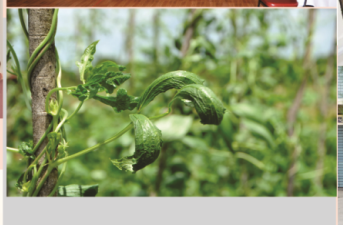
PESTICIDES
& TOXIC CHEMICALS
CONTROL BOARD

ANNUAL REPORT

2013



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EXECUTIVE SUMMARY

The Pesticides and Toxic Chemicals Control Board (PTCCB) is a semi-autonomous Agency which was established in accordance with the relevant legal provisions enshrined in the Pesticides and Toxic Chemicals Control Act 2000 (No. 13 of 2000).

The Board, which operates under the Ministry of Agriculture, is charged principally with making arrangements and providing facilities for controlling the manufacture, importation, transport, storage, selling, using and advertising of pesticides and toxic chemicals in Guyana.

PTCCB is operated by its permanent Secretariat which carries out the mandatory responsibilities and the operational and administrative policies handed down by the Board of Directors.

During the year under review, the PTCCB was involved with a wide range of pertinent activities which were all integrally linked to the principal responsibilities.

The key areas of activity of the PTCCB during the year 2013 were as follows:-

- General Administration
- Inspection and Enforcement
- Registration and Licensing
- Quality Control
- Training
- Internal Capacity Building
- Overseas Participation
- Analytical Testing
- Monitoring and Evaluation
- Public Awareness
- International Cooperation – Conventions and Instruments
- National Implementation Plan under the Stockholm Convention

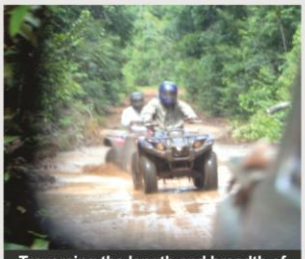
Details pertaining to these activities are documented individually in the body of this Annual Report.

This Report demonstrates comprehensively that the PTCCB continued to carry out its mandate, as it had done over the years since its establishment, in a proactive manner in partnership with the Ministry of Agriculture, sister Agencies, representatives of the Private Sector, Pesticides Stakeholders and relevant overseas based organizations.

Importantly, strong emphasis was placed on interactive sessions with importers, manufacturers, traders, farmers and other end users of chemicals in Guyana. The goal of sound chemicals management for Guyana has been the driving force to a chemicals management plan that is country focus and widespread in its target.

The PTCCB remains committed to carrying out its mandatory responsibilities during the year 2014 with specific focus being placed on strengthening chemicals management through (i) Enforcement of Regulations (No. 8 of 2004) and (ii) Providing the necessary infrastructure required for the establishment of appropriate educational, advisory, and extension services for enabling and exercising adequate control over quality, sale, storage, import, distribution and usage of pesticides, while ensuring that the interest of end-users and importers' rights are well protected.

The Board additionally through the Rotterdam and Stockholm Conventions and in collaboration with other International Chemicals Management Instruments will be meeting the obligations as it relates to a lifecycle approach to chemicals management.


Traversing the length and breadth of Guyana to impart Training


Public Awareness Activity in Georgetown


Dr. Monroe sharing some useful insights


Delivering Competition Material to Wakapoa Secondary Region 2


Dr. Monroe, Chairman of the Pesticides and Toxic Chemicals Board, presenting certificates at the PCO Graduation


Field Investigations


Traversing the length and breadth of Guyana to impart Training


Schools receiving consolation prizes for successfully participating in the Pesticides Awareness Corner Competition


Deputy Chairman of the Pesticides and Toxic Chemicals Control Board


Charity Secondary with their third place prize from the Schools Pesticides Awareness Corner Competition

Inspector at the Annual CGPC meeting


Participants from Secondary schools across Guyana at the Awards Ceremony


Dr. Monroe conducting PCO Training

Stockholm, Rotterdam Convention 2013


Awareness Corner handing over materials to Secondary Schools


Awards and consolation prizes for participating Schools


Annai Secondary posing with prizes and Award for Securing first place in the Hinterland leg of the Competition


Public Awareness Activity in Georgetown


Judging the Pesticides Awareness Corner for the Hinterland Schools


Lab Staff giving a tour of the facility for visiting CWA participants

INTRODUCTION

This Report documents the activities of the Pesticides and Toxic Chemicals Control Board (PTCCB) for the year 2013. It highlights the accomplishments and discusses constraints associated with the Board's objectives with respect to activities initiated during the year under review. The Report highlights the tools utilized towards achieving sound chemicals management identify gaps and mechanisms implemented so as to address all aspects of chemicals management in Guyana.

BOARD OF DIRECTORS

The Directorate of the Board was appointed for the period 1st January to 30th June 2013. The membership of the Board for this year was as follows:

- Dr. Leslie Munroe – Chairman
- Dr. Chandranauth Ragnauth – Deputy Chairman
- Mr. Khame Sharma– Director
- Ms.Karen Alleyne – Director
- Dr. Dindyal Permaul – Director
- Dr. Shamdeo Persaud – Director
- Dr. Dalgleish Joseph – Director
- Dr. Elizabeth Ramlal – Director
- Mr. Kuldip Ragnauth – Director
- Mr. Rohit Singh – Director

Ms. Trecia David - Registrar of Pesticides and Toxic Chemicals 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).

Meetings of the Board

Statutory Meetings of the Board were scheduled to be held on the last Wednesday of every month. However only six such Meetings were conducted, since the relevant documentation for the renewal of the new Board was received in December, 2013. The punctuality of the Members in attendance at the Meetings was exceptional throughout the year.

Arrangements were in place for the conduct of technical meetings during the period under review as might have been necessary. However, there were not necessary.

Signatories of the Board

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

(1) Chairman of the Board – Dr. Leslie Munroe;
(2) Deputy Chairman – Dr. Chandranauth Ragunauth
(3) Director - Dr. Dindyal Permaul; and
(4) Secretary of the Board – Ms. Trecia David

The order of signatories of the Board remained the same i.e. Chairman and/or Secretary with any other Director.

Responsibilities of the Board

The Board is charged with the responsibilities for making arrangements and providing facilities for controlling the manufacture, importation, transport, storage, selling, using and advertising of pesticides and toxic chemicals in Guyana.

Objectives of the Board

The primary objective of the Board for the period under review was to reduce the imports of unregistered pesticides, strengthen public awareness activities, development of a National Implementation Plan and ensure proper operations of the pesticides laboratory. As such much emphasis was placed on capacity building to allow technical expertise to enhance these specific areas.

It was also the Board'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 specific objectives of the Board for the year under review were as follows:

(i) Fulfilling the International Requirement of the Board for the Rotterdam Convention;
(ii) Fulfilling the International Requirement of the Board for the Stockholm Convention on Persistent Organic Pollutants (POPs); - Developing a National Implementation Plan for Guyana;
(iii) Registration and Licensing of Pesticides;
(iv) Licensing of Vendors;
(v) Registration of Pest Control Operators;
(vi) Certification of Pest Control Operators;
(vii) Pesticides Awareness Week 2013;
(viii) Pesticides Awareness Corners in Secondary School Program;
(ix) Training and Awareness countrywide;
(x) Enforcement activities for sound chemicals management;
(xi) Stakeholders Training Sessions; and
(xii) Reduction of Illegal Imports and vending of pesticides.
(xiii) 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)

SECRETARIAT OF THE BOARD

Organizational Chart

The organizational chart of the Board contains four divisions: Licensing and Registration, Enforcement and Training, Administration and Analytical Department. The total staff compliment of the Board is thirteen (13).

General Administration

The implementation of the policies of the Board is carried out by an adequately staffed Secretariat located at the compound of the National Agricultural Research and Extension Institute, Mon Repos, East Coast Demerara. This Secretariat, which is headed by the Registrar holds responsibility for General Administration and Operations including (i) training and (ii) enforcement of the rules and regulations associated with the manufacture, importation, transport, storage, selling, using and advertising of pesticides and toxic chemicals in Guyana.

Staff Development

Throughout the period under review the Board, in recognition of the need for capacity building towards facilitating the provision of services to farmers and other stakeholders allowed staff to participate in a number of training exercises conducted by other Agencies and International stakeholders (See Appendix 1).

ACHIEVEMENTS – 2013

The Pesticides and Toxic Chemicals Control Board's Achievements for the period under review were as follow:

Pesticides Submitted For Registration

The Board received eighty six (86) applications requesting registration of which eighty (80) were registered. The unregistered 6 was as a result of incomplete submissions for registration. The Board approved the Registration of a total of 269 products at the end of 2013 for import, distribution and use in Guyana.

Pesticides and Toxic Chemicals Laboratory

Physical-chemical and chromatographic analysis methods were collected from the documents submitted for registration of formulated pesticide products to aid the laboratory in analyzing formulated pesticides products. Method development was carried out on a total of 15 active ingredients.

Physical-chemical Testing

The following physical-chemical tests were performed on all pesticides submitted for analysis:

* Colour, state, odor, appearance, density, pH and persistent foaming

Laboratory Documentation

During the year under review the laboratory staff continued to work on developing, correcting and reviewing documented data to ensure that the laboratory meet the GYS 223:2005 standard for accreditation.

The Quality Manual, Safety Manual, Standard Operating Procedures, Work Instructions and Forms were all finalized during the year in review and are in operation.

