

VIA COLENDI HAUD FACILIS

# THE IMPERIAL COLLEGE OF

# TROPICAL AGRICULTURE

# SILVER JUBILEE RAL HISTORY CENTRE 1951

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# The Imperial College of Tropical Agriculture

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(Incorporated by Royal Charter) TRINIDAD, B.W.J. Lundom Office : 40 NORPOLK STREET, W.C.2.

PATRON HIS MAJESTY THE KING

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COLONIAL OFFICE. THE CHURCH HOUSE. GREAT SMITH STREET, S.W.1.

I am very glad to have this sportunity, on the occasion of the Silver Jubice of the grant of a Royal Charter to the Imperial College of Tropical Agriculture, of paying tribute to the splendid work it has accomplished since it was first established.

As this brochure shows, its development has been noteworthy, and in a comparatively short time it has built up for itself a reputation for teaching and research of the highest standard. That it has become the acknowledged centre of training in tropical agriculture for the Brilish Colonial territories is a fitting testimony to its achievements.

A most commendable feature of the work of the College has been its close association and active co-operation with industrial concerns connected with tropical agriculture. Their interest and continued support have been most heartening.

I am sure that I speak for my predecessors as well as for myself in warmly congratulating the members of the Governing Body, the Principal and his Staff and all concerned with the development of the Gollege, on the work that has been done.

# The Imperial College of Tropical Agriculture

Box 2/32

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### AGPTCULTURAL ADVISORY COUNCIL

With the compliments

of the Secretary

Ministry of Agriculture, Fisheries and Food, Great Westminster House, Horseferry Road, London, S.W.1. THE Imperial College of Tropical Agriculture (commonly known as I.C.T.A. and so styled in the rest of this booklet) is situated at St. Augustine, Trinidad,

British West Indies. The College was founded in 1921. In 1926 it received its Royal Charter, of which this booklet commemorates the twenty-fifth anniversary.

LC.T.A. is the recognised, and indeed the only, centre in the British Commonwealth for post-graduate training in tropical agriculture and the related sciences as applied thereto. As a general rule all graduates recruited to serve as Agricultural Officers in the Departments of Agriculture of all the British colonies, protectorates and other dependencies in the tropics, spend as least one year at LC.T.A. before taking up their duries. In recognition of these Empire-wide responsibilities of LC.T.A., all the governments throughout the British Colonies, *f* for *f*, with the Colonial governments. A further contribution is made by H.M. Treasury from the Colonial governmental firms, associations and the like, especially those concerned with tropical agricultural products such as sugar, cocoa and cotion.

Besides its post-graduate teaching on this Empire-wide basis, LC.T.A. also teaches at the undergraduate level, the undergraduate courses being intended primarily for West Indian students; a large proportion of whom come with scholarships from British West Indian governments and subsequently serve in West Indian Departments of Agriculture.

As in all institutions of university status, the teaching staff of LC.T.A. have ample facilities for research, and many of the outstanding advances in the knowledge of tropical agriculture and the agricultural sciences, and their practical application, have been the result of investigations by LC.T.A. staff. But in addition to this research work, there are also at the College separately financed British West Indian Research Schemes, for bananas, cocca, sugar and soils. The establishment of graduate (and senior administrative) staff for teaching and for research now numbers 64, and the annual recurrent expenditure on teaching and research is about £184,000.

The need for a British college of tropical agriculture was first voiced in 1902 by the late Sir Norman Lamont, Bart, it an article in the Empire Ravies. In 1913 the developed this idea further at a meeting held under the auspices of the Liberal Colonial Club. He then suggested that a college be established in Trinidad, and that the Imperial Department of Agriculture be transferred three from Barbados to form a nucleus. In 1919, Lord Milner, then Secretary of State for the Colonies, appointed the Tropical Agricultural College Committee, under the Colonies, appointed the Tropical Agricultural College Committee, under the founding, an agricultural college in the West Indian Agricultural College was founded on 21st September, 1921, and the West Indian Agricultural College was founded on 21st September, 1921. The Governing Body was constituted with Six Arthur Shipley as Chairman, and Sir Francis Watts was appointed Principal.

