73rd

Annual Report

of the

Coconut Industry Board

for year ended December 31, 2014

MISSION

To promote the interest of the Jamaican coconut industry and its stakeholders, by encouraging and facilitating the efficient production of coconuts, providing ongoing research support, developing marketing opportunities, locally and globally, and administering regulations for the purchase, sale, exportation and importation of coconut products and substitutes, in order to develop a profitable and sustainable industry.

VISION

To lead, facilitate and co-ordinate a vibrant and efficient coconut industry which will improve the socio-economic conditions of the coconut growers, processors, traders and other stakeholders who rely on the crop for a livelihood. Presented to The Minister of Agriculture and Fisheries in pursuance of Section 27(1) of the Coconut Industry Control Act

COMPOSITION OF BOARD FOR YEAR 2014

MEMBERS

| Nominated: | Mr. L. S. Green - Chairman | | | | |
|------------|----------------------------|--|--|--|--|
| | Mr. J. S. Joyles | | | | |
| | Prof. W. McLaughlin | | | | |
| | Mr. A. H. Smith | | | | |
| Elected: | Mr. S. Black | | | | |

Mr. G. E. Marsh Hon. F. M. Phipps, Q.C. Hon. A. A. Pottinger Hon. R. E. Thompson (resigned June 1, 2014)

OFFICERS

| General Manager: | Miss Y. E. Burns |
|----------------------|--|
| Corporate Secretary: | Mrs. A. J. Chung-Campbell |
| Bankers: | National Commercial Bank Jamaica Limited |
| Auditors: | PriceWaterhouseCoopers |

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THE COCONUT INDUSTRY BOARD

INTRODUCTION

The Coconut Industry Board was established under the Coconut Industry Control Act, Cap. 62, enacted in 1945 and consists of nine members, four of whom including the Chairman, are appointed by the Minister of Agriculture and Fisheries. The remaining five are elected by registered coconut growers and must themselves be registered coconut growers or the attorneys for such registered coconut growers or the managing directors or managers of companies which are registered coconut growers.

The Board promotes the interests and efficiency of the coconut industry, encourages the production of coconuts and regulates the purchase, sale and exportation of coconuts as well as the importation of coconut products and substitutes.

Allied functions are:

- (a) Keeping Government informed on the state of the industry and advising Government when any action is necessary.
- (b) Arranging for the issuing of licences to manufacturers of coconut products.
- (c) Arranging insurance of coconut trees against damage by windstorm.
- (d) Assisting growers to market their crop.
- (e) Carrying out research on the agricultural problems of the industry and advising growers on their agricultural problems.

The industry offers a wide range of employment for technical and skilled personnel.

REPORT ON THE OPERATIONS OF THE COCONUT INDUSTRY BOARD CALENDAR YEAR 2014

1. BOARD MEMBERSHIP

There was one vacancy among the elected members during Year 2014, as the Hon. R. E. Thompson, who automatically retired, was re-elected unopposed.

Subsequently, on June 1, 2014, the Hon. R. E. Thompson resigned due to ill health.

There were 25 Board and Committee meetings during the year and attendance of members was as follows:

ATTENDANCE

| | <u>Possible</u> | Actual | | <u>III/On Leave</u> |
|----------------------------|-----------------|--------------|------------------|---------------------|
| | | <u>Board</u> | <u>Committee</u> | |
| Mr. L. S. Green | 25 | 11 | 12 | 2 |
| Mr. S. Black | 22 | 12 | 10 | - |
| Mr. J. S. Joyles | 24 | 11 | 11 | 2 |
| Mr. G. E. Marsh | 25 | 12 | 13 | - |
| Prof. W. McLaughlin | 19 | 12 | 6 | 1 |
| Hon. F. M. Phipps, Q.C. | 16 | 11 | 4 | 1 |
| Hon. A. A. Pottinger, C.D. | 20 | 13 | 7 | - |
| Mr. A. H. Smith | 25 | 11 | 13 | 1 |
| Hon. R. E. Thompson | 6 | 4 | 1 | 1 |

2. **PROFILE OF THE LOCAL COCONUT INDUSTRY**

During the first six months of the year, weather conditions were not conducive to the growing and the production of coconuts. The drought, combined with the failure of many growers to fertilize their coconut trees, caused a reduction in the size of the nuts on most properties.