Analytical Work – Formulated Lab

One of the highlights of the year was the in-lab training done by Evaldo DeArmas from Unity Lab Services. With respect to quality control, training was focused on the maintenance of the mass spectrometer and utilizing the software Xcalibur. All staff was trained specifically on the processing setup, instrument setup, Quan Browser and Qual Browser of Xcalibur using both detectors (PDA and MS). The training allowed staff to be

able to acquire data and then process and judge the quality of the data from indication parameters, whereas before the process would stop at acquiring data before training.
One shortcoming of the training was the inability to use or properly diagnose the mass spectrometer due to the unavailability of the MSQ Annual Maintenance Kit. However, the trainer left advice to act on once the kit was obtained.

The division acquired an essential density meter – the handheld Densito 30PX. This equipment allowed the use of sample preparation by weight instead of volume, especially with liquid formulations.
A total of eight formulated products were analyzed in May: five products with Imidacloprid as the active and three with 2, 4-D as the active. Results for each product were submitted to the Board. Analysis of the Imidacloprid products was done using the internal standard method. The external standard method had to be used for 2, 4-D because the lab was not in possession of the internal standard. Physical-chemical test sheets accompanied each product. The later part of the year focused on developing HPLC-UV methods for the analysis of two active ingredients: Fentin Acetate and Alpha-cypermethrin.

The MSQ Annual Maintenance Kit for the mass spectrometer which was procured all for the placement of the ESI capillary probe. Although new calibration solution was freshly made, the mass-scale calibration was still unsuccessful. This constraint is still not resolved and is expected to be addressed in 1st quarter 2014. The HPLC underwent a complete maintenance service after all consumables to do so were procured. The lab received the micro-pipette station in August. Lambda-cyhalothrin formulated pesticide was successfully analysed by the lab and method development to monitor Wettability and wet sieving properties of wettable powders commenced.

Consumables required for the servicing of the LDA and mass spectrometer were received early August. The LDA was dismantled and cleaned. The turbomolecular pump, which is housed inside the mass spectrometer, was not serviced as this involves opening the mass spectrometer. Guard column was also installed in the HPLC. After servicing the mass spectrometer, the equipment was left to stabilise and the mass-scale calibration run again, but still unsuccessful.

Fifteen pesticide products were collected to be analyzed for their active ingredient content from pesticide input suppliers. The laboratory is in the process of procuring the necessary reagents for the analysis of these products. The Laboratory, in conjunction with the Board, held an open day and participated in Caribbean Week of Agriculture activities in October. The lab also facilitated an on-site visit of CWA participants, and participated in an open day during Pesticides Awareness Week.

Analytical Work – Residue Lab

Method development was carried out for the following:

* Alpha-cypermethrin: GC-MS (February)
* Lambda-cyhalothrin; GC-MS method (May, June)

On analyzing the data generated, it was found that the Limit of Detection (LOD) for the alpha-cypermethrin using the prescribed method was 0.001ppm and the Limit of Quantification (LOQ) was 0.01ppm. In March, a technician from Western Scientific arrived to install the ECD. On completion of installation, it was observed that the GC didn't register the signal generated by the ECD. After several hours of troubleshooting it was indicated by the technician that the ECD board present in the GC may have malfunctioned. The ECD Board is to be sourced and installed so as to address this constraint with respect to the GC-MS. An interim preventative maintenance schedule for the GC-MS was developed during the year in review.

A Solvent Evaporator, was purchased from Organomation Associates Inc and arrived in August. This unit adequately enhanced the laboratory capabilities with respect to drying of analyte samples and a Nitrogen (N_2) gas delivery line was installed in the GC/MS sample preparation room in August for the supply of nitrogen to the Solvent Evaporator. The CentriVap was reinstalled in the GC/MS sample preparation room in August after modifications were done to the concrete wall to allow for the exiting of the exhaust tubing.

In-house equipment training

The staff of the formulated lab was trained in the following:

* Convection oven
* Rotovap
* Analytical Balances
* pH Meter
* Handheld Density Meter
* Water bath and Sonicator
* Conducting the following physical-chemical tests: - density; pH; persistent foaming; suspensibility and wettability

The staff of the residue lab was trained in the following:

- Start-up and shut-down procedures of the GC-MS
- Using the Xcalibur software
- Sequence set-up and Sequence runs
- Modification of the Alpha-Cypermethrin method

FAO-IAEA e-learning courses

Staffs were presented with information based on the following course materials:-

* Pesticide Quality: This course contained information about pesticide quality from a regulatory as well as an analytical perspective.
* Quality Management Systems: The course covered topics relating to the management of quality at a residue analytical laboratory.
* Sample preparation methods for residue analysis. This was facilitated online by Phenomenex Inc.
* Multi-Residue Pesticide Analysis in Herbal Products presented by *LCGC* and sponsored by Thermo Fisher Scientific.

Occupational Safety and Health

The Safety Officer (Morris Solomon) conducted OHS reviews on the following:

* PTCL Safety plan
* Treatment of chemical burns and inhalation of chemical fumes
* Heat emergencies and cold emergencies

Webinars

Additionally, staff was exposed to two online tutorials conducted by LCGC's ChromAcademy. These were as follows:

* Understanding GC Methods Part 1: Sample introduction variables
* Validation of a Routine Multi-Residue Pesticide Method Using QuEChERS and GC-MS/MS Workflow Solutions

Regional and International Meetings

The Board continued to build technical capacity for personnel through participation in regional and international meetings.

SECRETARIAT

Name of Staff	Meeting/Workshop/Training Attended
Ms. Trecia David	"Workshop to enhance the implementation of the Stockholm Convention in the Caribbean Region of Trinidad and Tobago" Trinidad and Tobago February 19th – 21st, 2013
Ms. Pranita Bissoon Ms. Shivannaha Persaud	"Building Constructive Communication" Guyana Association of Administrative Professionals April 24th, 2013
Mr. Suresh Amichand Mr. Sheirdath Ramsammy	Ordinary and Simultaneous Extraordinary Meetings of the Conference of the Parties to the BASEL, Rotterdam and Stockholm Conventions, Geneva, Switzerland, April 28th – May 10th, 2013
Mr. Dietmar Chichester	"18th Meeting of the Coordinating Group of pesticides Control Board of the Caribbean (CGPC) under the Food and Agriculture Organisation – Clean Up of Obsolete Pesticide Management and Sustainable Pest Management" Trinidad and Tobago, June 10th – 14th, 2013
Mr. Sheirdath Ramsammy	Attendance at the "Expanded Constituency Workshop for Caribbean Countries on the Global Environment Facility" Santo Domingo, July 2nd – 3rd, 2013
Mr. Suresh Amichand	Fourth Latin American and Caribbean Regional Meeting on the Strategic Approach to International Chemicals management (SAICM) and Related Consultations, Mexico City, Mexico, August 19th – 22nd, 2013
Mr. Dietmar Chichester	"Regional Global Harmonized System (GHS) Workshop for the Caribbean" Jamaica, September 3rd – 5th, 2013
Mr. Dietmar Chichester	"National self-assessment of trade facilitation negotiation needs and priorities for the co-operative republic of Guyana" The World Trade Organization September 3rd – 5th, 2013

Pesticides Laboratory

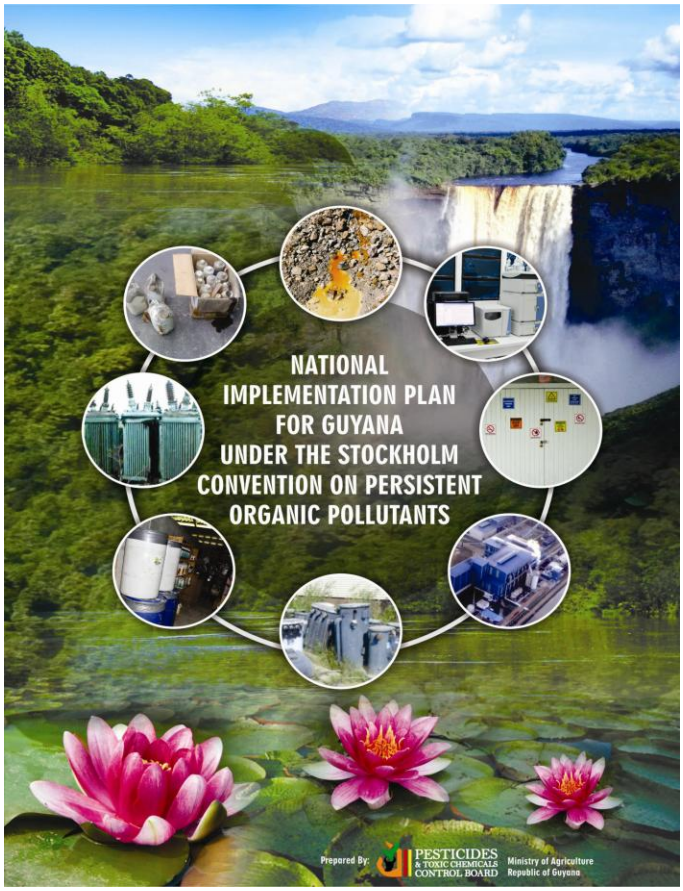
Name of Staff	Training Attended
Ms. Sophia Khan	Method Verification and Validation for Laboratories as required by iso/iec 17025 & iso/iec 15189 (Guyana National Bureau of Standards) November 21st - 25th , 2011
Mr. Morris Solomon Ms. Sophia Khan Mahendra Ram	Fire safety and Fire extinguisher usage April 2nd - 3rd, 2012 First aid and CPR – April 4th, 2012
Mr. Morris Solomon Ms. Sophia Khan Mahendra Ram	Laboratory safety requirements (Guyana National Bureau of Standards) April17th - 20th, 2012
Ms. Sophia Khan	Understanding the requirements of the GYS 170:2009 Standard (Guyana National Bureau of Standards) May15th - 28th, 2012
Ms. Sophia Khan	Analysis of pesticides (technical and formulated) at Laboratorio de Desarrollo Analitico de Agrofina, S.A. Buenos Aires, Argentina June 4th - 29th, 2012
Ms. Mahendra Ram	Understanding the requirements of the ISO/IEC 170025 and ISO 15189 Standards (Guyana National Bureau of Standards) June12th - 25th, 2012
Mr. Morris Solomon	Method Verification and Validation for Laboratories as required by ISO/IEC 17025 & ISO/IEC 15189 (Guyana National Bureau of Standards) October 1st - 5th, 2012
Mr. Morris Solomon	Root Cause analysis (Guyana National Bureau of sSandards) October 29th - 31st, 2012
Ms. Sophia Khan	Data analysis (Guyana National Bureau of Standards) November 1st - 2nd, 2012
Mr. Morris Solomon Ms. Sophia Khan Mr. Mahendra Ram	Trace-DSQII and MSQ+ Operations training (Thermo Scientific Training Institute) April 15th – 19th, 2013
Mr. Morris Solomon	Pesticides Laboratory Training in Formulated Pesticides Analysis

