



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

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
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*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.*

**PROCEEDINGS
OF THE
CARIBBEAN FOOD CROPS SOCIETY**



**12th ANNUAL MEETING
JAMAICA**

1974

VOLUME X11

TABLE OF CONTENTS

	Page
Officers of the Caribbean Food Crops Society 1973-74	i
Minutes of the Business Session, July 5, 1974	ii
Registered Participants of the 12th Annual Meeting	iii
General Programme	v

TECHNICAL PAPERS AND SUMMARIES

Some Economic Aspects of Root-Crop Production in Jamaica, Lloyd B. Rankine	1
Agronomic Techniques in Yam (<i>Dioscorea Spp.</i>) Production in the Caribbean Region. Theodore U. Ferguson	5
Production of Irish Potato (<i>Solanum Tuberosum</i>). D.H. Stone	16
Improvement of the Yield Potential in Caribbean Sweet Potato Cultivation. L.A. Wilson	17
Diseases of Root Crops in Jamaica. A.G. Naylor	33
Effects of Curing on Storage of Yams. B.O. Been, A.K. Thompson & C. Perkins	38
Root-crops Processing Research at the University of the West Indies, St. Augustine, Trinidad. G.M. Sammy	43
Effects of Bank Size and Stake Heights on Yallow Yam (<i>D. Cayenensis</i>) Yields on St. Ann Clay Loam (Red Bauxite) Soil. H.W. Payne	51
Effects of Division Levels of Seed Tubers on Yam (<i>D. Alata</i> , <i>D. Trifida</i>) Germination and Yield. P. Mathurin & L.M. Degras	52
Yam Fertilizer Trials on the Bauxite Soils of Jamaica. H.W. Payne	57
Field Trials About Yam Anthracnosis. J. Fournet, L. Degras, R. Arnolin & G. Jacqua	58
Nematode Pests on Yams in Jamaica. Gillian E. Hickling	63
Some Observations on Internal Brown Spot and Virus-like Symptoms of Yam (<i>Dioscorea Spp.</i>) in the Commonwealth Caribbean. S.H. Mantell, N. Mohamed, S.O. Haque & R.H. Phelps	68
Storage Diseases of Cush-Cush Yams in Guadeloupe. P. Ricci, J.P. Torregrossa & J. Fournet	74
Control of Irish Potato Pests. Joseph R.R. Svah	76
Storage of Fresh Cassava Roots in Moist Coir Dust. J. Marriot, B.O. Been & Cynthia Perkins	79
Nutritional Considerations Regarding Staples. J.M. Gurney	83
Review of Rice Production in Jamaica. E.R.H. Martin	84
Insect Pests of Sweet Potato, <i>Ipomoea Batatas</i> , and Their Natural Enemies in Barbados, West Indies. M.M. Alam	84
Further Work on Mechanical Planting and Harvesting of Root Crops. I.D. Chandler & J.P.W. Jeffers	85
Co-efficients of Variation in Maize Experiments and their Use in Predicting the Efficiency of Simple Experimental Designs. A.C. Brewer	85
Effects of Fertilizer on Yield, Seed Quality and Plant Characteristics of Soyabean (<i>Glycine Max. (L) Merrill</i>). R.A.I. Brathwaite, J.L. Hammerton & E.A. Tai	86
Effects of Fertilizer on Leaf Mineral Contents of Soyabean (<i>Glycine Max. (L) Merrill</i>). R.A.I. Brathwaite, J.L. Hammerton & E.A. Tai	89
Some Uses of the Computer in Agricultural Research. G. Taylor	93
A Further Look at Experimental Designs Under Limited Resources. F.B. Lauckner	93
Effects of Organic and Mineral Amendments in Horticultural Rotations on Acid Soil in the Wet Tropics. M. Clairon	94
The Introduction of a Bush Type Bovie Bean Variety to the Caribbean. Theodora U. Ferguson	94
Trickle Irrigation. I.G.P. Dingwall	94
A Review of the Use of Conventional and Systematic Designs in Spacing Experiments. J. Sanchez & B.F. Springer	95
Pathological Problems Associated with Vegetable Growing at Orange River Agricultural Station. Carol Henry & Edna Suggs	96
A Study of 100 Tomato Varieties in Relation With Climatic Adaptation and Resistance to 7 Prevalent Diseases in the West Indies. F. Kaan, H. Laterrot, G. Anais & L. Degras	102
Fungi Associated With Deterioration of Ackee (<i>Begonia Sapida L.</i>) in Jamaica. R.E. Pierre	114
Prolongation of the Storage Life of Breadfruits. A.K. Thompson, B.O. Been, & C.D. Perkins	120
Some Nutritional Aspects of Bunchy Top Disease of Papaya (<i>Carica Papaya L.</i>). B.R. Cooper, S.O. Haque & K. Rambharose	127
A Preliminary Report on Oxamyf for Nematode Control in Tomato. N.D. Singh	133
Studies on the Intercropping of Corn and Sweet Potato. Theodore U. Ferguson	133
Comparative Effects of Soluble and Controlled Release (Sulphur-coated Urea) Nitrogen on Phosphorus, Potassium, Calcium and Magnesium Uptake by Corn. R.C. Dalal	134
Influence of the Part of the Leaf and Leaf Rank of Plantains on its Nutrient Content. G. Samuels & A. Beale	136
Mineral Nutrition of Two Plantain (<i>Musa, AAB Group</i>) Cultivars of the French and Horn Type. D. Walmsley	141
Primary Screening of New Unregistered Pre-emerge Vegetable Herbicides II. George O. Jackson & Carmelo Sierra	148
Preliminary Studies on Pod-Setting and Pod Development in Pigeon Pea (<i>Cajanus cajan</i>). John L. Hammerton	153
An Evaluation of a New System of Pigeon Pea Production in Trinidad and Tobago. J. Cropper and N. Arzu	154
Mineral Nutrition Requirements of Pigeon Pea (<i>Cajanus Cajan</i>) in River Estate Loam, St. Augustine, Trinidad. R.C. Dalal	157
Some Observations on the Intercropping of Pigeon Pea (<i>Cajanus cajan</i>) and Corn (<i>Zea Mays</i>) in Trinidad. G.M. Shekour & R.A.I. Brathwaite	159
Yield Potential and Disease Resistance of Dry Bean (<i>Phaseolus vulgaris</i>) Varieties in Jamaica. R.E. Pierre	165
Evaluation of Crisp-Head Lettuce Cultivars. George Jackson & Carmelo Sierra	170

