

# ANNUAL REPORT

2017





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<b>1.0 EXECUTIVE SUMMARY</b> .....	<b>1</b>
<b>2.0 INTRODUCTION</b> .....	<b>3</b>
2.1 Responsibilities And Objectives Of The PTCCB .....	3
2.2 Board Of Directors .....	4
<b>3.0 SECRETARIAT OF THE BOARD</b> .....	<b>5</b>
<b>4.0 ACHIEVEMENTS – 2017</b> .....	<b>6</b>
4.1 Registration And Licensing .....	6
4.12 Restricted Use Pesticides .....	6
4.13 Prohibited Pesticides And Toxic Chemicals .....	7
4.14 Importers Of Pesticides & Toxic Chemicals.....	7
4.15 Pest Control Operators (Pcos) .....	8
4.16 Vending Premises Licensed 2017.....	10
4.2 Inspection And Enforcement .....	10
4.21 Images Of Confiscated Products .....	10
4.22 Inspections: Wharves And Warehouses .....	11
4.23 Inspections, Major Pesticide Storage Facilities .....	11
4.24 Inspections: Toxic Chemical Importers And Industries .....	12
4.25 Inspection, Supermarkets And Community Markets .....	12
4.26 Complaints And Investigation .....	13
4.3 Training And Awareness Programme .....	14
4.31 Farmers Training And Awareness Programs .....	14
4.32 Impact Assessment – Pesticides Storage Cabinet Distribution .....	15
4.33 Occupational Safety And Health Exhibition .....	16
4.34 Farmers Market Day ....	16
4.35 Launching Of Agriculture Month .....	16
4.36 Berbice Expo .....	17
4.37 National Tree Day .....	17
4.38 Canje Secondary School - Career Day And Fair .....	17
4.39 World Food Day .....	17
4.310 NAREI Open Day .....	18
4.311 Lethem Town Week And Agriculture Expo .....	19
4.312 Pesticides Awareness Program In Secondary Schools .....	19
4.313 Use Of Media In Awareness Raising Program .....	20
4.314 Agriculture Cook-Off Competition .....	21
4.315 Essequibo Night And Trade Fair .....	21
4.316 Public Awareness At Community Markets .....	22
4.317 Environmental Health Officers Training .....	22

4.318 Environmental Health Institutions .....	23
4.4 Pesticides And Toxic Chemicals Laboratory (PTCL) .....	23
4.41 Formulated Unit .....	24
4.42 Pesticide Residue Unit .....	26

<b>5.0 MEETINGS AND OTHER EVENTS</b> .....	<b>30</b>
5.1 National Meetings On Chemicals Management .....	30
5.1.1 National Suicide Prevention Plan .....	30
5.1.2 Maximum Residue Limited (MRL) In Rice Traded With The European Union (EU) .....	30
5.1.4 Aerial Buffer Zone Trial .....	30
5.1.5 Port Officers Training .....	31
5.1.6 Implementation Of The Minamata Convention .....	31
5.1.7 Importation Of Methyl Bromide .....	31
5.1.8 Development Of Biopesticides Standards .....	31
5.1.9 Annual Pesticide Importers and Pest Control Operators Meeting .....	31
<b>6.0 ACCOUNTS 2017</b> .....	<b>32</b>
<b>7.0 BUDGET 2018</b> .....	<b>32</b>
<b>8.0 WEBSITE</b> .....	<b>32</b>
<b>APPENDICES</b> .....	<b>33</b>
APPENDIX 1: Organization Structure .....	34
APPENDIX II: Capacity Building & Staff Development 2017 .....	36
APPENDIX III: REGISTER OF PESTICIDES .....	38
APPENDIX IV: Pesticides And Toxic Chemicals Imports, 2017 .....	39
APPENDIX V: List Of Prohibited Pesticides And Toxic Chemicals .....	50
APPENDIX VI: Licensed Pesticides Vendors, 2017 .....	51
APPENDIX VII: FUTURE PLANS: 2018 ONWARDS .....	57
<b>CONCLUSION</b> .....	<b>58</b>

## 1.0 EXECUTIVE SUMMARY

The Pesticides and Toxic Chemicals Control Board (PTCCB) is a semi-autonomous Agency within the Ministry of Agriculture (MOA) and operates under the Pesticides and Toxic Chemicals Control Act 2000 (No. 13 of 2000).

The PTCCB functioned with a seven member Board of Directors in 2017 after the decease of one Director. During the same period Ms. Trecia David, Registrar, headed the 21 member staff complement (*Appendix 1b*).

The PTCCB was involved in 12 activities in 2017; these were executed by its four Departments. The highlight of the year, however, was the commencement of efforts to improve the performance of the Pesticides and Toxic Chemicals Laboratory (PTCL).

The laboratory improvement project began with the acquisition and installation of a Liquid Chromatograph-Tandem Mass Spectrometer (LC-MS/MS) followed by the re-configuration of the laboratory which is necessary for it to gain certification and accreditation, with focus on ISO17025. This activity was valued at G\$78,430,356.00.

The PTCCB continued to aggressively expand its core programmes, e.g. licensing of vendors, enforcement activities for sound chemicals management, certification of pest control applicators, and training and awareness countrywide. At the same time it began to evaluate the effectiveness of some of the initiatives it had taken; one of these was sensitizing farmers of the importance of proper storage of pesticides and supporting

The PTCCB continued to aggressively expand its core programmes, e.g. licensing of vendors, enforcement activities for sound chemicals management, certification of pest control applicators, and training and awareness countrywide. At the same time it began to evaluate the effectiveness of some of the initiatives it had taken; one of these was sensitizing farmers of the importance of proper storage of pesticides and supporting it by distributing storage cabinets to 300 of them. The evaluation showed that all recipients were using the cabinets for their intended purpose, and that 90% of the cabinets have been kept in excellent condition.

Other noteworthy achievements were recorded in the following areas:

### Registration and import of pesticides

Forty eight (48) new pesticides were registered in 2017; this brought to 404 the total number of pesticides approved for use in the country (*Appendix III, pg. 54*).

Eighty six types of pesticides, comprising of 48 insecticides and 20 herbicides were imported during the year; the value of these imports was G\$1,179,779,812.77, compared with G\$13,330,920,153.46, for toxic chemicals.

In addition, 2017 saw the importation of 604.5 kg active ingredient (a.i) of bio-pesticides.

### Training and Awareness

The Board executed a very robust training and awareness programme in 2017, mounting interactive displays highlighting the Board's work at community and trade fairs, Agriculture Month and World Food Day observances. The PTCCB also held activities at markets country wide.

One major achievement was the training of 7,955 persons in safe use, handling, storage and disposal of pesticides. Another exceptional activity by the Board was its hosting of the annual "Pesticide Awareness Programme in Secondary Schools" which drew participation from 10 selected schools. Their dramatization of proper storage, handling, use and disposal of pesticides has shown remarkable improvements over the years.

This Report demonstrates comprehensively that the PTCCB continued its mandate, as it had done over the years since its establishment, in a proactive manner and in partnership with sister agencies of the MOA and representatives of the private sector, pesticides stakeholders, farmers and relevant overseas based organizations.

## 2.0 INTRODUCTION

This report documents the activities of the PTCCB for the year 2017. It highlights the accomplishments and discusses constraints associated with the PTCCB's objectives with respect to activities initiated during the year under review. The report highlights the tools utilized towards achieving sound chemicals management, identifies gaps and mechanisms implemented to address all aspects of chemicals management in Guyana.

### 2.1 Responsibilities and objectives of the PTCCB

The PTCCB is charged with the responsibilities for making arrangements and providing facilities for controlling the manufacture, import, transport, storage, sale, use and advertising of pesticides and toxic chemicals in Guyana.

The primary objective of the PTCCB is to fulfill its mandate under the Pesticides and Toxic Chemicals Control Act 2000 (No. 13 of 2000) and its associated Regulations.

It was also the PTCCB's objective to develop effective and workable criteria and protocols to be used to achieve the target goals with the minimum displacement of production or trade and to collaborate with the pertinent stakeholders in helping them to achieve their respective and collective economic targets with minimal negative impact to human health and the ecosystem.

The PTCCB was involved in the following 12 activities during 2017:

- (i) Registration and licensing of pesticides;
- (ii) Licensing of vendors;
- (iii) Enforcement activities for sound chemicals management;
- (iv) Registration of pest control operators (PCOs);
- (v) Certification of pest control applicators;
- (vi) Training and awareness countrywide;
- (vii) Stakeholders training sessions;
- (viii) Reduction of illegal imports and vending of pesticides;
- (ix) Pesticides awareness week programs;
- (x) Promoting the sound management of chemicals using Guidance Documents from International Instruments such as the Strategic Approach to International Chemicals Management (SAICM) and the International Code of Conduct on Pesticides Management (CODE);
- (xi) Fulfilling the international requirement of the PTCCB for the Rotterdam and Stockholm Conventions; and
- (xii) Implementation of the country specific components of the FAO Regional Project on Chemicals Management.

## 2.2 Board of Directors

The membership of the Board of Directors for the period under review is as follows:

- Dr. Leslie Munroe - Chairman
- Dr. Chandranauth Raghunath - Deputy Chairman
- Mr. Khame Sharma - Director
- Ms. Karen Alleyne - Director
- Mr. Charles Ogle - Director
- Mr. Lawrence Farley - Director
- Dr. Shamdeo Persaud - Director
- Mr. David Josiah - Director

Ms. Trecia David - Registrar of the PTCCB continued to function in the capacity of secretary to the Board in accordance with the relevant provisions enshrined in the Pesticides and Toxic Chemicals Control Act 2000 (No. 13 of 2000).

Member of the Board of Directors Mr. Lawrence Farley passed away in March, 2017. The PTCCB expressed gratitude for his contributions during his tenure as a director.

### 2.2.1 Meetings of the Board of Directors

Statutory meetings were scheduled to be held on the last Wednesday of every month; twelve such meetings were held.

One extraordinary meeting of the Board of Directors was convened to review and approved the quality management system of the Pesticides and Toxic Chemicals Laboratory (PTCL).

## 2.2.2 Technical Committees

Arrangements were in place for the conduct of technical meetings during the period under review as may have been necessary.

A technical meeting was convened to discuss and review the following:

1. Job description for employees
2. Employee contracts

Directors also participated and gave technical support to the following programmes:

- Pesticides awareness program in secondary school
- Community outreach program
- Meetings with key stakeholder groups
- Pesticides Awareness Week 2017
- Public awareness activities
- Complaints and investigations of pesticide incidents

### 2.2.3 Signatories of the PTCCB

The signatories of the PTCCB for the year under review were:

- a) Chairman of the Board – Dr. Leslie Munroe;
- b) Deputy Chairman – Dr. Raghunath Chandranauth;
- c) Director - Mr. Lawrence Farley (deceased);
- d) Secretary of the Board – Ms. Trecia David; and
- e) Accountant – Ms. Chandramatti Basdeo

### 3.0 SECRETARIAT OF THE BOARD

#### 3.1 Organizational Chart

The organizational chart highlights the four main departments of the PTCCB and can be viewed in **Appendix Ia**. A list of staff of the PTCCB is presented in **Appendix 1b**.

#### 3.1 Departments of the PTCCB

1. Financial management department
2. Implementation department
3. Administrative department
4. Pesticides and Toxic Chemicals Laboratory

#### 3.2 General Administration

The implementation of the policies of the PTCCB is carried out by an adequately staffed secretariat, located in the compound of the National Agricultural Research and Extension Institute (NAREI), Mon Repos, East Coast Demerara. The secretariat, which is headed by the Registrar holds responsibility for general administration and operations including (i) training (ii) enforcement of the rules and regulations associated with the manufacture, import, transport, storage, selling, using and advertising of pesticides and toxic chemicals in Guyana and (iii) analytical monitoring of all pesticides and toxic chemicals including monitoring for residues in food.

#### 3.3 Human Resource and Capacity Building

##### 3.3.1 Employment

The staff complement of the PTCCB for the period under review was twenty one (21).

Due to the PTCCB's expanding mandate in implementing the Pesticides and Toxic Chemicals Regulations 2004, the following persons were recruited in 2017:

1. Mr. Anooj Ramsoomeran - Laboratory Technician
2. Mr. Faizul Bacchus - Driver

Mr. Oswin George's engagement as a driver/expeditor with the PTCCB was terminated during the period under review.

##### 3.3.2 Staff Training and development

Ms. Alecia Hall continued the pursuit of a Bachelor of Science Degree in Chemistry at the University of Guyana (UG) on a Public Service Ministry scholarship and will return to serve the PTCCB upon completion. Mr. Sheirdath Ramsammy, Inspector II completed his Post Graduate Diploma in Pesticides Risk Management with the University of Cape Town, South Africa. Mr. Ramsammy was funded through the PTCCB.

Throughout the period under review the PTCCB, in recognition of the need for capacity building to adequately provide efficient and effective services to its key stakeholders and general public provided staff personnel with numerous capacity building opportunities. These included training exercises from international organizations and other agencies, participation in regional and international workshops and meetings, as well as educational opportunities for advancing staff qualifications in specific areas of need (**See Appendix II**).

### 4.0 ACHIEVEMENTS – 2017

The Pesticides and Toxic Chemicals Control Board (PTCCB) is pleased to present its major achievements for the period under review.

#### 4.1 Registration and Licensing

##### 4.1.1 Pesticides submitted for registration

The PTCCB received 43 pesticides applications for registration during the period under review. These products were evaluated to ensure that submissions were in keeping with the regulation before registration. Thirty eight (38) of these products were registered while the remaining five (5) is pending submission of additional information from manufacturers.

A total of 48 products satisfied the registration requirements and were registered for import and use in Guyana in 2017. Ten of these were applications pending from 2016.

The list of pesticides registered for use in Guyana (**Appendix III**) is updated annually; it can be viewed and downloaded from the Board's web page ([www.ptccb.org.gy](http://www.ptccb.org.gy)).

##### 4.1.2 Toxic Chemicals submitted for registration

The PTCCB also received a total of 825 registration applications for toxic chemicals. A total of 296 products have successfully completed this process while registration for 529 is pending submission of additional information from importers for completion.

The PTCCB issued 2,430 import licenses for pesticides and toxic chemicals of which 2287 were toxic chemicals and 143 for pesticides. **Table I** represents a breakdown of import licenses issued for pesticides and toxic chemicals for 2017. **Appendix IV** represents the analysis of all costs and quantities of pesticides and toxic chemicals imported for 2017.

**Table I: Monthly Breakdown of Pesticides and Toxic Chemicals Import Licenses issued for 2017**

IMPORT LICENSE ISSUANCE 2017		
MONTH	TOXIC CHEMICALS	PESTICIDES
January	173	16
February	132	6
March	201	10
April	203	8
May	170	21
June	220	9
July	168	9
August	193	19
September	183	13
October	240	10
November	236	16
December	168	10
<b>TOTAL</b>	<b>2,287</b>	<b>143</b>

##### 4.1.2 Restricted Use Pesticides

The PTCCB conducted inspection and enforcement activities towards the implementation of the Pesticides and Toxic Chemicals Control Regulations 2004 Part II subpart C, "Restricted use pesticides" which are listed below:

- a) Aluminium Phosphide and its products
- b) Paraquat Dichloride and its products
- c) Methomyl and its products
- d) Oxamyl and its products
- e) DDT (dichlorodiphenyltrichloroethane)

The distribution, sale and use of these substances were monitored from registered vending sites countrywide. Distributors and vendors must adhere to record keeping requirements of the Regulations, while members of the public must produce identification documents to purchase restricted use pesticides.



Picture 1: Monitoring the sale of Restricted Use Pesticides

#### 4.1.3 Prohibited Pesticides and Toxic Chemicals

Guyana in keeping with its obligations to the Rotterdam and Stockholm Conventions on chemicals management, aim at the protection of human health and the environment through elimination of persistent organic pollutants (POP's), updated the list of prohibited pesticides and toxic chemicals (See Appendix V).

#### 4.1.4 Importers of Pesticides & Toxic Chemicals

The PTCCB conducted 44 meetings with pesticide stakeholders in keeping with its mandate to raise awareness among all stakeholder groups including importers and manufacturers of chemicals to enable broader responsibility and private sector involvement in chemicals management. These meetings high-lighted new developments and initiatives in pesticides related matters, implementation of same and expected outcomes at the national, regional and international levels.

