

The World's Largest Open Access Agricultural & Applied Economics Digital Library

# This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

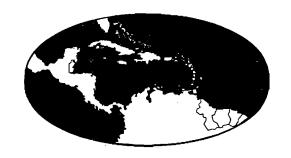
Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<a href="http://ageconsearch.umn.edu">http://ageconsearch.umn.edu</a>
<a href="mailto:aesearch@umn.edu">aesearch@umn.edu</a>

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.

# CARIBBEAN FOOD CROPS SOCIETY



FIRST ANNUAL MEETING
ST. CROIX, U.S. VIRGIN ISLANDS
OCTOBER 11, 1963

# **PROCEEDINGS**

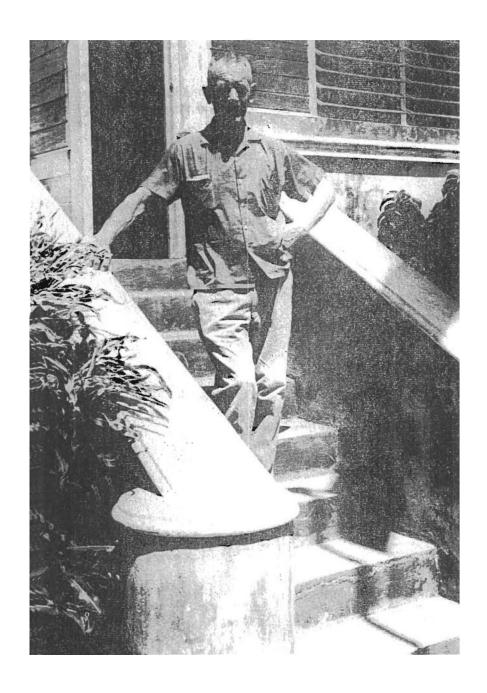
of the

CARIBBEAN FOOD CROPS SOCIETY

FIRST ANNUAL MEETING

ST. CROIX, U.S. VIRGIN ISLANDS

OCTOBER 7-11, 1963



Dr. Richard M. Bond, First President of the Caribbean Food Crops Society, and Officer in Charge, Virgin Islands Agricultural Program, Crops Research Division, Agricultural Research Service, United States Department of Agriculture.

#### **OFFICERS**

#### 1962-63

President:

RICHARD M. BOND,

Virgin Islands Agricultural Program, United States Department of Agriculture,

Kingshill, St. Croix, U. S. Virgin Islands.

Vice-President:

F. APONTE APONTE, University of Puerto Rico, Agricultural Extension Service, Rio Piedras, Puerto Rico.

Secretary:

HUGH C. MILLER, Caribbean Organization, Hato Rey, Puerto Rico.

Treasurer:

ARNOLD KROCHMAL,

Virgin Islands Agricultural Program, United States Department of Agriculture,

Kingshill, St. Croix, U.S. Virgin Islands.

Directors:

H. AZZAM,

University of Puerto Rico,

Agricultural Experiment Station,

Rio Piedras, Puerto Rico.

A. deK FRAMPTON, Chief Agricultural Officer, Ministry of Agriculture, Bridgetown, Barbados.

R. OSBORNE, Banana Board, Kingston, Jarnaica, W. I.

#### **OFFICERS**

#### 1963-64

President:

A. deK FRAMPTON, Chief Agricultural Officer, Ministry of Agriculture,

Bridgetown, Barbados.

Vice-President:

HUGH C. MILLER, Caribbean Organization, Hato Rey, Puerto Rico.

Secretary/Treasurer:

ARNOLD KROCHMAL,

Virgin Islands Agricultural Program, United States Department of Agriculture,

Kingshill, St. Croix, U.S. Virgin Islands.

Directors:

H. AZZAM,

Agricultural Experiment Station,

University of Puerto Rico, Rio Piedras, Puerto Rico.

F. APONTE APONTE,

Agricultural Extension Service, University of Puerto Rico, Rio Piedras, Puerto Rico.

R. OSBORNE, Banana Board, Kingston, Jamaica, W. I.

JOHN PHILLIPS,

Director of Agriculture, Department of Agriculture, Plymouth, Montserrat,

CLAUDE PY,

Agriculturist - I. F. A. C.,

Fort-de-France, Martinique.

CHARLES HORTH.

Chairman of St. Croix Growers' Association,

Kingshill, St. Croix, U.S. Virgin Islands.

# CHAIRMAN OF COMMITTEES

# 1963-64

Finance C. Horth

Plant Introduction H. Azzam

Plant Pests G. Stell

Economics and P. Ruopp
Sociology

Technical Assistance A. Krochmal

Publicity H.C. Miller

Programme A. dek Frampton

# NUMBER OF ACTIVE MEMBERS BY COUNTRY

# 1963-64

Antigua		1
Barbados		1
British Virgin Islands		2
Canada		1
Dominican Republic		1
Dominica		1
Haiti		2
Hawaii		1
Honduras		1
Jamaica		10
Martinique-Gua deloupe		2
Mexico		1
Montserrat		2
Puerto Rico		31
Surinam		1
Trinidad & Tobago		4
U.S. Virgin Islands		20
U.S.A.		_5
	Total	87

# REPORT OF THE FIRST ANNUAL GENERAL MEETING OF THE CARIBBEAN FOOD CROPS SOCIETY OCTOBER 7-11, 1963

The First Annual General Meeting of the Caribbean Food Crops Society was held at the Buccaneer Hotel near Christiansted, St. Croix, with 87 members in attendance, representing 11 countries. A large number of visitors also attended the opening session and participated in several of the sessions which were open to the public.

The Meeting was formally declared open by the President, Dr. R. Bond, after extending a warm welcome to members and visitors and to the Honorable Ralph Paiewonsky, Governor of the Virgin Islands of the United States.

