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IICA — CIDIA

PROCEEDINGS OF THE SEMINAR
ON GUIDELINES
FOR PESTICIDE USAGE
IN ST LUCIA

IICA

Edited by: Everton Ambrose
IICA Office in St Lucia

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FOR PESTICIDE USAGE
IN ST LUCIA

HELD AT THE VIGIE BEACH HOTEL
CASTRIES
OCTOBER 27, 1988

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19 JUN 2001

EDITED BY
Everton Ambrose

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The responsibility for the opinions expressed in this publication rests solely with the authors.

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ACRONYMS

CARDATS	Caribbean Agricultural and Rural Development Advisory and Training Service
CARDI	Caribbean Agricultural Research and Development Institute
CEHI	Caribbean Environmental Health Institute
GIFAP	International Group of National Associations of Manufacturers of Agrochemical Products
IICA	Inter-American Institute for Cooperation on Agriculture
PCB	Pesticides Control Board



INTRODUCTION

A Seminar for all persons concerned about the pesticide situation in St Lucia was held on October 27, 1988 at the Vigie Beach Hotel in Castries. The meeting was convened by the Pesticides Control Board, in collaboration with IICA.

The objective of the Seminar was to develop guidelines to assist the Pesticides Control Board in effectively monitoring Pesticide usage in St Lucia.

This document contains an edited version of the Proceedings of that Seminar.

The Pesticides Control Board of St Lucia wishes to thank the participants and all those persons who contributed in any way to the success of this meeting. The recommendations will be given careful consideration by the Board.

David Demacque
Chairman
Pesticide Control Board



LIST OF PARTICIPANTS

NAME	ORGANIZATION
Lucius Alexander	Pesticides Control Board
Everton Ambrose	Pesticides Control Board
Anthony Bellas	AGROMART
Patrick Charles	Fire Service Department
Christopher Corbin	Caribbean Environmental Health Institute
David Demacque	Pesticides Control Board
Adrian Dolcy	Ministry of Planning (Central Planning Unit)
Gregory Downes	St Lucia Banana Growers Association (SLBGA)
James Fadlin	St Lucia Association of Farmers Cooperative (STAFCO-OP)
Henry J Fagan	Windward Island Banana Growers' Association (WINBAN)
Wenn Gabriel	Ministry of Health (Environmental Health Branch)
Gabriel Goolaman	National Farmers Association (NFA)
Kenneth Green	Organization of American States (OAS)
John Hammerton	Pesticides Control Board
Ernest Henry	Pesticides Control Board
Nicholas Jn Baptiste	Renwick & Company Ltd.
Graham E Louisy	Stanthur Company Ltd
Lyden Long	National Emergency Services
Stanley Mullings	Pesticides Control Board
Yves Renard	Eastern Caribbean National Area Management Program (ECNAMP) and Caribbean Conservation Association
Joseph Reneau	Renwick & Company Ltd
Mark Remy	Belle Vue Farmers Co-op Society Ltd
John Rickards	St Lucia Naturalists' Society and Sunshine Harvest Cooperative
John W St Louis	Ministry of Agriculture (Agricultural Information Unit)
Giovanni St Omer	Ministry of Agriculture (Agricultural Information Unit)
Cadie St Rose-Bruney	Attorney General's Chambers
Joseph St Toute	Customs and Excise
Phillip Sydney	Ministry of Agriculture (Extension Services)
Charles C Southwell	St Lucia Banana Growers Association (SLBGA)
Tedburt Theobalds	Small Farmer Agricultural Development Project
Gregor Williams	St Lucia National Trust



FEATURE ADDRESS

by

Gregor Williams
Associate Director, St Lucia National Trust

Director of Agricultural Services, members of the Head Table, Ladies and Gentlemen

I wish to welcome you here to this seminar on behalf of the Minister of Agriculture and to apologize for his inability to attend. I am pleased to make a few remarks on behalf of the St Lucia National Trust. The Trust has a broad mandate in conservation matters and our concern is for the environment. We should always bear in mind that any concern for the environment, wildlife or forest ultimately is due to our concern for ourselves.