*The main issues the PTCCB addressed with the importers were:*

1. Registration of pesticides and toxic chemicals
2. Registration and import of bio-pesticides
3. Import of veterinary pesticides
4. Illegal import of pesticides and toxic chemicals
5. Inspections of containers of imported pesticides

6. Illegal distribution (house to house sale) of pesticides by registered importers.

#### 4.1.5 Pest Control Operators (PCOs)

The PTCCB in keeping with the Regulations registered a total of 21 PCO's for 2017 which included 19 urban & domestic and two agricultural (aircraft operator) PCOs. Inspections and enforcement activities were conducted with PCO's to ensure adherence to regulatory policies. All pest control operators were monitored by the Inspectorate for the period under review. Table II presents a list of registered PCOs for 2017.



Picture 2: Field inspections of Pest Control Operators, 2017

Table II: Registered Pest Control Operators (PCO's) 2017

Urban and Domestic		
No.	Company Name	Address
1	X-INSECTS	Lot 102 Block CC Agriculture Road, Mon Repos West, E.C.D
2	Food Safety Management Inc.	83 Area "F" Ogle, Airport Road, E.C.D
3	Terminex Pest Control	Lot 41 Kisson Street, Better Hope North, E.C.D
4	Door to Door Pest Control	Lot 29 Second Street, Industry, E.C.D
5	PesPros Pest Control & Hygiene services	Lot 183, 8th Street, Industry E.C.D
6	Killet Pest Control	Lot 34, Arakaka Place, Bel-Air Park, Georgetown
7	Rid - o - Pes	Lot 75 Sixth Street, Albertown
8	Target Services	Lot 172 Charlotte Street, Lacytown
9	De General Pest Control and Marketing Agency	Lot 93 'B' John Street, Campbelville, Georgetown
10	Miracle Extermination Services	Lot 2 C Norton Street, Wortmanville
11	Rentokil Initial	Lot 8 Charles and Drysdale Streets, Charlestown
12	Pablo Pest Control	Lot 95 Sugar Cane Street, South Ruimveldt Gardens
13	Pestex Environmental Solutions	Lot 18 Public Road, Mc Doom
14	Zenith Pest Control Services Plus	Lot 208 Section A Diamond, E.B.D
15	Termenex Cleaning & Extermination Services	Lot 135 New Housing Scheme, Golden Grove, E.B.D
16	Termitary & Weed Control	Lot 333 Wisroc Housing Scheme, Linden or 323 Melanie, E.C.D
17	Nand Persaud & Company Limited Pest Control Department	Number 36 Village, Corentyne, Berbice
18	Terminate Pest Control	14-73 Glasgow Housing Scheme, East Bank, Berbice
19	GUY-SUR	Lot 297 , Block 8, Mon Repos, E.C.D
Agricultural		
20	Air Services limited	Eugene F.Correia International Airport, Ogle
21	GUYSUCO	LBI Estate, E.C.D

#### 4.1.6 Vending Premises Licensed 2017

One hundred and eighty five (185) pesticides vendors (**Appendix VI**) were registered to hanstore and sell pesticides in Guyana. This dle, is in keeping with the Board's mandate in ensuring sound chemicals management in Guyana. One-on-one meetings coupled with inspection activities were undertaken during the year so as to ensure vendors are knowledgeable and well equipped to work with pesticides.

SUMMARY OF VENDING APPLICATIONS AND LICENSES 2017	
Licensing Pesticide Vendors	Total
Total Vendors December 2016	185
Rejected (non-compliance 2017)	3
Ceased vending 2017	5
Renewed License 2017	182
New applicant 2017	20
Licensed December 2017	185
In Process	16

Table III above summarizes activity within the pesticide vending programme.

#### 4.2 Inspection and Enforcement

The PTCCB's inspection and enforcement department conducted inspection exercises on all 185 vending premises to evaluate their compliance with the Pesticides and Toxic Chemicals Control Act 2000 Part V.

**Random inspections and enforcement activities were also conducted in all Regions except 7 and 8 in the following areas:**

- Regions 1,2,3,4,5,6,9 and 10
- Public markets and supermarkets
- General stores and hardware stores

- Toxic chemicals and pesticide importers
- Pest control operators
- Ports of entry and
- Inspections based on information received.

These activities resulted in 38 confiscations of unregistered pesticides and toxic chemicals products and also included information sharing and exchange. A detailed outline of all enforcement activities and confiscations is presented in **Appendix VII**.

#### 4.2.1 Images of Confiscated Products



Picture 3: Illegal Agrochemicals and Household Use Pesticides Confiscated during enforcement activities, 2017.



**4.2.2 Inspections: Wharves and Warehouses**

Four inspection exercises were carried out in collaboration with the Guyana Revenue Authority, Customs and Trade Administration at Wharf and Warehouses, to monitor pesticide imports. These inspections ensured that only registered pesticides were imported and were compliant with licenses issued.



Picture 4: Inspection of containers with imported pesticides at GRA, Wharves & Warehouses, 2017

**4.2.3 Inspections, Major Pesticide Storage Facilities**

In 2017, 62 inspections were conducted at major pesticides storage facilities and recommendations were made for corrections of any non-compliances that were observed.



Picture 5: Inspection of three major pesticides storage facilities, 2017

**4.2.4 Inspections: Toxic Chemical Importers and Industries**

IN 2017, the PTCCB commenced inspection of toxic chemical importers in keeping with its mandate. Toxic chemicals are mostly imported and used by the manufacturing industry in Guyana. Many other items such as detergents and cleaners are imported as finish products for direct distribution to customers. Inspected sites included: New Guyana Pharmaceutical Corporation, Sterling Products and Twins Manufacturing & Chemists.



Picture 6: Inspection of toxic chemicals storage facilities of New Guyana Pharmaceutical Corporation

**4.2.5 Inspection, Supermarkets and Community Markets**

In 2017, 1138 inspections were carried out on pesticide importers, vendors, distributors, toxic chemical importers, supermarkets, general and hardware stores and community markets countrywide. These resulted in the confiscation of 10.2 tonnes of illegal pesticides for the period under review.



Picture 7: Inspection carried out at a supermarket and vending sites, 2017

#### 4.2.6 Complaints and Investigation

The PTCCB received, investigated and reported on the following complaints of chemicals incidences during the year under review.

##### 4.2.6.1 Zeelugt Incident

The PTCCB was informed of an allegation of crop damage due to aerial pesticides application by the Guyana Sugar Corporation (GuySuCo), Uitvlugt Estate allegedly affecting farmers in the Zeelugt area. The investigation revealed that it was scientifically possible for small droplets of the herbicide mixture to be transported by wind whilst the aircraft was spraying. However, the field observations did not reveal any signs or symptoms of herbicides damage on the crops.

##### 4.2.6.2 Maria Delight Incident

The PTCCB was informed of an alleged spraying of pesticides which affected a rice farmer's field at Maria's Delight, Essequibo Coast. It was alleged that Mr. Latchmin sprayed his own perimeter dams with pesticides which damaged the complainant's (Mr. Baharally) rice crop. Mr. Latchmin admitted that he sprayed 2, 4-D in proximity to the rice field and also agreed that perhaps the rice field could have been contaminated but not to the magnitude that Mr. Baharally was alleging. After careful consideration based on the physical evidence, it did not appear that any drift from the 2,4-D application reached Mr. Baharally's plots.

##### 4.2.6.3 De Hoop Mahaica Incident

The PTCCB investigated a complaint of alleged spraying on a farmer's rice field at Lajeonette De Hoop Mahaica, East Coast Demerara. The complainant, Mr. James Pompey alleged that Mr. Dennis Pompey sprayed pesticides in an effort to destroy his rice crop. The investigation revealed no signs of pesticide drift in Mr. James Pompey rice field but there was enough evidence to show that a pesticide might have been applied to rice crop.

##### 4.2.6.4 Sophia B' Field Incident

The PTCCB received a complaint of alleged crop damage by pesticides in 'B' field Sophia, East Coast Demerara. Ms. Janice Edwards, alleged that her neighbor Mr. Rudolph Thrim intentionally applied pesticides to destroy plants in her yard. Based on the observations made on the plants, a pesticide might have been applied; however, a complete residue analysis would have definitively stated if it was a pesticide but the complaint was lodged too late for any significant amount of residue to be present in the plant hence the laboratory analysis was not conducted in keeping with the standard operating procedure for sample collection.

##### 4.2.6.5 Mahaica Incident

An anonymous complaint was made by a resident from the Mahaica community about high levels of pesticide fumes and spillage being released from a neighbour's storage bond. Based on the observations made, no pesticide spill was evident and no agro-chemical fume was emanating from the accused residence at the moment of inspection.

Additionally, the storage bond was well ventilated and in compliance with the recommended requirements of the PTCCB.

##### 4.2.6.6 Better Hope Essequibo Incident

The PTCCB investigated an alleged pesticide spraying incident at Better Hope Essequibo Coast. It was alleged by Mr. Aristatle Bacchus of Better Hope, Essequibo Coast that his entire rice field was sprayed with an unknown pesticide by another farmer who lives two villages away but owned some rice lands just adjacent to where his was located. Based on the observations made, a pesticide drift may have occurred in Mr. Bacchus's rice field, if the pesticide was not used in accordance with the label instructions or above normal wind speed; however, a complete residue analysis would have definitively stated if it was a pesticide but the complaint was lodged too late for any significant amount of residue to be present in the plant thus no analysis was done.

##### 4.2.6.7 Windsor Castle Incident

Residents from the community Windsor Castle located on the Essequibo Coast alleged that, rice farmer Ramnaresh Ramnakan, while applying pesticide to his rice fields using a **Jacto Canon Sprayer** (power take off operated) caused pesticide drift to reach their crops and water sources. The PTCCB conducted an investigation into the alleged spraying incident.

It was concluded based on symptoms seen on the surrounding vegetation, the time these signs and symptoms appeared, the team's experience dealing with pesticides and the accused admittance to using

Paraquat and 2,4-D it is highly likely that indeed a pesticide drift may have occurred from a contact pesticide with the mode of action similar to Gramoxone (active ingredient Paraquat). Unfortunately, a full laboratory analysis was not possible to be done on the affected crops because the PTCL was being refurbished.

#### 4.3 Training and Awareness Programme

##### 4.3.1 Farmers Training and Awareness Programs

The PTCCB conducted farmers training sessions in ten villages countrywide. These training sessions discussed topics relating to the safe use, handling, storage and disposal of pesticides. Emphasis was placed on proper storage of pesticides and the use of household pesticides with discussions on their impact on human health and the environment. A total of 7955 persons were reached through the PTCCB's training and awareness programmes in 2017 (*see Appendix VIII*).





Picture 8: Training sessions conducted in various regions nationwide, 2017

### 4.3.2 Impact Assessment – Pesticides Storage Cabinet Distribution

The PTCCB conducted an impact assessment survey of its pesticide storage cabinet distribution programme which was aimed at improving pesticides storage practices countrywide. A total of 300 cabinets was distributed in 2014 and 2016. The sample size for the survey was 30%, covering recipients from both years, in regions 2,3,4,5,6 and 10. The results of the survey revealed that all cabinets were being used for the intended purpose. Seventy two percent (72%) of the distributed cabinets were in very good condition and 98.9% of the surveyed participants were pleased with the programme.



Picture 9: Inspectors carrying out the Impact Assessment survey

### 4.3.3 Occupational Safety and Health Exhibition

The PTCCB participated in the Occupational Safety and Health (OSH) Exhibition held at the Giftland Mall as part of Occupational Safety and Health Month 2017, organized by the Ministry of Social Protection. The PTCCB booth presented information on the work of the PTCCB and personnel protection when using chemicals. The activity was very interactive where members of the public interfaced with staff of the PTCCB.



Picture 10: A Scene from OSH Exhibition

### 4.3.4 Farmers Market Day

The PTCCB participated in the Farmers Market Day event held at Durban Park, which was organized by the MOA. The PTCCB booth raised awareness on the dangers associated with improper use of pesticides.



Picture 11: PTCCB's Booth at Farmers Day Exhibition

### 4.3.5 Launching of Agriculture Month

The PTCCB participated in the Interfaith Service that was held at the MOA for the launch of Agriculture Month, 2017. The month was celebrated under the theme "Food Security and Hinterland Development: Our National Priority".



Picture 12: Launch of Agriculture Month 2017

**4.3.6 Berbice Expo**

The PTCCB participated in the Annual Berbice Expo and Trade Fair held at Albion Sports Complex, Berbice. The PTCCB booth displayed both legal and illegal household pesticides and raised awareness to the public on the health and environmental effects of using unregistered pesticides.



Picture 12: The PTCCB's booth at Berbice Expo, 2017

**4.3.7 National Tree Day**

The PTCCB attended the events for National Tree Day, Commissioning of the Weather Station and the opening of the Turmeric Factory held at Hosororo, Region 1. Events for National Tree Day were held under the theme: "Food Security and Hinterland Development: Our National Priority". The events were coordinated by the MOA.



Picture 13: Picture of National Tree Day

**4.3.8 Canje Secondary School - Career day and fair**

The PTCCB participated in the Canje Secondary School Career Day and Fair which was held at the schools' compound. The PTCCB took the opportunity to raise awareness to students and the general public on the use of pesticides in Guyana and risk to human health and environment.



Picture 14: A scene from Canje Secondary School Career Day

**4.3.9 World Food Day**

The PTCCB participated in the World Food Day event held at Wisroc, Linden where it displayed an awareness booth depicting its mandate. A high level of public interaction was done as staff was engaged in raising awareness through a competition which included questions on the PTCCB, understanding and handling of pesticides and laboratory equipment. The theme for World Food Day was "Change the future of migration: Invest in food security and rural development".

**4.3.10 NAREI Open Day**

The PTCCB participated in NAREI Open Day held at NAREI compound Mon Repos, East Coast Demerara with a booth showcasing and raising awareness on illegal and legal pesticides, functions of the PTCL as well as displaying some of the equipment used. The PTCCB at this event also had an interactive corner where students from different schools and the general public participated.



Picture 15: Scenes from World Food Day, Wisroc Linden



Picture 16: Scenes from NAREI Open Day, 2017

#### 4.3.11 Lethem Town Week and Agriculture Expo

The PTCCB participated in Lethem Town Week and Agri Expo held at Lethem, Rupununi. The booth was very interactive and informative to the public, raising awareness on illegal and legal pesticides. The booth was visited by his Excellency President David Arthur Granger and the Honourable Dominic Gaskin, Minister of Business.



Picture 17: Lethem Town Week and Agriculture Expo

#### 4.3.12 Pesticides Awareness Program in Secondary Schools

The PTCCB hosted its Annual Pesticide Awareness in Secondary School Drama Competition held at the Princess Ramada Hotel. The following secondary schools from region 2,3,4,5,6,7 and 10 participated:

1. North Georgetown Secondary School
2. Buxton Secondary
3. No. 8 Secondary School
4. Belladrum Secondary School
5. Johanna Cecelia Secondary School
6. Anna Regina Secondary School
7. Port Mourant Secondary School
8. New Amsterdam Secondary School
9. Wisburg Secondary School
10. New Silver City Secondary School
11. Parika Secondary School
12. Uitvlugt Secondary School
13. 3 Mile Secondary School

The top three schools with the most outstanding dramatic pieces were selected during the preliminary judging to perform for the finals. These were 3 Mile Secondary, Wisburg Secondary and Uitvlugt Secondary Schools.

The competition results were as follows:

- a) 1<sup>st</sup> Place – Uitvlugt Secondary
- b) 2<sup>nd</sup> Place – Wisburg Secondary
- c) 3<sup>rd</sup> Place – 3 Mile Secondary

The other ten schools received consolation prizes of one integrated science and one agriculture science text books to the value of \$20,000. Present at this event were the Permanent Secretary (ag) MOA, PTCCB staff and directors, teachers and students of participating schools, members of the media and other special invitees.

The Ministry of Agriculture award ceremony for long service staffs working within the ministry was conducted at this event.



