The Trinidad Botanic Gardens and Colonial Resource Development, 1818-1899

Rita A. Pemberton

“For at least a hundred years past no effort has been wanting on the part of the Home Government to supply the colonies with plants from all parts of the world for the foundations of new cultures.”

Dr. Desmond Morris (1898)¹

Resource exploitation was an important part of imperial activity. Colonies were expected to produce the raw materials that the imperial power needed but this need changed from time to time as market conditions changed and as political and economic circumstances demanded new crops. Colonial history is full of examples of new crop introductions across empires. For example, within the British Empire during the century, cocoa was introduced into West Africa, rubber and cinchona to India, and bananas and rubber into some Caribbean colonies. But just how did the imperial powers introduce new crops into the colonial landscape? It may be tempting to assume that this was done on a trial and error basis, for generally the literature suggests that crop changes were made virtually overnight in response to market conditions. This article examines the process by which new crops were introduced into colonies and the system that was in place to facilitate this process, and aims to demonstrate that crop change was by no means an ad hoc development, for it occurred within a carefully organized system which was an important component of the imperial system. Central to this system were: (1) a constant search for new crops at home and abroad; (2) a sharing of information and exchanges of plants and seeds by botanists across empires, and (3) trials of new plants in the colonies.

To this end, I will examine one example of colonial resource exploitation as demonstrated by the activities of the Trinidad Botanic Gardens from its inception early in the 19th century to the end of the century. I will also analyze

the role of this institution in the process of crop introductions into Trinidad, through a discussion of the activities of the curators, the importance of these activities for the imperial government, and an examination of the steps utilized for the introduction of new crops.

The article begins with a historical outline of the botanic gardens in the region, especially the St. Vincent Botanic Gardens from which the Trinidad Botanic Gardens inherited a number of plants. Next, the history and description of the Trinidad Gardens in its early years is outlined and its activities between 1818 and 1899 are discussed. Attention is centered on the Herbarium, which was set up under the auspices of the Gardens and its role in the process of resource exploitation. This is followed by a description of the imperial system, which facilitated and directed crop transfers and imperial resource development in the British Empire. Finally, it focuses on the intensified program of crop introductions in the last two decades of the nineteenth century.

I argue that the gardens were central to new crop introductions in the colony and to the empire-wide program of imperial resource exploitation. Further, it argues that this system of plant movement across empires was critical to colonial resource exploitation. This movement was based on communication, cooperation and exchanges among botanists, which does not appear to have been interrupted by the phenomenon of the “new imperialism.” That such cooperation could occur even during the period of cut-throat competition that was the new imperialism is significant and points to the need for a more detailed examination of the conduct of resource development during the era of the new imperialism. I conclude that the introduction of new crops in the colonial environment was not a chance happening but a carefully worked out development, which was the specific purpose of the botanic gardens established in the British Empire.

The Early Botanic Gardens in the Caribbean

The earliest botanic gardens were established in the Caribbean in the eighteenth century. The first botanic gardens in the West Indies and possibly in the New World was set up by the British in St. Vincent in 1765. Next in the British Empire was the gardens at Bath in Jamaica which was set up in 1774. In the French West Indies the first gardens was established at St. Pierre in Martinique on 19 February 1803, and there was a French King’s Gardens in Cayenne around the same time. The prevailing climate in the British Empire, which led to the establishment of the St. Vincent Botanic Gardens, can be

2"Botanic Station, St. Vincent,” Bulletin of Miscellaneous Information 63 (March 1892) CCCXLI: 92.
3Ibid. and Bulletin of Miscellaneous Information, Additional Series II (1898): 91.
gleaned from the circumstances which provide the historical background to the
gardens.

