CHAPTER ONE

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Introduction

The fiber, which furnishes the staple article of clothing in India, is scarcely mentioned in the early literature of the East, but this may be explained by the contemptuous indifference evinced by learned men to the products and necessaries of every-day life.

Cultivation of cotton and manufacturing cloth were as old as the culture of Tamils. The Sangam literature had agriculture as their prime occupation collected cotton puff from the cotton plant and was well beaten by carder’s bow before it was marketed. Then, Tamils had a great culture and almost all types of fabrics were at one time manufactured by them. Handlooms fabrics were frequently referred to in the Sangam classics and five Great Epics. This was because that the Sangam Literature dealt with the civilization of Tamils and thus depicted the type of fabrics produced by the Tamils. The distribution of work (spinning) was largely conventional and it was mostly carried on by women especially widows who were noted for their patience and devotion to duty. It was amazing to note that the Tamils

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were quite conversant with the technology of opening of the cotton. That the opened
cotton resembles white clouds in the sky had been mentioned in 'Akananuru'. A
poem in 'Nattrinai' compares the opened cotton to the waves on the oceans.\textsuperscript{7}

The first mention of cotton as an article of foreign trade was by
Ariyan, who flourished in the first century. From India the cultivation of cotton seems
to have been spread westward as far as southern Europe. Cotton seems to have
remained unknown in China until the 13\textsuperscript{th} century.\textsuperscript{8} Many references are made by
ancient writers to the cotton grown in India and to the fineness of the cloth made from
it by the natives on their primitive handlooms. In the Institutes of Manu written about
800 B.C.,\textsuperscript{9} it was decreed that the sacred thread of a Brahman must be of cotton
\textit{Carpasa}, that of the Kshatiriya of santhread and that of the Vaishya of Woollen
thread. Herodotus who wrote about 450 B.C., states that “there is a tree growing wild
in India, the fruit of which is a wool exceeding in beauty and goodness that of a sheep
and the Indians made their clothes of it”.

Theophrastus (350 B.C.,) another writer speaks of the cotton trees
from which the people of India make cloth, as having leaves like that of a black
mulberry, and as being planted in rows in their fields to look like vines in the
distance. Nearchus, the Admiral of Alexander, speaks of the trees which in India
“bore bunches of wool from which the natives made their garments consisting of a
shirt reaching to the middle of the leg, a sheet folded about the shoulder and a turban

\textsuperscript{7} K.K. Pillay., \textit{op.cit}, pp. 203 – 205.
\textsuperscript{8}The Industrial Conference Held at Surat, December 1907, paper presented by G.A.Gammie. \textit{“History
of cotton”} Government of India, Madras, 1907, pp. 186 - 192.
\textsuperscript{9} Sir George Watt., \textit{The Commercial Products of India}, London, 1908, p. 570.
round the head”. The cloth made from the fibre was, he said, “finer and whiter than any other”.

Other writers speak of Indian muslins which for the Roman Emperors were so much prized as an article of dress by the coquettish dames of that time. Ariyan describes Arab traders as bringing cotton goods from Barygoza (the modern Broach) to Ports on the Red Sea in the early centuries of the Christian era. The same author says it as being superior to all others described as the Muslins of Deccan.\(^{10}\)

The cotton plant was probably first cultivated for its fibre in Egypt in the 13\(^{\text{th}}\) century and in Japan about the same time. It is said to have been introduced into Spain and Northern Africa by the Mohammedans in the 10\(^{\text{th}}\) century and in the 14\(^{\text{th}}\) century and was grown in Southern Europe. From India its cultivation is said to have spread into Persia, Arabia, Egypt, Syria and Asia Minor and from thence into Turkey and other parts of Southern Europe.

In 1492 Columbus found it growing in the West Indies and America. In England which is now the great centre for the manufacture of cotton goods, this great industry was only started about 1635. Cotton cultivation in the United States of America dates from about the same time, but the quality produced was small till the beginning of the 19\(^{\text{th}}\) century.\(^{11}\)

\(^{10}\) Report of the sixth Indian Industrial Conference Held at Allahabad on 30\(^{\text{th}}\) December, 1910 Published by the General Secretary the Indian Industrial Conference, paper presented by D. Clouston, Deputy Director of agriculture, Central provinces, Berar, and Nagpur, Amraoti, 1911, pp. 1-18.

\(^{11}\) Sir George Watt., *op.cit*, p. 570.
The Hindus then can rightly claim to have been the pioneers both in cotton cultivation and in the manufacture of the cloth. Till the 15th century their dyed and printed calicoes and muslins were carried to Venice, Genoa, Alexandria and Constantinople by Phoenician and Arab traders from the Mediterranean Coast. The discovery of the new route round the Cape by Vasco de Gama in 1498 encouraged the Portuguese to take part in the eastern trade. They were followed by the Dutch in the 17th century and by the English a little later. It is worthy of note that for centuries before power-looms had been dreamt of, India had a trade in cloth of so fine a quality that an early writer has described it as the “mere shadow of a Commodity”. Tavernier, writing in 1660, says of this fine Indian fabric that “when a man puts it on, his skin appears as plainly through it as if he were quite naked.”

In the early medieval period from the 8th century onwards the valley civilization expanded their frontiers into the plains; cultivation spread through irrigation, and forts came up along the new frontiers. Therefore the produce of the plains, in which cotton was an important crop, could be more easily availed. Many recent studies of medieval south India have shown that trade; especially foreign trade played a crucial role in its economy and apart from military plunder, formed the main source of revenue for medieval kingdoms who avoided taxing the dominant land owning communities. Instead they played an essentially redistributive role,

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distributing resources to these communities, principally through the medium of temple.\textsuperscript{15} Hence trade, both inland and sea-borne was encouraged by state policy.

Cotton textiles were one of the most important commodities of trade, mainly carried out with Sri Lanka and south-east Asia. Textile production flourished during this period; a map of textile centers drawn by Vijaya Ramaswamy for the period between 1000 to 1500 A.D shows that the major weaving centers which catered mainly to the export trade were still in the river valleys or at their frontiers.\textsuperscript{16} Cloth production was integrally associated with temples. Weavers were often settled around them. This may had to do with the role that temples played as mediums of redistribution of resources, their association with state power and patronage and the close interest of the state in trade.

Hence many of the weaving centers, especially those that produced finer qualities for luxury consumption and export were situated in capitals or in the vicinity of major temple complexes located largely in the valleys. All the valley kingdoms had ports along the east coast. In a Pandya inscription, Madurai is mentioned as a center of weaving and having a port at Korkai. Inscription from Tirunelveli, another important weaving center, refer to the production and transport of textiles through the pattinam or port.\textsuperscript{17}

In the late medieval period from the 14\textsuperscript{th} century onwards the kingdoms of the valley expanded further into the plains through colonization. Export

\textsuperscript{15} Baker., \textit{op.cit}, p. 30.
\textsuperscript{16} Vijaya Ramaswamy., \textit{Textiles and Weavers in Medieval South India}, Madras, p. 7.
\textsuperscript{17} Meera Abraham., \textit{Two Medieval Merchants Guilds of South India}, Delhi, 1988, p. 62.
as well as regional trade (of which cloth formed a larger if not the larger part) flourished. The Vijayanagar capital, and later the Mysore kingdom, generated a growing demand for goods, especially textiles. Demand for textiles increased also thanks to consumption by the new poligar elite and their armies. The new poligar habitations in the plains were nucleated settlements. The larger became market places and came to be known as Kottai-Pettais (fort-markets) as they were fortified. These Kottai Pettais dotting the plains became important centers of cotton trade and production. Many of them were in the black soil tract of the southern plains between Madurai and Tirunelveli ideally suited for cultivation of cotton as well as cloth production expanded in these areas.

