

THE BANANA BOARD
(Established 1st October, 1953)

10 SOUTH AVENUE
KINGSTON GARDENS
KINGSTON 4
JAMAICA W.I.

THE BANANA BOARD has the honour to
Submit its report and accounts for 2009

DIRECTORS AND OFFICERS (PERIOD JANUARY 1 TO DECEMBER 31, 2009)

Directors:

Donovan Stanberry - Chairman (interim)
Hon. A.A. Pottinger - Director
Dr. Cecil Goodridge - Director
Mr. Egbert Miller - Director

Officers:

Mr. L. Drysdale - Chief Accountant
Mrs. Janet Conie - Project Research Manager
Miss C. Parchment - Secretary

Business services to the Board were provided by the following institutions during the year 2009:

Bankers:

Scotia Bank	RBBT
Scotiabank Center	Tropical Plaza
Duke Street	Constant Spring Road
Kingston	Kingston 10

Auditor:

KPMG Peat Marwick
Victoria Mutual Building
6 Duke Street
Kingston

Actuary:

Coke & Associates
60 Lady Musgrave Road
Kingston 10

THE BANANA BOARD

Background

2009 was characterized as a year of major changes for the Jamaica Banana Industry and the Banana Board. The industry adapted to a change in focus from primary production for a traditional export banana market to largely domestic market with expanded value chain for both the banana and plantain sub-sectors. The Banana Industry had ceased to operate in the export market since August, 2008. The Industry had been faced with many challenges including five major storms in five years. With this suspension, banana farmers, especially those in the traditional banana parishes such as Portland, St. Mary, St. James and St. Thomas, focused solely on the domestic market. However, many continued to show an interest in growing bananas for export and had maintained their operations up to standard in compliance with export demands to target high-end retail and hotel markets.

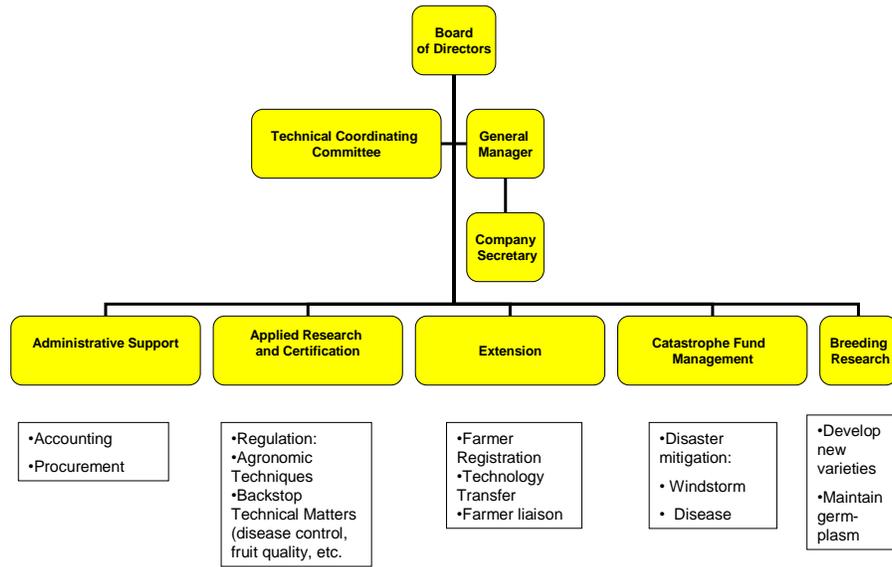
The Banana Board was successfully streamlined to facilitate this expanded and sophisticated domestic trade, with strengthening of its management and re-investment of the Research and Development Department. Support was provided to agri-businesses in the banana and plantain subsector to complement the high technology services to primary producers; certification of farms and ripening enterprises; pioneering in data collection for the domestic market for the Data Bank and general liaison with the Ministry of Agriculture and Fisheries, All Island Banana Growers Association (AIBGA) and other stakeholders in the industry. Backstopping was also given to consultants contracted by the Ministry of Agriculture & Fisheries (MOAF) to determine the needs of the industry in the new paradigm.

From October 1998 to April 2009 the technical unit (Research and Development Department) was seconded and operated in the Banana Export Company (BECO). After several years without a General Manager, and the recent demise of traditional exports, closure of the Banana Export Company Ltd. (BECO) and the severe under-capitalization of the All Island Banana Growers Assocn. (AIBGA), the Government of Jamaica (GOJ) made the prudent decision to re-invest in a general manager and in the highly specialized technical team to be relocated from BECO.