The number of hectares in coconuts at 31 December, 2014 was calculated as 15,857 (31/12/13 - 15,679); the number of hectares in bearing coconuts at the same date was calculated as 14,802 (31/12/13 - 14,600).

At 31 December 2014, the total population of coconut trees was calculated as 3,520,347 (31/12/13 - 3, 499,950). Of this number 3,215,076 were seven years old and over (31/12/13 - 3,186,636) and should have been in full bearing but due to weather conditions and faulty agronomic practices, some of the plants were not bearing.

The number of farmers registered with the Board was as follows:

| <u>Year</u> | <u>No. of Farmers</u> |
|-------------|-----------------------|
| 2014 | 780 |
| 2013 | 891 |
| 2012 | 832 |
| 2011 | 769 |
| 2010 | 831 |
| | |

The majority of coconut farms was smaller than 10 hectares; coconut is essentially a small holder's crop.

3. **PRODUCTION AND DISPOSAL**

(i) <u>Production</u>

Coconut production during the year was calculated as 98.5 million nuts (Year 2013 - 97.4 million nuts). The value of the Year 2014 production at the average price paid by the Board for Maypan and Malayan Dwarf jelly coconuts during the year, (\$35.00 per nut) was \$3.45 billion.

Coconut production during the year was again adversely affected by lack of fertilizer, improper agronomic practices and additional deaths of bearing coconut trees from lethal yellowing and other diseases.

(ii) **Disposal**

The major portion of the Year 2014 production was disposed of through bottlers of jelly coconut water, the Coconut Industry Board, higglers, producers of coconut oil and supermarkets.

The portion of the crop which was disposed of to and through the channels of the Board during Year 2014 and the four preceding years, was as follows:

| - | | Ν | U | Τ | S | |
|---------------|-------------|-------------|-------------|-------------|-------------|--------------|
| | <u>2014</u> | <u>2013</u> | <u>2012</u> | <u>2011</u> | <u>2010</u> | <u>TOTAL</u> |
| | <u>'000</u> | <u>'000</u> | <u>'000</u> | <u>'000</u> | <u>'000</u> | <u>'000</u> |
| St. Andrew | 4 | 12 | - | - | - | 16 |
| St. Elizabeth | 105 | 113 | 191 | 30 | 52 | 491 |
| St. Thomas | 121 | 77 | 125 | 140 | 144 | 607 |
| Portland | 68 | 73 | 90 | 91 | 72 | 394 |
| St. Mary | 874 | 852 | 717 | 575 | 543 | 3,561 |
| St. Ann | - | - | - | 3 | - | 3 |
| St. Catherine | 49 | - | 6 | 2 | 5 | 62 |
| | 1,221 | 1,127 | 1,129 | 841 | 816 | 5,134 |

4. THE COCONUT SHOP

The Board purchased 1,005,973 coconuts at a cost of \$40,121,873 during the year (918,851 at a cost of \$35,909,408 in Year 2013), for sale in its Coconut Shop at 18 Waterloo Road, Kingston 10.

This shop continued to be a significant market for the purchase/sale of growers' coconuts.

5. **EXPORT**

During the year, the Board exported seed coconuts to Florida in the United States of America (U.S.A.).

The total number of seed coconuts exported during the year was 52,200 at a F.O.B. value of US\$169,050.

The low export sales of seed coconuts were a reflection of the continued depression in the economy of the United States of America. The Board continued the search for other export markets.