The College owes its establishment in a large measure to Sir Francis Watts, who, as Imperial Commissioner of Agriculture for the West India, inspired to action a number of imperially-minded people. Most of the West Indian tollouites pledged their support and agreed to contribute one-half of one per error of their revenue towards its running expenses. Trinidad, Antigua and St. Kitts-Nevis made substantial contributions towards the cost of the necessary buildings and The Trinidad Government presented a fine site of 84 acres at St. Augustine and the Trinidad planters voluntarily agreed to levy a duty on the principal exposits in order to ruise a capital fund of £50,000.

In November, 1921, St. Augustine House and an old hospital, already standing on the St. Augustine site, were acquired. The house became the Principal's residence and the hospital was converted into laboratories and othess. The College was officially opened by Sir Samuel Wilson, K.B.E., C.B., Governor of Trainidad, in October, 1922.





Sir Raymond Prestler, M.C., M.A., D.Sc., succeeded the line Sir Frank Stocklade as Chairman in 1949

Lord Milner launched in 1923 an appeal for funds to put the finances of the College on a firm basis. This resulted in a capital sum of nearly £30,000. At the suggestion of the Rhodes Trustees, who contributed £5,000, the name of the College was changed to the Imperial College of Tropical Agriculture in the same year. The creation of the Main Building and of the Experimental Suggest Factory commenced in 1924, and these buildings were completed in 1926 and early 1926 respectively. LCT. A was incorporated by Royal Charter in 1926, and in 1927 the King granted his Patronage.

The first Principal, Sir Francis Watts, reitred in October, 1924. He had played a leading part in the progress of the College during the difficult early wars. He strongly urged the foundation of a West Indian sugar school and it was largely through his efforts that the Model Sugar Factory came into being. The erection and equipment of this factory, with an output capacity of two tons of sugar a day, wass made possible by the generosity of the sugar machinery manufacturers in the United Kingdom, who gave most of the plant to the value of over (220,000.

In the first academic year (1922)(23) there were eleven undergraduate and twopost-graduate students in residence. The Empire Cotton Growing Corporation were quick to take advantage of the facilities available, and began in 1922 to send to the College for post-graduate training the graduates recruited by them for their technical staff.

The Imperial Department of Agriculture for the West Indies, with Sir Francis Watts as Imperial Commissioner, remained integrated with the College, and the Department's programme of research was merged with that of the College. During Watts's regime, too, were begun the investigations on bananas and cocoa which have continued uninterruptedly and with increasing scope ever since. Professor Frederick Hardy has been Professor of Soils and Chemistry since the first establishment of the College, and his well-known pioneering studies of tropical soils in general and West Indian soils in particular, begun under the Imperial Department, have been carried on by him and his school continuously for thirty years. Another original member of the staff is Mr. C. T. Watts, son of Sir Erancis Watts. He was responsible for the coversion of the original buildings for College use, and for a large part of the buildings since erected, and he is still in charge of the Works Department.

In recognition of his services to the College, Sir Francis Watts, on his retirement in 1924, was named Principal Emerirus. THE ORIGINAL STAFF, 1922 Standing light is (LOR) Prof. F. Hardy, Mr. C. T. Watts, Mr. A. G. Howell, Mr. do L. H. A. Corbin

Stitling (left to right). Miss E. Lypnion Kerr, Prol. B. A. Ballou, Sir Fennes Watts, K.C.M.G. Prof. S. T. Akiby, Prof. J. S. Danh, Miss Robinson Abant scient this photograph was taken. Mr. S. L. Harland and Mr. W. E. Daniop.





THE FIRST COLLEGE BUILDING 1922



THE FIRST STUDENTS, 1922-1923



Mr. H. J. Page, C.M.G., O.B.L., was appointed Principal in 1947

The first number of the College journal, Tropical Agriculture, was published in January, 1924.

The second Principal was Dr. H; Martin Leake, formerly Principal of the Agricultural College at Cawnpore, who was appointed in August, 1924, and resigned in May, 1927. During this time the Main Building and the Sugar Factory were completed, and the Milner Hostel was commenced. The curriculum was revised and the first post-graduate award, the Associateship (A.I.C.T.A.), was made. The staff was enlarged, the programme of research was further developed. and a Department of Sanitation and Hygiene was created.