Ms. Sophia Khan	and Residual Analysis at the Institute for Control of Agrochemicals, Ministry of Agriculture, China, September 2nd – 13th, 2013

An external training was facilitated by ICAMA in Beijing, China for two weeks. One week was dedicated to Quality Control analysis. The ICAMA training specifically improved data analysis and sample preparation. Staff was also allowed to use more sophisticated equipment, such as a GC with a triple quadruple mass spectrometer, and an ion trap MS. Areas covered included:

* Sample preparation using the QuECHERS Method
* Chromatographic analysis applied to residue analysis (GC, LC). \Staff was allowed to use the analytical equipment under supervision. However, there was a difference in software used at ICAMA and the PTCL
* Introductory course on the setting up of Maximum Residue Limits.

National Implementation Plan for the Stockholm Convention



The Stockholm Convention National Implementation Plan (NIP) has been prepared by the Pesticide and Toxic This Stockholm Convention National Implementation Plan (NIP) has been prepared by the Pesticide and Toxic Chemicals Control Board (PTCCB) in the Ministry of Agriculture for the Government of Guyana, acting as the national focal point for the Stockholm Convention on Persistent Organic Pollutants (POPs). Guyana acceded to the Convention in September 2007 and the preparation of the NIP has been undertaken in fulfillment of the country's obligations under Article 7 of the Convention. The support of an enabling activity grant from the Global Environmental Facility (GEF) for its preparation is gratefully acknowledged.

The preparation of this NIP follows the guidance issued by the Stockholm Convention and GEF, and systematically covers the country's present situation with respect to the presence and release of POPs in the country, the status of compliance relative to each provision of the Convention, and the national response adopted in the near and long term to the issue in the form of an Action Plan. The NIP has been prepared to cover all POPs currently addressed by the Convention effective of its last amendment of annexes in 2011. This has been done within the overall framework of a strategic approach being pursued by Guyana respecting sound chemicals management and its national environmental and sustainable development strategies as imbedded in the National Development Program. The National Implementation Plan was endorsed on the 16th May, 2013 by the Minister of Agriculture, acting on behalf on the Government of Guyana (see Appendix 7).

Guyana has never been a producer of chemicals defined under the Convention as POPs. However, it did import and use POPs either as chemicals or as contained in products and equipment. Similarly it would be expected to have sources of unintentional POPs release and POPs legacies in the form of stockpiles, waste and contaminated sites. As a consequence, it has a number of POPs related issues that require addressing, including: i) ensuring that all necessary legal and regulatory measures are in place to fulfill compliance requirements; ii) current national inventories of POPs in use and remaining as stockpiles waste or in contaminated sites are established; and iii) measures necessary to address the

phase out of POPs in use and their environmental sound management in the form of stockpiles, waste and/or POPs contaminated sites are identified and implemented.

In general, Guyana is well advanced in addressing sound chemicals management generally and POPs issues specifically. It has a stable and well established institutional structure for chemicals management, notably a dedicated agency in the form of the PTCCB with responsibility for chemicals management and use and the Convention, along with the Environmental Protection Agency (EPA) providing environmental regulatory control in relation to waste management and emissions, and a network of stakeholder Ministries, agencies and organizations that have related and synergistic responsibilities. Common supervision and direction is provided by membership on the PTCCB board and specifically for implementation of this NIP through an Inter-Agency Coordinating Committee. Similarly the existing legal and regulatory framework as provided by law and regulation administered by PTCCB, EPA and other Ministries provides the basic tools for implementing the Convention, although a number of gaps requiring priority action have been identified in this NIP. These include i) ensuring the most recently added POPs chemicals are covered by import, export and use control primarily in the form of bans, but where appropriate restrictions and/or exemptions as provided for by the Convention and ii) final implementation of the pending Hazardous Waste Law.

The only POPs remaining in use in the country are PCBs, largely associated with operating electrical equipment. This primarily involves 15 larger transformers in service in Guyana Power and Light facilities and which require replacement before 2025. Given the age of this equipment, the NIP notes a near term opportunity as the national electrical system is upgraded and converts to renewable power generation to eliminate this equipment, an action that would require environmental sound disposal of approximately 50 t of contaminated equipment and dielectric oil.

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Training and Awareness

The PTCCB facilitated refresher training and awareness sessions with other agencies such as the Customs and Trade Administration, Guyana Police Force, Pesticides Importers and Distributors. This exercise allows for information exchange on new developments within the Pesticides Industry both locally and internationally.

The Board participated in agricultural and other relevant national exhibitions throughout the year by displaying models to raise awareness to the general public on the following topics:

- Commercial and Domestic Pest Control operations and services offered by Pest Control Operators
- Main types of pesticides and its use
- Benefits and risks of using pesticides
- Mode of action of contact and systemic pesticides
- Pesticides storage

The Directors, Registrar and Inspectors of the Board provided training, at a number of locations throughout the country, to farmers on the safe use, handling and storage of pesticides. These training were conducted in collaboration with the Guyana Rice Development Board (GRDB), the Farmers Field School Programme, GuySuCo's Cane Farming Committee and the Extension Unit of the Ministry of Agriculture. Training Sessions were held in Regions 2, 3, 4, 5, 6 and 10. A total of 1300 farmers were trained in the following areas:

1. De Buff Canal #2 WBD Region 3
2. L'Oratire Canal #1 WBD Region 3
3. Naamless East Bank Essequibo Region 3
4. #2 Village Berbice Region 6
5. Rosignol WBB Region 5
6. Bath (Hope Plantation) Region 5
7. Bath (Hope Plantation) Region 5
8. Eversham Berbice Region 6
9. Betsy Ground (East Canjie) Region 6
10. Kingeley Berbice Region 5
11. Now or Never Mahaicony Region 5
12. Referendum WCB Region 5
13. Providence Community Center EBD Region 4
14. Morashi Unity EBE Region 3
15. E. Benjamin Center Linden Region 10
16. Ulverston Berbice Region 6
17. Guyana School of Agriculture Mon Repos ECD Region 4
18. Kaliedonin Waakenaam Region 2

The participants were trained on the following topics:

- Management of Pesticides in Guyana;
- Pesticides Act and Regulations;
- Benefits and Risks of Pesticides Use;
- Pesticides Classification;
- Pesticides Labeling;
- Safe Handling and Correct Use of Pesticides;
- Classification of Pest;
- Pest Control Measures and Practices;
- Dose Rates and Recommendations;
- MRLs; and
- Storage and Disposal of Pesticides.
- Safe application of household use pesticides

The Board conducted a guest lecture on the safe use and management of pesticides for the second year diploma students of the Guyana School of Agriculture.

Secondary School Awareness Programme

The Pesticide Awareness Programme in Secondary Schools with an Awards Ceremony was held on the 29th October, 2013. This year's program targeted 10 selected schools in five administrative regions, namely 2, 3, 5, 6 and 9.
Schools were tasked with establishing a Pesticides Awareness Corner in their schools, which is expected to provide a wealth of information to all students about the Board as well as pesticides, there use, hazards, benefits etc. Materials to develop the corners were provided by the Board, with schools expecting to add their own bit of creativity. This approach of targeting students enhances awareness for the proper use, storage and an overall better understanding of how pesticides work.
This year, Corentyne Comprehensive Secondary came out the winner and received $100,000 in farming equipment and a trophy. Zeeburg and Charity secondary schools placed second and third respectively.
Geddes Grant Guyana Limited won the prize for best storage facility in Guyana. This is a new feature to our awards ceremony this year, where we judge the storage locations of all our pesticides importers and awarded the best housekeeping.

The Pesticides and Toxic Chemicals Control Board continued its annual schools' Pesticides Awareness Corner competition with the hinterland leg of the competition. For the hinterland leg of the competition three schools from region nine (9) were selected. These schools were Annai Secondary, St. Ignatius Secondary and Aishalton Secondary. The Hinterland leg of the Schools' Pesticides Awareness Corners was an overall success. The students of the two schools that produced a corner were very excited and enthusiastic about the entire awareness process and they seemed to be very knowledgeable about

pesticides, their types and the safe handling and storage. The only negative of the entire trip was the Aishalton Secondary not producing an awareness corner and as such depriving its students of the opportunity to be part of the competition.