Cotton in Coromandel

The Coromandel Coast is a term applied to the east coast of the peninsula of India.\(^{18}\) The coast extends from Krishna River or coast of Orissa to Cape Comorin.\(^ {19}\) Nachinarkkiniyar in his commentary on Tholkappiam, a classical epic, mentions the limit of east coast as Verkadu (Pulicat).\(^ {20}\) Arasarathnam bifurcate the areas north of pennar as Northern Coromandel and south up to point Calimere as Southern Coromandel.\(^ {21}\) A modern research scholar bounds the Southern

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\(^{18}\) The word Coromandel, originally written as “Choromandell”, means, “The realm of Chora”, and is a corruption of ‘Choramandala’ or ‘Cholamandala,’ the country of cholas, an ancient Tamil Dynasty entered in Tanjore.


Choromandel from Cape Comerine to Madras. Arasarathnam names the coastal territories from Point Calimere, to Thoothukudi as Madurai Coast and beyond south of it as fishery Coast. The word Coromandel has derived from Cholamandalam, considered being the fifth province of the last Hindu Empire, Vijayanagar. The important port of the Coromandel Coast were Visakappattinam, Madras, Nagapattinam, and Thoothukudi; besides Pondicherry, Porto Novo, Tharangambadi, Point Calimere and Pulicat. The coming of Europeans viz., the Portuguese, the British, the Dutch and the French to the Coromandel Coast constitutes an epoch in the history of India.

The Europeans vied with one another in the seventeenth and the eighteenth centuries to secure some suitable factories on this coast, mainly from the commercial point of view. Among the Europeans the Portuguese were the first to draw the Coromandel into trade. They dominated the trade in the Indian Ocean and monopolised spice trade to a large extent. In contrast with the Portuguese, the Dutch merchants did not have sufficient silver to buy spices, but after finding out the cotton fabrics from India, notably from the Coromandel Coast, they started to set up their main trading factories on the Coast.

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22 Burten Stein., All the King’s Manas and Papers on Medieval South Indian History, Madras, 1984, p. 243.
23 The Madras Tercentenary Commemoration Volume, Madras, 1939, p. 21.
26 Madras Tercentenary Commemoration Volume, op.cit, p. 22.
27 Jeyaseela Stephen., The Coromandel and Its Hinterland, Delhi, 1997, p. 16.
In south Coromandel there were number of ports from which overseas cotton trade was carried on. To the south, Madarasapattinam, Devanampattinam, Nagapattinam and Thoothukudi were the homes of shipping and overseas trade. The entire south Coromandel Coast was littered with weaving villages within short distances and they were well geared to production for export. Cloth painting was done here and exported.\(^{29}\) The Dutch seized the port of Thoothukudi from the Portuguese in 1658 and later fortified it. The Dutch had a factory in Thoothukudi and dealt in cloth amongst other articles but on the whole, and especially when compared to the northern part of the Coromandel, the Deep South was involved in only a limited way in the companies’ trade.\(^{30}\) The English tried to set up bases there in the 1670s but soon gave up, succeeding in only the later part of the 18\(^{th}\) century. More important was the indigenous trade with Sri Lanka and Southeast Asia.

In the eighteenth century, as Dutch trade gradually declined, especially in north Coromandel Coast they were less able to police the trade in the south. The English trade, by contrast, mainly concentrated in the northern parts and them to have entered the south Coromandel Coast only in the latter half of the 18\(^{th}\) century; by the 1790s they had established political control of the region. This assumption of power appears to have been accompanied by formal control over textile production. Thus it was reported that the Tirunelveli weavers had been placed under the superintendence of the English residents in 1795.\(^{31}\) The valley regions were historic centers of intensive agriculture and of political power. Trade played a crucial role in the

\(^{31}\) Arasarathnam., *Merchants, op.cit.*, p. 331; Baker., *an Indian Rural Economy*, Calcutta, 1926, p. 79.
economy of medieval kingdoms and textiles were one of the most important components of this trade.

In the early 19th century, the East India Company still continued to trade in cotton cloth albeit in declining quantities. With the political subjugation of the extreme south (accomplished between 1790 and 1801), it also extended production and procurement to these areas. It employed weavers in various Zamindaries in Tirunelveli district. The investments in the southern district appear to have been substantial. A commercial resident was stationed in Ramanathapuram and in Tirunelveli. 32 Yet, on the whole, the company’s investment in textiles was declining and the company factory in Tirunelveli was abolished in 1820-21.33 Instead it gradually began to invest in raw cotton and salt petre for the Chinese trade. The southern districts played an important part in these investments.34

The 19th century has been widely discussed for the effects of ‘deindustrialization’ on the textile industry.35 In the case of Madras presidency, Konrad Specker has shown that the greatest decline was in the northern districts (which saw a steep decline in the number of looms) where the finer weaving was carried out, catering to the export trade; in the southern districts the number of looms did not decline but remained stagnant or increased. Thus in Tirunelveli district the number of looms actually rose from 7,800 in 1821-22 to 14,500 in 1843-44 to 24,049

32 Records No. 1190, Collector of Madurai, 1804, Madras Archives, 1804.
34 Commercial Consultation Vol. IB, 1815, p. 311.
in 1869-70.\textsuperscript{36} But a mere count of looms is by itself insufficient as it does not tell us for how long these looms were in operation during the year and what quality of goods they produced. A survey of the Madras Presidency carried out by \textit{Havell} in 1885-86 indicates large scale decline in production for export, both to Europe and to south-east Asia.\textsuperscript{37}

Thus while export declined and production of finer varieties survived in pockets, the production of cotton cloth for ordinary wear which was the largest sector of handloom production in the southern district like Madurai and Tirunelveli were affected by competition from British imports. Imported mill made textiles were almost half of the price of handloom cloth\textsuperscript{38} in the face of these competition weavers survived by weaving even coarser varieties thus reducing their margins.

\textbf{Cotton Trials and Experiments in Tirunelveli}

Cotton development in Madras State was inspired by the economic potentials that were generated by the Revolution in England during the eighteenth century and by the political and economical change that occurred during that period in the relationship between Great Britain and the United States of America. \textit{Cassel} reported that, on the last day of the year 1600 Queen Elizabeth granted the first

\textsuperscript{36} Specker., \textit{op.cit}, pp. 180, 192.


Charter to “one body corporate and political indeed by the name of the governor and company of Merchants of London trading into the East Indies".39

The first outward consignment of the Company was made by four ships of an aggregate capacity of 1,400 tons and consisted of woolen goods and metals to the value of £ 6860 and also bullion valued at £ 21742. The Company’s trade was said to have not been in favour of England from the point of view of the balance of trade. It was also alleged that the East India Company was bringing into England large quantities of Indian cotton fabrics and was thus crippling the home industry. The British Parliament which debated this matter on 8th March, 1623 declared that the company’s trade was “injurious to the national interests from it drawing the nation of treasure of which it was said they exported to the amount of £ 8000 per annum”. At that time England was manufacturing woollen fabrics and this was considered a great national industry.40 The import of Indian cotton textiles into England was considered a dangerous innovation.