Between 1762 and 1766, the Transaction of the Society of Arts offered
rewards to anyone who "should cultivate a spot in the West Indies in which
plants, useful in medicine and profitable articles of commerce might be
propagated and where a nursery of the valuable products of Asia and the distant
parts might be formed for the benefit of His Majesty." Then administrator of St.
Vincent, Governor General Melville, cleared twenty acres of land at his own
expense, extended the acreage in 1766, and put the gardens under the care of
surgeon to the armed forces, Dr. George Young. Young reported on the
progress of the gardens and received a reward of 50 guineas.4

Once established, the process of crop introductions through contact with a
number of like-minded people and institutions in the British and other empires
began. Hence spices were introduced into St. Vincent from the French islands
in 1787, and from there, clove was taken to Santo Domingo and cinnamon to
Jamaica. In 1791, Dr. Alexander Anderson, then Superintendent of the St.
Vincent Botanic Gardens, traveled to British Guiana for plants. He was awarded
a silver medal by the Society of Arts, which noted his efforts to make the
gardens a source of valuable plants to the neighboring colonies. Interest in
obtaining plants from across the seas led to the South Seas mission to obtain
breadfruit and other useful plants. Captain Bligh returned with breadfruit plants,
which were successfully cultivated in St. Vincent and later sent to Trinidad.5

The St. Vincent gardens also benefited from a collection of plants (primarily
mango and cinnamon) which was taken from a French man-of-war in 1792 by
Lord Rodney and sent there.6 Thus, there was much interest in the movement
of plants to the gardens in St. Vincent, their trials and transfer to other colonies.
The pattern of plant movements followed while the St. Vincent gardens was
operational, was continued in the gardens which were subsequently established
in the region.

The Trinidad Botanic Gardens 1818-1887

Established in 1818, the Trinidad Botanic Gardens was located two miles
from Port-of-Spain, on an abandoned sugar estate belonging to the Peschier
family, which had been purchased by the government in 1816.7 The gardens,

4"Botanic Station, St. Vincent," Bulletin of Miscellaneous Information 63 (March
1892) CCXLI: 92-3.
5Ibid., 94-5.
6Bulletin of Miscellaneous Information 53-54 (May-June 1891): 141.
7L.M. Fraser, History of Trinidad, 1814-1839, Vol. II (London: Frank Cass and
edition (Trinidad and Tobago: Department of Agriculture, 1937), 1.
which housed the residence of the governor of the colony, occupied 68 acres and was organized as follows:

Forty-one acres were allocated to the gardens itself; 8.5 acres were made into a nursery; 10 acres were allotted to the Government House Gardens, and 8.5 acres for the home and grounds of the Superintendent of the gardens.\(^8\) In May 1823, the St. Vincent Botanic Gardens was transferred to Trinidad. Plagued by a number of problems relating to the costs of its maintenance, its management, and trespassing and encroachments, the St. Vincent Botanic Gardens passed under the direct control of the War Office which discontinued its vote and ordered that all the moveable plants should be sent to Trinidad.\(^9\) In this way the Trinidad Gardens inherited a number of plants from the St. Vincent Gardens. These included nutmegs, some of which were used to create the Nutmeg Walk, other spices, breadfruit and mangoes.

From its inception to the end of the nineteenth century, the Trinidad Botanic Gardens came under the administration of five curators, each of which contributed to its development. They were David Lockhart 1818-1846; William Purdie 1846-1857; Herman Crueger 1857-1864; Henry Prestoe 1864-1886 (J.F. Reid acted for 11 months while Prestoe was on sick leave and before Hart arrived in the island); and John Hart 1887-1908.\(^10\) Lockhart visited Venezuela and introduced a number of varieties of orchids into Trinidad. He also paid much attention to the introduction of spices. Then governor of Trinidad, Lord Harris injected some of his private funds into the gardens, which flourished under his administration.\(^11\) Purdie, who previously worked at Kew Gardens, traveled to a number of other countries to obtain plants and information. Such countries included Jamaica and various points on the mainland. He visited Colombia and traveled 700 miles above Angostura. He was responsible for the introduction of ivory nut, *Phytelephas macrocarpa* into the colony. In 1854, he was sent by the governor of Trinidad to Puerto Rico to observe methods of sugar cultivation there. Purdie died in 1857, and was buried at the Gardens.\(^12\)

