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**PROCEEDINGS  
OF THE  
CARIBBEAN FOOD CROPS SOCIETY**



**SECOND ANNUAL MEETING**

**BRIDGETOWN, BARBADOS**

**OCTOBER 19-23, 1964**

**VOLUME II**

## SURVEY OF PLANT PESTS IN THE CARIBBEAN

by

Gerald Stell<sup>1</sup>

In November 1963 I accepted an offer by the Caribbean Food Crops Society to head a Committee to survey plant pests in the Caribbean including insects, nematodes, fungus diseases, viruses, etc. of food crops.

In December I received a list of members of the CFCS who were active in this field and \$25.00 for postage, etc.

Also during this month a paper entitled "Regional Cooperation in Plant Quarantine in the Caribbean" (Appendix I) was presented at a FAO meeting in Jamaica. Reference was made to unified Plant Quarantine regulations, pest and disease surveys, Plant Quarantine relations, training of personnel and the development of a regional Plant Quarantine Agreement sponsored by FAO.

In February I represented Jamaica at the Banana Demonstration Tour held in Guadeloupe which was sponsored by the Caribbean Commission, The Republic of France and the 'Institut Francais de Recherches Fruitieres Outre-Mer' (IFAC).

I was also requested to visit Martinique after the tour and investigate the risks involved with the importation of pineapple planting material from that island.

The Surinam Government, learning that I was to be as far down the Caribbean as the French Antilles, invited me through the good offices of the CFCS to visit them at their expense in March. As I had to break my journey in Trinidad because of flight connections, the opportunity was taken to visit the Faculty of Agriculture and related scientific institutions. On the return journey an overnight stop in British Guiana allowed some time to be spent at the Ministry of Agriculture and Bookers Agricultural Department.

I was also requested to stop off in St. Croix and investigate the suitability of Jamaica importing quantities of various planting material.

Finally, a visit to Puerto Rico enabled me to make satisfactory arrangements for the importation of pineapple planting material from that country and meet several important scientists at the University.

As much opportunity as possible was taken on this official trip to find out the cooperation and information that was available for a survey of pests and diseases of food crops in the area. I was only sorry that my plan to overnight in Barbados instead of Trinidad on the return journey did not come off, otherwise almost every territory which can provide assistance in this survey would have been visited.

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<sup>1</sup> Chairman of the Committee and Chief Plant Protection Officer, Ministry of Agriculture & Lands, Jamaica

A full report (Appendix II) is submitted so that only the observations relevant to this survey are now mentioned.

Guadeloupe:

Valuable contact was made at the Neufchateau Fruit Experimental Station with:

Mr. J. Cuille, Director of IFAC (Agronomy)  
Entomologist, Head of the IFAC Department of  
Crop Protection

Dr. J. Brun, Plant Pathologist, IFAC, Paris

Mr. A. Vilardebo, Head of the IFAC, Entomology & Nematology Service, Paris

Dr. J. Bove, Virologist, Head of the Biochemistry Department of  
IFAC, Paris

A visit was also made to the Institut National de la Recherche Agronomique (INRA) when contact was made with the Director, Dr. Stel'e and the Entomologist, Mr. J. Bonflis. It was expected that a Plant Pathologist would soon be appointed there.

Martinique:

Mr. D. A. Blanche, Head of the French Antilles Plant Quarantine Service offered me every cooperation on plant quarantine matters. Details of their latest Plant Quarantine regulations were obtained which were recently revised.

Trinidad:

Discussions were held with Dr. J. Spence, Lecturer in Plant Physiology, Mr. R. Barnes, Lecturer in Plant Pathology, Mr. E. Iton, Plant Pathologist, Crop Protection Section of the Regional Research Centre, Mr. M. Emsley, Lecturer in Agricultural Zoology and Dr. F. Bennett, Entomologist, Commonwealth Institute of Biological Control. Some time was also spent with Dr. D. Fenwick, Nematologist and Director of Trinidad and Tobago Coconut Research Limited.

Surinam:

Only 2 1/2 days were spent in the country but it was long enough to be impressed by the development that is taking place in almost every phase.

The Research Station under Mr. Samson's dynamic leadership was very impressive. The entire staff were a most interested collection of research workers and together with extension colleagues provided a very lively audience for the reception of my talk on 'Plant Protection in the Caribbean'. Mr. F. del Prado, Head of the Plant Protection Service, was a very capable officer and much time was spent in discussion with him concerning their Plant Quarantine and Pesticide Regulations also research and field problems.

Detailed information was received on the insect pests and diseases of cultivated plants and very shortly a Nematologist was due to arrive to carry out

a survey. Their Plant Quarantine regulations were also found to be recently revised and brought up to date.

