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2018

DEPARTMENT OF AGRICULTURE
PERADENIYA
SRI LANKA

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Vision

Achieve excellence in agriculture for national prosperity.

Mission

Development and dissemination of improved agricultural technology and providing related services to all stakeholders with emphasis on farmers to achieve an equitable and sustainable agricultural development to ensure food and nutritional security for the nation.

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2.1.3 OFFICE OF THE REGISTRAR OF PESTICIDES (ROP) - PERADENIYA

The Office of the Registrar of Pesticides was established in 1984 for the implementation of the Control of Pesticides Act No. 33 of 1980. Registrar of Pesticides (ROP) is the legal authority empowered and entrusted on the functions related to the registration and regulation of pesticides in Sri Lanka (appointed under the Control of Pesticides Act No. 33 of 1980, as amended by the Act No. 06 of 1994 & the Act No. 31 of 2011). According to the Act, it is the duty of the Registrar of Pesticides (who is responsible to the Director General of Agriculture, DGA) to regulate pesticides imported to, and formulated/manufactured in Sri Lanka, and to assure their quality and safe use, and to assess and to declare Maximum Residue Limits (MRLs) in agricultural produce.

The overall workload of the Office of the Registrar of Pesticides has been gradually increased to represent registration of pesticides imported to Sri Lanka and giving import permits, regulating labels and advertisements, registering pesticide importers, pest control services and pesticide traders, random quality checking of imported pesticides and testing pesticides residues in agricultural produce. The pesticide regulatory activities managed by the Office of the Registrar of Pesticides can be divided into two main categories; viz., (1) regulation of pesticides by registration & re-registration and, (2) post-registration activities including (among others), monitoring of pesticide formulation & re-packing factories, storage sites and outlets, detection of unauthorized activities and taking legal actions, analysis for pesticide quality, analysis

of pesticide residues in/on agricultural products and setting legally allowed MRLs in food, monitoring of pesticide poisonings, etc. However, for effective & total regulation of pesticides in the country, it is paramount that post-regulation activities are managed equally or much more intensively than in-house registration activities. Several key initiatives have been taken relating to the functions under the Control of Pesticide Act No. 33 of 1980, in order to address key performance gaps in the pre-registration & post-registration programs during the year 2018.

Vision

Ensure high quality pesticides for Sri Lankans while assuring safe & efficient use of pesticides on human health & environmental protection.

Mission

Management of pesticides by minimizing associated health and environmental risks while assuring required proficiency & necessary awareness for achieving the highest efficacy of chemical pest control as the last option.

Table 2.1.3.1: Pesticide import statistics for Agriculture (Brief summary) - Reference year 2017

Pesticide category	Volume (mt)
Technical materials	
Insecticides	17.7
Fungicides	0
Herbicides	90.0
Formulations	
Insecticides	658.03
Fungicides	664.12
Herbicides	1,298.32

BUDGET

The annual allocation & expenditure under different votes are given in the following Table.

Table 2.1.3.2: Annual budget – 2018

Vote	Allocation (Rs.)	Expenditure (Rs.)	Expenditure (%)	Income (Rs.)
Recurrent	3,467,485	3,052,654	88	-
Capital	7,767,182	5,036,784	65	-
Projects				
• Minimizing potential effect of agrochemicals on human health & the environment	6,620,900	6,616,698	100	-
• Strengthening eco-certification program to facilitate access to export markets (agricultural produce of export quality, compliance specially with the EU markets)	9,000,000	8,928,575	99	-
• Strengthening and implementation of programs on Good Agricultural Practices (GAP) and pesticide residue monitoring for fresh fruits & vegetables	78,000,000	76,446,433	98	-
Registration application (filing) fee				5,973,500
Registration fee				1,569,000
Re-registration fee				776,000
Pesticide dealer license fee				725,710
Pest control service registration fee				40,000
Pest control service license renewal fee				265,000
Import license fee				835,000
Company registration fee				900,000
Agrochemical sales & technical Assistants application fee				43,750.00
Total	104,855,567	100,081,144	95	11,127,960

PROGRESS

PRODUCT REGISTRATION & IMPORT CONTROL DIVISION I & II

Registration of New Pesticides

All pesticides are required to be registered under the Control of Pesticides Act No. 33 of

1980 before importation, manufacturing & use in the country. In this regard, the following pesticides were assessed for compulsory registration requirements as set out under the Section 6 of the Control of Pesticides Act No. 33 of 1980. During the year 2018, the following pesticide products were eligible for

registration & issuing licence for a period of 3 years as per the Section 7 (1) (a) or eligible for registration & issuing a provisional licence for a period of 1 year as per the Section 7 (1) (b) of the Control of Pesticides Act No. 33 of 1980, as approved by the PeTAC.

In 2018, 14 new active ingredients & 14 already registered active ingredients of alternate formulations (commodity pesticides) or combination formulations were registered for use, resulting in the registration of 27 formulated pesticides. Of these active ingredients, 3 were hospital use disinfectants,

viz. chloroxylenol 98%, cocopropylene diamine 20% & citric acid anhydrous 50%, a pesticide category on which new guidelines were developed for registration under the Control of Pesticides Act No. 33 of 1980 of the 14 new active ingredients, 8 were agricultural-use pesticides, viz., sulfoxaflor, pymetrozine, halosulfuron-methyl, nicosulfuron, florpyrauxifen-benzyl, bentazone, propoxydim & tiafenazil and one was an mosquito larvaecide, viz. s-methoprene. The complete list of products is shown in the Table 2.1.3.3.