Dr. Crueger, a “scientist and a collector,” followed Purdie. During his relatively short term of administration he added considerably to the incipient herbarium collection. The next administrator of the gardens was Henry Prestoe. Under Prestoe, the activities of the gardens were considerably expanded. The collection of decorative plants continued to grow. New varieties of crotons were added as the gardens became the supplier of cut flowers and decorative plants

---

\(^8\)Bulletin of Miscellaneous Information, Additional Series II (1898), 56.
\(^9\)Bulletin of Miscellaneous Information 53-54 (May-June 1891): 141.
\(^10\)C.P. No. 32 of 1888, Annual Report of the Royal Botanic Gardens, Trinidad for 1887.
\(^11\)Ibid.
\(^12\)Ibid.
for public meetings.\textsuperscript{13} Plants were obtained in 1866 from Calcutta and Angola. An orchard and an economic ground were established.\textsuperscript{14} In these areas there were trials of a variety of crops. On the economic ground there were six of the best known varieties of cocoa, choice Martinique guavas, camphor trees, lychees, black pepper, Ceylon iron wood, clove, nutmeg and Liberian coffee. The orchard included a range of varieties of mangoes, especially the Martinican varieties, East Indian, Bombay, Peters, Gordon and Julie, and mangosteen. Experimental plots for the cultivation of tea were also set up and information requested from the West Indian islands and the United States of America.\textsuperscript{15} In addition, under Prestoe much was achieved by way of plant exchanges, for he obtained plants and seeds from overseas as well as locally.\textsuperscript{16}

Sarapia, Venezuela tonga bean (\textit{Dipteryx odorata}), was raised from seed and several thousand plants were made available for distribution. Twenty new varieties of sugarcane were obtained from the Mauritius Botanic Gardens and Elephant cane was introduced from the East Indies. A collection of ferns and orchids was built up and special attention was given to cocoa plants because of the growing importance of this crop to the colony. Cardamon cultivation was also tried in the gardens and the number of plants distributed from the gardens reached an all time high of 23,000.\textsuperscript{17} The gardens served to distribute plants outside of the island as well. Plants were sent to Kew Gardens, the Straits Settlements (cocoa), Ceylon (Immortelle and other shade trees), West Africa (cocoa and other economic plants), Honduras (nutmeg, cola nuts, Ceara rubber and cocoa plants) and the West Indies (sarapia). Orchids, for which there was a large demand, were also sent to various destinations across the globe and Pitch Lake pineapples were sent to Jamaica and to Florida in the United States. Seeds were sent to Trinidad from Kew, Jamaica, Brisbane, Singapore, India, Marilunge and Mainnilu Gardens, the Agricultural Bureau in Washington and from individuals and companies in England, Prussia, Belize, Barbados, St. Kitts, Grenada, St. Thomas and Tobago. Ornamentals were also received. From Kew came palms, rubber and begonias, cassia from China, roses from Holland, palm seeds, orchids and ferns from the West Indies and Venezuela.\textsuperscript{18}

An important part of Prestoe’s work was the identification of local plants. He made excursions into the Heights of Maracas, Las Cuevas and Moruga in search of rare ferns, palms, orchids and other plants and their seeds as he emphasised the cultivation of the natural flora. This was not an incidental

\textsuperscript{13}C.P. No. 1 of 1885, Annual Report of the Botanic Gardens, Trinidad for the Year 1883, 2.
\textsuperscript{14}Ibid., 3.
\textsuperscript{15}Ibid., 4.
\textsuperscript{16}Ibid., 5.
\textsuperscript{17}Ibid., 5-7.
\textsuperscript{18}Ibid., 7-8.
activity for it was a part of the imperial scheme to document information of the flora and fauna of the region. In addition, the Botanic Gardens served as the watchdog of the environment reporting on the state of the forests. In 1883, Prestoe reported that there was heavy deforestation along the Eastern Main Road as far as Valencia, which he attributed to the East Indian immigrants.19