Picture 18: Scenes from Pesticides Awareness in Secondary School Drama Competition



Picture 19: Part of the audience at the finals of the Pesticide Awareness Drama School Competition

#### 4.3.13 Use of media in Awareness Raising Program

The PTCCB in an effort to inform the general public on chemicals management issues that are important to protecting their health and environment utilized radio, newspapers and television as means of disseminating information. Four radio stations broadcasted 30 second awareness messages three times daily for the period under review (*see Appendix IX for list of messages*).

The Guyana Times, Guyana Chronicle, Stabroek News and Kaieteur Newspapers each carried public awareness articles for the period under review. The main topics covered were pesticide handling, use of personnel protective equipment, storage, household use of pesticides, accessibility to the protection of children from pesticides.

Digicel Guyana also transmitted a text blast to all its customers with the following statement “Our environment is important to us. Use pesticides responsibly and help preserve our biodiversity.”





Picture 20: Newspaper public awareness advertisement for 2017

**4.3.14 Agriculture Cook-Off Competition**

The PTCCB participated in the Agriculture Cook-off Competition hosted by the MOA as part of its agriculture’s month activity. A number of dishes depicting the diversity of the crops grown in Guyana were prepared.



Picture 21: The PTCCB’s Booth at the Agriculture Cook-Off Competition

**4.3.15 Essequibo Night and Trade Fair**

The PTCCB participated in the Essequibo Night and Trade Fair at Anna Regina, Essequibo Coast. The booth display raised awareness on role and responsibility of the PTCCB, PTCL and the dangers associated with the use of illegal pesticides. At this event an interactive pesticide corner attracted students from different schools and the general public.



Picture 22: The PTCCB’s Booth at Essequibo Night 2017 at Anna Regina, Essequibo Coast

**4.3.16 Public Awareness at Community Markets**

Public awareness corners were established at seven community markets namely Port Mourant, Kitty, Bourda, Stabroek, Leonora and Hydronie in an effort to raise awareness on illegal household and agrochemicals in Guyana. The public awareness corners were interactive and persons were informed about the dangers posed to health and the environment when using illegal pesticides.



Picture 23: Public Awareness Corner at Leonora and Hydronie Markets

**4.3.17 Environmental Health Officers Training**

A training exercise for Environmental Health Officers (EHOs) from various regions throughout the country on the “Responsible Use, Storage and Disposal of Pesticides” was held on the 9th November 2017 at the De Impeccable Banquet Hall, Brickdam, Georgetown. This training was integral toward ensuring the sound management of chemicals in Guyana as it relates to pesticides use countrywide.

The specific objectives of the training were as follows:

1. To emphasize the risks associated with the indiscriminate use, storage, and handling of pesticides.
2. To emphasize the dangers associated with prolonged unprotected exposure to pesticides.
3. To emphasize the environmental and occupational hazards associated with the misuse of pesticides.
4. To highlight Integrated Pest Management Strategies (IPM)

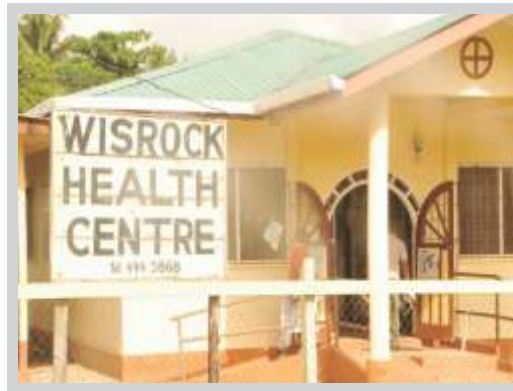




Picture 24: Participants being engaged at the Environmental Health Officers Training

**4.318 Environmental Health Institutions**

The PTCCB initiated an awareness programme that targeted all health facilities countrywide including Hospitals, Health Centres and Health Outposts. The aim of this initiative was to raise awareness to the practitioners and visitors of these facilities about pesticides use, storage and disposal, also the necessary precautionary measures to take when handling these chemicals. A total of 204 health facilities benefited through this initiative.



Picture 25: Installation of pesticide awareness posters at health facilities

**4.4 Pesticides and Toxic Chemicals Laboratory (PTCL)**

The PTCL supports the PTCCB in fulfillment of its mandate through analytical services aimed at investigating the quality of formulated pesticides imported and the determination of pesticide residues in agricultural produce. In July, 2017 the PTCCB’s capital project for the expansion of the PTCL commenced in an effort to prepare for certification and accreditation. A GAP analysis conducted by the Guyana National Bureau of Standards (GNBS) in 2016 identified shortcomings in the laboratory’s

infrastructure and quality management system and made recommendations for addressing non-compliances.

**The PTCL expansion project**

The PTCL expansion project was designed to ensure that infrastructural requirements for a chemical laboratory desirous of certification and accreditation were satisfied. The GNBS facilitated an awareness session on certification and accreditation with a specific focus on ISO17025.

The PTCL expansion project was awarded to Seeram Civil Engineering and Woodworking Establishment and was undertaken from March – December, 2017. Analytical work in the laboratory ceased in July, 2017 to facilitated the expansion of the laboratory

The main analytical achievements for the period of review are as follows:

**4.4.1 Formulated Unit**

A total of thirty six formulated products were analyzed to determine their active ingredient content. Table III below highlights the active ingredients that were determined via high performance liquid chromatography (HPLC). Physical chemical analyses (pH, density, persistent foaming) were also conducted on these products.

Active Ingredients	Number of Analyses Completed
Carbaryl	2
Asulam	2
Hexazinone	1
Fentin Acetate	3
Metsulfuron-methyl	2
Acetamiprid	2
Imidacloprid	8
Carbendazim	7
Fipronil	9
	<b>Total: 36</b>

Table III: Analysis of Active Ingredient

All products analyzed were in keeping with their stated active ingredient content in keeping with their certificate of formulation, upper and lower limits of the active ingredient and labels.

Table IV: The statistical analysis obtained & method used for the respective active ingredients

Products	Active Ingredient Content	Calculated A.I Content	Standard Deviation	Coefficient of Variation	Reference Method
PTCL1604004	Carbayl 85%	86%	8.8273	1.0287	Dossier Method for Analysis of Carbayl
PTCL1604019	Carbaryl 85%	86%	6.8806	0.8033	
PTCL1611006	Asulam 80%	87%	1.9058	2.1846	Dossier Method for Analysis of Asulam
PTCL1701001	Asulam 80%	78%	2.1709	2.7731	
PTCL1701002	Metsulfuron-methyl 60%	68%	68.0393	10.01088	Metsulfuron-methyl water dispersible granules 441/WG/M/-
PTCL1701003	Metsulfuron-methyl 60%	59%	1.7199	0.2937	
PTCL1701004	Acetamiprid 20%	21%	0.7765	0.3701	Cipac Method of Analysis: Acetamiprid 649
PTCL1701027	Acetamiprid 20%	20%	1.3567	0.6784	
PTCL1701010	Imidacloprid 70%	51%	59.2963	11.5122	AOAC Official Method 997.12 Imidacloprid in Liquid and Solid Formulation
PTCL1701011	Imidacloprid 24%	23%	6.8278	3.0280	
PTCL1604005	Imidacloprid 70%	68%	48.8127	7.1538	
PTCL1604018	Imidacloprid 70%	57%	98.3114	17.1508	
PTCL1604021	Imidacloprid 10.1%	8.2%	0.9583	1.1676	
PTCL1604024	Imidacloprid 21.4%	23%	2.7905	1.2351	
PTCL1604027	Imidacloprid 2.15%	5.7%	-	-	
PTCL1604034	Imidacloprid 20%	21%	31.2630	14.7822	

#### 4.4.2 Pesticide Residue Unit

The Gas Chromatogram-Mass Spectrometer (GC-MS) which was used in sample analysis detected active ingredients of pesticides which were unregistered, illegal or were being misused.

The unit acquired a Liquid Chromatograph-Tandem Mass Spectrometer (LC-MS/MS) which was procured and installed during the first quarter of 2017.

##### 4.4.2.1 Residue Analysis Report

The laboratory received 112 samples for residue analysis. Eighty nine of these samples were analyzed. Additionally, 26 samples were analyzed for Pyrolizidine Alkaloids (PAs) for UG researchers.

The preliminary data analysis for the fruit and vegetable samples indicated that 12 samples were found to contain residues of pesticides. Residues of active ingredients were found on the following crops:

- 1) Lettuce
- 2) Celery
- 3) Cabbage
- 4) Boulanger
- 5) Eschallot
- 6) Pak-choi
- 7) Rice- paddy leaves

The following pesticide residues were detected:

- 1) Alpha-Cypermethrin,
- 2) Triazophos,
- 3) Malathion,
- 4) Pyriproxifen,
- 5) Cypermethrin,
- 6) Acetamiprid,
- 7) Lambda-Cyhalothrin

##### 4.4.2.2 Pesticide Residue

Eighty nine samples were analyzed for pesticide residue.

- 1) The Inspectorate submitted 88 fruits and vegetable samples
- 2) Caricom Rice Mills Limited one (1) rice sample



Table V: List of samples analyzed for pesticide residues in 2017 and their respective profiles

Sample location	Sample name	Sample ID	Mode of analysis	Pesticide detected	Retention time (mins)
Charity Market, Essequibo Coast	Pineapple	PRD170103001	GCMS Full Scan	No pesticide detected	-
	Banana	PRD170103002	"	No pesticide detected	-
	Orange	PRD170103003	"	No pesticide detected	-
	Watermelon	PRD170103004	"	No pesticide detected	-
	Cucumber	PRD170103005	"	No pesticide detected	-
	Boulangier	PRD170103006	"	Pyriproxyfen	21.21
	Mango	PRD170103007	"	No pesticide detected	-
	Carrot	PRD170103008	"	No pesticide detected	-
	Redbeans	PRD170103009	"	No pesticide detected	-
	Sweet Pepper	PRD170103010	"	No pesticide detected	-
	Tomato	PRD170103011	"	No pesticide detected	-
	Cabbage	PRD170103012	"	No pesticide detected	-
	Carilla	PRD170103013	"	No pesticide detected	-
	Bora	PRD170103014	"	No pesticide detected	-
	Papaw	PRD170103015	"	No pesticide detected	-
	Pak-Choi	PRD170103016	"	No pesticide detected	-
	Ochro	PRD170103017	"	No pesticide detected	-
	Tangerine	PRD170103018	"	No pesticide detected	-
	Passion Fruit	PRD170103019	"	No pesticide detected	-
	Eshallot	PRD170103020	"	Lambda-cyhalothrin	21.32
	Plantain	PRD170103021	"	No pesticide detected	-
	Poi	PRD170103022	"	No pesticide detected	-
	Hot Pepper	PRD170103023	"	No pesticide detected	-
	Broccoli	PRD170103024	"	No pesticide detected	-
	Celery	PRD170103025	"	Acetamiprid	20.80
Port Mourant Market, Berbice	Boulangier	PRD170103026	GCMS Full Scan	No pesticide detected	-
	Tomato	PRD170103027	"	No pesticide detected	-
	Sweet pepper	PRD170103028	"	Falcarinol	16.79
	Hot pepper	PRD170103029	"	No pesticide detected	-
	Bora	PRD170103030	"	No pesticide detected	-
	Cucumber	PRD170103031	"	No pesticide detected	-
	Corolla	PRD170103032	"	No pesticide detected	-
	Ochro	PRD170103033	"	No pesticide detected	-
Pak choi	PRD170103034	"	Triazophos	19.73	

Sample location	Sample name	Sample ID	Mode of analysis	Pesticide detected	Retention time (mins)
Port Mourant Market, Berbice (cont'd.)	Poi	PRD170103035	"	No pesticide detected	-
	Cabbage	PRD170103036	"	$\alpha$ -Cypermethrin	23.30
				Pyriproxyfen	21.32
				Chlorfenpyr	19.02
				Cyclic octo-atomic sulphur	17.45
	Celery	PRD170103037	"	Malathion	15.83
				DEET	10.80
	Eshallot	PRD170103038	"	No pesticide detected	-
	Plantain	PRD170103039	"	No pesticide detected	-
	Banana	PRD170103040	"	No pesticide detected	-
	Watermelon	PRD170103041	"	No pesticide detected	-
	Mango	PRD170103042	"	No pesticide detected	-
	Pineapple	PRD170103043	"	No pesticide detected	-
	Papaw	PRD170103044	"	No pesticide detected	-
	Orange	PRD170103045	"	No pesticide detected	-
	Tangerine	PRD170103046	"	No pesticide detected	-
	Lettuce	PRD170103047	"	$\alpha$ -Cypermethrin	23.31
				Triazophos	19.71
	Sour sop	PRD170103048	"	No pesticide detected	-
	GUYSUCO-Uitvlugt Estate	Ochro	PRD 170202001	GCMS Full Scan	No pesticide detected
Guava		PRD 170202002	"	No pesticide detected	-
Plantain		PRD 170202003	"	No pesticide detected	-
Plantain		PRD 170202004	"	No pesticide detected	-
Sweet Potato		PRD 170202005	"	No pesticide detected	-
Plantain		PRD 170202006	"	No pesticide detected	-
Boulangier		PRD 170202007	"	Triazophos	19.70
				Cypermethrin	23.31
Charity Investigation	Thorn weed	PRD170303001	GCMS Full Scan	$\alpha$ -Cypermethrin	23.35
	Paddy plant-leaves	PRD170303002-A	"	No pesticide detected	-
	Paddy plant-grains	PRD170303002-B	"	No pesticide detected	-
	Duck weed	PRD170303003	"	No pesticide detected	-
	De-Hoop, Mahaica Investigation	Paddy-Rice leaves	PRD170305001	GCMS Full Scan	$\alpha$ -Cypermethrin
Antelope grass		PRD170305002	"	No pesticide detected	-

Table V: List of samples analyzed for pesticide residues in 2017 and their respective profiles

Sample location	Sample name	Sample ID	Mode of analysis	Pesticide detected	Retention time (mins)
Caricom Rice Mill, Anna Regina	Cargo White Rice (Milled)	PRD170502001	GCMS Full Scan	No pesticide detected	-
Bourda Market, Georgetown	Hot Pepper	PRD170302001	GCMS Full Scan	No pesticide detected	-
	Sweet Pepper	PRD170302002	"	No pesticide detected	-
	Celery	PRD170302003	"	No pesticide detected	-
	Eschallot	PRD170302004	"	No pesticide detected	-
	Poi	PRD170302005	"	No pesticide detected	-
	Pak-choi	PRD170302006	"	Alpha-cypermethrin	23.11
	Lettuce	PRD170302007	"	Alpha-cypermethrin	23.32
	Tomato	PRD170302008	"	No pesticide detected	-
	Boulanger	PRD170302009	"	No pesticide detected	-
	Bora	PRD170302010	"	No pesticide detected	-
	Cucumber	PRD170302011	"	No pesticide detected	-
	Cabbage	PRD170302012	"	No pesticide detected	-
	Passion fruit	PRD170302013	"	No pesticide detected	-
	Ochro	PRD170302014	"	No pesticide detected	-
	Carilla	PRD170302015	"	No pesticide detected	-
	Carrot	PRD170302016	"	No pesticide detected	-
	Pineapple	PRD170302017	"	No pesticide detected	-
	Watermelon	PRD170302018	"	No pesticide detected	-
	Papaw	PRD170302019	"	No pesticide detected	-
	Plantain	PRD170302020	"	No pesticide detected	-
Banana	PRD170302021	"	No pesticide detected	-	
Mango	PRD170302022	"	No pesticide detected	-	
Orange	PRD170302023	"	No pesticide detected	-	
Sour Sop	PRD170302024	"	No pesticide detected	-	
Broccoli	PRD170302025	"	No pesticide detected	-	
Cauliflower	PRD170302026	"	No pesticide detected	-	

## 5.0 Meetings and Other Events

### 5.1 National Meetings on Chemicals Management

#### 5.1.1 National Suicide Prevention Plan

The PTCCB met with a representative from the Ministry of Public Health (MoPH), Ms. Barclay to discuss pesticide use in suicide and to collaborate in awareness raising activities. The meeting also focused on the role of the PTCCB in the overall achievement of the National Suicide prevention plan, with emphasis on the easy access to pesticides by suicide victims. The PTCCB committed to collaborate with the Ministry of Public Health in training activities for 2017.