Export of seed coconuts during the five years ended 31 December, 2014, was as follows:

| Year | Number Exported | F.O.B. Value (US\$) |
|------|--------------------|------------------------|
| 2014 | 52,200 | 169,050.00 |
| 2013 | 21,000 | 64,600.00 |
| 2012 | 30,000 | 95,500.00 |
| 2011 | 41,000 | 92,655.00 |
| 2010 | 53,000 | <u>119,415.00</u> |
| | <u>197,200</u> | <u>541,220.00</u> |

6. **DISTRIBUTION OF SEEDLINGS**

Distribution of coconut seedlings was as follows:

| | 2014 | 2010 |
|--|--------|---------|
| Old Planting Programme | 19,132 | 55,256 |
| New Planting Programme | 17,932 | 41,050 |
| Sales | 1,311 | 7,323 |
| Donations and Field Experiments | 653 | 6,733 |
| Replanting – the Board's Seed Gardens | - | 1,239 |
| Agricultural Shows | 175 | 275 |
| Common Fund for Commodities - LY Project | - | 40 |
| Lethal Yellowing Tree Felling Programme | 25 | 605 |
| | 39,228 | 112,521 |

The reduction in the number of seedlings distributed in Year 2014 was as a result of severe drought experienced.

2014

2013

The Board continues emasculation and pollination activities at its Esher Seed Garden to produce Maypan hybrid seednuts; a total of 50,411 Maypan seeds was produced in Year 2014, bringing the total produced at this seed garden to 205,437 at December 31, 2014.

At the Board's hybrid seed garden in Barton Isles, St. Elizabeth, a total of 132,574 Maypans was produced in Year 2014 (Year 2013 -120,927).

In addition, the Board continued to encourage farmers to plant coconut seedlings under the two planting programmes. Under the Old Planting Programme, weed control grant and fertilizer for 80% of the seedlings planted, the percentage which is expected to survive, are given free of cost to qualified farmers.

The old programme covers St. Thomas, Portland, St. Mary, St. Ann and St. Catherine, the traditional coconut growing areas.

Planting under the New Planting Programme which covers the non-traditional coconut growing areas, the western region of the island, also continued during the year.

To qualify under the programmes, a farmer must be registered with the Board and must have land which can accommodate at least 125 coconut seedlings. The demand for seedlings exceeded the supply in Year 2014.

A total of 37,064 coconut seedlings at a cost of \$11.8M, fertilizer and weed grant valued at \$4.3M were distributed to coconut farmers under the two planting programmes.

7. WINDSTORM INSURANCE FUND

(i) Liability

The Fund continued to indemnify coconut growers against loss of bearing coconut trees to windstorm.

The liability for windstorm insurance damage during Year 2014 was \$68,811,572 (Year 2013 - \$73,437,989); the maximum coverage per tree remained at \$1,000.

The finances of the Windstorm Insurance Fund are kept separately from the funds of the Board and are treated as Trustee Funds.

(ii) Automatic Insurance and Voting Rights

Coconut growers are again being reminded that they can earn automatic insurance and voting rights for the election of Board members, on coconuts sold to the Coconut Industry Board and licensed coconut dealers, including bottlers of coconut water, provided the sales are reported to the Board. We are reminding coconut growers that it is in their interest to ensure that all coconuts sold by them to the other entities, are reported to the Board.

Automatic insurance is earned at the rate of J\$65 for each 110 dry or jelly coconuts sold to the entities mentioned above.

(iii) <u>Contractual Insurance</u>

Registered coconut growers can purchase contractual insurance from the Board for their properties whether or not they supply coconuts to the Board or to licensed coconut dealers.

This information is always given during the Annual Meeting of Coconut Growers and in spite of this, growers continue to express dissatisfaction after a hurricane if they do not receive benefits.

An appeal is again being made to coconut growers to make provision for insuring their coconut trees against windstorm damage, from the sale of coconuts, either by purchasing insurance or by selling their coconuts to licensed coconut dealers or the Board to earn automatic insurance. However, the amount of insurance coverage a grower is likely to earn by way of automatic insurance alone, will never be adequate.

8. **RESEARCH**

Botany/Plant Breeding

The Botanist/Plant Breeder continued the search for high yielding, disease resistant varieties of coconut during Year 2014. Hybridization activities were conducted at Barton Isles Seed Garden in St. Elizabeth and Esher Seed Garden in St. Mary.

