



Guyana Rice Development Board

Annual Report

2014

Rice, Our Life, Our History

Vision Statement

“An integrated, sustainable and profitable industry producing and marketing rice for the benefit of all Guyanese.”

Mission Statement

“To efficiently utilize the resources of Guyana to produce and market high quality rice and rice by-products, including value-added products, for local and international markets, while providing employment and foreign exchange earnings.”

THE FUNCTIONS OF THE GUYANA RICE DEVELOPMENT BOARD

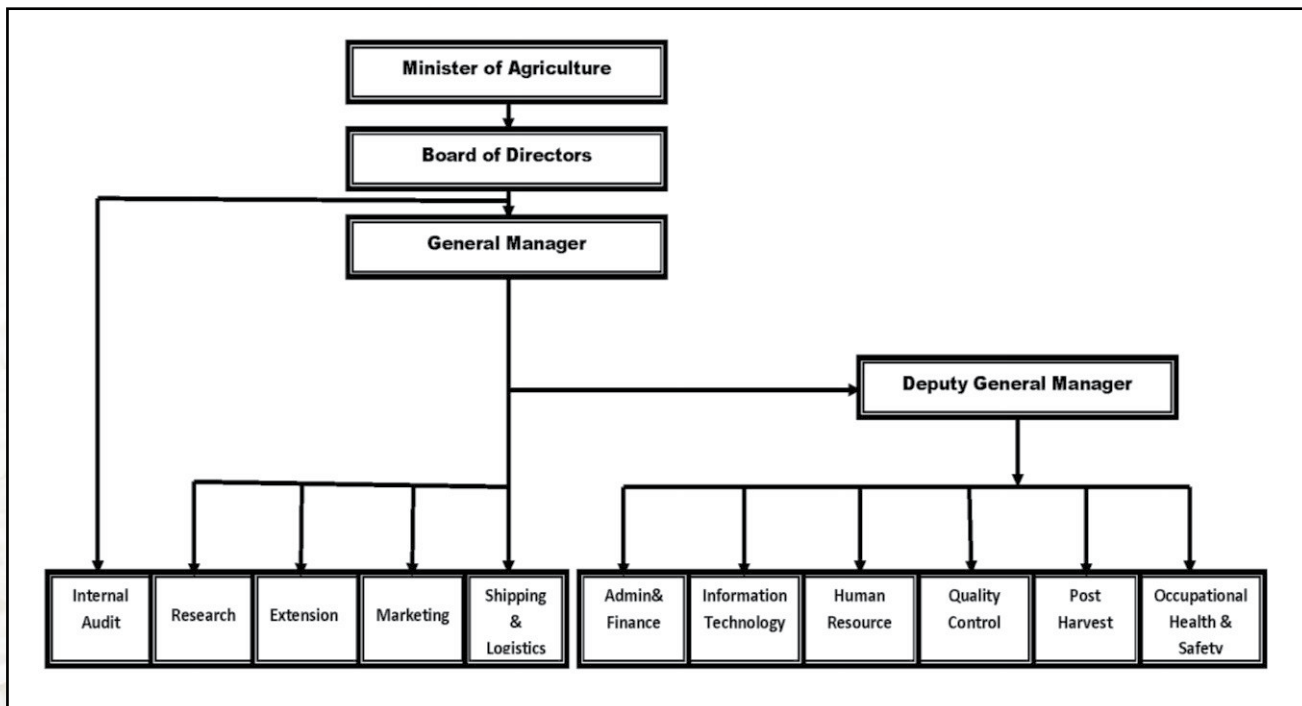
Introduction

The Guyana Rice Development Board (Board/GRDB) was established by Act Number 15 of 1994, and as provided for under Section 3 (iii), the management, powers and functions of the Board are overseen by a General Manager, a Chairman and the Board of Directors.

By virtue of Section 4 of the Act, the Board of Directors shall comprise of no more than thirteen members, with three (3) members representing the Guyana Rice Producers Association (GRPA), two (2) members representing Guyana Rice Exporters and Millers Association (GREMA), and one (1) member representing consumers.

Organizational Structure

The structure of the Board is as follows:



Administration

The Administration Department is responsible for the day-to-day activities of the Board, which include dealing with legal matters and the issuance of licences to producers and exporters.

The staff is comprised of the General Manager, the Deputy General Manager, an Occupational Health and Safety Officer, an Administrative Co-ordinator, two (2) Confidential Secretaries, two (2) Procurement Officers, a Project Assistant/Clerk, an Office Assistant, two Office Attendants and two Drivers.

Research Department

This component of the Board's activities forms an integral part of its operations. Based at the Rice Research Station (RRS), this unit is where new varieties are developed to enable farmers' access to plants that are more conducive to providing a better quality and higher volume of grain, as well as greater resistance to pests, diseases and weather fluctuations. Research at the Station is done in the Plant Breeding, Entomology, Agronomy and Plant Pathology departments. The Research section of the RRS is headed by a Chief Scientist, who oversees the operations of the Station, with support from Research Scientists, Research Assistants, Research Technicians and Labourers.

Extension Department

The Extension Department facilitates the transfer of technology from the Research Station to the farmer. Extension Officers are based in all regions and regularly meet with farmers, thus, this component of the Board serves as an advisory body to assist the farmers in the acquisition of inputs, and retooling with new available technology. Additionally, it disseminates pertinent data to stakeholders countrywide, that could lead to improved and more productive husbandry practices.

Quality Control Department

The Quality Control Department is responsible for ensuring that the quality of rice produced and/or sold by rice millers and exporters meet the requisite specifications. It is headed by a Quality Control Manager, who is supported by Regional Supervisors, Grading Officers, Technical Assistants in all the rice growing regions, Research Assistants and a Confidential Secretary. These Officers are tasked with ensuring that rice leaving Guyana is of the prescribed quality as per contract requirements and international standards.

Post Harvest Department

This department comprises of a Post Harvest Researcher who conducts research in two areas: post-harvest processes associated with rice production and manufacturing initiative with value-added products that can be made from rice and its by-products.

Export and Trade Facilitation

Comprising of a Marketing Assistant, a Research Assistant, a Customs Clerk, a Marketing Clerk, a Typist/Clerk and a Confidential Secretary, this department is solely responsible for the preparation of all relevant documentation, for the exportation of rice and rice products from Guyana.

Shipping and Logistics Unit

The Shipping and Logistics Unit's main objective is to aid in the facilitation of commodity trade between Guyana and Venezuela through Perto-Caribe arrangements. During 2014 the department also coordinated with two companies in Panama for the supply of white rice to the Government of Panama.

Information Technology

The Information Technology Department is responsible for managing and maintaining all technological and communications devices at all of the Board's locations; maintaining the network and internet equipment, servers, printers; installing and keeping abreast with new software and custom applications. This department consists of an IT Officer and an IT Technician.

Human Resource Department

The staff composition of this department includes the Human Resource Officer, a Human Resource Assistant and a Data Entry Clerk, who are responsible for the welfare of all employees (training, etc) and also for the recruiting of suitable applicants for employment.

Finance Department

This department manages the financial aspect of the Board and comprises the following staff:- the Accountant, two (2) Assistant Accountants, a Senior Accounts Clerk, two (2) Junior Accounts Clerks, a Data Entry Clerk, a Cashier and a Secretary.

Internal Audit

To maintain the requisite operational procedures and ensure that prescribed standards are upheld, this department has an Internal Auditor, who audits the daily transactions of the Board.

All departments of the Board work together in adjunctive and collaborative endeavours, and so complement each other in facilitation and operational initiatives to achieve the mission and vision of the Organization.

CHAIRMAN'S STATEMENT

The following are some of the highlights for the year 2014 and some of the main activities of the departments:

Production: Nine hundred and seventy seven, two hundred and eighty nine (977,289) mt of paddy, equivalent to 635,238 mt of rice were produced in 2014, which was more than 100,000 mt above the previous year. The GRDB has contributed significantly to the improvement of the rice industry over the years.

Marketing: With rapid increase in production, it has become more demanding to find markets for the large volume of rice being produced year after year. The Board has moved beyond the traditional Caricom and European markets and is exploring the Latin American, West African and Middle East markets.

Research: The Research Department continued to research and develop new high yielding varieties for the rice sector, contributing to the high yields farmers are enjoying, with direct benefit in lowering the unit cost of production and increasing profitability. This has encouraged farmers to increase their acreage and put more land under rice.

After years of research, an aromatic rice variety was successfully developed from nursery level through to commercial scale. The aromatic rice will be branded and sold as a premium rice variety.

During the year the Paddy Bug Management Unit consolidated its work of conducting a comprehensive scientific study of the paddy bug in the Guyana rice industry, with the objective to eradicate this pest which greatly affects rice production.

Quality Control: This is an integral part of the operation of the Board in an industry that is export oriented. The Quality Control Department ensures that all rice destined for export meets international standards, by monitoring rice mills across the industry for compliance to quality standards.

Extension Services: This Department plays a crucial role in the transfer of know-how, best practices and technology to rice farmers, and in data & information collection in the fields to serve the needs of the rice farmers in a timely manner.

Energy Conservation & Management: The Energy Resources Institute of India, TERI, working in collaboration with the GRDB, has developed a Manual on Energy Conservation and Management in Guyana Rice Mills. Fifteen mills have been selected for work to be done on energy conservation. TERI has also begun working with a rice miller to acquire and install a Gasifier that will be fired by paddy husk. When installed and operable, this biomass technology will reduce diesel consumption by 75%. More rice millers will be encouraged to adopt this “green energy strategy”.

Training & Development: Over the years employees at the Board have been sent on academic training at universities both locally and overseas, ranging from diploma to PhD levels. The Board will continue to invest in human resources development and continuously improve its cadre of personnel to discharge their responsibilities in a professional manner, to face up to the challenges of developing and sustaining a viable rice industry.

BADRIE PERSAUD

GENERAL MANAGER'S STATEMENT

Guyana's rice industry has been progressing steadily despite challenges, including unusual weather patterns, the high cost of inputs and not so favourable market conditions, among others.

This positive trend in the industry is as a result of sound agricultural policies and programmes that target improvements in all facets of the industry. These include significant Government support in the following areas: tax concession for production, emphasis on drainage and irrigation, scientific research, marketing and farmers' education. Positive strides in the rice sector are part of the current government's steady focus on improving agriculture and the results are obvious, including the sound stewardship of the rice sector.

Rice cultivation has now spread from the coastal belt to Santa Fe and Moco Moco in Region 9. This is a most heartening development and dismisses the long held notion that rice could only be successfully cultivated on the coast. It is important too because it enhances food security in the hinterland and increases employment and commercial opportunities.

2014 was a successful year for the sector, with rice production at 635,238 mt; this is an increase by almost 100,000 mt from the previous year that recorded 535,555 mt. Marketing this increased production was a major challenge, but by the end of the year we had exported 501,208 mt, the highest export ever and more than 105,000 mt from the previous year. The Government and GRDB continue to maintain our traditional markets in Venezuela, CARICOM and the EU, but at the same time exploring new markets in Central America and Africa. This year we have seen increased sales in existing markets; we have also seen new markets, including in Panama, Nicaragua and Belize.

GRDB mandates to enhance the development of the industry in the following areas: Research, Technology Transfer, Marketing and Quality Control. In the area of research, the Burma Rice Research Station has released yet another high yielding disease resistant variety. This is the 14th variety released by GRDB since the Rice Research Station was returned to the Rice Sector. In addition to that, in 2014 we have had seventeen promising breeding lines that have been studied in multi location yield trials in Regions 2, 3, 5 and 6. With respect to technology transfer, GRDB has embarked in bridging the yield gap with the use of promote precision farming in rice, focusing on key agronomic practices by identifying key and critical periods for interventions in the adoption of the six points practice. This Practice targets the following areas: seed rates and treatment, fertilizer management, weed management, water management and pest and disease management.

Another area of notable mention is that GRDB is currently working with **CARICOM Regional Organization for Standards and Quality (CROSQ) as we move to ensure that the GRDB's Quality Control Laboratory at its Head Office is ISO 17025 Certified.** This will enhance our international recognition for the product we certify for exports. This is expected to conclude during the first quarter of 2015.

With the increased production, one area in which we have seen some development is the significant investment by the private sector in improving the drying and storage capacity at rice mills. This major “bottle neck” at most of the rice mills in relation to the purchasing of farmers’ paddy was the inadequacy at most rice mills in meeting with the increased production. The Private Sector has taken up this challenge and we have seen some reduction of the delay due to this.

During 2014 we have seen work in an area that can result in the industry making significant savings and improving its competitiveness. The Government of Guyana and The Energy and Resources Institute (TERI) commenced work in 2014 to assist rice millers in their energy conservation and management. A Best Practice Manual – Energy Management and Conservation for Rice Mills in Guyana – was developed and TERI continues to work with individual millers to effect these changes. This would assist practising engineers, management, private sector companies and suppliers in understanding the basic concepts and approaches for identifying energy conservation opportunities (ECO) at Rice Mills. One Rice Miller has procured a Gasification Plant to use Rice Husk for the generation of electricity. This will be commissioned in 2015.

GRDB is in collaboration with the Guyana School of Agriculture in developing a small scale rice cake manufacturing industry. The objective of this is to develop a small cottage industry for the value added production of rice.

2014 was another successful year and we will continue to work diligently in ensuring that the “wheels of progress” continue to move in a positive direction.

JAGNARINE SINGH

ADMINISTRATIVE DEPARTMENT

For the period January 1, 2014 to December 31, 2014, the following persons were appointed to the Board of Directors:

Table 1: Board of Directors

Name	Designation
Mr. Badrie Persaud	Chairman
Mr. Dharamkumar Seeraj, MP	Vice-Chairman
Dr. Dindyal Permaul	Member
Dr. Peter DeGroot	Member
Mr. John Tracey	Member
Mr. Leekha Rambrich	Member
Mrs. Prema Ramanah-Roopnarine	Member
Ms. Shirley Edwards	Member
Mr. Ramsahai Ramnarain	Member
Mr. Sase Gunraj (September 2014 to present)	Member
Mr. Jagnarine Singh	Member
Mr. Madanlall Ramraj	Secretary

There were twelve (12) statutory meetings of the Board of Directors.

Research and Extension Sub-Committee members for the period January 1, 2014 to December 31, 2014 were:

Table 2: Research and Extension Sub-Committee Members

Name	Designation
Dr. Dindyal Permaul	Chairman
Mr. Dharamkumar Seeraj, MP	Member
Mr. Ramsahai Ramnarain	Member
Mr. Leekha Rambrich	Member
Mr. Jagnarine Singh	Member
Mr. Madanlall Ramraj	Member
Dr. Mahendra Persaud	Member
Mr. Kuldip Ragnauth	Secretary

There were nine (9) meetings of the Research and Extension Sub-Committee.

Finance and Administration Sub-Committee members for the period January 1, 2014 to December 31, 2014 were:

Table 3: Finance and Administration Sub-Committee Members

Name	Designation
Mr. Badrie Persaud	Chairman
Ms. Shirley Edwards	Member
Mrs. Prema Ramanah-Roopnarine	Member
Mr. John Tracey	Member
Mr. Jagnarine Singh	Member
Mr. Madanlall Ramraj	Member
Mr. Noel Sookhai	Member
Mr. Peter Ramcharran	Secretary

There were ten (10) meetings of the Finance and Administrative Sub-Committee.

Marketing and Quality Control Sub-Committee members for the period January 1, 2014 to December 31, 2014:

Table 4: Marketing and Quality Control Members

Name	Designation
Mr. Jagnarine Singh	Chairman
Mr. Ramsahai Ramnarain	Member
Mr. Madanlall Ramraj (March 2014 to present)	Member
Mrs. Gloria Chester	Member
Ms. Allison Peters	Secretary

There were six (6) meetings of the Marketing and Quality Control Sub-Committee.

Procurement and Tender Board Sub-Committee members for the period January 1, 2014 to December 31, 2014:

Table 5: Procurement and Tender Board Sub-Committee Members

Name	Designation
Mr. Dharamkumar Seeraj, MP	Chairman
Dr. Dindyal Permaul	Member
Mr. Sase Gunraj (November 2014 to present)	Member
Mr. Jagnarine Singh	Member
Mr. Madanlall Ramraj	Secretary

There were seven (7) meetings of the Procurement and Tender Board Sub-Committee.

INFORMATION TECHNOLOGY DEPARTMENT

The Information Technology Department was formed and staffed in January of 2014. This Department consists of an I.T Officer, Mr. Davin Panday, and an I.T Technician, Mr. Arvindo Singh. The Department was tasked with the general maintenance of all computers and their extended peripherals, as well as all other technology related devices.

During the course of the year 2014, the Department engaged in the restructuring of the GRDB's network, which entailed the purchase and installation of new equipment such as servers, routers, switches, and re-cabling of many departments within the company. This allowed for better data management, greater efficiency in accessing data by department, and greater efficiency in managing security of all equipment and data by the I.T Department.

Restructuring and modernization of our computerized accounting was also done within the year. This saw the extension of computerized services made available to the Accounts Department. These include Inventory Management, Payroll Management, Fixed Asset Management, among others.

These are just a few of our initiatives for the year 2014 and we will continue the task of modernization and expansion of services offered within the organization, as well as to our valued clientele.

HUMAN RESOURCE DEPARTMENT

Staff Complement

Two hundred and forty four (244) employees comprised the staffing strength of the Guyana Rice Development Board in 2014. Supervision continues to be provided by the respective departmental heads.

Staff Appointment

Appointments were made to fill the vacancies at the following locations:

Head Office:

Finance Department

Padmanie Sahadeo
Secretary

Information Technology Department

Davin Panday
IT Officer

Arvindo Singh
IT Technician

Administrative Department

Deodat Puranram
Driver

Davenand Ram
Security Guard

Pulmattie Dyal
Office Attendant

Occupational Health and Safety
Department

Sheharazad Hussein
Occupational Health and Safety Officer

Human Resource Department

Wendy Arjune
Data Entry Clerk

Burma Rice Research Station:

Accounts Department

Jason Nunes
Stores Clerk

Owen Thorman
Accounts Clerk

Accounts Department cont'd

Feona Alfred
Accounts Clerk

Tumeshwar Singh
Accounts Clerk

Quality Control Department

Maywattie Mandai
Technical Assistant

Dwayne London
Grading Officer

Darren Vanderstoop
Grading Officer

Administrative Department

Jagan Dewkoemar
Agriculture Mechanic

Sunil Rahman
Driver/Operator

Seed Production

Thakour Ramphal
Field Technician

Anna Regina Sub-Office

Extension Department

Sophia Boston
District Rice Extension Officer

Surendra Bhodram
Field Officer

Quality Control Department

Balkarran Beharry
Grading Officer

Naline Sirmat
Technical Assistant

Boyd Peters
Grading Officer

Administrative Department

Ashwini Mohabir
Secretary

Sant Kumar Ramlakhan
Security Guard

Corriverton Sub-Office

Tashenie Sewpersaud
Technical Assistant

Public Service Ministry Scholars Attached to GRDB

Listed hereunder are seven (7) Public Service Ministry scholars who were seconded by the Ministry of Agriculture to the GRDB as Research Assistants:

Kadeem Jacobs
Sanjiv Sawh
Leyland Sonny
Ilhaam Sugrim
Tariku Punch
Kevil Chester
Preemraj Persaud

These new staff members were welcomed and encouraged to have a long and productive tenure at the Guyana Rice Development Board.