The Governor, in his address of welcome to participants on behalf of the Government of the Virgin Islands of the United States and the people of St. Croix, emphasized the expectations which had been aroused by the establishment of the Society and indicated that the decision to hold the First Annual Meeting in St. Croix was most timely. The Island, at present, imported 90 per cent of its food requirements and costs of locally produced food tended to be unduly high. Both at the Federal and local level, strenuous efforts were being made both by way of research and education to alter this pattern and to develop production of food crops and livestock products on a more competitive basis. Water and soil conservation were two of the major problems of the Island and were being vigorously tackled both in St. Croix and in St. Thomas where a well-drilling project had recently proved very successful. Work at the Federal Experiment Station had recently indicated the possibility of developing production of avocadoes, papayas, pickling cucumbers, and other crops. To stimulate the recovery of the once important beef industry, a modern abattoir had been built. However, the Virgin Islands were fully appreciative of the benefits to be secured from exchange of ideas and experience and from cooperation in the Caribbean area. He had every confidence the Meeting of the Society would be most useful and productive and that the Society's efforts would result in considerable improvement of food crop production in the area.

The Meeting next proceeded to the presentation and discussion of a series of 18 papers which occupied the attention of members until 4, 30 p. m. on the afternoon of Tuesday, October 8, 1963.

The Comeli prize of \$100.00 for award to the person whose paper was judged the best by vote of members was won by Dr. Abdul Rahman of the University of Puerto Rico, for his paper entitled "The Effect of Storage and Packaging on the Quality of Dehydrated and Dehydrofrozen Pigeon Peas"; the Caribbean Food Crops Society prize of \$25.00 for the paper judged to be the second best was awarded to George Jackson for his paper entitled "Promising Selection of the Honeyberry (Melicocca bijuga L.) from Puerto Rico".

The morning of Wednesday, October 9, was devoted to discussion on "Marketing Problems of Food Crops in the Caribbean" following introductory remarks by a panel led by Dr. Winn Finner, Deputy Director, Marketing Division, U. S. D. A., and including Dr. Abdul Rahman of the Food Technology Laboratory of the Agricultural Experiment Station of the University of Puerto Rico, and Mr. C. H. Rogers, Technical Officer (Trade and Tourism) of the Caribbean Organization.

During the afternoon of October 9, the Meeting discussed "Problems of Food Crops Production" following introductory statements by a panel of speakers as follows: A. G. Naylor, Plant Pathologist, Ministry of Agriculture, Jamaica; Mario Perez, Entomologist and Velez Fortufio, Plant Breeder, University of Puerto Rico; Patrick Haynes, Agronomist, University of the West Indies, Trinidad; and Panel Leader, Dr. G. Samuels, Agronomist, University of Puerto Rico.

## Business Session

The business session of the Meeting was held on Tuesday, October 8, commencing at 8.30 p.m. It was voted to hold the next Annual Meeting in Barbados and the following meeting in Puerto Rico. Mr. A. deK Frampton was elected President and Mr. Hugh Miller, Vice-President for the ensuing year (1963-64).

The By-laws of the Society were approved with minor amendments and six members elected to serve on the Board of Directors as follows: Dr. H. Azzam, Mr. F. Aponte Aponte, Mr. R. Osborne, Mr. John Phillips, Mr. Claude Py, and Mr. C. Horth.

At a meeting of the Board of Directors held immediately following the business meeting, Dr. Arnold Krochmal was appointed Secretary/Treasurer, and at a later meeting, Mr. C. Horth, President of the St. Croix Growers' Association, was appointed Chairman of the Finance Committee of the Society.

### The Annual Banquet

The Society's Annual Banquet was held at the Buccaneer Hotel on Wednesday, October 9, with the Premier of Barbados, the Honorable Errol Barrow, as guest speaker.

Dr. Bond, retiring President, addressed the gathering giving the history of the establishment of the Society and extolling the work and enthusiasm of Dr. Krochmal which were largely responsible for the success that had attended the growth and development of the Society. He then invited Mr. Barrow to address the gathering.

Mr. Hugh Miller, on behalf of the members of the Society, then made a presentation to the retiring President, Dr. Bond, "as a token of the appreciation of members of the valuable contributions he had made to the establishment of the Society and of the guidance he had given as President during the first five months of its life".

Dr. Hassan Azzam next presented to Dr. A. Krochmal a gift provided by the Society in token of his initiative and energy on behalf of the Society.

Before closing the proceedings, Dr. Bond proposed that in accordance with the provision of Article 2, Section 2 of the By-laws of the Society, honorary membership be conferred on the following:

The Honorable Ralph Paiewonsky, Governor of the Virgin Islands of the United States

The Honorable Errol Barrow, Premier of Barbados

Mr. Clovis Beauregard, Secretary-General of the Caribbean Organization

This proposal was seconded by Dr. A Krochmal and approved unanimously.

# SPEECH BY THE HONORABLE ERROL BARROW, PREMIER OF BARBADOS

Mr. President, your Excellency, your Honor, Members of the Caribbean Food Crops Society, Ladies and Gentlemen:

The island communities in which we live have been for centuries the traditional suppliers of primary products to the metropolitan powers of the world. Up to quite recent times the agricultural sector of our economies has been predominant in the export field, with an emphasis on the production of a single crop dictated by the demand and requirements of the importing countries. The result of this externally inspired demand has been, by and large, the dereliction of local production of food crops to such an extent that the importation of food into the area from the wealthy industrialized countries confronts the governments of most of these territories with serious balance of payments problems.

If I may be permitted to illustrate this point from our own experience in Barbados: During the year 1962 the total value of our exports was some \$42 million less than the amount which we had to pay to other countries for the goods and services which our population demanded from abroad.