The following activities continued during the year:

(a) Monitoring of the Brazil Green Dwarf and its Hybrids (Brapan and Maybraz) for their Potential to Increase Local Coconut Production: A total of 60,962 Brapan (Brazil Green Dwarf x Panama Tall) and 1,846 Maybraz (Malayan Yellow Dwarf x Brazil Green Dwarf) seednuts has been produced to date (with 11,087 Brapan reaped during Year 2014). A total of 1,360 open pollinated Brazil Green Dwarf seednuts was reaped from palms at Spring Garden during the year. Fruit and Bunch Return data were collected at the New Hybrid Experiment at Holland, Portland. Mean nuts per bunch ranged from 10 for the Malayan Yellow Dwarf x Brazilian Green Dwarf to 18 for the Brazilian Green Dwarf (open pollinated).

| Table 1 | |
|---|------|
| Fruit and Bunch Return for New Hybrid Experiment at Holland, Portland in Year | 2014 |

| Variety/Hybrid | Mean Nuts/Bunch |
|---|-----------------|
| Mavpan | 11.6 |
| Brazil Green Dwarf x Panama Tall | 11.2 |
| Malayan Yellow Dwarf x Brazil Green Dwarf | 9.9 |
| Brazil Green Dwarf | 17.8 |
| Mean | 12.6 +/- 3.05 |

(b) <u>Monitoring of the Brazil Green Dwarf and Fifteen other Varieties introduced</u> <u>from the Ivory Coast, Africa in 2009 for their Potential to Local Coconut</u> <u>Production</u>: Seven thousand five hundred (7,500) seednuts were received from the genebank in the Ivory Coast in 2009. These were planted in three variety collections and have since come into bearing, with 45% overall flowering. A total of 601 seednuts has been reaped to date from six (6) of the fifteen (15) varieties and set in local nurseries, in order to increase the respective local populations. (c) <u>Introduced Varieties not previously tested in Jamaica</u>: The Board received 101 seed coconuts of a Tall variety as a gift from the Government of Thailand. These seeds were set at Barton Isles, St. Elizabeth, of which 73 germinated. Some of these seedlings will be planted in field genebanks in order to assess their resistance/ susceptibility to lethal yellowing disease, and a few will be planted at the Hope Botanical Gardens.

Plant Pathology and Molecular Biology

Plant Pathology

(a) <u>Ambrosia Beetle</u>: The Ambrosia Beetle, *Xyleborus ferrugineus*, was first discovered on coconuts at a farm in Clarendon, and has been observed since then at certain locations in the parishes of Hanover, St. Mary and Portland. It has infested the tree trunks, dry and jelly coconuts and is associated with a fungus found on the dry coconuts.

Surveying procedures and control strategies have since been implemented, and pheromone traps were installed and are being monitored in the affected areas. In addition, meetings and seminars were held with various stakeholders, as well as a public education campaign inclusive of the distribution of posters and brochures.

- (b) <u>Monitoring of Lethal Yellowing Disease</u>: The monitoring of incidences of lethal yellowing disease and its spread islandwide continued, with special emphasis on the outbreaks in east and west Portland. Additional surveys were conducted on selected farmers' holdings, along with assessment of the impact of information given to farmers on important aspects of the disease.
- (c) <u>Control of Lethal Yellowing Disease on a Farm in St. Thomas</u>: Exemplary control of lethal yellowing disease has been experienced at the holding of Mr. Michael Black in Nutts River, St. Thomas, by the practice of strict sanitation (prompt felling and burning of diseased palms) followed by immediate replanting referred to as 'the Michael Black Approach'. Data collected were analyzed, for the continued validation of this practice.

The effectiveness of this approach is displayed in Figure 1, which shows the lethal yellowing mortality (actual number of deaths) on this farm each year since 2002.