Table 2.1.3.3: Newly registered pesticides during 2018

Name of active ingredient, strength & formulation type	Use category/ recommendation	WHO Hazard Class
Sulfoxaflor 50% WG	Insecticide/ Paddy bug (Rice); Flea beetle & flea hopper (Leafy-vegetables); Whitefly & Aphids (Cucurbits)	III
Acetamiprid 20% SP	Insecticide/ Mealy bug (Pineapple)	II
Halosulfuron-methyl 40% SC	Herbicide/ Broadleaves & sedges (Maize)	III
Nicosulfuron 4% OD	Herbicide/ Grasses, broadleaves & sedges (Maize)	III
Diuron 80% WP	Herbicide/ Grasses, broadleaves & sedges (Pineapple)	IV
Azoxystrobin 25% SC	Fungicide/Late blight (Potato)	III
Pymetrozine 50% WG	Insecticide/Brown plant hopper (Rice), Aphids, thrips & whiteflies (Chilli, Cucumber, leafy-Vegetables, Potato, Tomato)	IV
Deltamethrin 318 mg/m ²	Insecticide/Storage pests (Rice)	-
Florpyrauxifen-benzyl 2.5% EC	Herbicide/ Grasses, broadleaves & sedges (Rice)	IV
Bentazone 48% SL	Herbicide/ Grasses, broadleaves & sedges (Rice)	III
Cyhalofop-butyl + Pyribenzoxim 8.5% EC	Herbicide/ Grasses, broadleaves & sedges (Rice)	III
Azoxystrobin 12% + Tebuconazole 20% SC	Fungicide/Downy mildew (Luffa), Late blight (Tomato)	III
Pyrazosulfuron-ethyl 0.75% + Pretilachlor 30% DF	Herbicide/ Grasses, broadleaves & sedges (Rice)	III
Propanil 60% + MCPA 7.5% DF	Herbicide/ Grasses, broadleaves & sedges (Rice)	III
Dimefluthrin 5% EC	Insecticide/ Mosquito coil	IV

Name of active ingredient, strength & formulation type	Use category/ recommendation	WHO Hazard Class
Glyphosate 36% SL	Herbicide/ Herbicide/ Non-crop lands (Tea & Rubber only)	III
Profoxydim 7.5% EC	Herbicide/ Grasses (Rice)	IV
Aluminium phosphide 56% GE	Fumigant/ Control red flour beetle, Red grain beetle, Angoumais grain moth, Grain weevil, Ground nut borer, Flour mite, Tobacco moth, Cigarette beetle (Restricted)	I
Chloroxyleneol 98% TC	Disinfectant/ General biocide	III
Cocopropylene diamine 20% SL	Disinfectant for the use in hospitals for disinfection of surgical instruments (Restricted)	-
Citric acid anhydrous 50% AL	Disinfectant/ Cleaning, decalcification & heat disinfection of haemodialysis machines (Restricted)	-
s-Methoprene 5% CS	Insecticide/ Mosquito larva	III
Tiafenacil 5% ME	Herbicide/Non-crop lands	III
Pymetrozine 50% WG	Insecticide/ Whiteflies, thrips and aphids (Tomato), whiteflies, aphids (Cucurbits)	III
Azadirachtin 0.75% EC	Insecticide/ Leaf eating caterpillars (Cabbage)	-
Glufosinate ammonium 15% SL	Herbicide/Non-crop lands	III

Re-registration of pesticides

The registration of a product is valid only for 3 years after which the product status is reassessed for new scientific and regulatory standards. Under this scheme, aspects of product safety, quality and the performance are assessed by experimental & documentary evidences; all submissions are accepted only from most authoritative sources (e.g. original or authenticated documents on manufacturing country and other country registrations, authenticity of products & source details & toxicological & product quality reports from Good Laboratory Practices, GLP complied & ISO/IEC 17025 accredited laboratories). Currently, there are over 600 commercial pesticide products are handled in general (mostly agricultural pesticides), domestic and restricted categories. The number of re-

registration applications can vary depending on the re-registration cycle. The registration & re-registration activities are done in consolidation by respective divisions (i.e. Product Registration & Import Control Division I on agricultural pesticides, and Product Registration & Import Control Division II on domestic, public health & industrial pesticides) & the progress achieved during the year is given below.

Product Registration & Import Control Division I (Agricultural pesticides)

- Acceptance of applications for new registrations–83
- Acceptance of applications for re-registration–125
- Preparation of new registration certificates–96

- Preparation of re-registration certificates–228

Product Registration & Import Control Division II (Domestic, Public health & Industrial pesticides)

- Acceptance of applications for new registrations–11
- Acceptance of applications for re-registration–66
- Preparation of new registration certificates–18
- Preparation of re-registration certificates–60

During the year, 402 products were eligible for registration & re-registration and issuing licences for a period of 3 years as per the Section 7 of the Control of Pesticides Act No. 33 of 1980.

Registration of Pesticide Establishments

All pesticide companies are required to be registered with the Registrar of Pesticides with the intention that all functions associated with pesticide business are critically evaluated as competent in a manner to safeguard human health, environment and wildlife resources as pursuant to the Sections 5 (a) and 5 (b) of the Government Gazette Extraordinary No.1870/63 dated 10.07.2014. In compliance to the earlier Circulars issued dated 17.07.2014, 23.02.2016 & 25.10.2016 & the Circular No. RP/2017-02 on Company Authorization on Quality, Health and Environmental Safety dated 30.01.2017, all establishment were given a final date of compliance as 31.03.2018 as decided at the PeTAC at its 89th meeting held on 29.12.2017. During the year 2018, 4 establishments were screened for the required compliance.

Company Registration: Exemption from Field Evaluation & Applicable Fees

The PeTAC granted exemption of field evaluation & applicable fee requirements for three importers handling three products (belonging to the category of industrial/public health pesticides) as per the provisions under Section 5 (a) of the Control of Pesticides Act.

Screening of labels and advertising materials

Label approval procedure enabling dissemination of proper information to the end user has been a recurrent activity. The Section 8 of the Control of Pesticides Act No. 33 of 1980 authorizes the label approval process, while the Section 18 authorizes that any written, printed or graphic material relating to & accompanying a pesticide when stored, transported, distributed, sold, offered for sale or delivered within the country shall include the substance of the particulars referred in the approved label.

The following activity-specific targets were achieved during the year 2018.

1. Screening of Agriculture, Domestic, Public Health & Industrial Pesticides labels for approval- 915.
2. Screening of Agriculture, Domestic, Public Health & Industrial Pesticides promotional materials for approval- 162.