In 1674 – 75, England imported cotton goods from India to the value of £ 160,000. At last in the year 1700 the Government banned imports of cotton textiles from India. But this only encouraged smuggling. In 1721, an Act of Parliament was passed, “to preserve and encourage the woollen and silk manufactures”. Under this law, every person who was found wearing Indian cloth


40 R. Rathnam., Agricultural Development in Madras State Prior to 1900, Madras, p. 119.
was fined £ 5 for each offence and the seller was fined £ 20. This measure served as an effective barrier to the inflow of cotton textiles from India.\footnote{M.D.C. Crawford., \textit{The Heritage of cotton}, New York, 1926, p. 96.}

\textbf{The American Revolution}

The territory comprising the United State of America was previously under the British. The British considered all her colonies as “outland centers of population, created to supply the home market with raw materials and to be in turn a market for the finished products of the Mother Country”\footnote{J.A. Turner., \textit{Cotton Planters Manual}, London, 1857, p. 89.}.

On the one hand the heavy expenditure which England incurred “on the American colonies and the irregularities by which they evaded their legal obligations were offensive to the frugal and orderly temperament of King George III”\footnote{M.D.C. Crawford., \textit{op.cit}, p. 203.}. Temperamentally the American colonies did not accept the measure of personal and political freedom enjoyed by the American colonies; this did not extend to trade and industry. The Americans were debarred from exporting a large number of important products such as cotton, sugar, tobacco, timber etc., to any country other than British. They were compelled to import merchandise only in ships sailing directly from England. No foreign ships were allowed to enter American harbours. They were debarred from undertaking manufacture of goods which would have entered into competition with English goods. They had to depend on England even for ordinary commodities such as cloth or hardware. Port duties were levied and collected by customs officers of the British Government. These were not revenue duties but were really regulatory in nature. As a matter of fact the expenditure on the
customs administration was really larger than the income derived from the duties. Contraband trade to escape the customs ring was rampant.\textsuperscript{44}

All these factors created a situation in England whereby on the one hand the Industrial Revolution created an enormous demand for raw cotton, and on the other the supply of this commodity from America could not be depended upon. In order to save the textile industry at home from collapse, England had necessarily to look for other avenues of supply and in this endeavour; India had occupied her thoughts very much. To save the home industry, she had already completely banned import of cotton goods from India in the year 1721. She had now to make India raw cotton to work the factories in England.\textsuperscript{45}

**Cultivation of Uppam and Nadam Cotton in Tirunelveli**

According to Sethi and others, the varieties referred uppam cotton called scientific name as *gossypium herbaceum*, nadam cotton called scientific name as *gossypium arboretum* and shemparuthee called scientific name as *gossypium barbadense var.brasiliense*.\textsuperscript{46} The board of Revenue received the following extracts from the proceeding of the Board of Trade dated 23\textsuperscript{rd} July, 1812: In 1804 the collector of Tirunelveli reported that the entire quantity of cotton produced in that district might be secured on behalf of the East India Company.\textsuperscript{47} He however pointed out that


\textsuperscript{45} Consultation Vol. No. 14368, Board of Revenue, Madras Archives, 1836, pp. 7965-7967.


\textsuperscript{47} Despatch of the Board of Trade, Dated, 23\textsuperscript{rd} July, 1812 and the report of the Tirunelveli District in 1804.
a considerable portion of this cotton was used for cloth production in the company’s investments and that therefore the export of raw cotton would interfere with the working of these investments and has the effect of enhancing the cost of production of the manufactured goods. For these reasons he recommended that the raw cotton purchases might be confined only to such quantities as were normally exported.\textsuperscript{48}

In order to enable the Board of Revenue to judge whether waste lands could be granted on the terms proposed by the commercial resident, the Board called for an account from the collector of Tirunelveli of the extent of land then under cotton and of the rates of land assessment then in force. This statement brings out the fact that the East India Company was never firm in its demand for cotton for export to China and the United Kingdom. The volume of demand changed and price too changed. The collectors of the Tirunelveli district had pointed out how the sudden contraction in demand brought untold cotton to the farmer much more than even what an adverse season could do. Tax on inter-district movement of cotton was abolished in order to keep down prices and in addition a fixed rate of land revenue was brought into force whatever be the crop grown.\textsuperscript{49} To an enquiry made by the Board of Revenue in the year 1812, Tirunelveli Collector had furnished information about the area under cultivation of cotton in Tirunelveli district. The nadam variety of cotton was in the field for more than one year extending up to 2 to 3 year. But the uppam variety was an annual.\textsuperscript{50}

\textsuperscript{48} Consultation Vol. No. 14346, Board of Revenue, Madras Archives, 1836, pp. 9685-9700; Consultation Vol. No. 14665, Board of Revenue, Madras Archives, 1836, pp. 652-752.15.
\textsuperscript{49} Consultation Vol. No. 14790, Board of Revenue, Madras Archives, 1836, pp. 11346-11352 and pp. 13671-73.
\textsuperscript{50} Guide to the Tirunelveli Collectorate Records in the year 1812, Madras Archives, 1812.
Description of the Cotton Varieties

With the introduction of exotic varieties as stated in the previous Statements, Madras State had several varieties under trial. At this stage, it seems necessary to appreciate their more important qualities which are indicated below”

Uppam and Nadam Cotton

These are indigenous varieties and belong to the species *gossypium herbaceum* and *gossypium arboreum* respectively. The East India Company considered them as too poor in quality. They had short staple.

Bourbon Cotton

According to Sethi and others, this belongs to the species *gossypium hirsutum*, race *punctatum*. Royle has classified Bourbon cotton as *gossypium barbadense*. He describes this species as a perennial 6 – 12 feet in height; seeds black, free and generally without fuzz though “in its original Mexican form”; it was “covered with closely adhering down”. He stated also that the cotton is long stapled and silky.

New Orleans and Uplands Cotton

Sethi and other as well as Royle have classified these varieties as belonging to the species *gossypium barbadense*. Royle further states that “the planters of New Orleans cotton of the present day renew their seed when it deteriorates from Mexico or from the Gulf Hills in Mississippi, very fourth or fifth year”. The New Orleans was the variety which the East Indian Company tried to establish in India as it was in great demands in England. Royle states that the uplands variety has a staple
of one inch to 1¼ inches and white in colour and forms the bulk of the cotton of commerce.

**Pernambuco or Brazilian Cotton**

Wheeler pointed out that this cotton is marked by the peculiarity of its seed, which adhere together in “conglomerations”. This was also the Shem paruthee of Coimbatore. Royle classified this variety as *gossypium peruvianum*. This is described by Royle as a perennial growing to ten of fifteen feet; leaves three to five lobed, upper surface glabrous and lower surface with scattered stellate pubescence; flowers large yellow; capsules long and large, ovoid at base, much pointed or acuminate at apex; seeds eight to ten adhering firmly to each other so as to form a cone – like mass, black and “free of every pubescence”. Sethi and others classify this variety as *gossypium barbadense var. brasiliense*.

**Egyptian**

According to Royle the best Egyptian ranks next to Sea Island in quality and length of staple of 1¼ to 1 2/3 inches in length. He classifies this variety as *gossypium barbadense*. Sethi and other agree with this classification.