Figure 1. Lethal yellowing diseased coconut trees at Nutts River Farm

- (d) <u>'Special' Malayan Dwarf</u>: A few years ago, a small subset of Malayan Yellow Dwarf coconut trees at Barton Isles, St. Elizabeth, was found to have greater genetic similarity to the international source populations in Asia than to their local counterparts. The hypothesis was then formulated that they could therefore possibly possess greater resistance to lethal yellowing disease. The seednuts from these palms have been carefully collected over the years, and the resultant progeny planted in areas where lethal yellowing disease is both active and inactive. Approximately one thousand seedlings have been obtained so far, and there have been no deaths to lethal yellowing disease among these Dwarfs. The production and testing of these are still in progress.
- (e) <u>New Disease on Palms</u>: Black scorch disease has been identified on ornamental palms in Jamaica. This disease is being monitored, and recommendations have been made as to the prevention of its spread to coconut palms.
- (f) **Publications**: Three quarterly Newsletters were published and one research paper was published in the British Society for Plant Pathology Journal.
- (g) **<u>Participation</u>**: The Board participated in the following seminars:
 - (i) Training entitled "Reducing the impact of Climate Change on Agriculture; Enhancing Institutional Capacity to Promote and Support Climate Smart Agriculture in the Caribbean Region" held at Alhambra Inn, Jamaica.
 - (ii) Two regional meetings on coconut development for rural farmers, each funded by the European Union, held in Guyana and Trinidad Tobago.

(h) <u>General</u>: Samples of coconut material received were analyzed for the presence of disease pathogens, and timely and specific recommendations made to farmers on disease management strategies. During Year 2014, two students from the Community Service Programme of Ardenne High School were trained in the use of molecular techniques.

Agronomy/Crop Physiology

The Agronomist/Crop Physiologist focused on research aimed at improving germination among seednuts and by extension, an increase in production of saleable planting material.

The experiments conducted during the year were:

(a) <u>The effect of source, maturity and shade on germination and seedling yield at</u> <u>Barton Isles</u>: Four thousand and eighty-six (4,086) seednuts were set in the nursery at Barton Isles, St. Elizabeth under five different categories as detailed in Table 1, for a period of five months.

| | Category | Total Set | # Germinated | % Germination | # Saleable ¹ |
|----|---|--------------|-----------------|------------------|----------------------------|
| | Seed Nuts: | | | | |
| 1) | From Esher Seed Garden (St. Mary) | 426 | 228 | 53 | 106 |
| 2) | Selected for planting | 1,000 | 442 | 44 | 203 |
| 3) | Selected at random from Barton Isles Seed Garden | 1,000 | 520 | 52 | 200 |
| 4) | With green exocarp and unusually heavy ² | 1,000 | 518 | 52 | 0 |
| 5) | Set in shade house | 660 | 327 | 49 | 193 |
| | Total | 4,086 | 2,035 | | 702 |

Table 1: Germination percentages and saleable seedlings obtained

¹ Number of 'Saleable' seedlings equals number germinated less deformed and dieback seedlings.

² These nuts are adjudged to be less than fully mature at harvest.

| Category | Total Saleable seedlings | Saleable seedlings as a % of total nuts set | Saleable seedlings as a % of total nuts germinated |
|--|--------------------------------|---|--|
| Seed nuts from Esher | 106 | 24 | 46 |
| Seed nuts selected | 203 | 20 | 45 |
| Seed nuts selected at random from Barton Isles | 200 | 20 | 38 |
| Seed nuts set in shade house | 193 | 29 | 59 |

 Table 2: Saleable nuts as a percentage of the total nuts set and as a percentage of the

 total numbers germinated

A total of 2,035 of the 4,086 nuts set germinated (germination as a percentage of nuts set - 50%) and of this number, only 702 were saleable. The range of germination was from 44% to 53%. Saleable seedlings as a percentage of the total number of nuts set ranged from 20 to 29 with those under the shade house having the highest numbers. Saleable seedlings as a percentage of total number germinated ranged from 38 to 59 for those nuts selected at random and those set under the shade house, respectively. It was observed that the plants under the shade house had a greater yield of saleable seedlings (as percentages of nuts set and of nuts germinated) compared to the other categories under investigation, although they were slower growing. No saleable seedlings were obtained from the category of heavier nuts with green exocarp (i.e., less mature seed nuts).

