

A straightforward account in natural

DONALD. O. WILLIS.

language: accurate

(Date of Birth — [REDACTED])

and

59 FERNHILL ROAD, COWLEY, OXFORD.

well-

informed.

School —

CITY OF OXFORD HIGH SCHOOL.

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Synopsis:-

A. Introduction:-

Reasons for growth of Empire
cotton in modern times.

1st Prize

B. Past Production:-

(a) India & W. Indies — original Empire
sources; factors hindering development;
difference between Indian & W. Indian
cottons — results.

(b) Rise of U.S.A. as producer — results

(c) American Civil War — results: —

① famine in homes. ② Attempts at
developing Empire supplies.

Results of inferior Indian cotton.

(d) General Results of attention drawn to
India — organisation & development

(e) 20th cent. — Brit. Cotton growing
Area. — its causes and early attempts.

(f) Great War — results. Empire
cotton policy to-day.

C. Present Production
and Future Possibilities }:-

(a) Present position of Empire Cotton.

(b) India — Black Soil Region, Indus,
Burma etc. Possibilities for future.

(c) Africa — Soudan, Nigeria and other
problems & future hopes.

(d) West Indies.

(e) Queensland, Australia.

(f) General results of this policy.

Synopsis (contd) :-C. Conclusion :-

Discussion of possibilities for future expansion — (a) territorially and (b) by intensification.

Books Consulted for Essay.

Manchester Guardian — Commercial Supplement.

Knowles. Economic Development of Brit. Overseas Empire.

Maefarlane. Economic Geography

Tod. Cotton.

Byron and Jones. N. America.

~~Whitaker~~ Whitaker's Almanac.

Statesman's Year Book.

Willis. Agriculture in the Tropics

Sargant. Seaways of the Empire.

Fairclough. Geography and World Power.

Russell Smith. Commercial Geography.

Cartier. The Thirsty Earth.

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Hardy. Plant Geography.

Oxford Survey of the British Empire.

Huntington. Modern Business Geography.

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Stamp. The British Isles.

Discuss the past and present production of cotton in the British Empire and indicate the geographical possibilities of future expansion.

It was not until the 19th century that Empire cotton began to assume an important place in world commerce, for then the occurrence of two highly significant events suddenly forced the British Government to interest itself particularly in the cotton question. The industrial revolution in England and the growth and subsequent development of Britain's overseas possessions were the two factors, which started the modern cultivation of Empire cotton.

Previous to this the only great sources of raw Empire cotton were the West Indies and India, in both of which various factors existed that were definite barriers to cotton growing. The actual method of administration, originating from the desire for trade, was not one to encourage large scale development, for private Companies, such as the East Indian Company, were all alike in their policy of trade for trade's sake. Their interests seldom went beyond the enrichment of their own pockets and they were quite content to allow agriculture to remain in the primitive and usually inefficient hands of the natives, providing that products were forthcoming to enable their trade to flourish. The result was that the cotton was of a very inferior quality and the yield poor, little being done by the conservative native to improve upon the methods of his ancestors or to better the yield of his crops by extra labour.

These remarks, perhaps, apply far more to early India than to the West Indies, where the geographical distribution of the land in the form of islands made it much easier for penetration and development to take place. Consequently

we find, prior to the growth of American cotton, that the chief source of raw material for Lancashire was the West Indies, where the production of the sea island variety ensured a supply of good quality cotton.

India, meanwhile, under the control of 'John Company' continued to export calicos and manufactured goods to Europe, growing only sufficient cotton for its own needs. Moreover, in India, internal strife between the natives, constant wars between the French and English and the rivalry of the Dutch and Portuguese, hindered whatever progress there was. At the same time the policy of "laissez-faire", pursued by the British Government, damped home interest in Indian affairs by forbidding direct interference in the business of the rich East Indian merchants.

The British West Indian islands continued to export to the Lancashire mills, until as a result of the development of cotton growing in the U.S.A., the West Indian planters turned to sugar cultivation as a more profitable line of business. Henceforward Lancashire looked towards the U.S.A. for her supplies and the production of the Empire, such as it was, fell considerably.

