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Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

Chronica Botanica

the International Plant Science Newsmagazine

from the editor

P. O. Box 151,

WALTHAM,

MASSACHUSETTS, U. S. A.

May 13, 1941

Dr. Wilson Popenoe,
United Fruit Company,
Tela, Rep. Honduras.

Dear Doctor Popenoe:

I do not know your present address but hope that this letter will reach you. The writer lived formerly in the Netherlands and was for some time connected with the Botanic Gardens in Buitenzorg, Java, where he got acquainted with your various valuable publications on tropical fruits. I was much interested in the articles which you have recently been publishing in the journal of the College of Tropical Agriculture.

I am at present preparing a new International List of C. and S. American Plant Science Institutions and Societies which I will publish in an early issue of Chronica Botanica, the International Plant Science Newsmagazine.

I should like to ask you for some help with Guatemala. Enclosed you will find a cutting from my last (1938) List. I doubt if this is complete. I want to list all institutions, laboratories, experiment stations, museums, gardens, societies, etc. dealing with agronomy, botany, forestry, horticulture, phytopathology, microbiology, pharmacognosy, paleobotany, etc., etc. in the case of larger institutions we must also give their various sections and departments in the above fields.

I should be very grateful if you would find it possible to go carefully through the enclosure and to make such additions and changes as are necessary to make the list complete and up-to-date. If you might notice any other errors (also in spelling, accents, etc.) I should be very much obliged if you would correct these too.

There is quite a need for a good list of C. and S. American institutions and societies in our field and I thank you in advance for your kind help and cooperation.

As you have done much work on Guatemala I should be very grateful if you would go through this list.

Address all correspondence on editorial matters to Dr. Frans Verdoorn, all business correspondence, orders, remittances, etc. to the Chronica Botanica Co.



Chronica Botanica

the International Plant Science Newsmagazine

Dr. Wilson Fopencoe

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May 13, 1941

You will be better able to make the necessary changes and additions than some of the native botanists who often do not understand what kind of information we want. You will note that ~~we~~ have only one society *on our list* in Guatemala, and I wonder if there would not be any other society, also not some kind of natural history or horticultural society.

Thanking you in anticipation for your advice,

I am

Very respectfully yours,

Frans Verdoorn

Dr. Fr. Verdoorn,
Editor of Chronica Botanica,
Research Associate of the Farlow
Herbarium of Harvard University.

FV:MW:2036
Enclosure

List of Chapters and Collaborators

"PLANT SCIENCE IN LATIN AMERICA"

1. Geology and Geography (W. C. Darrah, Cambridge, Mass.).
 2. Meteorology (R. G. Stone, Washington, D.C.).
 3. Soil Science (N. J. Volk, Auburn, Ala.).
 4. Origin of the Neotropical Flora (W. C. Darrah, Cambridge, Mass.).
 5. Plant Geography (reserved for I. M. Johnston, who is abroad).
 6. The Study of the Neotropical Flora (G. F. Blake, Washington, D.C.).
 7. Plant Resources (F. R. Fosberg, Washington, D.C.).
 8. Land Planning and Land Use (P. E. James, Ann Arbor, Mich.).
 9. Travel and Exploration (W. A. Archer, Washington, D.C.).
- * * *
10. Vegetation of Mexico (I. Ochoterena, Mexico, D. F.).
 11. Agronomy and Horticulture in Mexico (reserved for J. H. Kempton, who is abroad).
 12. Forestry in Mexico (E. F. Meyer, Philadelphia, Pa.).
 13. Phytopathology in Mexico (E. C. Stakman, St. Paul, Minn.).
 14. Vegetation of Guatemala (J. A. Steyermark, Chicago, Ill.).
 15. Plant Resources of Guatemala (W. Popenc, Santa Marta, Colombia).
 16. Vegetation and Plant Resources of B. Honduras (C. L. Lundell, Ann Arbor, Mich.).
 17. Vegetation of Honduras (T. G. Yuncker, Greencastle, Ind.).
 18. Plant Resources of Honduras (in correspondence with Dr. Popenc).
 19. Vegetation of Salvador (P. C. Standley, Chicago, Ill.).
 20. Plant Resources of Salvador (in correspondence).
 21. Vegetation of Nicaragua (P. C. Standley, Chicago, Ill.).
 22. Plant Resources of Nicaragua (C. L. Luedtke, Panama).
 23. Vegetation of Costa Rica (P. C. Standley, Chicago, Ill.).
 24. Plant Resources of Costa Rica (A. F. Skutch, San Isidro del General).
 25. Vegetation of the Panamas (R. E. Woodson, St. Louis, Mo.).
 26. Plant Resources of the Panamas (in correspondence with Mr. Zetek).
 27. Vegetation of Cuba (J. P. Carabia, Havana).
 28. Plant Resources of Cuba (J. T. Roig y Mesa and J. Acuña, Havana).
 29. Vegetation of Jamaica (F. Shreve, Tucson, Ariz.).
 30. Plant Resources of Jamaica (in correspondence with Mr. G. A. Jones).
 31. Vegetation of Hispaniola (E. C. Leonard, Washington, D.C.).
 32. Plant Resources of Hispaniola (A. Lee, Mayagüez).
 33. Vegetation of Puerto Rico (in correspondence).
 34. Plant Resources of Puerto Rico (Claud L. Horn, Mayagüez).
 35. Vegetation of the Lesser Antilles (W. H. Hodge, Cambridge, Mass.).
 36. Plant Resources of the Lesser Antilles (W. H. Hodge, Cambridge, Mass.).
 37. Vegetation of Trinidad and Tobago (J. S. Beard, Port of Spain).
 38. Plant Resources of Trinidad and Tobago (in correspondence with Mr. Wortley).
 39. Forestry in the Caribbean (Dr. Bevan and collaborators).
 40. Vegetation and Plant Resources of Colombia (A. Dugand, Bogotá).
 41. Vegetation of Venezuela (Dr. Pittier and collaborators).
 42. Plant Resources of Venezuela (Dr. Pittier and collaborators).
 43. Vegetation of the Guianas (A. C. Smith, Jamaica Plain, Mass.).
 44. Plant Resources of Netherlands Guiana (G. Stahel, Paramaribo).
 45. Plant Resources of British Guiana (J. Sydney Dash, Georgetown).
 46. Vegetation of Ecuador (H. K. Svenson, Brooklyn, N.Y.).
 47. Plant Resources of Ecuador (E. Molestina, Quito).
 48. Vegetation of Peru (L. Williams, Chicago, Ill.).
 49. Plant Resources of Peru (P. L. Herrera, Lima).
 50. Vegetation of Brazil (Lyman B. Smith, Cambridge, Mass.).