REGULATION OF BULK SALE OF PESTICIDES FOR END USERS

Pesticide packaging is a regulated subject under the Section 12 of the Control of Pesticides Act No. 33 of 1980. Any authorized container must carry an approved label as per

the requirement under the Section 8 of the Act. In this regard, the Act requires that the user identify the material in the container in the event of use, an accident or spill. The user/applicator is also responsible for meeting any other labeling requirements that may be required by the Act.

In this regard, the Circular No. RP/2018/10 was issued in October 2018 in order to prevent unauthorized issue of bulk packs. All bulk packs carry the approved label in all three languages at the point of sale, transport & use. In this case, the issues of bulk packs are allowed if the individual pack bear the full label, that may be offered to specialized customers provided that the amount contained in the pack is fully utilized to control the pest for which it is intended; therefore, no decanting of pesticides can be done.

On the other hand, sale of fully-labeled bulk volumes for individual customers other than for registered dealers/sub-dealers/retailers/authorized users could be a violation of Section 8, 16 & 19, unless prior approval has been obtained from the Registrar of Pesticides with sufficient justification that necessary pre-requisites for use & storage of bulk pesticides are followed and/or fulfilled; for example, use/application (as recommended), store in approved manner and approved conditions, respectively.

Pesticide Technical & Advisory Committee and its conductance

The Pesticide Technical & Advisory Committee is mandated to hold six meetings per year. Accordingly, six Committee meetings (90th through 95th) were held & significant decisions taken on regulation of pesticides are stated elsewhere in this report.

Review of registration of bio-pesticides

Under the authority & advice by the PeTAC, three expert reviews were conducted to study and propose the procedures regarding exemption and/or registration of bio-pesticides. The Committee discussed the draft report on “*Registration Exemption of Organic Pesticides*”. Twenty two locally-manufactured bio-pesticide preparations were evaluated during the year 2018. An interim proposal to exempt locally-manufactured bio-pesticides with distinctive data requirements have been presented to the 95th PeTAC on 27.12.2018. Meanwhile, an outstanding decision was taken for exemption of diatomaceous earth (kieselguhr) from registration on the basis of safety and potential market for the control of grain pests and cockroaches. The ROP facilitated the work of sample dispatch & commercialization of diatomaceous earth as a special recommendation for Fall Armyworm (*Spodoptera frugiperda*) management during Task Force discussions in September-December 2018. Further, technical contributions were made by the ROP for selection & prioritizing of insecticides, based on the mode-of-actions.

Review of Pesticide Recommendation Manual

On necessary consultation of subject-disciplined scientists of the DOA & Commodity research institutes (viz. CRI, TRI, RRI, SRI etc.), a national pesticide recommendation manual was drafted. The relevant entries are currently being reviewed by a special sub-committee appointed by the DGA & its 2nd review sitting was held on 28.09.2018. The ROP coordinated the work of

sub-committee to develop the format & collecting data for consideration by the scientific review panel.

Technical sub-committees on different product categories

Pre-evaluation of pesticides is a critical step towards sustenance of safe & efficient pesticide management in Sri Lanka. The technical sub-committees on different product categories viz. agricultural, public health and industrial pesticides serve as the preliminary screening and approval mechanism for candidate pesticides. The sub-committees (subject-discipline) have been established under the authority provided by section 5(1) b of the Control of Pesticides Act No. 33 of 1980 (as amended by the Acts of No. 06 of 1994 & No. 31 of 2011).

During the year 2018, three meetings of Agro pesticide sub-committee (28th through 30th) were held & 111 applications were screened on candidate pesticides including 26 fungicides, 39 herbicides & 46 insecticides.

Two meetings (17th–18th) of the Public Health Pesticides Sub-committee were held during the year 2018. 27 applications were screened on candidate pesticides under this category.

Review on Glyphosate

As a result of the decision taken by the Cabinet of Ministers (No. 18/0925/801/004 dated 08.05.2018), the PeTAC granted permission for registration of Glyphosate 36% SL without Polyoxyethylene amine (POEA) surfactant in their formulations in order to supply glyphosate requirement to tea and rubber plantation sector through Ceylon Petroleum Corporation (CEYPETCO). A comprehensive scientific review was conducted by the ROP in

compliance to the recommendations by the Cabinet Memorandum and presented to the PeTAC on 20.06.2018 titled “*Glyphosate Review Based on Surfactants*”. Based on the above report, the following three (3) basic formulations were approved for continued registration by the PeTAC at its 92nd meeting held on 20.06.2018.

1. M/s Hextar (Pvt.) Ltd. -Based on Alkylpolyglycoside
2. M/s Farm Chemicals (Pvt.) Ltd. - Based on N-dodecyl-n,n-dimethylglycine (Geronol®)
3. M/s Asiatic Industries (Pvt.) Ltd.- Based on Cocoamidopropyl betaine (30%)

Amendment of re-registration guidelines

Following administrative rules were incorporated into the guideline on re-registration of pesticides:

Rule 1: The License may be renewed upon an application being submitted on the behalf in the prescribed form of request, three months prior to the lapse of the terms of the license

Rule 2: If the registration of the product is lapsed, afresh application for registration should be submitted with necessary fees.

New Guidelines for Supplemental Pesticides Registrants

The provisions incorporated under the Control of Pesticides Act No. 33 of 1980 to register commodity pesticides are defined in two categories: viz. (1) Registration of the original products for indenting purposes, while leaving the entire importation & marketing operations for the indented registrant, and (2) Registration of the original products for own importation & marketing, while offering an extended consent

for supplemental registration for importation & marketing by the supplementary registrant. The Circular No. RP/2018/Sup-REG/01 was issued in September 2018, declaring strict guidelines for adoption by the pesticide industry in order to maintain product authenticity & data sharing.

New guideline on registration of disinfectants, preservatives & biocides (anti-microbials)

In compliance to the PeTAC decision at the 90th meeting held on 27.04.2018, all disinfectants, anti-microbial, antiseptics, preservatives & surface sterilizing agents for household & hospital use were declared as controlled substances under the above Act & accordingly registration guidelines were prepared & disseminated in May 2018. In response to a complaint by M/s B Braun & Company (Germany), a meeting was held at the Ministry of Development Strategies & International Trade on duplicate registration of hospital disinfectants under the NATIONAL MEDICINES REGULATORY AUTHORITY ACT, No. 5 OF 2015 & the CONTROL OF PESTICIDES ACT NO. 33 OF 1980 on 10.10.2018.