**Sea Island**

This variety also belongs to the species *gossypium barbadense* according to Royle. Sethi and others also adopt this classification. Royle consider this as “the most highly esteemed of the cottons” because it “is remarkable for the length and fineness of its fibre as for its silky softness. The staple is 1 1/2 inches long”.  

**Bourbon Cotton Trails in Tirunelveli**

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51 Consultation Vol. No. 15848, Board of Revenue, Madras Archives, 1836, P. 89.
Royle classifies Bourbon cotton as gossypium barbadense. It is described as a perennial, 6-12 feet in height, glabours; leaves usually three lobed, the lower leaves five lobed; flower yellow; capsules three to four and sometimes fine celled; seeds free, black, without any other pubescence than the long, fine, easily separable white wool. Royle also states that the Bourbon cotton is so named from having been grown in the Isle of Bourbon, where it is supposed to have been introduced by the French from the West Indies. Says Royle: Its seeds were early distributed by Dr. Anderson throughout the Indian. Dr. Wight, Mr. Fischer, and other, state that its cultivation is now common in many of the southern district”. Wheeler states that the Indian cotton “really rise above three feet from the ground” and that “the Bourbon, which was originally brought from the Mauritius about the latter end of the last century, rise to about the same height as the Indian, but then it spreads out its branches much more”. Thus between Royle and Wheeler there seem to be some difference of opinion about the height to which Bourbon cotton would grow.

Wheeler states that from an early period the Directors of the East India Company were naturally anxious that India should take a part in the supply of cotton. He states that in 1790, and for some years afterwards, Dr. Anderson was engaged at Madras in distributing a variety of foreign cotton seed obtained from Malta and the Mauritius throughout the Peninsula of India. As a result of Dr. Anderson’s endeavors, Bourbon cotton was introduced and became naturalized in the district of Tirunelveli.

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52 J.R. Royle., op. cit, pp. 125-34.
55 Guide to the Tirunelveli Collectorate Records in the year, 1790, Madras Archives, 1790.
Salem and Coimbatore. Wheeler further states: “this success is in a great measure to be ascribed to the enterprise of a private merchant named Hughes, who resided in Tirunelveli. Mr. Hughes seemed born with a genius for developing the resources on a country.\(^5\) For a long time his senna was widely celebrated as the best in the world. His cultivation of Bourbon cotton was, however, a still greater triumph”.

In the year 1814, the government granted certain areas of land in Tirunelveli district to Mr. Hughes “to encourage under a wise and liberal policy. In January 1818, Mr. Hughes therefore submitted to Government proposals for cultivating Bourbon cotton in the southern portion of Tirunelveli district. These proposals were not recommended by the Collector because he thought the expense involved as not commensurate with the benefits expected to accrue. In answer to an enquiry made by the Board of trade, Madras Mr. Peter, Collector of Tirunelveli submitted a report, to the Board of Revenue in September 1819, detailing the possibilities of extending cotton cultivation in this district. The land assessment in Tirunelveli was the same whether cotton was grown or a grain crop was raised. Mr. Peter thought that the best means to induce an extension of cotton cultivation was not by the remission of land revenue but by the grant of advances to the cultivations and a promise to take their produce at the market price. The quality of Tirunelveli produce varied, even so it was said to be held in great estimation. Much of it was exported. Uppam and nadam cottons yielded round about 100 lb. of lint per acre with a ginning

\(^{5}\) J.F. Wheeler., \textit{op.cit}, p. 121.
outturn of 20 to 22 percent. Bourbon showed a ginning outturn of 20 to 33 percent, and in Tirunelveli yielded 100 lb. of lint per acre.\textsuperscript{57}

**American Cotton Trails in Tirunelveli**

Not having been satisfied with the small success attained with the cultivation of cotton in certain district of Madras Presidency, the Court of Directors were constantly exercised over the question of further improving Indian cotton. This statement deals with attempts made for acclimatizing American variety of cotton.

**Establishment of Experimental Farms in Tirunelveli**

In a letter dated May 17\textsuperscript{th}, 1819 the Board of Trade, Madras came out with proposals for opening four one-hundred-acre experimental farms. The considerations that the Board of Trade took into account before reaching this decision are:\textsuperscript{58}

\textit{“The cotton of Tirunelveli had been highly improved in the English market and there is every reason to expect similar testimony in favour of the produce at Coimbatore which in quality appears from the specimens produced by Mr. Heath to be at least equal to that of Tirunelveli. Still the Board feel satisfied from general opinion and from the information communicated on a late occasion by Mr. Hughes of Tirunelveli that Tirunelveli cotton is inferior to many other descriptions and that from the climate of those districts (Tirunelveli and Coimbatore) being peculiarly favorable...”}

\textsuperscript{57} Proceedings No. 3309, Board of Revenue, Dated, 5\textsuperscript{th} June, 1863; Consultation Vol. No. 15504, Board of Revenue, Madras Archives, 1836, pp. 8734.

\textsuperscript{58} Despatch of the Board of Trade, Dated, 17\textsuperscript{th} May, 1819; Consultation Vol. No. 15506, Board of Revenue, Madras Archives, 1836, p. 9462.
to the growth of the plant, the better kinds might be introduced with little difficulty and trouble.

This circumstance had led the board on the present occasion to consider the expediency of endeavoring on a limited scale to introduce a system of cultivation which may eventually lead to the diffusion of a better species of plant. With this view the Board would propose the establishment of experimental farms under the direction of the local commercial residents, and upon the responsibility of the Commercial department, namely, in Tirunelveli and Coimbatore each farm to consist of about 400 acres of good soil, in that part of the district where a proper supply of water may be easily procured, the rent and expense of cultivation being paid by the Commercial residents after the selection of the farms.\(^{59}\)

The experiment would also ensure the supply of fresh and good stock of seed of the description that may be found best to answer for distributing generally in this district and it would be a ground work for introducing the same system of cultivation in other district with the hope of ultimately superseding for the purposes of exportation the growth of the present country plant.\(^{60}\) In accordance with this suggestion the Madras Government established cotton farm of four hundred acres each in Tirunelveli and Coimbatore respectively. Each farm was placed under the direction of the Commercial Resident of the district. According to the wheeler these farms worked successfully.

**Mr. Randalls Proposal for Importing American Seed**

\(^{59}\) Consultation Vol. No. 15511, Board of Revenue, Madras Archives, 1836, pp. 11119-11120.