Pesticides Awareness Week, 2013

The Board commemorated Pesticides Awareness Week, 2013 from the 27th October – 2nd November, 2013 under the theme "Pesticides – Store Wise, Save Lives". The main aims were raising awareness on pesticides storage and improve current storage practices in Guyana among pesticides users. It is important that everyone stand up and take note and encourage that person that you know who has pesticides and is practicing improper storage to do better for their health and yours. Improper storage contributes to it being used as a means of committing suicides. As the theme suggested, wise storage can be lifesaving and crucial to the protection of our families.

We should strive to design and build pesticide storage structures to keep pesticides secure and isolated from the surrounding environment. Keep a written pesticide inventory and the material safety data sheet for the chemicals used on site. Sensitization and sharing of best practices regarding pesticides use can never be overdone.

[i]Pesticides will continue to be an integral part of our lives in the foreseeable future. Therefore for the sustainable management of our environment, our health and our future, we must remember: "Pesticides-Store Wise, Save Lives!"

Public Awareness Training and Open Day Activities

Pest Control Operators Basic Proficiency Certification Programme

Twenty nine persons graduated on the 16th May 2013, from the Pest Control Operators (PCO) Basic Proficiency Training Course organized and facilitated by the Pesticide and Toxic Chemicals Control Board (PTCCB) of the Ministry of Agriculture. Agriculture Minister, Dr. Leslie Ramsammy highlighted the importance for persons to be so trained in remarks he made at the simple graduation ceremony held in the Ministry's Boardroom.

"Pest Control Operation is a profession like any other profession, and it must have its eligibility in terms of who can be hired as a PCO, whether privately or in the public sector," the Minister noted.

In this regard, the Minister mandated the PTCCB to prepare a proposal to make it compulsory for PCOs to undergo a period of training before they become registered and are able to work. He said the proposal should be presented to the Board of Directors of the PTCCB, headed by Dr. Leslie Munroe, and will subsequently be taken to cabinet for approval."We should create that timeline that Guyana's future is where PCOs are not just anybody picked up from anywhere and just sent out to do this work, as happened often," he remarked.

Graduating Class 2013

The Minister noted that many people are not aware of the potential for doing good or doing harm in the use of chemicals. He said that, this year, the PTCCB will play a far more active role in making people aware. But whilst awareness is critical, capacity building also has to be done, he opined, noting that yesterday's graduation was the second of its kind. He also related that the course will continue as an annual activity.

Dr. Ramsammy pointed out that many previous generations did not know about the injurious qualities of chemicals. He said that stemming from a meeting with the late former President Dr. Cheddi Jagan, Guyana moved to change the paradigm, to ensure maximum

use of chemicals that would improve lives in the country, while also ensuring the potential to do harm was eliminated.

Basic Proficiency Training Classroom Sessions, 2013

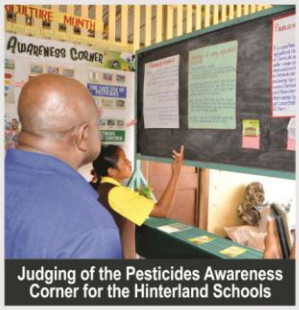
He said that such meetings at that time led to the passage of the Environmental Protection Act and the creation of the Environmental Protection Agency (EPA). They also led to the drafting of the Pesticides and Toxic Chemicals Control Act.

COMPLAINTS AND INVESTIGATIONS

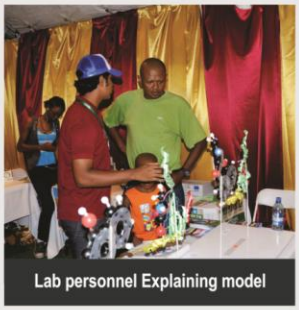
During the year under review the Board investigated the following pesticides related complaints:

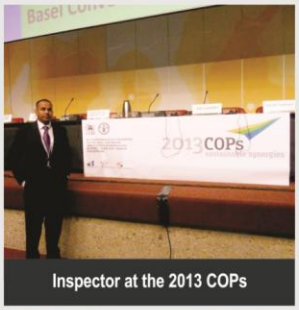
1. Chemical spray incident at Mr. Chandradeo Paraj at Moleson Creek.
2. Chemical spray drift affecting farmers in the Little Biaboo area.
3. Mr. Harripaul Bhaagwandin (Naresh) alleged that the rice farmers in the Biaboo area caused pesticides to nearly drift onto his farm and actually caused drift damage to other farmers' crops
4. Ms. Lilowtie Singh of 13A Barclay Street Goed Fortuin WBD, alleged her neighbor sprayed the trees in her yard.
5. Mrs. Daveta Narain of Lot 28 New Road La Grange WBD, alleged her neighbour indiscriminate use of pesticides affected her family.
6. Mr. Rabindranauth G Mahadeo Jr. of Mahaicony Creek ECD, alleged that someone sprayed his 35acres rice field.
7. Mr. Dhaniram Persaud of #55 Village, ECB alleged that Mr. Ganeshwar Mahadeo deliberately sprayed his rice crops with a pesticide.


Hon. Minister Dr. Leslie Ramsammy speaking to reporters at the Pesticides Awareness in Secondary Schools Award Ceremony



Judging of the Pesticides Awareness Corner for the Hinterland Schools


Lab personnel Explaining model



Inspector at the 2013 COPs

Inspector at International GHS Workshop


Inspection


Hon. Minister Dr. Leslie Ramsammy presenting to PCO graduates

Inspector at the GHS Workshop


GEF ECW Workshop


First, Second and Third Place Winners of Pesticides Awareness Corner Competition


First Place Winner from Corentyne Comprehensive Secondary


First place to Annai Secondary


Farmers Training Session in Region 5


Farmers Training Session in Region 3


Farmers Training Region 6


Farmers Training in Region 2


Farmers Training 4

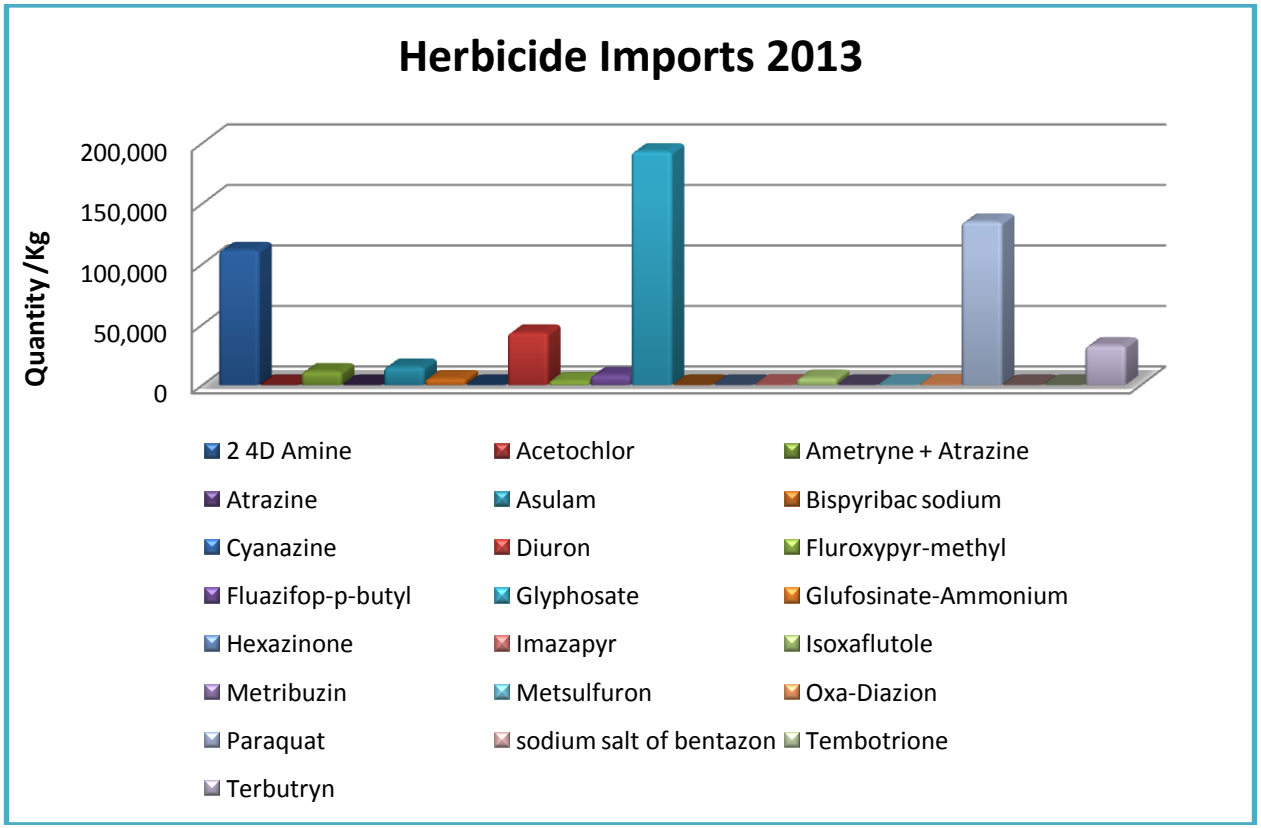

Wakapoa Secondary Region 2


Enforcement Activity


Endorsing the NIP document

PESTICIDES IMPORTATION

The total import value of pesticides for the year was Three Billion, Four Hundred and Twenty One Million, Seven Hundred and Twenty Three Thousand, Five Hundred and Seven Guyana Dollars ($3,421,723,507.04).



Glyphosate (193,000kg), Paraquat Dichloride (134,000kg), and 2, 4 D Amine (111,000kg) were the most imported herbicides respectively for the year in review.