#### 5.1.2 Maximum Residue Limited (MRL) in rice traded with the European Union (EU)

The PTCCB facilitated a meeting with SeaRice Guyana on the issue of the European Union's Maximum Residue Limit (MRL) requirements for tricyclazole a fungicide used in rice and its implication with trading to that region. The PTCCB indicated that tricyclazole is not a fungicide that is registered for use in Guyana; hence there is no importation and use of this product in rice or any other crop cultivation.

#### 5.1.3 MOA Outreach

The PTCCB was involved in an agriculture outreach in region 2, targeting farmers from the Essequibo Coast and the Pomeroon River. The team was headed by the Minister of Agriculture, the Honourable Noel Holder. One meeting was conducted at Anna Regina and four in the Pomeroon River where

farmers and residents were given the opportunity to raise matters of concern to them. A site visit was also done at the mouth of the Pomeroon River to observe the level of siltation taking place for possible intervention of dredging works. The PTCCB was requested by the farmers to conduct training on the safe use and management of pesticides for farmers in the Pomeroon community.



Picture 25: Outreach team at Anna Regina



#### 5.1.4 Aerial Buffer Zone Trial

The PTCCB was involved in a field observation trial conducted by GuySuCo at the Blairmont estate cultivation. The trial was one of a series being conducted by GuySuCo across the sugar industry in determining buffer zones for aircraft application of pesticides in the industry.



**Picture 26: Aircraft application of pesticides with colour marker to measure drift at Blairmont cultivation**

#### 5.1.5 Port Officers Training

The PTCCB conducted training for Port Officers at a workshop, held by Pan America Heath Organization (PAHO) at the Duke Lodge on the Chemical Management system in Guyana. This specific training addressed topics relating to the International Health Regulations (IHR) implementations in Guyana, and to emphasise the preparedness for chemical and radioactive risks and emergencies on issues such as border inspections, conveyance, product management, early communication and reporting.

#### 5.1.6 Implementation of the Minamata Convention

The PTCCB attended a meeting at the Ministry of Natural Resources as part of the National Working Group on Minamata implementation in Guyana with other relevant stakeholders. The focus was to promote a green economy in which there is a reduction in the importation and use of mercury in gold mining operations so as to protect the environment and human health from the risks mercury poses. It was stated that 42 countries have already signed on to the convention.

The working group is mandated with updating the strategic plan for the implementation of the Minamata Convention requirements.

#### 5.1.7 Importation of Methyl Bromide

The PTCCB attended a meeting at Guyana Forestry Commission (GFC) to discuss the importation of Methyl Bromide into Guyana for fumigation purposes of lumber for export to India as requested by the Indian Authorities. Present at the meeting were Mr. J Singh - Commissioner of Forests, Mr. Churaman – Forest Product Association and Ms Odessa Chaker- Hydromet, The group discussed the requirements for Methyl Bromide lifecycle management in Guyana. The outcome of the meeting was that Hydromet is required to give a written permit on behalf of GFC to import and the PTCCB will be issuing the importation licence and facilitate storage with National Plant Protection Organization managing the use of Methyl Bromide.

#### 5.1.8 Development of Biopesticides Standards

The PTCCB facilitated a meeting with Inter-American Institute for Co-operation on Agriculture (IICA) concerning bio-pesticides standards. Draft standards for bio-pesticides registration were developed for Guyana, reviewed and finalized. Training was also provided to staff of the PTCCB on implementing the standards for bio-pesticides.

#### 5.1.9 Annual Pesticide Importers and Pest Control Operators Meeting

The PTCCB hosted one meeting each with pesticides importers and PCOs at the MOA Boardroom, Georgetown. At the pesticides importers meeting, presentation of the work of the PTCCB over the past year and future plans related to Chemicals Management on the local and International arena was made by representatives of the PTCCB. Importers and relevant stakeholders were present at this meeting. Constructive discussion of the issues faced by both the PTCCB and importers were discussed. Future plans and requirements the PTCCB were also discussed at the meeting. A similar presentation was done for the PCOs.



**Picture 27: Pesticides Importer's and Pest Control Operators Meeting at the Ministry of Agriculture Boardroom**

## 6.0 ACCOUNTS 2017

The Accounts for the PTCCB for 2017 has been submitted to the Audit Office in keeping with the Board's work plan. The Auditor General's Office shall examine the PTCCB's Financial Statement for 2017, as required under Section 41 of the Pesticides and Toxic Chemicals Control Act and the Financial Management Act. The total expenditure for 2017 in executing the mandate of the PTCCB is two hundred and seventy million, one hundred and eight one thousand, one hundred and eighty seven dollars (\$270,181,187.64).

## 7.0 BUDGET 2018

The proposed budget of the Board for the year 2018 reflects a total expenditure of one hundred and seventy seven million, six hundred and ninety five thousand dollars (\$177,695,000.00). This expenditure will be used for delivery of the Board's programme and daily operations.

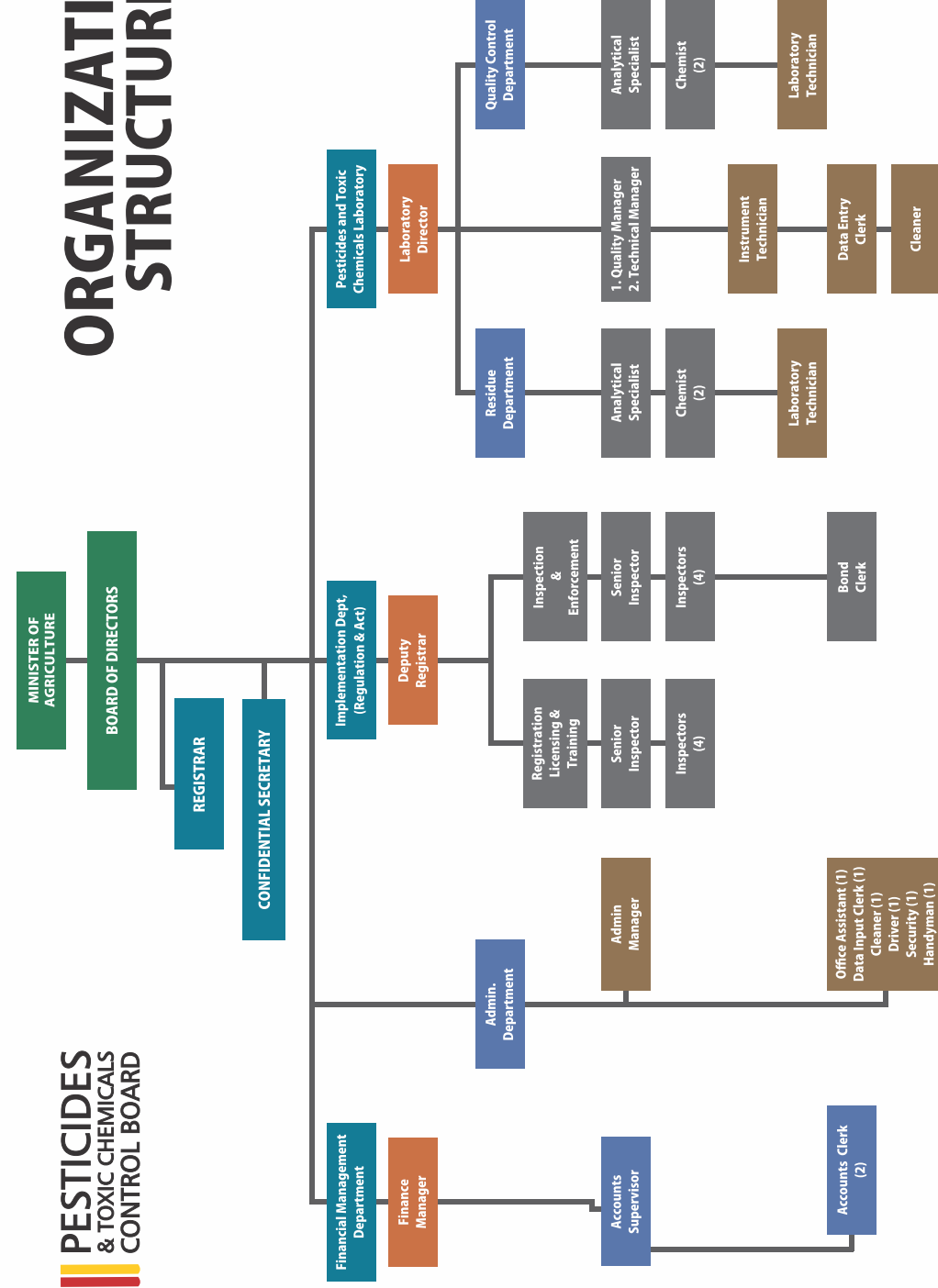
## 8.0 WEBSITE

The Board's Website, <http://www.ptccb.org.gy> was continuously updated during the year to make it more user-friendly and to ensure that all services of the Board are available to the public. The Board continued to use the website as a means of spreading messages and providing relevant information for the general public. The website has been a source of information to nationally, regionally and internationally. In addition, it also provides linkages to the PTCCB's Facebook and YouTube public information pages. There was a total of 1034 visitors to the website from 41 countries during the period under review.

APPENDICES



ORGANIZATION STRUCTURE



**APPENDIX 1b: Members of Staff of the PTCCB**

No.	Name	Designation
1.	Trecia David	Registrar
2.	Suresh Amichand	Deputy Registrar
3.	Chandra Basdeo	Accountant
4.	Kalyani Sooklall	Accounts Clerk
5.	Dietmar Chichester	Inspector II
6.	Sheirdath Ramsammy	Inspector II
7.	Kishan Narine	Inspector
8.	Yekini Johnson	Inspector
9.	Durpattie Parsram	Inspector
10.	Reshmi Bissessar	Chemist II
11.	Morris Solomon	Chemist II
12.	Rayanna King	Chemist I
13.	Rhea Benn	Chemist I
14.	Aleicia Hall	Laboratory Technician
15.	Mahendra Ram	Laboratory Technician
16.	Anooj Ramsoomeran	Laboratory Technician
17.	Vilma Kissoon	Confidential Secretary
18.	Shoma Inderjit	Office Assistant
19.	Selochnie Beharry	Cleaner
20.	Vidyamatti Ramai	Cleaner
21.	Faizul Bacchus	Driver

**APPENDIX II**  
**Capacity Building & Staff Development 2017****National Training/Workshops**

Name of Staff	Workshop/Training Attended
Bhavina Pooran	1. Ministry of Finance Programme on Monitoring and Evaluation - 24th – 28th July, 2017
Shoma Inderjit	1. PSM-Principles of Professional Secretarial Practice - Module I - 7th -11th August, 2017 2. PSM-Principles of Professional Secretarial Practice - Module II -26th -28th September, 2017
Morris Solomon	1. Ministry of Social Protection-Training of the trainers workshop on occupational safety and health in the informal Economy - 4th - 5th October, 2017 2. Ministry of Social Protection-Finalization workshop: National Policy on Occupational Safety & Health- 21st October, 2017 3. Ministry of Social Protection-Aid in sensitization of employee and employers on the national minimum wage order, child labor, labor and the occupational safety and health act/ legislation of Guyana 4. Ministry of Social Protection-Regulations on the safe use of Chemicals- 16th November, 2017
Mahendra Ram	1. Training of the trainers workshop on occupational safety and health in the informal Economy- 4th – 5th October, 2017
Rhea Benn	1. GNBS- Root cause Analysis- 13th – 15th November, 2017
Anooj Ramsoomeran	1. GNBS- Good Medical Laboratory practice- 19th – 20th June, 2017 2. GNBS- Root cause Analysis- 13th – 15th November, 2017

### International Meeting/Workshop/Training

Name of Staff	Workshop/Meeting Attended
Trecia David	<ol style="list-style-type: none"> <li>1. FAO Registration Toolkit Workshop- 7th February-11th February, 2017, Trinidad and Tobago</li> <li>2. Meetings of the Conference to the parties to the Basel, Rotterdam and Stockholm Conventions – 24th April – 5th May, 2017, Switzerland</li> </ol>
Suresh Amichand	<ol style="list-style-type: none"> <li>1. 2nd Meeting of the Project Steering Committee( PSC) for the project GPC/SLC/204/GFF, Trinidad and Tobago</li> <li>2. FAO/ CARICOM Regional Training Workshop for the Pesticides Inspectors and customs officials on the Inspection and control of imported Pesticides - 15th – 17th March, 2017, St. Lucia</li> </ol>
Sheirdath Micheal Ramsammy	<ol style="list-style-type: none"> <li>1. Latin America and Caribbean (GURLAC) regional preparatory meeting for the 2017 meetings of the conference of the parties to the Basel, Rotterdam and Stockholm Conventions and working sessions to address regional specific issues related ratification and early implementation of the Minamata Convention on Mercury- 27th – 31st March, 2017, Brazil</li> <li>2. Meetings of the Conference to the parties to the Basel, Rotterdam and Stockholm Conventions – 24th April – 5th May, 2017, Switzerland</li> <li>3. 1st Regional Meeting of National Competent Authorities responsible for the Registration &amp; Control of Commercial Bio- Input for Agricultural Use, Columbia</li> </ol>
Dietmar Chichester	<ol style="list-style-type: none"> <li>1. GEF Expanded Constituency Workshop- 17th – 19th May, 2017, Grenada</li> </ol>

### APPENDIX III REGISTER OF PESTICIDES

Pesticide Category	Number of Products Registered
Adjuvant	1
Emulsifier	1
Fungicide	50
Fumigant	7
Herbicide	121
Insecticide	181
Miticide	1
Molluscicide	6
Nematicide	1
Organic Acaricide	1
Organic Fungicide	2
Organic Insecticide	2
Plant Growth Regulator	4
Repellent	13
Rodenticide	11
Termiticide	2
<b>Total</b>	<b>404</b>