Resignation and Termination

There were twelve (12) resignations and one (1) termination for the period January 1, 2014 to December 31, 2014.

Confirmation

Thirteen (13) employees were confirmed in the appointed position for the period January 1, 2014 to December 31, 2014.

Employees' Training and Sponsorship

The tables below include the names of employees and the training attended:

Table 14: Training of Employees

Name	Agency	Course
Madanlall Ramraj	World Trade Organization (WTO)	Regional Advanced Trade Negotiations Simulation Skills Course
	University of the West Indies (UWI)	Management for newly appointed Manager
Peter Ramcharran	Institute of Internal Auditors Guyana Chapters	Analyzing Financial Statements and Review of Working Capital
		Project Management and Project Audit
	Consultative Association of Guyanese Industry Ltd. (CAGI)	Financial Management for Non-Financial Managers
	Metro Training Center	Sage ACCPAC
Kuldip Ragnauth	CAGI	Staff Performance Appraisal Reviews
		Financial Management for Non-Financial Managers
Mahendra Persaud	CAGI	Financial Management for Non-Financial Managers
Noel Sookhai	Institute of Internal Auditors Guyana Chapters	Risk Based Audit Planning
		Implementing COSO Internal Control Framework
		Enterprise Risk Management
Satanand Narain	CAGI	Supervisory Management
Gloria Chester	CAGI	Financial Management for Non-Financial Management
Abigail Constantine	CAGI	Supervisory Management
	Metro Training Center	Sage ACCPAC
Marsha Hohenkirk	CAGI	Financial Management for Non-Financial Managers
	International Standard Inc.	Hazard Analysis and Critical Control Points
	CARICOM Regional Organization for Standard and Quality (CROSQ)	Method Validation and Measurement Uncertainty
Rieo Kawall	CAGI	Staff Performance Appraisal Reviews
Nashree Singh	Ministry of Labour	Medical Institute and Laboratories Seminar
	CAGI	Occupational Health and Safety
		Financial Management for Non-Financial Managers
Marai Ritney	CAGI	Effective Inventory Management

Table 14: Training of Employees cont'd

Carol Hintzen	CAGI	Effective Inventory Management
	Metro Training Center	Sage ACCPAC
Janesa Marcus	CAGI	Administrative and Secretarial Support
Nivrita Ramlakhan	CAGI	Administrative and Secretarial Support
Elijah Adams	CAGI	Occupational Health and Safety
Davin Panday	Metro Training Center	Sage ACCPAC
Arvindo Singh	Metro Training Center	Sage ACCPAC
Errol Chester	Metro Training Center	Sage ACCPAC
Prabhawattie Victorino	Metro Training Center	Sage ACCPAC
Keshwanand Seetaram	Metro Training Center	Sage ACCPAC
Devika Singh	Metro Training Center	Sage ACCPAC
Ariel Norton	Metro Training Center	Sage ACCPAC
Shamkumarie Khairoo	Metro Training Center	Sage ACCPAC
Tharkurdai Gopaul	Metro Training Center	Sage ACCPAC
	Institute of Internal Auditors Guyana Chapters	Audit of Inventory and Stores Management
		The Audit Process-from Planning to Reporting
		Audit of Inventory and Stores Management
Shemeka Reece	Pesticide and Toxic Chemicals Control Board	Chemicals and Chemical Management
Trevonne Wright	Pesticide and Toxic Chemicals Control Board	Chemicals and Chemical Management
Uancy Chichester	Pesticide and Toxic Chemicals Control Board	Chemicals and Chemical Management
Kevin Joseph	Pesticide and Toxic Chemicals Control Board	Chemicals and Chemical Management
Lubert Walcott	Pesticide and Toxic Chemicals Control Board	Chemicals and Chemical Management
Beverly Joseph	Pesticide and Toxic Chemicals Control Board	Chemicals and Chemical Management
Heather Edwards	Guyana National Bureau of Statistics	General Requirement for the operation of a Laboratory
		Implementing Laboratory Management
Wanella LaRose	International Standard Inc.	Hazard Analysis and Critical Control Points
		Hygiene and Good Manufacturing Practice

Table 15: Employees Sponsored by GRDB and who are currently on study leave:

Names	Programme	University	Remarks
Ghansham Payman	PhD in Agronomy	Acharya N G Ranga Agricultural University, India	Second year
Rajendra Persaud	PhD Plant Protection	University of the West Indies	First year
Narita Singh	M.Sc Quality Assurance & Food Safety	University of the West Indies	Second year
Shanna Crawford	M.Sc in Agronomy in India	Anand Agriculture University, India	Second year
Leelawatie Manohar	Deg. in Agriculture	University of Guyana	Third year
Gangadai Dindayal	Deg. in Agriculture	University of Guyana	First year
Roderick Somrah	Deg. in Agriculture	University of Guyana	First year

Mr. Bronson Cassiano from Moco Moco Village, was sponsored by the GRDB to complete a Certificate in Agriculture at the Guyana School of Agriculture (GSA). He is expected to return to his village on the completion of this training.

Table 16: Employees sponsored by GRDB who have completed their course of study in 2014:

Names	Programme	University
Vivianne Baharally	PhD in Entomology	Sam Higginbottom Institute of Agriculture, Technology and Science (India)
Bissessar Persaud	M.Sc in Extension	Punjab Agricultural University (India)
Shemeka Reece	Deg. in Agriculture	University of Guyana

Legal Issues

Matters involving farmers, millers/exporters and buyers were dealt with internally, and through the Board's legal advisors, Cameron and Shepherd.

Union Recognition

There are two (2) unions recognized by the Board. These are:

- General Workers' Union (GWU), which represents staff at the Head Office and the four regional offices.
- Union of Agriculture Allied Workers (UAAW), which represents some staff at the Burma Rice Research Station.

During the year, Management met with the two (2) unions to discuss matters of concern to employees. Discussions were held on staff welfare, sports, etc.

Uniform

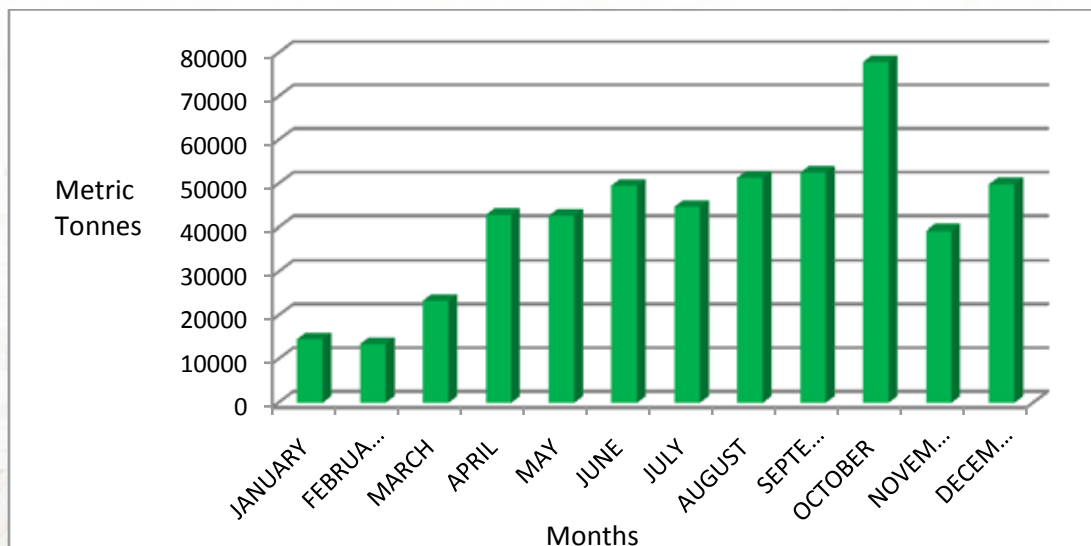
Office staff, drivers, laboratory assistants, office attendants and office assistants were provided with uniforms.

EXPORT & TRADE FACILITATION

2014 was a very successful year for the Guyana rice industry; exports for 2014 reached an all time high of 501,208 mt, compared to 394,988 mt of rice in 2013. The achievement of reaching half of a million tons of export is significant as the record will show; it took Guyana almost 100 years of rice cultivation before we would have achieved 100,000 tons of export. In 1965, 101,424 mt were exported and thirty (30) years later in 1995 we reached 200,336 mt. Fifteen years later in 2010, 336,313 mt were exported and four years later in 2014 we reached 501,208 mt. This is an increase of 26.89% in the quantity of rice exported when compared to 2013. This historic achievement has positioned the industry as the most important Agriculture Sector in Guyana.

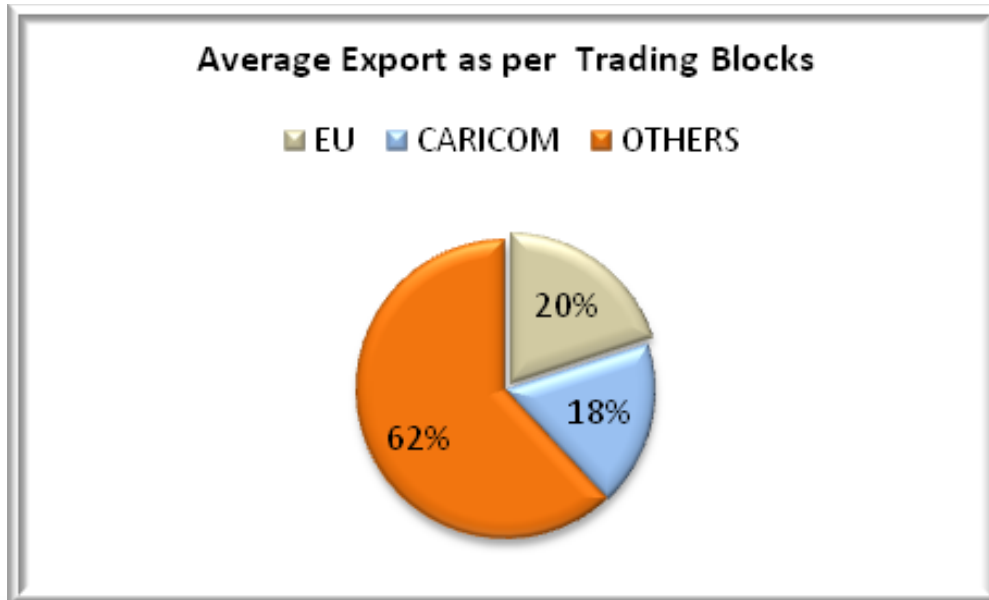
With an aggressive marketing strategy spearheaded by the Minister of Agriculture, Officials of GRDB and the Private Sector have secured many new markets and in some cases, increased the sales volume in some of the current markets. This strategy would have been realized with some benefits towards the latter half of 2014, as shown in the bar chart below, whereby in four out of the last five months exports were more than 50,000 mt. This has resulted in Guyana exporting to 32 countries for 2014. Markets were secured in Panama, Belize, Nicaragua, Chile, Costa Rica, Brazil, among others.

Bar Chart 2: Below Shows the Quantity Exported by Month



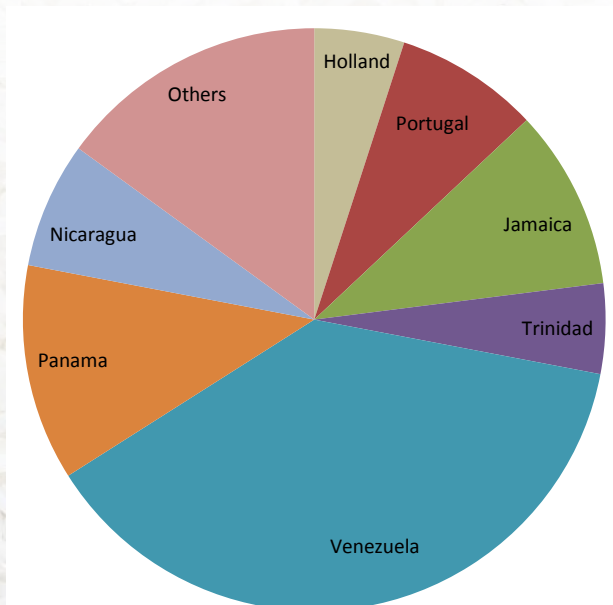
The major markets for Guyana's rice continue to be the three preferential markets, namely Venezuela, European Union and CARICOM Countries. Exports to Venezuela was decreased by 18%, from 229,877 mt in 2013 to 187,995 mt in 2014. European Union imports increased from 79,022 mt in 2013 to 101,672 mt in 2014, an increase of 28.66%, while CARICOM imports also increased from 77,990 mt in 2013 to 88,435 mt in 2014, an increase of 13.39%.

Pie Chart 2: Showing Percentage of Export for the Three (3) Preferential Markets



The top seven main countries for the export of Guyana’s rice in 2014 were: Venezuela with 37.5% of total exports, followed by Panama with 11.83%, Jamaica with 10.03%, Portugal with 8.28%, Nicaragua with 7.02%, Holland with 5.08% and Trinidad and Tobago with 4.85%.

Pie Chart 3: Showing Exports for Major Destinations



Rice export values for 2014 totaled US\$249,504,955 compared to US\$239,826,389 for 2013. This represents an increase of 4% in value. Export prices for 2014 for the four main rice types, namely Cargo Rice, White Rice, Parboiled Rice and White Broken were: US\$358, US\$500.13, US\$660.14 and US\$274 respectively. These prices are a decrease in the price for all the various rice products when compared with 2013.

The following Appendixes give more detailed information and comparative data for 2014 and the previous years:

Appendix 2: Rice Production and Export Statistics

Appendix 3: Comparison of Yearly Products (2002-2014)

Appendix 4: Exports According to Products 2014

Appendix 5: Export According to Destination 2014

Appendix 6: Average Rice Export Prices 2005 - 2014

The industry has done remarkably well and will endeavour to do even much better to maintain its economic standings in Guyana.

SHIPPING AND LOGISTICS UNIT

The Shipping and Logistics Unit's main objective is to aid in the facilitation of commodity trade between GRDB and a Government or its agencies overseas. It commenced its operation basically with the Guyana/Venezuela compensation trade under the Petro-Caribe Agreement. The Contract for 2014 is the Seventh Contract between GRDB and LA CASA and it amounted to one hundred and fifty thousand metric tons (150,000 mts) paddy and fifty thousand metric tons (50,000 mts) of white rice.

In addition to this, the Panama trading commenced in 2014 and the Unit also facilitated the shipment of eighteen thousand, one hundred and ten metric tons (18,110.00 mts) of white rice to Panama.

Logistics work was also done for the delivery of seven thousand metric tons (7,000.00 mts) of urea for Guyana from Jose Terminal in Venezuela.

Paddy Shipping

By the end of 2014 we were able to ship 92% of the paddy and 100% of the white rice to Venezuela. Shipping of paddy commenced in April and by the end of December, after twenty three (23) voyages, a total of 138,000 mt was delivered, leaving the balance on contract at twelve thousand metric tons (12,000 mts) which will be delivered in January, 2015. These voyages were done by five vessels of the United Bulk Carriers (UBC) namely, MV Montego Bay, MV Manzanillo, MV Maracaibo, MV Miami and MV Mobile.



Fig: 1.1 Paddy vessel-UBC Montego Bay



Fig: 1.2 White Rice vessel-Mv Asian Sun

White Rice Shipping

This was done via the container company Compagnie Maritime d'Affrètement/Compagnie Générale Maritime (CMA/CGM). These shipments were done directly to Venezuela as in the case with the paddy vessels from UBC. White rice shipment reached almost 100% in November with a total of 49,950.00 mts.

White Rice Shipments to Panama

The Government of Guyana signed four contracts of one hundred thousand quintals each with Panama; this is a total of 18,148 mt. These shipments began in September and as at the end of December 2014, there were a total of 14, 856 mts leaving a balance of 3,325.81 mts. The balance will be shipped in January 2015.

Fertilizer Shipments from Venezuela

In October 2014 GRDB secured a contract for 7,000 mt of Urea to boost farmers. This was shipped and distributed to farmers at a price of \$5,000 per 50 kilogram bags. The objective of this importation was to ensure that farmers received the urea at a competitive price, as the commercial traders were selling a similar product for as high as G\$7,000 per bag.

General Comments

The Shipping and Logistics unit is pleased with its contribution made in 2014; nevertheless, it was unable to fulfill some of its target. This was mostly due to third parties not fulfilling their contract and obligations with GRDB.

There were several complaints coming from our buyer in Venezuela about infestation with white rice shipments; however, management was able to rectify these issues and put corrective measures in place.

Other challenges such as the availability of paddy vessels and demurrage of the same at discharge port were addressed. Simultaneously, the alternative method for the shipping of paddy in tonne sacks was considered effective for a quicker delivery of paddy and the buyer in Venezuela indicated the possibility of shipping paddy in this form.

QUALITY CONTROL DEPARTMENT

The department's role and function as outlined in the Guyana Rice Development Board Act of 1994, continues to be the basis under which the department operates.

As the industry continues to increase production and exports, the department's workload has increased, more especially during paddy harvesting time. The continuous increased shipment of paddy and rice to Venezuela and the additional shipment of white rice to Panama during the latter half of the year severely tested our ability towards rendering these services. The challenges with respect to the necessary manpower to conduct operations were however met with recruitment of additional staff members.

Caricom Regional Organization for Standard and Quality (CROSQ) kept their promise to assist in the accreditation of the Central Laboratory. Assistance was received in the form of a Consultant who worked during the year to assist with the preparation towards certification.

The laboratory is now at its final stages of this preparation and is awaiting the schedule of the accreditation audit by Jamaica National Agency for Accreditation (JANAAC), the accreditation body chosen by the Board. This is expected to be done in the first quarter of 2015.

The GYS 211:2006 Standard was reviewed by the Regional Body, CROSQ during 2014 and a Revised Standard GYS 211:2014 (Guyana National Bureau of Standards Specification for Rice) is awaiting the necessary approval from Parliament to make this Standard mandatory within the Industry.

Mill Licensing

This year there was a reduction of mills being licensed from seventy two (72) to sixty five (65).

These sixty five (65) mills accounted for a total of 280.25 tons per hour of milling capacity.

The status and production of mills are captured in Table 10 below.

Table 10: The Milling Capacity by Region

Regions	2	3	4&5	6	9	Total
No. of Licenced Mills	14	15	13	22	1	65
Milling Capacity (mt/h)	66.25	36.50	117.5	59.50	0.5	280.25 mt/h

Table 11: The Types of Mills Operating Countrywide

Mill Type	Number in Operation
Buying Centers	5
Toll Mills	15
Milling Capacity Below 5 mt	39
Milling Capacity 5mt and above	21

N.B

- Toll mills are mills which mill paddy on behalf of farmers.
- Buying Centers purchase paddy only.

License Graders

In accordance with the Rice Factories Act, GRDB has issued Seventy (71) persons with license to grade paddy and rice during the year. A Grader's License is issued biannually. These persons were trained by GRDB and continued to work at various rice mills in grading paddy and rice.