51. Agronomy and Horticulture in Brazil (in preparation).
 52. Forestry in Brazil (in correspondence with Drs. Wheeler and Ducke).
 53. Phytopathology in Brazil (A. A. Bitencourt, São Paulo).
 54. Vegetation and Plant Resources of Bolivia (M. Cárdenas, Cochabamba).
 55. Vegetation and Plant Resources of Paraguay (T. Rojas, Asunción).
 56. Vegetation of Uruguay (B. Rosengurt, Montevideo).
 57. Plant Resources of Uruguay (H. Boerger, La Estanzuela).
 58. Vegetation of Argentine (C. O'Donnell, Tucumán).
 59. Agriculture and Horticulture in Argentine (L. R. Parodi, Buenos Aires).
 60. Forestry in Argentine (L. Tortorelli and L. R. Parodi, Buenos Aires).
 61. Phytopathology in Argentine (J. B. Marchionatto, Buenos Aires).
 62. Vegetation of Chile (C. Muñoz, Santiago).
 63. Plant Resources of Chile (C. Muñoz, Santiago).
 64. The Galapagos Islands (H. K. Svenson, Brooklyn, N.Y.).
 65. The Falkland Islands (C. Skottsberg, Göteborg).
 66. Juan Fernandez (C. Skottsberg, Göteborg).

* * *

67. On Plant Introduction and the Development of New Cultures (in preparation).
 68. Agronomic Problems (reserved for Dr. E. W. Brandes or collaborator).
 69. Grassland Problems (R. O. Whyte, Aberystwyth).
 70. Horticultural Problems (T. H. Goodspeed, Berkeley, Cal.).
 71. Forestry and Forest Utilization (Dr. Bevan and collaborators).
 72. Agricultural Chemistry and Industry (in correspondence with Dr. Cross).
 73. Phytopathological Problems (H. S. Fawcett, Riverside, Cal.).
 74. Mycopathological Problems (C. W. Emmons, Washington, D.C.).
 75. Genetics and Breeding (P. C. Mangelsdorf, Cambridge, Mass.).
 76. Microbiology (in correspondence with Dr. Moll).
 77. Soil Conservation (E. A. Kinnear, Washington, D.C.).
 78. Paleobotany (W. C. Darrah, Cambridge, Mass.).
 79. Pharmacognosy (in correspondence with Dr. Rodriguez).
 80. Ethnobotany (R. E. Schultes, Cambridge, Mass.).
 81. Nature Conservation (H. J. Coolidge, Jr., Cambridge, Mass.).
 82. The Location of the chief South American Botanical Collections
 (J. Lanjouw, Utrecht).
 83. Historical Sketch (F. W. Pennell, Philadelphia, Pa.).
 84. Education and Experimentation (in preparation).
 85. Fellowships available for plant science research in Latin America and for
 study by Latin American Plant Scientists abroad (K. A. Ryerson, Davis, Cal.).
 86. The Plant Scientist and the Future of the Western Hemisphere (reserved).

* * *

87. Principal Latin American Plant Science Journals (R. R. Shaw, Washington, D.C.).
 88. Directory of Plant Science Institutions and Societies
 (Editors of *Chronica Botanica*).
 89. Address List of Research Workers with a Census of current research
 (Editors of *Chronica Botanica*).

Waltham, Mass.
 September 7, 1941.

Chronica Botanica

P. O. Box 151,
Waltham, Mass.
May 26, 1941

Dr. Wilson Popenoe,
United Fruit Company,
Guatemala City, Guatemala.

Dear Doctor Popenoe:

On May 13 I wrote you in detail on the series of articles which I am preparing at present on the Plant Sciences in Latin America. This series is at present being prepared with the cooperation of more than a hundred North and South American botanists and agronomists. I hope to publish all the articles together in the fall of this year in bookform in my *Chronica Botanica*.

