	62·90	
1865 ...	2·62	3·20	1·07	7·98	3·22	5·64	10·35	14·83	7·32	14·62	4·81	9·62	85·28	
1866 ...	2·24	3·91	1·44	1·09	1·45	6·59	7·83	12·34	5·87	10·11	8·17	6·82	67·86	
1867 ...	1·31	6·36	·83	1·32	2·33	5·30	12·20	15·21	10·45	7·87	·67	2·71	66·56	
1868 ...	2·06	·82	3·20	·64	4·17	7·78	11·35	6·73	5·46	4·66	8·31	1·03	56·21	
1869 ...	·08	·93	·74	·41	·69	5·52	10·17	8·74	8·86	5·15	6·30	5·87	53·46	
1870 ...	2·61	·56	1·46	1·51	4·65	8·81	11·91	9·00	10·63	3·98	5·94	8·29	69·35	
1871 ...	6·62	1·40	2·89	·92	3·97	8·84	11·73	12·97	7·87	4·37	10·73	3·27	75·58	
1872 ...	1·45	·07	·74	·39	3·14	7·09	5·45	10·82	3·07	4·80	9·89	3·04	49·95	In the decade 4 years above and 6 years below 30 years average.
1873 ...	1·78	1·08	1·98	·53	0·00	4·31	5·04	8·37	5·80	10·34	3·48	1·31	44·02	
1874 ...	3·47	1·96	3·67	5·16	2·51	12·28	12·28	11·20	9·38	6·42	3·66	4·29	76·28	
1875 ...	3·39	·91	·56	·42	2·61	4·15	12·62	7·22	11·95	10·85	3·74	2·48	60·90	
1876 ...	3·26	1·03	1·78	1·67	6·65	11·17	12·23	15·18	12·03	7·04	5·95	3·96	81·95	
1877 ...	2·14	0·00	7·46	3·38	3·19	8·43	8·35	12·94	6·39	6·68	7·66	5·48	72·10	
1878 ...	3·44	·70	0·00	3·22	4·99	5·78	5·42	8·88	11·15	5·89	8·72	3·05	61·24	
1879 ...	1·52	2·76	4·56	3·03	3·08	14·92	6·86	10·35	6·15	8·54	4·28	4·38	65·43	
1880 ...	11·72	6·53	·67	2·32	3·90	7·83	6·30	17·39	7·47	5·74	10·51	1·96	82·34	
1881 ...	·57	·65	·23	1·60	4·66	11·05	7·82	10·90	10·59	3·36	12·06	2·28	65·72	
1882 ...	1·33	2·38	·73	1·57	3·74	6·33	5·93	8·40	4·93	5·86	10·29	1·50	52·99	In the decade 4 years above and 6 years below 30 years average.
1883 ...	1·56	·71	·26	3·37	5·89	10·91	13·66	10·26	5·53	3·99	6·06	8·30	70·50	
1884 ...	3·43	2·50	4·40	1·51	2·91	6·84	5·71	8·70	5·03	5·05	5·14	5·66	56·88	
1885 ...	1·30	·89	1·49	·43	5·27	3·44	5·87	4·56	6·08	4·08	5·37	4·44	43·22	
1886 ...	3·32	1·97	3·27	3·83	4·49	9·70	17·48	8·15	6·73	12·59	8·54	6·75	86·82	
1887 ...	2·69	1·46	1·67	1·08	3·98	7·40	5·51	9·93	5·07	5·84	7·60	11·86	64·09	
1888 ...	8·37	1·79	2·41	2·28	3·46	11·92	6·89	7·02	5·53	5·06	7·76	2·95	65·44	
1889 ...	0·94	0·85	4·16	1·05	6·34	11·66	12·14	11·73	3·76	6·30	7·38	7·48	73·79	
1890 ...	7·76	0·51	2·09	7·62	5·14	9·68	12·89	11·65	3·37	10·98	5·93	5·28	82·90	
1891 ...	3·17	0·92	0·03	1·44	2·54	5·54	11·88	4·26	7·44	5·77	6·66	4·09	53·74	
Avg. Monthly Rainfall for 30 years, 1862–'91	2·94	1·69	1·87	2·03	3·65	8·04	9·45	10·32	7·53	6·67	6·86	4·81	*65·91	
1892 ...	1·93	2·19	1·85	7·59	11·55	16·26	15·55	9·21	3·57	11·49	5·40	4·69	91·14	
1893 ...	3·43	1·85	0·19	3·61	11·35	10·19	13·28	16·32	11·73	5·47	7·84	7·23	92·49	
1894	3·22	2·36	3·12	1·22	2·69	3·26	4·53	12·06	5·48	3·93	7·28	3·16	52·31	