Training**Stakeholder Training**

The annual training course in Rice and Paddy Grading and Quality Management was held in July 2014. Sixty (65) persons were trained.

Table 12: Training Schedule - Rice and Paddy Grading and Quality Management

Date	Region	Venue	Persons trained
July 8 th -10 th , 2014	6	GRDB Office, Corentyne, Berbice	16
July 15 th - 17 th , 2014	2	GRDB Office, Anna Regina	20
July 22 nd -24 th , 2014	3	GRDB Office, Crane, W.C.D	11
July 29 th - 31 st , 2014	4 &5	BURMA Rice Research Station	18

A one day farmers' training programme which enabled farmers to be able to determine the grades of paddy sold to mills, as well as procedures, was conducted in July.

Staff Training

Staff of the Department were trained “In house” as well as externally during the reporting period. Training was done in:-

- (i) Hygiene and Good Manufacturing Practices
- (ii) Hazard Analysis and Critical Control Point (HACCP)
- (iii) Method Validation and Measurement Uncertainty
- (iv) Quality System Procedures
- (v) Sampling, Inspection and Fumigation Process
- (vi) Use of Laboratory and Fumigation Safety Equipment
- (vii) Rice and Paddy Grading and Quality Management
- (viii) Chemicals and Chemicals Management
- (ix) Implementing Laboratory Management Systems
- (x) Understanding the Requirements of GYS 170 (General Requirement for Operations of the Laboratory)
- (xi) Financial Management for Non-Financial Managers

Staff/Offices

In all the Regional offices of the Guyana Rice Development Board (GRDB), i.e. Regions 2, 3, 4, 5 and 6, there is a Quality Control Department. All offices are supervised by Regional Superintendents or Supervisors. The table below shows the present status of the staff complement in the respective regions.

Table 13: Quality Control Department Staff Complement by Region

Regions	Regional Superintendent	Regional Supervisors	Research Assistant	Grading Officers	Technical Assistant
2	1	-	-	7	4
3	1	-	-	5	1
4	-	1	3	6	4
5	-	2	-	3	3
6	1	-	-	4	2
Total:	3	3	3	25	14

Review of Central Laboratory Activities

Two Internal Audits were conducted by the Guyana National Bureau of Standards (GNBS) in June and December. Audits are conducted to ensure the credibility of the Quality System.

One (1) External Audit was conducted in March, also by the Guyana National Bureau of Standards (GNBS), to ensure the laboratory's conformity to the GYS 170 Standard.

In keeping with the promise made by the Caricom Regional Organization for Standard and Quality (CROSQ), Mrs. Shivanna Mahabir-Lee was assigned to the laboratory to assist in its preparedness towards accreditation. Three (3) visits were made by the Consultant. Management has identified Jamaica National Agency for Accreditation (JANAAC) as the certifying body for the accreditation process. The application to have the laboratory accredited by Jamaica National Agency for Accreditation (JANAAC) has been submitted. The Department/Board is awaiting the date for the completion of the final audit towards the reality of this project.

RESEARCH DEPARTMENT

Highlights of 2014

Research is an important component of the Guyana rice industry. It is the avenue through which new technology is made available to the rice industry on a continuous basis, to sustain its competitiveness in an ever changing physical, financial and social environment.

GRDB has restructured its research efforts to better serve the farmers and other stake holders. An organized research program was conceived in the context of the changing environment in which rice has to be grown and farmers have to compete. Some of the objectives and recent achievements are highlighted hereunder.

The Rice Research Station's objectives are directed at developing high-yielding varieties (>6.5 t/ha) with tolerance to lodging, stable resistance to blast, high milling yield (HRR 55/TRR 70), and excellent cooking qualities. In addition, developing aromatic varieties, salt tolerant varieties and diversifying grain types are also major objectives of this department. The station was also tasked with developing a comprehensive package of practice as it relates to varietal release and rice cultivation in specific regions. Features of the package included water and weed management, seeding density, plant nutrition and other important agronomic factors. Another crucial area of Research is providing solutions to salinity, acidity, crop nutrition and plant health problems.

Additionally, breeding lines were screened for their tolerance/resistance to various pests and diseases, and resistance to such pests and diseases was monitored. The rejuvenation of germplasm lines that were in cold storage was also done. New pesticidal formulations are always available on the market; it is the goal of the research station to evaluate and guide farmers on possible use. Monitoring for disease incidence and insect populations, timely advisory and training to farmers are also crucial activities undertaken. Maintaining genetic purity of commercial varieties and production of sufficient quantity of seeds of high genetic purity is a priority for the Station. Highlights of activities conducted at the research station in 2014 are outlined below.

PLANT BREEDING

On Farm Trials (OFT)

Trials conducted across the country as a part of the On Farm Trial (Spring 2014) saw a potential variety (FG06-123) being closely compared to that of the high yielding and much favored GRDB 10. The results were astonishing. The strain FG06-123 yielded an average of 6.3 tha⁻¹ (40 bags/ac) while the check variety mainly used was GRDB 10 which yielded approx. 5.8 tha⁻¹ (36.8 bags/ac). The strain FG06-123 showed a 95-100% tolerance to lodging (compared to GRDB 10 with 40-60 % tolerance) and having exhibited a substantial gap in most of the desirable characteristics, this strain was tentatively released as **GRDB 14** for commercial cultivation in autumn 2015.

Other outstanding characteristics of this rice genotype are that it possesses excellent early vigour, very good tillering ability and it also canopies very early. It also has the ability to emerge well from 4-6 inches of standing water in field. These traits are particularly important for good crop establishment and weed competitiveness. The strong and thick culm (stem) coupled with slow leaf senescence contribute positively to its ability to tolerate lodging and grain filling. It responds very well to improved management practice and has the genetic potential to produce even higher yields. It has also demonstrated excellent milling and cooking qualities which make it desirable for the local and international market.

Advanced Yield Trials (AYT)

Four (4) trials were conducted in different locations viz. Rice Research Station, Black Bush Polder, West Demerara and Essequibo, over two seasons. Seventeen elite lines/strains were tested along with three checks (GRDB 9, GRDB 10 and GRDB 12) in a Randomized Block Design with three replications. Data collection and analysis were conducted in order to determine superior strains which would be advanced to large scale testing; however, no strains were selected during the two seasons. Another round of testing is required before selection of candidate variety. Two strains which were observed to be late maturing were extracted from this trial in order to be examined closer and separately.

Advanced Yield Trial (Scented)

During the autumn crop of 2014 eighteen (18) scented strains were studied. Trials were conducted at the Research Station in order to determine the average yield of strains which were found to possess aromatic traits. Although testing for aroma is quite a tedious job, as is the conventional method of plant selection for aroma, efforts continue and efforts are expected to pay off as the research station intends to release its second aromatic variety by the year 2020. Of the eighteen strains studied three were observed to have yielded above 5kg/ha, while another yielded above 6t/ha.

Observational Yield Trial (OYT)

Forty (40) strains were studied along with three (3) checks in the first crop and fifty (50) strains and three (3) checks in the second crop in an augmented design for initial assessment of yield potential and other important characters. This trial was conducted at the Research Station. During the second crop, four (4) strains, namely FG12-23, FG12-29, FG12-49 and FG12-259 were promoted for further testing in the Advanced Yield Trials during first and second crop 2014. All other entries will be studied for another season along with new entries during 2015.

Breeding Material and Germplasm

Sixty one (61) crosses to create variability were produced during the year 2014 (27 in the first crop and 34 in the second crop). Hybridization is aimed at creating variability for increased yield potential, salt tolerance, aroma, and submergence tolerance. The crosses made in the first crop were successfully raised in the second crop of 2014. Those made in the second crop will be raised in the first crop of 2015.

During the first crop of 2014 a total of 5,357 progenies ($F_3 - F_{10}$ generation) were studied and 3,157 single plant selections were taken, which were evaluated in the second crop and more than 3,300 selections were taken for further assessment. Thirteen (13) strains were identified and promoted for initial yield testing during the first season.

More than 2,500 Germplasm accessions were rejuvenated in the second season of 2014. Two hundred and eighty accessions were received from FLAR in 2014.

Strain Purification

One hundred strains were purified. The lines were grown in progeny rows (5-25 per strain) for the purpose of purification.

Maintenance Breeding and Seed Production

More than 10,000 progenies of all the varieties were grown, and studied during the two seasons. The genetic purity of each variety was maintained and more than 10,000 selections were made.

More than 3000 kg of pre-basic seed (14 varieties) were produced over the two seasons of 2014. One hundred and twenty five (125) tonnes of basic seed were produced from eleven varieties (Rustic, GRDB 9, GRDB 10, GRDB 11, GRDB 12, Aromatic, G98-22-4, G98-196, 98-30-3, G98-135, FG06-123), over the two seasons, at the Research Station. Seed generated here were supplied to the seed production unit of the Research Station and to seed growers in the various regions for multiplication.

AGRONOMY

Effects of Increasing Levels of NPK on Grain Yield

This experiment was conducted at the Rice Research station, Burma and the Black Bush Polder Sub-Station. Ten combinations of nitrogen, phosphorous and potassium were evaluated. Increasing the levels of N,P and K from 75 kg, 30 kg, and 40 kg ha⁻¹ respectively to 120 kg, 50 kg, and 80 kg ha⁻¹ did not show any significant differences in grain yield. This indicates that the current recommendation still holds.

Split and Timing of Application of Nitrogen

Nitrogen was split into a maximum of four application times, with combinations of timing of nitrogen 18-21, 40-42, 50, 60-62, 70 and 75 DAS. Two varieties were used in the testing viz. GRDB 13 and GRDB 14. The three splits and timing of nitrogen at 18-21, 40-42 and 60-62 DAS produced the highest grain yield than the single application before sowing. Results also indicate significantly high yields for the four splits at 18-21, 40-42, 60-62 and 75 DAS, as it relates to variety GRDB 13.

Comparing Different Sources of Fertilizers for Their Effects on Crop Growth, Yield and Yield Attributes for Lowland Irrigated Rice

Two complete (8:32:16 & 6:25:25) and three single nutrient (urea, Triple Super Phosphate and Murate of Potash) fertilizer sources were evaluated. Grain yields were significantly highest for 6:25:25 applied at a rate of 205 kg ha⁻¹ and lowest when 8:32:16 was applied at the same rate.

Increasing Rice Yields on Acid Soils, Through Liming

This trial was conducted at the Rice Research Station, Burma, using strips of 4,000 m² and variety GRDB 12. Three treatments were evaluated: 0, 1.5 and 3:0 tons of lime stone ha⁻¹. It was observed that adding lime stone increased the pH levels of the soil; the 1.5 t ha⁻¹ recorded the highest yields. Observations during the 2014 second crop also revealed a slight drop in the pH levels for the 1.5 and 3.0 t ha⁻¹ lime stone application rates.

Evaluation of Multi Feed

The highest yields were seen when NPK only was applied (>4.5 t ha⁻¹) followed by the combination of NPK + 125% Multi feed (4 t ha⁻¹). The control plot recorded the lowest yields <2500.

Effects of Post Emergent Herbicides on Weed Management at Three Application Timings

This trial was conducted at the Rice Research Station, Burma, where three post emergent herbicides were evaluated, namely *Nomina*, *Nominee* and *Nomeny*, all with the same active ingredient *Bispyribac Sodium*. The aim of the evaluation was to determine the most efficient time of application.

The highest weed control efficiency was observed when herbicides were applied between 18-21 days after sowing (DAS), followed by herbicide application at 14 and 28 DAS in that order. Initial weed population was significantly lowest at 14 DAS.

Effects of Pre-Emergent Herbicides on Weed and Red Rice Management by Different Application Techniques

Runstar 240 g/L oxidation was used as a pre-emergent herbicide; results were inconclusive due to inconsistency in land levelness and unpredictable rainfall; these two factors together contributed to the herbicide becoming toxic to the rice plants; as a result, crop establishment was significantly hampered. Research further afield has found runstar to be very effective as a pre-emergent herbicide; as such, evaluation of this product will continue in 2015.

Optimum Seeding Densities for Canopy Effects of New Rice Varieties to Suppress Weeds and Red Rice Emergence and Establishment

This experiment was conducted at the Rice Research Station, Burma, using five seeding densities: 89.9, 134.7, 179.7, 224.6 and 269.6 kg ha⁻¹ (80,120, 160, 200 and 240 Lbs ac⁻¹) along with four varieties: GRDB 10, GRDB 11, GRDB 12 and GRDB 14. It was observed that seeding densities ranging from 134.7 – 224.6 kg ac⁻¹ were most effective in suppressing weeds. It was also seen that seeding densities were most efficient against specific weed species, namely *Fimbristylismilaceae* (Jhussia) and *sphenocleazeylanica* (Soap bush).

ENTOMOLOGY

In 2014, the department focused on monitoring for arthropod fauna in the rice eco-system, insecticide evaluation using the foliar application technique and demonstrations in farmers' fields for effective management of the paddy bug. Training sessions were also held with the Extension Officers in all the rice growing regions.

Monitoring

This was done using the light trap and sweep net monitoring techniques. The sweep net monitoring revealed that the paddy bug (*Oebalus*spp.) was prevalent on the dams and meres primarily during January, June and July; it was evident in the fields from February through to April; and on both dams and fields during August. The other arthropods that were recorded throughout the year were mostly from the orders Orthoptera and Coleoptera. Several insect pest species, namely water weevil, *Helodytes* sp., stemborer, *Rupela* sp. and paddy bug, *Oebalus* spp, were caught using the light trap. The number of paddy bugs caught peaked in April and August, water weevil in September, while the stem borer was prevalent during March.

Insecticide Evaluation

Several insecticides, viz Engeo (lambda-cyhalothrin, 10.6% and thiamethoxam, 14.1%), Hyperkill (cypermethrin, 26.5%), Prontax (imidacloprid, 70%), Admajor (imidacloprid, 20%), Alphacypermethrin (5 % Alphacypermethrin) and Fenitrothion (Fenitrothion) were identified to be screened for their efficacy against the leaf miner (*Hydrellia* sp.), water weevil (*Helodytes* sp), armyworm (*Spodoptera* sp.) and paddy bugs (*Oebalus* spp) under natural field infestation. However, in the experimental plots, none of the insects reached an infestation level in the experimental plots which warranted the application of the treatments, therefore no treatment was applied.

Demonstrations

A number of field demonstrations were conducted with the farmers on effective application of insecticides for the control of paddy bugs. The main focus areas were monitoring, using the sweep net as a decision-making tool, mixing the chemicals, using the recommended dose rates and employing the spraying technique using a motor blower. During these exercises, it was noted that farmers do not use the sweep net and their decision to spray an insecticide is not based on the threshold level; the insecticides are not mixed properly; and the recommended dose rates for the insecticides are not used. These are critical in order to achieve maximum efficacy of an insecticide and prevent adverse effects to the environment as a whole. As such, similar programs will continue in upcoming seasons in order to address these issues.

Other activities included classroom training with the Extension Departments in all the regions, with a focus on understanding the major pests of rice and their management. The training targeted the newly employed and also served as revision for the experienced staff.

PLANT PATHOLOGY

Studying the Impact/Effect of Brown Spot, Sheath Blight and Sheath Rot on Seedling Vigor of Rice

The trial was conducted at BRRS using a Complete Randomized Block Design with four treatments and three replications. The establishment between treatments ranged from 71.67 to 94.33, where a significant difference between treatments was noted. Plants from healthy seeds resulted in a higher percentage seedling survival. There were no statistical differences between treatments for root and shoot length for both 21 and 30 days after sowing; however, healthy seeds reflected the longest root length at 21 days and longest shoot length at 30 days after sowing.

Identification of Fungal Microorganisms in Seed Paddy and Determining their Impact on Germination

Seventeen samples were analyzed using the Blotter Test. Seven fungi strains were detected; *Alternaria* sp., and *Aspergillus* sp. were most prevalent. Seeds infected by *Alternaria* sp., and *Aspergillus* sp. recorded the highest level of rot during germination over a seven-day period.

Evaluation of Breeding Lines/Material for Blast Disease (*Pyricularia grisea* (Cooke) Sacc.)

Over 4,000 entries/lines were screened in an Upland Blast Nursery (UBN). The reactions ranged from highly resistant to highly susceptible. The general scoring for Rustic (susceptible check) ranged from 4 to 9.

Probing for Disease 'Hot Spots' Across the Country and Monitoring the Resistance of the Commercial Varieties to Blast

Four sites were evaluated across the country for possible use as 'hot spots' in the screening for rice genotypes for disease reaction. One location, Gangaram, Canje was considered as suitable, since Rustic resulted in a score of 9. Monitoring of rice varieties for disease reaction in the different locations indicated that all commercial varieties were moderately resistant, with the exception to Rustic.

Evaluation of Fungicides using Seed Treatment Techniques against Fungal Microorganisms

The trial was conducted in two phases (laboratory and bin) at BRRS with six treatments and three replications. Affected sheath rot and sheath blight seeds that were treated with Carbendazim resulted in the greatest percentage germination. In addition, seeds (sheath rot) treated with Carbendazim reflected the longest shoot length at both 21 and 30 days after sowing, while Carbendazim treated seeds for sheath blight indicated the longest root and shoot length at 30 days after sowing.

Laboratory Culture and Diagnosis of Rice Diseases

Brown spot (*Helminthosporium* sp.), *Alternaria* sp. and *Curvularia* sp. were predominantly among the pathogens that were successfully isolated and identified from the disease samples. A few other minor pathogens were also identified.

Pesticide Compatibility and Diagnosis of Rice Disease

The 'real time' compatibility study at the Tillering stage was conducted at BRRS. Treatments included combination cocktails consisting of fungicide, herbicide and insecticide. The combination that proved to be most compatible was: Nominee, Admajor, Bestac and 2,4-D. Plants treated by a cocktail consisting of Nominee, Admajor, Bestac, Panally and 2,4-D exhibited major adverse effects. Growth parameters measured for ideal compatibility were shoot length and general appearances of plant (leaf color).