Having built up a collection of plants, the major local activity of the gardens became the distribution and sale of plants. The main items for sale included cocoa, nutmegs, cola nuts, Brazil nuts and choice varieties of mango. Distribution also included ornamentals of which seeds of the large palms were sent to a number of countries. They were sent to the United States, England, Surinam, Venezuela, Isle of Man, Prussia, India, Singapore, Martinique Guadeloupe, Jamaica, Barbados, St. Kitts, St. Vincent, Tobago and France.20 Meanwhile, the process of acquisition continued unabated. In 1882, the gardens acquired cotton plants from Fiji, Elephant sugarcane from Cochín China, the pitcher plant (said to be useful for the treatment of neuralgia) from Ceylon and the *Garcinia indica* tree, which yields kokum oil, from India.21

The garden plots were extended and in 1882, the gardens housed a Palmetum, Arboretum, extended nurseries along with the orchard and economic ground.22 The economic ground houses 230 species of plants which included large stocks of nutmegs,23 mangoes, especially varieties from Martinique where more attention was placed on the collection of this fruit than elsewhere in the Caribbean.24 The sugarcane collection, which had been built around plants acquired from Mauritius since 1872 was used for increased nursery activity as plants were distributed throughout the Caribbean to Cuba, Puerto Rico and Santo Domingo. This collection included 13 sugar yielding varieties and four used for fodder.25

There were attempts to introduce several new crops in the colony at this time. Liberian coffee was planted at Carapachaima in 1882 with no success,26 much attention was given to Venezuelan tonka beans, which then fetched high prices, and rubber.27 At this time too, there was attention given to the cultivation of cola nuts from Central and West Africa which had been brought to the West Indies by African slaves and lime cultivation was first established on the south

---

20 Ibid., 7.
21 Ibid.
22 Ibid., 15.
23 Ibid., 18.
24 Ibid., 20.
26 Ibid., 25
27 Ibid., 30
There were increased requests for good cocoa seeds from other Caribbean territories. Additional gardens were established in St. Ann's. In St. Ann's about 90 acres of forests were used to provide fuel wood. The curator again raised the question of conservation in the colony and planted cocoa, coffee and strawberries (acquired from Jamaica and Dominica). Finally, the holdings of the gardens were classified into a list of economic and medicinal plants and their sources.29

By 1884, the Nursery had become established as the headquarters of the gardens as it was of critical importance for the colony's agriculture. Attention was paid to raising nutmeg plants, which were sold at 2 cents each. Lahinia variety of sugarcane, known locally as No. 16, was widely distributed in the island since it was capable of yielding five or six tons of sugar per acre. During this year, 33,000 plants, far more than in previous years, were distributed both locally and overseas. These included seedling mahogany and cedar, which were sent to Mauritius and Singapore, and cocoa, sarapia, Ceara rubber, black pepper and fruit to Grenada and St. Vincent, nutmeg, cola nut and mahogany to British Honduras and ornamentals to Bolivia.30

Prestoe retired from the post of government botanist after 22 years in Trinidad because of ill health. By the time of his retirement, the activities of the Botanic Gardens had been expanded to reflect the widened imperial interests. The problems in the sugar industry of the region which resulted from the appearance of large quantities of bounty fed beet sugar from 1880 onwards, stimulated attempts to widen the agricultural base of the West Indian colonies. It is in this process that the significance of the activities of the Trinidad Botanic Gardens can best be seen. All the crops introduced had previously been tried at the gardens so that both information on their culture and seedlings were readily available for distribution. In addition the Gardens had also been involved in the trial of various varieties of sugarcane in the search for high yielding disease resistant varieties.

After serving eleven years in Jamaica, John Hart took up the post of Superintendent of the Trinidad Botanic Gardens in 1887,31 when there was an even greater role for the gardens to play in the economic life of the island. Hart immediately began the process of reorganizing the Department. He gave his first attention to the Herbarium.