The significant differences observed between number of germinated seedlings and number of saleable seedlings in each category is due to an unusually high level of dieback and deformity among the seedlings. In conclusion, all three factors (i.e., source, shade and maturity) affected germination and seedling yield to some extent. The less mature seednuts germinated, but yielded no saleable seedlings. The shade house appeared to provide a microclimate that mitigated dieback, and seednuts from Esher Seed Garden gave slightly higher germination and yield than those from Barton Isles Seed Garden.

- (b) <u>**The Effects of Vitazyme on Germination of Seed Coconuts</u>: Vitazyme is a liquid bio-stimulant with the intended purpose to increase crop yield and quality, hasten germination and crop maturity and improve soil structure. Incorporated in the active ingredients are four brassinosteroids, which were reported to promote stem elongation and cell division. This experiment explores its effect on coconut seednut germination.**</u>
 - (i) <u>Frequency of Application of Vitazyme on Seed Coconuts</u>: In this experiment, seednuts were treated with Vitazyme at different times after setting, that is, at the time of setting, and 22, 43, 64 and 85 days afterwards. All categories were sprayed with 1% Vitazyme solution at the first application, and at 21-day intervals after. Results are shown in Table 3.

| Timing of First Application of Vitazyme to Seednuts | Total No. set in nursery | No. Germinated |
|--|-----------------------------|----------------|
| At the time of setting | 100 | 43 |
| 22 days after setting | 100 | 49 |
| 43 days after setting | 100 | 52 |
| 64 days after setting | 100 | 50 |
| 85 days after setting | 100 | 63 |
| No treatment with Vitazyme (control) | 100 | 47 |

Table 3. Germination of seednuts with various first application times of Vitazyme

(ii) <u>To determine the effects of soaking seednuts in a 1% solution of</u> <u>Vitazyme prior to setting</u>: This experiment involved soaking the seednuts in a diluted solution of this chemical prior to setting. This allowed the viable embryo to have direct contact with the active ingredients stated above, allowing for improved cell division with an expected increased rate of germination. The exocarps of 50 seednuts were chipped at the region of the embryo and left to soak for 24 hours in the Vitazyme solution. They were then set in the nursery and sprayed at 21- day intervals with the same solution. Another 50 nuts were chipped but untreated and set in the nursery as the control. Germination was assessed after five months. (Results are shown in Table 4). Both sets of seednuts were observed to have the same germination rate of 32%.

Table 4. Germination of seednuts soaked and unsoaked with Vitazyme

| Category | Total No. set in nursery | No. Germinated | |
|------------|--------------------------|----------------|--|
| Soaked | 50 | 32 | |
| Not soaked | 50 | 32 | |

It can be concluded firstly that there were no significant differences between timing and frequency of application of Vitazyme to seednuts in the nursery. Secondly, there were no differences in the effects of Vitazyme when seednuts were soaked in a 1% solution overnight and compared to the control.

Coconut Tissue Culture

The Board in collaboration with the University of the West Indies (UWI) continues to establish protocols for the culture of elite germplasm (still in its infancy).

The two main objectives are:

- (a) To develop a reliable embryo culture protocol which allows the germination and culture of extracted embryos into seedlings and mature plants.
- (b) To develop a somatic embryogenesis protocol to enable the rapid multiplication of desired cultivars.

Results for Year 2014

- (a) Fifty three (53) plants are currently in culture
- (b) Of these, thirteen (13) are mature plants to be hardened
- (c) Three plants have been removed from culture and placed in plots

9. ADVISORY

In Year 2014, the Advisory Department continued its yearly mission to effectively achieve the goals of the Research Department. The Advisory Officers worked relentlessly to communicate information as well as offer technical support to new and existing coconut growers islandwide and to the general public.

The lethal yellowing (LY) sensitizing programme continued and was used as a means to inform and educate coconut growers and other individuals on the spread of LY disease and measures that can be employed to curtail its spread. The department was instrumental in assisting growers to remove over 5,530 diseased trees and also supplying growers with replacement seedlings.

Throughout Year 2014, public awareness, education and outreach activities continued in areas affected by LY disease. These activities were accomplished mainly through regular farm visits, field days, participation in agricultural shows and expositions, community meetings and other group assemblies.