CARIBBEAN FOOD CROP SOCIETY

OFFICERS 1973-74

President	Hugh C. Miller	Jamaica
Vice-President	A.G. Naylor	Jamaica
Secretary	George Jackson	Puerto Rico
Treasurer	Dr. George Samuels	Puerto Rico

BOARD OF DIRECTORS

Chairman	W. DeC. Jeffers	Barbados
Member	R.A. Baynes	Barbados
Member	G. Anais	Guadeloupe
Member	Hansel Beckford	Jamaica
Member	H.A.D. Chesney	Guyana
Member	L. Cross	Trinidad & Tobago
Member	C. Walters	Antigua

MINUTES OF THE BUSINESS SESSION - JULY 5, 1974

The business session was called to order by the President, Mr. Hugh Miller at 2.15 p.m. on Friday July 5, 1974 at the Pegasus Hotel, Kingston, Jamaica.

1. Presidential Address

In a brief presidential address Mr. Miller extolled the efforts of the officers of the Society and the committee members who had worked so hard to assure success of the Twelfth Annual Meeting. He pointed to the growing number of scientific associations covering the Caribbean region and suggested that more attention be given by the Society in future to exploring areas of possible co-operation with such groups. He suggested that in view of growing interest in the production and utilisation of root crops a special yam study group be set up to identify research needs in yam production and utilisation, to secure a co-ordinated approach to the problems of yam research in the Caribbean area, and to facilitate exchange of information between research workers in the several territories comprising the Caribbean area.

2. Treasurer's Report

The Treasurer's report as below was presented and duly accepted.