**APPENDIX IV**  
Pesticides and Toxic Chemicals Imports, 2017

Figure 1: Pesticides and Toxic Chemicals Imports, 2017

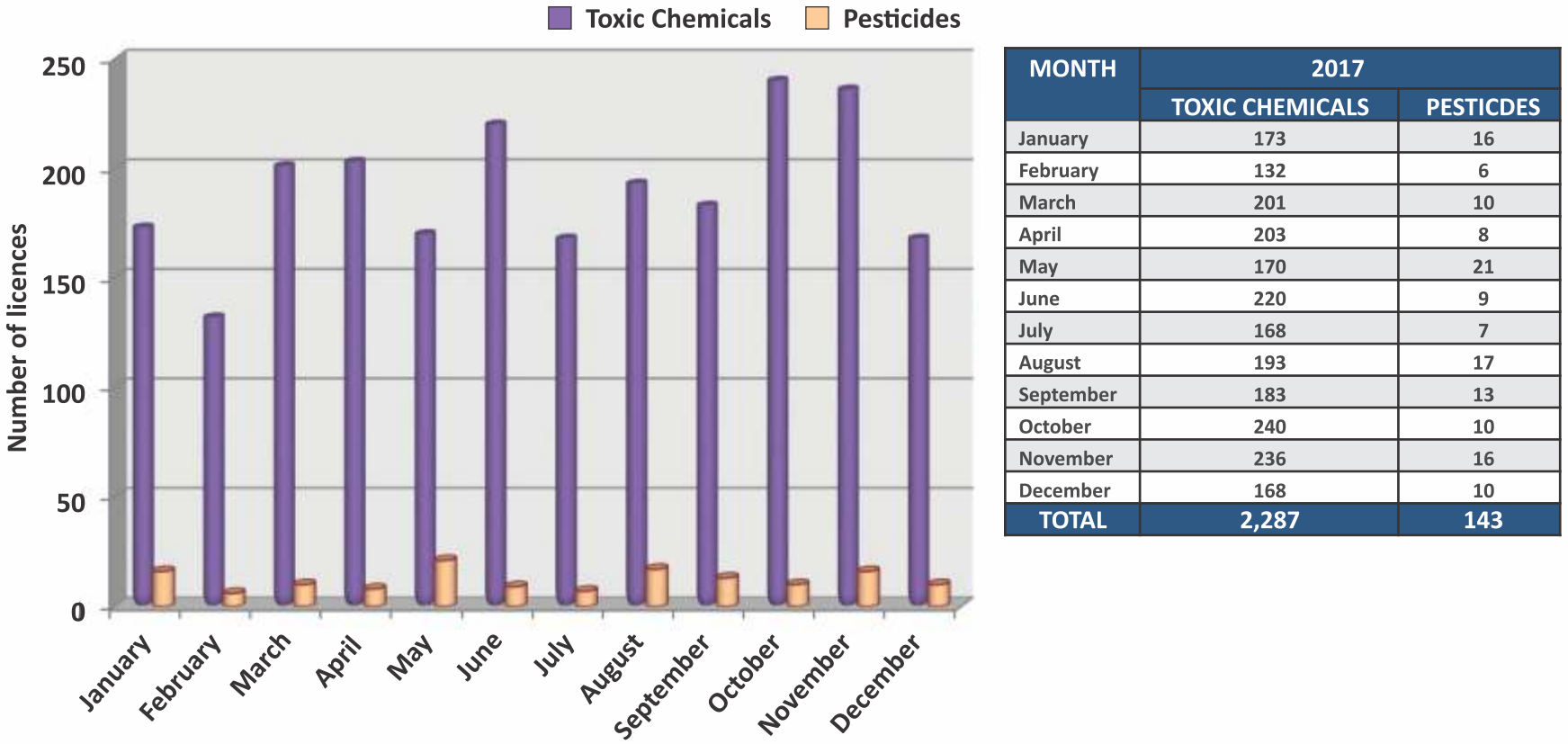


Figure 2: Pesticides and Toxic Chemicals Import Cost, 2017

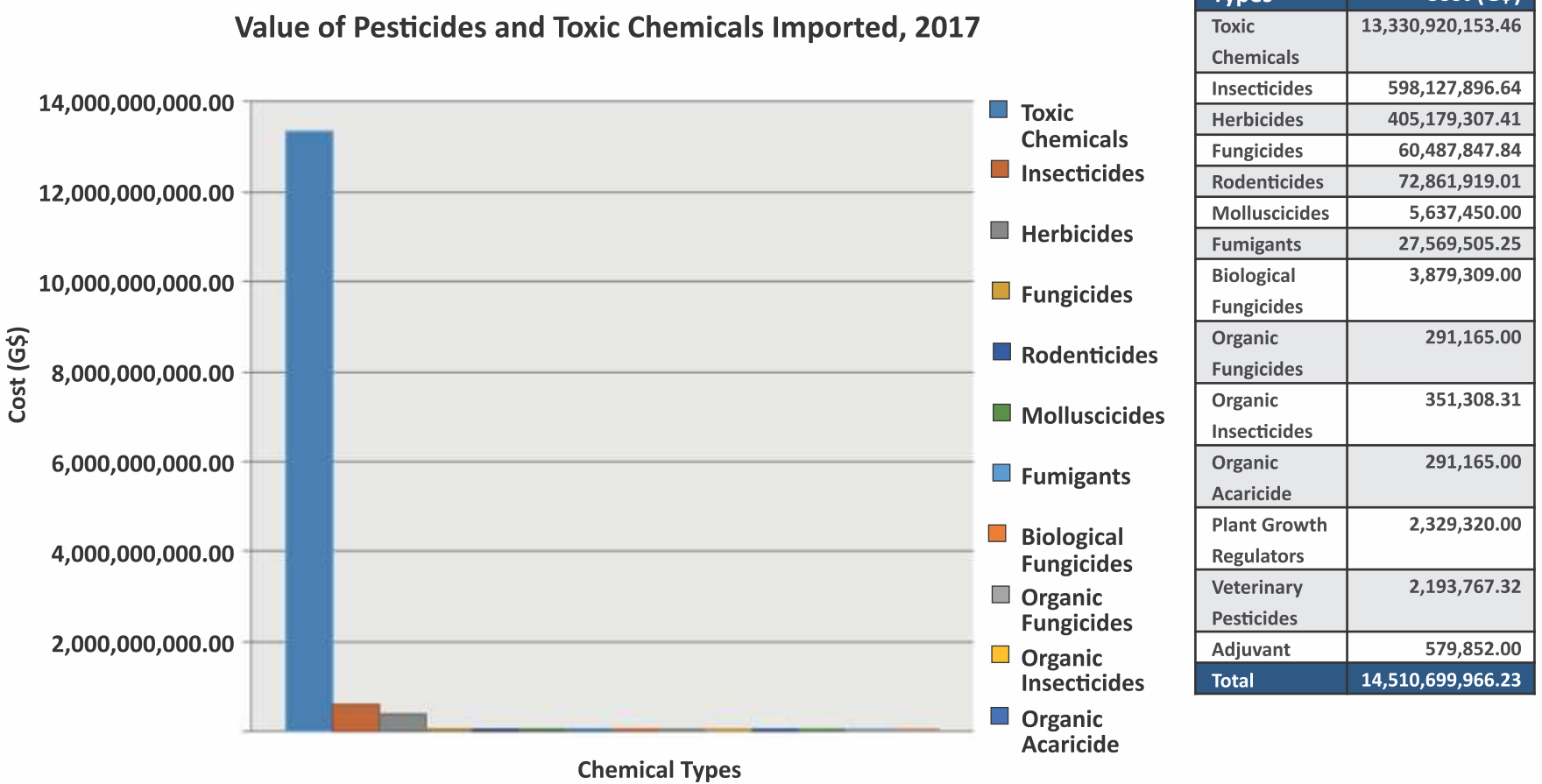
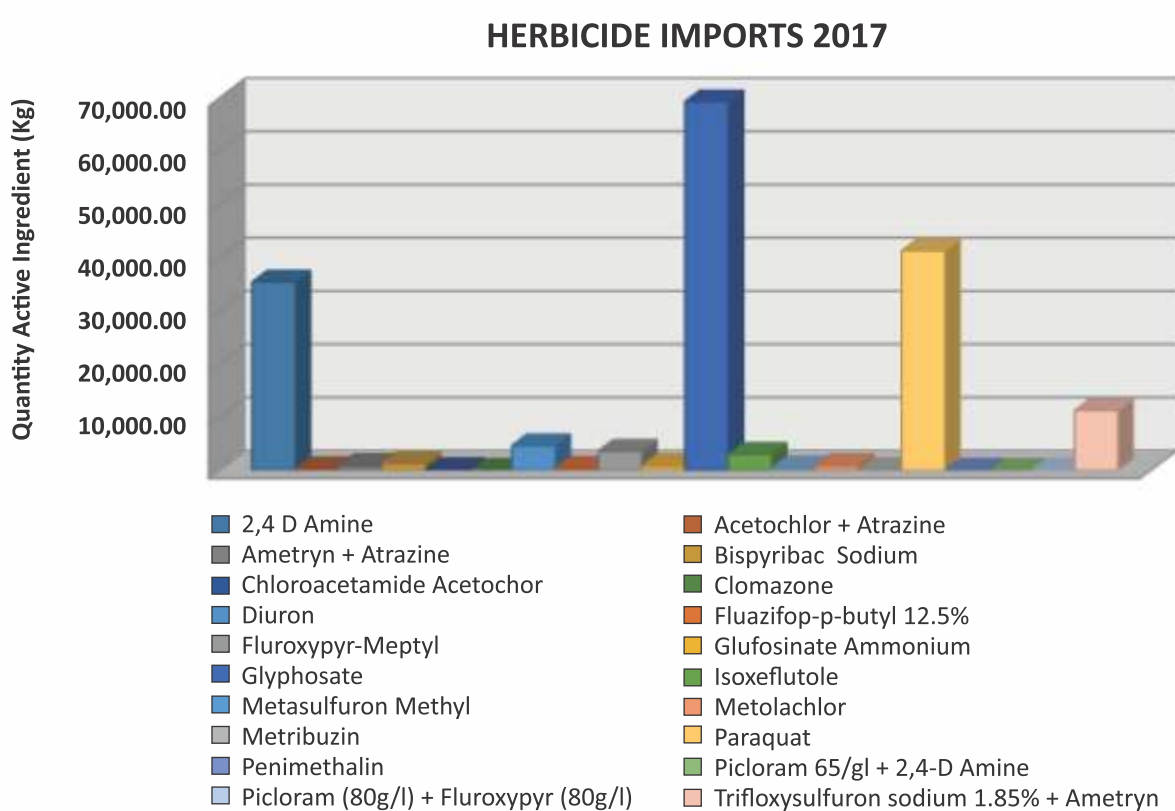


Figure 3: Herbicides Import, 2017



Chemical Name	A.I Quantity (Kg)
2,4 D Amine	35,386.56
Acetochlor + Atrazine	340.58
Ametryn + Atrazine	900.00
Bispyribac Sodium	1,275.00
Chloroacetamide Acetochlor	127.76
Clomazone	2.50
Diuron	4,640.00
Fluazifop-p-butyl 12.5%	346.80
Fluroxypyr-Meptyl	3,600.00
Glufosinate Ammonium	800.80
Glyphosate	69,242.56
Isoxaflutole	2,998.80
Metasulfuron Methyl	426.00
Metolachlor	864.00
Metribuzin	106.80
Paraquat	41,230.39
Pendimethalin	18.24
Picloram 65/g+l+ 2,4-D Amine	1.76
Picloram (80g/l) + Fluroxypyr (80g/l)	1.60
Trifloxysulfuron sodium 1.85% + Ametryn	11,250.00
<b>Total</b>	<b>173,560.15</b>

Glyphosate (69,242.56 kg) was the most imported herbicide for the period under review. Paraquat (41,230.39 kg), 2,4 D Amine (35,386.56 kg), and Trifloxysulfuron sodium 1.85% + Ametryn (11,250 kg) were also largely imported. Herbicides also commonly known as weedkillers, are pesticides used to control unwanted plants.

Figure 4: Insecticides Imported, 2017

Chemical Name	A.I Quantity (Kg)
Abamectin	211.14
Acetamidprid	900.00
Alpha-Cypermethrin	3,851.00
Bifenthrin	20.08
Borax	1.11
Carbaryl	5,075.00
Carbosulfan	360.00
Cartap Hydrochloride	250.00
Chlorantraniliprole	13.93
Chlorfenapyr	23.04
Chlorfenvinphos	100.00
Chlorpyrifos & Cypermethrin	5,010.00
Chlorpyrifos	2,160.00
Cis-,Trans-Cypermethrin 0.1% and Imiprothrin 0.1%	3.38
Cypermethrin	1,501.36
Cyromazine	375.00
D-Allethrin	671.03
Deltamethrin	29.07
Diafenthiuron	1,250.00
Diethyl Toluamide (Deet)	433.10
Emamectin Benzoate	25.00
Fenitrothion	552.00
Fipronil	1,915.37
Imidacloprid	4,510.19
Imidacloprid + Abamectin	16.50
Imidacloprid + Lambda-cyhalothrin	0.64
Imiprothrin & Cyfluthrin	44.17
Indoxacarb	33.00
Lambda-Cyhalothrin	198.27
Lufenuron	72.00
Malathion	57.00
Metaflumizone	14.40
Methomyl	254.50
Methoxyfenoxide	51.33
Monocrotophos	1,980.00
Oxamyl	480.00
Permethrin	92.55
Pirimiphos methyl	60.00
Pyriproxifen	150.00
Spinetoram	17.72
Tetramethrin, Allethrin, Cyphenothrin	1,210.98
Tetramethrin, D-allethrin, Cypermethrin	206.21
Thiamethoxam	0.00
Thiamethoxam & Lambda cyhalothrin	11.12
Transfluthrin	5.42
Triazophos	3,100.80
<b>Total</b>	<b>37,297.41</b>

Carbaryl (5075 kg), Chlorpyrifos & Cypermethrin (5010 kg) and Imidacloprid (4510 kg) were the most imported agriculture use insecticides. Insecticides are pesticides that are formulated to kill, harm, repel or mitigate one or more species of insect.



### INSECTICIDE IMPORTS 2017

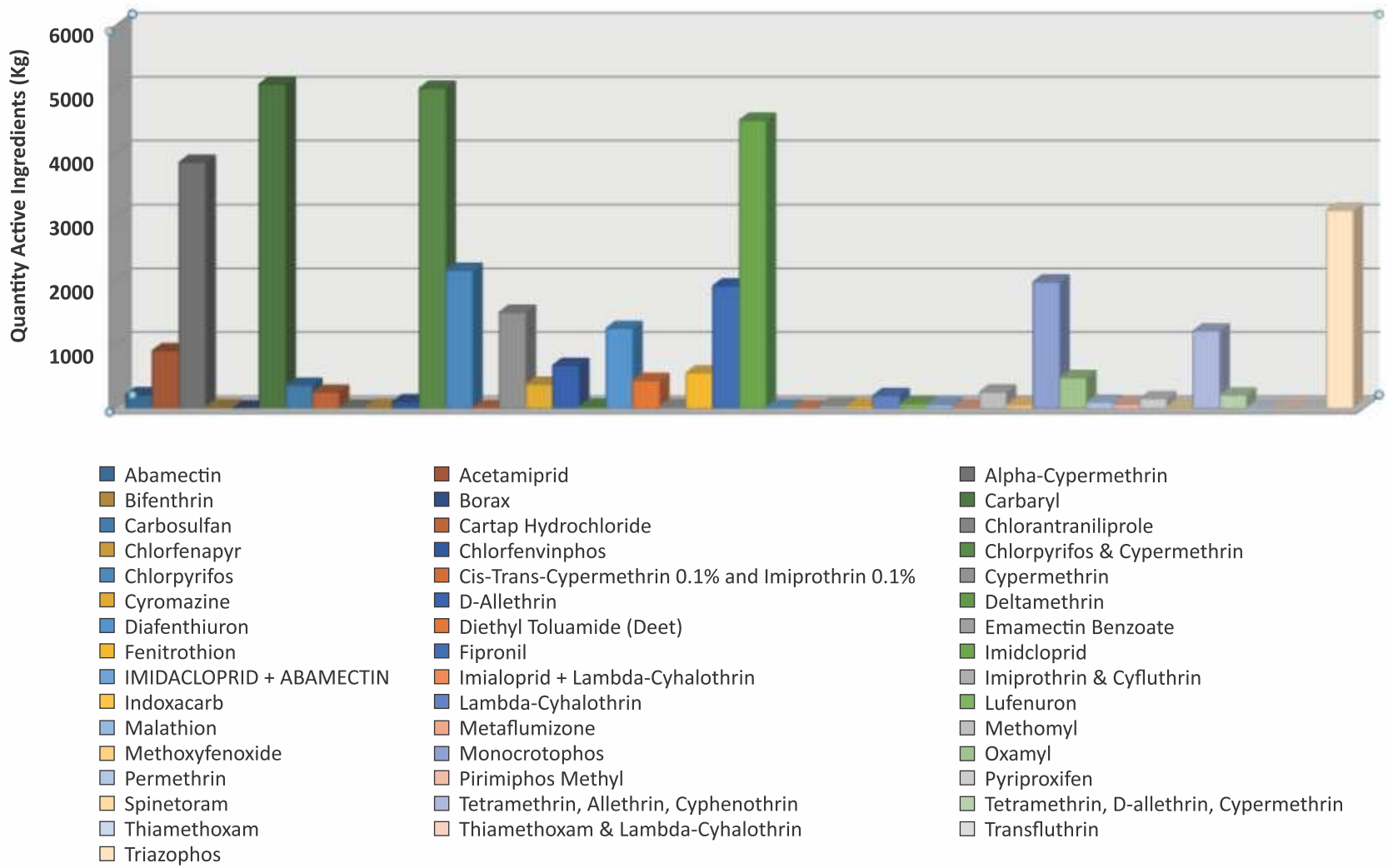
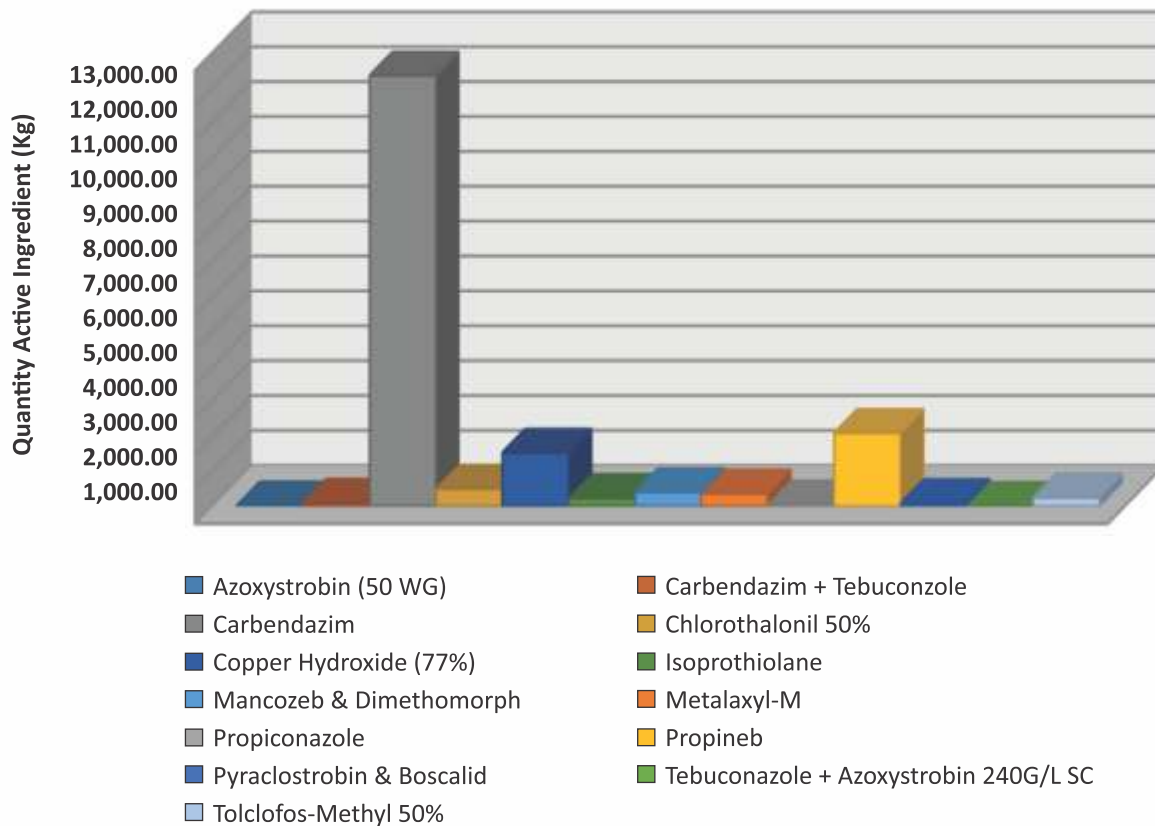