We see the subject of pesticides as being an important one also of great concern to all of us. This matter must concern importers, users, the Pesticides Control Board and government agencies whose duty is to protect the health of the people and to protect the environment. We are aware that pollution of our water supply affects the lives of all of us. We know that pesticides and other toxic materials are badly handled, badly used, and badly stored. We know too, that containers of these dangerous chemicals are washed in the rivers and used as water storage vessels. It is known that chemicals banned in the developed, manufacturing, countries are being sold or dumped on places like St Lucia which do not have the legislation or expertise to control the dumping. This matter is therefore of concern to all of us.

We see encouraging signs when a government department tells us to make enquiries about the safe disposal of several containers of lead arsenate. We are pleased to see the Caribbean Environmental Health Institute going into the monitoring of the level of toxic pollution in our drinking water.

We need to improve our ability to handle, store and dispose of dangerous chemicals. We need also to exercise the practice of the continued use of the same pesticides on the same area over extended periods of time and to explore alternative and less toxic materials and methods to control pests.

Finally, I wish to state that this can only be a cooperative effort of all those involved. I wish you have a fruitful seminar and on behalf of the Minister of Agriculture declare the seminar open.

Thank you

GROUPS AND TOPICS FOR DISCUSSION

GROUP 1 (REGISTRATION)

Louisy
Williams (Rapporteur)
St Rose
Serieux
Sydney

GROUP 2 (PESTICIDE USE)

Jn Baptiste
Long
Renard
Rickards
Fadlin
Goolaman
Alexander (Rapporteur)

GROUP 3 (DISPOSAL)

Downes
Dolcy (Rapporteur)
Gabriel
Fagan
Charles
St Toute
Corbin
Greene

GROUP 4 (LABELLING AND
DISTRIBUTION)

Southwell
Theobalds (Rapporteur)
Emmanuel
St Omer
Bellas

Advisors: Members of the Pesticides Control Board

David Demacque
Ernest Henry
Everton Ambrose
John Hammerton
Stanley Mullings



REPORT OF GROUPS



GROUP 1: REGISTRATION OF PESTICIDES

Rapporteur - G Williams

The group expressed concern over the question of the importation of pesticides by non-registered persons or agencies since the Pesticides Control Board was unaware of these. The matter of retailing and use of pesticides legally entering the country was discussed. It was thought that the Pesticide Act (1975) provides for inspectors with wide powers which could handle these concerns. The following recommendations are made.

1. The Board should seek the appointment of officers from the Ministries of Health and Agriculture and from Customs and the Port Authority, as inspectors. The Board should also seek the appointment of one Inspector under its own jurisdiction to enforce the laws and regulations in areas outside the jurisdiction of the officers mentioned above and to act as a liaison between them and the Board.
2. It was noted that it was required by the importers to name antidotes and the like for the pesticides which they imported, but that they were not mandated to have these locally available. No concensus was reached on who should stock these antidotes: whether it was importers of pesticide, hospitals, or users. The PCB needs to consider this question seriously.
3. Pesticides with no antidotes (e.g. Gramoxone) should not be used and alternatives should be made available.
4. Under Registration and Licensing - Section 6. Subsection 3 (of the Pesticides Act 1975) no provision for restrictions under this regulation is given as is the case in Section 5 Subsection 3. Restriction similar to Section 5 Subsector 3 should be included in Section 6 Subsection 3.
5. The matter of including non pesticide "toxic materials" was considered and it was thought the easiest way to handle the matter would be to recommend an amendment to the interpretation (under the Act and the Regulations) of the word "pesticides" to mean "pesticides and toxic materials", until such time that more specific legislation could be instituted.

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GROUP 2 PESTICIDE USE

Rapporteur - L Alexander

The group considered that approaches to pest management should include educating persons to use pesticides only if and when absolutely necessary. The group felt that consideration should be given to the concept of Integrated Pest Management which encompasses such aspects as the use of resistant or tolerant crop varieties and biological and cultural control techniques. A significant number of pesticide related problems were directly or indirectly related to agricultural practices.