Our imports of food alone amounted to some \$24 million, almost completely off-setting the amount which we earned from overseas sales of our sugar. The total area of land in Barbados is 106, 240 acres. Of this 94,000 acres are assigned to agriculture, pasture land accounting for some 12,000 acres; and seven-eighths of the cultivated land is devoted to the planting of sugar cane. This leaves only one-eighth to the production of food crops and the necessary infrastructure of roads and building sites.

Last year our population was estimated at 242,000, or a density of over 1,400 persons per square mile. But a much more startling statistical deduction is that, with only some 5,000 acres allocated to food production, if by any "force majeure" our supplies of imported food were cut off, then forty-eight persons would have to share the production of each acre in the impact period.

There are three traditional methods of increasing agricultural production within the limits of a given geographical area. Firstly, by extending the acreage under cultivation; clearing wasteland; swamp and forest, or putting pasture land under the plough. Secondly, by intensifying land use by more scientific methods such as the use of fertilizers. Thirdly, by diversification of the agricultural sector of the economy, such diversification being not limited merely to the planting of food crops as a substitute to monoculture, but to include the establishment of dairy and fish farming, hydroponics and forestry, after a comprehensive survey to more accurately assess the best economic land use patterns for the community. All of these problems have been well known to you, gentlemen, in your capacities of agricultural experts, economic planners and advisers to governments in a Caribbean area comprised of countries which are becoming increasingly impatient of the tedious role of primary producers which they have been forced to play up to now.

A pattern of encouragement of manufacturing industries has been established throughout the area, whilst too little attention has been paid by governments to the satisfaction of the most basic of human wants by local food production.

Every politician in the area is vociferous in his insistence that his main objective is to improve nutritional and living standards for the masses of the people. This is usually inspired not by any great philosophical conviction but by simple recognition of an historical fact: that more revolutions are fomented by starvation than by any other circumstance.

Some governments in the area have even succeeded in raising living standards, chiefly by generous application of large doses of imported capital and, to a lesser degree, by increasing price support for their primary products under commodity agreements.

It is however true to state that these improvements in living standards have created further problems, since consumption patterns and consumer demands in the Caribbean area are to a large extent artificial and highly susceptible to press and radio advertising, so that the economic paradox is presented that the more the per capita income in these territories rises the more demand is stimulated for imported food products. Further, as the more the balance

of payments becomes unfavorable the more there is need for imported capital, the greater the proportion of gross national product that has to be exported for the payment of dividends and interest, and the smaller the amount left for new capital formation from internal sources.

It appears to me therefore, gentlemen, that the objectives of your Society and the studies upon which you have been engaged during the past three days are of more than passing or academic interest to the governments of our Caribbean territories. Since governments of emerging countries appear to be unduly suspicious of one another and since they regard other governments as being competitors for external aid, investment capital and industrial expansion, it is appropriate that the impetus for launching this new venture on the sea of regional cooperation should have come from a group of dedicated experts and selfless individuals who are in a position to see the basic problems confronting our countries unfettered by national bigotry, or considerations of political survival.

To see the problem is one thing; to get together with people of similar persuasion in search for solutions is also extremely laudable, and I daresay that many a scholarly contribution will be made to agricultural science and to the archives of universities as the result of your meetings and exchanges of ideas and viewpoints; but the translation of your ideas into specific programs is a harder task than retracing one's steps from the gates of hell to the upper air above.

It is axiomatic in technological societies that agricultural and economic sciences must be viewed with a great deal of suspicion by governments and vested mercantile interests alike. It is also endemic in our communities that people in your field of activity should have a high tumover rate, if you are not actually to contribute to the mortality rate by dying of frustration.

We have a saying in my country, Mr. President and gentlemen, that "while the grass is growing the horse is starving"; this is the reply which I usually get from people who come to my office looking for jobs and are told that the government is working on a plan for increasing overall employment but specific jobs cannot be created on an ad hoc basis.

The restatement for the basic problem has been made. The formation of your Society I hope will swiftly precipitate proposals for its solution.

The implementation of these proposals by the countries for whose benefit they will have been formulated can only come about if governments, farmers, distributors and consumers recognize that our economies are in a state of siege and that an emergency is not only likely to arise, but that the crisis already exists so that firm measures can be introduced, such as compulsory planting of food crops (which we already have in Barbados), measures, moreover, such as restriction and embargo on foreign food imports with correlated agricultural subsidies, where necessary, to keep down prices to the consumer, measures such as proper marketing arrangements and the creation of consumer tastes for local products by enlightened advertising and attractive packaging.

The introduction and, what is much more important, the universal acceptance of such seemingly drastic proposals will be greatly facilitated if the governments in the Caribbean become convinced of the urgency of their situation and the importance of the work of this Society and other similar organizations to the solution of our mutual problems.

Mr. President, Members of the Caribbean Food Crops Society, I can assure you that as far as the Government of Barbados is concerned you will be preaching to the already converted and it is in this spirit that we of the faith have invited you to "come over into Macedonia and help us" by holding your next annual meeting in Barbados in October next year.

That your members, Sir, have so readily accepted this invitation is to me a matter of personal satisfaction, as I am sure it will be to your new President, Mr. Dicky Frampton, the Chief Technical Officer in the Ministry of Agriculture of Barbados.

I feel confident that those of you who come to visit us will have just as much reason for celebration as my visit to St. Croix at your kind invitation has provided.