In the years 1861-1865, however, there was the American Civil War, the results of which were to have a most important influence upon cotton production within the Empire. The war put an end to all cotton export, so that a most serious shortage of raw cotton occurred in Lancashire, which was forced to face the worst famine in her history. Nevertheless this terrible disaster opened the eyes of the British Government to an imperial weakness and strenuous efforts were made to develop supplies in various parts of the Empire. There had been, previous to this, an earlier attempt in 1848 to meet an anticipated shortage of United States cotton by extending the production in India,

while at the same time Parliament had been petitioned from Glasgow and Manchester to send the unemployed to Australia and Natal to grow cotton. Unfortunately the lack of good communications and the cost of transport in India, together with the difficulties that faced any proposed development of the comparatively new regions of Natal and Australia, had caused it to fall through. At the time of the American Civil War, however, matters were in a much ~~unfavourable~~ ^{favourable} situation, for the building of railways in India had considerably lessened the cost of transport, while the introduction of cotton into Egypt had opened up fresh fields and given that country a new value as a possible source of future supplies. The efforts made during the famine were for ^a time successful, for, stimulated by the desperate demand from England, Indian cotton export expanded rapidly. England imported about 1,500,000 bales a year as compared to the previous 600,000 bales. The inferior quality of the short stapled Indian cotton was unsuitable for the manufacture of fine counts, which even then was Lancashire's speciality. Thus, coupled with the fact that India started to adulterate better quality cottons, retarded progress, so that at the end of the Civil War America soon regained her former position.

On the other hand better success attended the cotton production in Egypt, where a long stapled variety was grown, which possessed a definite advantage over American cotton since it was at that time the only cotton that could be mercerized. As a result of this Egyptian cotton became a regular import of Lancashire after 1890, and further attempts were made to develop it permanently in Egypt.

The attention drawn to India by this temporary demand for Empire cotton was not without its good effects, for, at least, the organisation and development of the country was seriously commenced. In 1833, as the result of a searching enquiry,

the East India Company had ceased to carry on trade, which from now onwards fell into the hands of ordinary traders. Instead it had become the administrative instrument by means of which India was to be governed in trust for England, who was so far committed to "laissez faire" as to decline direct control over her possession. After 1833, when Englishmen were for the first time allowed to be planters in India, a new ^{era} began during which the country came to assume its modern position as a large exporter of raw materials. This development was greatly aided by the impetus given to cotton production in the years of the American Civil War, for not only did it awaken a real interest in the growing of cotton but it led to the import of English cotton goods by India itself. Although the government of the East India Company commenced a period of growing prosperity, yet the systematic organisation, and consequent agricultural organisation, of India did not really begin until the British Government finally took over the control after the Great Mutiny of 1857.

Confronted with the tremendous task of dealing with famines and restoring law and order, the Imperial Government found that they had to abandon their former policy of non-intervention and begin one of Public Works, thus preparing the way for the astonishing agricultural development of the 20th century. It was perhaps natural that in the 19th century the British should develop cotton production in India and Egypt and reflect it in other parts of the Empire. Not only was the cotton plant firmly established in these two lands, having grown in India at least from prehistoric times, but it was in them that British interests were dominant. India was the greatest eastern possession, a veritable mine of wealth, while Egypt, whose importance was more than doubled in 1869 by the construction of the Suez Canal,

was on an important highway to the Far East.

The 20th century saw an enormously increased demand for raw cotton in Lancashire, chiefly owing to the introduction of artistic methods of printing cotton fabrics, to the manufacture of lighter varieties and to the discovery of a use for cotton in the making of motor tyres. Two factors in America, moreover, coincided with this demand. Firstly the ravages of the boll weevil and the boll worm gave rise to the threat of another shortage and secondly the rising textile industry of New England was taking a great deal of the United States cotton. The anxiety aroused by these two factors caused fresh efforts to be made at Empire production. In 1902 the British Cotton Growing Association was formed with the object of growing cotton on large plantations throughout the Empire. After some years of experiment, however, the Association soon found that it was much more favourable to allow natives to grow the cotton in small holdings under white supervision. This policy is now widespread, being the basis upon which African, Indian and West Indian cultivation is carried on.