As you know more about the economic botany of Guatemala than anyone else I should like to ask if you would not care to undertake a short account on the plant resources of that country. If, as I hope, you will find it possible to prepare this I should like to ask you to commence your account with a short and briefly annotated list of the principal agricultural, horticultural crops and forest trees which are, or could be, of primary economic importance in Guatemala. No more than 15-25 species, genera, or groups of plants should be listed here. A second part might be usefully devoted to general remarks on the aims and possibilities of agriculture, horticulture, and research in these fields, in Guatemala. After this we ought to say something on the chief plant diseases, on phytopathological research, etc. I should be glad if you would also be able to give some attention to medicinal plants. The article might be concluded with a list of 5-10 references to the principal literature on economic botany, agriculture, horticulture, forestry and medicinal plants in Guatemala.

I hope very much that you will find it possible to help us with this article which should not contain over 2,400 words. You understand that we are not preparing an extensive manual but only a concise practical guide book, as outlined in the left-hand column of the enclosure.

Looking much forward to hearing from you

I am

Very sincerely yours,

Frans Verdoorn

Dr. Fr. Verdoorn,
Editor of *Chronica Botanica*,
Research Associate of the Farlow
Herbarium of Harvard University.

FV:MW:2197
Enclosure

Chronica Botanica

P. O. Box 151,
Waltham, Mass.
May 26, 1941

Dr. Wilson Popence,
United Fruit Company,
Guatemala City, Guatemala.

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to be published
in *Chronica Botanica*, Vol. 6 (1941)

PLANT SCIENCE in LATIN AMERICA

A timely series of articles and lists compiled by the Editors of Chronica Botanica with the aid of many Authorities in the U.S.A. and Latin American countries.

AT THE present time there is a world-wide interest in the Vegetation and Natural Resources of Latin America. An extensive and up-to-date account concerning the plant sciences in Latin America seems to the Editors of *Chronica Botanica* to be the most appropriate contribution which they can make at present to the improvement of international relations and coöperation in the plant sciences, a field which, in Latin America, presents many problems of importance and interest.

The aim of this series of articles is to give the agronomist, botanist, forester, phytopathologist, etc. (whether he be located in Europe, North or South America) the information which he may need when starting work on the wild or cultivated plants of Latin America. It is hoped that it may be still more useful for those who plan to go to Latin America to collect or to conduct research. The series endeavors to give basic information both on the present status of and future possibilities and needs for research in the chief branches of pure and applied plant science. In addition to data in his own field, the specialist will find much useful and stimulating information on vegetational and agronomic problems in general, on the organization of research, lists of books that he might consult, names of other scientists who are working in the territory in which he is interested and whom he might profitably contact, etc.

Reprints of this series of articles will be available, bound in buckram and interleaved with white paper, at \$4.50. — Order from the *Chronica Botanica Co.*, Waltham, Mass., its agents or any bookseller.

tentative contents:-

(1) *Introduction: Geology and Geography, Meteorology, Soil Science, Origin of the Neotropical Flora, the Study of the Neotropical Flora, Natural Resources, Land Planning and Land Use, Travel and Exploration.*

(2) *Accounts of the Vegetation, Agronomy, Horticulture, Forestry, Phytopathology, etc. in the national units of Latin America. Selected bibliographies will be added. These accounts are being written by from 2 to 4 specialists for each of the following countries, etc.:-*

Mexico
Guatemala
British Honduras
Honduras
Salvador
Nicaragua
Costa Rica
Panama
Cuba
Jamaica
Hispaniola
Puerto Rico and Am. Virgin Islands
Lesser Antilles
Trinidad and Tobago
Colombia
Venezuela
the Guianas
Ecuador
Peru
Brazil
Bolivia
Paraguay
Uruguay
Argentina
Chile
Galapagos Islands
Falklands Islands

(3) *Plant Introduction and the development of new Cultures*

(4) *Agronomic Problems*

(5) *Horticultural Problems*

(6) *Forestry and Forest Utilization*

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(9) *Phytopathological Problems*

(10) *Mycopathological Problems*

(11) *Genetics and Breeding*

(12) *Microbiology*

(13) *Soil Conservation*

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*Three copies of this will be given
to all Collaborators.*

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Hispaniola
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Lesser Antilles
Trinidad and Tobago
Colombia
Venezuela
the Guianas
Ecuador
Peru
Brazil
Bollivia
Paraguay
Uruguay
Argentine
Chile
Galapagos Islands
Falklands Islands

(3) *Plant Introduction and the development of new Cultures*

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Magdalena Fruit Co.,
Santa Marta, Colombia,
17 June 1941.

Dr Frans Verdoorn,
Waltham, Mass.

Dear Doctor Verdoorn:

Your letter of May 26th has just reached me here. The previous one, that of May 13th, has not yet come. I move about so much that mail is frequently slow in catching up with me.

I am very much interested in your proposal to work up some material on the plant sciences in Latin America and shall be more than glad to prepare the suggested treatment of Guatemala. I can do it while here in Colombia, but if there is time I would like to wait until I return to Guatemala in late August to forward it to you, as I do not have books here to make the references to literature on the subject which you desire. However, I think this can be handled some way, if you need the copy earlier than the first part of September.

I am leaving tomorrow for Bogotá and Guayaquil, but shall be back at Santa Marta in about three weeks and remain here during the rest of July and most of August.

Sincerely yours,

Wilson P. Pence

Chronica Botanica

the International Plant Science Newsmagazine

from the editor

P. O. Box 151,

WALTHAM,

MASSACHUSETTS, U. S. A.

July 7, 1941

Dr. Wilson Popenoe,
Magdalena Fruit Co.,
Santa Marta, Colombia.

Dear Doctor Popenoe:

I am most grateful for your letter of June 17 and to know that you are willing to prepare a short account on the Plant Resources of Guatemala. I do not need this until September, I hope that this will enable you to check the data to which you refer in August in Guatemala.