*Average Annual Rainfall for 30 years—1862 to 1891 = 65·91 inches.
Average to date or 33 years—1862 to 1894 = 67·5 „

J. H. HART, F.L.S.,
Superintendent Botanical Department.

Table III.

RECORD OF THE ISLAND RAINFALL FOR 1894.

No. of Station	Diameter of Gauge, Govt. or Private.	STATION.	January.	Feby.	March.	April.	May.	June.	July.	August.	Sept.	October.	Nov.	Dec.	Total.
	In.														
1	8 G.	St. Ann's—Royal Botanic Gardens ...	3·12	2·36	3·12	1·22	2·69	3·26	4·53	12·06	5·48	3·92	7·28	3·16	52·20
62	8 G.	Port-of-Spain—Police Station ...	1·68	1·49	1·80	·91	2·45	3·27	6·58	10·53	3·81	5·44	5·87	4·08	48·11
64	8 G.	Royal Gaol ...	...	...	...	...	2·33	4·75	13·39	10·08	6·86	4·92	6·02	4·74	...
4	5 G.	St. Joseph—Warden's Office, Queen-st.	3·40	·63	1·06	...	1·54	...	...	...	...	...	...	...	...
5	5	St. Joseph—Police Station ...	...	...	...	...	2·25	4·36	7·96	8·58	7·19	7·47	6·04	5·77	...
6	5	Tunapuna Village—Macoya Estate ...	1·60	·85	1·20	1·03	·86	4·33	6·16	10·61	6·74	6·85	6·57	6·03	52·83
44	8	Arouca—Bon Air ...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	5	Cumuto—Santa Teresa ..	11·35	3·52	3·56	1·61	3·65	6·91	11·72	13·16	1·91	8·19	11·38	7·47	84·43
49	5	Arima—Garden Estate ...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	5	Arima ...	3·63	1·86	3·77	4·96	...	8·72	10·12	14·96	1·66	10·06	15·01	6·71	...
11	5	Toco—La Sagesse ...	4·60	3·26	1·40	·07	3·59	2·46	7·43	7·37	3·68	7·80	7·80	3·32	62·68
10	5 G.	Toco—Police Station ...	5·91	4·16	2·26	·46	4·16	3·74	9·95	9·14	5·57	8·45	10·67	5·10	69·57
14	5	Couva—Exchange Village ...	2·25	·90	·70	...	1·76	6·31	5·61	5·90	4·60	5·27	11·20	1·65	...
15	5 G.	Couva—Police Station ...	2·59	·90	2·99	...	2·16	7·71	6·56	10·13	8·98	7·69	7·33	4·95	...
19	8	Montserrat—Tortuga Estate ...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	5 G.	Montserrat—Police Station ...	4·00	2·01	1·80	...	2·71	4·82	...	14·32	4·77	...	8·17	2·82	...
25	5 G.	Oropuche—Police Station ...	4·54	2·00	1·78	·68	4·85	6·88	9·75	10·87	2·43	6·22	7·37	7·22	63·59
26	8	Savana Grande—North ...	4·81	2·20	2·72	1·10	3·34	6·20	9·49	11·33	2·22	9·11	11·78	5·08	69·38
27	5	Cedros—Police Station ...	8·15	3·02	2·22	1·70	3·09	5·88	8·52	5·79	3·81	8·34	7·14	7·99	60·65
60	...	Cedros—Columbia (G.W.) ...	10·54	4·70	8·80	2·70	2·00	5·53	8·37	7·85	·80	7·45	9·35	6·27	69·36
72	...	Cedros—St. Marie Estate ...	6·88	3·51	3·51	1·35	3·25	5·80	8·66	6·62	3·14	4·21	7·79	7·64	62·26
73	...	Cedros—La Retrait Estate ...	6·30	6·10	6·85	1·85	5·83	5·47	10·28	10·28	1·65	4·35	10·65	13·90	82·71
2	5	Tucker Valley ...	2·43	·69	·69	1·75	1·78	1·40	8·39	15·34	7·74	6·54	5·37	5·60	62·23
21	8	Sangre Grande—Sta. Estella Estate ...	9·22	4·57	5·79	2·75	4·67	9·01	14·84	9·91	5·91	14·78	13·16	12·19	106·80