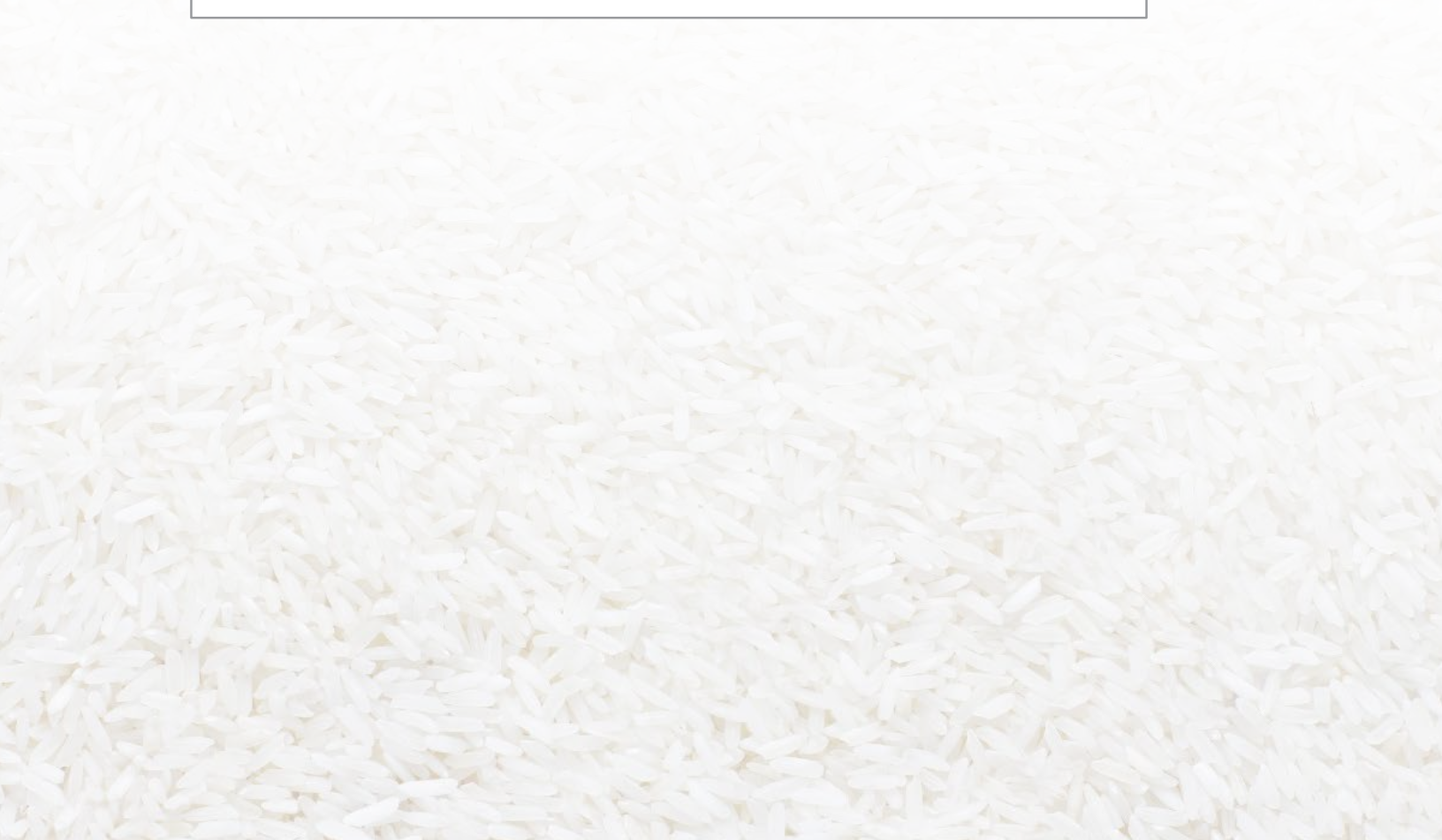
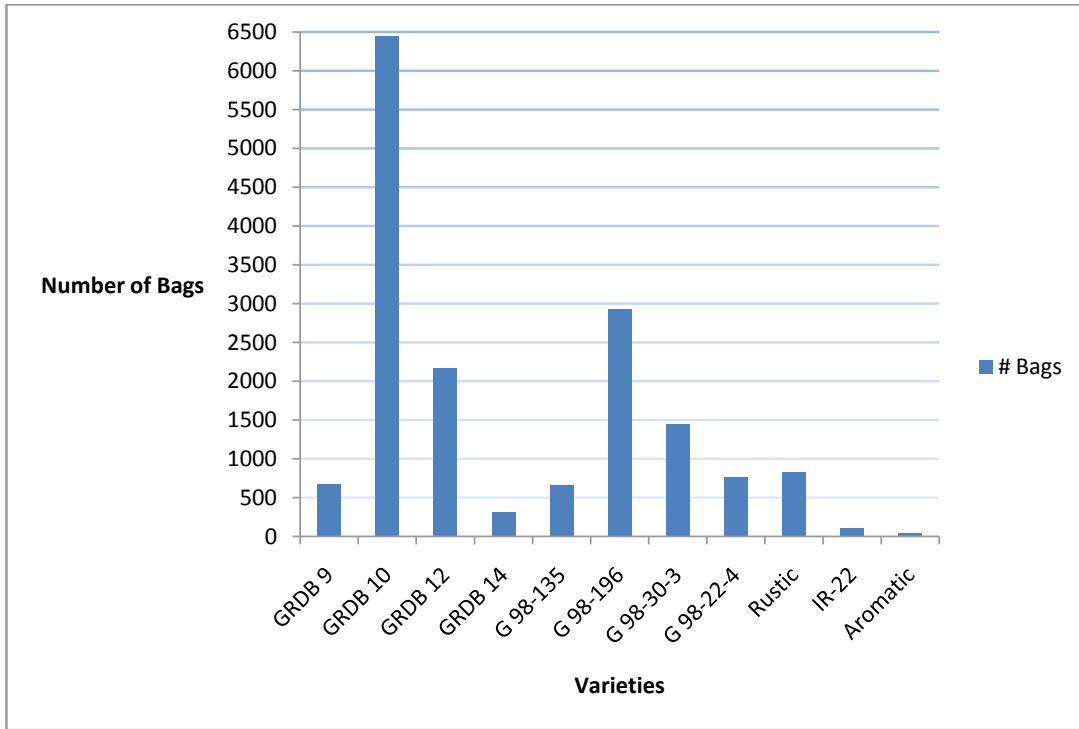
SEED PRODUCTION

The prime objective of the seed production department is to produce sufficient quantity of high quality seed for farmers. During the year, 1,044.3 tonnes (16,411 bags of 140 lbs) of C-I and C-II seed consisting of 11 commercial varieties were produced (see table below). These seeds were distributed to farmers across the country. During the year thirty five and a half percent of the varieties grown consisted of the G98 varieties, while the others grown were 4.1% GRDB 9, 39.3% GRDB 10, 13.2% GRDB 12, 0.3% Aromatic, 1.9% GRDB 14, 5.0% Rustic, and 0.7% IR-22. An additional 269.7 tonnes (4,238.4 bags) were also harvested and sold as grains.

Table 6: Seed Production for Spring and Autumn Crop 2014

	Varieties	Spring Crop, 2014		Autumn Crop, 2014		Grand Total	
		Bags	Tonnes	Bags	Tonnes	Bags	Tonnes
1	GRDB 9	368	23.4	305	19.4	673	42.8
2	GRDB 10	3,238	206.1	3,210	204.3	6,448	410.4
3	GRDB 12	1,077	68.5	1,095	69.6	2,172	138.2
4	Aromatic	-	-	50	3.2	50	3.2
5	GRDB 14	-	-	319	20.3	319	20.3
6	Rustic	418	26.6	407	25.9	825	52.5
7	IR-22	-	-	105	6.7	105	6.7
8	G 98 - 135	261	16.6	409	26.0	670	42.6
9	G 98 - 196	1,397	88.9	1,530	97.4	2,927	186.3
10	G 98 - 30 - 3	529	33.7	920	58.5	1,449	92.2
11	G 98 - 22 - 4	398	25.3	375	23.9	773	49.2
Total		7,686	489.1	8,725	555.2	16,411	1,044.3

Bar Chart 1: Varieties Grown Spring and Autumn Crops 2014



EXTENSION DEPARTMENT

The Extension division continued to evolve and include more actors in the food chain as it seeks to adopt a more pluralistic approach, in transforming the lives of farmers and other stakeholders in the agricultural innovation system. Extensive and sustained efforts in the areas of seed production and marketing, technology transfer, data collection and special activities aimed at strengthening the capabilities of farmers to become better and more efficient producers of rice, were the key areas of focus. Network building among farmers through farmer field schools, field days and other supporting activities have been strong points of the extension programme throughout the year.

Seed Quality Assurance and Marketing

a) Marketing of seed produced at Burma Rice Research Station

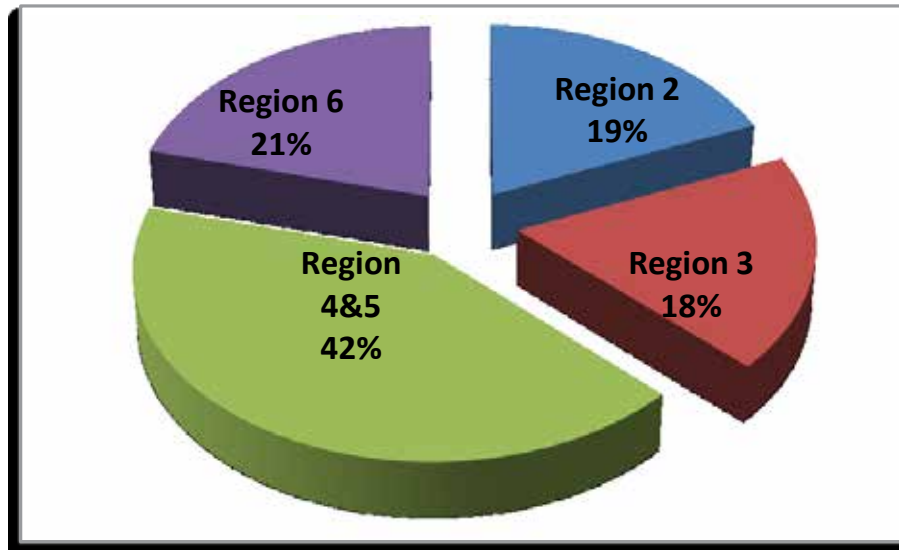
Seeds produced by the Burma Rice Research Station and approved for sale, were distributed by the extension department to reputable seed farmers and also to growers contracted to the Rice Producers' Association (RPA). Towards this end a total of ten thousand, six hundred and sixty two (10,662) bags of seeds were uplifted by farmers in the various rice growing areas, for further multiplication. Table 7 shows that variety GRDB 10 was the most dominant variety distributed, amounting to four thousand five hundred and twelve (4,512) bags or 42.3% of the total.

Table 7: Varieties Distributed According to Regions

Regions	VARIETIES								TOTAL
	RUS	22-4	196	GRDB #10	30-3	135	GRDB 9	GRDB 12	
2	158	164	253	933	98	54	53	268	1,981
3	157	138	415	715	269	37	60	186	1,977
4&5	151	261	624	1866	517	165	209	677	4,470
6	109	51	578	998	101	111	70	216	2,234
TOTAL	575	614	1870	4512	985	367	392	1347	10,662

Regions 4 & 5 uplifted the highest amount of 4,470 bags or 42 % of the total while the lowest amount of 1,977 bags or 18% of the total was obtained by Region 3 as shown in chart 1.

Chart 1: Amount of Seeds Uplifted According to Region



b) Monitoring the Performance of Seed from Rice Research Station, Burma

The division routinely makes checks on farmers' fields sown with seeds purchased from the Burma Rice Research Station, to ascertain performance in terms of germination and establishment during the early stages of growth. Towards this end, approximately eight thousand, three hundred and forty six (8,346) acres were inspected.

c) Monitoring of Seed Fields at the Rice Research Station, Burma

At the Research station seed fields amounting to five hundred and eight (508) acres were inspected during the various growth stages of the crop. The outcomes of the inspections were used as a guide in taking the necessary corrective actions to bring the fields in conformity with the production of certified one (C1) class of seed.

d) Monitoring/Certification of Farmers' Seed Production

Farmers' fields, grown with seeds supplied by the research station, are routinely inspected so as to ensure the intended certified two (C11) is produced after multiplication. Approximately eighteen thousand, one hundred and fifty nine (18,159) acres met the requirements for seed as a result of this exercise.

Technology Application

a) *Developing Competency of Extension Staff*

Extension officers are on a regular basis exposed to training that enhances their capacity and effectiveness in the delivery of the service to farmers. In-service programmes that officers participated in during the year included:-

- a. Theoretical and practical aspects of field inspection and seed certification
- b. Management of rice pests
- c. General management practices in rice production
- d. Fundamentals of extension
- e. Safe use of pesticides
- f. Procedures in accessing loans

b) *Technology Transfer*

Empowerment of farmers on the benefits of improved technologies continued to receive intense focus during the year. Focus groups in the form of Farmers' Field Schools continued to be the main strategy to train farmers. This participatory and informal approach has been proven to be very effective in building human capital and improving the decision-making capacity of farmers. A total of fifty nine (59) FFS groups were established with seven hundred and eighty six (786) farmers participating in the sessions, as shown in table 8.

Table 8: Number of Schools and Farmers

Region #	# of Schools	# of participants
2	11	155
3	15	188
4	5	59
5	14	195
6	14	189
Total	59	786

Regional field days/exchange visits held towards the end of farmers' field school programmes complement trainings at the sessions. The occasion provides for participants to observe innovative technologies demonstrated in a farmer's field, through the collaborative effort of the farmer and the extension department. Also, it provides an excellent opportunity for the farmers from the various regions to interact with each other and share their knowledge and experiences, as well as the opportunity for the creation of a network of exchange of information among them. A total of five hundred and eighty seven (587) farmers participated in the three (3) field days that were held.

The balanced nutrition programme aimed at improving farmers' yields continued. A total of two hundred and ninety five (295) soil samples were collected from farmers' fields, analysed by Agroservices International and the relevant recommendations were forwarded to the farmers who implemented same with promising results.

One hundred and sixty three (163) paddy bug and one hundred and forty two (142) red rice demonstrations were held to enhance the skills of farmers in the management of the bug and red rice respectively.

Monitoring of blast nurseries and other on-farm programmes (AYT trials and promising lines) in farmers' fields continued with the involvement of research, extension and collaborating farmers.

Other activities which complemented the field programmes included: - end of season review (8), television programmes (23), radio programmes (21), newspaper articles (11) and infomercials (26). Approximately one thousand and twenty (1,020) brochures covering various aspects of rice production were produced and distributed to farmers.

Data Collection

Data collected was on crop production, namely harvesting and sowing. Also on pest and disease levels, drainage and irrigation status, fertilizer use and costs and prices for paddy.

The department prepared and submitted one hundred (100) daily paddy bug reports, two hundred and sixty (260) weekly and sixty (60) monthly reports. Specific reports on schoonord grass infestation levels (2) and cost of production (2) were also compiled.

A register comprising of all farmers and their respective acreage sown was completed for both crops in the year.

Special Activities

These are unplanned activities that the division is called upon to perform from time to time. They are complementary in nature and support regular extension activities as shown in table 9.

Table 9: Showing Supporting Activities

Activity	Host	# of days
Monitor Conservancy dam breach at Airy Hall	GRDB	30
Flood assessment- Cozier	GRDB	1
Minister's & Senior officials' visit	GRDB, RPA	11
GRDB officials' visit	MOA, GRDB & RPA	43
Training of Extension staff	GRDB & RPA	12
Fertilizer distribution	GRDB , RPA	95
Investigation	MOA	9
Training of farmers	MOA, NDIA	8
Issuing of cheques	GRDB, RPA	2
Commissioning of Hope Bridge	MOA, GRDB	1
Discharge of fertilizer	MOA	6
Meeting with regional authorities	GRDB	3
RPA conference BBP	GRDB	1
Visit by UWI students	GRDB	3
Launching of Bioethanol plot	GRDB, RPA	1
Distribution of safety gears at farmers' training	PTCCB, GRDB	4
International Rice Conference	MOA, GRDB, NAREI, GLDA	3
Exhibition	MOA, GRDB, MOT	10

Exhibitions included: Essequibo Night, MMA Open Day, Berbice EXPO, GUYEXPO.

The Minister of Agriculture and other senior Government functionaries make periodic visits or outreaches to the regions to meet with farmers where issues/concerns such as drainage and irrigation (D&I), flooding, accessibility of dams, cattle damage, payment by millers, etc are addressed.

The Guyana Rice Development Board (GRDB) would participate in meetings held with mainly NDCs, RDCs, NDIA and WUAs to plan and monitor (D&I) work programmes.

A visit to agricultural areas by final year students of the Faculty of Agriculture, and the University of the West Indies, was coordinated by Extension.

Investigations were in the areas of damages to structures, flooding and siltation of outfalls, and breaches of sea defense and canal dam, salinity testing, disease outbreaks and red rice infestation.

Government support to farmers in the form of urea fertilizers at reduced prices (\$5,000.00 per bag) was supplied to farmers during the spring crop 2015 to offset some of their costs.

Extension played a substantial role in executing and facilitating these activities.

POST HARVEST DEPARTMENT

The Post Harvest/Value Added Department is one of the new departments of the Board and has a staff complement of one (1), in the form of a Post Harvest Researcher. The Department's work can be classified into three areas: Post Harvest, Value Added and Other Activities. Post Harvest work includes research into post harvest processes and identifying areas where efficiency can be improved, while the focus of value added research is directed at identifying products that can be made from rice and its by-products and seeking to promote such initiatives in Guyana's rice industry. Other activities are areas outside the scope of value added and post harvest that the department is tasked with from time to time. This report contains description of the department's activities for January to December 2014.

Post Harvest

As production continues to increase, the focus of post harvest work remained on drying and storage. A follow up on the processing capacity paper of 2013 was done in January of 2014, to determine the number of mills that would have expanded their capacity in the period. The Department prepared a paper identifying the immediate need as it relates to processing capacity, and explored the various options available to increase the processing capacity of the industry. A report that explores the options available in increasing the drying capacity of the Rice Research Station and a plan to make the #56 seed facility operational by March 2015, were also prepared by the department.

The collaboration with TERI- The Energy Resource Institute - continued during the year with the aim of achieving greater energy efficacy in rice mills. The TERI Consultants presented their findings of the efficiency studies to millers at a meeting on March 1, 2014. The Consultants also prepared an energy efficiency manual which they handed over to GRDB at a ceremony on March 24th, 2014. Energy audits were done at seven rice mills across the country and detailed reports with recommendations for energy efficiency were submitted to the millers. One miller expressed interest in installing a gasification plant (converting paddy husk to electricity) and with technical support from TERI, he procured a plant which will be installed in February of 2015.

TERI Team's on-site visit at rice mill for installation of gasification plant



Value Added

The Department's value added initiative in the rice cake project was advanced during the year. A rice cake machine was purchased and imported to Guyana and an MOU was drafted for collaboration with the Guyana School of Agriculture. Trials were conducted with the machine and it will be moved to GSA in 2015 for demonstrations and production.

Small rice cake machine and rice cake produced during trials



Other Activities

a) Fertilizer

The Department continued in its role as coordinator for the Fertilizer Project, which saw 9,000mt of urea fertilizer imported by the GRDB through the Ministry of Agriculture. The fertilizer was sold to rice farmers at the reduced price of \$5,000 per bag. This initiative resulted in other importers reducing their prices, leading to considerable savings for the industry with respect to cost of production.

Fertilizer being bagged and uplifted at wharf



b) Document Review

The Department was also involved in reviewing, editing and sharing comments on the Service Agreements for GRDB and Hydromet, the Agriculture Sector Strategy Road map, the GRDB Marketing Strategy and the GRDB 2013 Annual Report.

c) Agricultural Conference

The Department was involved in the organizing of the Ministry of Agriculture's Agriculture Research Conference held under the theme "**Consolidating Food and Nutrition Security in the Region – Increasing Economic Opportunities and Entrepreneurship for Rice & Other Agriculture**", in Georgetown, Guyana, from October 20th to 22nd, 2014. Duties executed by the Department in this regard included coordinating with other agencies and the planning committee to ensure all preparations were made for the successful hosting of the conference. The conference saw papers being presented by researchers from agencies within Guyana and further afield. The presentation categories were: global and regional trade issues, marketing, post-harvest management, sustainable production systems, product development and value added, climate change and its influence. A paper on the Processing Capacity of Guyana's Rice Industry was made by the Department at the conference.