Figure 5: Fungicides Import, 2017

### FUNGICIDE IMPORTS 2017



Fungicide A.I. Imports 2017	
Chemical Name	A.I Quantity (Kg)
Azoxystrobin (50 WG)	24.00
Carbendazim + Tebuconazole	100.00
Carbendazim	12,350.00
Chlorothalonil 50%	500.00
Copper hydroxide (77%)	1,540.00
Isoprothiolane	240.00
Mancozeb & Dimethomorph	407.70
Metalaxyl-M	367.20
Propiconazole	50.00
Propineb	2,100.00
Pyraclostrobin & Boscalid	94.85
Tebuconazole + Azoxystrobin 240G/L SC	12.00
Tolclofos-Methyl 50%	250.00
<b>Total</b>	<b>18,035.75</b>

Carbendazim (12,350 kg) was the most imported fungicide for the period under review. Fungicides are pesticides that kill or prevent the growth of fungi and their spores. They can be used to control fungi that damage plants, including rusts, mildews and blights. They might also be used to control mold and mildew in other settings.

Figure 6: Rodenticides Import 2017

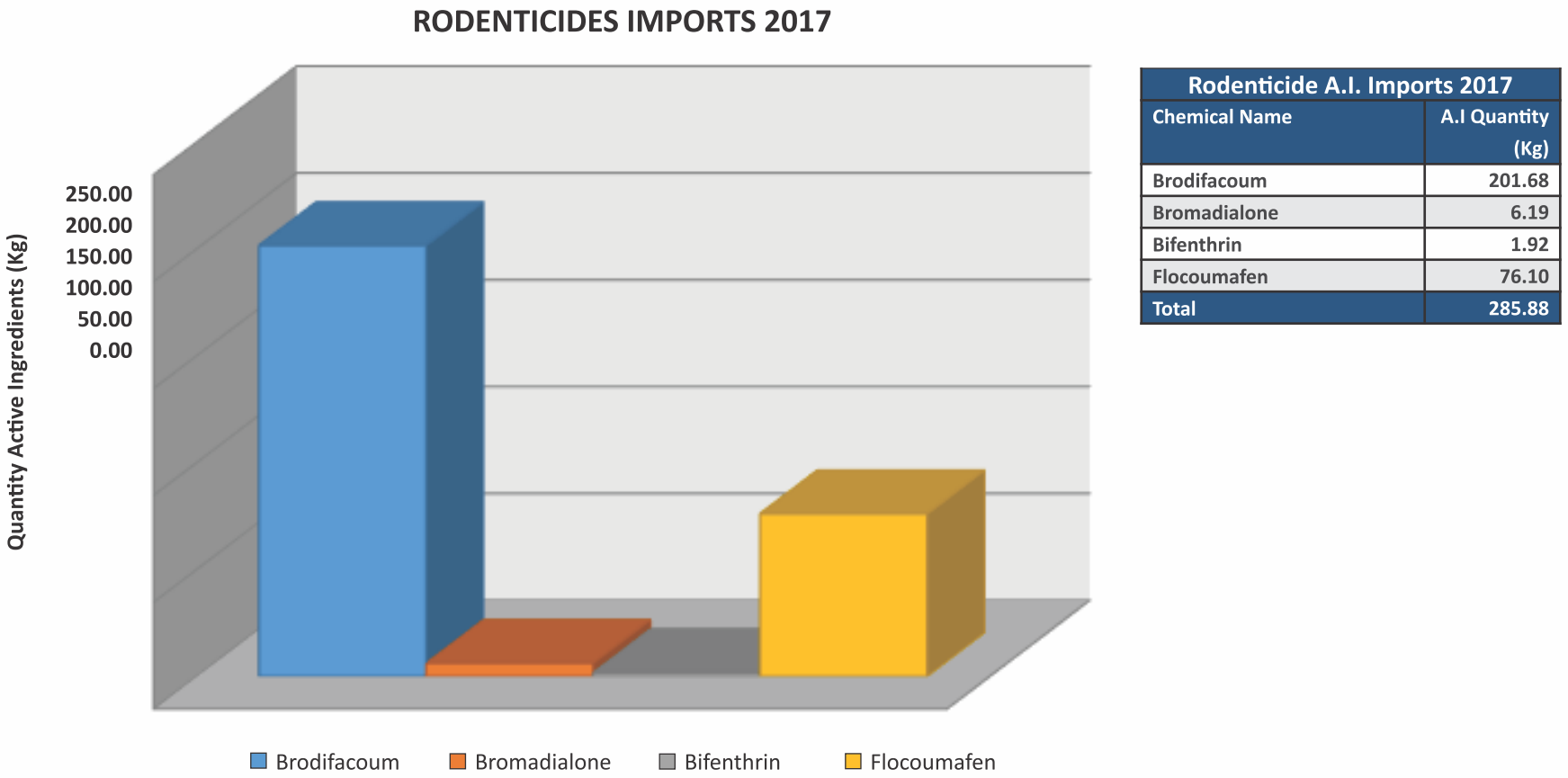
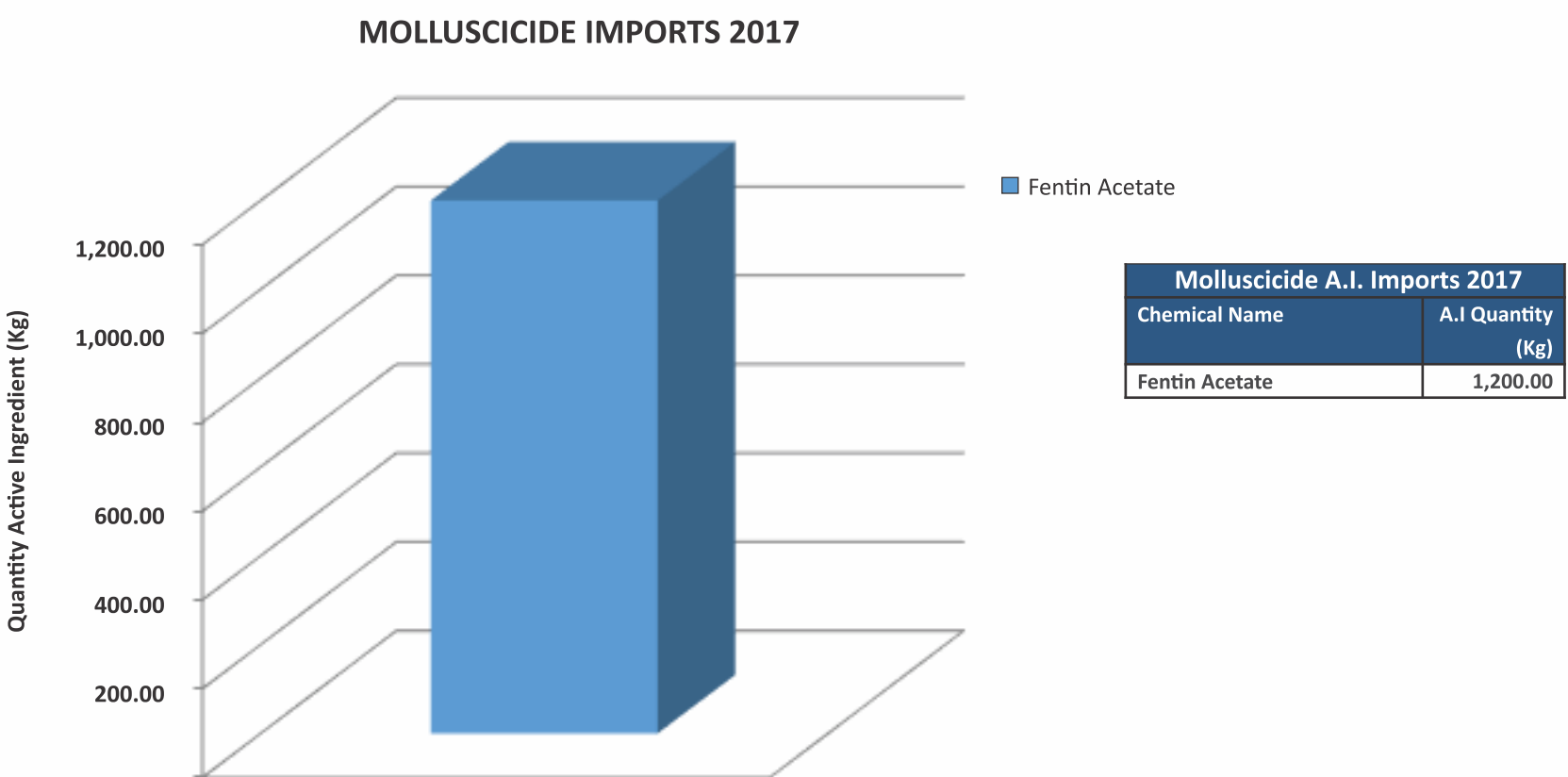
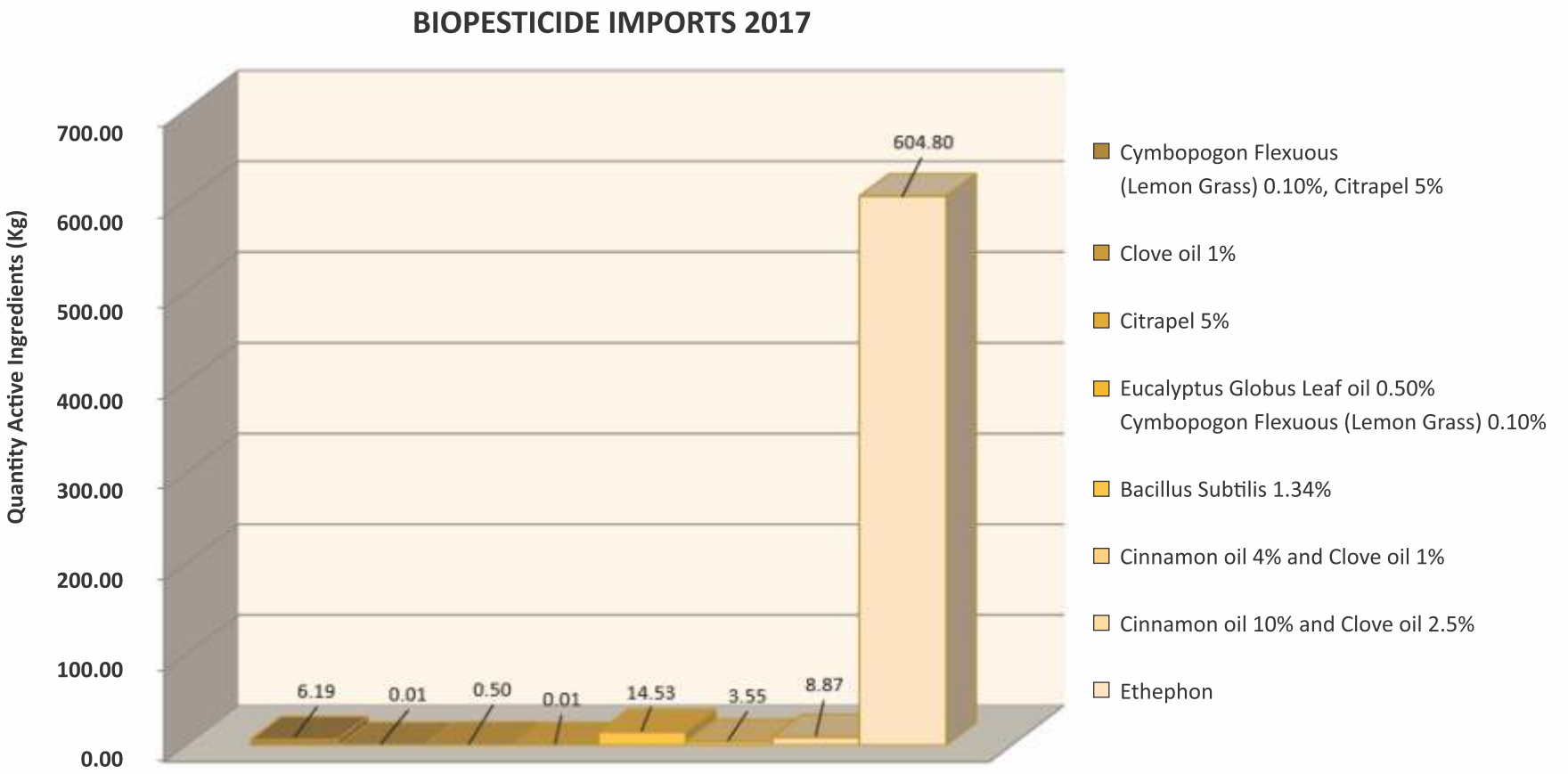