The third Principal, Mr. (later Sir) Geoffrey Evans, formerly Director of Cotton Culture in Oueensland for the Empire Cotton Growing Corporation, was appointed in July, 1927. He was knighted in 1934. During his tenure of the Principalship, which extended until September, 1938, the position and reputation of LC.T.A. became firmly established, and many important developments took place. Many new buildings were erected, including the Low Temperature Research Station (provided by the Empire Marketing Board), the Soils, Chemistry and Sugar Technology building, the College Farm buildings and the B.W.I. Plant Quarantine Station. Research on cocoa, bananas, sugar cane, soils and cold storage developed greatly. The Imperial Department of Agriculture was replaced by an Advisory Department of Agriculture, serving the Windward and Leeward Islands.

It was at the beginning of Evans's regime that the Colonial Office followed the example of the Empire Cotton Growing Corporation and began to send its cadets, recruited for service in the Agricultural Departments of all the Colonies, to complete their training by taking a post-graduate course at LC.T.A. This established the College as the recognised centre for such training, a position which it has retained and strengthened. During this period, also, the finances of the College were placed on a stable basis, with considerable grants from governmental and other sources. The war period, however, brought great financial difficulties:

The next Principal was Mr. O. T. Faulkner, previously Director of Agriculture in Nigeria and in Malaya. He was appointed in November, 1938, and retired in August, 1946. It fell to his lot to pilot the College through the war years. In spite of a depleted staff, grave financial stringency, and the many calls for war work outside the normal scope of I.C.T.A., he maintained all essential services.



#### THE SENIOR STAFF, 1950

Sinling (left in right); H. V. M. Mettvier, G. G. Gasavetti, T. W. Kirkpannick, L. F. Wagma, C. Y. Shephard (Vice-Principal); Mrs. B. Koswalina, H. J. Page (Principal); Mite M. L. M. Peter, F. Hardy, C. W. Tynn, R. F. D. Baker, C. T. Watts, M. N. Lee, F. Hardy, C. W. Tynn, R. F. D.

Standing (leff briefd) : Roy 1 = 1, 2. Meren R. D. E. Yumenol, J. Wintanley, P. McC. Calina, G. H. Webl, Mary Y. P. Gonartt, R. Escan, F. W. Opp, X. W. Smirnouk, T. E. Waronka, X. W. Talle, A. L. Jolly, D. B. Marray, W. P. Gonartt, M. Escan, J. F. Orayan, J. Shakar, J. J. Golar, A. L. Johnson, J. Shakar, J. Shakar,

Row 2-G. W. R. Smith, N. O. Schmidt, J. Drake, G. Haverd, A. F. Thomson, T. F. Fineli, E. L. Bisse, G. ap Griffith, K. W. de Witt, J. P. Watten,

Abrest when this photograph was taken : F. C. Darent (British Honduras), K. C. Vernon (Jamaica), J. Spector (U.K.), IX S. (Weilwick (U.K.))

#### THE PRESENT STUDENTS



#### THE IMPERIAL COLLEGE OF TROPICAL AGRICULTURE FROM THE AIR

The Main Building is in the centre and the model sugar factory is in the foreground. The 'L' shaped building at top right is the new Biology Block, and the Sugar Laboratories can also be seen on the right



At serial view of the old farm. The present investigation only can be seen in the near and middle distance. The farm buildings are just beyond

The Milner Hostel-Students' Dining Hall and Common Room

The new farm with residences in the background and the farm buildings in the foreground







Research continued and there was no interruption in the training of diploma and post-graduate students. Annual sugar conferences were inaugurated and several missions to the Pacific and to Central America were arranged for senior members of the staff.

At the beginning of Faulkner's tenure of office, just before the war, much time was devoted to preparation of evidence for the West-Indies Royal Commission. This Commission recommended the centralisation of all major agricultural research at I.C.T.A., and the provision of funds by Parliament. The war hindered these plans during Faulkner's time, but discussions about them continued with the authorities in the United Kingdom and in the West Indies. A detail scheme was worked out, in co-operation with the organisation for Development and Weifare in the West Indies, established under the leadership of Sir Frank Stocklak in 1940. This scheme was embodied in the Faulkner-Wakfeld Report.