If some of the above methods of control were used then a significant number of problems, especially those affecting the environment, would be reduced. Such a control strategy could be brought about by legislation. Persons responsible for encouraging such practices should be the Members of the PCB and Personnel of related Ministries (e.g. Agriculture and Health).

The Group discussed the question of increasing the authority of the Board through the Pesticide Control Act. Some areas identified includes:

- 1) PCB approval of pesticides advertisements so as to encourage proper use of these substances and avoid misleading information.
- 2) An age limit for all persons handling pesticides in the shops and on the farms.
- 3) Pesticides are not sold unless if available applicators for applying them are available.
- 4) The PCB should extend its authority, or should liaise with existing authorities, to monitor other toxic and hazardous chemicals and materials.
- 5) The ultimate responsibility for misuse of registered pesticides rests with the user.

The Group discussed the question of Education and Information. In spite of efforts already being made by PCB personnel, there is still a lot of room for improvement. The following areas were identified:

- 1) The need for research on the assessment of information needs of the various target groups. Other than the public in general, these groups were specifically identified as Farmers, Housewives, Distributors and retailers and Schools.

- 2) The medium through which these target groups could be reached could include:
 - (1) The PCB and other agencies such as IICA, CARDI, CEHI, CARDATS
 - (2) Ministries of Government, especially Agriculture, Health, and Planning
 - (3) Farmer organizations
 - (4) Distributors of pesticides
 - (5) Literacy groups and community organizations
 - (6) Teacher students
 - (7) Public media (e.g. radio, television, newspaper)

Education and information should be an on-going process and should be multifaceted in approach, using, for example:

- 1) Illustrated booklets and leaflets
- 2) Face to face interaction
- 3) Language, including creole
- 4) Radio spots and radio programmes
- 5) Functional skills e.g. demonstrations
- 6) Seminars and workshops
- 7) Video presentations
- 8) Popular events and art forms
- 9) Community leadership

The objective of the education process would include, the enlightening of the perception and attitudes to chemicals and other toxic substances.

It would aim to enable users to identify and require the characteristics and status of toxic substances and thus facilitate proper use and handling of such substances, toxicity symptoms, and responses to emergencies.

Incorporated into such a theme would be appropriate use of equipment and protective gear, and Integrated Pest Management.

GROUP 3 DISPOSAL OF PESTICIDES

Rapporteur: A Dolcy

1. General guidelines
The guidelines recommended are to incorporate all forms of hazardous materials, including wastes and should not be confined to pesticides.
2. Spillage
All agencies requiring registration for the importation and/or storage should by law have provisions and facilities in place for dealing with such spillages in the event that emergency action is required.
3. Disposal
The site selected for disposal should be such that there is minimum impact on the environment. The assistance of experts in the field of hazardous material management and disposal should be sought in laying guidelines for the selection of disposal site. Transportation of materials to the site and management of site.
4. Transportation for Disposal
An application (standard form) for transportation and disposal of any hazardous materials or waste should be made to the PCB. The transportation of the hazardous material between two areas should be in strict accordance with guidelines and procedures laid down by the PCB.
5. Materials for Disposal
All materials for disposal should be at the designated waste disposal site in a manner approved by the PCB or the management team.
6. Information
The general public should be informed of potentially hazardous materials, their use and handling and methods of disposal of these and their containers. Legislation should be put in place to ensure that such products are adequately disposed of.

The suppliers of hazardous products should be responsible for informing the public. At least once a year a publicity campaign would be required.

7. **Storage for Disposal**

All agencies with hazardous materials for disposal are required to set aside on their compound a suitable area where such materials can be temporarily stored.

8. **Monitoring**

There should be continuous monitoring of the catchment area (soil, water courses and air) of the disposal site with a view to ensure that pollution is within tolerable limits.

9. **Responsibility**

The management of the disposal site is to be the responsibility of the Public Health Department.

GROUP 4 LABELLING AND DISTRIBUTION OF PESTICIDES

Rapporteur: T Theobalds

1. LABELLING

The group felt that the recommendations expressed in the regulations were quite explicit but that there was need for elaboration on the following:

- 1.1 It was felt that, even though a decision had been taken to go metric, farmers better understood simple measurements, such as "tsp per gallon". It was recommended that the manufacturers should be asked to place both on the label.