22	5 G.	Princes Town—Police Station ...	6·19	1·94	2·45	1·26	3·99	5·55	8·46	13·99	3·32	8·84	8·35	5·98	68·72
48	8	Princes Town—Lengua, Los Naranjos..	5·07	2·20	2·38	1·00	3·77	6·17	8·80	9·84	4·26	11·86	9·42	4·37	68·63
16	5	Claxton's Bay—Mt. Pleasant Estate ...	4·29	1·15	·75	·36	2·23	5·00	6·34	13·66	5·53	3·52	6·84	3·76	52·43
31	5	Naparima—Concord Estate ...	...	...	...	...	4·57	...	7·34	8·27	5·41	8·21	6·88	3·54	...
32	5 G.	Mayaro—Police Station ...	3·98	3·20	3·03	·95	1·70	1·94	4·63	5·18	1·10	2·19	5·02	3·33	36·15
12	5	Chaguanas—Police Station ...	2·73	1·75	1·72	·33	1·46	3·28	8·43	17·06	6·38	12·66	6·83	5·91	67·54
13	5 G.	Chaguanas—Perseverance Estate ...	...	...	...	...	...	...	...	...	...	...	...	...	...
50	8 G.	Chaguanas—Convict Depôt ...	3·03	1·60	2·25	·47	1·98	3·62	9·44	20·14	5·06	8·56	8·49	7·94	72·58
61	...	Chaguanas—Petersfield (D.S.P.) ...	2·44	1·24	·54	·47	...	4·21	9·72	20·55	6·16	12·66	6·04	7·55	...
8	...	Tumpuna—Police Station ...	7·73	1·87	2·17	·37	4·30	8·60	11·00	13·10	4·30	17·10	15·40	5·35	91·29
28	5	Erin—La Ressource Estate ...	6·84	2·61	2·57	1·44	4·62	2·39	7·72	7·67	1·01	3·35	10·33	6·50	57·05
46	8	Erin—Chatham ...	5·50	6·35	4·60	4·30	6·30	9·06	15·84	12·65	5·80	5·55	10·60	14·25	100·79
29	8 G.	Moruga—Police Station ...	3·89	2·49	2·16	·69	3·87	5·57	11·15	11·41	16·29	7·62	11·83	4·59	81·56
30	8 G.	Moruga Road—Rest House ...	5·84	4·52	6·17	1·40	5·96	10·57	14·31	16·28	7·70	15·65	13·59	6·16	108·05
33	...	St. Juan—Barataria Estate ...	2·78	2·29	1·79	1·70	1·55	4·34	10·49	12·20	5·89	8·43	4·35	6·29	62·10
34	...	Naparima—Harmony Hall Est. (H.H.)	3·72	1·68	3·70	·57	3·29	6·52	7·09	15·99	2·85	7·36	5·22	3·55	51·53
35	...	Naparima—Tarouba Estate (T.R.) ...	3·79	1·64	3·06	·63	3·66	4·45	6·18	15·23	3·76	7·10	7·43	4·81	61·79
36	... P.	Naparima—Williamsville Est. (W.V.) ...	4·18	2·61	2·97	2·97	3·74	7·35	8·73	15·70	4·21	8·73	8·82	4·35	74·26
38	... P.	Naparima—Union Hall Estate (W.) ...	3·17	1·15	1·49	·33	4·54	3·73	6·90	10·14	5·45	7·79	6·38	4·14	55·21
39	... P.	Naparima—Petit Morne Estate (P.M.)	3·43	1·86	2·46	·72	4·20	5·49	6·48	12·86	5·06	9·63	4·75	6·79	63·88
40	... P.	Naparima—Golconda Estate (G.C.) ...	3·86	1·66	1·50	·30	3·68	5·03	6·52	10·31	6·15	11·44	10·05	8·85	69·11
41	5 P.	Naparima—Cedar Hill Estate (C.H.) ...	6·10	1·74	3·05	·95	4·46	5·34	8·08	13·72	3·61	10·24	7·65	4·74	69·68
42	... P.	Naparima—St. Madeleine Usine (U.S.M.)	3·92	1·90	2·36	·70	4·32	5·48	6·17	12·98	4·69	8·93	8·40	8·15	68·00
59	... P.	Naparima—Plein Palais (P.P.) ...	2·75	1·10	1·82	·15	1·80	6·41	7·94	13·97	3·08	6·87	4·36	4·38	54·63
45	8 P.	Naparima—Wellington Estate ...	4·24	1·84	2·29	·63	5·03	5·40	8·03	10·04	6·27	8·03	7·57	4·67	64·94
56	5 P.	Naparima—Craigmish Estate ...	...	1·36	...	·77	2·59	3·95	7·68	12·57	8·13	8·90	9·15	4·43	...