# LIST OF PARTICIPANTS - FIRST ANNUAL MEETING OCTOBER 7-11, 1963

Address Name Hassan Azzam Plant Breeder, Agricultural Experiment Station, University of Puerto Rico, Rio Piedras, Puerto Rico M. Apodaca Grand Union Supermarket, San Juan, Puerto Rico Carlos M. Aponte Horticultural Specialist, Agricultural Extension Service, University of Puerto Rico, Rio Piedras, Puerto Rico Francisco Aponte Aponte Extension Horticulturist, Agricultural Extension Service, University of Puerto Rico, Rio Piedras, Puerto Rico Dr. Richard M. Bond Officer in Charge, Virgin Islands Agricultural Program, U.S. Department of Agriculture, Kingshill, St. Croix, U.S. V.I. Harold D. Bowman Inspector in Charge, Plant Quarantine Division, USDA Agricultural Research Service, P.O. Box 3386, San Juan, Puerto Rico Peter Butland Chemist, Butland Ind., 603 Evans Avenue, Toronto 14, Ontario, Canada Agricultural Chemical Representative, The Shell Company, Carlos Costa 206 Ponce de Leon, San Juan, Puerto Rico Agriculturist, Harvey Alumina, Kingshill, St. Croix, U.S.V.I. Juan de dios Cubero Agronomist, Ministry of Agriculture and Lands, Kingston 6, Winston T. Domville Jamaica, W.I. Ridgefield Estate, Dominica, West Indies C. J. L. Dupigny Agricultural Officer, Department of Agriculture, Road Town, Ivan Evans Tortola, British Virgin Islands

Winn F. Finner Deputy Director, Marketing Economic Division, U.S. Department

of Agriculture, Washington, D.C., U.S.A.

R. A. Foreman Chairman, Agricultural Development Corporation, 83 Hanover

Street, Kingston, Jamaica, W.I.

Jesus Velez Fortuno Head, Plant Breeding Department, Agricultural Experiment

Station, Rio Piedras, Puerto Rico

Axel Lambert Frederiksen Horticulturist, Virgin Islands Agricultural Program, U.S.

Department of Agriculture, Kingshill, St. Croix, U.S.V.I.

Enrique Tejera Gonzalez Assistant Agronomist, Agricultural Experiment Station, Rio

Piedras, Puerto Rico

Ernesto Hernandez Horticulturist, Cisne 796 Dos Pínos, Rio Piedras, Puerro Rico

Name

Address

Charles Horth

P.O. Box 79, Kingshill, St. Croix, U.S. V.I.

Patrick H. Haynes

Lecturer in Crop Production, University of the West Indies, Imperial College of Tropical Agriculture, St. Augustine, Trinidad

James Isherwood

Christiansted, St. Croix, U.S. V.I.

George Jackson

Assistant Horticulturist, Fruit Experimental Sub-Station, P.O. Box 629, University of Puerto Rico, Fortuna, Puerto Rico

Dr. Arnold Krochmal

Horticulturist, Virgin Islands Agricultural Program, U.S. Department of Agriculture, Kingshill, St. Croix, U.S. V.I.

Franklin Margetson

Agriculturist, P.O. Box 78, St. John's, Antigua, W.I.

Mark Madsen

Christiansted, St. Croix, U.S.V.I.

Hugh C. Miller

Development Officer (Natural Resources), Caribbean Organization, 452 Avenida Ponce de Leon, Hato Rey, Puerto Rico

Dr. F. W. Morrissey

Charlotte Amalie, St. Thomas, U.S.V.I.

Mulleaux Antilles Box

Antilles Box Corporation, P.O. Box 544, Cataño, Puerto Rico

A. G. Naylor

Plant Protection Officer, Ministry of Agriculture and Lands, Hope, Kingston, Jamaica, W.I.

William Pennock

Horticulturist, Agricultural Experiment Station, University of

Puerto Rico, Rio Piedras, Puerto Rico

Dr. Mario Perez

Entomologist, Agricultural Experiment Station, University of Puerto Rico, Rio Piedras, Puerto Rico

John C. Phillips

Director of Agriculture, Department of Agriculture, Plymouth, Montserrat, W.I.

Abdul Rahman

Associate Food Technologist, Food Technology Laboratory, Agricultural Experiment Station, P.O. Box 516, Rio Piedras,

Puerto Rico

C. H. V. Rogers

Technical Officer (Trade and Tourism), Caribbean Organization, 452 Avenida Ponce de Leon, Hato Rey, Puerto Ri∞

J. Roman

Assistant Nematologist, Department of Entomology, Agricultural Experiment Station, University of Puerto Rico, Rio Piedras, Puerto Rico

Guy Rouanet

Institute of Research, Irat, Guadeloupe, F. W.I.

Angel L. Lopez Rubero

Agricultural Promotion Representative, Autoridad de Tierras de

Puerto Rico, Santurce, Puerto Rico

L. Robera

Land Authority of Puerto Rico, San Juan, Puerto Rico

Name

Address

Dr. G. Samuels University of Puerto Rico, Rio Piedras, Puerto Rico

James A. Singmaster III University of Puerto Rico, Rio Piedras, Puerto Rico

Normand Smith Estate Rataan, Christiansted, St. Croix, U.S.V.I.

Manuel Mejia-Valentin C. Haeusslar & Co., Inc., Agronomist, P.O. Box 1703,

Hato Rey, Puerto Rico

Roberto Valentin Caribbean Container Company, San Juan, Puerto Rico

Pablo Valdes Dow Chemical Co., Puerto Rico

Ismael Velez Professor of Botany, Inter American University, San German,

Puerto Rico

H. E. Warmke Officer in Charge, Federal Experiment Station, Mayaguez,

Puerto Rico

A. C. White Field Technical Specialist, California Chemical Company,

Ortho Division, P.O. Box 7067, Orlando, Florida, U.S.A.