Figure 1: Herbicides (Quantity) Imported for 2013

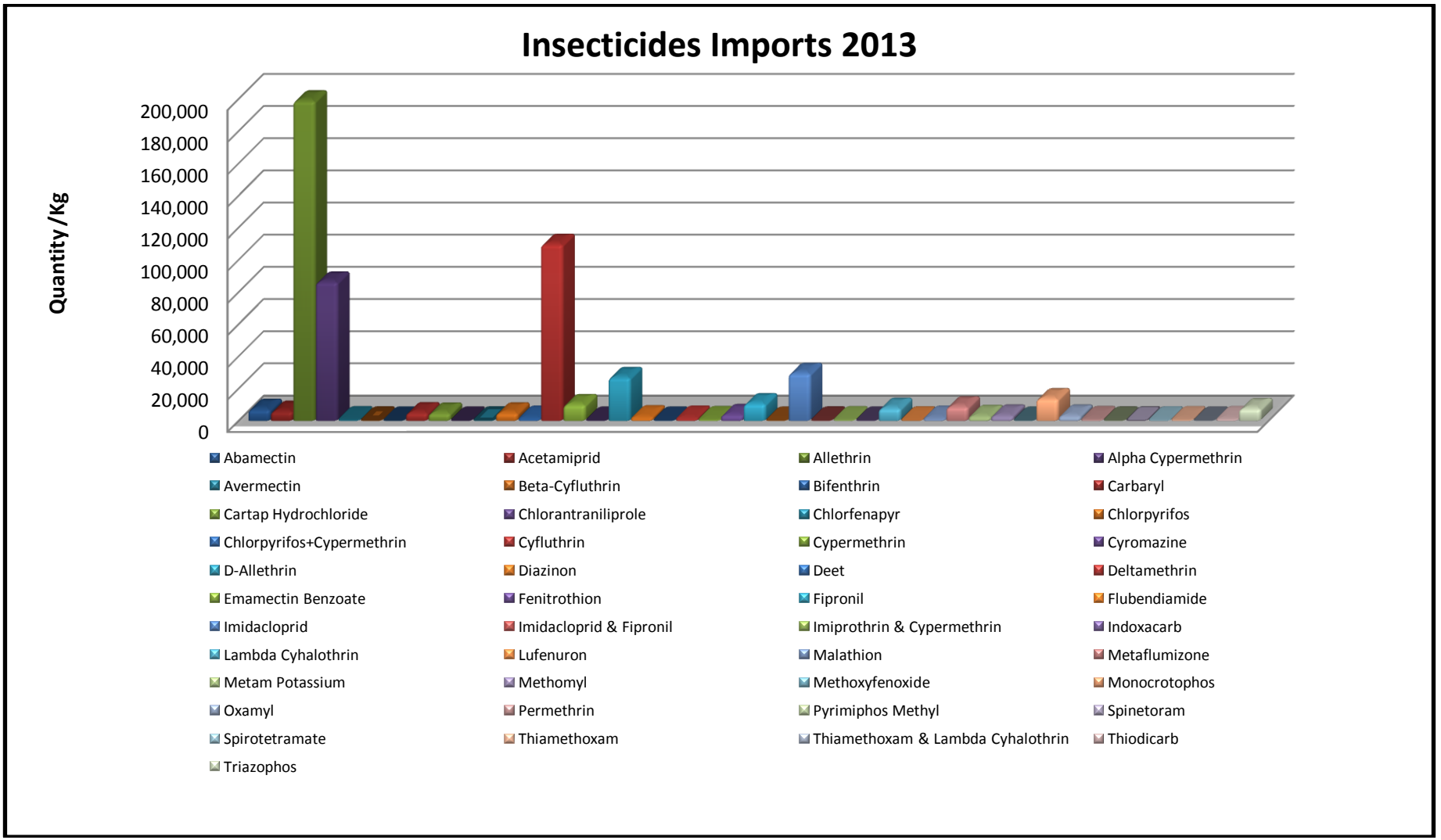
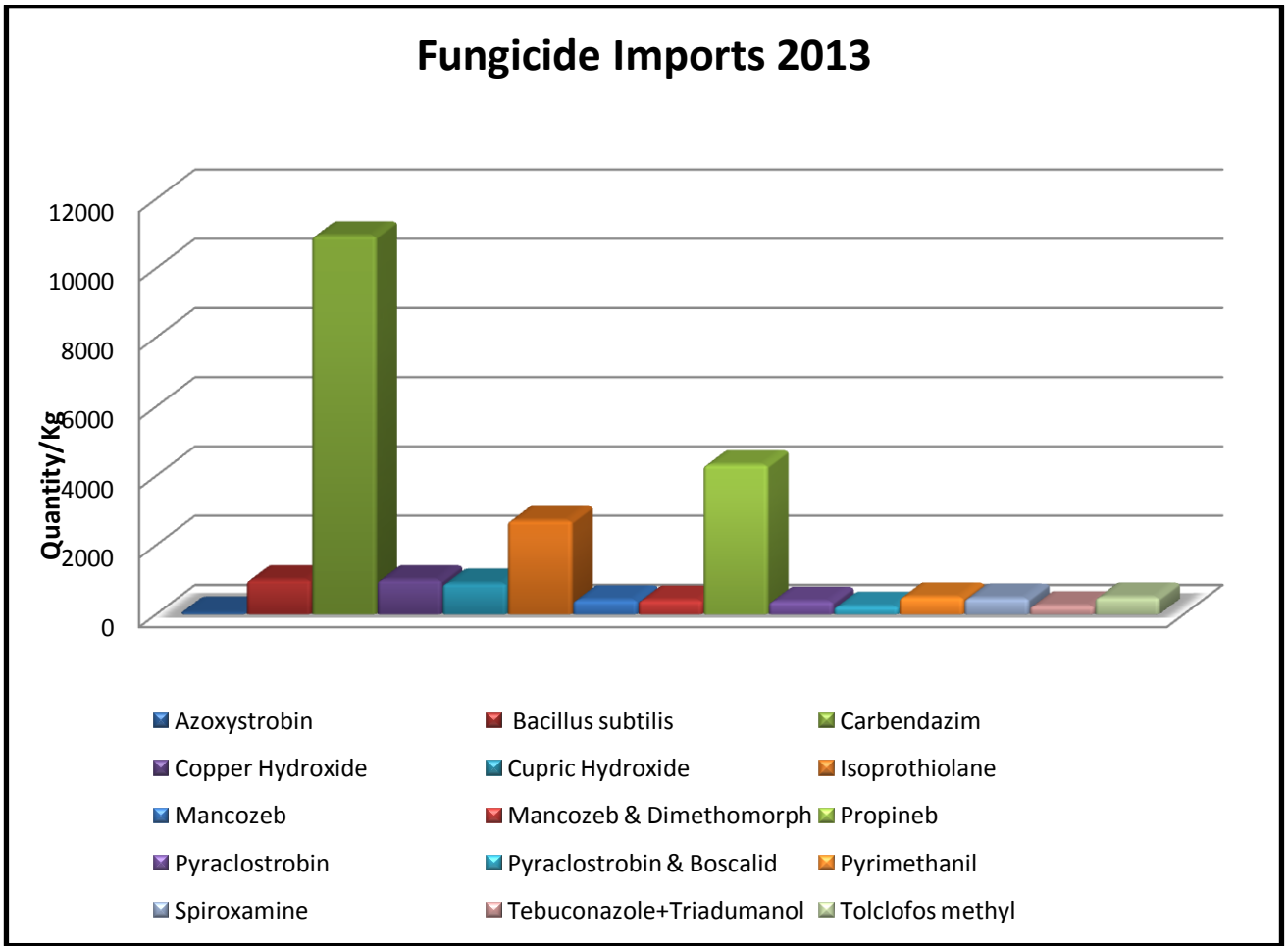


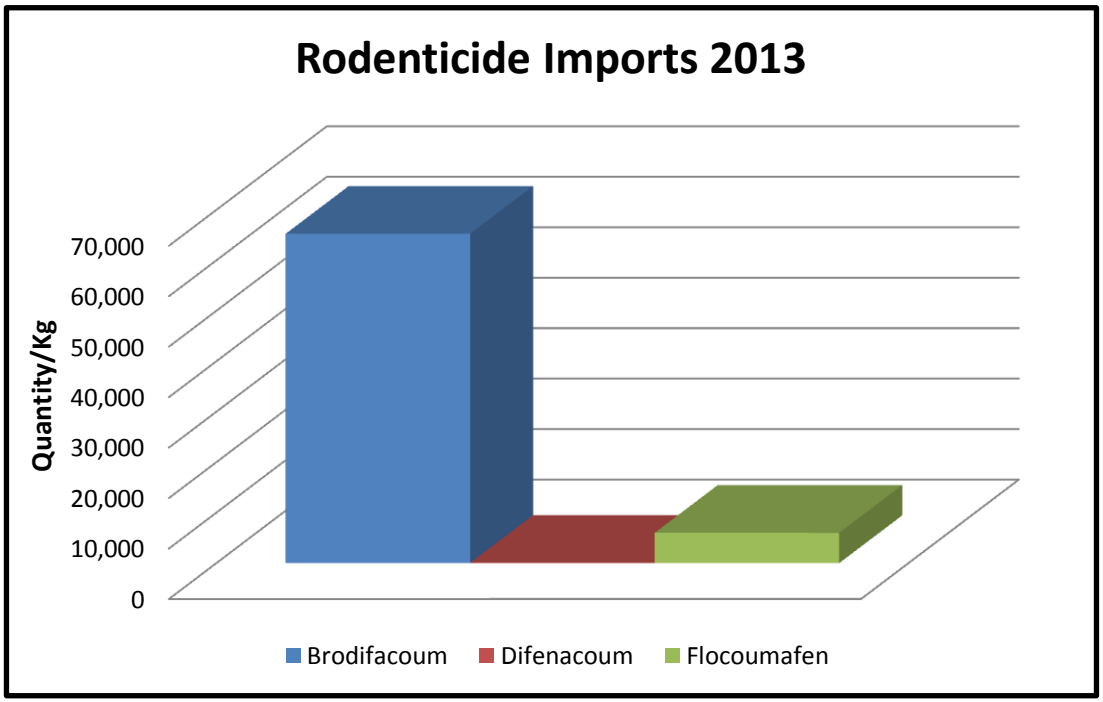
Figure 2: Insecticides (Quantity) Imported for 2013

Allethrin and Cyfluthrin which are mainly found in aerosol products were the most imported household use insecticides. However, Alpha Cypermethrin and Imidacloprid were the most import agro-chemical insecticides imported.