Scenes from the Agriculture Research Conference



d) Site Visits

During the period, Department staff made several visits, along with other officers of the Board, to mills and export locations to observe operation systems and to verify that SOPs are adhered to.

e) Training

The Department's staff attended a three day workshop on bio gas and renewable energy held at GSA by the University of West Indies and Flensburg University of Applied Science, Germany.



Audit Office of Guyana

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AG: 24/2015

10 April 2015

**REPORT OF THE AUDITOR GENERAL
TO THE MEMBERS OF THE BOARD OF DIRECTORS
OF GUYANA RICE DEVELOPMENT BOARD
ON THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2014**

Chartered Accountants Nizam Ali and Company have audited on my behalf the financial statements of Guyana Rice Development Board for the year ended 31 December 2014, as set out on pages 3 to 21. The audit was conducted in accordance with the Audit Act 2004.

Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with International Standards on Auditing issued by the International Federation of Accountants (IFAC) and those of the International Organisation of Supreme Audit Institutions (INTOSAI). Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

As required by the Audit Act 2004, I have reviewed the audit plan and procedures, working papers, report and opinion of the Chartered Accountants. I have also had detailed discussions with the Chartered Accountants on all matters of significance to the audit and had carried out additional examinations, as necessary, in arriving at my opinion.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Opinion

In my opinion, the financial statements presents fairly, in all material respects, the financial position of Guyana Rice Development Board as at 31 December 2014, and its financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards and comply with the Guyana Rice Development Board Act.

Emphasis of Matter

Without qualifying my opinion, I draw attention to:

- (i) Note 8 (b) to the financial statements. This note explains that the Board does not have title to certain assets reflected in these financial statements.
- (ii) Note 11 which explains that the recoverability of demurrage cost of \$471,226,044 is dependent on the outcome of ongoing discussion with the Government of Guyana.



AUDIT OFFICE
63 HIGH STREET
KINGSTON
GEORGETOWN
GUYANA

Guyana Rice Development Board
Statement of Financial Position
December 31, 2014
 With comparative figures for 2013
 (Expressed in Guyana Dollars)

	<u>Notes</u>	<u>2014</u> \$	<u>2013</u> \$
Property, plant and equipment	8 (a)	<u>91,395,808</u>	<u>75,387,695</u>
Current assets			
Inventories	6	3,475,230	11,814,850
Accounts receivable and prepayments	7	205,954,994	55,500,883
Government of Guyana and related entities	11	508,686,588	3,549,668
Cash and deposits	5	<u>1,384,534,738</u>	<u>950,552,225</u>
Total current assets		<u>2,102,651,550</u>	<u>1,021,417,626</u>
Total assets		<u>2,194,047,358</u>	<u>1,096,805,321</u>
Equity and Liabilities			
Capital Contribution and Reserve			
Capital contribution	9	202,798,444	202,798,444
Government of Guyana - Grant	10	41,674,236	41,674,236
Accumulated earnings		<u>358,835,993</u>	<u>169,554,125</u>
		<u>603,308,673</u>	<u>414,026,805</u>
Current Liabilities			
Government of Guyana and related entities	11	1,583,784,922	663,149,946
Accounts payable and accruals	12	2,357,733	2,650,359
Bank balance		<u>4,596,030</u>	<u>16,978,211</u>
Total current liabilities		<u>1,590,738,685</u>	<u>682,778,516</u>
Total equity and liabilities		<u>2,194,047,358</u>	<u>1,096,805,321</u>


 Director


 Director

The accompanying notes form an integral part of these financial statements.

Guyana Rice Development Board
Statement of Profit or Loss and Other Comprehensive Income
For the year ended December 31, 2014
 With comparative figures for 2013
 (Expressed in Guyana Dollars)

	<u>Notes</u>	2014 <u>\$</u>	2013 <u>\$</u>
Revenue			
Sales commission		714,336,181	551,007,461
Other income	14	127,277,419	161,044,926
		<u>841,613,600</u>	<u>712,052,387</u>
Operating expense			
Administrative, finance and audit	13	135,442,601	124,774,442
Grading, marketing, research and extension	13	449,390,804	380,058,789
Other operating expenses	13	<u>67,498,327</u>	<u>48,672,321</u>
		<u>652,331,732</u>	<u>553,505,552</u>
Profit for the year		<u><u>189,281,868</u></u>	<u><u>158,546,835</u></u>

The accompanying notes form an integral part of these financial statements.

Guyana Rice Development Board
Statement of Change in Equity
For the year ended December 31, 2014
 With comparative figures for 2013
 (Expressed in Guyana Dollars)

	Capital Contribution	Government Grant	Accumulated Earnings	Total
	<u>\$</u>	<u>\$</u>	<u>\$</u>	<u>\$</u>
Year Ended December 31, 2014				
Balance as at Beginning of year	202,798,444	41,674,236	169,554,125	414,026,805
Profit for the year	-	-	189,281,868	189,281,868
Balance as at end of year	<u>202,798,444</u>	<u>41,674,236</u>	<u>358,835,993</u>	<u>603,308,673</u>
Year Ended December 31, 2013				
Balance as at Beginning of year	202,798,444	41,674,236	11,007,290	255,479,970
Profit for the year	-	-	158,546,835	158,546,835
Balance as at end of year	<u>202,798,444</u>	<u>41,674,236</u>	<u>169,554,125</u>	<u>414,026,805</u>

The accompanying notes form an integral part of these financial statements.

Guyana Rice Development Board
Statement of Cash Flows
For the year ended December 31, 2014
 With comparative figures for 2013
 (Expressed in Guyana Dollars)

	2014	2013
	<u>\$</u>	<u>\$</u>
OPERATING ACTIVITIES		
Profit for the year	189,281,868	158,546,835
Adjustment for :		
Loss on disposal of assets	7,435	-
Depreciation	8,871,959	8,816,608
Operating income before working capital changes	<u>198,161,262</u>	<u>167,363,443</u>
Decrease in inventories	8,339,620	6,456,524
(Increase) in accounts receivable and prepayments	(150,454,111)	(42,653,783)
Increase in Government of Guyana and related entities	415,498,056	253,993,415
(Decrease) in accounts payable and accruals	(292,626)	(3,003,496)
Net cash inflow from operating activities	<u>471,252,201</u>	<u>382,156,103</u>
INVESTING ACTIVITIES		
Acquisition of plant and equipment	(24,887,507)	(14,319,015)
Net cash outflow from investing activities	<u>(24,887,507)</u>	<u>(14,319,015)</u>
Net movement in cash and cash equivalents	446,364,694	367,837,088
Cash and cash equivalents at beginning of the year	<u>933,574,014</u>	<u>565,736,926</u>
Cash and cash equivalents at end of the year	<u>1,379,938,708</u>	<u>933,574,014</u>
Cash and cash equivalents comprise of:		
Cash and deposits	1,384,534,738	950,552,225
Bank balance	(4,596,030)	(16,978,211)
	<u>1,379,938,708</u>	<u>933,574,014</u>

The accompanying notes form an integral part of these financial statements.

Guyana Rice Development Board
Notes to the Financial Statements
December 31, 2014
(Expressed in Guyana Dollars)

1. Incorporation and activities

(a) Incorporation

The Board is a state owned enterprise incorporated under Act No. 15: Guyana Rice Development Board Act .

(b) Principal Activity

The principal activity of the Board is to facilitate the export of rice from Guyana.

2. New Standards , amendments and interpretation adopted

Annual improvements to the IFRS's 2009-2011 Cycle in accordance with the International Financial Reporting Standards which were adopted in the current financial year are; IFRS 1 First-Time Adoption of IFRS, IAS 1 Presentation of Financial Statements, IAS 16 Property, Plant and Equipment, IAS 32 Financial Instruments Presentation, IAS 34 Interim Financial Reporting.

In addition, IFRS 13 Fair Value Measurement which defines fair value and replaces the requirement contained in individual standards, has been adopted into the financial statements.

The adoption of these amendments did not have any material effect on the Company's financial statements.

New Standards , amendments and interpretation not yet adopted

A number of new standards, amendments to standards and interpretations are effective for annual periods beginning on or after January 1, 2014, and have not been applied in preparing these financial statements. None of these are expected to have a significant effect on the financial statements.

3. (a) Statement of compliance and basis of preparation

The financial statements are prepared in Guyana Dollars in accordance with International Financial Reporting Standards. They have been prepared under the historical cost convention as modified by the valuation of financial assets available for sale and financial assets at fair value through profit or loss.

The preparation of these financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amount of assets, liabilities, contingent assets and contingent liabilities at the date of the financial statements and income and expenses during the period. Actual results could differ from these estimates. Areas involving critical accounting estimate or a higher degree of judgement are identified in note 4.

The financial statements were authorized for issue by the Board of Directors on March 23, 2015.

Guyana Rice Development Board
Notes to the Financial Statements
December 31, 2014
 (Expressed in Guyana Dollars)

3. Significant accounting policies (continued)

(b) Property, plant and equipment

Property, plant and equipment are stated generally at historical cost, except for those measured at fair value, when they are tested for impairment. Historical cost includes expenditure directly attributable to the acquisition of the items.

Property, plant and equipment is tested for impairment whenever there is objective evidence that the carrying amount of the asset may exceed its recoverable amount. Any resulting impairment loss is recognized immediately in the statement of profit or loss and other comprehensive income.

Subsequent costs are included in the asset's carrying value or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Board and the cost of the item can be measured reliably. The carrying amount of replaced parts are derecognized. All repairs and maintenance are charged to the statement of profit or loss and other comprehensive income during the financial period in which they are incurred.

Depreciation of property, plant and equipment is provided for over the estimated useful lives of the respective assets using the straight-line method.

The following annual depreciation rates are applicable for the respective asset categories:

Land	Nil
Buildings	2%
Plant, machinery and equipment	10% - 20%
Motor vehicles	25%
Work in progress	Nil

The gain or loss arising on disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognized in the statement of profit or loss and other comprehensive income.

(c) Financial instruments

Financial instruments include cash resources, Government of Guyana and related entities, trade receivables and prepayment, bank balance, accounts payable and accruals. The particular recognition and measurement methods adopted are disclosed in the individual policy statements associated with each item.

Guyana Rice Development Board
Notes to the Financial Statements
December 31, 2014
(Expressed in Guyana Dollars)

3. Significant accounting policies (continued)

(d) Inventories

Inventories are valued at the lower of cost and net realizable value with cost being determined on the First in First Out (FIFO) basis.

(e) Cash and cash equivalents

For the purpose of the cash flow statement, cash and cash equivalents comprise cash in hand, deposit held on call with banks and other bank balances.

(f) Foreign Currencies

Transactions involving foreign currencies are translated at the exchange rate ruling at the dates of these transactions. At the statement of financial position date, assets and liabilities denominated in foreign currencies are translated into Guyana dollars at the exchange rate ruling at that date. Gains and losses resulting from the settlement of transactions and from the translated monetary assets and liabilities denominated in foreign currencies, are recognized in the statement of profit or loss and other comprehensive income.

(g) Revenue Recognition

Revenue from sales and services are recognized upon performance of services or delivery of products and customer acceptance.

(h) Trade Receivables

Trade receivables are carried at original invoice value less a provision made for doubtful debts based on a review of all outstanding amounts at year end. Bad debts are written off when identified.

(i) Taxation

Under the Guyana Rice Development Board Act No. 15 of 1994 section (iv) paragraph 32 (1) the Board is exempted from the payment of Corporation and Property Taxes.

(j) Provisions

Provisions are recognized when the Board has a present legal or constructive obligation as a result of past events, it is probable that an outflow embodying economic benefits will be required to settle the obligation, and a reliable estimate of the amount of the obligation can be made.

(k) Leases

Lease in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases are charged to the statement of profit or loss and other comprehensive income on a straight-line basis over the period of the lease. All leasing arrangement to which the Board is a party are considered operating lease.

(l) Certain comparatives were restated to conform with current year presentation.

Guyana Rice Development Board
Notes to the Financial Statements
December 31, 2014
(Expressed in Guyana Dollars)

4. Critical accounting judgements and key sources of estimation uncertainty

In the application of the Board's accounting policies, which are described in note 3, the directors are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

Key sources of estimation uncertainty

The following are the key assumptions concerning the future, and other key sources of estimation uncertainty at the statement of financial position date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities in the financial statements.

(i) Trade and other receivables

On a regular basis, management reviews trade and other receivables to assess impairment. Based on information available as to the likely impairment in cash flows, decisions are taken in determining appropriate provisions to be made for bad and doubtful debts.

(ii) Useful lives of plant and equipment

The residual values and useful lives of plant and equipment are reviewed at each reporting date and estimates made of the values expected to be obtained from disposal of the asset at the end of their useful lives and the expected period over which the assets are expected to be available for use. Judgements are also made of costs to be capitalised.

(iii) Impairment of assets

Where there are indicators that an asset may be impaired, the Board is required to estimate the asset's recoverable amount. Recoverable amount is the greater of value in use and fair value less costs to sell. Determining the value in use requires the Board to estimate expected future cash flows associated with the assets and a suitable discount rate in order to calculate present value. No impairment of non-financial assets have been recorded for the year ended December 31, 2014.

Guyana Rice Development Board
Notes to the Financial Statements
December 31, 2014
(Expressed in Guyana Dollars)

	2014	2013
	<u>\$</u>	<u>\$</u>
5. Cash and deposits		
Cash in hand	32,281,795	783,200
Cash at bank	1,339,746,837	937,337,682
Term deposit (average interest 0.6 % per annum)	<u>12,506,106</u>	<u>12,431,343</u>
	<u>1,384,534,738</u>	<u>950,552,225</u>
<p>Included in Cash and deposits are amounts totalling G\$9,607,510 relating to funds held by the Board on behalf of the Government of Guyana for the execution of the Moco Moco project and the Agriculture Development and Support Service project. There is a corresponding liability of this amount included in Government of Guyana and related entities.</p>		
	2014	2013
	<u>\$</u>	<u>\$</u>
6. Inventories		
Stores	2,756,930	5,598,650
Fertilizers	<u>718,300</u>	<u>6,216,200</u>
	<u>3,475,230</u>	<u>11,814,850</u>
	2014	2013
	<u>\$</u>	<u>\$</u>
7. Accounts receivable and prepayments		
Trade receivables	346,898,185	208,491,946
Sundry receivables	63,452,157	52,583,983
Prepayments	<u>1,655,035</u>	<u>1,495,711</u>
	412,005,377	262,571,640
Less Provision for impairment	<u>(206,050,383)</u>	<u>(207,070,757)</u>
	<u>205,954,994</u>	<u>55,500,883</u>

Guyana Rice Development Board
Notes to the Financial Statements
Year ended December 31, 2014
(Expressed in Guyana Dollars)

8. Property, Plant and Equipment

(a) Cost	Land and Building	Plant, Machinery & Equipment	Motor Vehicle	Work in progress	Total
	\$	\$	\$	\$	\$
At January 1, 2014	54,852,169	91,017,546	47,620,256	7,719,467	201,209,438
Additions	-	12,806,750	7,343,424	4,737,333	24,887,507
Disposals	-	(5,056,211)	(1,514,063)	-	(6,570,274)
At December 31, 2014	<u>54,852,169</u>	<u>98,768,085</u>	<u>53,449,617</u>	<u>12,456,800</u>	<u>219,526,671</u>

Accumulated Depreciation

At January 1, 2014	14,820,829	63,508,158	47,492,756	-	125,821,743
Charges for the year	1,084,044	5,828,559	1,959,356	-	8,871,959
Disposals	-	(5,048,776)	(1,514,063)	-	(6,562,839)
At December 31, 2014	<u>15,904,873</u>	<u>64,287,941</u>	<u>47,938,049</u>	<u>-</u>	<u>128,130,863</u>

Net Book Value

At December 31, 2014	<u>38,947,296</u>	<u>34,480,144</u>	<u>5,511,568</u>	<u>12,456,800</u>	<u>91,395,808</u>
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Cost	Land and Building	Plant, Machinery & Equipment	Motor Vehicle	Work in progress	Total
	\$	\$	\$	\$	\$
At January 1, 2013	54,852,169	84,417,998	47,620,256	-	186,890,423
Additions	-	6,599,548	-	7,719,467	14,319,015
At December 31, 2013	<u>54,852,169</u>	<u>91,017,546</u>	<u>47,620,256</u>	<u>7,719,467</u>	<u>201,209,438</u>

Accumulated Depreciation

At January 1, 2013	13,736,785	58,594,594	44,673,756	-	117,005,135
Charges for the year	1,084,044	4,913,564	2,819,000	-	8,816,608
At December 31, 2013	<u>14,820,829</u>	<u>63,508,158</u>	<u>47,492,756</u>	<u>-</u>	<u>125,821,743</u>

Net Book Value

At December 31, 2013	<u>40,031,340</u>	<u>27,509,388</u>	<u>127,500</u>	<u>7,719,467</u>	<u>75,387,695</u>
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- (b) The Guyana Rice Development Board has not obtained title to all land and buildings vested in it from Guyana Rice Export Board and National Padi and Rice Grading Centre and transfers from National Agricultural Research Institute and Mahaica, Mahaicony, Abary, Agricultural Development Authority - Onverwagt. The value of properties included in these financial statements for which title was not obtained amounted to \$43,979,679. To date, titles have been obtained for Government Land situated at and being plot 'GRDB' being portion of subplot 'F' part of Block 'X' of lot 'M' Pln. Vreed-en-Hoop, West Coast Demerara and subplot 'A' comprising plot 'X' of lot 3 and plot 'Y' of lot 4 Pln. Anna Regina Essequibo Coast.