Table III.—*Continued.*

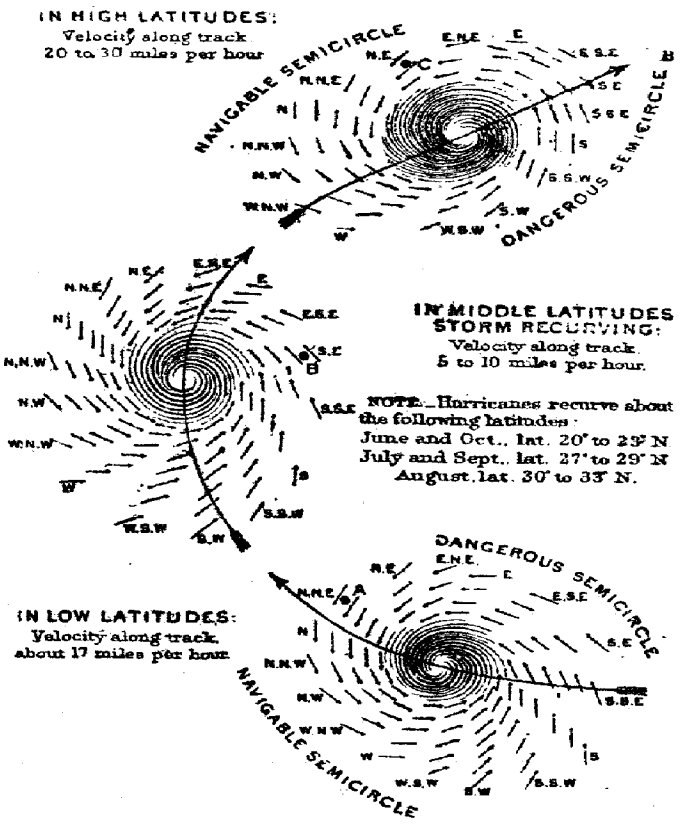
RECORD OF THE ISLAND RAINFALL FOR 1894.