The ROP had discussions with the National Medicines Authority (NMRA) to decide on clear mechanism for regulation of hospital disinfectants. Further discussion are impending as per the advice of the PeTAC at its 95th meeting held on 27.12.2018 to resolve the issue on working mandates & further proceedings. In this regard, further observations were invited from the NMRA, in particular nominating a suitable entity for taking efficacy & compatibility

recommendations on hospital use disinfectants in December 2018.

De-registration of MCPA 40% SL

By considering field complaints & observations on poor efficacy of MCPA herbicide in rice, the PeTAC approved cancellation of registration of MCPA 40% by October 2018. Since, the situation is alarmingly affected in terms of poor field performance of MCPA in rice fields; this has been concurrently claimed by farmers & researchers. The Committee discussed the risk of having two strengths of formulations on similar applications which can obscure correct use of recommended applications by farmers. The ROP concurrently assessed a limited number of field samples of MCPA products available at retail outlets & revealed significant deviation of MCPA active ingredient below/above the tolerance levels declared by the FAO. For example, MCPA 60% (w/v) should not be below 58% (w/v) while MCPA 40% (w/v) should not be below 38.4% (w/v). The test reports were generated by M/s Bureau Veritas (an ISO 17025 accredited laboratory). A maximum of 6 months was granted for marketing of the available stocks on MCPA 40% SL. However, pesticides companies are allowed to market MCPA 60% formulations.

Revival of Glufosinate Ammonium – Contact Herbicide

Herbicides represent the major share among other pesticide categories in Sri Lanka (viz. 48% of total volume imported as of December 2017), and the relative contribution of herbicides for enhancing the agricultural inputs, man & machinery efficiency on agriculture & its productivity (including

plantation agriculture) has been well known. In this regard, the 93rd PeTAC held on 31.08.2018 decided to revive on Glufosinate ammonium-based herbicides for general weed control in all crop sectors. The Committee viewed that continuous dependence on single/narrow spectrum of herbicides for total weeds management in the country would be counterproductive on the aspects of development of weed resistance. The above decision has been further strengthened by the Cabinet Memorandum No. 18/0925/801/004 dated 08.05.2018, which highlighted aspects of finding solutions for alternative weed control strategies for Glyphosate, for which the Committee decided that Glufosinate Ammonium would be an ideal solution.

Under the above circumstances, following decisions were approved by the Committee:

1. Revival of Lifeline® (containing 28% w/v Glufosinate ammonium) falling under the WHO Hazard Class III.
2. Discontinuation of Basta® (containing 15% w/v Glufosinate ammonium) due to WHO Hazard Class II.

New ruling on Lifeline® Glufosinate ammonium 280 g/l SL

During the recently held 95th Pesticides Technical & Advisory Committee meeting on 27.12.2018, the representative from the Tea Research Institute of Sri Lanka brought to the attention that some plantation companies & growers are using Lifeline® Glufosinate ammonium 280 g/l SL in tea plantations, which can create serious repercussions in the international tea business due to unregulated residue levels. As a precautionary measure, on the advice of the PeTAC, the ROP took

immediate action to amend the label with necessary instructions.

Harmonization of recommendations among competitor products

The ROP's proposed actions on product harmonization on recommendations have been based on the scientific consensus & agreement by the PeTAC that a higher rate of application can be inhibitory/ counterproductive for competitor products on similar crop/pest combinations. During the discussions had in the PeTAC, the Committee expressed concerns on recommending higher doses on similar applications. It has been a recurrent issue on recommending incompatible rates during field trials on similar product categories. For example, Bispyribac-sodium 10% SC Vs 20% WP; Buprofezin 10% WP Vs Buprofezin 25% SC Vs, Buprofezin 40% SC; Cyhalofop-butyl 10% EC Vs Cyhalofop-butyl 20% EC, etc. Recent reviews on sulfonyl urea/ALS inhibitor herbicides registered in Sri Lanka revealed significant mis-matches of recommended doses of Bispyribac-sodium 10% SC Vs 20% WP. The ROP continues to work with subject-disciplined scientists & product registrants to improve & to harmonize the situation for the sake of farming communities.

Loyant® Herbicide (Florpyrauxifen-benzyl 2.5% EC) Field Complaint

After noting & hearing extensive field complaints on the above herbicide, the ROP on the advice of the DGA, requested the registrant, M/s Crop Guard (Pvt.) Ltd. on 21.12.2018 for immediate recall all stocks of Loyant® Herbicide (Florpyrauxifen-benzyl 2.5% EC) available in the market until such time an acceptable field implementation

package is introduced to the farmer. Necessary farmer advisories were proposed & will be distributed before the next launch of the product.

New decision on Profenophos 50% EC

Consequent to the concerns raised by the Crop Life, Sri Lanka, the PeTAC at its 91st meeting held on 27.04.2018, arrived at following revised decisions on restrictions on Profenophos 50% EC that was originally made (89th meeting of the PeTAC held on 29.12.2017), for implementation with immediate effect.

i. The annual quota of Profenophos 50% EC was re-adjusted to 75% of the import averages of 203 kiloliters of Profenophos 50% EC for the last 6 consecutive years.

ii. Granted permission to include following revised recommendations on Profenophos 50% EC product labels.

- Gall fly – Cucurbits;
- Leaf curl complex caused by whiteflies, aphids & thrips – Chilli; and
- Mealy bug (plant dipping treatment) – Pineapple

Review of Authorized Co-formulants (Adjuvants) in Pesticides

Based on the evidence of possible occupational risk & international status (e.g. USEPA & EU) of use of Xylene in plant protection products, PeTAC decided to de-register all pesticide formulations containing Xylene as a co-formulant (solvent). As a result of the above decision, pesticide formulations containing Xylene as a co-formulant; i.e. Propanil 23% + Oxadiazon 8% EC (candidate pesticide) & two Abamectin 1.8% EC formulations (registered) were de-registered with a grace period of one-

year for those pesticides containing Xylene, after which these formulations will not be allowed to market in Sri Lanka. The alternate products proposed in place of the Xylene containing pesticides are required to be assessed through the normal procedure of bio-efficacy testing etc. for registration.