These initiatives were achieved by the use of different forms of communication including multimedia presentations, displays, 4-H Achievement Days, brochures, practical demonstrations, individual discussions, as well as print and electronic media.

Over 3,357 regular farm visits were made to existing and potential growers to provide technical assistance, support and disseminate relevant information throughout the year. Growers' problems and concerns were addressed individually or in groups, depending on the nature of the concerns.

The department was involved in a survey to identify Bark Beetle infested areas in St. Mary, Portland and Clarendon. This effort was strengthened by assistance from Dr. Darek Czokajlo, a pheromone specialist, who conducted demonstrations in St. Mary illustrating on how traps can be effectively used to eradicate infestation of Bark Beetle.

In order to improve and expand coconut production in Jamaica, the Advisory Department distributed 14,288 seedlings to approximately 182 growers during Year 2014.

Other Advisory Activities

- Field days were conducted in the following areas:
 - Font Hill and Nutts River in St. Thomas and Rural Hill and Spring Garden in Portland.
- Lectures/demonstrations were held at:
 - Mona Basic School in St. Andrew.

- Displays mounted at events islandwide included:
 - Agricultural Shows held at Denbigh in Clarendon, Hague in Trelawny, St. Mary Agricultural Show and Minard Livestock and Beef Festival.
 - > 4-H Parish Achievement Days Kingston and St. Andrew.
 - Health Fairs St. Johns Ambulance Brigade and Church of St. John the Evangelist.
- Participation in the following:
 - Jamaica Agricultural Society (J.A.S.) Branch meetings held in Hectors River, Portland.

Field Trips/Educational Tours to the Board's Office

During the year, students from eight Basic Schools and one university visited our property at 18 Waterloo Road for field trips/educational tours. The increase resulted from recommendations made by other schools that visited previously and found the tour very informative and educational.

The names of the institutions/schools are as follows:

Desiree's Summer Camp Randolph Lopez School of Hope Holiness Basic School Clydesdale Basic School Sunrise Early Childhood Development Center Ferdinand Mahfood Basic School Kensington Basic School Calabar Infant School University of the West Indies

10. **REMUNERATION**

- (i) The total remuneration of the three most senior executives for the Year 2014 was \$15,285,106.00.
- (ii) The total fees paid to the Chairman and the other Directors (Board Members) during the year, was \$1,970,737.00 and the total fees paid to non-directors for attending committee meetings of the Board during the year was \$24,080.00; these fees are in accordance with the guidelines established by the Public Enterprises Division of the Ministry of Finance and Planning and were approved by our portfolio Minister.

11. FINANCE

Audited financial Statements for the Board and the Windstorm Insurance Fund, for the year ended December 31, 2014, are attached.

12. ACKNOWLEDGEMENT

The Board gratefully acknowledges the assistance provided by the following persons and local and overseas institutions: the Minister of Agriculture and Fisheries and the officers of that Ministry, the Molecular Biology Unit at the University of the West Indies (**U.W.I.**), the Common Fund for Commodities (**C.F.C.**), the Food and Agriculture Organisation (**F.A.O.**) of the United Nations, Rothamsted Experimental Station in the United Kingdom, the Centre for International Agronomic Research and Development (**CIRAD**), the International Coconut Genetic Resources Network/the International Plant Genetic Resources Institute (**COGENT/IPGRI**), Centro de Investigacion Científica de Yucatan (**CICY**) - Mexico, the Escuela Agricola Panamericana (Zamorano) - Honduras, and the University of Florida.

The Board expresses thanks to coconut growers for their support and to the staff of the Board for their dedication to duty.