Carbendazim (10,940kg) Propineb (4,320kg) and Isoprothiolane (2,712kg) were the most imported fungicides respectively

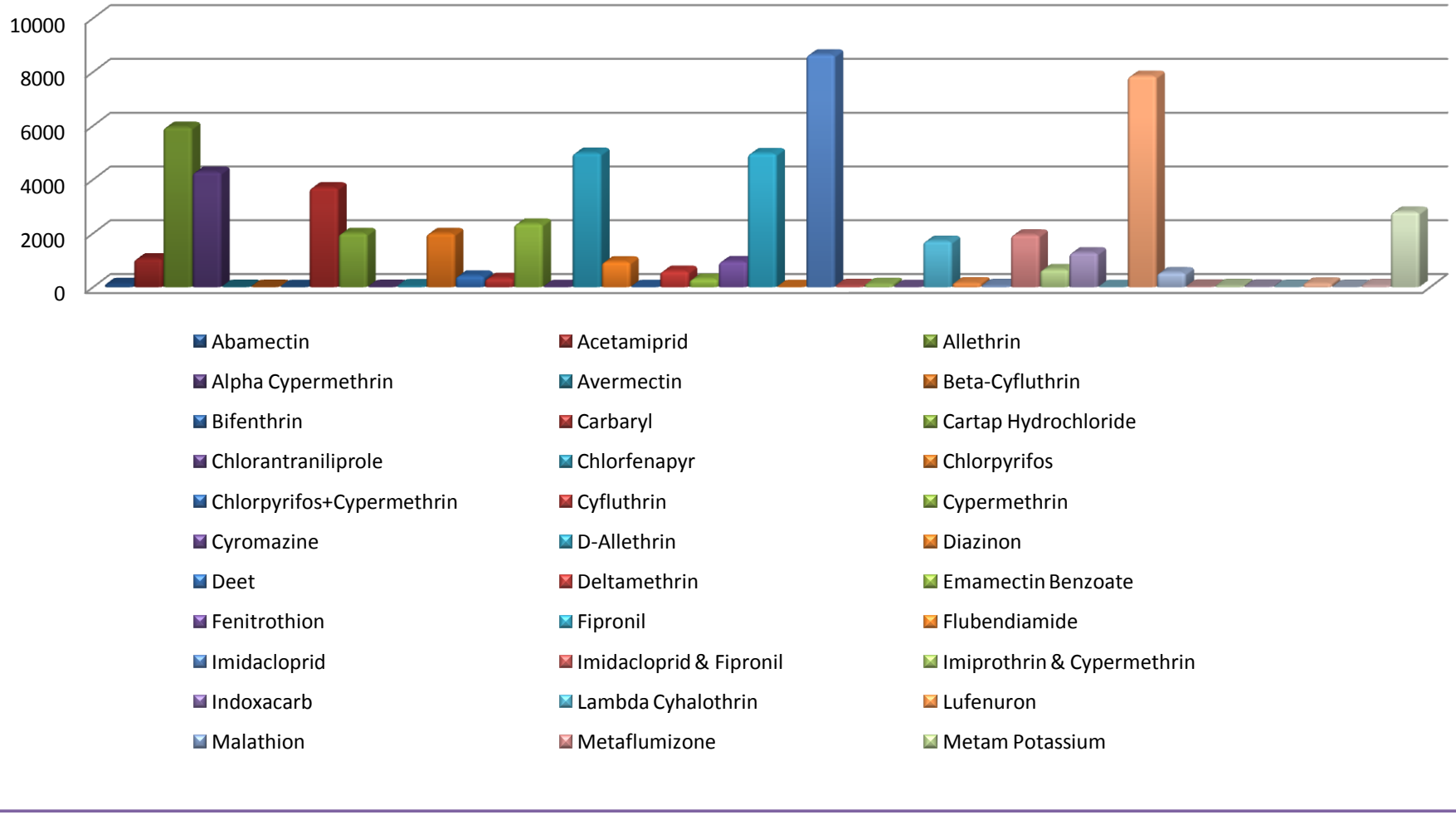
Figure 3: Fungicides (Quantity) Imported for 2013