Scheduling Pesticide Registration Evaluation

In order to be efficient & time-bound delivery of services for the assessment of pesticide registration applications, the ROP declared a clear scheduling for evaluation of applications of pending registration as of October 2018. During this application scheduling exercise, on the advice of the PeTAC at its 94th meeting held on 10.10.2018, some applications were prioritised based on novelty of the mode-of-action for resistance management, national need and safety; accordingly, 19 applications under Agricultural/General Pesticides were scheduled; following molecules were gained top priority, viz. Glufosinate Ammonium 15% SL, Fluopyram 40% SC & Azadirachtin 1% EC. Meanwhile, 7 applications under Domestic/Public Health/Industrial Pesticides were gained top priority, viz., Phosphine 2% + CO₂ 98% GA, Esfenvalerate 5% SC & Cocopropylene diamine 20% SL.

New regulations under the Control of Pesticides Act No. 33 of 1980

During the year 2018, the following new regulations were published:

- Government *Gazette Extraordinary* No. 2079/37 dated 11.07.2018 –Revoke on ban of Glyphosate.
- Government *Gazette Extraordinary* No. 2079/38 dated 11.07.2018 –Revoke on

ban of Glyphosate for use in Districts of Kurunegala, Anuradhapura, Polonnaruwa, Moneragala & Divisional Secretariat divisions of Kandeketiya, Rideemaliyadde, Mahiyangana in Badulla District.

- Government *Gazette Extraordinary* No. 2088/57 dated 13.09.2018 –Registration of Glyphosate.
- Government *Gazette Extraordinary* No. 2091/13 dated 02.10.2018 –Restriction of Glyphosate in Tea & Rubber plantations & Ban on Polyoxyethylene amine (POEA) surfactant in Glyphosate formulations.

Proposals for new regulations

Revoke the ban of Cyromazine

The 93rd PeTAC held on 31.08.2018 decided to revoke the ban of Cyromazine, based on the latest competent scientific reviews published on the application of Cyromazine for controlling fly larvae in manure, other breeding sites in animal housing (cattle, swine, poultry facilities), and garbage collection sites under “Restricted” category, based on potential application on composting sites, where extra concerns on application should be warranted. The draft proposals for revocation of the Extraordinary Gazette No. 1854/47 dated 21.03.2014 was presented to the Legal Draftsman’s Department for necessary legal scrutiny under the Control of Pesticides Act in September 2018.

Rules of PeTAC (2nd Review)

The ROP presented a document prepared under the title “*Rules made by the Minister of Agriculture under Section 5 (2) of the Control of Pesticides Act 33 of 1980, under the approval of the Pesticide Technical &*

Advisory Committee” for discussion for the 95th meeting held on 27.12.2018 at the Ministry of Agriculture, Colombo.

Accordingly, sixteen itemized rules were formally approved by the PeTAC at its 84th meeting held on 23rd February, 2017, as pursuant to the provisions available by the Minister of Agriculture under Section 5 (2) of the Control of Pesticides Act No. 33 of 1980. The 2nd draft revision was submitted to the Legal Draftsman’s Department for necessary legal scrutiny & formal approval by the Hon. Minister of Agriculture.

Regulations made under Section 26 to read with Section 20 (Legally permitted Maximum Residue Limits & Pre-harvest Intervals)

Draft regulations were re-submitted on July 2018 to the Legal Draftsman’s Department for necessary legal scrutiny and approval on the Paragraph (4) of the above regulations, & harmonized Schedules carrying legally permitted Maximum Residue Limits & Pre-harvest Intervals on crop & pesticide active ingredients.

Registration of Glyphosate (Acid Equivalent) 36% w/v Formulations for Tea & Rubber Plantations

As you are aware, the Expert Committee Appointed by the Secretary to the President on independent opinion on the Impact of Use of Glyphosate in Sri Lanka recommended Registrar of Pesticides to ascertain whether the formulation with adjuvants are approved and used by developed countries, where there are stringent regulations. As per the above direction, a review was undertaken in order to

select the most suitable formulations of glyphosate for restricted use in tea & rubber plantation sector as per the decision taken by the Cabinet of Ministers on the Memorandum No. 18/0925/801/004 dated 08.05.2018. Based on the above review and extensive discussions, the Pesticides Technical & Advisory Committee at its 92nd meeting held on 20.06.2018 decided that all glyphosate formulations (36% w/v glyphosate acid equivalent) should be devoid of the adjuvant, polyoxyethylene amine bearing the Abstract Service Registry Number 61791-26-2.

Violation of Product License Conditions of Biflex® Bifenthrin (Reg. No. B32) and Pest Control License of RP/PCS/WP/015 under the Control of Pesticides Act No. 33 of 1980; M/s Lankem Ceylon PLC

In response to a field complaint received in November 2018 on illegal conductance by M/s Lankem Ceylon PLC & its subsidiary, Lankem Pest Management Division, the ROP primarily investigated the matter and revealed followings facts pertaining to the above situation:

1. M/s Lankem Ceylon PLC has repacked 4 L stocks of Bisect® Bifenthrin (Reg. No. K690100) a proprietary blend of UPL Limited, India, purchased from M/s CIC Holdings PLC on 16.10.2018 (500 L) & 29.10.2018 (1,000 L) into 1 L packs under Biflex® Bifenthrin (Reg. No. B32), a proprietary blend of M/s FMC Corporation, USA, and thereby violating the license conditions issued for Biflex® Bifenthrin (Reg. No. B32) dated 27.07.2016.
2. M/s Lankem Pest Management Division has used “illegally packed Biflex® Bifenthrin (Reg. No. B32)” in their structural termite

treatment projects and thereby violating the license conditions issued on RP/PCS/WP/015, and contravening the regulations as authorized by the Section 8(a) (b) & (c) of the Gazette Extraordinary 1655/7 dated 25.05.2010.