By Order of the Board L. S. Green Chairman

<u>TABLE I</u>

COCONUT PRODUCTION & CONSUMPTION

PRODUCTION

| | <u>2014</u> | | <u>2013</u> | |
|---|--------------------------------------|------------------------------------|--------------------------------------|------------------------------------|
| | <u>1,000 Nuts</u> | <u>%</u> | <u>1,000 Nuts</u> | <u>%</u> |
| Parish | | | | |
| St. Thomas | 121 | 9.9 | 77 | 6.9 |
| Portland | 68 | 5.6 | 71 | 6.5 |
| St. Mary | 874 | 71.6 | 837 | 75.3 |
| St. Catherine | 49 | 4.0 | - | - |
| St. Elizabeth | 105 | 8.6 | 113 | 10.2 |
| Others | <u>4</u> 1,221 | 0.3 <u>100.0</u> | <u>12</u> 1,110 | <u>1.1</u> <u>100.0</u> |
| Dry & Water Coconuts (est.) | <u>96,142</u> <u>97,363</u> | | <u>95,293</u> <u>96,403</u> | |
| CONSUMPTION | | | | |
| Seed Coconuts - Local Seed Coconuts - Export Dry and Water Coconuts | 163 51 <u>97,149</u> 97,363 | 0.2 0.1 <u>99.7</u> 100.0 | 170 21 <u>96,212</u> 96,403 | 0.2 0.1 <u>99.7</u> 100.0 |

TABLE II

DISPOSAL OF COCONUTS DELIVERED BY GROWERS

| | <u>2014</u> <u>Units</u> | <u>2013</u> Units |
|---|-----------------------------|----------------------|
| Exported as seed | 477 | 192 |
| Used locally for seed, jelly coconuts, etc. | <u>26,563</u> | <u>28,211</u> |
| | 27,040 | 28,403 |

TABLE III

UNITS OF COCONUTS DELIVERED BY GROWERS IN 2014

| | | Growers | | Units Delivered | |
|--------------|----------------------|---------|-------|-----------------|-------|
| Units of Coc | onuts In Groups of | No. | % | No. | % |
| | 1 and up to 20 | 45 | 42.9 | 350 | 1.3 |
| Over | 20 " [·] 50 | 19 | 18.1 | 594 | 2.2 |
| " | 50 " 100 | 14 | 13.3 | 1,083 | 4.0 |
| " | 100 " 200 | 13 | 12.4 | 1,796 | 6.6 |
| " | 200 " 500 | 8 | 7.6 | 2,599 | 9.6 |
| " | 500 " 1,000 | 3 | 2.8 | 2,133 | 7.9 |
| " | 1,000 " 5,000 | 2 | 1.9 | 2,234 | 8.3 |
| " | 5,000 | 1 | 1.0 | 16,251 | 60.1 |
| | | 105 | 100.0 | 27,040 | 100.0 |

<u>Note</u>

One unit = 110 nuts

TABLE IV

SEE ITEM 12 - REMUNERATION

DIRECTORS' COMPENSATION - 2014

| | Position of Director | Fees | Motor Vehicle Upkeep/ Travelling or Value of Assignment of Motor Vehicle | Honoraria | All Other Compensations including Non- cash Benefits as Applicable | Total |
|---|----------------------|--------------|--|-----------|--|--------------|
| | | \$ | \$ | \$ | \$ | \$ |
| 1 | Board Chairman | 224,000.00 | 252,288.80 | | 90,000.00 | 566,288.80 |
| 2 | Board Member | 129,000.00 | 60,240.96 | | | 189,240.96 |
| 3 | Board Member | 145,000.00 | 58,072.00 | | | 203,072.00 |
| 4 | Board Member | 151,500.00 | 54,656.00 | | | 206,156.00 |
| 5 | Board Member | 128,750.00 | 44,408.00 | | | 173,158.00 |
| 6 | Board Member | 96,500.00 | 37,576.00 | | | 134,076.00 |
| 7 | Board Member | 134,000.00 | 102,332.40 | | | 236,332.40 |
| 8 | Board Member | 145,750.00 | 51,240.00 | | | 196,990.00 |
| 9 | Board Member | 33,500.00 | 31,922.56 | | | 65,422.56 |
| | | | | | | |
| | Total | 1,188,000.00 | 692,736.72 | | 90,000.00 | 1,970,736.72 |
| | | | | | | |
| | Others | 7,000.00 | 17,080.00 | | | 24,080.00 |
| | | 1,195,000.00 | 709,816.72 | | 90,000.00 | 1,994,816.72 |