The Herbarium

28Ibid., 32.
29Ibid., 33-5
30C.P. No. 31 of 1884, Report on the Conditions and Operations of the Botanic Gardens Dept., Trinidad for 1884, 2-4.
From the inception of the Trinidad Botanic Gardens, a herbarium collection was established. This collection included the specimens collected by the previous curators, but the major part of it was a collection purchased by government in 1884 from a Dr. Findlay. Hart reported that the collection was in a poor state when he arrived. The items were wrapped in brown paper, which had been eaten by insects, and they were so badly damaged as to render them useless for scientific work. He therefore began the process of properly organizing the collection so that it could be used correctly. He began this process by listing the items which composed the collection in a book. Items were properly mounted, preserved and labelled. Governor Robinson supported his efforts and sanctioned the provision of a building for the preservation of the collection. Equipped with two cedar cabinets and staff, the work of preservation of the collection began within three months of Hart’s arrival in Trinidad.

Now approaching its 110th year, and described as one of the “…lesser known scientific institutions of Trinidad and Tobago…(which is) unique to the English speaking Caribbean,” the Herbarium enjoys the status as the oldest institution on the St. Augustine campus of the University of the West Indies. It was first housed at St. Clair where it remained until 1947 when it was moved to UWI, St. Augustine and it is presently located in the Sir Frank Stockdale building. The older part of the collection reflected the activities of the first four curators who were preoccupied with the search for exotics. The Herbarium served to facilitate this search and identify local varieties as well as to assist the process of distribution of plants to various other Herbaria in Europe and North America. Much of the information that exists on the flora and fauna is due to the activities of the early curators and the information that was preserved in the collection. The collection in Trinidad was a duplicate of that sent to Kew for the purpose of preparing the volumes on the flora of the Caribbean which was funded to the tune of 3000 pounds sterling by the British government in the 1850s. Over the period several other publications on the flora and fauna of the region appeared. These include W. Purdie, Journal of a Botanical Mission to the West Indies (1844 and 1845); H. Crueger, Outline of the Flora of Trinidad (1858); D. Eaton, “Fendler’s Ferns of Trinidad,” Coulter’s Botanical Gazette, November 1878; and S. Devenish, Vernacular and Botanical Names of the Woods of Trinidad.

---

32Ibid., 11.
33Ibid.
35Ibid., 12.
Hart also mentioned that there existed a great interest by European societies in the flora and fauna of the Caribbean as people were looking for medicinal, industrial and other plants. He noted that there were German botanists who maintained contact with the Trinidad Department who initiated studies in other parts of the region. He named Baron Eggers’ two-year study of the flora of Santo Domingo and that of Herr Sintensis in Puerto Rico. There was increased communication from parties, both local and foreign, interested in the cultivation of the new industries initiated under the administration of Governor Robinson. Communication in this area alone totaled 774 since 4 March 1887.37

The Imperial System of Colonial Resource Development

The Trinidad Botanic Gardens neither existed nor functioned in a vacuum. Although the specific personal interests of its administrators affected the nature of the activities carried out there, there were specific guidelines within which they functioned. The Royal Botanic Gardens, Kew, which was established in the middle of the eighteenth century, had by 1841 become recognized as the “botanic advisor to the government on agricultural matters” as its officials provided advise to the British government on all botanical matters pertaining to the empire. The Royal Botanic Gardens at Kew became, as a result, “the centre for all varied activity, imperial and other” and functioned as an institute of economic and commercial scientific work of imperial significance.38 In 1863, W.J. Hooker, Director of the Royal Botanic Gardens, Kew, stated that government was publishing a series of works on the vegetable products of the British possessions and had called on Kew Gardens to provide material and facilities for such a publication. The Secretary of State had stated that the absence of such a publication proved to be “a great obstacle to the development of the productive resources of the colonies.”39 It was this need which prompted the volume by Dr. Grisebach on the flora of the West Indies.