Roy Woodbury Agricultural Experiment Station, University of Puerto Rico,

Rio Piedras, Puerto Rico

R. E. Osborne Plant Breeder, Banana Breeding Research Scheme, Banana Board,

Kingston, Jamaica

# 1963 SUSTAINING MEMBERS

- 1. Agricultural Development Corporation, Jamaica, W.I.
- 2. American Foundation, Cleveland, Ohio, U.S.A.
- 3. Dow Chemicals Inter American Limited
- 4. Grand Union Corporation
- 5. Shell Company of Puerto Rico
- 6. Harvey Alumina, St. Croix, U.S. V.L.
- 7. Rotary Club, St. Croix, U.S. V.I.
- 8. Caribbean Atlantic Airline of Puerto Rico

#### MEETING FOR ESTABLISHMENT OF A CARIBBEAN FOOD CROPS SOCIETY

Held in the Conference Roan of the Central Secretariat of the Caribbean Organization, Hato Rey, Friday, May 3, 1963

The Meeting commenced at 10.00 a.m.

- PRESENT: Mr. Francisco Aponte Aponte, Horticultural Specialist, Agricultural Extension Service, University of Puerto Rico
  - Mr. Miguel Gonzalez Flores, Horticultural Specialist, Agricultural Extension Service, University of Puerto Rico
  - Mr. Carlos E. Aponte Moran, Horticultural Specialist, Agricultural Extension Service, University of Puerto Rico
  - Mr. Jorge Mejia Mattei, Director, Bureau of Marketing Regulations, Department of Agriculture, Puerto Rico (Representing the Under Secretary of Agriculture)
  - Dr. H. Azzam, Plant Breeder, Agricultural Experiment Station, University of Puerto Rico
  - Mr. Carlos D. Costa, Agricultur al Chemicals Representative, The Shell Co. (P.R.) Ltd.
  - Mr. A. dek Frampton, Chief Agricultural Officer, Ministry of Agriculture, Barbados
  - Dr. R. M. Bond, Officer in Charge, Federal Experiment Station, Kingshill, St. Croix, U.S. Virgin Islands
  - Dr. A. Krochmal, Horticulturist, Federal Experiment Station, Kingshill, St. Croix, U.S. Virgin Islands
  - Mr. C. F. Beauregard, Secretary-General, Caribbean Organization
  - Mr. C. P. Erskine-Lindop, Chief Administrative Officer, Caribbean Organization
  - Mr. G. C. L. Gordon, Development Officer (Social Affairs), Caribbean Organization
  - Mr. A. J. Seymour, Development Officer (Culture & Information), Caribbean Organization.
  - Mr. H. C. Miller, Development Officer (Natural Resources), Caribbean Organization

A preliminary meeting was held on March 7, 1963, attended by Mr. Francisco Aponte Aponte, Dr. A. Krochmal and Mr. Hugh Miller, to work out plans for the establishment of a Caribbean Food Crops Society.

The persons present were called upon to state their names and interests.

## 1. Election of Chairman of the Meeting

Dr. R. Bond was elected Chairman of the Meeting.

# 2. Approval of Agenda

The provisional agenda was approved.

### 3. Comments on the desirability of a Caribbean Food Crops Society

(a) The Chairman asked the Secretary-General of the Caribbean Organization for his comments in this regard.

The Secretary-General expressed intense interest in the objectives of the Society and promised firm support to its proposed activities. He said:

"The very fact that from the beginning we have shown our keen interest in your work, shows how my Organization is interested in seeing a Society like yours being established in this area. I wish you all the best of luck and every bit of success in your work this morning. I want to confirm that this Secretariat will be very pleased to do whatever we can to assist your Society".

(b) The Chairman stated that by their very presence members had indicated that they felt the establishment of the Society to be a desirable thing. He did not think it necessary to have an official set of favourable remarks which members should use in trying to convince others of the desirability of the Society. This was a problem for the individual members, having in mind the people whose interest and support they wish to enlist.

Mr. Miller read four communications expressing agreement with the idea of establishing a Caribbean Food Crops Society, from:

- 1. Mr. J. Velez Fortufio, Head, Plant Breeding Department, Agricultural Experiment Station, Puerto Rico
- 2. Mr. G. P. Tiggelman, Director of Agriculture, Surinam
- 3. Mr. R. E. Osborne, Plant Breeder, Banana Board Research Department, Jamaica
- 4. His Honour the Administrator of Montserrat

He stated that the communication addressed to Mr. H. Guyot, Director of IFAC, Guadeloupe, had failed to reach him before he had left the island on vacation.

Mr. Tiggelman's letter raised questions concerning items B(iii) and (vi) of the Notes of the Meeting of March 7, and also expressed the view that as membership dues and publications could not be expected to pay the cost of the Society, special efforts to secure contributions and grants would be necessary.

Mr. Osborne suggested the name "The Caribbean Food and Agriculture Society" as an alternative to "The Caribbean Food Crops Society".

An additional letter from His Honour the Administrator of Montserrat addressed to Dr. Krochmal was also read.

# 4. Constitution of the Society

# a) Name of the Society

There was general agreement that the name "Caribbean Food Crops Society" was preferable since it is desirable, at least in the initial stages, to limit the scope of the Society. Should the Society become a popular organization with a great deal of financial and other support, the scope could be expanded at any time deemed necessary. It was further pointed out that the cultivation of food crops was a neglected activity in the area and that the Society should concentrate on remedying this situation.

It was AGREED that the name of the Society should be the CARIBBEAN FOOD CROPS SOCIETY.

# b) Statement of Objectives

The meeting considered a document presented by Dr. Krochmal entitled "By-laws of the Caribbean Food Crops Society". This was patterned on the By-laws of the American Society for Horticultural Science.