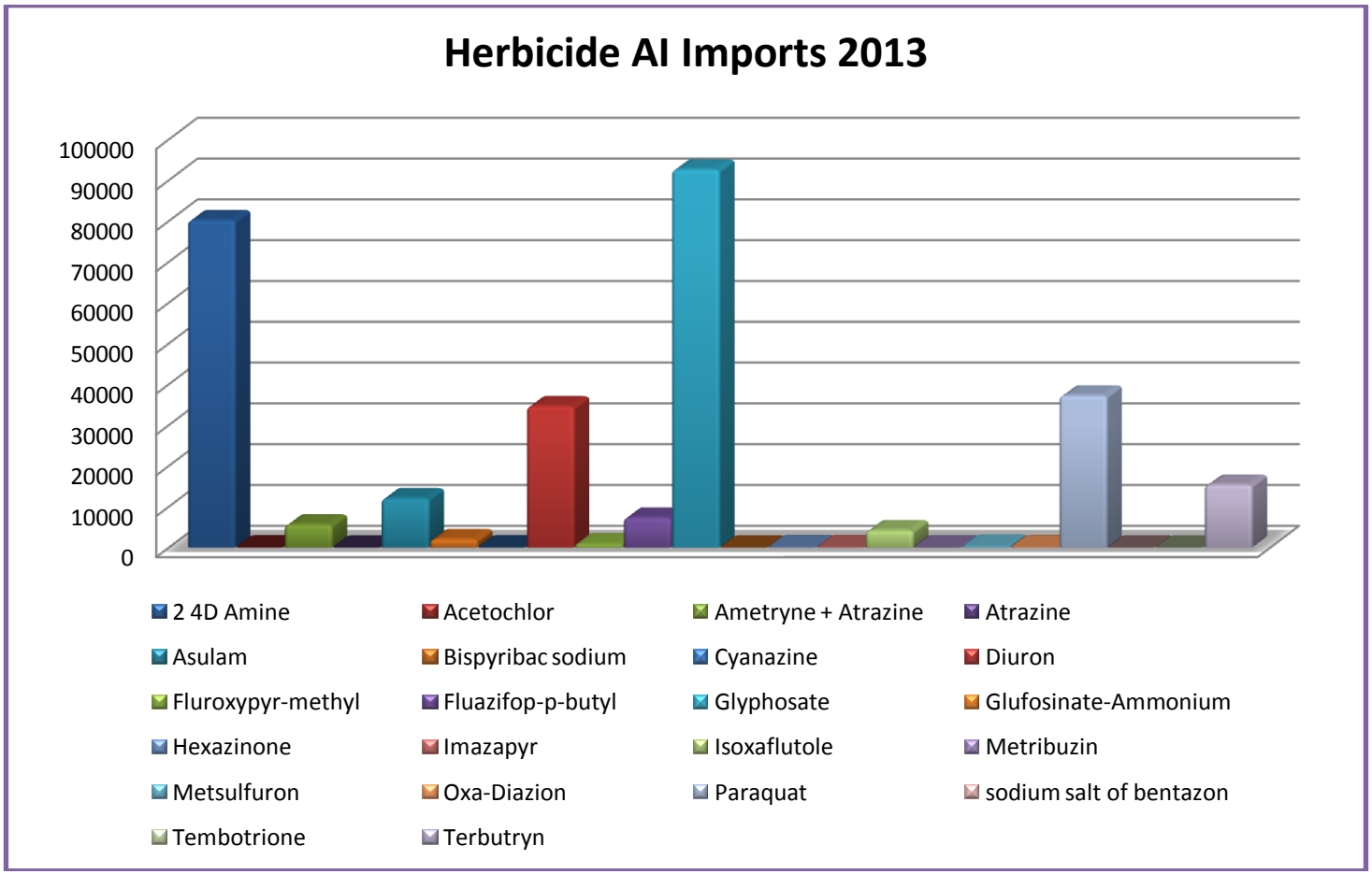


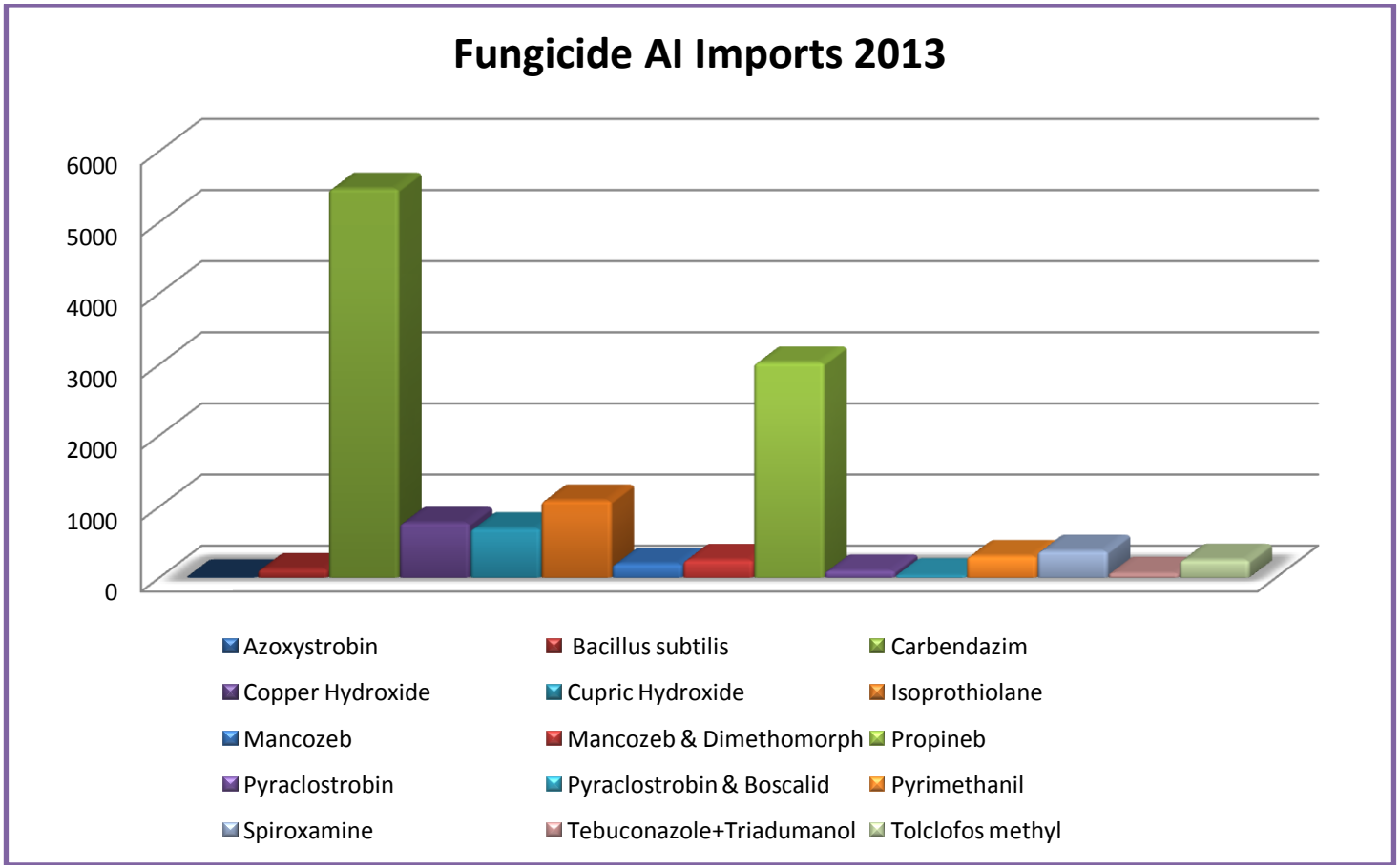
Brodifacoum (65,255kg), Flocoumafen (6000kg) and Difenacoum (60kg) were the major rodenticides imported. Rodenticides were used mainly to control rodent pest in the agriculture and urban and domestic pest control sectors.

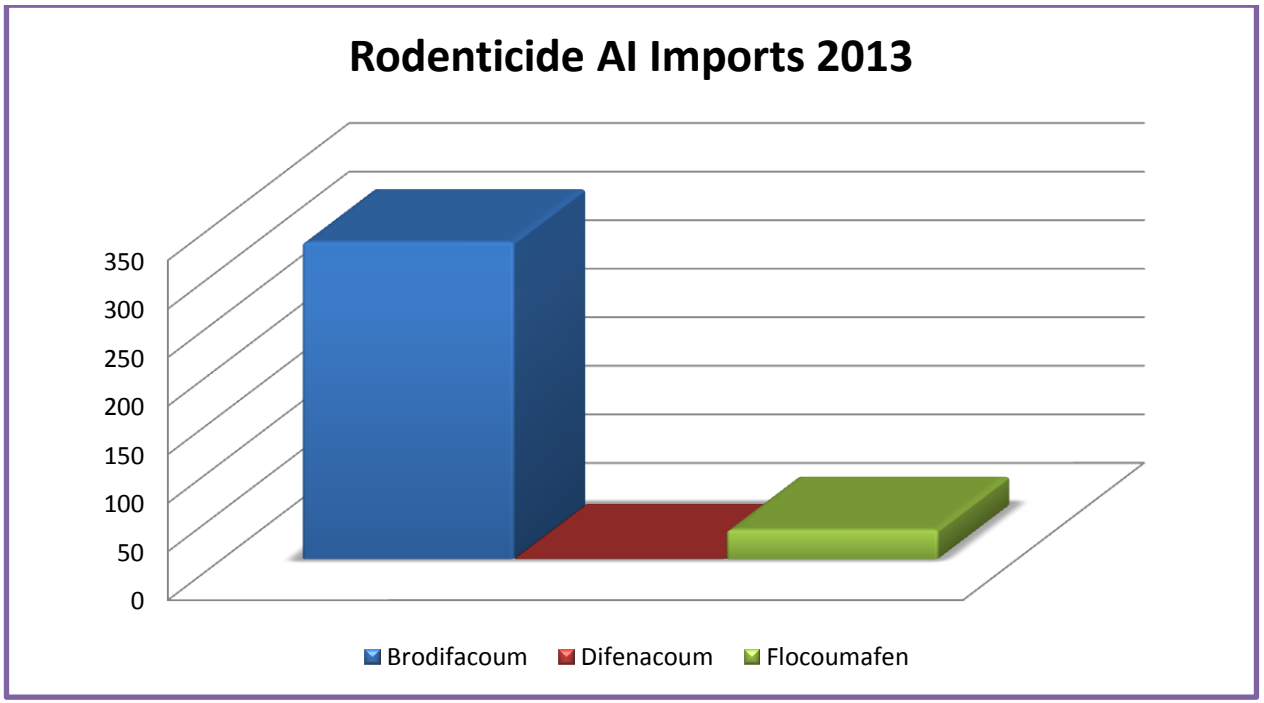
Figure 4: Rodenticides (Quantity) Imported for 2013

Active Ingredient Imported for 2013 in the respective categories.



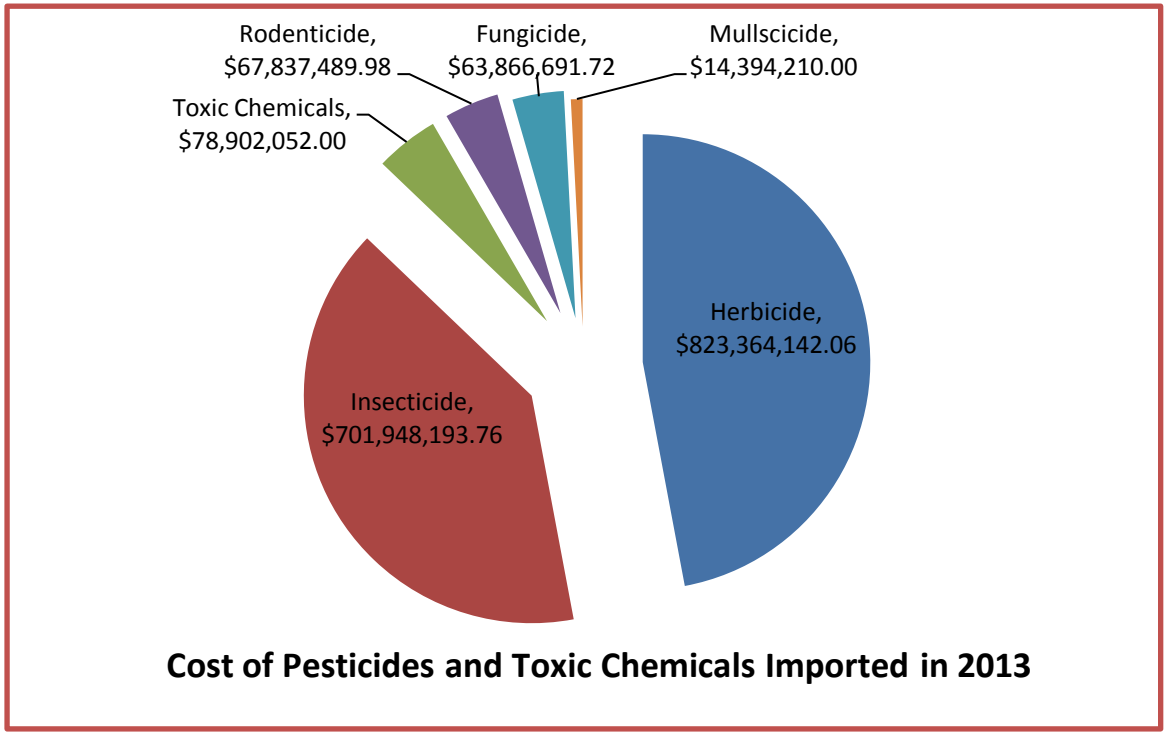

Herbicide AI Imports 2013
100000
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
2 4D Amine
Acetochlor
Ametryne + Atrazine
Atrazine
Asulam
Bispyribac sodium
Cyanazine
Diuron
Fluroxypyr-methyl
Fluazifop-p-butyl
Glyphosate
Glufosinate-Ammonium
Hexazinone
Imazapyr
Isoxaflutole
Metribuzin
Metsulfuron
Oxa-Diazion
Paraquat
sodium salt of bentazon
Tembotrione
Terbutryn


Fungicide AI Imports 2013
6000
5000
4000
3000
2000
1000
0
Azoxystrobin
Bacillus subtilis
Carbendazim
Copper Hydroxide
Cupric Hydroxide
Isoprothiolane
Mancozeb
Mancozeb & Dimethomorph
Propineb
Pyraclostrobin
Pyraclostrobin & Boscalid
Pyrimethanil
Spiroxamine
Tebuconazole+Triadumanol
Tolclofos methyl


Rodenticide AI Imports 2013
350
300
250
200
150
100
50
0
Brodifacoum
Difenacoum
Flocoumafen

Total Cost of Pesticides and Toxic Chemicals Imported 2013

Types	Cost in GY$
Herbicide	$ 823,364,142.06
Insecticide	$ 701,948,193.76
Toxic Chemicals	$ 78,902,052.00
Rodenticide	$ 67,837,489.98
Fungicide	$ 63,866,691.72
Molluscicide	$ 14,394,210.00



VENDING OF PESTICIDES AND TOXIC CHEMICALS

The Board certified one hundred and sixty eight vending premises for the year. This represents an increase in the number of premises from the previous year by fifteen (15).