In April 2009 the Banana Board implemented an interim organizational structure (Figure 1) to facilitate the new strategy until a national policy on the sub-sector could be finalized and issued by Government. This structure included the establishment of a Technical Coordinating Committee and Administrative Support in addition to Catastrophe Fund Management.

This interim structure and its operations were supported jointly by a subvention of JMD 42,413,000 in the Banana Board for the 2009-2010 fiscal period from the Government of Jamaica and a Technical Services Contract from the European Union Banana Programme (EUBSP) of Euro 317,910.

Figure 1. Banana Board Interim Organizational Chart 2009-2010



The strategic intervention prevented significant attrition, including that of the only existing technical team with specialized training in banana production and disease and pest management technologies. It also facilitated the continued management of the Banana Breeding Station and the multiplication of disease resistant varieties; management of the all-inclusive Catastrophe Fund and the inoperative Banana Industry Insurance Fund.

Bananas and plantain remain important sources of farm income in Jamaica, and particularly in the parishes of St. Mary, Portland and St. James, which qualified the Banana Board for competitiveness support from the European Union Special Framework of Assistance to traditional producers of banana. This grant by direct award was approved and financed under SFA 2007. The new strategy and mandate of the Banana Board is aligned to the age-old objectives of the Banana Board.

The Banana Board was established under the Banana Board Act of 1953 and its affairs are closely intertwined with those of the Banana Insurance Act of 1946. The Banana Board is a statutory body and is governed by a Board of Directors, which is comprised by five members, all of whom are appointed by the Minister of Agriculture.

The current vision of the Banana Board embodies that of the Ministry of Agriculture and Fisheries (MOAF) and the stakeholders of the banana and plantain industry, as reiterated in the draft National Banana Policy. In 2030 the industry’s vision is for:

A vibrant industry dominated by internationally certified farms; effective market penetration and development; and supported by an enabling policy framework which results in sustained product competitiveness; financially viable farms and the socio-economic wellbeing of communities.

The Banana Board is mandated to implement the National Banana Policy of the MOAF and therefore has embarked on the mission:

To be the premier facilitator of the enabling policies of the Ministry of Agriculture and Fisheries; coordinator and advisor to the Minister of Agriculture and Fisheries for the industry; provider of disaster management, production and applied research services, and organizational support for a vibrant industry of commercially viable, competitive and diversified banana and plantain farmers, producing at international standards to adequately supply diversified markets and ultimately to be effectively responsive to the needs of the farming clientele.

The statutory functions of the Banana Board are as follows:

1. Keep the Government of Jamaica (GOJ) informed on the status of the industry and advise the government when any action is necessary;
2. Promote the interest and efficiency of the banana industry and to assist in the development of the industry;
3. Institute, conduct, finance, assist and superintend research activities, experiment and operations for:
 - o improvement in the methods of planting and cultivations of bananas
 - o the control and elimination of any disease affecting bananas
 - o the development of bananas wholly and partially immune to disease
4. Administer the Banana Insurance Fund

Performance

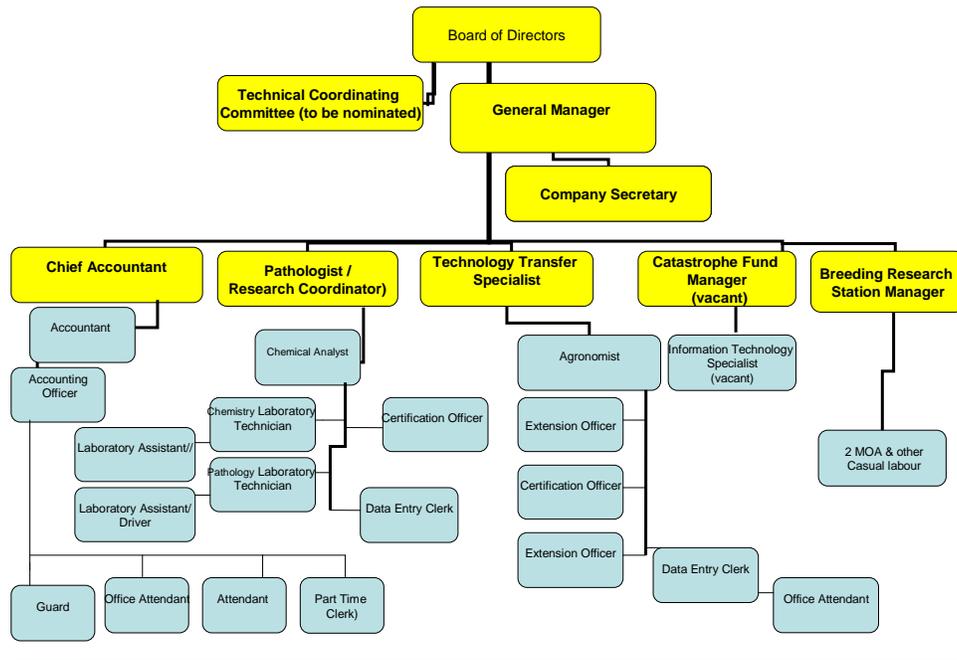
The Banana Board improved its performance over 2008 and achieved all of the 2009 pre-set targets in financial, human resource, general administration, technical, operational and property management.