It was AGREED that under Article 1, the word "Purposes" should be replaced by the word "Objectives". It was also AGREED to insert as (c) the following additional clause:

"assisting in the general dissemination of information on the production, processing and marketing of food crops in the Caribbean area".

With these and other minor amendments, the Statement of Objectives as proposed in the document was APPROVED.

## c) Membership

It was AGREED that the dues of U.S. \$5.00 for Active Members and U.S. \$100.00 for Sustaining Members should be payable in other countries.

#### d) Meetings of Members

The period of notice of meetings was changed from 30 to 90 days. The meeting decided that a quorum for the annual meeting should be one-fifth of the membership or 20 members, whichever is the less.

It was felt that a policy of rotating the site of annual meetings among various countries of the Caribbean, and the use of grants to help defray the cost of attendance at meetings, would assist greatly to ensure satisfactory attendance at meetings of the Society.

Section 3 under this heading was further amended to read: "In case there shall be less than a quorum present at any meeting, officers and the Board of Directors may be elected by mail solicitation of membership". The legality of voting by mail when a quorum was not present at a meeting was question. The Chairman agreed to consult legal opinion on this point and the amendments to this section were accepted subject to this proviso.

## e) Officers of the Society

It was decided that until the Society was in a position to employ someone full time to combine the duties of Secretary/Treasurer, these posts should be kept separate. As it would be necessary for the two persons appointed to be within easy contact one with the other, it was decided that officers for these posts should not be elected by the Society in general meeting, but should be chosen by the Board of Directors.

#### f) Board of Directors

Section 3. Powers. Sub-section (b) was amended to read: "to determine the scope and extent of the annual program of activities of the Society and to define and carry out its policies".

The Constitution as amended was APPROVED.

# 5. Activities of the Society

# a) General

The meeting ACCEPTED the general statement of activities as presented in the approved By-laws attached.

## b) Date and location of first annual meeting

Dr. R. Bond extended an invitation that the first annual meeting to be held subsequent to the establishment of the Society be held in St. Croix. He recommended that this invitation be accepted and pointed out:

- 1. That Harvey Aluminum had donated a cheque for U.S. \$1,000.00 to the Society to help to defray the cost of travel of members to St. Croix from other Caribbean islands
- 2. That preliminary enquiries made indicated that one of the best hotels in St. Croix was prepared to offer rooms at reasonable rates to persons attending a meeting of the Society in St. Croix provided the meeting was held in the fall of the year. The hotel was located near to an excellent beach and had a suitable meeting room which would be available to the Society

It was also suggested that consideration should be given to the advantage of holding the meeting in Puerto Rico since it would involve reduced travelling costs and assure a large attendance at the first regular annual meeting. However, it was pointed out that the reduction in cost would apply only to persons attending from Jamaica and Puerto Rico and that the Harvey Aluminum travel grant could be utilised to lighten any financial burdens created for members.

The meeting AGREED to accept the invitation extended by Dr. Bond and to hold the first regular annual meeting October 7-9, 1963, in St. Croix, U. S. Virgin Islands.

### 6. Registration of the Society

The Chairman suggested that the Society be registered in St. Croix. He pointed out that in St. Croix arrangements for registration of the Society would very speedily be completed thus making it possible for contributors to include in their claims for income tax rebates any donations made to the Society.

The meeting AGREED that the Society be registered in St. Croix.

# 7. Establishment of the Society

On a motion proposed by Mr. Miller, seconded by Dr. Krochmal and put by the Chairman, the persons present unanimously decided that: "The Caribbean Food Crops Society is hereby established with founding members those persons who have indicated in writing their willingness to join the Society, or have appended their signatures to a sheet of paper to be filed by the Secretary".

#### CONSTITUTION AND BY -LAWS OF THE CARIBBEAN FOOD CROPS SOCIETY

Section 1. Objectives: The objectives of the CARIBBEAN FOOD CROPS SOCIETY (hereafter called the Society\*) are: to advance Caribbean food production and distribution in all their aspects to the end of improving levels of nutrition and standards of living in the Caribbean through:

- (a) facilitating exchange of material and of information on all aspects of food production, processing and marketing in the Caribbean area
- (b) stimulating the presentation of information available on food crop production, processing and marketing in the Caribbean area
- (c) assisting in the general dissemination of information on the production, processing and marketing of food crops in the Caribbean area
- (d) provide a regional consultant service on food crops for the Caribbean area
- (e) maintaining close contact with research problems and progress in the fields of food crop production, processing and marketing
- (f) working towards the coordination of research and development programs and the optimum use of the resources available in the Caribbean area and stimulating the development of joint projects of research or development where such projects can be of value to the region as a whole
- (g) cooperation with the Caribbean Organization and other organizations dedicated to the fostering of cooperation between the countries of the Caribbean area

#### ARTICLE 2

#### **MEMBERSHIP**

Section 1. Eligibility: Any person, corporation, partnership or unincorporated association in sympathy with the objects and purposes and cooperating with the aims of the Society shall be eligible for membership. There shall be no limit to the number of members.

Section 2. Classes of Members: Members shall be divided into classes as follows:

Active Membership shall be available to interested persons engaged in research, educational, regulatory, development, production or commercial activities associated with the production, processing or marketing of food crops

Honorary Membership may be awarded by the Board of Directors of the Society to any distinguished person who, in the opinion of the Board, has made an outstanding contribution to the development of improvement of food crop production in the Caribbean area

Sustaining Membership shall consist of individuals or organizations contributing to the support of the Society

Section 3. Annual Dues: The annual dues of the Active Members of the Society shall be five U. S. dollars or its equivalent.

The annual dues of Sustaining Members of the Society shall be a minimum of one hundred U. S. dollars or its equivalent.