The notice of violation was referred to the FMC Corporation, USA for clarifications.

Unauthorized Bulk Sale & Poor Quality of MCPA Products Detected at Field Level

M/s Hayleys Agriculture Holdings Ltd. was issued strict warning on MCPA 60% products formulated by them by violating the Control of Pesticides Act by distributing bulk volumes for unauthorized parties during 2015-2017. In parallel to this investigation, limited analysis of field samples has revealed significant deviation of product quality in terms of the content of active ingredient (as against the FAO tolerance levels) on locally-formulated consignments. The above situation was brought to notice of the 93rd PeTAC held on 31st August 2018. Since the situation may have alarmingly affected in terms of poor field performance of MCPA in rice fields; this has been concurrently claimed by farmers & researchers. Therefore, written warnings were issued to the above party for required compliance.

Illegal Import, Distribution, Sale & Use of Veterinary Pesticides: M/s Kentovet Pharmaceutical (Pvt.) Ltd.

On complaints received from the field, M/s Kentovet Pharmaceutical (Pvt.) Ltd. was issued written warnings for engaging in importing & marketing of veterinary-use pesticides, viz. FIP-TOX® Spray, HANTOX® Spray & HANTOX® shampoo

without registration under the Control of Pesticides Act No. 33 of 1980. Awareness advisories were prepared & distributed among the public including veterinary surgeons. The Veterinary Drug Control Authority (VDCA) was also informed over the incidence since the VDCA has a primary role to play in tracking them & controlling illegal activities within the sector, as a complementary authority.

Decision on Acetochlor 84% EC Registration

The 28th Agro-pesticide Sub-committee held on 19.06.2018 requested to review on Acetochlor 84% EC on human health & environmental effects under the prevailing conditions of use. In this regard, the latest international assessment on Acetochlor under the Rotterdam Convention in operation of the Prior Informed Consent procedure for banned or severely restricted chemicals (Ref. UNEP/FAO/RC/CRC.14/3 Draft Decision Guidance Document on Acetochlor), where it has been concluded at the Chemical Review Committee meeting held on 11-14 September, 2018 to present significant human health & environmental concerns with the use of Acetochlor. The final decision on the acceptability of the above molecule will be discussed at the upcoming PeTAC meetings.

Participation in National Dengue Control Task Force

Mosquito control in public places using synthetic insecticides is a regulated subject under the Ministry of Health & Indigenous Medicine due to the managerial, environmental & public health aspects. The commonest methods of controlling mosquitoes in public places include adult mosquito control (as

residual & aerial fogging) & larvae control in breeding places. In furtherance to the Circular No. ROP/PCS/2017-1 dated 23.05.2017, all registered pest control institutions were instructed on the requirement for public interventions of fogging to control dengue epidemic, on the request and in agreement with the Ministry of Health (i.e. National Dengue Control Unit). Accordingly, advisories sent out that any private intervention in public fogging using insecticides must be conducted in consultation with & under supervision of public health officials in respective administrative areas. In contrast, mosquito control strategy using chemical larvaecides were made liberalized for some selected applications & in this effect, two Circulars viz. No. ROP/PCS/2018-2 dated 05.09.2018 & No. ROP/PCS/2018-2-1 dated 02.11.2018 were issued with required advisories for registered Pest Control Institutions. During the year 2018, few mosquito larvaecides, viz. *Bacillus thuringiensis* sub species *israelensis* Serotype H- (Mosquito Dunk®), Pyriproxyfen (Sumilarv® 0.5% w/w), Ploydimethylsiloxane (Aquatain® AMF 78%), Novaluron (Rimon® 10% EC) & s-Methoprene (Viopren® 5% CS) were registered for liberal use by the Pest Control Institutions & the public for mosquito larvae control.

Participation in International Conventions on Chemicals & their Wastes

The Stockholm Convention is a legally binding international treaty that addresses international management of chemicals with the focus on production and use of persistent organic pollutants. The ROP collaborated with the Ministry of Mahaweli Development &

Environment on matters developing Sri Lanka's status on the above Convention and submissions to the Secretariat. The ROP is the Designated National Authority (DNA) for meeting the obligations and for ongoing participation at the Stockholm Convention as it pertains to pesticides.

The Rotterdam Convention promotes information exchange and informed consent in the international trade of chemicals, with the aim of protecting human health and the environment. Sri Lanka is a party to this Convention. In collaboration with the Central Environment Authority (CEA), the ROP participated in the development of Sri Lanka's positions and submissions to the Convention. In April 2018, Mr. Halimi Mahmud, Pesticide Management Consultant of the Rotterdam Convention, Malaysia visited Sri Lanka to discuss matters in order to further strengthening of obligations on the implementation of the Rotterdam Convention (RC) for the purposes of clarity and the present status of Sri Lanka. The discussion had significantly improved the understanding on documentation in submitting Import Responses (IR) and on Final Regulatory Actions (FRA) under the Rotterdam Convention. The ROP continues to administer Sri Lanka's obligations concerning import of pesticides subject to the Convention & to assure specific objectives of pesticide & pesticide waste management in Sri Lanka under the Control of Pesticides Act No. 33 of 1980.

- On 25th January 2018, Final Regulatory Action (FRA) on Chlorpyrifos was submitted to the Secretariat of the Rotterdam Convention in order to fulfill convention obligations.

- 21 Import Responses covering a range of pesticides enlisted under the Rotterdam Convention as Severely Hazardous Pesticides/Formulations & legally banned in Sri Lanka (including Alachlor, Carbofuran, Fenthion, Azinphos-methyl) were submitted to the Secretariat of the Rotterdam Convention in order to fulfill Convention obligations.

The ROP has been serving as an expert to review & development of solutions for chemical/pesticide & chemical related issues. Sri Lanka is a party under the Rotterdam, Stockholm & Basel Conventions. Inter-agency responsibilities under the above 3 Conventions are fulfilled by official representations at the National Coordinate Committee (NCC-BRSM) under the Ministry of Mahaweli Development & Environment.