(i) Balance Bank Statement June 30, 1973	U.S.\$3,493.71
(ii) Receipts* July 1, 1973 - June 20, 1974	<u>1,478.27</u>
Sub-Total	<u>U.S.\$4,971.98</u>

(iii) Expenses July 1, 1973 to June 20, 1974

Barbados meeting - 1973		
Travel & Hotel	\$424. 80	\$
Funds to cover local committee deficit	<u>481. 00</u>	905. 80
Printing 1970 proceedings	350.00	
Printing 1972 "	783.75	1133. 75
Newsletters		76. 31
Professional Register		75. 00
Postage		160. 38
Stationery		37. 50
Addresograph work		47. 88
Advance to Jamaica meeting		<u>101. 00</u>
Total		\$ <u>2,537.62</u>

(iv) Balance June 20, 1974 2,434.36

Receipts*

Membership fees collected Barbados meeting (86 members)	\$	430.00
Membership fees collected by mail (43 members)		215.00
Sustaining members fees (3)		300.00
Transfer of funds from Trinidad meeting		<u>533.27</u>
		<u>1,478.27</u>

3. Proposal for the setting up of Yam Study Group

This proposal was enthusiastically adopted by the meeting and the study group was duly set up.

Asked to serve on the study group were:

Dr. T. Ferguson	(Trinidad)	Chairman and Convener
Mons. L. DeGras	(Guadeloupe)	
Dr. L.A. Wilson	(Trinidad)	
Dr. L.B. Rankine	(Jamaica)	
Miss G. Hickling	(Jamaica)	
Mr. J.P. Jeffers	(Barbados)	

4. Membership Fees

The meeting next considered a proposal that the fees for active membership in the Society should be increased from US\$5.00 to US\$10.00 per annum effective as from year beginning July 6, 1974. Notice of this motion had been given at the 11th Annual Meeting in Barbados and the proposal was approved unanimously.

5. Election of Officers and Board of Directors 1974-75

The following were elected to serve on the 1974/75 administration:

President	Dr. Syed G. Haque	Trinidad
Vice-President	Dr. Laurie Wilson	Trinidad
Secretary	Mr. G.C. Jackson	Puerto Rico
Treasurer	Dr. George Samuels	Puerto Rico

Board of Directors

Chairman	Mr. Hugh Miller	Jamaica
Member	Mr. Ronald Baynes	Barbados
Member	Mr. H. Beckford	Jamaica
Member	Mr. L.A. Cross	Trinidad
Member	Mr. L. DeGras	Guadeloupe
Member	Dr. Fenton B. Sands	U.S. Virgin Is.
Member	Dr. Carl J. Walter	Grenada

Location of 13th Meeting - Caribbean Food Crop Society

It was proposed by Dr. L.A. Wilson and unanimously approved that the 13th Annual Meeting of the Society be held in Trinidad.

Registered Participants in 12th Annual Meeting - Caribbean Food Crop Society

<u>Country</u>	<u>Name</u>	<u>Country</u>	<u>Name</u>
Antigua	J.W. Cusworth (ODA)	Guyana	Dr. Amawale
	E.D. Metcalf (ODA)		Dr. C. Walter
Barbados	M.M. Alam	Martinique	G. Richard
	E. Cumberbatch		G. Rimbaud
	R.V. Harris	Montserrat	J.H. Green
	T.P. Jeffers	Puerto Rico	G. Jackson
	V.A. Sargeant		M.A. Lugo-Lopez
Dominican Republic	Lionel Smith		G. Samuels
	E.T. Wilmot		R. Woodbury
	Gerry Dupay	St. Vincent	G. Spain
	Miguel Gonzalez		G. White
Guyana Francaise	P. Biancaneau	U.S. Virgin Is.	F.B. Sands
Guadeloupe	M. Clairon		R. Shulterbrandt
	M.L. DeGras		
	M.P. Fournet		
	M.F. Kean		
U.S.A.	H. Bartoo		
	G. Dalton		
	L. Daleon		
	S. Sehgal		
	R. Walter		