As, in previous correspondence we have found it sometimes somewhat difficult to make clear which information we should like to bring in these articles on the plant resources, Dr. Hodge of the Gray Herbarium of Harvard University undertook to prepare some kind of sample, which will give the desired information better than a lengthy letter. I enclose this sample article on the Plant Resources of the Lesser Antilles and hope very much that it will give you a clear conception of our aims.

I find that I have not yet been able to make suitable arrangements for an article on the Plant Resources of Honduras. r. Yuncker wrote already an account on the vegetation, but he does not know much about applied botany, could you suggest anyone to me who might be able and willing to undertake a short account on the plant resources of Honduras?

You must have a most romantic way of living, traveling from one country to the other, a way of life about which all young botanists dream, but which only too few are able to attain.

With this letter I am sending you some recent numbers of my journal Chronica Botanica, the International Plant Science Newsmagazine, which has now been transferred from Europe to the New World.

Thanking you again for your kind help

I am

Very sincerely yours,

Frans Verdoorn

Fr. Verdoorn.

FV:MW:2267
Enclosure



Chronica Botanica

W. H. Hodge: THE NATURAL RESOURCES OF THE LESSER ANTILLES

On the basis of their agricultural resources (the only resource), the Lesser Antilles may be generally divided into two groups -- the sugar-cane producing islands of the north, and the fruit-producing islands of the south. From these two divisions may be eliminated isles like Saba, St. Eustatius, St. Martin, St. Bartholomew, Barbuda, Desirade, Marie Galante, and the Grenadines -- all of which lack sufficient tillable soils, to make them agriculturally important. To the sugar-producing isles belong St. Kitts, Nevis, Antigua, Guadeloupe, Martinique, and Barbados, while Montserrat, Guadeloupe, Dominica, St. Lucia, St. Vincent, and Grenada belong to the fruit-producing group in which agriculture is not primarily a one-crop affair.

The first crop established by Europeans in the Lesser Antilles was tobacco which was the staple crop of the earliest colonists on St. Kitts and Nevis. Over-production and low prices soon caused its demise, and the successful introduction of sugar followed. This had been established very early in the 16th century in the Greater Antilles, but not until the middle of the 17th century in the Lesser Antilles. Its cultivation has continued to the present time, and is so highly established on the above mentioned islands that they (Guadeloupe excepted) may be called almost one-crop isles -- having even to import much of their fresh vegetables and fruits. Another early crop of the middle and southern islands was coffee, but in recent years, due partly to depredations of the leaf-miner, the industry has died out. In recent years Montserrat has experimented with "truck crops" (especially tomatoes), but is better known as the first producer of the West Indian lime. The industry is declining and lime production at present is best developed on Dominica, at one time the biggest lime producer in this hemisphere. Dominica and St. Lucia at present grow citrus fruits, and the majority of estates are planted to either grapefruit, limes, or oranges. Now banana growing (which is largely an unorganized peasant industry) is foremost in the southern islands, the most important producers being Guadeloupe, Dominica, Martinique, St. Lucia, St. Vincent, and Grenada. Regular banana-boats ply from the British Islands to Canada, and from Guadeloupe and Martinique to France. St. Vincent at one time grew and exported arrowroot, while Grenada has extensive nutmeg and cacao plantations. All the southern islands can grow a wide variety of tropical fruits, most of which are produced in small quantities for local or inter-island consumption. Of these minor products, coconuts and mangoes are the most important, with small quantities exported from Dominica and St. Lucia.

The larger Caribbee isles each possess local agricultural or botanical stations, which actively carry on investigations such as cultural and manual experiments on important locally grown species like sugar cane, cotton, limes, bananas, cacao. These stations also introduce tropical species which may prove promising as new crops. In addition small numbers of boys are given basic training in the agricultural pursuits. The stations on Guadeloupe and Martinique (French colonies) have a separate set-up, while the stations on the British islands are coordinated by an Agricultural Supervisor stationed at Trinidad. Difficult problems arising in the local, island, botanical stations may always be referred to Trinidad where the excellent research facilities of the Imperial College of Agriculture are available. Current phytopathological research in the islands includes the introduction of new varieties of disease-resistant sugar-cane (St. Kitts, Nevis, Martinique, Barbados), investigations on withertip of limes (Dominica), on the Panama disease of bananas (Dominica, St. Lucia), as well as many other minor problems.

Chronica Botanica

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Forestry problems are relatively unimportant in the Lesser Antilles where forest lands have -- with the exception of those of Guadeloupe, Dominica, St. Lucia and St. Vincent -- largely been destroyed. The most important function of local forests is in the protection of watersheds and for the encouragement of precipitation as well as soil conservation. Active forest protection for the above purposes has unfortunately been established only on a few islands, notably St. Kitts and Guadeloupe, but only on the latter island is there an actual forestry department. On islands like Dominica, St. Lucia, and St. Vincent (despite the mountainous terrain) managed forests could well be established. These might insure a constant timber supply for local as well as general Lesser Antillean consumption, thus eliminating the present high costs of imported Canadian lumber. The habit of constantly shifting peasant, garden cultivations is rapidly destroying the original forest-stands of the crown lands on these islands, and is introducing problems of decreasing soil fertility and erosion. Problems of this sort can doubtless be met through aid from the Trinidad Forestry Department as well as from the newly established U.S. Forestry Research Station at Rio Piedras, Porto Rico.