Figure 7: Molluscicides Import 2017



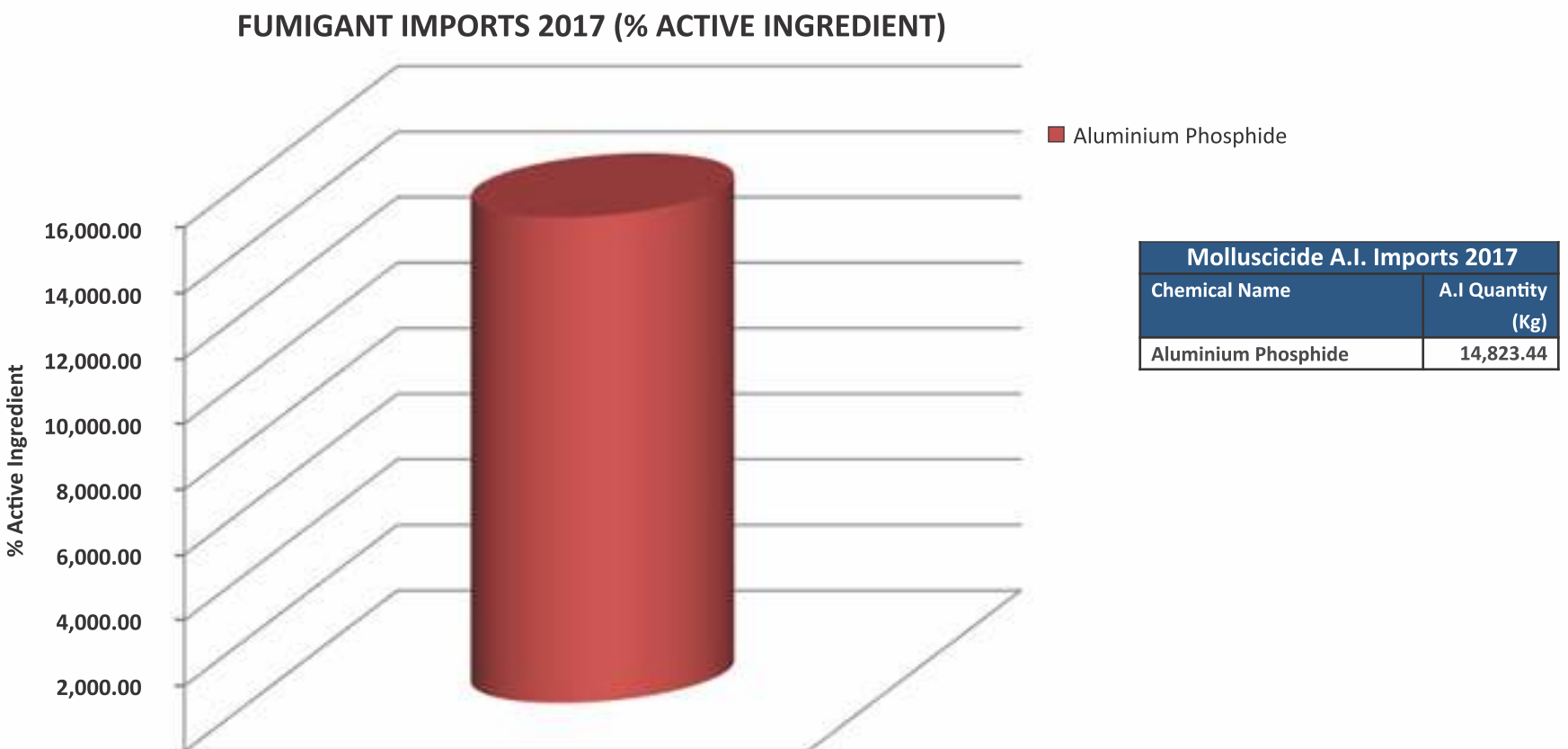
Fentin acetate (1200kg) was the only imported molluscicide for 2017. Molluscicides also known as snail baits and snail pellets, are pesticides against molluscs, which are usually used in agriculture or gardening, in order to control gastropod pests specifically slugs and snails which damage crops or other valued plants by feeding on them. In Guyana, molluscicides are used to control snails in rice.

Figure 8: Biological Pesticides Import, 2017



Bio-pesticides are certain types of pesticides derived from such natural materials as animals, plants, bacteria, and certain minerals. Bio-pesticides is a method of controlling pests such as insects, mites, weeds and plant diseases using other organisms. Cymbopogon Flexuosus (Lemon Grass) + Citrapel (6.19 kg) was the most imported for 2017.

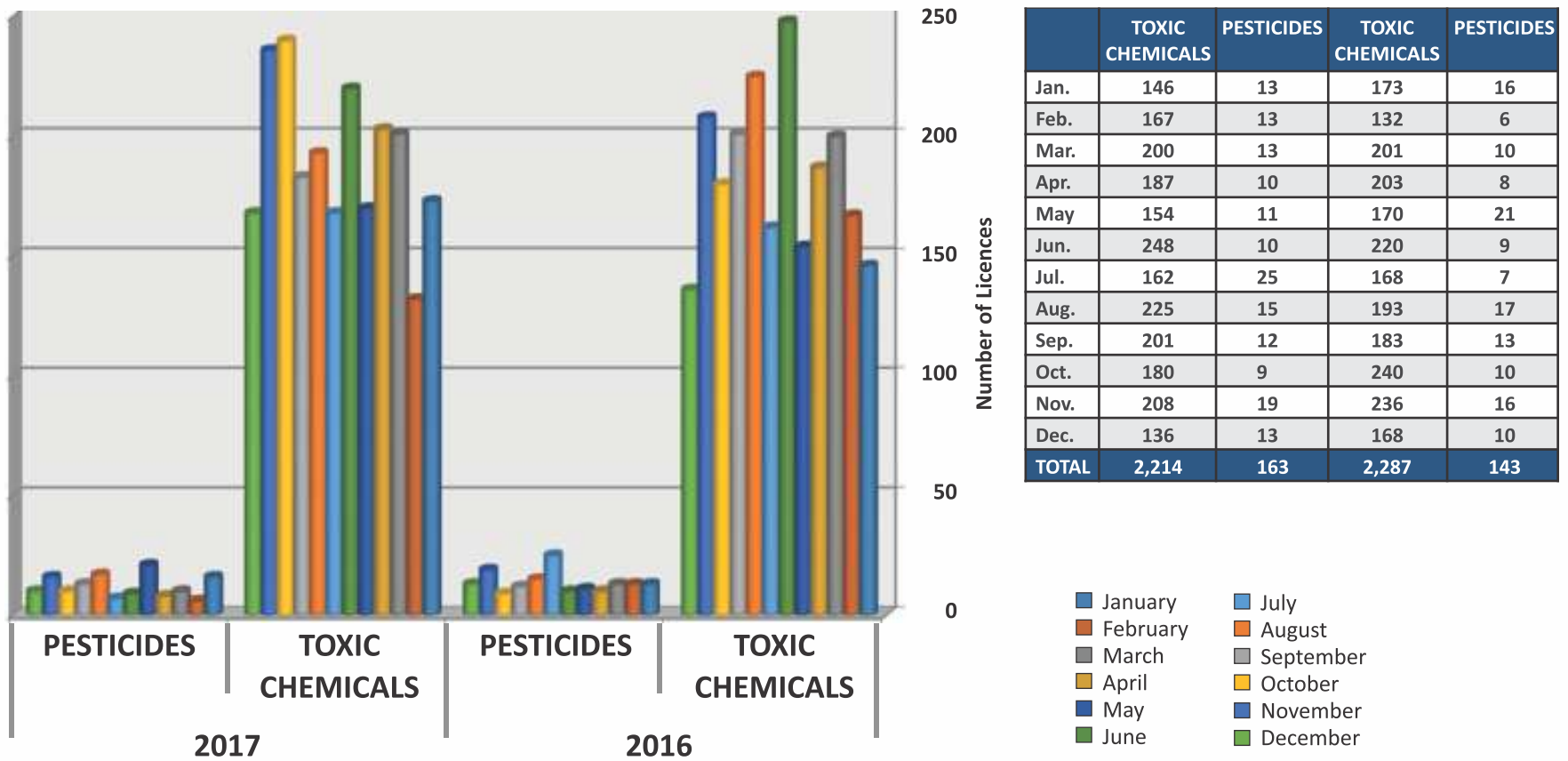
Figure 9: Fumigants Import 2017



Aluminium Phosphide, a restricted use pesticides was the only fumigant imported in 2017. Fumigants are any volatile, poisonous substance used to kill insects, nematodes, and other animals or plants that damage stored foods or seeds, human dwellings, clothing, and nursery stock. Soil fumigants are sprayed or spread over an area to be cultivated and are worked into the soil to control disease-causing fungi, nematodes, and weeds. In Guyana, aluminium phosphide is used for storage pest in grains and lumber.

Figure 8: Biological Pesticides Import, 2017

Graph showing a comparison of the total number of import licences issued in 2016 and 2017 for pesticides and toxic chemicals



#### APPENDIX V: List of Prohibited Pesticides and Toxic Chemicals

Chemical	Status
2,4,5-T and its salts and esters	Banned
Alachlor	Banned
Aldicarb	Banned
Aldrin	Banned
Aluminum Phosphide	Restricted Use
Binapacryl	Banned
Captafol	Banned
Chlordane	Banned
Chlordimeform	Banned
Chlorobenzilate	Banned
DDT	Restricted Use
Dieldrin	Banned
Dinitro-ortho-cresol (DNOC) and its salts (such as ammonium salt, potassium salt and sodium salt)	Banned
Dinoseb and its salts and esters	Banned
EDB (1,2-dibromoethane)	Banned
Endrin	Banned
Endosulfan	Banned
Ethylene dichloride	Banned
Ethylene oxide	Banned
Fluoroacetamide	Banned
HCH (mixed isomers)	Banned
Heptachlor	Banned
Hexachlorobenzene	Banned
Lindane (gamma-HCH)	Banned
Mercury compounds, including inorganic mercury compounds, alkyl mercury compounds and alkyloxyalkyl and aryl mercury compounds	Banned

Chemical	Status
Monocrotophos	Restricted Use
Methyl parathion	Banned
Mirex	Banned
Parathion	Banned
Pentachlorophenol and its salts and esters	Banned
Toxaphene (Camphechlor)	Banned
≤ Tributyl tin compounds	Banned
Dustable powder formulations containing a combination of benomyl at or above 7%, carbofuran at or above 10% and thiram at or above 15%	Banned
Methamidophos (Soluble liquid formulations of the substance that exceed 600 g active ingredient/l)	Banned
Methyl-parathion (Emulsifiable concentrates (EC) at or above 19.5% active ingredient and dusts at or above 1.5% active ingredient)	Banned
Phosphamidon (Soluble liquid formulations of the substance that exceed 1000 g active ingredient/l)	Banned
Actinolite asbestos	Banned
Anthophyllite	Banned
Amosite asbestos	Banned
Crocidolite	Banned
Tremolite	Banned
Polybrominated Biphenyls (PBBs)	Banned
Polychlorinated Biphenyls (PCBs)	Banned
Polychlorinated Terphenyls (PCTs)	Banned
Tetraethyl lead	Banned
Tetramethyl lead	Banned
Tris (2,3 dibromopropyl) phosphate	Banned

**APPENDIX VI:**  
**Licensed Pesticides Vendors, 2017**

NAME OF VENDOR	ADDRESS
<b>REGION # 1</b>	
Marcellus Francis	Mabarumma Kumaka North West Region
<b>REGION # 2</b>	
Roopnarine Bisnauth	Stall #5 Supenaam Market, Essequibo Coast
Paras Ramdial	Supenaam Market, Essequibo Coast
Ram Bisnauth	Stall #3 Supenaam Market, Essequibo Coast
Charles Henry	Stall #1 Supenaam Market, Essequibo Coast
T and R Bisnauth	Lot A6 Spring Garden, Essequibo Coast
Yoolaim Bacchus	92b Makeshift Aurora, Essequibo Coast
Faizul Alli	22 Vilvoorden, Essequibo Coast
A & M.Z Yassim	Lot 11 Middlesex, Essequibo Coast
Parmanan Persaud	78 Huist Dierrien, Essequibo
Jasoda Shevnandan	4 Rivers Town, Essequibo Coast
Indar Singh	22 Airy Hall ,Essequibo Coast
Ganeshwar Lall	Lot 'I' Maria's Lodge,Essequibo Coast
H&J Persaud & Sons	Lot 43 Johana Cecilia, Essequibo Coast
Takoor Persaud Hardware Store	Lot 7 Golden Fleece, Essequibo Coast
Deolall Sancharie	Lot 1 Hoff Van Aurich, Essequibo Coast
OJ's Investment	47 Public Road Queenstown, Essequibo Coast
Imam Bacchus & Sons Ltd.	Affaiance, Essequibo Coast
Balram Kawal	11 Land of Plenty, Essequibo Coast
Massy Industries	Land of Plenty, Essequibo Coast
Azad Bacchus	47 Cottonfield, Essequibo Coast
Builder's Hardware & General Supplies	Anna Regina, Essequibo
Tekram Sankar	28 Dennis Street, Anna Regina, Essequibo Coast

NAME OF VENDOR	ADDRESS
<b>REGION # 2 (CONT'D.)</b>	
Caribbean Chemicals	Lot C Anna Regina, Essequibo Coast
Ariff Mohammed Khan	Lima, Essequibo Coast
Jaishree Azam	Lima New Housing Scheme, Essequibo Coast
Telac Dhari Persaud	Lot 1 Sparta, Essequibo Coast
Roopesh Latchman	6 'B' Back Street, Windsor Castle, Essequibo Coast
Satrahane Ganeach	lot 18 Back Street Windsor Castle, Essequibo Coast
Samaroo's Investment	201 Hampton Court, Essequibo Coast
Rupert Paul	Lot 158 Devonshire Castle, Essequibo Coast
Chate Narine	6 Paradise, Essequibo Coast
Vincent Persaud	West Bury, Essequibo Coast
Sukhdeo Trading Enterprise	Bounty Hall, Essequibo Coast
Bissoondial Narine	Lot 2 Summerset & Berks, Essequibo Coast
Anand Singh	New Road, Essequibo Coast
GM&R Trading	Lot 100 Charity, Essequibo Coast
Mahendra Ramnarine & Lelawattie Persaud	Lot 104 Charity River Dam, Essequibo Coast
Alfro Alphonso	Stall 13 Charity Market, Essequibo Coast
<b>REGION # 3</b>	
Krishna Katwaru	90-91 Canal #2, W.B.D
Krishna Gopal	South Section Canal #2 Polder, W.B.D
Lalta Digamber	40 N-Sec Canal #2, W.B.D
Lalta Digamber	39 New Road, W.C.D
Alvin Parag	2 Independence street La Grange, W.B.D
Davendra Baksh	Track 'R' Stelling Road, Vreed En Hoop, W.C.D

NAME OF VENDOR	ADDRESS
<b>REGION # 3 (CONT'D.)</b>	
Ramesh Sugrim and Ryan Sugrim	Lot 8 La Union, W.C.D
F&Z Chemicals & Pet supplies	Lot B Blankenburg Public Road, W.C.D
Narindra Ramnauth & Briglall Wholesale and Retail Fuel	Lot B, Railway line, Windsor Forest, W.C.D
Valu Rite Pharmacy	Lot 1 Hague Jib W.C.D
Mohamed Ayube Ali	8 Station Street, Leonora, W. C.D
C Dhaniram General Store	Lot 94 Block 8 Tuschen, E.B.E
Deonarine Ramgobin	Block 'C' Orangestein, W.C.D
Laldeo Bukhan	118 Tuschen New Scheme, E.B.E
Laldeo Bukhan	252-254 Parika Highway, E.B.E
Laldeo Bukhan	214 Parika Old Road, E.B.E
Monica Thompson	1982 Parika, E.B.E
Boodhoo's General Store	299 N1/2 Parika Highway, E.B.E
Faizul Ally	Plot #7 Parika Backdam, E.B.E
Rajesh Ganesh	Lot 32 Parika Backdam, E.B.E
Ravendra Narine	Block E, Lookout Parika Backdam
Debi Bajan Rambhajan	Present Hope, E.B.E
Zaman Nazier	Lot 19 Present Hope, Hubu Backdam, E.B.E
Satnarine Sahadeo	Lot 31 Belle Plaine, Wakenaam Island
Nand Kishore Jairam	Lot 16 Belle Plaine, Wakenaam Island
Makeram Rambaran	18 Belle Plaine, Wakenaam Island
Satnarine Singh	Block 5 Sans Souci, Wakenaam
Noon Persaud	Lot 22 Good Success, Wakenaam
<b>REGION # 4</b>	
Massy Industries Ltd.	R5 Ruimveldt,Georgetown
Caribbean Chemicals	45 Croal Street Stabroek, Georgetown
Gardenland Nursery	Lot 1 Brickdam Stabroek, Georgetown
Deonarine Ramgobin	44 Robb Street, Georgetown
Guyana Stores Ltd.	19 Water street ,Georgetown
AGROIN	Lot 1 La Pennitence Public Road, Georgetown