Guyana Rice Development Board
Notes to the Financial Statements
December 31, 2014
(Expressed in Guyana Dollars)

	2014	2013
	\$	\$
9. Capital Contribution		
This Represents :		
(a) The value of net assets taken over by the Guyana Rice Development Board at January 2, 1995 on the dissolution of the National Padi & Rice Grading Centre (NPRGC) and the Guyana Rice Export Board (GREB).	137,472,973	137,472,973
(b) Adjustment of the net liabilities relating to the GREB Revolving Fund	38,674,345	38,674,345
(c) The valuation of tangible fixed assets taken over by the Guyana Rice Development Board during 1995 from National Agricultural Research Institute - Burma and Mahaica, Mahaicony, Abary, Agricultural Development Authority- Onverwagt	26,651,126	26,651,126
	<u>202,798,444</u>	<u>202,798,444</u>
	2014	2013
	\$	\$
10. Government of Guyana Grant	<u>41,674,236</u>	<u>41,674,236</u>
	2014	2013
	\$	\$
11. Government of Guyana and related entities		
Ministry of Finance Levy Account	3,469,588	3,549,668
Government of Guyana- Other	(1,583,784,922)	(663,149,946)
Guyana Sugar Corporation	505,217,000	-
Mards Rice Milling Complex	30,028,266	30,028,266
	(1,045,070,068)	(629,572,012)
Less Provision for impairment	(30,028,266)	(30,028,266)
	<u>(1,075,098,334)</u>	<u>(659,600,278)</u>
Included In:		
Current Assets	508,686,588	3,549,668
Current Liability	(1,583,784,922)	(663,149,946)
	<u>(1,075,098,334)</u>	<u>(659,600,278)</u>
<p>Included in Government of Guyana- Other is a recoverable amount of \$471,226,044 relating to demurrage cost for the period January 2012 to February 2013. Under the agreement signed between the Guyana Rice Development Board and La Casa (Venezuela) the contracted price is inclusive of cost, insurance and freight (CIF).</p> <p>The Guyana Rice Development Board has contended that the demurrage cost is incurred at the port of destination, and therefore the Board should not be liable for such cost.</p> <p>All demurrage cost previously incurred has been absorbed by the Government of Guyana, and the Board is currently in discussion with the Government of Guyana for a settlement of the amount of \$471,226,044.</p>		
	2014	2013
	\$	\$
12. Accounts payable and accruals		
Sundry payable and accruals	<u>2,357,733</u>	<u>2,650,359</u>

Guyana Rice Development Board
Notes to the Financial Statements
Year ended December 31, 2014
 (Expressed in Guyana Dollars)

	2014 \$	2013 \$	2014 \$	2013 \$	2014 \$	2013 \$
	Administrative, Finance & Audit		Grading, Marketing, Research & Extension		Other Operating Expense	
13. Operating expense						
Advertising	4,966,195	8,591,728	425,000	-	48,720	-
Audit and Legal Fees	4,926,685	5,314,175	-	-	-	-
Board and Committee	-	-	-	-	2,685,015	2,054,728
Contribution to Community	-	38,000	38,600	62,720	37,130,102	31,096,577
Depreciation	3,637,358	1,729,930	4,787,300	7,079,403	447,301	7,275
Electricity	6,238,549	4,623,931	1,465,776	1,449,637	-	-
Employment Cost	87,713,907	79,239,770	305,582,131	247,779,947	9,313,354	-
Entertainment and Travel	3,122,035	4,215,054	1,538,412	1,952,077	-	-
Bank Charges	-	-	-	-	2,282,741	1,248,868
Insurance	800,588	780,937	843,248	835,026	-	-
Licenses and Fitness	38,500	26,000	57,460	306,880	-	-
Loss on Exchange	-	-	-	-	-	1,507
Materials and Supplies	3,599,038	3,630,225	57,499,048	58,134,815	344,084	770,217
Provision for damaged/expired stock	-	885,161	-	2,093,389	-	-
Newspaper/ Magazine	4,217,303	669,200	292,064	347,542	-	-
Printing	988,853	1,225,811	47,560	-	-	-
Rates and Taxes	-	-	262,348	753,713	-	-
Repairs and Maintenance	3,925,995	4,383,224	25,252,189	20,146,809	168,056	-
Rental of Equipment & Office	-	-	-	336,000	-	-
Security	-	-	285,000	245,000	-	-
Seminar/Conference /Exhibition	1,959,549	122,180	62,500	119,396	22,272	9,500
Shipping Expense	-	-	6,720,191	5,514,680	-	-
Balance c/f	126,134,555	115,475,326	405,158,827	347,157,034	52,441,645	35,188,672

Guyana Rice Development Board
Notes to the Financial Statements
Year ended December 31, 2014
 (Expressed in Guyana Dollars)

	2014 \$	2013 \$	2014 \$	2013 \$	2014 \$	2013 \$
13. Operating expense						
Balance b/f	126,134,555	115,475,326	405,158,827	347,157,034	52,441,645	35,188,672
Sundries	2,094,079	1,641,722	2,319,930	1,292,024	10,855	2,000
Telephone Expense	4,311,236	4,089,077	2,211,509	2,252,955	911,049	-
Transportation and Vehicle Expense	2,875,731	3,568,317	11,832,925	9,138,570	-	-
Weeding Dam Trench	27,000	-	1,253,690	816,000	-	-
Stocking Loading/ Weighting	-	-	125,100	128,205	-	-
Grading Fees	-	-	-	1,189,729	-	-
Infrastructure Work	-	-	448,000	-	-	1,330,000
Cleaning and sale of Seed Padi	-	-	2,852,043	2,500,500	-	-
Broadcasting - Air/Manual	-	-	2,812,100	2,504,923	-	-
Drainage and Irrigation	-	-	8,173,118	8,000	-	-
Ploughing and Roughing	-	-	6,797,775	8,651,432	-	-
ASSP	-	-	7,440	176,750	-	-
Caribbean Week of Agriculture	-	-	-	-	-	2,176,579
FLAR	-	-	-	-	10,627,071	5,450,674
Reaping and Harvesting	-	-	-	698,194	-	-
Provision for impairment	-	-	-	-	627,490	3,802,821
Spraying	-	-	1,056,030	652,130	-	-
Other expenses	-	-	816,708	330,040	2,390,217	-
Bursary Award	-	-	-	-	490,000	721,575
Farmers Field School	-	-	3,525,609	2,562,303	-	-
	135,442,601	124,774,442	449,390,804	380,058,789	67,498,327	48,672,321

Guyana Rice Development Board
Notes to the Financial Statements
December 31, 2014
(Expressed in Guyana Dollars)

	2014	2013
	\$	\$
14. Other Income		
Seed padi sales	75,978,316	102,805,076
Grading fees	149,565	327,370
Interest income	3,543,842	2,738,784
Commercial padi sales	18,782,243	25,132,560
Mill license	6,410,000	6,650,000
Export license	4,500,000	4,250,000
Gain on exchange	12,037,411	7,195,724
Other	4,672,578	10,759,412
By-Product Sales	1,203,464	1,186,000
	<u>127,277,419</u>	<u>161,044,926</u>
	2014	2013
	\$	\$
15. Profit for the year	<u>189,281,868</u>	<u>158,546,835</u>
Profit for the year is shown after charging the following :		
Auditors' remuneration	1,650,000	1,650,000
Directors fees and expenses	2,685,015	2,054,728
Depreciation	8,871,959	8,816,608
16. Director Fees		
Fees paid to Director are as follows :	2014	2013
	\$	\$
Chairman	150,000	112,500
Other Directors	1,200,000	810,000
Secretary	120,000	90,000
	<u>1,470,000</u>	<u>1,012,500</u>
17. Key Management Personnel		
During the year 7 (2013 -7) key management personnel received the following benefits :		
	2014	2013
	\$	\$
Salary	33,410,400	31,384,980
Entertainment Allowance	1,200,000	1,200,000
Travelling Allowance	600,000	600,000
Telephone Allowance	732,000	732,000
Vacation Allowance	2,784,200	2,615,415
Others	1,260,000	660,000
	<u>39,986,600</u>	<u>37,192,395</u>

Guyana Rice Development Board
Notes to the Financial Statements
Year ended December 31, 2014
 (Expressed in Guyana Dollars)

18. Financial risk management

Introduction and overview

The Board has exposure to the following risks from its use of financial instruments:

- Credit risk
- Liquidity risk
- Foreign currency risk
- Interest rate
- Price risk

This note presents information about the Board's exposure to each of the above risks, the Board's objectives, policies and processes for measuring and managing such risks. The Directors of the Guyana Rice Development Board have overall responsibility for the establishment and oversight of the entity's risk management framework.

(a) Credit risk

Credit risk refers to the risk that a customer or counterparty will default on its contractual obligations resulting in financial loss to the Board.

The Board faces credit risk in respect of its trade and other receivables. However, this risk is controlled by close monitoring of these balances by the Board. The maximum credit risk faced by the Board is the balance reflected in the financial statements.

	2014	2013
	\$	\$
Past due but not impaired	205,954,994	55,500,883
<u>Ageing of trade and other receivables which were past due but not impaired</u>		
31-60 days	10,297,750	2,775,044
61-90 days	20,595,499	5,550,088
91-120 days	175,061,745	47,175,751
	205,954,994	55,500,883

Guyana Rice Development Board
Notes to the Financial Statements
Year ended December 31, 2014
 (Expressed in Guyana Dollars)

18. Financial risk management, continued

(b) Liquidity risk

Liquidity risk is the risk that the Board will encounter difficulty in raising funds to meet its commitments associated with financial instruments.

The Board manages its liquidity risk by maintaining an appropriate level of resources in liquid or near liquid form.

The following table shows the distribution of assets and liabilities by maturity

	Maturing					Total
	December 31, 2014					
	Within one year	Over one year	3-5 years	over 5 years	Total	
	\$	\$	\$	\$	\$	
Assets						
on demand						
Accounts receivables	204,299,959	-	-	-	-	204,299,959
Other receivables	1,655,035	-	-	-	-	1,655,035
Government of Guyana and related entities	508,686,588	-	-	-	-	508,686,588
Cash and deposits	1,384,534,738	-	-	-	-	1,384,534,738
	2,099,176,320	-	-	-	-	2,099,176,320
Liabilities						
Government of Guyana and related entities	1,583,784,922	-	-	-	-	1,583,784,922
Accounts payable and accruals	2,357,733	-	-	-	-	2,357,733
Bank balance	4,596,030	-	-	-	-	4,596,030
	1,590,738,685	-	-	-	-	1,590,738,685
Liquidity Gap	508,437,635	-	-	-	-	508,437,635

Guyana Rice Development Board
Notes to the Financial Statements
Year ended December 31, 2014
 (Expressed in Guyana Dollars)

18. Financial risk management, continued

(b) Liquidity risk

	Maturing				Total
	December 31, 2013				
	Within one year	Over one year	3-5 years	over 5 years	
	\$	\$	\$	\$	\$
Assets					
on demand					
Accounts receivables	54,005,172	-	-	-	54,005,172
Other receivables	1,495,711	-	-	-	1,495,711
Government of Guyana and related entities	3,549,668	-	-	-	3,549,668
Cash and deposits	950,552,225	-	-	-	950,552,225
	1,009,602,776	-	-	-	1,009,602,776
Liabilities					
Government of Guyana and related entities	663,149,946	-	-	-	663,149,946
Accounts payable and accruals	2,650,359	-	-	-	2,650,359
Bank balance	16,978,211	-	-	-	16,978,211
	682,778,516	-	-	-	682,778,516
Liquidity Gap	326,824,260	-	-	-	326,824,260

Guyana Rice Development Board
Notes to the Financial Statements
Year ended December 31, 2014
 (Expressed in Guyana Dollars)

18. Financial risk management, continued

(c) Foreign currency risk

The Board is exposed to foreign currency risk when funds are transferred from its US dollar bank account to its local account to make payments to millers, exporters and to settle expenses.

	2014	2013
	\$	\$
<u>Assets</u>		
United States Dollars at the equivalent of G\$	735,777,305	755,933,447

The Board's exposure to such risk is mitigated through the transferral of foreign currency at favourable rates of exchange and through negotiation with bank for a better rate of exchange.

As at year end, if the Guyana Dollar had weakened/strengthened by 1% against the United States Dollars, with all other variables held constant, the profit for the year would have been G\$7,357,773 lower/higher (2013- G\$7,559,334 lower/higher).

(d) Interest rate risk

As of the year end, the Board's exposure to interest rate risk is as follows:

	2014			
	Fixed interest rate	Floating interest rate	Non-interest bearing	Total
Financial assets				
Accounts receivables	-	-	204,299,959	204,299,959
Other receivables	-	-	1,655,035	1,655,035
Government of Guyana and related entities	-	-	508,686,588	508,686,588
Cash and deposits	13,552,931	735,777,305	635,204,502	1,384,534,738
	<u>13,552,931</u>	<u>735,777,305</u>	<u>1,349,846,084</u>	<u>2,099,176,320</u>
Financial liabilities				
Government of Guyana and related entities	-	-	1,583,784,922	1,583,784,922
Accounts payable and accruals	-	-	2,357,733	2,357,733
Bank balance	-	-	4,596,030	4,596,030
	<u>-</u>	<u>-</u>	<u>1,590,738,685</u>	<u>1,590,738,685</u>

Guyana Rice Development Board
Notes to the Financial Statements
Year ended December 31, 2014
 (Expressed in Guyana Dollars)

18. Financial risk management, continued

(d) Interest rate risk

	2013			Total
	Fixed interest rate	Floating interest rate	Non-interest bearing	
Financial assets				
Accounts receivables	-	-	54,005,172	54,005,172
Other receivables	-	-	1,495,711	1,495,711
Government of Guyana and related entities	-	-	3,549,668	3,549,668
Cash and deposits	13,472,810	755,933,447	181,145,968	950,552,225
	13,472,810	755,933,447	240,196,519	1,009,602,776
Financial liabilities				
Government of Guyana and related entities	-	-	663,149,946	663,149,946
Accounts payable and accruals	-	-	2,650,359	2,650,359
Bank balance	-	-	16,978,211	16,978,211
	-	-	682,778,516	682,778,516

(e) Price risk

Price risk is the risk that the value of financial instrument will fluctuate as a result of changes in market prices whether those changes are caused by factors specific to the individual security of its issuer or factors affecting securities traded in the market. The Board is a governmental organisation and does not trade in equity investments.

Management continually identifies and put mechanisms in place in order to minimize this risk.

19. Contingencies

In the ordinary course of business the Board is involved in legal proceedings. Management does not believe that the outcome of these proceedings, in aggregate, will have a material adverse effect on the Board's results of operations and accordingly, no provision for contingencies is necessary.



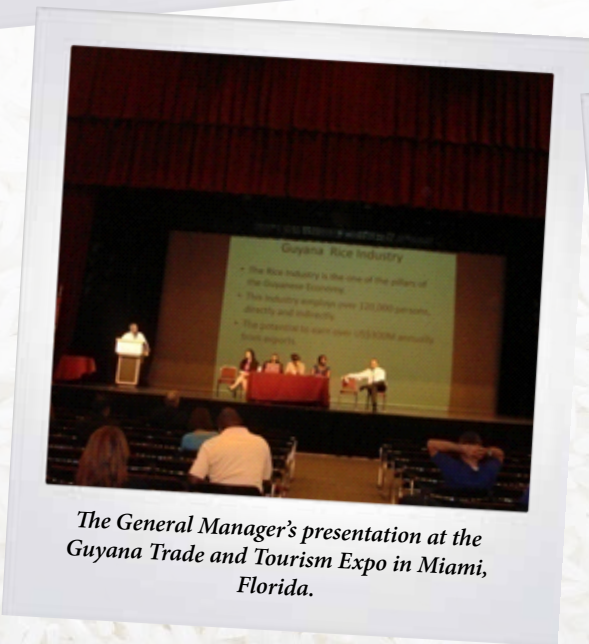
Minister of Agriculture at the GRDB Booth at the Agriculture Cook-off



GRDB staff at the 13th Caribbean Week of Agriculture in Suriname



Representatives of GRDB at the Guyana Trade and Tourism Expo in Miami, Florida



The General Manager's presentation at the Guyana Trade and Tourism Expo in Miami, Florida.



GRDB booth at the Region 5 Career Day



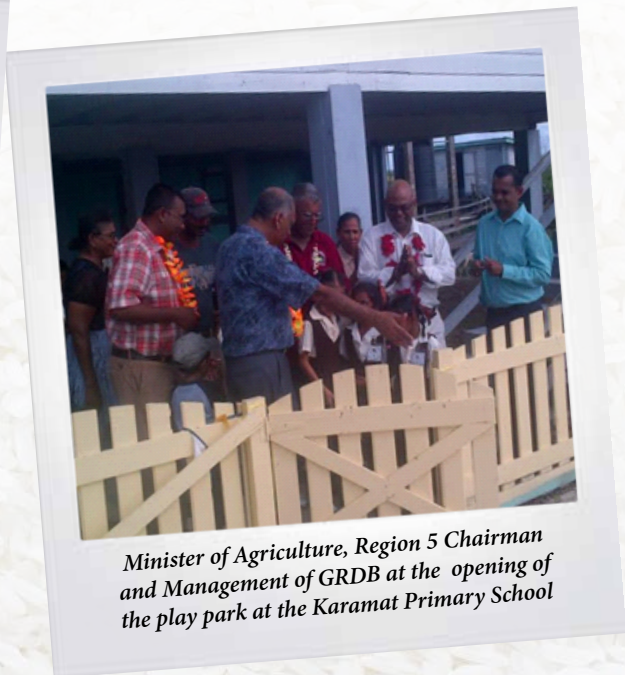
GRDB booth at the Berbice Expo



Launching of Agriculture Month at the Guyana School of Agriculture

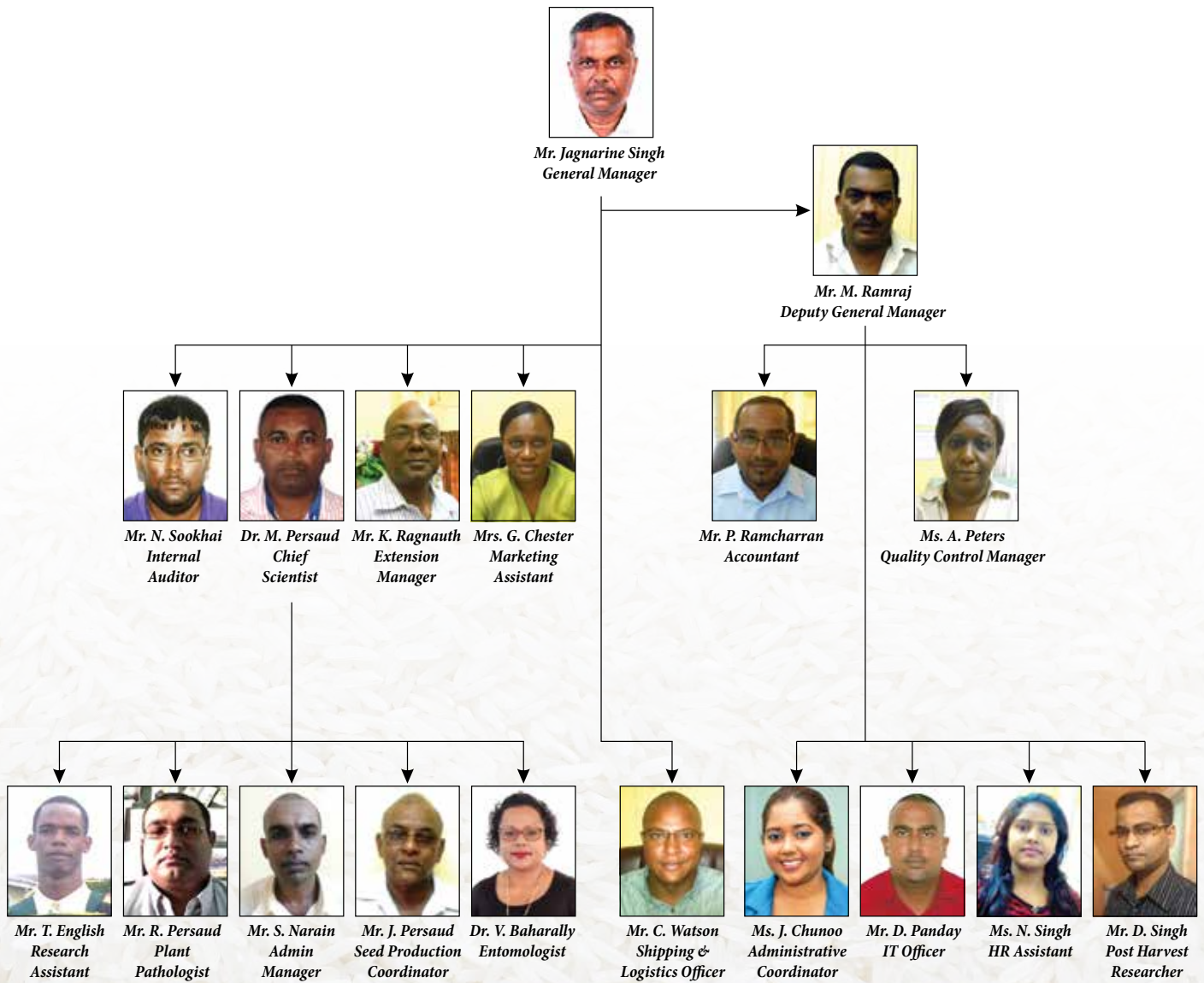


Participants at Licence Graders Training Course



Minister of Agriculture, Region 5 Chairman and Management of GRDB at the opening of the play park at the Karamat Primary School