Agriculture is the sole industry in the Lesser Antilles, yet agricultural advance is retarded by problems arising either from natural or political causes. The rugged terrain of at least half of the islands, with concomitant transportation problems, makes profitable cultivation difficult except in the small river-valleys or few flat-lands available. Although the climate is excellent for the growth of innumerable tropical agricultural products, some caution must be used in crop selection due to the disastrous effects of periodic hurricanes. Many instances of destruction of tree-products may be cited, such as depredations on Dominica's lime orchards. Here plantations reaching bearing age are often wiped out with consequent loss of six (or more) year investments. Non-arborescent crops like sugar-cane and bananas which mature within a year are for this reason much better suited to the vicissitudes of local climate. Hurricanes limit their destructiveness to the northern islands, and south of Barbados their fury rapidly decreases.

The Lesser Antilles are divided politically between three nations, Holland, England and France, thus customs barriers hinder somewhat the free inter-change of goods. The Dutch possessions are insignificant in size, and agriculture there should be limited to supplying the needs of the local population. The French islands, up to the present disastrous times, have enjoyed excellent and profitable business in the export of diversified tropical fruits, sugar, and rum, to the Mother country; this has made these islands the best developed and richest of all in the Caribbee arc. The English islands suffer greatly from poverty due largely to the fact that the Mother country can obtain tropical products in larger and cheaper quantities from other Empire sources. Markets therefore must principally be found for West Indian products in Canada or the United States. Many of the islands have in the past specialized in a single product with consequent depression when demand ceased. Some sort of crop control is desired to eliminate undue duplication of those products with limited market, as well as such crops which compete with those grown in the Greater Antilles. If international or at least western hemisphere agreement could be made along these lines, each of these accessible tropical isles could be assigned the growing of minor products, of which there is constant demand. Of urgent need in the United States at present are available and close sources of certain tropical drugs such as quinine. Their production might well be established in the Lesser Antilles. Finally each of these islands (especially the one-crop isles) should be made entirely self-sufficient as to food by the encouragement of native food gardening. This would help to alleviate the current depression among the colored populations.

Chronica Botanica

LITERATURE ON THE NATURAL RE- SOURCES OF THE LESSER ANTILLES

- Domin, Karel. "Travels in the West Indies". Prague 1927-29.
- Domin, Karel. Flora Photographica I. India Occidentalis. Brünn 1929.
- Nowell, W. "Diseases of Crop Plants in the Lesser Antilles". West India Committee. London.
- Watkins, F.H. "Handbook of the Leeward Islands". London 1924.
- Commercial Travelers' Guide to Latin America. Part III. Mexico, Central America, and the Caribbean countries. U.S. Govt. Printing Office. Washington 1940.
- The West Indies Year Book. Published annually by the West India Committee. London.

Chronica Botanica

the International Plant Science Newsmagazine

from the editor

P. O. Box 151,

WALTHAM,

MASSACHUSETTS, U. S. A.

September 10, 1941

Dr. Wilson Popenoe,
United Fruit Company,
Guatemala City, Guatemala.

Dear Doctor Popenoe:

In connection with our previous correspondence I have much pleasure to send you a list of chapters and collaborators of my forthcoming series of articles on the Plant Sciences in Latin America.

This will give you a good idea of the scope and aims of this series of articles, which will be reprinted, upon completion, in book form.

You will see from the enclosure that I have been able to make good arrangements for practically all articles of this proposed publication. Most of them have already been received and are at the printer's.

If this would be convenient I should be most grateful if I might have your article early in October. I should still like to send you a proof and otherwise it might be too late.

I wrote you on July 7 about the difficulty which I had in getting an article on the Plant Resources of Honduras. I have a good account on the Vegetation of that country, but I am not able to find anyone who will write for me on its economic botany, plant resources, etc., as you will see from the enclosure, article 18. I have not yet been able to make arrangements for this article.

As you have repeatedly been in that country I wonder if you could not suggest anyone to me who might be able and willing to undertake a short account on the Plant Resources of Honduras. Or do you care to undertake this yourself?

Thanking you again for the help which you kindly promised me,

I am

Very sincerely yours,

Frans Verdoorn

Fr. Verdoorn.

FV:MW:3170
Enclosure



Par Avion

San José, Costa Rica
September 23, 1941

VIA AIRMAIL

Dr. Franz Verdoorn
Chronica Botanica
P. O. Bóx 151
Waltham, Mass.

Dear Doctor Verdoorn:

Your letter of 10th September has caught up with me here.
I expect to reach Guatemala in ten days and one of the first things
I will take up will be the preparation of the material we desire.
I believe I could handle the article on Plant Resources of Honduras
without difficulty.

I will try to get this material in shape just as promptly
as possible.

Yours very sincerely,

WILSON POPEÑO

Chronica Botanica

the International Plant Science Newsmagazine

from the editor

P. O. Box 151,
WALTHAM,
MASSACHUSETTS, U. S. A.

October 21, 1941

Dr. Wilson Popenoe,
United Fruit Company,
Guatemala City, Guatemala.

Dear Doctor Popenoe:

I have been in Washington for several weeks, to complete and correct my forthcoming address list and I am much pleased to find your kind letter of September 23 upon my return.

I am most grateful that you are willing to prepare a short account on the Plant Resources of Honduras in addition to the article which you promised me already about Guatemala.