Human Resources

The General Manager and scientific professionals were contracted in April 2009. In the Banana Board, the Company Secretary and Farm Manager were employed part-time instead of full-time. The scientific professionals were contracted in the Research and Extension Departments. Employment in the Banana Industry Insurance Fund had discontinued as the Fund no longer earned income from export cess. Management of the head office property continued under the Banana Industry Insurance Fund (BIIF). The only BIIF employees, a full-time Chief Accountant and part-time Accounting Clerk were transferred and operated as employees of the Banana Board. The proposed post of Catastrophe Fund Manager remained vacant as the size of the fund did not permit.

Placement of the interim human resource team in the Banana Board is displayed in Figure 2. To implement the new strategy, the staff complement was increased from 16 to 32 (including ancillary and daily workers).

Figure 2. Banana Board Interim Staff - Organizational Chart 2009-2010



Production

The Banana Board provided services to and registered 1124 commercial farmers supplying the domestic market. Commercial farmers are characterized as having holdings of 0.4 hectares and more. This register was delivered as a specific target in 2009. There is an additional 300 farmers with holdings of 0.08 to 0.39 hectares, who are also serviced by the Banana Board. The 2009 Statistical Institute of Jamaica Report indicated that more than 200,000 farmers and house-holders grew bananas and plantains of unspecified amounts.

Production yield data for the domestic market was collected from 500 commercial farms for the first time in Jamaica by the Banana Board. In October 2009, Rural Agricultural Development Authority (RADA) data was collected from non-commercial farmers. The pooled data submitted to the MOAF Data Bank is illustrated in Table 1.

The MOAF extrapolated that Jamaica produced **69,955** tonnes of bananas and plantains in 2009, of which 142,294 Kg were exported as fresh fruits and as chips Table 2.

There were a total of 27 processors of the primary products in 2009. There were 15 ripeners of bananas and plantains and 14 chips manufacturers (two of these agri-businesses were manufacturers of both chips and producers of ripe fruits).

Table 1. Quarterly Banana Production (Tonnes) Generated From Data Bank after Analysis

Agency Submitted	October – December 2009	January – March 2010	Total Banana Production
RADA	11,674	8,900	20,574
Banana Board	5,207	9,006	14,213
Total	16,881	17,906	34,787

Data Bank, MOAF, 2009 -2010

Table 2. Total Production and Export of Banana and Plantain in 2009.

Product	Total Production	Exports
Banana	45,334 t	2,566 kg
Plantain	24,621 t	5,843 kg
Chips	ND	133,885 kg

ND: no data found in MOAF or Statistical Institute of Jamaica (STATIN)

The Market Study to be launched in 2010 by the MOAF is expected to quantify the value of the domestic market in both fresh and processed fruit. The value of the exports to various countries in 2009 amounted to US\$16,891 (Table 3). This reflected a 52% reduction from US\$35,112 in 2008 as a result of Tropical Storm Gustav, which thwarted the recovery of the industry from Hurricane Dean’s devastation a year earlier.

Table 3. Banana and Plantain Export Values in 2009.