The distributors could perhaps assist by placing the instructions on the containers in instances where the manufacturers could not be bothered. It was felt that to accommodate persons who could not read and write, the pictorial charts could be placed in prominent points in warehouses and other distribution depots.

The group felt that the labelling should be in the language of the country as there were instances of labelling in Spanish.

- 1.2 On the question of efficacy, it was felt that there was need for coordination between the dealer and the extension staff. It should be tied up in an education process which would indicate which pesticides are compatible.

The point was also raised that there may arise a situation where unscrupulous distributors may advise the use of higher dosage rates than recommended in an effort to sell additional quantities of the product.

It was felt also that the suppliers should be forced to use the international colour codes which indicates the toxicity of a compound.

- 1.3 On the question of safety standards related to labelling it was highlighted that there was a need to sometimes repackage certain pesticides. This to a certain extent constituted a form of manufacturing and it was felt that every effort should be made to make available suitable forms of plastics which are durable enough. It was felt to safeguard users every effort should be made to secure proper packaging materials. This would also assist in safer transportation.

2. DISTRIBUTION

- 2.1 This was felt to be intertwined with the labelling aspect. The group felt that every effort should be made to further educate farmers that they should not mix pesticides with foodstuffs. It was noted that it was a regular practice for growers to transport farm inputs and other supplies on the vans.

It was felt that at the present time there was a great drive towards diversification and this would call for greater emphasis on adhering to the rules regarding the purchase of restricted pesticides. It was felt that there was need then for greater monitoring to ascertain whether the chemicals were in fact being used in these areas for which they had been sold. This highlights the need for inspection.

- 2.2 It was pointed out that many of the manufacturers did not like to repack into smaller quantities because of cost of containers. It was therefore necessary for persons involved in the agro-chemical business to get together to agree on repackaging sizes and other related operations.
- 2.3 On the question of repackaging it was pointed out that many retailers have been forced to use bottles which are from the food industry. It was therefore recommended that bottles should be specialised and someone should be encouraged to go into the business of supplying special bottles for the agro-chemical industry.
- 2.4 One observer felt that the Planning Unit should prepare a prototype of an acceptable type of building to house pesticides.

3. MANUFACTURING

It was the group's view that given the island's small size it was pointless venturing into the area of manufacturing particularly in view of the environmental effects and the requirement for disposal.

4. RECOMMENDATIONS

- 4.1 The need for proper labelling particularly as it relates to measurements which the farmer can relate to e.g. the identification of measurements in tsp per gallon as opposed to ml per litre.

- 4.2 The need for large posters to assist the farmer education process. These should be located in suitable locations eg. warehouses.
- 4.3 The need to put in place trained inspectors to monitor the movement, labelling, storage and distribution of particularly toxic chemicals.
- 4.4 The need to broaden the authority of the PCB particularly as it relates to industrial chemicals and household pest control operations.
- 4.5 The need to scrutinize and censor all mass media advertisements relating to pesticides.
- 4.6 The need to standardize pesticide containers to avoid the indiscriminate use of beverage bottles by some distributors.
- 4.7 The need to ensure that all importers make available to the Ministry of Health reasonable quantity of antidote before the pesticide is registered.
- 4.8 The need for all manufacturers of pesticides to deal with or go through local distributors who are easily available.
- 4.9 The need to ensure that the colour symbols are adhered to. This should be the responsibility of the manufacturers.
- 4.10 The need for all persons and/or organisations and farmer associations to come together to assist the PCB in the promotion and safe and sensible use of pesticides.
- 4.11 The Pesticides Dealers Association would also assist public awareness and understanding, act as a liaison agency and also place the Association's views before other sections of industry, related research bodies and other forum. This body could seek representation from GIFAP and use some of their material.



PLENARY SESSION

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1. Group 1 (Registration of Pesticides)

Rapporteur: Gregor Williams

This group discussed the procedure for registration of pesticides and the following observations were made.