HEADS OF DEPARTMENT



STAFF

Head Office

Administrative Department

General Manager	Jagnarine Singh M. Sc. Marketing (University of Arkansas) B.Sc. Agriculture (UG) Dip. Agriculture (GSA)
Deputy General Manager	Madanlall Ramraj MBA Business Administration (University of Phoenix) B. Sc. Business Administration and Management (York University, Toronto)
Administrative Coordinator	Julia Chunoo B.Sc. Biology (UG) Dip. Business Management (Association Business Executive) Cert. Human Resources (UG)
Human Resources Assistant	Nashree Singh B. Sc. Public Management (UG) Dip. Business Management (University of Cambridge)
Shipping and Logistics Officer	Colin Watson B. Sc. Agronomy (Ciego De Avila, Cuba) Dip. Computer Science (UG)
Information Technology Officer	Davin Panday PC Technicians Certification Comptia Certification Network + Microsoft Certification MCITP Apple Certification

Finance Department

Accountant

Peter Ramcharran
ACCA Level 2
CAT

Assistant Accountants

Errol Chester
Dip. Accounts (UG)

Abigail Constantine
ACCA Level 2
CAT

Internal Auditor

Noel Sookhai
ACCA
CAT

Export and Trade Facilitation

Marketing Assistant

Gloria Chester
B. Sc. Management (UG)
Dip. Marketing (UG)

Research Assistant

Barabra Hochen
B. Sc. Agriculture (UG)

Post-Harvest Department

Post-Harvest Researcher

Dhirendranath Singh
M.Sc. Agriculture (Yamagata University, Japan)
B. Sc. Agriculture (UG)

Engineer

Ilhaam Sugrim
B. Sc. Mechanical Engineer (University of Cuba)
A. B.Sc. Biology (UG)

Quality Control Department*Quality Control Manager*

Allison Peters
B. Sc. Agriculture (UG)
Dip. Agriculture (GSA)

Region 2*Regional Superintendent*

Deoram Prahalad
B. Sc. Agronomy (Pinar Del Rio, Cuba)
Dip. Agriculture (GSA)

Grading Officers

Ronsard Boodhram
Dip. Agriculture (GSA)

Balkaran Beharry
Dip. Agriculture (GSA)

Kevin Joseph
Cert. Agriculture (GSA)

Sanjay Singh
Cert. Agriculture

Boyd Peters
Cert. Agriculture (GSA)

Technical Assistant

Nalini Sirmat
IT (UG)

Region 3*Regional Superintendent*

Pooran Seeraj
B. Sc. Agriculture (UG)
Dip. Agriculture (GSA)

Grading Officers

Donette Adams
Dip. Secretarial Science (GTI)

Uancy Chichester
Dip. Agriculture (GSA)

Region 4

Regional Coordinator

Charles Hope
B.Sc. Economics (UG)
Dip. Marketing (UG)

Research Assistants

Marsha Hohenkirk
B. Sc. Agriculture (UG)
Dip. Agriculture (GSA)

Heather Wade
B. Sc. Agriculture (UG)

Shemeka Reece
B. Sc. Agriculture (UG)

Grading Officers

Trevonne Wright
Cert. Agriculture (GSA)

Paul A. Harry
Cert. Agriculture (GSA)

Michelle Blair
Cert. Industrial & Social Studies (CLC)
Cert. Communication & Effective Speaking (CLC)
Cert. Internal Audit of a Laboratory management (GNBS)

Colwyn Torrington
Dip. Agriculture (GSA)

Omadevi Lakeram
Dip. Agriculture (GSA)
GAP Certificate (GSA)

Taneisha Bain
Dip. Agriculture (GSA)

Technical Assistants

Ezekiel Jacobs
Cert. Paddy Varietal Identification (GRDB)

Jamal Harris
Cert. Rice & Paddy Grading & Quality Control Management
Cert. Paddy Varietal Identification (GRDB)

Seon Johnson
Cert. Rice & Paddy Grading & - Quality Management (GRDB)
Cert. Paddy Varietal Identification (GRDB)

Cordel Roberts
Mechanical Fitting (GTI) Merundoi Inc.
Industrial and Social Studies (CLC)

Region 5*Regional Co-ordinator*

Errol Joseph
Cert. Agriculture (GSA)

Regional Supervisor

Wanella LaRose
B. Sc. Agronomy (Matanzas, Cuba)

Grading Officers

Beverly Joseph
Cert. Quality Control (UPDP-FAO)

Dwayne London
Dip. Agriculture (GSA)

Darren Vanderstoop
Cert. Agriculture (GSA)

Technical Assistants

Yonette Hawker
Accounts & Budgeting (CLC)

Atoya Felix
Dip. Agriculture (GSA)

Maywattie Mandai

Abdol Da Silva

Region 6

Regional Superintendent

Dasharat Narain
B. Sc. Agronomy (Matanzas, Cuba)
Dip. Agriculture (GSA)

Grading Officers

Lubert Walcott
Cert. Agriculture (GSA)

Arleen Munroe
Cert. Agriculture (GSA)

Steve Lyte
Cert. National Seed Improvement (NPRGC)
Cert. Post-Harvest & Quality Control Management (NPRGC)

Technical Assistant

Tashenie Sewpersaud

Extension Department

Extension Manager

Kuldip Ragnauth
Certified Master Trainer (University of the West Indies)
B. SC. Agriculture (UG)
Dip. Agriculture (GSA)

Region 2

Regional District Extension Officer

Davendra Singh
Dip. Agriculture (GSA)

District Rice Extension Officers

Sophia Boston
Dip. Agriculture (GSA)

Tamesh Ramnauth
Cert. Agriculture (GSA)

Field Officer

Surendra Bhodram

Region 3

District Rice Extension Officer Deoram Garbarran
Dip. Agriculture (GSA)

Region 4 & 5

*Deputy to the Extension Manager
& Head of Regions 4 and 5* Bissessar Persaud
M. Sc. Agricultural Extension
B. Sc. Agriculture (Agronomy) (Cuba)

District Rice Extension Officers

Satish Sookram
Dip. Agriculture (GSA)

Quacie Wilson
Dip. Agriculture (GSA)

Rishal Ramsarran
Dip. Agriculture (GSA)

Delon McKenzie
Cert. Agriculture (GSA)

Amaranth Mangel
Dip. Agriculture (GSA)

Region 6

Agricultural Engineer Sanjiv Sawh
B. Sc. Agriculture Engineering (Ciego De Avila, Cuba)

District Rice Extension Officers

Phillip Jainarine
Cert. Agriculture (GSA)

Marcel Harvey
Cert. Agriculture (GSA)

Field Officers

P. Ramcharitar
Cert. Introduction to Social Work (UG)

Kellyann Carmichael
Dip. Agriculture (GSA)

Region 9

Research Assistant

Wilfred McInroy

Rice Research Station

*Chief Scientist /Plant Breeder/
Head of Station*

Mahendra Persaud
PhD Plant Breeding & Genetics
(Indira Gandhi Agricultural University)
M.Sc. (AG) Plant Breeding & Genetics
(Indira Gandhi Agricultural University)
B. Sc. Agriculture (UG)
Dip. Agriculture (GSA)

Administrative Manager

Satyanand Narain
B.Sc. Agriculture (UG)
Dip. Agriculture (GSA)
Cert. Rice Research Techniques
(Japan International Cooperation Agency)

Plant Breeding

Research Assistant

Violet Henry
B. Sc. Agriculture (UG)

Research Technicians

Elijah B. Adams
Cert. Agriculture (GSA)

Fazal Khan
Cert. Rice Plant Breeding Training Programme
(CIAT Palimar, Colombia)

Jamal Europe
Dip. Agriculture (GSA)

Research Technicians

Sheneza Massiah
Dip. Agriculture (GSA)

Jairam Persaud
Cert. Agriculture (GSA)

Naitram Persaud

Shevon Sharp

Pathology*Pathologist / HOD*

Rajendra Persaud
M. Sc. Plant Pathology (Indira Gandhi Agricultural University)
B. Sc. Agriculture (UG)
Dip. Agriculture (GSA)

Research Assistant

Monica Gouveia-Sookdeo
B. Sc. Biology (UG)
Dip. Education Science (UG)

Research Technician

Dindyal Jagdeo

Entomology*Entomologist / HOD*

Viviane Bahrally
PhD. Entomology (Sam Higginbottom Institute of Agriculture,
Technology and Science, India)
M. Sc. Entomology (Punjab Agricultural University)
B. Sc. Agriculture (UG)
Dip. Agriculture (GSA)

Research Assistants

Beesham Bharat
B. Sc. Agronomy (Pinar Del Rio, Cuba)

Danata McGowan
B. Sc. Agriculture (UG)
Dip. Agriculture (GSA)

Agronomy

Research Assistants

Tyrone English
B. Sc. Agriculture (UG)
Dip. Agriculture (GSA)

Miranda Welch
B. Sc. Agronomy (Pinar Del Rio, Cuba)

Munindra Seeraj
B. Sc. Chemistry (UG)

Miranda Henry
B.Sc. Agriculture (UG)
Dip. Agriculture (GSA)

Technical Assistant

Latoya Jack
Dip. Agriculture (GSA)

Research Technician

Jomaine Sharpe
Dip. Agriculture (GSA)

Seed Production

Seed Production Coordinator

Jaddonauth Persaud
Dip. Agriculture (GSA)

Research Technicians

Davendra Mohabir

Hemant Benimadhoo

APPENDIX 1: Licensed Mills 2014**Region 2**

NAME OF MILLER	ADDRESS
Imam Bacchus and Sons	Affiance Essequibo Coast
Francis Garaban & Son	47 Walton Hall Essequibo
Golden Fleece Rice Inv.	Golden Fleece Essequibo Coast
Dharanpaul Persaud & Son (Vincent Persaud)	Bounty Hall Essequibo
Ramlakhan & Sons	Ex-Mouth Essequibo
La Resource Rice Industry	La Resource Essequibo Coast
Sea Rice Caribbean Inc.	Paradise Essequibo Coast
Sea Rice Caribbean Inc.	Vilvoorden Essequibo Coast
Kayman Sankar & Co. Ltd.	Hampton Court Essequibo
Caricom Rice Mill Ltd.	Anna Regina Essequibo Coast
Wazeer Hussein	Dry Shore Essequibo Coast
Indar Singh	Airy Hall Essequibo Coast
Deonarine Rice Milling	Evergreen Essequibo Coast
Old Mac (Guyana) Inc.	Fairfield Essequibo Coast

Region 3

NAME OF MILLER	ADDRESS
Fuize Khan	Leguan Essequibo Island
Ojha Rice Milling Complex	1&2 Blenheim Leguan
Mohan & Hansraj Persaud (M&H Rice Milling)	Greenwich Park, E.B.E.
Elizabeth Nandlall	29 Blankenburg, W.C.D.
Goed Fortuin Rice Mill (Jeetlall Ramraj)	Goed Fortuin W.C.D.
Lachmie & Rajiv Doobay Rice Milling Complex	Doorn Haag Leguan
Chand's Rice Milling Enterprise	La Bagatelle Leguan
Abdool Hakh & Sons	Harlem W.C.D.
Rumzeight Rice Processors Inc.	Rumzeight W.C.D.
Bhagwandeem Tularam & Sons	La Bagatelle Leguan Essequibo Island
Leguan Rice Milling Inc.	Blenheim Leguan
Madho Bros (Bhagwandin Madho)	Rumzeight W.C.D.
Friendship Rice Mill (Lillashwar Sewram)	Friendship, Wakenaam
Two Brothers Corp	Vergenoegen E.B.E.
Deokinandan	Louisiana Essequibo Island

Regions 4 and 5

NAME OF MILLER	ADDRESS
Rayaadul Hakh Rice Industry	Strangroen, Mahaicony, E.C.D.
Sukhlal Rice Industry (Deonarine Sukhlal)	De Hoop, Mahaica, E.C.D.
Saj Rice Group Inc.	Burma, Mahaicony, E.C.D.
A.C. Hakh & Sons	Golden Grove, W.C.B.
A.C Hakh & Sons	Cane Grove, Mahaica, E.C.D.
Fairfield Rice Inv.	Fairfield, Mahaicony, E.C.D.
Technomills Guyana Inc.	76 Block DD Eccles Industrial Estate, E.B.D.
Guyana Stockfeed Inc.	Farm, E.B.D.
Chaitram Ramroop	Dundee, Mahaicony, E.C.D.
Buddy's Rice Milling Complex	Spooner/Perth, Mahaicony, E.C.D.
Balam & Kheman Ractoo (B&K Ractoo Rice Milling Company)	De Kendren, Mahaicony, E.C.D.
Guy P. Ramotar	De Kendren, Mahaicony, E.C.D.
Sham Persaud (Satya Enterprise)	Felicity, Mahaicony, E.C.D.

Region 6

NAME OF MILLER	ADDRESS
Nand Persaud & Company Limited	No. 36 Village, Corentyne, Berbice
Krishndat Persaud	No.57 Village, Corentyne, Berbice
Tota Budhram	No. # 64 Village, Corentyne, Berbice
Mohamed Sultan Ali Rice Milling Complex (Mohamed Sultan Hakim)	Letter Kenny Village, Berbice
Thakurdial Tulshi	No. 49 Village, Corentyne, Berbice
Jaiswah Boadnarine	No. 62 Village, Corentyne, Berbice
Bhogwattie Bhola	No. 47 Village, Corentyne, Berbice
Harnarine Lakhram	No. 69 Village, Corentyne, Berbice
Lalla Persaud Juggerdeo	No. 0 Village, Corentyne, Berbice
Omanarain Persaud	No. 68 Village, Corentyne, Berbice
Afzal Haniff	No. 63 Village, Corentyne, Berbice
Amazonia Rice Milling Inc.	Johanna, Black Bush Polder, Berbice
Khemharshan Babulal	No. 45 Village, Corentyne, Berbice
T & R Karran (Don Robin Rice Mill Inc.)	Don Robin Village, Corentyne, Berbice

Region 6 cont'd

Sea Rice Caribbean Inc.	Johanna, Black Bush Polder, Berbice
Sea Rice Caribbean Inc.	Johanna, Black Bush Polder, Berbice
Ancient County Rice Investment	34 Tarlogie Farm, Corentyne, Berbice
Rayaadul Hakh Rice Industry	Black Bush Polder, Berbice
Rambrich Enterprise (Leekha Rambrich)	Bengal Farm, Corentyne, Berbice
Kissoon Dyal & Son	Yakusari, Black Bush Polder
P & T Tulshi	No. 48 Village, Corentyne, Berbice
Ramcoomar Ramdeo (Hemraj Rice Mill)	Bush Lot Village, Corentyne, Berbice

Region 9

NAME OF MILLER	ADDRESS
Santa Fe Inc.	52 km/ Georgetown Rd.

APPENDIX 2: Rice Statistics 1970-2014

Year	Hectare Harvested	Paddy Production	Yield Mt/ha	Rice Equiv Tonnes	Quantity Exported (MT)	Value G\$ & US\$
1970	119,182	222,469	1.8	144,605	59,347	18,047
1971	94,551	187,535	1.9	121,989	67,515	21,334
1972	79,462	147,130	1.8	95,639	69,949	25,251
1973	92,821	152,360	1.6	99,034	47,814	25,005
1974	105,741	255,886	2.4	165,657	50,827	49,025
1975	108,486	297,099	2.7	172,259	82,035	84,937
1976	84,027	172,904	2.0	103,754	70,681	73,594
1977	130,528	358,290	2.7	214,972	65,855	66,812
1978	114,846	308,207	2.6	184,985	104,761	95,983
1979	90,227	240,556	2.6	144,328	84,080	80,814
1980	95,991	281,846	2.9	169,107	81,008	87,491
1981	89,053	276,006	3.0	165,604	78,010	110,009
1982	95,280	302,671	3.1	181,603	35,676	60,767
1983	75,807	246,064	3.2	147,639	41,715	64,933
1984	92,987	299,628	3.2	179,785	47,498	80,945
1985	77,777	260,207	3.3	156,124	29,339	56,594
1986	83,977	293,073	3.4	171,044	38,634	57,234
1987	75,146	243,398	3.2	145,879	68,987	157,128
1988	74,223	226,862	3.0	132,281	55,926	139,165
1989	68,544	237,183	3.4	142,310	40,575	367,427
1990	51,368	155,740	3.0	93,444	50,943	513,220
1991	76,209	251,321	3.3	150,783	54,047	US\$17,202,635
1992	77,327	286,000	3.7	171,000	115,102	US\$35,000,135
1993	98,061	336,207	3.4	201,702	124,089	US\$33,045,227
1994	97,660	378,432	3.8	233,111	182,585	US\$55,547,061
1995	132,344	525,500	3.4	315,301	200,336	US\$76,397,522
1996	135,436	543,437	4.0	332,542	262,265	US\$93,716,748
1997	142,782	568,186	3.9	340,911	285,051	US\$84,224,971
1998	129,469	522,907	4.0	339,890	249,755	US\$73,259,786
1999	147,071	562,260	3.8	365,469	251,519	US\$71,035,677
2000	115,872	448,740	3.8	291,967	207,638	US\$51,790,072

APPENDIX 2: Rice Statistics 1970-2014 cont'd

2001	124,565	495,862	3.9	322,310	209,042	US\$50,061,834
2002	107,902	443,654	4.1	288,375	193,416	US\$45,463,590
2003	127,662	546,183	4.3	355,019	200,432	US\$45,273,049
2004	115,742	500,911	4.3	325,592	243,093	US\$55,066,513
2005	106,645	420,365	3.9	273,237	182,175	US\$46,172,149
2006	102,934	472,363	4.6	307,036	204,577	US\$ 54,622,550
2007	105,865	458,653	4.3	298,125	269,436	US \$ 75,251,465
2008	119,792	507,036	4.2	329,574	196,233	US \$ 118,032,803
2009	124,820	553,522	4.4	359,789	260,815	US \$ 114,120,324
2010	131,412	556,193	4.2	361,525	336,313	US \$154,622,744
2011	140,674	619,198	4.4	402,479	305,382	US\$ 173,239,721
2012	143,386	649,320	4.5	422,058	334,140	US \$196,226,960
2013	164,808	823,930	5.0	535,555	394,988	US \$239,826,389
2014	185,021	977,289	5.3	635,238	501,208	US \$249,512,110