I wonder if I may still ask you for some advice. Who do you think I should ask to report on the plant resources of Salvador. Dr. Luedtke undertook to send me a short article on the plant resources of Nicaragua. I have been able to make arrangements for good articles for all countries of South America, but do not yet have anyone to report on Salvador. I should be much obliged if you would find it possible to give me some advice. Some times I have been in correspondence with Dr. M. Lewy van Séveren, but I do not want to ask him for this article before I hear from you.

Thanking you again for your kind help,

I am

Very sincerely yours,

Frans Verdoorn

F. Verdoorn.

FV:MW:3417



Par Avion

Chronica Botanica

the International Plant Science Newsmagazine

from the editor

P. O. Box 151,
WALTHAM,
MASSACHUSETTS, U. S. A.

November 14, 1941

Dr. Wilson Popenoe,
United Fruit Company,
Guatemala City, Guatemala.

Dear Doctor Popenoe:

At present I am making a revised edition of my World List of Plant Science Institutions and Societies for C. and S. America ready for the press. I will publish this early next year.

This list aims to include all institutions, laboratories, experiment stations, colleges, universities, gardens, etc., with their various departments and divisions, as far as they are concerned with agronomy, botany, forestry, horticulture, phytopathology, microbiology and pharmacognosy. I also want to include all botanical, natural history, and the better agricultural, horticultural and forestry societies.

I have had much cooperation in revising my list and feel sure that for most countries I have really a rather complete and exhaustive list. I am afraid however that the list for the Republic Honduras is not yet too complete and up-to-date. There must be more institutions, and probably also one or two societies.

As you know this country well and as I have not been able to get much information from anyone else, I am taking the liberty of asking you if you would not find it possible to go through the enclosed list and to send me such additions and corrections as seem necessary. I am very anxious to make a complete and up-to-date list and thank you in advance for your help and advice.

Under La Lima we list an experiment station of your company. This is the only experiment station of the United Fruit Company which we list for all countries of C. America. I believe that this company has one or two other experiment stations, but I am not too sure where they are located and if they are so permanent, that you think I should include them in my forthcoming address list. I would appreciate having your advice, also on this matter.



Chronica Botanica

the International Plant Science Newsmagazine

Dr. Wilson Popenoe

-2-

November 14, 1941

Some weeks ago I sent you Chronica Botanica for November. This is the first number with a couple of articles of my series on "Plant Science in Latin America". I should be delighted to have your comments on these first articles and am,

with kindest regards,

Very sincerely yours,

Fran Verdoorn

Dr. F. Verdoorn,
Editor of Chronica Botanica,
Research Associate of the Farlow
Herbarium of Harvard University.

FV:MW:3810
Enclosure

Chronica Botanica

Popense

-REP. HONDURAS-

COYOCUTENA:

Colegio de Agricultura. - La Libertad.

PATUCO:

Jardín Botánico "Pérez Estrada".-

TEGUCIGALPA:

Museo Nacional.

LA LIMA:

Experiment Station of the United Fruit Company.

Antigua, Guatemala, 15 Nov 1941

Dr Frans Verdoorn,
Waltham, Mass.

Dear Dr. Verdoorn:

Herewith the list of organizations in Guatemala, corrected to date. I desire to offer the following comments for your personal information:

The only active botanist in this region seems to be Ulises Rojas, whom Paul Standley says he has found very helpful in past years. Rojas teaches in the Facultad de Ciencias of the Universidad and also has charge of the Jardín Botánico. Hence, anything addressed to the Departamento de Botánico of the Universidad, and anything addressed to the Jardín Botánico, will presumably go to Rojas.

The Director General de Agricultura is Don Mariano Pacheco Herrabte, whom I have known for many years. He is an excellent plantsman, specialising in orchids; he runs a small nursery on his own account, and can make anything grow. Taxonomy is not his forte. The Instituto Químico-Agrícola, shown separately on the list, is a dependency of his Department, the Dirección General de Agricultura. This has been (the Instituto Químico-Agrícola) in charge of Dr Erwin Deger, a German chemist, for some years; two days ago Dr Deger died suddenly, and I do not know what will now become of the Instituto, as there seems to be no one as competent as he, to take over the job; also, I understand funds for this work are very scarce.

The Escuela Nacional de Agricultura is coming on well. Recently, Dr Albert S Muller, an American, has been placed in charge of this. Muller has an M.Sc. from Cornell; he taught three years at the College of Agriculture in Mayaguez, Puerto Rico; was then eight years at the Escola Superior de Agricultura in Vicosá, Minas Geraes, Brazil, with Dr. P H Rolfs, ending up as subdirector of that school, acting as Director for some time; then went to Venezuela where he was Pathologist of the Central Experiment Station for about four years, and taught several classes in the agricultural school at Caracas. Muller is primarily a Plant Pathologist and an active one.

The Confederación de Agricultores no longer exists and should be dropped from the list.

Sincerely yours,

Wilson Popenoe

Chronica Botanica

the International Plant Science Newsmagazine

from the editor

P. O. Box 151,

WALTHAM,

MASSACHUSETTS, U. S. A.

November 19, 1941

Dr. Wilson Popenoe,
United Fruit Company,
Guatemala City, Guatemala.

Dear Doctor Popenoe:

I cannot say how grateful I am for your article on the Plant Resources of Guatemala. I will have some copies made of this and I am going to use these as samples for authors of some other articles on economic botany. I hope to publish it in an early issue of Chronica Botanica and thank you very much for your efforts in preparing this valuable account. I find it often more difficult to get good cooperation in and concerning Central America than for South America. I appreciate your article on Guatemala therefore very much and I am also thankful that you are still willing to prepare an account on the Plant Resources of Honduras.