At first, many difficulties faced the Association, which for many years had little return for its enterprise. It was obliged to supply good seed, to erect ginning and baling factories, to establish buying stations, to improve transport and communications and to advance money for the financing and handling of the crops, while at the same time, it undertook to insure and sell the cotton grown. Owing to climatic and economic reasons, some early attempts ended in failure for it was found to be impossible to introduce cotton into Gambia, Sierra Leone and the Gold Coast. On the other hand success followed its attempt to revive the production of sea island cotton in the West Indies, while its interest in Indian cotton stimulated the efforts already being made in that country to improve

the quality and yield of native types. Moreover in Uganda, which had not known cotton before the 20th century, the work of the Association resulted in a rise in cotton export from 54 bales in 1904 to 20,000 in 1911. The Great War, however, broke out in 1914 and put a temporary stop to the peaceful continuation of this work of development. The growth that had begun was not checked by the World War, however, for on its termination the Association redoubled its efforts and in the process of time cotton growing was introduced into many parts of the Empire. Meanwhile the Empire Cotton Growing Corporation -- a permanent committee established in 1923 under the auspices of the British Government -- had begun to establish experimental stations throughout the Empire, as at Sigatoka in Fiji, Dauduwa in Nigeria and Mazabuka Station in Northern Rhodesia. At these stations investigation is carried on as regards conditions of growth, variety of seeds, hybridisation, cotton pests and other matters connected with cotton cultivation. This Corporation, moreover, was empowered to levy ~~tax~~ ^{tax} upon every bale of cotton entering England to be given towards cotton growing in the Empire. This law has, incidentally, led to a certain amount of controversy, for it is argued, with some justice, that the British Government is merely spending money to increase the supplies of Japan and to raise up competition in India. Japan, indeed, obtains the bulk of her raw material from India, which is also a ready market for the cheap Japanese cotton goods, which compete successfully with the dearest English articles.

The efforts of these two organisations combined with the action of the governments of India and the various colonies, have resulted in the present state of Empire production, when, despite the fact that Lancashire still obtains the greater part of her cotton from the U.S.A., the import of British cotton is steadily increasing, especially from the Sudan and India.

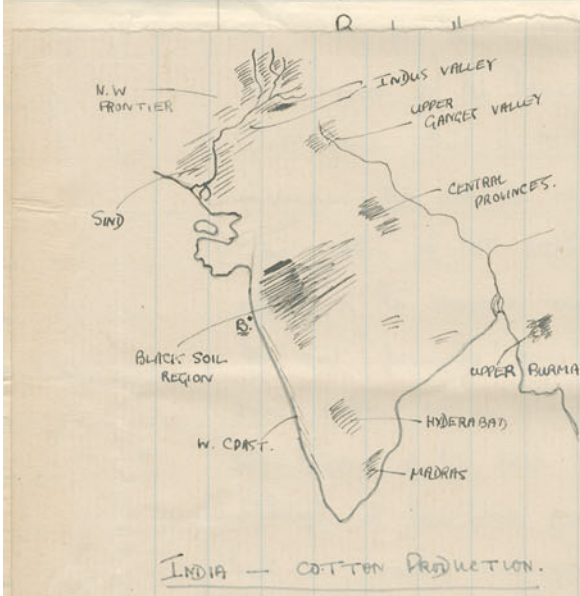
For an adequate discussion of the present Empire production it will be necessary to take each cotton producing region separately so that we can not only study the difficulties and progress in each, but, moreover, gain some idea of the prospects that exist for future expansion. As India is of first importance in the production of cotton it will be as well to accord it priority of examination.

Cotton has been grown in India from time immemorial and to-day, as in bygone times, it is to be found in almost every district even in the hills of the North-East Frontier, while it is more universally grown than any other crop. The modern cultivation, however, is at present concentrated in certain tracts, of which the chief are Gujerat in the Bombay Presidency, the Central Provinces, the Punjab, Madras, the North-West Provinces, Sind and Hyderabad.

By far the most important region is the famous Black Soil Region of the Deccan. This is situated east of the W. Ghats and while it is commercially tributary to Bombay it yet includes the central and western parts of the Central Provinces. The cotton of this district depends of course upon the modified effect of the summer monsoon, but the tenacious nature of the soil prevents any failure of the crops in time of drought. Here cotton covers almost 20,000 sq. mts., an area comprising two-thirds of the total land under cotton in the whole of India. Although it has been grown for many centuries it is very poor both in quality and yield and within recent years attempts have been made to improve it. Two alternatives present themselves: firstly, the introduction of exotic varieties which have prospered in their own environment and secondly the endeavours to cultivate a longer staple and higher degree of productiveness in the native cottons, themselves. The Cotton Committee, which investigated the question during 1917-1919, found that in most

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One of the most important cotton producing regions is the famous Black Soil Region. This is situated east of the Western Ghats and is commercially tributary to Bombay. It yet covers the western parts of the Central Provinces. The production depends of course upon the modified monsoon, but the tenacious nature of the soil ensures the success of the crops in time of drought. It covers about 20,000 sq. mls., an area comprising about one-third of the total cotton area in the whole of India.