The present Principal, Mr. H. J. Page, was appointed in January, 1947. He had been formerly Head of the Chemical Department at Rothansted, Controller of Agricultural Research for LCL and Director of the Rubber Research Institute of Malaya. The many plans and developments projected and worked out in Evan's and Paulkner's time have been or are now being rou into effect.

With the spectracular increase in all costs at the war's end, and with the admitted need to fill vacancies which had remained unfilled and to enlarge the staff, it was clearly imperative to ask the government of the United Kingdom, the governments of all the contributing Colonies, interested firms and other boiltes to increase their contributions very considerably. Negotiations took place through the intermediary of the Colonial Office, and an annual income of £85,000 a vera was guaranteed for the five-year period 1946/51, with an enlarged staff, adequate to deal with the increased post-war teaching and administrative responsibilities, including the administration of new Research Schemes, which are referred to below.

The salaries of the staff were at last upgraded, those of the senior staff being linked with the United Kingdom Scientific Civil Service, and equated with those of the new Colonial Research Service.

The syllabuses for undergraduate and post-graduate teaching have been completely overhauled. In addition to the standard two-year post-graduate course for the Associateship (A.L.C.T.A.), a new one-year course has been introduced for the post-graduate Diploma in Tropical Agriculture (D.T.A. (Trin.)), and the old Refresher Course has been replaced by a one-year Special Course designed particularly for serving members of the Colonial Agricultural Service. The number of places available for the three-year undergraduate course for the D.I.C.T.A. has been increased so as to admit a number of students from non-West Indian Colonies, until the new Universities and University Colleges in those Colonies can provide undergraduate teaching in agriculture for their own people The Principal has visited the West African and East African Colonies to discuss the co-ordination of L.C.T.A. courses with higher agricultural advantion. Arrangements are also being made to integrate the undergraduate course at LC.T.A. with the course for the agricultural degree at the new University College of the West Indies in Jamaica.

6

The student body is necessarily a relatively small one, with such a specialised field to cover, and with post-graduate work of major importance, but what it lacks in size it makes up for in variety. There can searcely be any other institution of comparable or even much larger size with so many different countries represented. The student body for the year 1950/51 numbers 57 and has men from 18 different colonies or countries. In the past four years there have been 68 students from all seven West Indian Colonies (fincluding British Guiana), 19 from other British Colonies (50d Coast, Kenya, Malaya, Nyasaland, Nigeria, Uganda), 64 from the United Kingdom, 8 from the Dominions (Austentia, Canada, Ceylon) and 20 from non-British countries (Burma, Colomisi, Dominican Republic, Hain, Mexico, Sweden, the United States, Venezuela). With the recent expansion of the living quarters at the Students' Hostel, living-in will be compulsory in future. In the past, some students have had to five in ousside lodeines.

The number of students admitted since 1922 is 881. Of these, 70 attended Refresher or Special Courses and 34 were unable to complete their courses. A further 66 have not yet completed their courses or are awaiting their results. Of the remaining 711, 221 hilded to qualify, and 490 gained awards as follows :—

A.I.C.T.A.	1.11	100	2243	339
D.T.A. (Trin.) (i	naugur	ated in	1948)	23
D.I.C.T.A		2227	- 44	128

Of these, 38 qualified in Sugar Technology. I.C.T.A. is the only centre in the British West Indies for the training of sugar technologists, and most of those now employed in West Indian sugar factories (and many in sugar factories in Latin America) were trained at LC.T.A.

Since the foundation of J.C.T.A., 438 students have come as Colonial Office probationers or as serving Agricultural Officers from British Colonies, and 343 of these have been posted to the Colonial Agricultural Service.

The entry qualifications for courses at LC.T/A. are: for post-gnduate courses, a degree of a recognised university or a recognised diploma of degree standard; for undergraduate courses, school certificate or matriculation. Full particulars of the curriculum and syllabuses and of the relevant regulations, are set forth in the College Prospectus (which may be obtained from the London Office of the College at 40 Norfolk Street, W.C.2.).