COUNTRIES	Plantain \$ US	Banana \$ US
Canada	106	\$3,788.00
United States of America	10,027	\$1,644.00
United Kingdom	471	31.00
Netherlands Antilles	0	52.00
Netherlands	0	8.00
Turks and Caicos	664	0
TOTAL	11,268	\$5,523.00

National Banana Policy

Early in 2009, a draft National Banana Policy was developed by the Ministry of Agriculture & Fisheries in consultation with all stakeholders of the banana industry. The proposed Policy was submitted to Cabinet for approval. In June 2009, Cabinet proposed that the policy should be developed into a Green Paper but must be informed by more current data. Hence a market study was proposed to inform the policy and to address strengthening needs of the Banana Board. The study to be commissioned by RADA / EUBSP was not accomplished in 2009. In the interim, Cabinet endorsed the implementation of the Board's lead role in the provision of services and facilitation of trade and certification standards in the industry.

Technical Services to Banana Farmers

The Banana Board's Applied Research and Extension Departments provided technical services to the banana and plantain farmers and value-added entrepreneurs under the service contract with the European Union Banana Support Programme (EUBSP). This contract was signed by the Banana Board and the Planning Institute of Jamaica and was on-going to June, 2010. The execution of the work programme resulted in the achievement of the following, by December 31, 2009:

- | | |
|----------|---|
| Result 1 | Database of commercial banana and plantain farmers in banana producing parishes established in collaborating with RADA and the Ministry of Agriculture & Fisheries. |
| Result 2 | Monthly production and productivity estimate reports for the banana and plantain industry provided |
| Result 3 | Protocols provided for major diseases, pests, agronomic and total quality management (TQM) systems and other emerging technical related problems affecting the banana and plantain industry |
| Result 4 | Technical and related services related to the implementation of the above designated TQM standards provided to commercial banana and plantain farmers |
| Result 5 | Moko Disease Control programme in banana growing parishes with emphasis on the parish of St James implemented |

. The following specific deliverables were achieved in 2009:

- Geo-referenced data for banana and plantain farms and report of the survey of banana producing districts.
- Production and productivity data on the banana and plantain industry.
- Updated list of authorized pesticides for GlobalGAP and defined production standards.
- Documented research protocols (agreed methods for doing the required research) and progress reports on the introduction of those protocols and the findings.

The main activities implemented included the following:

1. **Improving Banana Database**

1.1 Support the work of the EUBSP Geographic Information System/ Global Positioning System GIS/GPS Consultant who reviewed the current database systems of the MOAF and RADA

- GPS/GIS data for 1134 growers were reviewed for verification by the Consultant –
- Prepared and distributed notification letters to affected farmers.
- Held seven meetings with consultant to determine work programme, assign resources, review findings and reports.
- Disputed data for growers was verified by the Consultant –
- Reviewed findings in Consultant's draft report: each farm's calculated size was quality checked.
- Received and approved the final report.
- The geo-referenced farm sizes used to calculate 3rd tranche material allocation for the farm beneficiaries among the 723 in the Hurricane Dean Resuscitation programme.
- The Database was updated with new information for the farms.

1.2 Collaborated with RADA and MoAF Databank and Evaluation Unit in the establishment of an up-to-date comprehensive on-going production database for commercial banana and plantain farmers in Jamaica.

- GPS/GIS data was collected for information update of registered banana and plantain growers.
- Data was collected for previously unregistered farms to be added to the database.
- Convened two meetings with RADA ABIS and MOAF Data Bank Divisions
- A Memorandum of Understanding was agreed among the parties for specific contributions to the on-going gathering, collation, quality control and distribution of data and information.

1.3 Conducted, prepared and submitted a report of a survey of banana and plantain farms in major producing districts to update database of commercial banana and plantain farmers

1.4 Collaborated with RADA in the registration of banana and plantain farmers in RADA/MoAF's ABIS system with appropriate geo- references.

Over 30 previously unregistered banana and plantain farmers were registered and data for 68 others needed to be revised in RADA ABIS in 2009.

2. **Collection of Domestic Production Data**

- Collaborated with RADA and MoAF in the collection of monthly production and productivity data for the banana and plantain industry, conducted the requisite analyses and presented reports within agreed timelines.
- Six consultation meetings were held with representatives of the MOAF Data Bank and RADA.
- An MOU was drafted, circulated to parties, submitted for legal review and signed by heads of the entities in partnership.

- Monthly production data for registered commercial banana growers in St. Mary, Portland, St. James, St. Catherine and St. Thomas were submitted to the data bank for April to December.