\(^{60}\) Consultation Vol. No. 15575, Board of Revenue, Madras Archives, 1836, pp. 6625-6626.
Mr. Randall was a Commercial Resident at Cuddapah which then formed part of Madras Presidency. On March 29th, 1819 he sent proposal for importing cotton seeds from America and cultivating them in India. Those proposals contained a wealth of data about performance of the American cotton seeds and about the quality of various variety of American cotton. They envisaged award of prizes to cultivators whose crop gave high yields.61

Introduction of American Cottons

By the time the ‘thirties’ of the nineteenth century dawned, the Lancashire Textile Industry seems to have established its markets not only in India out the handloom cloth, but had captured also the other markets in china and elsewhere which in the previous century and the first decade of the nineteenth century were the monopolies of Indian goods at least for superfine cloth. Since the Lancashire industry depended to a substantial extent on supplies of raw cotton of the superior grades from America, and since that industry apprehended stoppage of these supplies at any moment consequent on development of international factors, the representatives of that industry at Lancashire constantly urged on that Court of Directors the imperative need for developing cultivation of the superior grades of cotton all over the British possessions. Accordingly the court of Directors procured supplies of these seeds direct from America and sent them to Madras Presidency. Four casks62 of seeds of “Upland Georgian” and one cask of “Sea Island Georgian”


62 Casks mean ‘measurements of cotton seed’.
cotton were sent by the ship “Minerva” in 1831 with notes about their cultivation as practiced in America.\(^{63}\)

**Result of Trial in Tirunelveli District:**

In May 1833 the Collector of Tirunelveli informed the Board of Revenue that: “*the novelty of the undertaking, the ignorance of the ryots of the decided superiority of these articles over the common cotton of the country and of the eventual advantages they would derive from preserving in the cultivation, their great unwillingness to speculate in an untried experiment added to the state of the late seasons which are represented to have been by no means favourable even to the country cotton operated materially against the satisfactory accomplishment of this very desirable object*.\(^{64}\)"

He reported that the ryots were very apathetic. Even those who sowed the cotton seeds had expressed them against the American cotton because their cultivation was more expensive since the lands required better preparatory cultivation and more manure. Even so the yield was less than that of the indigenous cotton.\(^{65}\) In the meanwhile the Agri-horticultural Society at Madras came into being in the year 1835. It actively engaged itself in exploring all means of introducing and acclimatizing new plant species. In November 1836, the Society informed the Board of Revenue that it had received from abroad a supply of seeds of New Orleans,

\(^{63}\) Consultation Vol. No. 15739, Board of Revenue, Archives, 1836, pp. 16744-16745; Consultation Vol. No. 15774, Board of Revenue, Madras Archives, 1836, pp. 9219-9248.

\(^{64}\) Despatch of the Board of Revenue, Dated, 9\(^{th}\) May, 1833; Report of the Collector of Tirunelveli in 1833.

\(^{65}\) Consultation Vol. No. 15791, Board of Revenue, 1836, pp. 15412-15414; Report of the Collector of Tirunelveli in 1833.
Upland Georgian and Sea Island cotton which the society was desirous of distributing in the most advantageous manner. It therefore requested the Board to instruct the collectors of Salem, Coimbatore and Tirunelveli and any other suitable districts to try the seeds. The society wanted also that each grower should return one half of the seed from the crop of the above species grown by each person in order to enable the society to supply the seed to other growers.66

**Further Trials**

From the year 1837 onwards, all efforts were directed towards the trial of as many varieties of cotton as possible in order to secure one which from the point of view of yield and quality would surpass the indigenous Nadam and Uppam varieties as well as the exotic varieties Bourbon which had by then been grown over a period of two decades with good success.67

These trials were made by many persons both on behalf of the East India Company under the supervision of collectors as well as private individuals, particularly Europeans. For instance, in November 1837 the secretary of the Agricultural-Horticultural Society, Madras, reported to the Madras government that at the suggestion of Dr. Wight, he had sown 500 seeds of each kind of seed, in order to see which germinated. After several trials it was found that only Egyptian cotton seed had vegetated. In March 1838 the Madras government received 57 bags of Bombay cotton

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66 Consultation Vol. No. 15800, Board of Revenue, Madras Archives, 1836, pp. 3624 - 3625.
67 Despatch of the Board of Revenue, Dated, 23rd March, 1837.
seed and these were a complete failure, because the seeds did not germinate. The trials in Tirunelveli also suffered the same fate.\textsuperscript{68}

At this stage \textit{Dr. Wight} made a detailed report to government on certain cotton trials. He said on June 27, 1839 that Bombay cotton was the same as the indigenous cotton grown in Tirunelveli. Due to unfavourable season the Bombay cottons failed in Salem district. The sample of Bombay cotton grown in the ceded districts was as good as the upland American cotton were equally vigorous. The first picking commenced three months after planting and pickings continued for a further period of three months thereafter.\textsuperscript{69}

\textit{Dr. Wight} added: “\textit{The best Upland cotton soils of America have, according to Mr. Paddington’s analysis, a large proportion of vegetable matter combined with them that is about 4\textsuperscript{1/2} percent, while the Indian black cotton soil have sometimes scarce a trace and the best of them rarely above 2 or 2 ½ percent’’}.\textsuperscript{70}

For this reason \textit{Dr. Wight} recommended heavy manuring. He also referred to the fact that cotton was picked in this country in a very careless manner. The dust and other dried pieces of leaf adhering to it contributed to our cotton being valued in England only one half of what the same kind of cotton from America fetched because the latter was very clean and great care was bestowed on its

\textsuperscript{68} Consultation Vol. No. 15848, Board of Revenue, Madras Archives, 1836, p. 15954.
\textsuperscript{69} Despatch of the Board of Revenue, Dated, 27\textsuperscript{th} June, 1839; Report of the Collector of Tirunelveli, 1839.
\textsuperscript{70} Wight., \textit{Report of the Cotton Trial}, Dated, 27\textsuperscript{th} June, 1839, Government of Madras, 1839.
collection. *Dr. Wight* also conducted experiments on the relative ginning outturn of the various varieties of cotton he was growing in his compound.\(^71\)

The results were as below:

<table>
<thead>
<tr>
<th>No</th>
<th>Variety</th>
<th>Seeds</th>
<th>Lint</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Country Cotton</td>
<td>87</td>
<td>33</td>
<td>27 1/2</td>
</tr>
<tr>
<td>2</td>
<td>Bourbon Cotton</td>
<td>84</td>
<td>36</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>Upland American Cotton</td>
<td>80</td>
<td>40</td>
<td>33 1/3</td>
</tr>
<tr>
<td>4</td>
<td>Sea Island Cotton</td>
<td>72</td>
<td>48</td>
<td>40</td>
</tr>
<tr>
<td>5</td>
<td>Egyptian Cotton</td>
<td>76</td>
<td>44</td>
<td>36 2/3</td>
</tr>
<tr>
<td>6</td>
<td>Pernambuco Cotton</td>
<td>86</td>
<td>34</td>
<td>28 1/3</td>
</tr>
<tr>
<td>7</td>
<td>Brown or Nankeen Cotton</td>
<td>84</td>
<td>34</td>
<td>28 1/3</td>
</tr>
</tbody>
</table>

**Source:** R. Rathnam., *Agricultural Development in Madras State Prior to 1900*, Madras, p. 186.

This Statement summarizes the attempts made in Madras State between the years 1820 and 1840 to acclimatize various American cotton varieties. Two experimental farms each of 400 acres were established in Coimbatore and Tirunelveli for this purpose. This would be a district prize in the year 1831, Upland Georgian and Sea Island cotton seeds were received from America and were distributed in the districts of Tirunelveli, Coimbatore, Salem and South Arcot for trials. These notions have been proved wrong by subsequent research. Also, there was a notion that black cotton soils were found suitable for cotton cultivation because they contained salt. Saline soils were said to absorb moisture and therefore were deemed congenial for growth of cotton. Occurrence of frost in America necessitated the growth of annual varieties of cotton. But in Madras State there was no fear of frost in

\(^71\) Consultation Vol. No. 15871, Board of Revenue, Madras Archives, 1836, pp. 9063 - 9076.
the cotton areas, and therefore perennial varieties were recommended. Yields of seed cotton in Madras Presidency were said to compare favourable with those obtained in America.