The centralisation of West Indian agricultural research at I.C.T.A. (secpage [0])has not yet been fully implemented, but a major step has been taken by the establishment at I.C.T.A. of four British West Indian Research Schemes, for Banans, Cocca, Solis and Sugar Technology. These are financed in whole or in part by I.M. Treasury from Colonial Development and Welfare funds, those for Banans Grooser's Association, the Cocca, Chocolate and Confectionery Alliance



Experiments in harvesting Sugar Cane



idents exceiving instruction in a



Transplanting Padi Sordlings in the College rice plots Professor E. E. Cheesman with bunant weedlings



Led. (half the total recurrent and capital expenditure) and the British West Indies Sugar Association (Incorporated) (half the recurrent and a part of the capital expenditure) respectively. The scientific staff provided for under these four schemes numbers 31, of whom all but five have now been engaged, and the total annual recurrent expenditure allowed for is about 180,000.

Details of the research programmes and the results obtained are given in the Principal's Annual Reports. The number of scientific papers published by the staff has averaged 36 a year over the past 20 years.

To provide the necessary laboratory accommodation, living quarters and experimental grounds under these schemes, a large building scheme has just been carried out, at a total capital cost (including equipment in laboratories and in the field) of [284,000. A fine new Biology Building provides laboratory accommodution for the Departments of Borany, Plann Pathology and Entomology. One half of the cost of this building ([75,000) has been provided by the Cocoa Research Scheme, one quarter by the Banana Research Scheme, and one quarter by a separate grant from HLM. Treasury.

Through the generosity of Cadbury Brothers Ltd, the College now has River Estate as a Coccoa Experiment Station. I.C.T.A, also has, as a part of the Banana Research Scheme, a Banana Breeding Station at Bodles in Jamaica.

The Sugar Technology Department, including the saif of the Sugar Research Scheme, is now accommodated in the new Sugar Technology Laboratories, the capital cost of which, together with pilot plant, modernisation of sugar factory, and equipment ( $\xi$ S0,000), has been provided by the Sugar Research Scheme. A large part of the total cost of modernising the Sugar Factory will be covered by the generosity of the sugar machinery manufacturers of the United Kingdom, who have given most of the plant needed.

The Building Scheme includes 19 new houses, now in occupation, and additional living accommodation for 20 students in the Hostel, at a total cost of L90,000, shared among the four research schemes and the College capital grant.

One of the most serious shortcomings of 1.C.T.A. in past years has been the lack of a proper farm. This has now been remedied by the acquisition from the Trinidad Government in 1947 of 300 acres of land near the College. A capital grant of  $\int 35,000$  has been made by H.M. Treasury from Colonial Development and Welfare funds for the development of this new farm, which is now almost ready.

The Governing Body of I.C.T.A. is established in London. It is nor possible in this booklet to do justice to the many people who have unselfishly rendered invaluable services to the College. Nevertheless, special mention must be made of the past Chairmen of the Governing Body : Sir Arthur Shipley, Sir James Currie, Sir Eric Macfadyen and Sir Frank Stockdale. Among the many others who rendered distinguished service were Sir David Prain, Sir John Farmer, Sir Frank Engledow, Mr. Gordon Miller and Sir Algernon Aspinall (who was Secretariz to the Governing Body for 19 years).

#### The following are quotations from articles about LC.T.A. :--

Perhaps, if you treated the world and penetratic into strange and remote places, you may need fold College students. They are to be monowhere newsyshere throughout the Colonial Empire and Mandatad Territorice, in East and West Africa, Malaya, New Gaunea, the Solomon-Dand, Bertich Gauna, the West Indies, Maeirim, Ibu Sadam 3, and they are doning physical aveck. This aspect of British Imperial service must be the ency of the world. For while other construction may also passes fine choines, new without exceptions, and based on a service, andirold by the [Johawshi that some from the system of training and the fast that they have one and all studied in the tame college. Indeed, the bonds that unite past endonris more through the years evident, but adds to hole informer projections at the College, have through the years erraided a system of correctived values without to be monutered. (C.W. Wardlan, "Nature," [19, 19, 20, 20, 201.)