The gardens at Kew had always been intimately involved in the movement of plants in and out of the British West Indies as all transfers took place through Kew. Ronald King describes Kew as a “clearing house” for information and a provider of trained personnel for the colonies. For King, Kew Gardens’ activities as the prime mover of the economic development of the colonies

37C.P. No. 32 of 1888, Annual Report of the Royal Botanic Gardens, Trinidad for 1887, 12.
38ZHC1 Accounts and Papers 23 6424, 1901, Report of the Committee on Botanical Work to the Lands Commission of H.M.’s Treasury of the Department of Botanical Work and Collection at the British Museum and at Kew, 518-22.
peaked in the 1870s.\textsuperscript{40} At Kew, a number of training schemes for gardeners and other officials were organized but Kew’s officials did not only train officers for the colonies for they orchestrated colonial research as well.\textsuperscript{41} During the last two decades of the nineteenth century, crisis in the Caribbean sugar industry accentuated the role played in the region by Kew and its officials. Botanic stations were established in the smaller islands of the region as a part of a “systematic endeavor to promote cultural industries…”\textsuperscript{42} and Kew Gardens was at the center of an extended network of botanic gardens throughout the British Empire.\textsuperscript{43} Thus it was well placed to influence the development of agriculture in the region.

The Trinidad Botanic Gardens therefore formed a part of the imperial system centered round Kew Gardens. The administrators of the Trinidad Gardens reported directly to the officials at Kew who directed and supervised all their activities. It was the officials at Kew who organized the transfer of crops and decided where their trials would occur.

**The Trinidad Botanic Gardens 1887-1899**

Hart continued the work of his predecessors in the movement of plants and seeds into the island and exchanges with other similar institutions and individuals. He maintained exchanges of reports, papers, etc., in order to keep up with important new developments in the field.\textsuperscript{44} It does not appear that this communication across empires was disturbed by the intense rivalry between the imperial powers which characterized the era of the “new imperialism” for as mentioned earlier, the numbers of correspondents with the department increased in this period.

Under John Hart’s administration, the Trinidad Botanic Gardens became involved in the renewed search for alternative cash crops in the colony. The program of crop trials was intensified, especially since under the administration of Governor Sir William Robinson, an attempt was being made to diversify the agriculture of Trinidad and set up a fruit industry. Further experiments were done with the cultivation of spices, cola nut, logwood, tobacco, citrus and

\textsuperscript{40}Ronald King, *Royal Kew* (London: Constable and Co., Ltd., 1985), 204.
\textsuperscript{42}Royal Botanic Gardens, Kew, “Botanic Stations in the West Indies,” *Bulletin of Miscellaneous Information* 6 (June 1887).
\textsuperscript{43}Journal of the Kew Guild (May 1894), 4.
\textsuperscript{44}C.P. No. 32 of 1888, Annual Report of the Royal Botanic Gardens, Trinidad for 1887, 12.
various types of timber. In 1889, the government of Trinidad established a tobacco plantation at Siparia and an expert from Cuba was brought to help to develop the industry. Hart produced a list of all crops suitable for cultivation in the colony with comments on the best varieties, market prospects and general hints on cultivation.

There was a demand for information on fiber cultivation with the formation of a company in Port-of-Spain for the cultivation of *Raimie* (*Bochmeria nivea*) and *Botchmeria utilissima*. In addition, the governor set up a commission to inquire into the best methods of developing the fiber industry in the island. This commission was in correspondence with manufacturing firms, which sought various kinds of information. At that time, fiber sold at between 36 and 40 pounds sterling per ton and the Gardens was ready with a good stock of fiber plants to do its part. Nutmeg cultivation attracted attention as well, since nutmeg fetched the attractive price of £84 sterling per ton. Hart was of the view that the cultivation of nutmeg was the primary object of the establishment of the gardens and that the trees planted on either end of the ravine running through the gardens provided abundant seed for sale.