# ARTICLE 3 MEETINGS OF MEMBERS

Section 1. Annual Meetings: The annual meeting of the Society for the election of a Board of Directors and officers and the transaction of such other business as may properly come before the meeting shall be held at such

time and place as may be voted by members at a previous annual meeting.

Section 2. Notice of Meetings: Notice of each annual meeting and each special meeting of members shall be given by mailing, not less than ninety days preceeding the date of the meeting, a notice thereof in writing addressed to each member at his last known address as shown in the books or records of the Society.

Section 3. Quorum: One-fifth of the membership of the Society, or 20 members, whichever is less, shall constitute a quorum for the transaction of business at an annual meeting. Officers of the Board of Directors may be elected by mail solicitation of the membership of the Society.

Section 4. Voting: Each member present shall be entitled to one vote on each question submitted to an annual or special meeting of members of the Society. All questions at all meetings at which a quorum is present shall be decided by a majority vote of members present, except as otherwise provided by law. A member shall not be entitled to vote by proxy.

# ARTICLE 4

#### BOARD OF DIRECTORS

Section 1. Number and Qualifications: The Board of Directors shall consist of the retiring President (who shall be Chairman), the President, the Vice-President, the Secretary, the Treasurer or the Secretary/Treasurer and six elected members. Each elected member shall serve for a period of three years after which he will retire but be eligible for re-election. However, insofar as the members elected at the First Annual Meeting are concerned, two shall serve for a period of one year before retiring, two for a period of two years and two for a period of three years. All shall be eligible for re-election.

Section 2. <u>Vacancies</u>: Vacancies existing on the Board of Directors from whatever cause arising, may be filled for the unexpired term by vote of the remaining Directors.

Section 3. Powers: The Board is authorised:

- (a) to manage the property and affairs of the Society
- (b) to determine the scope and extent of the annual program of activities of the Society and to define and carry out its policies
- (c) to adopt such rules and regulations for the conduct of the meetings of the Board and of the members, and for the management of the affairs of the Society as the Board may deem proper and not inconsistent with the laws of the country in which the Society is registered
- (d) to accept contributions and subscriptions
- (e) to authorise the preparation and circulation of documents and the publication of articles
- (f) to audit bills, disburse the funds of the Society, establish one or more offices, purchase equipment and supplies
- (g) to elect, appoint and employ such officers, agents and employees or committees as the Board shall deem necessary or desirable, and to delegate such powers of the Board as may be lawfully delegated
- (h) to advise and cause to be carried into effect all measures which the Board may deem proper and expedient to promote the objects and purposes of the Society
- (i) to determine who shall be authorised to sign the Society's behalf notes, receipts, acceptances, endorsements, cheques, releases, contracts and documents

Section 4. Meetings of the Directors: The Board of Directors may meet without notice immediately after the annual meeting of members, provided a quorum be present. Special meetings of the Board of Directors may be held at any time at the call of the Chairman of the Board of Directors, the President or three members of the Board. Notice of any special meeting shall be given in such manner as may be determined by the Board from time to time, or in default of such determination, by causing at least five days notice of the time and place of any such meeting to be given to all directors personally or by mail, telephone, telegraph, radio or cable. Regular meetings of the Board of Directors may be held without notice at such times and places as the Board may determine from time to time.

Section 5. Quorum: At any meeting of the Board of Directors three of the Directors then in office shall constitute a quorum, and the vote of a majority of the Directors present at any meeting at which a quorum is present shall be necessary for the transaction of any business. If there is less than a quorum present at any meeting, the meeting may be adjourned by those present. Notice of any adjourned meeting shall be given in the same manner as notice of the original meeting.

# ARTICLE 5 OFFICERS

Section 1. Election of Officers: The members shall elect annually a President, and a Vice-President of the Society and after the first annual meeting, two directors to serve for a period of three years. These officers shall hold office for one year (except Directors) until their successors are elected and qualified. The Secretary and the Treasurer, or the Secretary/Treasurer shall be appointed by the Board of Directors for terms of one calendar year and shall be eligible for re-appointment. No member shall hold two elective offices concurrently.

Section 2. Chairman of the Board: The retiring President of the Society shall be Chairman of the Board of Directors. The Chairman shall preside at all meetings of the Board of Directors and shall perform such other duties and have such other powers as may be prescribed by the Board of Directors.

Section 3. President: The President shall be the chief executive officer of the Society and shall be ex officio a member of the Board of Directors. He shall have the general powers of supervision and management usually vested in his office, subject, however, to the right of the Board of Directors to delegate any specific power or powers to any other officer or officers of the Society. The President shall preside at meetings of the members and, in the absence of the Chairman of the Board of Directors, the President shall preside at the meetings of the Board. The President shall deliver an Address at the annual meeting of the members and shall perform such other duties and have such other powers as may be prescribed by the Board of Directors, any duly constituted committee, or the By-laws.

Section 4. Vice-President: The Vice-President shall assist the President in the discharge of such of the President's responsibilities in such manner and at such times as he may be requested to so assist the President. In the absence of the President, he shall preside at any meeting of the members and, in the absence of the Chairman and the President, he shall preside over meetings of the Board of Directors. When presiding at a meeting of members or of the Board of Directors, he shall have responsibilities and powers as would devolve upon the President had he been present.

Section 5. Treasurer: The Treasurer shall keep all financial records of the Society, collect dues from the members, conduct the financial affairs of the Society with the aid and advice of the Chairman of the Board of Directors, and shall work in close cooperation with the Secretary.

Section 6. Secretary: The Secretary shall have the responsibilities to record the proceedings at all meetings of members or of the Board of Directors or of Sub-Committees appointed by the Board of Directors, unless the Board shall direct otherwise, to send to members all papers and reports as directed by the President or the Board of Directors and to generally ensure implementation of the decisions of the Board of Directors.