APPENDIX 3: Comparison of Yearly Products (2002-2014)

MONTH	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
JANUARY	17,237	8,709	22,641	10,426	7,361	24,026	11,578	9,635	36,137	18,413	25,620	26,032	14,491
FEBRUARY	13,271	8,416	13,295	15,582	10,427	11,518	5,694	21,200	18,790	11,076	12,161	12,324	13,354
MARCH	13,401	11,444	16,911	11,487	9,254	32,189	5,274	14,333	15,204	9,416	11,847	16,020	23,313
APRIL	20,738	13,382	20,931	16,189	17,127	22,644	21,421	13,732	20,651	15,931	21,363	17,148	42,754
MAY	13,160	13,032	32,666	17,911	20,751	28,674	25,008	34,632	35,328	67,188	32,468	26,296	42,587
JUNE	18,172	25,426	28,314	18,261	14,746	26,868	21,361	30,746	31,125	45,922	40,216	44,463	49,500
JULY	15,593	20,674	20,229	13,086	20,706	16,204	19,334	22,757	35,299	17,039	30,162	57,396	44,629
AUGUST	15,378	20,277	13,102	10,149	16,708	18,573	9,091	20,742	19,691	5,988	22,398	35,744	51,304
SEPTEMBER	11,775	9,716	20,656	13,052	21,851	15,861	20,264	15,955	17,925	6,200	23,158	32,534	52,459
OCTOBER	24,541	26,160	17,973	22,566	18,509	25,386	20,551	24,476	33,127	24,018	46,121	51,086	77,837
NOVEMBER	18,736	21,748	21,752	20,629	26,265	25,168	24,527	30,955	40,796	56,560	35,569	29,200	39,194
DECEMBER	11,413	21,448	14,622	12,837	20,872	22,325	12,130	21,653	32,240	27,631	33,058	46,746	49,786
TOTAL	193,415	200,432	243,092	182,175	204,577	269,436	196,233	260,815	336,313	305,382	334,141	394,989	501,208

APPENDIX 4: Exports According to Products 2014

PRODUCT	QUANTITY (MT)	% OF TOTAL EXPORTS
BRAN	15,684	3.00%
C.P.B PK	17	0.00%
C.P.B RICE	1,506	0.30%
CARGO BKN	11,406	2.30%
CARGO RICE	63,207	12.50%
DAM RICE	86	0.00%
PADDY	181,364	36.20%
PARB BKN	1,552	0.30%
PARB RICE	21,400	4.30%
PET RICE	1,570	0.30%
PKG PB BKN	1	0.00%
PKG PB RIC	7,116	1.40%
PKG PET RICE	28	0.00%
PKG REJ PB RICE	44	0.00%
PKG W.RICE	642	0.10%
REJ PB RIC	560	0.10%
WHT BKN	33,688	7.00%
WHT RICE	160,041	32.00%
BROKEN RICE	503	0.10%
CHIPS	678	0.10%
PKG BROKEN RICE	5	0.00%
REJECT WHITE RICE	48	0.00%
SEED PADDY	62	0.00%
TOTAL	501,208	100.00%

Appendix 5: Exports According to Destination 2014

Country	2014	Exports Percentage(%)
CARICOM		
Antigua	1,100	
Barbados	2,435	
Belize	1,451	
Dominica	971	
Grenada	1,754	
Jamaica	50,264	
St. Kitts	389	
St. Lucia	611	
St. Vincent	3,574	
Suriname	1,558	
Trinidad	24,328	
Sub-Total	88,435	17.60%
European Union		
Belgium	12,036	
French Guiana	573	
Germany	10	
Guadeloupe	1,399	
Holland	25,470	
Italy	655	
Martinique	1,120	
Poland	151	
Portugal	41,479	
United Kingdom	18,779	
Sub-Total	101,672	20.30%

Appendix 5: Exports According to Destination 2014 cont'd

OTHERS		
Brazil	12,173	
Chile	892	
Colombia	2,525	
Costa Rica	149	
Dominican Republic	28	
Ghana	25	
Haiti	10,350	
Nicaragua	35,170	
Panama	59,279	
USA	2,514	
Venezuela	187,995	
Sub-Total	311,100	62.10%
TOTAL	501,208	100.00%

Appendix 6: Average Rice Exports Price 2005-2014

REGION	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
EUROPEAN UNION										
CARGO PB BKN	110	110	110	-	-	-	-	-	-	-
PARB. BKN	110	110	110	295	207	207	200	305	345	-
REJ. PB RICE	-	-	158	-	-	-	-	-	-	-
CARGO RICE	240	260	262	600	409	434	510	567	514	466
CARGO BKN	-	142	148	265	250	265	306	385	298	318
WHITE RICE	-	-	320	530	447	486	485	-	-	618
WHITE BKN	160	160	168	425	241	246	342	332	305	282
C.PB RICE	244	306	261	480	440	446	-	-	-	-
PARB. RICE	-	-	400	-	550	650	764	-	809	670
BRAN	-	-	-	-	-	-	-	-	99	82
CARICOM										
CARGO RICE	364	260	283	623	443	407	536	558	549	519
CARGO BKN	105	110	-	295	210	267	395	379	328	270
WHITE RICE	275	295	347	688	532	513	693	667	768	519
WHITE PKG. RICE	352	390	594	763	512	611	713	730	707	665
WHITE BKN	180	175	178	426	316	369	392	363	393	329
C.PB PK RICE	-	-	-	-	-	-	-	-	777	885
C.PB RICE	290	310	285	945	608	655	710	668	814	747
C.PB. BKN	104	120	110	190	295	267	255	-	-	-
PARB RICE	399	400	425	824	716	624	785	773	763	716
PARB PKG. RICE	468	475	638	851	756	689	807	822	687	665
PKG PARB BKN	-	-	-	-	-	-	-	-	416	366
PARB BKN	162	165	164	354	253	267	352	418	510	362
PKG REJ PARB RICE	-	-	-	-	-	-	-	-	438	632
REJ . PB RICE	170	178	195	-	294	326	316	383	425	410
BRAN	62	63	45	118	96	120	105	97	87	68
PKG PET RICE	-	-	-	-	-	-	-	-	616	553
PET RICE	-	-	190	-	250	339	384	445	407	382
PADDY	-	-	-	-	-	-	-	-	520	350
PET FOODS	-	-	-	-	-	-	-	-	94	-
PKG DAMAGED RICE	-	-	-	-	-	-	-	-	426	-
DAMAGED RICE	-	-	-	-	-	-	-	-	437	385

Appendix 6: Average Rice Exports Price 2005-2014 cont'd

REGION	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
OTHERS										
CARGO BKN	-	110	-	-	-	-	-	-	-	240
WHITE RICE	273	295	308	703	510	700	750	800	634	640
WHITE BKN	174	160	166	435	276	246	-	463	410	263
PARB. RICE	-	-	373	-	590	590	-	-	-	723
PADDY	-	-	-	-	348	420	470	520	417	470
PET RICE	-	-	194	600	-	-	-	-	-	-
CHIPS	-	-	190	-	-	-	-	565	-	280
CARGO RICE	233	265	280	510	400	-	-	-	540	260
PARB PKG RICE	-	-	462	-	681	670	-	-	-	-
PARB RICE FLOUR	-	-	353	-	-	-	-	-	-	-
DIS. WHT RICE	-	-	230	-	-	-	-	-	-	-
WHT RICE FLOUR	-	-	353	-	-	-	-	-	-	-
C.P.B. RICE	-	-	-	480	-	-	-	-	-	-
WHT PGK RICE	-	-	-	-	502	-	-	-	-	-
STOCKFEED	-	-	-	-	320	-	-	-	-	-
RAN	-	-	-	-	100	65	-	100	88	75

Appendix 7: Spring Crop 2014

REGION / ZONE	HECTARE		Prepared	Sown	Harvested	Paddy Production		Rice Equiv.		Yield (Tons/Ha)	Yield (Bags/Ha)	%
	Target					Bags	M/T	M/T	M/T			
REGION 2												
Essequibo	14,900	15,028.30	15,028.30	15,028.30	15,028.00	1,187,840	75,453	49,044	79.0	5.0	100.0	100.0
Sub-Total	14,900	15,028.30	15,028.30	15,028.30	15,028.00	1,187,840	75,453	49,044	79.0	5.0	100.0	100.0
REGION 3												
Wakenaam	1,200	1,318.20	1,298.80	1,298.80	1,298.80	93,191	5,920	3,848	71.8	4.6	100.0	100.0
Leguan	1,700	1,781.40	1,781.40	1,772.10	1,772.10	135,687	8,619	5,602	76.6	4.9	99.5	99.5
Hamburg	100	63.20	63.20	63.20	63.20	4,960	315	205	78.5	5.0	100.0	100.0
Hogg Island	100	119.40	119.40	119.40	119.40	8,555	543	353	71.6	4.6	100.0	100.0
West Demerara	5,500	5,502.40	5,502.40	5,502.40	5,502.40	461,149	29,293	19,040	83.8	5.3	100.0	100.0
Sub-Total	8,600	8,784.60	8,765.20	8,755.90	8,755.90	703,542	44,690	29,048	80.4	5.1	99.9	99.9
REGION 4												
Baiboo/Cane Grove	2,200	2,348.20	2,334.00	2,334.00	2,334.00	259,425	16,479	10,711	111.2	7.1	100.0	100.0
Golden Grove/Mahaica	1,000	1,004.00	1,004.00	983.80	983.80	97,200	6,174	4,013	98.8	6.3	98.0	98.0
Sub-Total	3,200	3,352.20	3,338.00	3,317.80	3,317.80	356,625	22,653	14,725	107.5	6.8	99.4	99.4
REGION 5												
Mahaica/Mahaicony	10,700	11,903.60	11,903.60	11,903.60	11,903.60	1,058,472	67,235	43,703	88.9	5.6	100.0	100.0
Mahaicony/Abary	6,600	8,748.90	8,684.20	8,684.20	8,684.20	729,300	46,326	30,112	84.0	5.3	100.0	100.0
West Berbice	16,000	17,858.30	17,836.40	17,796.00	17,796.00	1,440,642	91,511	59,482	81.0	5.1	99.8	99.8
Sub-Total	33,300	38,510.80	38,424.20	38,383.80	38,383.80	3,228,414	205,072	133,297	84.1	5.3	99.9	99.9
REGION 6												
Frontlands	15,200	17,071.60	17,071.60	17,071.60	17,071.60	1,421,028	90,265	58,672	83.2	5.3	100.0	100.0
Black Bush Polder	8,000	8,166.00	8,166.00	8,166.00	8,166.00	685,780	43,561	28,315	84.0	5.3	100.0	100.0
Sub-Total	23,200	25,237.60	25,237.60	25,237.60	25,237.60	2,106,808	133,826	86,987	83.5	5.3	100.0	100.0
Total	83,220	90,913.50	90,793.30	90,723.20	90,723.20	7,583,229	481,693	313,101	83.6	5.3	99.9	99.9

Appendix 8: Autumn Crop 2014

REGION / ZONE	HECTARE				Paddy Production		Rice Equiv. M/T	Yield (Bags/Ha)	Yield (Tons/Ha)	% Harvested
	Target	Prepared	Sown	Harvested	Bags	M/T				
REGION 2										
Essequibo	14,900	14,966.40	14,966.40	14,956.30	1,315,135	83,559	54,300	87.9	5.6	99.9
Sub-Total	14,900	14,966.40	14,966.40	14,956.30		83,559	54,300	87.9	5.6	99.9
REGION 3										
Wakenaam	1,200	1,333.60	1,319.80	1,319.80	88,020	5,591	3,634	66.7	4.2	100.0
Leguan	1,700	1,823.10	1,823.10	1,823.10	130,587	8,295	5,392	71.6	4.5	100.0
Hamburg	100	63.20	63.20	63.20	4,446	282	184	70.3	4.5	100.0
Hogg Island	100	101.20	101.20	101.20	4,500	286	186	44.5	2.8	100.0
West Demerara	5,500	5,496.00	5,496.00	5,492.00	455,012	28,903	18,787	82.8	5.3	99.9
Sub-Total	8,600	8,817.10	8,803.30	8,799.30	682,565	43,357	28,182	77.6	4.9	100.0
REGION 4										
Baiboo/Cane Grove	2,200	2,446.20	2,446.20	2,446.20	241,680	15,352	9,979	98.8	6.3	100.0
Golden Grove/Mahaica	1,000	1,020.70	1,020.70	1,021.00	98,358	6,248	4,061	96.3	6.1	100.0
Sub-Total	3,200	3,466.90	3,466.90	3,467.20	340,038	21,600	14,040	98.1	6.2	100.0
REGION 5										
Mahaica/Mahaicony	10,700	12,791.10	12,791.10	12,712.50	1,004,800	63,826	41,487	79.0	5.0	99.4
Mahaicony/Abary	6,600	10,620.60	10,194.30	10,078.70	750,082	47,646	30,970	74.4	4.7	98.9
West Berbice	16,000	19,119.80	19,032.40	18,978.20	1,432,570	90,998	59,149	75.5	4.8	99.7
Sub-Total	33,300	42,531.50	42,017.80	41,769.40	3,187,452	202,470	131,605	76.3	4.8	99.4
REGION 6										
Frontlands	15,200	16,768.30	16,768.30	16,735.60	1,449,280	92,060	59,839	86.6	5.5	99.8
Black Bush Polder	8,000	8,165.90	8,165.90	8,165.90	782,596	49,711	32,312	95.8	6.1	100.0
Sub-Total	23,200	24,934.20	24,934.20	24,901.50	2,231,876	141,771	92,151	89.6	5.7	99.9
REGION 9										
Santa Fe	400	400	400	400	44,660	2,837	1,844	111.7	7.1	100.0
Lethem	8.10	8.10	8.10	4.85	364	23	15	75.1	4.8	59.9
Sub-Total	408	408	408	405	45,024	2,860	1,859	111.2	7.1	99.2
Total	83,608	95,124.20	94,596.70	94,298.55	7,802,090	495,596	322,137	82.7	5.3	99.7

Appendix 9: Harvesting Production 2014

REGION / ZONE	HECTARE			Paddy Production Bags	Rice Equiv. M/T	Yield (Bags/Ha)	Yield (Tons/Ha)	% Harvested
	Target	Prepared	Sown					
REGION 2								
Essequibo	29,800	29,995	29,995	29,984	158,991	83.5	5.3	100.0
Sub-Total	29,800	29,994.70	29,994.70	29,984.30	158,991	83.5	5.3	100.0
REGION 3								
Wakenaam	2,400	2,652	2,619	181,211	11,511	69.2	4.4	100.0
Leguan	3,400	3,605	3,605	266,274	16,914	74.1	4.7	99.7
Hamburg	200	126	126	9,406	597	74.4	4.7	100.0
Hogg Island	200	221	221	13,055	829	59.2	3.8	100.0
West Demerara	11,000	10,998	10,998	916,161	58,195	83.3	5.3	100.0
Sub-Total	17,200	17,601.70	17,568.50	1,386,107	88,047	79.0	5.0	99.9
REGION 4								
Baiboo/Cane Grove	4,400	4,794	4,780	501,105	31,831	104.8	6.7	100.0
Golden Grove/ Mahaica	2,000	2,025	2,025	195,558	12,422	97.5	6.2	99.0
Sub-Total	6,400	6,819.10	6,804.90	696,663	44,253	102.7	6.5	99.7
REGION 5								
Mahaica/Mahaicony	21,400	24,695	24,616	2,063,272	131,061	83.8	5.3	99.7
Mahaicony/Abary	13,200	19,370	18,879	1,479,382	93,972	78.8	5.0	99.4
West Berbice	32,000	36,978	36,869	2,873,212	182,509	78.1	5.0	99.7
Sub Total	66,600	81,042.30	80,442.00	6,415,866	407,541	80.0	5.1	99.6
REGION 6								
Frontlands	30,400	33,840	33,840	2,870,308	182,324	84.9	5.4	99.9
Black Bush Polder	16,000	16,332	16,332	1,468,376	93,273	89.9	5.7	100.0
Sub-Total	46,400	50,171.80	50,171.80	4,338,684	275,597	86.5	5.5	99.9
REGION 9								
Santa Fe	400	400	400	44,660	2,837	111.7	7.1	100.0
Lethem	28.30	8.10	8.10	364.00	23	75.1	4.8	59.9
Sub Total	428	408	408	45,024	2,860	111.2	7.1	99.2
Total	166,828	186,037.70	185,390.00	15,385,319	977,289	83.2	5.3	99.8

Appendix 10: Paddy Prices 2002-2014

Year	First Crop					Second Crop				
	Extra A	A	B	C	Substandard	Extra A	A	B	C	Substandard
2000	1,300	1,250	1,200	1,150	900/1,000	1,300	1,250	1,200	1,150	900/100
2001	1,300	1,200	1,100	1,000	600/900	1,300	1,200	1,100	1,000	900
2002	1,400	1,300	1,300	1,200	1,000	1,400	1,300	1,300	1,300	1,000
2003	1,350	1,300	1,200	1,100	900	1,400	1,350	1,350	1,350	600/1,000
2004	1,400	1,350	1,350	1,350	600/1,000	1,500	1,500	1,500	1,500	600/1,000
2005		1,500	1,500	1,500	1000		1,700	1,700	1,700	1,000
2006	2,000	1,800	1,750	1,600	1,000/1,400	1,800	1,700	1,600	1,500	1,000/1,400
2007	1,900	1,800	1,750	1,700	1,000/1,500	2,300	2,100	2,100	2,100	1,500/1,700
2008	5,500	5,000	4,000	4,000	3,000/4,000	4,500	4,000	4,000	4,000	3,000/4,000
2009	3,000-5,000	3,000-5,000	3,000-5,000	3,000-5,000	2000	2,200-2,500	2,200-2,500	2,200-2,500	2,200-2,500	1200
2010	3,100-3,500	3,000-3,500	3,200-3,600	3,100-3,600	2,700/3,500	2,500-3,500	2,400-3,500	2,300-3,500	2,200-3,300	2,000/2,900
2011	3,900-4,400	3,800-4,300	3,600-4,200	3,500-4,000	3,400-3,800	4,100-4,700	4,100-4,400	3,800-4,486	3,600-4,421	3,500/4,000
2012	4,200-4,500	4,000-4,200	3,900-4,000	3,800-3,900	3,400-3,800	4,100-4,300	4,000-4,200	3,800-4,000	3,700-3,800	3,600-3,800
2013	3,600-4000	3,576-3,900	3,511-3,800	3,446-3,800	2,500	3,511-4,100	3,446-4,000	3,446-3,900	3,446-3,800	3,000
2014	3,300-3,425	3,175-3,300	3,050-3,175	2,925-3050	2,775-2,925	3,125-3,225	2,931-3,125	2,850-2,931	2,732-2850	2,575-2,732

NOTES



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