Regarding Salvador I wrote to Dr. Mario Levy van Severen, but have not yet heard from him. If I do not hear from him within some weeks, I will write to Dr. Choussy. Thank you for giving me his name and address. I wrote Mario Levy van Severen that I would be willing to publish his article in Spanish. You will have seen from the copy of Chronica Botanica, which I sent you some weeks ago, that I like to bring some Spanish articles from time to time. It is, however, more useful to have them in English, I am glad that your articles are in English.

A few days ago I wrote you about my list of institutions. I am now making this ready for the press. A few weeks from now I may still ask you for some help with my list of research workers in Central America, here also I have often more difficulty to get all names together than in South America. For the Rep. of Panama I have less information than for any other country. The American botanists in the Canal Zone are now helping me with this. Have you been in Panama recently?

Thank you again for your kind help,

I am

Very sincerely yours,

Frans Verdoorn

F. Verdoorn.

FV:MW:3855



Chronica Botanica

the International Plant Science Newsmagazine

from the editor

P. O. Box 151,
WALTHAM,
MASSACHUSETTS, U. S. A.

November 24, 1941

Dr. Wilson Popenoe,
United Fruit Company,
Guatemala City, Guatemala.

Dear Doctor Popenoe:

Thank you very much for your letter of November 15, with its useful information. This will enable me to report well on Guatemala in my forthcoming address list.

I was sorry to hear about the death of Dr. Deger, formerly I have sometimes been in touch with him, he seemed quite active.

With kindest regards,

Gratefully yours,

Franz Verdoorn

F. Verdoorn.

FV:MN:3883

Address all correspondence on editorial matters to Dr. Franz Verdoorn, all business correspondence, orders, remittances, etc. to the Chronica Botanica Co.



Antigua, Guatemala, 3 December 1941

Dr Frans Verdoorn,
Waltham, Mass.

Dear Doctor Verdoorn:

Your letter of November 14th has just come. Since writing it, you have doubtless received my two articles, one on Guatemala and one on Honduras, and the revised list of organizations in Guatemala.

You now inquire about institutions, organizations, etc. in Honduras. I mentioned this in one of my previous letters to you. I am going to Tegucigalpa this week and will check up closely. I will then send you an up-to-date list.

Thank you very much for sending the November issue of *Chronica Botanica*, containing the first ~~two~~ articles of the series on Latin America. You ask for my comments on these. In general I find them excellent. I did not know you would publish in any language but English. I am glad to see two of these articles in Spanish, and still more glad to see that they are both by Latin Americans (at least I assume this is the case). It is encouraging to see Latin American scientists taking part in a symposium of this sort, and doing it so creditably. This is the sort of cooperation we have all been wanting to see. Of course we have seen a little of it in the past, but not enough by any means.

More specifically with regard to the articles in this issue, I find Meyer's *Forestry in Mexico* comprehensive and complete, but could wish he had not dragged any political angles. I do not feel that this is the place to discuss modern social legislation, especially when it involves so delicate a subject as expropriation of private property. I have seen the Mexican program in action - not with regard to forestry, but with regard to certain agricultural crops. The principles, the ideals expressed are laudable, and no one can disagree with them. But some of us feel that there have been many abuses in carrying them out; that Mexico has tried to go ahead too fast. We feel it would have been better to adopt these principles as ultimate objectives, but to make sure that progress toward those objectives was not achieved at the cost of dishonesty and abuse. This is of course an expression of my personal feelings.

Skutch's article on Costa Rica is splendid, as would be expected of Skutch. I know him well, for he satyed with me in Honduras for several months, back about 1928. He is a thorough worker and a most valuable element in the tropical field.

Hidge's paper on the Lesser Antilles seems to me just right. You sent me a MS copy of the one on plant resources of that region, which I used as a model for the two I wrote.

Cárdenas has done a good job on Bolivia, with a difficult subject. He probably found the same difficulty I found in working up material on Honduras. There is not a great deal on which to draw.

Williams on Peru is comprehensive and thorough. I like his map and would be glad to see similar maps on other important regions.

I have never been in Uruguay so cannot judge Rosengurtt Gurvich's paper on the grounds of personal experience, but it looks to me very satisfactory.

I feel that you are doing a fine piece of work, in getting out this series. I shall be glad to cooperate further in any way I can. And I want to receive all numbers of *Chronica Botanica* which contain this material, so I will be glad if you will enter my subscription, beginning with the first issue following the one for November 1941. I enclose my check for \$7.50. I believe you told me some time ago that those of us who contribute to the Latin American series will receive a volume, later, containing all these papers. This will be so much the better, but I do not want to wait until they are all in print to see them.

Yours sincerely,

Wilson Popenoe,
Antigua, Guatemala, C.A. (address to which the magazine is to be sent)

Tegucigalpa, Honduras, 14 December 1941

Dr Frans Verdoorn,
Chronica Botanica,
Waltham, Mass.

Dear Doctor Verdoorn:

Pursuant to your request of 14 November I have gone over the list of experiment stations, societies, etc., for Honduras and revised it as per enclosed memorandum. There is no botanical or agricultural work in the National University. There are no societies of interest, so far as I am able to learn. The only thing left out of the enclosed list is the agricultural work being done under the Ministerio de Fomento, Agricultura y Trabajo. I assume you are not listing government agricultural departments and the like. This Ministerio is cooperating with the U.S. Dept. of Agriculture in the establishment of Pará rubber cultivation in Honduras and is also conducting a few other lines of agricultural work, such as the introduction and establishment of improved wheat varieties, rice varieties, Cinchona, and the like. Ing. O. Salvador Gordóva is the principal worker.