The Working Groups are formed in order to develop technical guidelines for international adoption. The Inter-sessional Working Group meetings are the main technical gatherings in order to review guidelines of chemical wastes, internationally. The ROP participated at the meeting of the Small Inter-sessional Working Group on POP Wastes, Basel & Stockholm Conventions held in Geneva, Switzerland from 4th October 2018 to 5th October 2018. Also, the ROP participated at the Round table discussion of the "*Life cycle approach for the sound management of hazardous chemicals and related wastes*", Basel Convention in Beijing, China from 27th November 2018 to 28th November 2018.

**FIELD MONITORING & LEGAL
SUPPORT DIVISION**

**The overall status of dealer licensing
& inspections**

Pesticide dealer licenses are valid for one year unless cancelled for specific reasons. Such licenses valid for one-year are renewed throughout the year depending on the date of issue & other circumstances. A fee of Rs. 550.00 is charged as a part of the regulatory requirements for issuing the annual license. Total revenue realized under this category was

Rs. 725,710.00. The number of dealer shops licensed was 1,057.

Pesticides Dealer Database

The pesticide dealer database was completed for the year 2018. The compiled list was sent for further verification by Deputy Directors of Agriculture in each district, if any. The number of registered pesticide shops reported district-wise as of December 2018 is given in the Table 2.1.3.4.

Table 2.1.3.4: District-wise number of pesticide sales shops available and the number of shops registered up to 31.12.2018.

District	# of shops available	# of shops registered for the year 2018	Progress %
Anuradhapura	57	15	30
Badulla	160	73	46
Batticaloa	59	28	47
Colombo	61	34	56
Galle	162	64	40
Gampaha	38	22	58
Hambantota	Not submitted	25	Not submitted
Jaffna	20	01	05
Kandy	107	75	75
Kegalle	71	11	15
Kalutara	Not submitted	14	Not submitted
Kurunegala	363	102	28
Moneragala	22	17	77
Matale	47	26	55
Matara	117	33	28
Mullaitivu	26	02	08
Nuwara Eliya	192	72	38
Puttalam	122	30	25
Ratnapura	135	76	56
Trincomalee	35	05	14
Vavuniya	35	26	74
Anuradhapura (I/P)	72	44	61

District	# of shops available	# of shops registered for the year 2018	Progress %
Ampara (I/P)	99	81	89
Hambantota (I/P)	41	16	39
Kandy (I/P)	57	37	65
Moneragala (I/P)	21	10	48
Polonnaruwa (I/P)	53	29	55
Mahaweli- Huruluwewa	Not submitted	01	Not submitted
Mahaweli- C	18	09	50
Mahaweli- Embilipitiya	50	44	88
Mahaweli- G	25	06	24
Mahaweli- B	Not submitted	Not submitted	Not submitted
Mahaweli- H	29	29	100
Total	2,294	1,057	46

Inspection of Pesticides Dealer Outlets

Regulation and compliance monitoring of pesticide sale & offer for sale is a delegated subject for the officers nominated as Authorized Officers under the Control of Pesticides Act No. 33 of 1980. It has been a regular practice to monitor the field compliance of pesticide sales & distribution by the Registrar of Pesticides (ROP). The key priority of the inspections was to monitor the level of compliance with the Control of Pesticides Act. In this respect, 67 compliance verification inspections on pesticide sales shops were conducted covering the districts of Puttlam, Vauniya, Killinochchi, Matale, Kurunegala (Galnewa, Bulnewa, Senapura & Ipologama), Nuwara-Eliya (Rikillagaskada); some of the instances of non-compliances include:

- i. Pesticide sale without a valid certificate (Section 21A; Regulation 1113/15 of 05.01.2000)
- ii. Non-display of sales certificate (Section 21A (5); Regulation 1113/15 of 05.01.2000)

iii. Sale & offer for sale of illegal pesticides (Section 9 & 15)

iv. Poor & hazardous pesticide storage conditions (Sections 16 & 19)

v. No trained personnel (Regulation 1716/23 of 27.07.2011)

Enforcement letters were sent to the relevant Authorized Officers to take notes on the observations & to take necessary corrective actions in order to improve the situation as a priority action for public health & environmental protection. In November 2018, the ROP circulated a “*Pesticide Sales Shop Inspection Reporting Format*” (Form: RP/AUO/General/01) among the field staff.

Registration of New Pest Control Services

The existing scheme for licensing of institutions are based on the technical capacity and infrastructure in terms of prior experience, training qualifications, availability of equipment etc. in order to conduct specialized pest control services viz., general pest control,

pre-/post-construction and structural termite control and pre- and post-quarantine fumigation using restricted and other pesticides.

The regulations made under the *Extraordinary Gazette* No. 1655/7 dated 25.05.2010 has stated to obtain prior approval from the Pesticide Technical & Advisory Committee

(Committee) before issuing licenses for qualified pest control service institutions. In this process, six pest control service institutions were approved by 95th & 96th Committees & registered as suitable to carry out pest control activities under the below mentioned categories (Table 2.1.3.5).

Table 2.1.3.5: Newly approved pest control service institutions during 2018

Company Name	Category
TJ Pest Control Services (Pvt.) Ltd.	General pest control.
Target Pest Management (Pvt.) Ltd.	General pest control & pre- and post-construction, structural pest/termite control.
Best Pest Solutions and Services.	General pest control & pre- and post-construction, structural pest/termite control.
Pest Control Unit, University of Peradeniya	General pest control & pre- and post-construction, structural pest/termite control.
DNJ Technica	General pest control & pre- and post-construction, structural pest/termite control.
Clear Pest Control & Environment Service	General pest control & pre- and post-construction, structural pest/termite control.

Record Keeping & Reporting of Information on Purchasing & Use of Restricted Pesticides

The Control of Pesticide (Pest Control Services) Regulation No. 01 of 2010 as per the *Gazette Extraordinary* No.1655/7 of 25.05.2010 requires the Registrar of Pesticides to authorize use of registered restricted pesticides [(Section 5 (d))] and to instigate mandatory record keeping [(Section 6 (a))]. Currently, the Registrar of Pesticides approves advance requests for purchasing of restricted pesticides by the institutional requests.