I am most grateful for the opportunity afforded me by the Surinam Government through Mr. Samson on behalf of the Caribbean Food Crops Society whose unfatigable Secretary-Treasurer, Dr. A. Krochmal, contributed in no small way to my visit.

#### British Guiana:

Courtesy calls were made on the Acting Director, Dr. H. Paul, and Acting Deputy Director of Agriculture, Mr. E. Hugh, at the Ministry's headquarters in Georgetown. The Central Agricultural Station at Mon Repos was also visited when I met the Acting Assistant Director (Research), Mr. A. V. Wan-Ping, and the Entomologist, Mr. C. P. Kennard. Unfortunately, the Plant Pathologist, Mr. S. Bissessar, was indisposed. Shortly afterwards, I received from Mr. Kennard an up-to-date list of insect pests of crops in British Guiana.

#### St. Croix, Virgin Islands:

Although only half a day was spent there the opportunity to renew acquaintances with Drs. R. Bond and A. Krochmal of the United States Department of Agriculture Research Station was worthwhile.

I was invited by Dr. Krochmal to talk to a meeting of prominent planters on the need for local plant quarantine regulations when the danger of uncontrolled plant importations was stressed. A resolution was taken by the meeting to petition the Governor for some early action. At that time St. Croix only had Federal Plant Quarantine Laws which did not prevent the movement of plant material from the United States of America, Puerto Rico and possibly Hawaii and the Canal Zone in Panamá.

I have since learned that a Plant Quarantine Law was passed by the Legislature and signed by the Governor.

#### Puerto Rico:

Valuable contact was made with Mr. H. Bowman, Chief Inspector, Plant Quarantine Division, United States Department of Agriculture. Useful discussions also took place with Drs. J. Román, Nematologist, J. Bird, Virologist and M. Pérez, Entomologist of the University of Puerto Rico.

From this preliminary survey the following points have emerged:

- 1) Nearly every scientist who I encountered was enthusiastic about the usefulness of such a survey and promised their support and cooperation.
- 2) There was still a lack of up-to-date lists of pests and diseases in many countries, even those with trained personnel.
- 3) A person should be appointed to head each discipline, i.e. Entomology, pathology, etc.

- 4) Funds are essential to enable each head of a discipline to travel through the area.
- 5) Each head of a discipline will be in the best position to advise on funds required and sources of information, literature, etc.
- 6) The following people are suggested to constitute the nucleus of subcommittees for each discipline:

Entomology:

G. Stell (Jamaica and Trinidad) assisted by M. Pérez (Puerto Rico and Virgin Islands), J. Bonfils (French Antilles), L. W. Van Whervin (Barbados) F. Bennett (remaining British West Indies), C. P. Kennard (British Guiana) and G. van Vreden (Surinam).

Mycology and Bacteriology:

R. I. Leather (Jamaica) assisted by a Pathologist of Puerto Rico University (Puerto Rico and Virgin Islands), R. Barnes, E. Iton and H. Spence (Trinidad and British West Indies), The Pathologist of INRA (French Antilles), S. Bissessar (British Guiana) and F. del Prado (Surinam).

Virology:

J. Bird (Puerto Rico and Virgin Islands) assisted by A. G. Naylor (Jamaica) and J. Bove (French Antilles).

Nematology:

J. Román (Puerto Rico and Virgin Islands) assisted by W. B. Dixon (Jamaica), D. W. Fenwick (Trinidad), A. Vilardebo (French Antilles) and the Nematologist (Surinam).

Plant Quarantine:

H. Bowman (Puerto Rico and Virgin Islands) assisted by G. Stell (Jamaica), L. W. Van Whervin (Barbados), Government representative (Trinidad), Secretary of Central Plant Quarantine Station (British West Indies), D. A. Blanche (French Antilles), C. P. Kennard (British Guiana) and F. del Prado (Surinam).

In July, Mr. R. Leach, Banana Pathologist from the United Kingdom passed through Jamaica and described to us a new disease of bananas that had recently been found in the Pacific Islands of Fiji and Tonga. The disease is called Black Leaf Streak Disease, Mycosphaerella fijiensis, and is reported as being more virulent and harder to control than leaf spot disease, M. musicola. I reported this information and sent a detailed description of the disease to the Caribbean Commission in Puerto Rico and the Central Plant Quarantine Station in Trinidad for transmission to the countries which are served by these organizations. A plea was also made for a united approach to this problem, as I am very concerned that this disease does not reach the Caribbean.

I would have liked to have accomplished more in this first year but, due to extreme pressure of work brought on by an acute shortage of Entomological staff (2 Graduate vacancies) and also personal reasons, I have not been able to devote enough of my spare time to this project.

I am also sorry that I could not attend this meeting but my government could only be asked to defray expenses for one member of my department when I recommended Mr. A. G. Naylor to be our representative.