In a report which the court of Directors sent to the Indian Board in the year 1828, it has been brought out that though Bourbon was successful and had firmly established itself in many cotton tracts of Madras State, the Lancashire textile industry did not want such superior cotton. They indigenous cotton of India was too inferior and too poor in cleanliness and quality. They therefore wanted a variety which was better than the indigenous cottons but inferior to Bourbon cotton. The Indian farmer was accused of indifference to the need for bestowing proper care in growing the exotic varieties and also in gathering any cotton crop in a clean condition free from dried leaf bits, sand etc.²²

**Cotton Planters from America – First stage**

This is an important stage in the endeavours made by the East Indian Company to improve cotton cultivation in India. First decade of the nineteenth century was one in which the Company interested itself in merely purchasing whatever raw cotton was available in Madras Presidency and exporting it to the overseas markets in China and England.²³ This was merely a continuance of the practice which it followed during the second decade of the nineteenth century; the East India Company interested itself in improving the quality of the cotton exported.

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²² Consultation Vol. No. 16123, Board of Revenue, Madras Archives, 1836, pp. 7771 - 7773.

²³ Consultation Vol. No. 15904, Board of Revenue, Madras Archives, 1836, pp. 3354 - 3427; Consultation Vol. No. 15950, Board of Revenue, Madras Archives, 1836, pp. 2415 - 2480.
The successful introduction of Bourbon cotton particularly in Coimbatore and to a lesser extent in Tirunelveli was the first landmark in this direction. During the third and fourth decades of the century this matter was taken one more stage forward by the trial of Bombay cotton in Madras and of the exotics, Sea Island, Upland Georgian, Egyptian and Pernambuco varieties with little or no success.

In the meanwhile the Court of Directors in London was flooded with innumerable entreaties and memorials asking them to pursue with the utmost vigour the development of cotton cultivation in India. In 1838 the Directors of the Chamber of Commerce and Manufacturers in Glasgow pointed out to the Home Authorities that Britain was dependent on America for supplies of raw cotton and that if war broke out between England and America the Textile industry at home would seriously suffer. They added: “English cotton manufactures having superseded the native fabrics formerly their greatest staple and thereby and thrown millions of people out of employment, it is surely the duty of a paternal government zealously to endeavour to turn the attention of the people to other profitable occupations”.  

With this end in view they suggested the extension of cotton cultivation in India. During the same year (1838) the Chamber of Commerce and Manufacturers of Manchester brought to the notice of the Court of Directors that during the first eleven months of the year 1838, India supplied only 5 percent of the total imports of raw cotton into Britain which aggregated to 13.7 lakhs of bales valued at 14 million sterlings. The value of the finished good was 430 million sterlings involving 300,000 tons of shipping and employment to 2 million persons.

74 Consultation Vol. No. 15920, Board of Revenue, Madras Archives, 1836, pp. 10167 - 10169.
Other influential bodies like the East Indian associations at Liverpool and Glasgow also urged on the Court of Directors the immediate need of augmenting exports of raw cotton from India to England. These representation and other cognate matters received the most anxious attempts to augment the Indian production of cotton, the Court thought that no less than an the all-out effort to import into India American cotton seeds and the wholesale adoption in India of American Methods of Cotton cultivation would ever solve the problem.

**Arrival of Three Cotton Planters in Madras State**

In their further dispatch date June 2, 1840 the Court of Directors informed the governor of Madras that they had succeeded “in engaging ten individuals from the United States represented to be perfectly conversant with the growth, cultivation, cleaning and packing of cotton in all its branches”. Of these, three planters namely Messers James Morris, I.N.Hawley and Samuel Simpson were allotted to Madras.

The Court of Directors admitted that these individuals would arrive too late to superintend the sowing. Three American planters landed at Madras on or about October 20, 1840. They contracted the members of the Board of Revenue immediately on arrival. In the absence of any specific instructions from above on the manner in which these planters should be employed the Boards of Revenue informed the government of Madras that the sowing season was already over and that therefore

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75 Consultation Vol. No. 15930, Board of Revenue, Madras Archives, 1836, pp. 14381 - 14387.
76 Despatch of the Court of Directors Dated, 15th March, 1839; Consultation Vol. No. 15933, Board of Revenue, Madras Archives, 1836, pp. 15013 - 15014.
77 Despatch of the Court of Directors Dated, 2nd June, 1840; Consultation Vol. No. 15934, Board of Revenue, Madras Archives, 1836, pp. 51886 - 15887.
it was not possible to undertake cotton cultivation on government account during that year. The Board however added: “But having consulted with the American planters, the Boards are of opinion that they can at once be employed to advantage in inspecting the process of cultivation pursued by the natives and suggesting improvement to them. It is obvious that they cannot too soon become acquainted with the native mode of cultivation or the character of people and at present the cultivation is in its earliest stage”.

The Board therefore recommended that the three planters be sent to Tirunelveli district without delay and to arrange with the collector for purchase of 1000 to 1200 acres of land already sown with cotton “to afford the planters an opportunity of exhibiting as far as the means yet available will permit the system of cultivation pursued in America”. The government approved these suggestion and the three planters left Madras for Tirunelveli on Wednesday November 18, 1840. Accommodation for them was found with great difficulty and they were place under the superintendence of Captain Hughes of the Army.

The supreme government in India had also desired that the three planters should, as far as possible, be kept together or at a distance of not more than 50 or 100 miles apart. In January 1841 the Board of Revenue sent to the government proposals for taking 1200 acres of cotton lands in Tirunelveli district under which the

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78 Despatch of the Board of Revenue, Dated, 20th October, 1840; Consultation Vol. No. 15950, Board of Revenue, Madras Archives, 1836, pp. 2415 - 2480.
79 Consultation Vol. No. 15947, Board of Revenue, Madras Archives, 1836, pp. 1384 - 1388; Consultation Vol. No. 15957, Board of Revenue, Madras Archives, 1836, pp. 4889.
80 Consultation Vol. No. 15962, Board of Revenue, Madras Archives, 1836, pp. 6390 - 6396; Consultation Vol. No. 15965, Board of Revenue, Madras Archives, 1836, pp. 7542 - 7562.
land owners agreed to cultivate and harvest the crop as per instructions of the American planter and to retain the produce to land owners.81

First Experiment in Tirunelveli

On April 8, 1841, the Board of Revenue received the following letter from Captain Hughes, superintendent of the American cotton planters indicating the failure of the plans:

“The American planters have been located in a house in the Fort of Palaymkottai. It was decided that in the first instance the planters should confine their proceedings to the neighborhood of Tirunelveli and that the native cultivators should be invited to come forward, if they desired instructions, letting them know that the Americans were willing at all times to afford very assistance in their power.82 This invitation having become generally known, some cultivators from the village of Karisalkulam, about 2 miles from Tirunelveli, came on the 24th instant (March) to request the attendance of the planters for the purpose of instruction and on the morning of the 26th instant I directed two of the planters accompanied by a Gomastah and two peons to proceed to the village in question”.83

On the return of the planters, the report of this experiment, I regret to say, was most unfavourable. On the view of the fields pointed out by the cultivators to the planters, they in the first instance informed themselves of the system in use with

81 Despatch of the Board of Revenue, Dated, 18th November, 1840; Despatch of the Board of Revenue, Dated, 3rd January, 1841.
82 Despatch of the Board of Revenue, Dated, 8th April, 1841; Despatch of the Board of Revenue, Dated, 24th and 26th April, 1841.
83 Consultation Vol. No. 5756, Board of Revenue, Madras Archives, 1836, pp. 4439 - 4443.
the natives in gathering the crops which being defective in every particular, the American proceeded to rectify by instructing the cultivators in the method of picking the cotton practiced in America but which although they acknowledged its vast superiority to their own, the cultivators at once declared their inability to adopt by reason of the greater trouble and greater expense attending its operation, unless the Government would purchase the cotton so produced at a fixed valuation which if not practicable they, the cultivators, said that they desired the introduction of no new method of cultivation or even of American seed which they decline to sow.  