At the Gardens, Chinese ginger was introduced from Kew with the hope that because it was a larger variety it could replace the local variety. The cultivation of cloves, cinnamon, vanilla, citrus and coffee (*Arabica* and *Liberica*) was encouraged and plants made available for sale to the public. Information on the most suitable varieties of coffee for the island and on the price of coffee was also made available. Hart recommended the replacement of the Immortelle as shade trees for cocoa plants by rubber (*Castillia elastica*) because the flowers of the Immortelle were said to produce carbonic acid gas, which, on their decomposition, could be harmful.

Mango seedling sales continued apace as the Gardens was also involved in grafting. Again the emphasis continued to be on varieties from Martinique and the East Indies. Seedlings sold at 10 cents each and the grafted varieties for $1.00. Lychee (*Nephelium litchi*) plants, described as “well suited to Trinidad,” were sold at 10 cents each as well as Brazilnut for which there was

---

47 C.P. No. 110 of 1895, Progress Report on the Agricultural Industries of Trinidad.
49 Ibid., 18.
50 Ibid., 19-20.
51 Ibid., 22-23.
52 Ibid., 23.
a great demand. Fustic (Chlorophora tincturia) was introduced into the island to be tested as a dye. Eucalyptus, souri or Butternut from British Guiana, Queensland nut (Macadamia ternifolia), Paraguay tea (Mate Ilex paraguayensis), loquat (Eriobotrya japonica), and samaan or cowbean were also introduced.\(^5^3\)

There were also trials of vegetables at the Gardens. A kitchen garden was set up on a small plot on the eastern side of the Gardens near the pasture. A range of vegetables was introduced for trial. French beans, turnips, carrots, beetroot, cabbage, parsley, lima beans, pigeon peas, christophene, cucumbers, melon, Jerusalem artichoke, eggplant, black-eyed peas, water cress, yams and tannias were included.\(^5^4\)

Hart began to circulate information on crops through bulletins, pamphlets and a journal called *Bulletin of Miscellaneous Information*, which was published by his department in 1888. This journal provided detailed information on the activities of the gardens, the plants available for sale and the best methods of their cultivation. This information and the medium through which it was circulated were of significance for the development of the colony’s agriculture during the last decade of the nineteenth century.

The closing years of the nineteenth century witnessed increased competition for West Indian sugar and low morale among Trinidad’s sugar planting community.\(^5^5\) At this time there was increased imperial encouragement for diversification. Indeed, this was a period of agricultural distress in Britain itself and it sought economic salvation in its colonies.\(^5^6\) Thus, an intensified resource development program was implemented in the colonies. The botanic gardens served as the channel through which this activity was conducted. Information on pests and diseases of various crops was widely circulated in the island. There was intensified experimentation on a range of food crops including cassava and yams which constituted “a major proportion of the food supply of the native population besides being generally used by the middle and upper classes.”\(^5^7\) The attempt to develop a nutmeg industry in Trinidad was maintained as was the stimulation to cola nut production in the colony. Much

---

\(^{53}\) Annual Report of the Royal Botanic Gardens, Trinidad for 1887, 24-25.

\(^{54}\) Ibid., 25.


\(^{57}\) *Bulletin of Miscellaneous Information* 8(II) (October 1896): 206.
effort was put into the development of a fruit industry in the island and experimentation continued with varieties of sugarcane.\textsuperscript{58}

This was the nature of the activities of the Trinidad Botanic Gardens when the Norman Commission met in 1897 and recommended that:

\begin{center}
\begin{quote}
The Botanical Department in Trinidad should be entirely relieved of the business of ornamental gardening and the supply of ornamental plants, and should devote itself to the introduction and experimental cultivation of economic plants, and to attempts to secure improved varieties of such plants, and especially of sugar cane. It should comprise a branch for the teaching of tropical agriculture, and should form a centre from which teachers would be sent to give practical lessons in the cultivation of tropical plants and the selection of suitable locations for growing them... In the mean time the Botanical Department in Trinidad should encourage the introduction and growth of the better descriptions of fruit, and give instructions as to the best means of cultivation and packing fruit for export...\textsuperscript{59}
\end{quote}
\end{center}