No. of Station.	Diameter of Gauge, Govt. or Private.	STATION.	January.	Feby.	March.	April.	May.	June.	July.	August.	Sept.	October.	Nov.	Dec.	Total.
	In.														
47	8 G.	San Fernando—Lewisville ...	3·62	1·87	2·93	1·07	4·27	7·03	6·45	14·66	6·71	8·11	6·71	5·57	70·19
51	8 G.	Maraval—Police Station ...	5·35	3·91	3·88	1·44	4·06	4·06	7·91	14·94	7·05	7·40	8·24	4·56	72·79
53	8 G.	Diego Martin—Police Station ...	...	...	1·26	1·36	5·21	3·91	7·56	12·89	12·74	8·44	5·53	4·69	...
54	8 G.	Maracas Bay ...	7·62	7·17	3·83	1·14	5·83	4·77	9·42	28·04	11·13	8·34	8·75	5·51	101·55
55	8 G.	Maracas—Government School ...	4·81	3·45	2·91	·86	1·15	2·57	3·74	11·33	7·04	4·48	5·55	3·17	51·06
57	8 G.	Blanchisseuse ...	7·47	8·81	5·31	·58	2·25	3·76	9·22	9·14	4·18	8·15	10·30	7·00	81·17
58	8 G.	Cap-de-Ville ...	4·17	3·08	3·31	1·41	7·97	5·28	8·13	11·54	3·36	5·88	12·24	6·52	72·89
62	8	Valencia ...	3·31	4·57	5·91	3·74	4·94	10·08	10·44	19·32	3·17	16·37	13·29	8·80	103·94
63	8	La Brea ...	2·43	1·12	2·57	·69	7·18	8·65	6·53	10·76	4·80	7·96	7·73	6·69	67·11
43	8	Hicacos—Constance Estate ...	...	...	3·97	·41	·80	3·80	8·41	6·96	2·71	4·27	8·19	5·71	...
65	8	Carapichaima—Waterloo ...	2·32	1·33	·89	...	2·01	3·38	6·85	10·78	6·07	7·46	6·79	4·99	...
66	8	Nariva—The Cocal ...	...	...	...	...	...	...	...	...	...	...	...	...	...
68	8 G.	Manzanilla—Police Station ...	6·98	4·66	4·80	1·43	2·73	4·78	11·27	6·63	2·18	11·15	14·96	8·88	80·45
3	8 G.	Santa Cruz—Police Station ...	4·76	7·71	3·92	·64	3·95	4·58	5·86	13·79	9·85	6·97	7·15	4·61	73·79
69	5	Couva—Brechin Castle Estate ...	3·55	1·62	1·11	·50	1·82	6·22	6·88	9·68	7·19	6·35	7·47	5·77	58·16
70	5	Couva—Rivulet Estate ..	4·15	2·30	0·62	...	1·10	5·83	6·41	8·69	4·20	6·17	3·46	2·29	...
71	5	St. Helena Estate ...	...	...	...	...	...	...	...	...	...	...	...	...	...
74	5	La Plaisance Estate ...	...	...	...	...	...	...	...	...	...	...	...	...	...
76	5	Caroni—Curepe Estate ...	...	...	...	1·47	1·41	5·82	8·63	10·44	5·89	6·50	5·64	5·67	...
77	5	Caroni—McLeod Plain Estate ...	...	...	...	...	1·00	5·17	7·87	12·43	7·59	...	6·55	...	...
78	5	Caroni—Frederick Estate ...	...	1·51	...	·22	1·22	4·19	8·26	13·51	...	8·34	9·16	8·50	...
79	...	Tacarigua—Orange Grove Estate...	...	...	...	...	1·82	4·91	8·09	...	...	...	...	...	...
80	8 G.	Siparia—Rest House ...	9·88	3·67	3·67	2·11	4·70	8·02	8·58	12·55	4·22	10·50	14·00	10·31	92·21
82	5	Tacarigua—El Dorado Estate. ...	...	...	..	1·09	1·02	4·24	8·42	...	6·10	6·99	6·31	6·56	...
83	8 G.	Carenage—Police Station ...	3·55	2·63	1·35	1·34	2·29	5·10	7·66	15·28	5·79	6·38	6·70	6·93	65·00
84	8	Guapo—Adventure Estate ...	5·61	3·08	2·22	2·16	5·96	7·76	8·02	10·50	7·44	6·24	12·38	7·82	79·19
85	8	Princes Town—Fairfield Estate ...	...	...	...	...	...	...	...	...	...	...	...	...	...
86	8	Princes Town—Lothians Estate ...	3·77	1·30	2·80	·78	3·30	4·63	6·29	8·46	2·74	11·01	8·96	5·73	59·77
24	8 G.	Maraval Reservoir ...	...	3·05	4·68	1·61	2·92	4·67	8·48	13·08	6·16	7·63	5·76	5·75	...