The Callege has been charged with the responsibility of training acientists for the Calonal Service for over 20 years, and already must Directorships of Agriculture throughout the trappical Calonics, and almost all the remaining cistiff positions in Agricultural Departments, are filled by ex-students of the Callege. The presentday Calonial Office policy for agriculture could not be implemented without this source of supply of trained scientists. No an increasing extent the large planitation organisations are now coming to rely upon the Callege. The demand for the mun trained as the hopperial Callege, large at the has been, it destined to increase greaty. Fortunately the fermework of the Callege has been designed on these which will admit of study anymonitation of the scalent body as called for. (Sir Exic Magladyen, "The Came."

Although the income of LC.T.A. for the five-year period 1946/51 was guaranteed at £85,000 (and is in fact now about £94,000), the annual recurrent expenditure not covered by the separately financed Research Schemes has now reached the figure of about £104,000. The College will be able to break about even, over the five-year period, and in spite of the present excess of expenditure over income of about £10,000, only because of savings (especially in earlier years of the quinquennium) as a result of delays in filling suff vacancies, and because a surplus of  $\xi 8,500$  was made available at the end of the first year. The guaranteed income of  $\xi 85,000$  was fixed in 1946 in relation to costs then prevalent. In the intervening five years all costs have gone on increasing, so that, although in 1946 the guaranteed income of  $\xi 85,000$  looked adequate, at the present time the Governing Body are faced, without any allowance for further developments, with an unavoidable increase in costs, in comparison with 1946, of about  $\xi 24,000$  a year. They are thus "living on a shoestring," and if LC.T.A. is to continue to fulfil its recognised vital responsibilities to the Colonial Empire, it must be assured of a considerably increased income.

The following quotation from an article by Sir Algernon Aspinall, written in 1933, is even more pertinent now than it was then :---

The supertainty is therefore greater than over, and it can never be completely removed until the Imperial College of Tropical Agriculture has behind it as unbernatial endowment fund, for the creation of which there is, pressing need. In 1952 the Governing Budy received a welcome contribution of §52,000 towards such a fund from the Carnegic Corporation, and it will be a sud reflection on Beritsch enterprise if it is not supplemented by similar gifts from weality from and individuals resident in this constry, and it will be a sud reflection on Beritsch enterprise if it is stirred by the achievements of the College, past students of which are sone preumiting enterprise of agriculture on scientiff in the throughout one far-fung Empire.

Despite concern over financial problems, everyone connected with the College is confident that it will be enabled to go from strength to strength, for agriculture is the very base of the social and economic life of the Colonial Empire and the College fulfils a unique and essential service to colonial agriculture.

> \* Throughout this booklet the word "cocoa" has been used, instead of the more technical "cacao" as being the more familiar to the general reader.

#### **ACKNOWLEDGMENTS**

This booklet has been produced through the generosity of Messra. Cadbury Brothers Ltd., who have home the full costs of its production. This is most gratefully acknowledged by the Governing Body.

With the exception of a few whose names cannot be traced, the photographers whose work appears in this booklet are as detailed below:--

Pages 2 and 3.-Dr. H. MARTIN-LEAKE (Lafgneth), SIR FRANK STOCKDALE (Ellind & Fry), SIR GEOFREY EVANS (Elimité & Try), Mr. O. T. FALLNSER (An Smith, Triminal), SIR ARTHUR SHIPLEY (Ramory & Marpart), SIR JAMES CURRIE (Mr. G. C. Brockerder), SIR FRUCK MACFADYER (Lafgneth)

Page 7:-Chans, Trinidad.

Pages 8 and 9: The three aerial photographs are by the Guardian Plano News Services (Trinidad Publiching Company). The other recent photographs of the College are by Mr. H. J. Page.

# IMPERIAL COLLEGE OF TROPICAL AGRICULTURE, TRINIDAD, B.W.I.

SENIOR STAFF AS AT 9th DECEMBER, 1959

#### ADMINISTRATIVE STAFF

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				Cocoa	2007	100
	Soils R.S.		220	Soils	144	186.
	Sugar R.S.	-		Sugar	210-2	214

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