In June 1841, Captain Hughes and the three American planters left Tirunelveli for Coimbatore. Captains Hughes was the first to arrive at Erode on June 22, 1841. Mr. Simpson reached Erode on June 24 and the two remaining planters, by the middle of July 1841. The season for cotton had already advanced. The local farmers were not willing to adopt the American method of cultivating cotton. Next year they were transferred to Coimbatore district along with their Superintendent Captain Hughes. In that year, cotton seeds of New Orleans and Sea Island varieties arrived along with American ploughs.

During the year 1842, Dr. Wights took charge as Superintendent, Cotton Farms, in place of Captain Hughes. Late sowings and subsequent heavy rains vitiated the trials of Captain Hughes in 1841-1942. From the next year onwards,
separate cotton farms were started.\textsuperscript{89} The farm at Coimbatore was under \textit{Dr. Wight’s} himself. The American planters were in charge of farms situated at Coimbatore and Udumalapetai. Some of the cotton planters were also changed later on. After trials from 1842-43 to 1844-45, it was observed that the country plough was as good as the American plough, ridging had to be discarded to conserve soil moisture, rotation of crops was necessary and new Orleans was better than Uppam variety of cotton. Since the soils were poor, the acre yields declined year after year.\textsuperscript{90}

\textbf{Efforts of Cotton Planters from America – Final Stage}

\textit{Dr. Wight} and the cotton planters from America continued endeavours for three more years from 1845 to 1846. This statement recounts the results of the further experiments and indicates how the Government was compelled to order the discontinuance of the experimental farms and the disbandment of the American cotton planter.\textsuperscript{91}

\textbf{Change of Venue}

When the year 1846 dawned find that \textit{Dr. Wight} got confirmed that Coimbatore town proper was not good for the continuance of the experiments and he shifted the farm to a place by name Otacalmount (Otacalmandapam), 12 miles southwest of Coimbatore town. \textit{Mr. Finnie} was worked in Tirunelveli district.\textsuperscript{92} During the year 1846, \textit{Mr. Finnie} only acquainted himself with local conditions and arranged

\textsuperscript{89} Consultation Vol. No. 5775, Board of Revenue, Madras Archives, 1836, pp. 2316 - 2339.
\textsuperscript{90} Consultation Vol. No. 5801, Board of Revenue, Madras Archives, 1836, pp. 3207 - 3248.
\textsuperscript{91} Consultation Vol. No. 5841, Board of Revenue, Madras Archives, 1836, pp. 458 - 486.
\textsuperscript{92} Consultation Vol. No. 5888, Board of Revenue, Madras Archives, 1836, pp. 3395 - 3400; Report of the Collector of Tirunelveli in year 1846.
cultivation of American cotton near Sivakasi. In May 1847, he submitted to the Government proposals for starting a hundred acre model farm in Courtallam valley, in reply to the Government’s enquiry as to what was meant by a “Model Farm” (Experimental farm).

**Results of Mr. Finnie’s Experiments in Tirunelveli district Mr. Finnie Replied:**

“The proposed model plantation to the extent of 50 or 100 acres is to be on lands held by Government and cultivated under my superintendence either by hired labour or contract at so much the acre as may be most convenient and to be planted in rows and the ground kept well-stirred and free of all extraneous matter but solely with native instruments as an example to the landholders in the hope of inducing them to adopt the culture on their own account. I propose to distribute seed to those who are willing to cultivate the article and will contract to take the produce off their hands at a fixed rate per candy on Government account and as soon as the people will adopt the plan I should give up all culture on Government account and leave it in their hands merely taking the produce at its value. This is the simplest plan of the procedure and more likely to succeed than if the business was confined to the experiments”.  

The Government sanctioned this scheme. About ginnery was also erected at Sivakasi. In September 1847, Mr. Finnie reported to Government the results of his trials carried out at Sivakasi in 1846 and what he had done in 1847 in

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94 Consultation Vol. No. 5911, Board of Revenue, Madras Archives, 1836, pp. 4699 - 4714.
that area. He has some very interesting observations to make on the prevailing state of
cotton trade. It reflects the prevalence of appalling conditions and is remarkable for
its forthrightness. It is extracted below:

Referring to the experiments conducted at Sivakasi in 1846 Mr. Finnie
said that due to long drought “not a plant lived except a small field which was
planted and irrigated by a ryot of intelligence and zeal”. This field produced a little
cotton and the people liked it much. The royts also thought that in a good season
American cotton would succeed without irrigation.

Mr. Finnie also added that during 1847 he had planted American
cotton at three stations namely Sivakasi, Aruppukottai and Virudupatty, “just to
satisfy those who differ from me”, and declared: “Failure must be the result .... I say
we have failed to produce the American cotton in Southern India and must ever fail
where we have not the benefit of both monsoons and even where we have, we cannot
produce the article as a mercantile commodity. But the people may, if they will take it
up”. The local mercantile also pointed out to Mr. Finnie that ginning by “saw gin”
entailed loss of weight of produced to compensate which they were not paid a higher
price than what is paid for churka-ginned cotton. In April 1848, Mr. Finnie reported
failure of the American cotton raised in the three centers referred to the above.

The crop thrived only in “well-protected” spots. Saw gins were also
found unsuitable for ginning the indigenous cotton; In January 1849 he reported
failure of the view that the country was not suitable either for growing American

95 Consultation Vol. No. 5911, Board of Revenue, Madras Archives, 1836, pp. 4696 - 4698; Report
Submitted by Finnie report of the Cultivation of Cotton in Sivakasi, Dated, September 1847,
Government of Madras, 1847.
cotton or for using American gins. He thought that the indigenous cotton and churka could be improved upon. These views were not accepted by Dr. Wight who attributed the failure of the trials to lack of care and close supervision on the part of Mr. Finnie.  

**Discontinuance of the Experiment**

The Government had now to reach a decision on the question whether to continue the trials. They had before them Mr. Finnie's view of the utter futility of the experiment expressed in the most empathic terms and Dr. Wight's views on the success so far achieved and the need for further continuance of the work in order to spread the cultivation of American cotton among the ryot. Their orders dated June, 1849.

The experiments carried out during the three year ending 1848-1849 for cultivating American cotton. During this period the American planter, Mr. Finnie worked in Tirunelveli district, and Dr. Wight the Superintendent of cotton farmed worked in Coimbatore district. Mr. Finnie was a practical farmer and Dr. Wight was an agricultural Botanist. Their approach to the experiments differed fundamentally. Mr. Finnie assessed at every stage what the reactions of the local farmers were to his experiments and understood how each year’s crop thrived as a practical proposition. Based on these observations he asserted in a forthright way that American cotton can never be made to grow in this part of India. On the other hand, Dr. Wight took the meteorological factors of Mexico, the original home of New Orleans cotton. And

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96 Consultation Vol. No. 5931, Board of Revenue, Madras Archives, 1836, pp. 3451 - 3464; and pp. 3474 - 3479.
those in South India concluded that the climate here was ‘cold’ as compared to the
‘hot’ climate of Mexico and that therefore patient endeavours would give success.97

Certain associations in England connected with cotton trade and manufacture were critical of Dr. Wight’s experiments. But he gave scientific reasons for the details of the experiments. Line sowing, inter-cultivation and use of sandy loams for growing American cotton were being adopted. But yields were very poor and ryot could not be persuaded to grow American cotton despite ten year’s trials. The Government was therefore compelled to order the discontinuance of the experiments and Mr. Finnie returned to America.