You ask about experiment stations of the United Fruit Co and its subsidiaries. Aside from the one at Tela, and the Research Laboratory at La Lima, the only thing we have which might well be included in your general list is the Cedar Grove Experiment Station, United Fruit Co., Gregory Park P.O., Kingston, Jamaica. This station, in charge of Alfred F. Butler for some years now, has done excellent work.

Sincerely yours,

Republic of HONDURAS

Comments on your former list, and on suggested additions and changes:

COYOCUTENA

Colegio de Agricultura - La Libertad.

This is a one man proposition, a very small "school" run by Pompilio Ortega, a Honduran who was educated at Purdue University. It is a "farm school" and I doubt that it merits inclusion in a list of institutions where work is done in the plant sciences. Ortega, who is a capable fellow, is badly handicapped financially and the school has made little progress - perhaps the contrary.

PATUCO

Jardin Botanico Perez Estrada.

This is at San Pedro Sula; I am not familiar with the name Patuco but it may be that of the neighborhood. The garden is operated by Tito Perez Estrada, who is a remarkable character, unquestionably the best plantsman in Honduras though interested almost wholly in economic plants and probably not very familiar with the flora of this country. He has an extensive collection of tropical economic plants from many parts of the world. He propagates these for sale.

TEGUCIGALPA

Museo Nacional.

This is the official museum of the Honduran government but has practically no material representing the plant sciences, except a collection of wood samples. It is practically without a staff. For its future possibilities and its wood samples it must probably be included.

La LIMA

Experiment Station of the United Fruit Company.

This is not quite correct. The Tela Railroad Co. (subsidiary of the United Fruit Company) maintains its Research Laboratory at this point. This laboratory is the base for soil surveys and soil investigations in general; agricultural experiments; pathological investigations and insect control. Dr. V.C. Dunlap is in charge.

Lancetilla Experiment Station, owned and operated by the Tela Railroad Co., is at Tela, some 50 miles from La Lima. Under the terms of a cooperative agreement with the U.S. Department of Agriculture, this station is also a base for rubber investigations and the propagation of Para rubber trees, Edward Stanwood of the U.S. Dept. of Agriculture in charge. The station has extensive collections of tropical economic plants, including the largest collection of Asiatic fruit trees in tropical America.

In view of the above, the following revised list is suggested:

TEGUCIGALPA:
Museo Nacional.

SAN PEDRO SULA
Jardín Botánico "Perez Estrada".

TELA
Lancetilla Experiment Station of the Tela Railroad Co. (subsidiary of the United Fruit Company); at which the U.S. Dept. of Agriculture has one of its tropical bases for study and propagation of rubber-producing plants.

LA LIMA
Research Laboratory of the Tela Railroad Co. (subsidiary of the United Fruit Company).

Wilson Popenoe

Tegucigalpa, 14 December 1941

Antigua, Guatemala, 22 March 1942

Dr Frans Verdoorn,
Chronica Botanica,
Waltham, Mass.

Dear Doctor Verdoorn:

The March issue of Chronica Botanica has just come to hand.

I want to extend my congratulations on the magnificent work you are doing in bringing together information re the plant sciences in Latin America; and at the same time express my astonishment at the amount of ground you are covering and the thorough manner in which you are covering it. With what I assume to be limited financial resources, you are doing a job which can well be the envy of several organizations with abundant funds.

I have reviewed carefully the list of Plant Science Institutions, etc., with respect to the following countries: Colombia, Cuba, Guatemala, Ecuador, Rep. de Honduras, Jamaica, Nicaragua, Panama, Salvador, and Venezuela. I have worked in all these countries at one time or another during the past three years and should therefore be more or less familiar with their institutions in our field. I do not find a single error in all these lists. Obviously there may be a few omissions; but none has occurred to me. And the lists are not "padded" with the names of institutions which exist only on paper. Some of the institutions listed may not be doing much - but that is true of all of us! - but as far as I am familiar with them, they are all "going concerns" and deserve to be included in such a compilation as this.

Chronica Botanica, it seems to me, is in a fair way of becoming the one periodical publication which those of us who live and work in tropical America cannot afford to be without.

I am starting north tomorrow by air, to take up with officials of the United Fruit Company at Boston the building program for our Escuela Agrícola Panamericana, and also expect to visit Washington in connection with work I have been doing down here as a collaborator of the Office of Foreign Agricultural Relations, U.S. Depp.

of Agriculture. When I get back I would like to send you a note re the Escuela Agrícola Panamericana; but I have not wanted to do this until we were well under way and had something definite to say. We hope to make something worth while of this; we have \$500,000 in the bank, with which to set up the institution, and we have a fine tract of land near Tegucigalpa, including about one thousand acres of good agricultural soil and 2500 of mountain lands in pine forest. It is our aim to develop a vocational school, primarily for Central American youths, where we will emphasize practical training in agriculture, horticulture, agricultural engineering and animal husbandry.

If I have an opportunity while in Boston or Washington I should like to have the pleasure of meeting you personally; and in any case, I want to assure you of my keen desire to collaborate with you in every way possible.

With all good wishes,

Sincerely yours,

Wilson Popencoe