67	8 G.	St. Ann's Reservoir ...	3·23	2·70	2·97	0·10	·48	3·13	4·17	12·51	5·53	5·27	7·16	4·66	51·91
87	5	Oropuche—Nelson Estate ...	2·65	1·45	1·43	·31	5·49	5·41	8·74	9·62	2·44	6·33	8·63	5·75	58·25
88	8	Cedros—Perseverance Estate ...	8·96	3·19	1·78	·70	2·81	5·43	7·06	5·49	2·39	3·64	6·08	7·70	55·23
89	8 G.	Savonetta—Phœnix Park Estate ...	3·61	1·38	·48	...	1·05	6·39	6·14	10·65	5·17	7·41	7·67	3·95	...
90	8	Gran Couva—La Gloria Estate ...	4·68	2·38	2·22	·34	2·14	4·87	12·11	15·17	5·14	8·06	10·90	4·17	72·18
91	8 G.	Dabadie ...	4·19	2·08	2·75	1·97	3·48	9·34	10·33	15·25	7·89	11·39	16·70	7·74	93·11
92	...	Cunupia—Mon Plaisir Estate ...	3·34	·99	...	...	1·30	3·73	9·89	14·85	4·46	...	8·55	7·09	...
93	...	Arouca—Laurel Hill Estate ...	3·06	1·30	2·12	0·89	3·46	5·67	7·95	12·86	6·40	9·42	6·14	5·37	64·54
94	...	Naparima—Philippine Estate ...	3·14	1·58	1·71	·54	4·43	4·88	6·58	9·37	5·76	8·24	...	5·36	...
95	P.	Naparima—Corinth Estate ...	2·76	1·35	2·09	·26	4·13	5·38	6·76	11·14	5·42	8·24	7·22	5·91	60·66
96	8	San Juan—Aranjuez Estate ...	1·92	1·90	1·93	1·37	1·60	4·51	9·26	10·43	4·49	8·60	5·13	4·69	56·23
97	8 G.	Woodbrook ...	...	...	...	1·67	2·37	3·59	6·08	7·83	4·72	2·70	2·36	4·06	...
98	G.	Fort George Signal Station ...	5·12	5·02	3·13	·47	2·51	4·12	6·38	12·42	3·26	6·09	5·35	5·32	59·19
99	G.	North Post „ „ ...	2·87	2·93	1·51	1·49	1·98	2·99	8·31	15·81	5·78	5·33	5·03	3·42	57·45
100		Couva—Perseverance Estate ...	2·60	1·40	1·19	·10	1·42	5·59	7·37	8·60	5·98	5·50	5·80	4·65	50·20
101		Couva—Camden Estate ...	3·79	...	1·64	...	·46	6·55	5·80	8·13	7·86	6·15	6·26	3·31	...
102		Matura—La Juanita ...	...	...	...	...	...	...	13·44	...	1·80	12·21	13·11	11·39	...
103		Tunapuna—St. Augustine Usine ...	...	...	...	...	...	...	...	...	...	5·88	6·29	6·03	...
104		S. Naparima—Ben Lomond Estate	...	...	...	...	...	...	...	1·45	1·90	6·53	7·31	3·02	...
105		Tortuga—Hibernia Estate ..	5·54	2·28	2·43	·73	2·32	6·07	8·18	15·12	6·13	7·20	8·14	3·40	67·54
	...	Monthly Average, and Mean for year all Stations	4·53	2·64	2·59	1·14	3·12	5·30	8·26	11·77	5·12	7·75	8·23	5·86	68·45

Mean Rainfall for year at 63 Stations ... . 68·45 inches.

HURRICANE CHART FOR THE WEST INDIES.

By the kindness of Francis Watts, Esquire, Government Chemist for the Leeward Islands, I am able to give a chart of the course of Hurricanes for the West Indies showing the dangerous and navigable sections.



This is taken from an able article on West Indian Hurricanes by Mr. Watts which was recently published in the Leeward Islands Agricultural Journal. The chart was originally published in the United States Pilot Chart for the North Atlantic.

Trinidad lying to the South of this Chart, and the Hurricanes developing at or near the equator shows the reason for our escaping from these visitations — and also shows that the Barometrical variations consequent thereon may be first noted in Trinidad, as this is the nearest point of British Territory which comes under their influence in passing northwards.