- 1) That all importers of pesticides be registered with the PCB.
- 2) There should be no retailing of pesticides by any person who is not registered with the PCB.
- 3) The PCB should appoint inspectors who would monitor and identify persons who import and retail pesticides that are not approved by the PCB.
- 4) The group thought that all pesticides sold should have the antidote available and where possible, either the importers or the Ministry of Health should import these antidotes.
- 5) There should be restrictions in the Regulations (Registration and Licensing) under Section No. 6 Subsection 3.
- 6) The PCB should work closely with the Ministry of Health, so that pesticides registered will have antidotes available at the medical centres.

2. Group 2 (Pesticide Use)

Rapporteur: Lucius Alexander

This group discussed the proper use of pesticides and the following observations were made.

- 1) The group felt wherever possible emphasis should be placed on Integrated Pest Management. This is particularly important along the water courses and catchments and in the forest reserves.
- 2) The group felt that all advertisements of pesticides, including domestic aerosol sprays, on the radio, in newspapers and on television must be approved by the PCB before they are released to the media. Also that children should not be allowed to apply pesticides to field crops and that pesticides which require a special applicator for their application, should not be permitted to be used without that applicator. Finally, regulations will have to be introduced to allow the PCB to monitor other toxic chemicals e.g. paints, industrial chemicals and similar products.

- 3) The group felt the PCB must have a continuing educational process with various targeted groups and must evaluate such workshops with those groups.

In addition the PCB must obtain assistance from a communications specialist in planning the above workshops, especially for the use of the Creole language.

Throughout such workshops and seminars the safety aspects of pesticides must be highlighted. The PCB should educate farm workers and other users of pesticides, that regular cholinesterase tests must be performed on such workers by the Ministry of Health, for the maintenance of their own health.

3. Group 3 (Disposal of Pesticides)

Rapporteur: Adrian Dolcy

This group discussed disposal of pesticides and the following observations were made:

- 1) That the PCB should obtain a pesticide and toxic chemical dump site.
- 2) The PCB must register all business places storing and selling pesticides.
- 3) The dump site selected must have minimum impact on the environment.
- 4) The PCB must obtain assistance whenever toxic materials are to be disposed of.
- 5) All materials to be disposed of must first be approved by the PCB.
- 6) The PCB must supervise the collection, transportation and disposal of such materials to the dump site.
- 7) All materials to be disposed by business places or farms must be stored in a safe area prior to disposal.
- 8) Such a dump site must be continuously monitored by all concerned for possible contamination to the environment.
- 9) The Ministry of Health should also assist the PCB in the management of such a disposal site.
- 10) The PCB must work closely with the Fire Service Department, in disposing of such pesticides and toxic materials.

4. Group 4 (Labelling and Distribution of Pesticides)

Rapporteur: Tedburt Theobalds

This group discussed labelling and distribution of pesticides. The following observations were made.

- 1) All labels on pesticides must be in the language of the country.
- 2) The dealers must work closely with the Ministry of Agriculture and other local Institutions in testing the efficacy of all pesticides that are registered and sold.
- 3) All labels on pesticides must include recommended rates as directed by the manufacturers and tests under local conditions.
- 4) The colour coding of pesticide labels must be implemented according to the Regulations.
- 5) Dealers and the PCB must educate users of pesticides of the danger of mixing pesticide containers and food items when transporting, storing, or using pesticides.
- 6) All repacking of pesticides into non-approved containers by dealers must be discontinued.
- 7) All restricted approved pesticides must be monitored by the PCB.
- 8) The PCB must not approve any license to manufacture pesticides in St Lucia, in order to protect the environment and inhabitants.
- 9) The PCB needs more trained inspectors to efficiently monitor storing, labelling, distribution and sale of pesticides.
- 10) All pesticides concerns (ie dealers, groups, environmental bodies, manufacturers, etc) should assist the PCB in the promotion and use of pesticides.
- 11) The PCB should work closely with the Labour Department and the Occupational Health and Safety Act, to ensure that employers provide safety equipment to staff who deal with pesticides. Also that such persons have regular medical examinations for the health safety of such individuals.