3. Carried out research and development processes and disease control mechanisms to effectively control pests and diseases that affect the bananas and plantains.

All planned activities for the period were achieved and documented in *Report on Activities of Research Department (Banana Board) 2009*.

3.1 Provided requisite testing and advisory services to ensure food and environmental safety:

- The Procedures Manual for Chemical Analytical Laboratory (July 2009) The Banana Board, was completed.
- Collected 120 leaf and soil samples for nutrient analyses from 42 farms.
- Carried out 1420 inorganic nutrient analyses.
- Sixty advisory reports were prepared.

3.2 Monitored and enhanced production and operational processing systems to ensure that products and processes recommended by the Research Department and the PCA are in keeping with international standards.

- The Banana Board Document Register and Quality Management System Manual: for Commercial Banana Production, July 2009 was completed.
- Three hundred and sixty-two farmers were trained in pesticide handling during the period.
- The list of authorized pesticide was prepared and circulated.
- Monitored implementation on 362 farms for international standards (31) and domestic standards (331).

3.3 Successfully monitored resistance of black Sigatoka disease (*Mycosphaerella fijiensis*) to systemic fungicides for prevention of increased chemical applications, production costs and environmental pollution.

- The Protocol for Fungicide Sensitivity Monitoring (FSM) for black Sigatoka in Jamaica was completed.
- Collected and tested 60 samples.
- The chemical strategies to pre-empt disease resistance and mitigate the onset were designed.
- Of the 60 farms sampled, two (4%) showed the disease increased tolerance to propiconazole (Tilt) and one (2%) to thiophanate methyl (Topsin). The appropriate strategy was recommended. Target 50% achieved.

3.4 Monitored black Sigatoka Disease Intensity and control on commercial farms.

- Protocol to Monitor Sigatoka Disease Levels on Commercial Farms was documented.
- Selected 20 farms to be monitored as on-going reference locations and labeled sites.
- Collected black Sigatoka data from 20 reference farms.
- Collated and analysed information.

- Results showed that the national average values for youngest leaf spotted (YLS) and Cronshaw were 5.6 and 208 respectively, indicating high disease intensity. (Acceptable threshold levels of YLS re 8 leaves or greater and the Cronshaw value must be lower than 20. The strategy for control was designed and communicated to farmers.

3.5 Efficacy trial was conducted of natural product and biological alternatives to conventional pesticides, for the control of Black Sigatoka and other pests. Protocols were designed and utilized to conduct applied research of major disease/ pest or other technical issues affecting the banana and plantain industry.

- Two protocols were designed to address major disease and pest management issues affecting the banana and plantain industry. These protocols included:
 - i. Efficacy Trial of Natural Product Alternatives to Conventional Pesticides in the Control of Black Sigatoka.
 - ii. Banana Borer Weevil Control On Commercial Farms Using Pheromone Traps.
- A commercial trial using protocol (i) was established in June 2009 and the utilization of protocol (ii) on farms had increased.

3.6 Training workshops were conducted.

Three workshops were scheduled. Seven were achieved and 92 clients trained to manage Sigatoka disease on the farms.

3.7 Prepared quarterly reports on the implementation of the new and updated protocols

4. Improving the Extension service

4.1 Conducted a survey of banana and plantain producing districts with the objective of collecting relevant data for the development of an appropriate technology transfer programme

- The results of the survey informed the design of the extension programme that was being implemented.
- Ten farmer groups were targeted for strengthening and seven were impacted in 2009. Monthly meetings were scheduled and facilitated for seven of the 10 groups.
- 23 group trainings were scheduled and achieved.
- 51 group meetings were scheduled and achieved.
- 30 field days and demonstrations were scheduled and achieved.
- 1320 farm visits were scheduled and achieved to date.

4.2 Developed a comprehensive extension programme using appropriate extension methodology based on the survey conducted.

- A report, *The Jamaican Banana Industry Extension Services: A Proposal for Improvement*, was

produced.

4.3 Implemented and managed a comprehensive extension programme in a manner that ensured transparency and effective technology transfer to build the capacity of the industry's stakeholders.

- Document registers, records of issue and visits were maintained.
- Signed attendance registers of all facilitations, facilitators and participants were maintained.
- Implemented Banana Industry Catastrophe Fund and registered 307 farms (42% of farmers and 70% area registered area for commercial production). Participation prior was zero.
- Monthly reports were prepared and submitted by all officers.