Thus, the Botanic Gardens was given a mandate to play an even greater role in the agricultural life of the colony. Save for the recommendation to de-emphasize its involvement with ornamentals, it is to be noted that all its previous activities were in line with the recommendations of 1898. Nursery activity at the Gardens was intensified as the experiments made with a variety of crops over the near eighty-year period had equipped the Gardens to deal with the increased demand. To assist in this enlarged role, an experimental station was established at St. Clair. This was hailed as an important development that was expected to benefit the community as “the old order changeth giving place to the new and minor industries...”\textsuperscript{60}

Also, a botanic station was established in Tobago that was then politically united with Trinidad. Hart was actively involved in organising the Tobago station and extending the new cultures there. By 1899, the Trinidad Botanic Gardens was even more heavily involved in the islands’ agriculture than it had been in 1818. In the face of the problems in the sugar industry, there was a flurry of activity intending to generate new agricultural industries to support the island’s economy.

\begin{flushright}
\textsuperscript{58}Bulletin of Miscellaneous Information, Botanical Department Trinidad, 1 (1894): 13-23; 2(4) (1895): 53.
\textsuperscript{59}Royal Botanic Gardens, Kew, Bulletin of Miscellaneous Information (131) (November 1897).
\textsuperscript{60}Port-of-Spain Gazette, Friday, 29 July 1898.
\end{flushright}
Summary

From its inception in 1818, the Trinidad Botanic Gardens was closely involved in the agricultural development of the island. Through the Gardens a wide range of crops from across the globe was introduced into the island, planted in the gardens and seedlings raised in order to test their suitability to the growing conditions of the island. This global hunt for plant species was assisted by the communication links maintained with the Royal Botanic Gardens, Kew, other gardens in the British Empire and in other empires, as well as with individuals and companies interested in particular crops. Through these links, the range of plants and seeds available for cultivation was considerably widened and at the same time information on the most recent developments in cultivation across the world was available locally. This demonstrates that the practice fostered through the gardens was by no means accidental. Crop introductions were not done on the spur of the moment but a long range system of trials was in place and it involved cooperation between the imperial powers which, while they held hands in the Gardens, fought in the market.

The Gardens was the point of distribution for those crops which had been successfully cultivated there. The seedling plants were either sold or distributed free of charge to cultivators across the island. This promoted changes in the arboreal environment while a number of adopted crops became well rooted in the Trinidad landscape. From the gardens came information about crop prices and market opportunities as well as methods of production to maximize yields. In relation to yields, different varieties of suitable crops were introduced and an attempt was made to identify the most suitable high yielding varieties available. To the curators of the Gardens credit must be given for identification of local flora and attempts to spread the cultivation of a number of these plants both locally and internationally. Even this activity was not simply a matter of the personal interest of the individuals, for the imperial government was interested in the establishment of a complete catalogue of the islands’ flora and kept close watch on developments through its agency, the Royal Botanic Gardens, Kew.

Finally, the Gardens’ activities were well streamlined to the needs of the imperial government and its perception of what was the best of the colony’s agriculture over the century. Thus, when, in the last two decades of the nineteenth century, economic conditions in both Britain and its colonies were not favorable, the crops which had been tried on the economic grounds of the Botanic Gardens for decades before, were available for general distribution to develop new agricultural industries which it was hoped would rectify the situation. This examination of the activities of the Trinidad Botanic Gardens has demonstrated that the opening quote to the paper made by Dr. Desmond Morris when he reported on the economic resources of the West Indies in 1898 is, in fact, an accurate assessment of the activities of the Gardens and resource development and exploitation in Trinidad. The Gardens were established
specifically to facilitate the movement of plants and to develop new, and hopefully more profitable, enterprises in the colony. It remains a striking feature of this process that the international cooperation and mutual exchanges of plants, seeds and information which was so necessary for its success, continued undisturbed even when competition among the European powers was at its most aggressive stage. This points to the need for a more detailed examination of imperial resource development and its impact on international relations during the era of the “new imperialism.”