Looking back at these experiments after more than a century the failure may perhaps be ascribed to limitations imposed by the lack of adequate soil moisture in South India whereas in the original home of new Orleans cotton or in Mississippi wherefrom the seeds were purchased, rainfall was perhaps intent in certain months necessitating the provision of drainage facilities and preventing water logging. But in South India the problem is one of conservation of soil moisture which the open cultivation in rows and frequent inter-cultivation did not help.98 Before leaving India Mr. Finnie recommended “a fair trial” of Captain Lawford’s plan of irrigating work in order to spread the cultivation of American cotton among the ryot.

Cotton Experiments During the year 1853 – 1862

97 Consultation Vol. No. 16420, Board of Revenue, Madras Archives, 1836, pp. 15157 - 15161.
98 Consultation Vol. No. 5971, Board of Revenue, Madras Archives, 1836, pp. 2 - 22.
The efforts on the part of the Madras government to introduce American cotton and American machinery into the Madras Presidency virtually ended with the departure of Dr. Wight from India in 1853. Since then, some experiments in the growth of American cotton had been carried out by private individuals. But the question of whether this better stapled could be grown with profit to the cultivator, remained unresolved.99

Silver, the Collector of Tirunelveli, in a letter dated 20th February 1862 reported as follow:

“The average quantity of unclean cotton grown in the district of Tirunelveli during the last three year was 150,000 candies of 500 lbs each. In the year 1860-61, 4400 candies of cleaned cotton were sold at Rs.102 (£ 10-45) per candy. There are no obstacles to the spread to cotton cultivation, but a stimulus seems to be required in establishing agencies for dealing direct with the cultivators in the interior, instead of conducting their business, as they do at present, through brokers at the part of embarkation and by constructing better reads in the cotton growing localities, the cultivation of cotton be extended beyond doubt”. Silver also forwarded his reply to the Madras Board of Revenue to certain queries put to him by His Excellency Sir William Dension the Governor of Madras, as regards the cotton trade at the port of Thoothukudi.100

End of ‘Desultory’ Trials on Cotton

99 Consultation Vol. No. 6001, Board of revenue, Madras Archives, 1836, pp. 3915.
Though the trials with American cotton seeds with the assistance of American cotton planters were terminated, further endeavours were continued in certain directions not only to improve the quality of indigenous cotton but also to introduce certain exotics. A cotton commission reviewed the work of cotton development carried out in India. The Cotton Commissioner concluded that the cultivators of Madras Presidency, when cotton seed was distributed to them, made the experiment fail. *Mr. Robertson*, the superintendent of the government farm, Saidapetai added that:\(^{101}\)

1. The ryots could not understand the motive of the experiment and were suspicious.
2. Seeds of the exotic cotton were unsuited to the low agricultural condition and practice of the country.
3. Seeds were supplied out of the season.

Citing to the above views, The Board of Revenue said that desultory attempts of improving cotton had already been made in the presidency on a greater scale and their completed failure was a lesson that should not be forgotten. At last the government abandoned the trials and experiments.\(^{102}\) On the whole, the area under cotton cultivation in different district in the Madras Presidency showed an average increase in the net cultivation of cotton. The ups and downs in the area under cotton cultivation indicate pressure on the cotton cultivation owing to the seasonal

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\(^{101}\) Proceeding No. 7891, Board of Revenue, Dated, 9\(^{th}\) Dec, 1864; Proceeding No. 1286, Board of Revenue, Dated, 22\(^{nd}\) Feb, 1866; Proceeding No. 6393, Board of Revenue, Dated, 24\(^{th}\) Sept, 1863; Proceeding No. 2202, Board of Revenue, Dated, 17\(^{th}\) April, 1863.

\(^{102}\) Proceeding No. 6393, Board of Revenue, Dated, 24\(^{th}\) Sept, 1863; Proceeding No. 2202, Board of Revenue, Dated, 17\(^{th}\) April, 1863.
fluctuation, price variation and market indicators. The year 1852 and 1853, the average increased, since the season was favourable and the demand for cotton in the market was also high. The districts of Tirunelveli showed an increase of more than 13000 of acres under cotton cultivation when compared with the cotton cultivation in the years 1851 and 1852.\textsuperscript{103}

**Conclusion**

Due to American Civil War, the cotton importation into British from America was drastically curtailed and a heavy demand, therefore, for raw cotton in the British market was created. The British Government exported raw cotton from India in a large quantity to England to resolve imbalances. This was the cause for the increase in the market rate for raw cotton during the years 1861-1864. There was a cotton boom and the area under cotton cultivation increased. In the district of Tirunelveli the area under cotton cultivation increased from 194850 acres in 1857 to 26253 in 1862 showing an increase of 67673 acres of land under cotton cultivation.

Famines and droughts seem to have adversely affected the agriculture more than the fluctuation of season did. During the famine of 1866 the agricultural practice failed tremendously showing heavy decrease in the acreage under cultivation. During the famine of 1877, 1878, the area under cotton cultivation decreased from 302507 acres in 1873 to 130406 acres in 1877 showing a decrease of 172101 acres of land under cotton cultivation in Tirunelveli district. At the close of the nineteenth century, however, the area of cotton cultivation had increased almost in the district of

\textsuperscript{103} Proceeding No. 4723, Board of Revenue, Dated, 20\textsuperscript{th} July, 1863; Proceeding No. 8003, Board of Revenue, Dated, 18\textsuperscript{th} Dec, 1863.
Tirunelveli it was 122391 acres in 1847 and 186884 acres in 1900 showing over 50 per cent of increase in the area: (1847-122391 Acres, 1857-194850 Acres, 1867-205056 Acres, 1877-130406 Acres, 1887-225973 Acres, 1897-201781 Acres, 1900-186884)

The interval of the ten year was assessed to show the Tirunelveli cotton cultivation. The above statement shows an increase of cotton cultivation in the district of Tirunelveli from 1847 to 1900. During the year 1867-1877 there seems to be a striking shrinkage of acreage. This was because of 1876 famine. The year 1887, has recorded impressive expansion due to a very favourable climates for the cultivation of cotton in Tirunelveli District. It was because of the favourable monsoon and raised market value for raw cotton.

This chapter mainly express History of cotton and gradual progress of Cotton developments in Tirunelveli district in 18th century onwards, that’s why Tirunelveli called as one of the Cotton Growing Country in world, Then, the cotton improvement action was processed, so due to the gradual development of the cotton cultivation in Tirunelveli area, European industrialist planned to established the cotton related modern industries such as ginning factories, spinning mills, pressing industries, also participate the cotton trade among markets in and around Thoothukudi. So it is my conclusion is above mentioned statements are determining the further progressive developments of cotton in 1888-1909 in and around Thoothukudi.