4.4 The Extension Department provided technical assistance for the Hurricane Dean Resuscitation programme.

- Reports of farms not utilizing grant materials and those discontinued as beneficiaries were prepared and submitted to RADA EUBSP in August 2009.
- Total 156 growers were removed from the third tranche list of beneficiaries and therefore received no allocation.
 - i. Of this 106 (68%) were removed because they were below farm size limit when GPS/GIS mapped.
 - ii. 31% for field being abandoned.
 - iii. Only 6% of farms were removed due to fields being in ruinate or could not account for the materials received.
- For the 3rd tranche, 723 growers were verified and approved to receive Oil, Tilt, Triton, Manzate, Muriate of Potash and NPK.
- Allocations for each farmer were calculated and submitted for each distribution centre.
- .Notification letters for growers were prepared and delivered to distribution centres in week ending September 19, 2009.
- Monitored the two distribution centres for delivery of materials.
- Provided technical training for the use of products.

5. Moko Disease Control Programme

5.1 Developed and documented a comprehensive control programme for Moko disease in Jamaica.

The document, *Moko Disease Control in Jamaica*, was drafted.

5.2 Implemented comprehensive Moko control programme in consultation with all stakeholders including the legislators.

- Seven groups of stakeholder were engaged in discussions and workshop during the latter quarter (Quarantine Division, RADA, MOAF R&D, EC, AIBGA, SRC, IICA and farmers).
- Two of four focus groups and facilitation sessions were held to review the draft document for implementation of the programme.
- An MOU among the stakeholders was drafted to detail the specific responsibilities of all stakeholders as the disease required social as well as technical interventions to achieve an

acceptable control.

- Monitoring of farms was on-going for disease.
- Three of 10 farms were diagnosed positive by laboratory tests and treatment carried out for Moko disease elimination in 1800 mats in St. James.
- 379 stakeholders were trained in Moko disease control.
- The comprehensive control programme to include localized surveys will be continued in 2010.

5.3 Trained selected RADA & MoAF research staff, farmers and farm workers in the Moko Disease management protocol.

Banana Industry Catastrophe Fund

The Banana Industry Catastrophe Fund which had been established with a grant of JA\$30 million from the European Union Banana Support Programme (EUBSP) and a further JA\$9 million contribution from farmers under the hurricane Dean material programme had been growing steadily with contribution by way of registration fees from banana and plantain growers. During the year 307 farmers were registered with the Fund by paying fees of J\$1250 per hectare, which amounted to \$1,137,664. At the end of 2009 the Fund stood at J\$50.784M.

Banana Breeding Research Station

Maintenance of the banana germplasm collection and establishment of banana and plantain nurseries continued to be the main activities of the Banana Breeding Research Station at Bodles, Old Harbour. This project is supported by the Government of Jamaica. The objective is not only to develop improved banana and plantain varieties suitable for the local and export trade but also to establish nurseries for the supply of suckers to banana farmers, at a cost.

Remuneration

The remuneration paid to Directors and Senior Executives of the Board for the year 2009 is as shown on Appendices 1 and 2 respectively.

Financial Statements

Audited Financial Statements for the Banana Board and the Banana Insurance Fund for year ended 31st December, 2009 are attached.

The statements show a balance sheet of total liabilities and reserves of JMD 73,473,000 compared to JMD 50,079,000 in 2008. The statement of comprehensive income shows a surplus of JMD 10,000,000 in 2009 compared to a deficit of JMD 3,204,000 in 2008. Total income in 2009 amounted to JMD 54,989,000 compared to JMD 8,453,000 in 2008. This improvement in performance was directly attributed to reinvestment and competent professionals with the ability to write proposals, manage international projects and achieve targets, while providing quality service for national development and critical industry

performance.

Acknowledgement

The Board wishes to acknowledge the co-operation and assistance of the Minister of Agriculture, the Minister of State and Officials of that Ministry during the year.

Gratitude is extended to the EU Banana Support Programme, the All Island Banana Growers Association, the Jamaica Producers Group, the Scientific Research Council and other local Agencies for their support during the year, and solicited their continued co-operation.

The Board also wishes to pay tribute to the banana farmers and to the staff for their support during 2009.

Chairman (Interim)