<u>Country</u>	<u>Name</u>	<u>Country</u>	<u>Name</u>
Trinidad	R. Barrow	Jamaica	G.H. Barker
	B.R. Cooper		C.C. Barrett
	R.C. Dalal		H. Beckford
	T.U. Ferguson		B. Bean
	L. James		W. Bryce
	George Sammy		E. Burton
	N.D. Singh		A.V. Cameron
	J. Sanchez		J. Carrington
	G. Taylor		M.A. Carty
	D. Walmsley		P. Chen
	L. Wilson		E. Christia
	A. Brewer		D. Chung
	F. Lauchner		C. Clarke
	S. Haque		C.A. Clemetson
	J. Spence		H.B. Crawford
	D. Ari		M.R.L. Davidson
			A. DaCosta
			L.B. DeLisser
			F.D. Dempster
			W. Dixon
	J.H. Donaldson		
	H.J. Duval		
	H. Fraser		
	W.J. Gabay		
	C. Gardener		
	C.D. Gill		
	Dr. M. Gurney		
	Dr. L. Hammerton		
	J.H. Haughton		
	Dr. C.E. Henry		
	C.W. Hewitt		
	G.E. Hickling		
	R.W. Howell		
	R. Humphrey		
	D.G. Hutton		
	P.E. Jackson		
	A. Johnson		
	Dr. S.K. Kazimi		
	S. Lakasingh		
	P. MacIntosh		
	E.R. Martin		
	A.C. MacDonald		
Jamaica	H.C. Miller		
	F. Mitchell		
	G. Morgan		
	C.J. Morrison		
	A.G. Mullings		
	R. Murillo		
	A.G. Naylor		
	H. Payne		
	Hugh Payne		
	N. Prendergast		
	L. Rankine		
	R.E. Pierre		
	C. Reckord		
	Janice Reid		
	V.S. Reid		
	W.D. Roberts		
	V.W. Rochester		
	V. Royes		
	W. Shirley		
	J. Simpson		
D. Stone			
S. Soutar			
J. Stainburn			
D. Stanford			
J. Suah			
G. Thomas			

<u>Country</u>	<u>Name</u>
Jamaica (contd)	A.A. Thompson
	A.E. Thompson
	C. Tobisch
	B. Topper
	C.V. Turnbull
	M.P. Turner
	Dr. T.W. Turner
	Whervin Van
	K.R. Walker
	L.A. Walker
	E.P. Weller
	L.D. Wellington
	Dr. A.D. Williams
	H.R. Wilson

GENERAL PROGRAMME

Sunday 30th June	Arrivals and welcome - Cocktails, Courtesy Antilles Chemical Company
Monday 1st July 8.30 a.m.	Registration
9.30 a.m.	Opening Session
	Address: Hon. Keble Munn - Minister of Agriculture, Jamaica
	Message from Hon. Galo Plaza - Secretary-General, OAS delivered by Mr. C. Braggiotti, OAS Representative, Jamaica
11.00 a.m.	Technical session 1 (3 papers)
12.30	Lunch
2.00 p.m.	Technical session 2 (2 papers)
3.00 p.m.	Refreshment break
3.30 p.m.	Technical session 3 (2 papers)
7.00 p.m.	Cocktail Party hosted by Hon. Keble Munn - Minister of Agriculture
Tuesday 2nd July	
9.00 a.m.	Technical session 4 (6 papers)
10.30 a.m.	Refreshment break
11.00 a.m.	Technical session 5 (6 papers)
12.30 p.m.	Lunch
2.00 p.m.	Technical session 6 (7 papers)
3.30 p.m.	Refreshment break
4.00 p.m.	Technical session 7 (5 papers)
Wednesday 3rd July	
7.45 a.m.	Departure for Field Tour covering Bodles Research Station - Farming reclaimed lands at Battersea by Alcan - Root crops growing in the Christiana area and the Grove Place Research Station.
Thursday 4th July	
9.30 a.m.	Technical session 8 (6 papers)
10.30 a.m.	Refreshment break
11.00 a.m.	Technical session 9 (6 papers)
12.30	Lunch
1.45 p.m.	(a) Excursion to Agricultural Marketing Corporation and Food Technology Institute of Jamaica Industrial Development Corporation.
	(b) Excursion to Hi-Bred Tropical Breeding Station and Vegetables and Tree Crops Research Station at Lawrencefield.
8.00 p.m.	"A Jamaica Evening" - hosted by Shell Co. (W.I.) Ltd.
Friday 5th July	
9.00 a.m.	Technical session 10 (6 papers)
10.30 a.m.	Refreshment break
11.00 a.m.	Technical session 11 (7 papers)
12.30 p.m.	Lunch
2.00 p.m.	Business meeting
8.00 p.m.	Conference 12th Anniversary Banquet.