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cases the first method failed. Consequently experimental farms have now been established with the purpose of carrying through the second scheme, but whether it will ultimately ^{be} possible to induce the somewhat careless Indian cultivator to use the necessary care and trouble, such a policy demands, is a matter of conjecture.

Cotton is becoming of increasing importance as an export of the Indus Valley, for although the greater proportion grown is of the short stapled indigenous variety, American and Egyptian long staple cotton is increasing in importance. Indeed, the production of cotton, which is cultivated in rotation with the winter crop of wheat, is a chief occupation of the whole region drained by the Indus, especially in the five rivers' area. In the Sind, however, lack of rain, inspite of the alluvial soil, makes agriculture impossible unless irrigation is practised. Already American and Egyptian varieties are grown under irrigation, although not in sufficient quantities for commercial purposes. The recently constructed Sukkur Barrage has enabled the production to extend and it is estimated that four or five million acres of land, which are now provided with perennial irrigation, will render possible the cultivation of long staple cotton on a large scale. Although not in large quantities cotton is grown without the aid of irrigation on the West coastal region and in the Upper Ganges Valley. Irrigation is however the keynote to future success in ~~the~~ most parts, especially in the Indus Valley, the South Deccan and the East coastal region around Madras.

Upper Burma is another future source of Indian cotton, for, with the improvement of communications and the establishment of canal or tank irrigation, production should rapidly increase.

The land available for cotton cultivation in India is almost unlimited, the climate is in many places suitable and in the process of time irrigation should enable India

to become the greatest source of raw cotton in the Empire.

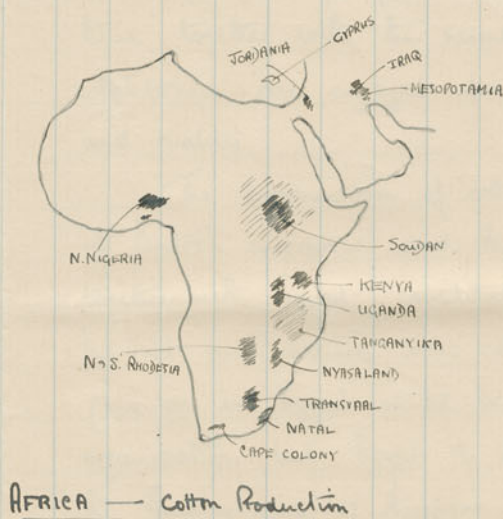
Future prospects are bright providing the Government continues to carry out the gradual education of the natives and the scientific improvement of the crops. In each province there is a Director of Agriculture, with a staff of experts, and these together with the numerous agricultural colleges now established are engaged upon the problem of bettering yield and quality.

The production of cotton in Africa is largely the result of British enterprise and the various British possessions, together with Egypt, constitute a valuable source both of present and future raw cotton. Much development has gone on in Egypt in the past owing to British energy and organisation, but Egypt is, to-day, no longer a part of the Empire and is therefore not considered to any great extent in this essay. Nevertheless it may be said ^{in passing} that the import of Lancashire of Egyptian Sakellandis cotton is steadily increasing.

Perhaps the greatest cotton producing region of the future is the Anglo-Egyptian Soudan, which rivals the American cotton belt in size. Moreover it has a suitable climate, plenty of cheap labour and only requires white management, irrigation and transport facilities. At present cotton is grown at Toka and Kassala, which are annually inundated by floods, and on the Gezira Plain which is a vast alluvial expanse, fertile from the silt of the Blue Nile. Egyptian cotton of the very best quality is profitably grown during the cooler part of the year and irrigation is used from the Sennar Dam on the Blue Nile, which also provides water for the district of Wad Medani, where 300,000 feddans are being rendered productive. The region is being developed by the Soudan Plantation Syndicate and the possibilities for future expansion are immense both in

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the developed North and in the, as yet, comparatively undeveloped South, where communications are very bad and the negro races lack enterprise.