# CONTENTS

	Page
Frontispiece: Dr. Richard M. Bond, First President of the Caribbean Food Crops Society	2
Offiœrs	3
Number of Active Members by Country	6
Report of the First Annual Meeting	7
Speech by the Honorable Errol Barrow, Premier of Barbados	9
1963 Sustaining Members	14
Meeting for Establishment of the Society	15
Constitution and By-laws	19
St. Croix Growers' Association, Charles Horth	24
Some Considerations of the Effect of the Physical Environment on Food Crop Research, P. H. Haynes (Abstract)	26
Pesticide Residue Problems, J. A. Singmaster III (Abstract)	27
Promising Selections of the Honeyberry (Melicocca bijuga L.) from Puerto Rico, George C. Jackson (Abstract)	28
Research of the Puerto Rico Agricultural Experiment Station in the Control of the Nematodes Associated with Pineapple decline, Jesse Roman (Abstract)	29
Marketing Problems of a Small Island, John Phillips	30
The Effect of Storage and Packaging on the Quality of Dehydrated and Dehydrofrozen Pigeon Peas, Abdul Rahman (Abstract)	32
The Plant Quarantine Story, H. D. Bowman	33
Pigeon Pea Pod Borer Control, M. E. Perez (Abstract)	34
Chemical Weed Control in Tropical Food Crops, L. Kasasian (Abstract)	35
Native Plants as a Source of Food and Genetical Germ Plasm, Roy Woodbury (Abstract)	37
Improving Tropical Food Crops by Plant Breeding, Harry Warrnke (Abstract)	38
Water for Irrigation in the American Virgin Islands, R. F. Scott (Abstract)	39
Seedless Watermelon Production in Puerto Rico, Hassan Azzam (Abstract)	40
The Response of Seedless Watermelon to Fertilizers in Puerto Rico, Hassan Azzam and George Samuels (Abstract)	41
Sphaeropsis Knot Disease of Citrus in Jamaica, A. G. Naylor	42

	Page
The Propagation of Guavas from Stem Cuttings, W. Pennock and G. Maldonado (Abstract)	44
Magnesium: An Important Nutrient in Pineapple Production in Puerto Rico, E. Hemandez-Medina (Abstract)	46
Panel: Problems of Food Crop Marketing and Production (Summary)	47

#### ST. CROIX GROWERS' ASSOCIATION

# by Charles Horth 1

The St. Croix Growers' Association was organized in March 1963 with eighteen members and now, a few months later, we have fifty members. The purpose of the Association is to advance the common interest of its members in achieving better production of farm crops, particularly fruits and vegetables, and to examine and provide ways and means of obtaining for its members operating economies, such as the bulk purchase of farm requirements and the unit marketing of crops.

The organization of a Growers' Association on the island of St. Croix marks the first step in the activation of a program which had its beginning at the Federal Experiment Station at Kingshill, St. Croix, under the guidance of Dr. Richard Bond, Head of the Experiment Station, and Dr. Arnold Krochmal, Horticulturist.

Over a period of time, the program at the Experiment Station came to the attention of certain individual land owners and farmers on the island who were interested in cooperating in the development of such a program. Certain aspects of the program appeared at first blush to have very definite commercial possibilities - 'Solo' papaya, Winter avocado, pineapple, all appeared to hold much promise. Many vegetables also appeared to hold considerable promise, provided that large-scale production and distribution could be achieved so as to take advantage of the economies that are inherent in large-scale operations.

Virtually all of the individual growers who had become interested in the program were small operators with from five to perhaps twenty-five acres of land that could be put into a diversified program. Interest focused upon the organization of a production and marketing Co-operative as the ultimate solution to the joint problems of many small growers, none with any great experience in the marketing of fruits and vegetables under a Co-operative arrangement.

The first problem to confront the group, was whether they were far enough along to warrant the organization of a Co-operative now. Out of the discussions that ensued came the suggestion, as a first step, to organize a Growers' Association which would undertake to conduct a study of the interrelated problems of production, transportation and marketing. It was hoped that out of a continuing study, over a period of perhaps a year, would come a clearer understanding of the problems. By identifying the problems in advance we hoped to avoid many serious mistakes.

The major effort to date has been on the 'Solo' papaya program, because it appeared to hold the greatest promise for reasonably quick commercial operations with unusually promising financial results. Negotiations with the President of Caribair have resulted in a substantial reduction of air freight rates to San Juan and to St. Thomas.

It appears that we are just about at the point where we can give serious consideration to the organization of a PRODUCTION and MARKETING CO-OPERATIVE. A pattern is beginning to emerge involving sufficient acreage of 'Solo' papaya to warrant the formation of a business organization to coordinate the production, harvesting, grading, packing, transportation and marketing of many small growers.

Once the legal technicalities have been surmounted and we have a full-fledged PRODUCTION and MARKETING CO-OPERATIVE, we will be confronted with the practical problem of financing its operations, largely working capital in the early stages to finance inventories while in transit from the growers' field to market, and receivables arising from the sale of the inventories to distributors.

Of one thing we are certain - the CO-OPERATIVE, when organized, must be operated as a business if it is to be successful. The rock upon which many CO-OPS have foundered in the past has been the rock of unbusinesslike operations.

l
President of St. Croix Growers' Association, St. Croix, U.S. V.I.

It is our hope that the people of St. Croix will benefit by the development of a new agricultural industry with diversification of crop risk. The long-term objective is a well diversified program of tropical fruits and vegetables which may be sold locally at reasonable prices. The grower will benefit from diversifications of risk. The grower and the consumer will both benefit from large-scale production which will eventually bring consumer prices down while assuring the grower of a fair return.