NAME OF VENDOR	ADDRESS
<b>REGION # 4 (CONT'D.)</b>	
A' Plus Distributors	Lot 1 La Pennitence Public Road, Georgetown
#1 Plant Shop	Lot 70 Sheriff Street, Georgetown
Amazon Agri & Garden Centre (FCT)	213 Barr Street Kitty, Georgetown
Flowers Paradise	Lot 13 Houston Public Road, E.B.D
Carlos Renato Jadunauth	Lot 5 Alliance Road Timehri, E.B.D
Amarnauth Jadunauth	Lot 2 Soesdyke, E.B.D
Baljeet Seepersaud	276 Section C Grove Bloack Y, E.B.D
P&S Grocery and Variety Store	681 Section C Block Y Golden Grove, Diamond New Scheme, EBD
Herman Permaul	Lot 4 Back Street, Better Hope Scheme, E.C.D
Keith K.C. Vasconcellos	Lot 1 LBI Housing Scheme, E.C.D
Modern Agri.	31 Agriculture Road, Triumph, E.C.D
Nandraine Meusa	Mon Repos Market, Stall # 185, E.C.D
Christopher Bisnath	Mon Repos Market, Stall # 355 & 356, E.C.D
Christopher Bisnath	116 Mon Repos South, E.C.D
Arjune Budhu	532 Simon Sue Street, Enterprise, E.C.D
James Ally	39 Logwood, Enmore, E.C.D
Narine's Pharmacy	29 Logwood, Enmore, E.C.D
Tarmatie Wahid	Lot 10 Cove & John School Road, E.C.D
Bisnauth Prasad	27 Craig Milne Street, Cove & John, E.C.D
Lebert Charles	Lot 335B Victoria Village, ECD
Jailall Persaud	Lot 82 Lowland, E.C.D
Heimwantie Persaud	Lot 228 Hope Estate, E.C.D
Nareshwar Rangunandan	57 Section C Access Road, Cloonbrook, E.C.D
Y.K. Sahib and Sons	Lot 1 Section A, Clonbrook, E.C.D
Salik Basdeo	Lot 18 New Road Unity, ECD
Mark Anthony Persaud	76 Goodhope, Mahaica, E.C.D
Neimeraj Khilawan	Lot 1 Public Road Belmonte, Mahaica, E.C.D
Bibi Shadiana Hamid- Dass	Mahaica Market, Stalls 26-27, E.C.D

NAME OF VENDOR	ADDRESS
<b>REGION # 3 (CONT'D.)</b>	
Khamraj Bholanath	Mahaica Market, Stalls 28-29, E.C.D
Tularam Bholanath	Mahaica Market E.C.D Stalls 29,30,31
Ramchan & Sukraj Ramasar	86 Vereeniging, Mahaica, E.C.D
Khemraj Karu	Cane Grove Estate, Mahaica, E.C.D
Gaindawattee Ramkarran	Cane Grove Estate 125, E.C.D
Deodat Ganeshram	Lot 145 Manajr's line Cane Grove, ECD
Paramdai Virsawmi	Lot 41 Virginia Village, Cane Grove, ECD
<b>REGION # 5</b>	
Viticharan Singh	De Hoop Front Mahaica, E.C.D
Gangaram Sharma Agardeo	Lot 1A Fredrich Johana, E.C.D
Mulchan Persaud	# 10 De Hoop Branch Road, Mahaica, E.C.D
Dhanpaul Persaud	Little Biaboo, Mahaica river
Chetram Ramdass	Lot 5 'A' Little Biaboo, E.C.D
S & R Farming Supplies Ent.	Lot 5 Plantation Prospect, Mahaicony, ECD
Madray Rathanam	Lot 8 Quaker's Hall West, Mahaicony, E.C.D
Sewsankar Persaud	Persiverance, Mahaicony, E.C.D
Paulette's Variety Store	Lot 1 Perth Village, Mahaicony, E.C.D
Deopar Trading Enterprise	Wash Clothes Mahaicony, E.C.D
Jenie Balkaran	Wash Clothes, Mahaicony, E.C.D
Yudhisthir Singh	Lot 1 Dundee Mahaicony, E.C.D
(opposite blue busshed)	
Mohamed J Hasan	10 Dundee, Mahaicony, E.C.D
MARDS RICE MILLING COMPLEX	Burma, Mahaicony, ECD
Rajmattie Persaud	E & F Little Abary, ECD
Teekachand Ramdat	Lot 2, Golden Fleece, WCB
Nardeo Bassoodeo	Lot 5 Golden Fleece, WCB
Chitra Samaroo	Lot 5 Pln. Washington, W.C.B
Harinarine Singh	Lot 6 'D' Bush Lot, W.C.B
Abdul Samad Rahim	Lot 7 B Bush Lot, W.C.B
Bibi Shafena Khan	Lot 7 b Plantation Hope, Bath Settlement, W.C.B

NAME OF VENDOR	ADDRESS
<b>REGION # 5 (CONT'D.)</b>	
Ancil Ramdat	Lot 647 Squatting Area, Bath Settlement, W.C.B
Dhaniram Ramchand	Lot 2 Bath Settlement, W.C.B
Sirirampersaud	Lot D 15 Wellington, Bath Settlement, W.C.B
Khan's General Store & Agri Centre (Zakir Ahamad Khan)	Lot G 11 Bath Settlement, W.C.B
Naideen Sirkisson	Lot D 11 Bath Settlement, W.C.B
Haridwar Ramsaroop (Steve and son Chemical Shop)	192 B Woodly Park, W.C.B
Ramkarran Ramgobin	Lot 241 # 9 Village, W.C.B
D & D Parlour and grocery (Gangaram Deodat)	Lot 10 No. 3 Village, W.C.B
Ameena Gaffar (tyre shop)	9 Cotton Tree, W.C.B
Bisram Basantram	lot 14 Cotton Tree, W.C.B
Nandalall Ramlal	Lot 3 A D'Edward Village, W.B.B
<b>REGION # 6</b>	
Massy Industries Ltd.	Lot 3 Strand New Amsterdam ,Berbice
Medical Care Pharmacy	Lot 16 Main and Lad Lane New Amsterdam, Berbice
Ramesh Maraj and Sons	Lot 12 Chapel street New Amsterdam Berbice
Jason Beram Singh	19 Main and Pope Streets, New Amsterdam, Berbice
Varush Persaud	Highbury Village, E.B.B
Imtiaz Zulfikar Ally	Lot 79 Main Road & Middle Street, Rosehall Town, Berbice
Poonai Bhigroog	Lot 72A Rosehall Town, Berbice
Vishnu Sukhram	Rosehall Town, Berbice
Advance Agricultural and General Supplies	Lot 29 Section B Bloomfield Village, Corentyne, Berbice
V.Sukhram's Filling Station	Hogsty, Berbice
Seeram Dipnarine	Lot 68 Adventure Village, Corentyne Berbice

NAME OF VENDOR	ADDRESS
<b>REGION # 6 (CONT'D.)</b>	
Vimal Ganesh	7 & 8 Bush Lot, Corentyne, Berbice
Makarran Singh	Lot 19 Bush Lot Farm, Corentyne, Berbice
NPG Packaging	Wellington Park, Corentyne, Berbice
Deomattie Sukhram	Bengal Farm, Corentyne, Berbice
Telackram Neerahoo	Lot 323 # 46 Village, Corentyne, Berbice
Mukesh Kaydahaar	Lot 55 # 54 Village, Berbice
Seunarine Hardeen	325 # 55 Village, Corentyne, Berbice
Abdool Jameel Uddin	#57 Village, Corentyne, Berbice
Jagesh Kumar	Lot 150 # 58 Village, Corentyne, Berbice
Vikash Enterprises	Lot 79 Section B No. 64 Village, Corentyne, Berbice
Balchand Lutchminarine	Lot 137 Section 'A' No. 68 Village, Berbice
Abdool Jameel Uddin	#71 Village, Corentyne, Berbice
Sheik Sattaur	#71 Village, Corentyne, Berbice
Imtiaz Zulfikar Ally / Hurcilla Rhamatally	30 Springlands, Corriverton, Berbice
Chand Kumar Hardyal	90 Springlands, Corriverton, Berbice
Khalil Nizamudeen	41 Rampoor Scheme, Corriverton, Berbice
Dudnath's Hardware & Agri Centre	Lot 1 Sec. A #79 Corriverton, Berbice
Bhavna Khemraj	Lot 10 Line Path 'E', Corriverton, Berbice
R. Prasad Industries	Lot 7-11 Grant 1802 Crabwood Creek, Berbice
Bhavna Khemraj	8 Grant 1651, Crabwood Creek, Berbice
Haresh Rama	24 Grant 1651, Crabwood Creek, Berbice
Mohamed Hafiz Baksh	23 Zone Yakusari South, BBP, Berbice
Nazim K Zaman	Lot 11 Johanna South, BBP, Corentyne, Berbice
Outram Ramprashad	49 Mibikuri North, BBP, Berbice
Alvin Parag	Lot 172 Mibicuri South Black Bush Polder, Berbice
Durpatie Agardeo	3 Lesbeholden South, B.B.P, Berbice
Amarnauth Hardwar	55 Lesbeholden South, BBP, Berbice

NAME OF VENDOR	ADDRESS
<b>REGION # 6 (CONT'D.)</b>	
Thakurmattie Ramnarine	C2 14 Lesbeholden South, BBP, Corentyne, Berbice
<b>REGION # 7</b>	
Winston David	Stall # 68 Bartica Market
<b>REGION # 9</b>	
S&S Kisson General Store (Sucil & Simon Kisson)	151 Aranaputa Valley
Mohamed Hussain (Satisfaction Delux)	Amazonas Hotel, Lethem Rupununi
<b>REGION # 10</b>	
Farmer's Friends and Pet Shop	85 Pine Street Mackenzie, Linden
Rambharrat Farm Supplies and Nursery	Leap Compound, Potaro Road, Mackenzie, Linden
Pearl's Pet Supplies	Wismar Market, Linden

## APPENDIX VII

### Confiscated Illegal Pesticides 2017

Date	Name	Location	Quantity (kg)
1st February, 2017	Bonny Supermarket	302 Church Street, G/t	8.14kg
1st February, 2017	Glorious General Store	Lot 9 Camp Street	2.1kg
22nd February, 2017	Deen's Pharmacy	33 Orangewalk Bourda	22.15kg
11th March, 2017	Samaroo	Portmourent Market	19.5kg
11th March, 2017	P. Pirtam	Portmourent Market	16.5kg
11th March, 2017	Sunita Beharry	Portmourent Market	6kg
15th March, 2017	Lalita Persaud	Stall # 158 Stabroek Market	9kg
30th March, 2017	Andrews Supermarket	860 Aubrey Barker road, South Ruimvelt, G/t	0.83kg
30th March, 2017	Mike Pharmacy	Lot 1 Blygezight, Bel Air, G/t	5.5kg
1st April, 2017	Kens Business Enterprise	Chateau Margot	400kg
13th April, 2017	Fresh Co. Supermarket	Diamond Public Road	2.26kg
24 -25th May, 2017	Feyaadul Hakh Cane Grove Rice Mill	Cane Grove, Mahaica, E.C.D	5260kg
30th May, 2017	Abdool Hakh and sons rice mill	Harlem, West Coast Demerara	491kg
1st June, 2017	Golden Fleece Rice Investment (GFRI)	Golden Fleece, Essequibo Coast	334kg
2nd June, 2017	Rayaadul Hakh Industry	Strangroen, Mahaicony	2798kg
28th June, 2017	Physic (Ramish Singh) Liquor Store	De Kendren, De Hoop, Mahaica	6.5kg
5th July, 2017	American Home & Beauty Center	72 Robb & Wellington, G/t	84.8kg
7th July, 2017	Atlantic Hotel Inc	GNSC Water Street, G/t	7.56kg
11th July, 2017	V & R Supermarket	Anna Catherina Public Road, W.C.D	2.75kg
10th August, 2017	Guyana Stores Ltd	22 Church St., G/t	20.3kg
10th August, 2017	Nirva	49 Sheriff St. /Craig St G/t.	4.25kg
24th August, 2017	Budget Supermarket	Sheriff St. G/t.	1.4kg
24th August, 2017	Budget Supermarket	Sheriff St. G/t.	0.1kg
19th October, 2017	S & S Kissoon General Store	Ananputa Valley, Lethem	42kg
22nd October, 2017	Unknown	Parika Market, W.C.D	14.75kg

Date	Name	Location	Quantity (kg)
22nd October, 2017	Unknown	Parika Market, W.C.D	1.02kg
22nd October, 2017	S. Bailey	Parika Market	15kg
22nd October, 2017	Ann Dass	Parika Market	2.5kg
22nd October, 2017	Barrat Handkishore	Parika Market	1kg
22nd October, 2017	Rafeek	Parika Market	2.25kg
22nd October, 2017	Samantha	Parika Market	1.75kg
22nd October, 2017	M.S Hack	Parika Market	19.5kg
22nd October, 2017	J. Persaud	Parika Market	1.75kg
22nd October, 2017	Devashnamn lall	Parika Market	2.25kg
25th October, 2017	GRA (Repossession)	New Amsterdam, Berbice	579kg
7th November, 2017	The Infinity colour Shop	29-30 Princess St & High St. G/t/.	56.8kg
17th November, 2017	Guyana Bauxite Company	278-280 Forshaw St, Queenstown, G/t.	0.5kg
22nd November, 2017	American Home & Beauty Center Inc	72 Robb & Wellington St. Georgetown.	8.4kg
<b>TOTAL</b>			<b>10,229.5 kg (10.2 tons)</b>
*excluding quantities that are not in English language and repackaged Rodenticides (blue rice)			

## FUTURE PLANS: 2018 ONWARDS...

The PTCCB aims to continue to strengthen chemicals management in Guyana in a lifecycle approach by enhancing education and awareness programmes and implementation of the Pesticides and Toxic Chemicals Control Regulations 2004 (No. 8 of 2004).

### Major Activities - 2018

The activities outlined are key targets to further advance and improve chemicals management in Guyana, ensuring wholesome, quality food, without severe impact on our nation's health and our environment.

1. Examination and Identification of Highly Hazardous Pesticides: Jan – Dec., 2018

A new and emerging chemical issue is the use of Highly Hazardous Pesticides (HHPs) which pose severe risk to human health and the environment. Guyana and other regional and international countries with guidance provided by the FAO will be carrying out a detail survey to identify and address HHPs that are registered and used within country.

2. Empty Pesticides Container Management: Jan. – Dec, 2018

Empty pesticides containers pose severe risk to human health and the environment. Most often these containers are left in the field or thrown into waterways where they contaminate the environment. In some farming areas these containers are used in homes to store drinking water, feeding utensils etc. The Board aims at identifying and examining suitable options for disposal of pesticides containers.

3. National Implementation Plan under the Stockholm Convention update: Jan. – Dec., 2018.

It is important for Guyana to fulfill its obligations under the Stockholm Convention. Updating its National Implementation Plan reaffirms Guyana's commitment to the elimination of persistent organic pollutants (POPs).

4. Pesticides Awareness to Pesticide Stakeholders: Mar. – Sept., 2018

The Board will continue to provide training in pristine areas on the safe use, handling, storage and disposal.

5. Strengthening Operational Capabilities of the PTCL, Jan. – Dec., 2018.

The Board will be operationalizing its laboratory facilities during the year, ensuring adequate provision of services to the general public. This will be conducted with a focus on the following:

- Implementation of quality management system
- Increasing operational capabilities
- Certification of the PTCL
- Commencement of accreditation process

## CONCLUSION

An analysis of the activities of the PTCCB for the period under review would demonstrate that, apart from the routine administrative and operational strategies, genuine and novel initiatives were employed towards achieving its mandatory objectives. While some of the targeted strategies are ongoing, it would be found that the PTCCB was efficient in carrying out its routine responsibilities, implemented new initiatives all in the fulfillment of its mandate, notwithstanding the constraints under which it functioned.

The PTCCB will continue to work with the Ministry of Agriculture, sister agencies, private sector and external stakeholders towards achieving its mandate under its Act and Regulations.





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