Outside the Soudan, which in 1932-33 had a total area of 312,938 acres of rain, flood & irrigation land under cotton, the most promising of the British African possessions in respect of cotton production is Northern Nigeria. Cotton had always been produced for domestic purposes on the savannahs of the North, but it is now being grown for export to Lancashire. As a result of the ^{cotton} Growing Association's efforts American long staple varieties have been introduced, and the Kano district is now an important exporter, while the Lagos area of Southern Nigeria has also begun to produce cotton. Despite the fact that the climate and soil are suitable, the population is industrious and experienced and the demand is steady, the output has not increased as rapidly as was desired. This is explained partly by defective communications, partly by the primitive methods in use, partly by the use of large areas for food crops, but chiefly by the cost of transport and the waste of labour involved in it.

Apart from the Soudan and Northern Nigeria the cotton production of British Africa is confined to Uganda, Kenya Colony, Tanganyika, Nyasaland, North and South Rhodesia and to the Union of South Africa, in which the Rustenburg district of the Transvaal is the chief area, although Natal and Cape Colony are also producers. In Uganda cotton is now the chief export, being grown particularly in the Eastern Province, although it is being developed in other parts as well, especially in the Mengo area north of Lake Victoria where plantations under European control have been established. The area under cotton in 1932 was 1,870,152 acres and this ^{is} likely to increase in the future when the difficulty of labour and the disinclination of the natives for hard work are overcome. Kenya cotton is chiefly grown near

lake Victoria in the Kavirondo country, the chief hindrance to its growth being the high altitudes. The cotton production of Tanganyika is steadily increasing, especially in the east and west, with the encouragement of native cultivators, the climate being too unhealthy for white planters. Despite a shortage of labour and the competition of tobacco, the growth of cotton is making headway, chiefly by the plantation method, and the export in 1933 was 2,263,728 lbs. Cotton in North and South Rhodesia has to face many difficulties and its development is slow. None the less it seems likely that both regions will in time become fairly large producers.

The growing of cotton within the Union of South Africa is now undertaken by many farmers, who find it a better drought resistant than either tobacco or maize. The total yield in 1931 was 9,074,093 lbs, of which almost half was produced by the Transvaal, where in the Rustenburg district the yield is said to be as high as 350-500 lbs per acre. Zululand in Natal is also a promising region, although it suffers from pests and a scarcity of labour.

Modern cotton growing in the West Indies is the result of the Cotton Association's revival, in 1903, of sea island cotton, which commands the highest price in the cotton market.

To-day, partly owing to the efforts of West Indian Imperial Department for Agriculture cotton is produced in the Barbados, Windward, St. Vincent, Leeward and Trinidad Islands.

Queensland, Australia, is the only other developed region, besides those mentioned above, where cotton is produced in any great quantities. Both its soil and climate are suitable, but lack of cheap labour, chiefly owing to the White Australia Policy, has prevented extension of cotton production to any great degree. At present success seems to depend upon the maintenance of high prices in the cotton world, although co-operation among the growers might lessen the cost of picking.

Through the agency of various organisations and through Government interest Empire cotton production, comparatively small in pre-War years, has taken gigantic strides, so that to-day it is indeed a vital factor in world commerce. This progress can be illustrated by a few statistics: in 1927-28 the Empire as a whole provided the United Kingdom with 11% of her raw cotton, but by 1932 this had risen to 19%, thus showing a marked increase in Empire production.

This production, moreover, has by no means reached its territorial limit, for there are possibilities of cotton being grown in other parts of the Empire. The climatic factors of cotton growth — plenty of moisture while plant is forming, (preferably in a steamy hot atmosphere) and a dry warm period for ripening — limits these possibilities to a certain extent. Despite this, however, efforts are continually being made to cultivate cotton in Ashanti, Gold Coast, Palestine, Iraq, Mesopotamia, Cyprus, Malta and the South Sea Islands. Success is inevitable in Mesopotamia with the advent of irrigation, in Cyprus with improvement in seed and methods of cultivation and in the South Seas, where sea island cotton can easily be grown. Moreover in those countries, where cotton is already established, production can be intensified by the various means already discussed in the description of African and Indian cultivation.

Possibilities for the future are indeed great, especially in India and Africa, where, it is said, the Sudan alone could with proper development supply the mills of Lancashire with all the cotton they require.