During the year under review there were eleven inspection and seizures of illegal and unregistered chemicals from vending premises across the country. Most of seizures were directed at eliminating the sale of these products to consumers. This is in keeping with the regulations of registering all products being offered for sale by pesticides vendors. All vendors were visited monthly during the year in review.

ACCOUNTS 2012

The Auditor General's Office completed their examination of the Board's Financial Statement for 2012, as required under Section 41 of the Pesticides and Toxic Chemicals Control Act and the Financial Management Act, and validated that the Financial Statements reflected fairly in all materials respects, that the financial position of the Board as at 31 December 2012, and its deficit for the year then ended, was in conformity with generally accepted accounting practices. The Accounts for the Board for 2013 have been submitted to the Audit Office in keeping with Boards work plan. The Board is awaiting the audit of same.

BUDGET 2014

The proposed budget of the Board for the year 2014 reflects a total expenditure of One hundred and thirty million, eight hundred and sixty seven thousand dollars ($130,867,000.00). The increase pertains to the functional operations of the pesticide laboratory along with infrastructure development such as a construction of comprehensive storage facility.

WEBSITE

The Board's Website, http://www.ptccb.org.gy was continuously updated during the year to make it more modern and 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.

ENFORCEMENT AND INSPECTION

The Inspectorate Unit carried out a series of enforcement exercises across the country during the period under review. Emphasis was also concentrated on the Ports of Entry and as such numerous inspections were done on direct imports at the Customs and Trade

Administration, Wharves and Warehouses. All containers inspected were in keeping with the relevant import licenses.

KEY ISSUES AND CHALLENGES

The key issues and challenges facing the Board continue to be the implementation of the Pesticides and Toxic Chemicals Regulations with respect to the following:

- **Registration and Licensing** – Registration of Pest Control Operators continue to be a challenge since those operating illegally are not complying with the requirements.
- **Supply of consumable**s – The process for the supply of consumables to the laboratory has proven to be very tedious, expensive and time consuming one. The availability of validated methodologies that are compatible with the Boards GC/MS and HPLC is still a constraint.
- **Infrastructure of PTCCB Laboratory** – The current infrastructure is a major constraint for the certification of the Boards laboratory. In addition it is recommended that the formulated and residual laboratories be separate to avoided contamination and quality of results.
- **Equipment** - The ECD on the CG/MS is still not operational since the main board for this part was proven to be defected. This is expected to be replaced in 2014. Equipment downtime was reduced during the period under review however, lack of consumables in late 2013 affected results generation.


PTCCB Winning First place for Health and Safety Corner in the Ministry


Pesticides Awareness Corner Prize and Award Ceremony


Pesticides and Toxic Chemicals Control Board Lab Staff at work


Permanent Secretary of Ministry of Agriculture handing over a token to the Consultant for NIP Guyana


Participants from Different Schools Across the Country at the Awards Ceremony


One of the many Community Training Sessions done country wide


National Implementation Plan for Guyana Launch


National Implementation Plan Endorsement


Moving across the country conducting Investigations, Enforcement, Training


Lab Staff giving a tour of the facility for visiting CWA participants


St. Ignatius Secondary with their second Prize and Trophy


Senior Inspector Chairing the School's Award Ceremony


Senior Inspector at Farmers Training Session


Second Place Winner, St Ignatius Secondary


The Registrar Making some Comments at the NIP Endorsement


TDI company securing first place for the best kept storage facility


Handing Over Prizes to the First Place Winner


The Registrar of PTCCB officially opens the Second Annual PCO Training Course


Training for Customs Officials at the Lethem Border


Zeeburg Secondary with their second place prize from the Schools Pesticides Awareness Corner Competation

PROPOSED ACTIVITIES 2014

FUTURE PLANS: 2014 ONWARDS

One of the primary future plans of the Board is the construction of a comprehensive storage facility for pesticides and the safeguarding and disposal of obsolete stockpiles.

Projections 2014 PTCCB

1. Registration of 50 pesticides for import, sale and use in Guyana
   - Reduction of dangers associated with these products to human health and environment
2. Licensing of 2500 imports of pesticides and toxic chemicals
   - Approval of all chemicals imported, information gathering and availability as too quantities, names, types, targets pest etc.
3. Training and certification and Licensing of 20 Pest Control Operators
   - Ensuring use of household pest control products, use of registered operators, reduce use of agricultural pesticides in household pest control
4. Licensing of 150 pesticide vendors countrywide
   - Ensures availability of registered pesticides to farmers
5. Training and awareness programmes reaching 2500 farmers and farm hands
6. Increase public awareness via newspaper, inews, website, newsletter
   - Benefit decrease in illegal trade and vending of household and agri. pesticides
7. Training of Extension agents and students from the Guyana School of Agriculture
8. Execute investigations relative to the mis-use of pesticides
9. Training provided on the following area:
   - Pest and Disease Management;
   - Safe and Effective Use of Pesticides
   - Disposal and storage in Pesticides
10. Analytical works by the laboratory to support the Board
    - The Pesticide Laboratory supports the Board in ensuring food safety in agriculture production
    - Verifies quality and types of pesticides used in agriculture
    - Instituting programmes to allow accreditation
11. In field sensitization technique for pesticide contamination. The Tracer Kit technology demonstration in field educating farmers on types and levels of pesticides contamination.

The Pesticides and Toxic Chemicals Control Board aims at fulfilling its mandate in 2013 through further capacity building, executing of regulatory objectives and continued implementation and monitoring of regulatory requirements with respect to pesticides and

toxic chemicals. The Board aims to further adapt and develop management tools that will enable the sound management of chemicals in Guyana, through a lifecycle approach.

1. Strengthen enforcement and inspection to eliminate illegal imports of pesticides
2. Training and awareness to Customs and Trade Administration to strengthen enforcement and reduce Transboundary movement of chemicals, reduce illegal imports
3. Training and awareness meetings with Guyana Police Force
4. Training and awareness to extensions agents, pesticide vendors
5. Development of Public Awareness Materials specifically Pesticide Manual for vendors and farmers etc.
6. Enforce Transportation Requirements for Guyana to ensure management of pesticide accidents spills etc.
7. Update Pesticide Information System and Website – data availability with regards to pesticide use and Guyana
8. Build staff capacity through international participation and training
   - Inspectorate training on inspection and enforcement
   - Obsolete and bio pesticides
   - Laboratory analysis of formulated products
   - Residual Analysis
9. Distribute at trainings Gloves. Respirators, measuring utensil, conversion handbook, and
10. Construct a comprehensive pesticides storage facility for storage of obsolete pesticides.

CONCLUSION

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

The Board will continue to work with the Ministry of Agriculture, sister Agencies and external stakeholders towards meeting its mandate under the Act and Regulations.

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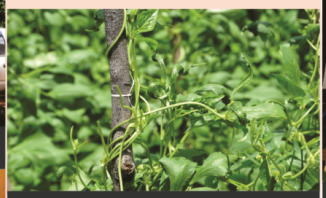
Minister of Agriculture's Pesticides Awareness Week Message.

Jan- June 2013 Newsletter


Traversing the length and breadth of Guyana to impart Training


Stockholm, Rottedam Convention 2013 COPs


Field investigations

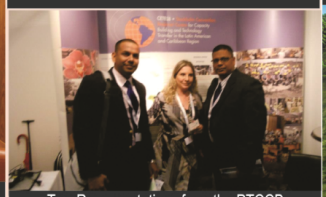
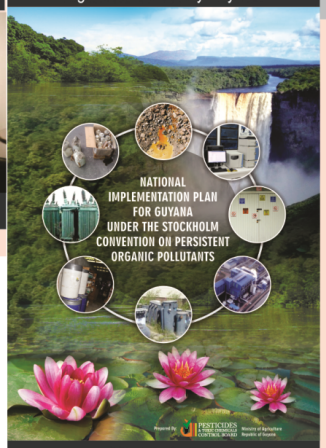

Two Representatives from the PTCCB at the 2013 COPs

Exhibit at the Caribbean Week of Agriculture hosted by Guyana



Stockholm NIP

PESTICIDES & TOXIC CHEMICALS CONTROL BOARD

CONTACT US FOR MORE INFORMATION

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