In order to achieve this, the ROP introduced a mandatory reporting mechanism for the institutions legally authorized for importation and sale of restricted pesticides & for the

institutions conducting pest control services to the public by purchasing & using restricted pesticides in December 2018. All records will be strictly monitored quarterly (every 3 months) from January 2019 for material balance before issuing approvals for importation & advance purchasing requests of restricted pesticides.

Sub-committee on Field Regulation & Supervising Sub-Committee

As a novel initiative, a sub-committee was proposed under the sub-section 5(1) (b) of the Control of Pesticide Act No. 33 of 1980 (as amended by the Acts of No. 06 of 1994 & No. 31 of 2011), in order to address key performance gaps in the field implementation

program & other related functions. The above proposal was formally approved by the 90th meeting of the Pesticide Technical & Advisory Committee held on 27.04.2018. The mandate of the sub-committee is to recommend the PeTAC on any or all the matters necessary for the purposes of carrying out or giving effect to the provisions of field implementation of the Act. Especially, as mandated by the Amendment Act No. 06 of 1994, every pesticide seller must be registered & issue a certificate for legal business, which is a devolved subject to AUOs.

The 1st sub-committee meeting was held on 18th December 2018 at the In-service Training Institute, Gannoruwa. The members adopted relevant draft Terms of Reference (TOR) for the proposed sub-committee & discussed future plans. It is envisaged that poor progress on field implementation by Authorized Officers (AUOs) & Officers Authorized for Conducting Investigation and Prosecutions on the aspects of pesticide management in Sri Lanka with respect to the environmental & public health safety will be alleviated by this action.

Agrochemical Sales & Technical Assistants (ASTA) Trainings

520 trainees were participated for ASTA trainings during the year 2018 (Table 2.1.3.6). The assessments are scheduled to be held in January 2019. Meanwhile, 37 Tamil medium trainees from Vavuniya District were assessed in September 2018 & 35 were competent on receiving certificates. Certificates were sent to Deputy Director of Agriculture, Vavuniya to be distributed among the trainees.

Table 2.1.3.6: District-wise training of Agrochemical Sales & Technical Assistants

District	No. of trainees
Anuradapura	50
Ampara	180
Kurunegala	40
Puttalam	30
Matara	60
Nuwara Eliya	60
Kandy	60
Gampaha	40
Total	520

Train-of-Trainers of ASTA

On June 21 & 22, a Train-of-Trainer program was conducted for 31 officers of the Mahaweli Authority of Sri Lanka at the In-service Training Institute, Gannoruwa in order to facilitate regional ASTA trainings within the Mahaweli System.

Nominating New Authorized Officers & Officers to Institute Proceedings & Legal Conduct (Prosecution Officers)

In order to strengthen the field implementation of the Control of Pesticides Act, 11 new Officers (4 from the Department of Agriculture & 7 from the Mahaweli Authority of Sri Lanka) were proposed to the Director General of Agriculture to nominate as Authorized officers. Meanwhile, 55 new Officers were nominated as Prosecution Officers under the authority of the Section 24 (A) (1); Four from the DOA & 51 from the Ministry of Health (Food & Drug Inspectors). Two day training program was held to train the Food & Drug Inspectors on 9th & 10th of August 2018 at the In-service Training Institute, Gannoruwa.

Challenges & issues related to the illegal import of Glyphosate

Illegal smuggling & import (under false declarations) of Glyphosate has been a recurrent challenge over the years since its complete ban in October 2015 (*Gazette Extraordinary* No. 1937/35 dated 23.10.2015) through reversal of ban in July 2018 (*Gazette Extraordinary* No. 2079/37 dated 11.07.2018) & under severe restrictions afterwards for tea & rubber plantations (*Gazette Extraordinary* No. 2091/13 dated 02.10.2018).

The year 2018 also marked a year of significant accomplishment in taking legal actions against perpetrators of the Act by illegal trafficking & smuggling of Glyphosate; five court cases were conducted against illegal Glyphosate (Figure 1). The following highlights are drawn from the investigations conducted, which summarizes enforcement activities conducted by the ROP alone or in partnership with the STF (Settikulam Camp) in 2018 (Table 4). The ROP created a momentum to seek strong collaboration with the Special Task Force (STF) for detecting cases of illegal pesticides, filing up court cases & conducting investigations. For example, the Settikulam Camp of the STF has been conducted eight court cases on illegal Glyphosate during 05.12.2017 through 03.12.2018 (Table 2.1.3.7).

As a result of completed prosecutions at the court of law, a sum of Rs. 300,000.00 was fined on four accused by December 2018.

Table 2.1.3.7: Investigations & enforcement activities on illegal acts

No.	Date	Place
01	05.12.2017	Ikirigollewa, Nazeer Trading
02	13.05.2018	Thirappane, Alisthanaya Krushi Sevaya
03	26.05.2018	Elapaththuwa, Inoka Stores
04	13.06.2018	Kekirawa, Vijayas Krushi Sevaya
05	13.06.2018	Kekirawa, Lucky Krushi Sevaya
06	25.06.2018	Medawachchiya, Lanka Traders
07	24.07.2018	Thabuththegama, Samarakoon Krushi Sevaya
08	17.10.2018	Nochchiyagama, Oslan Krushi Viyaparaya
09	04.05.2018	Thabuththegama, Bandara Weledasela
10	30.08.2018	Hambanthota, D.P.M. Munasinghe & G. Wimalasiri
11	30.08.2018	Senapura, Thushara Sanjeeva
12	28.11.2018	Dambulla, I.S.S.M. Rizam
13	05.12.2018	Dambulla, Ganga Traders

Public Notices were sent for wider distribution on cases of illegal pesticides through mass media & public officials to be vigilant and aware of the cases of breach of the Law of the country in particular the Control of Pesticides

Act No. 33 of 1980. Some examples of illegal pesticides reported from the field are Suntaf Plus (Hexaconazole 5% SC); Gramosun (Paraquat dichloride 24% SL); Luphos 36 (Monocrotophos 36% SL); MAC SL (Tricentanol 40% SL); MAC SL (Triclopyr 40% SL) (Figure 2).

Requesting Tax Relief for Pesticide Applicator Personal Protective Equipments

It is a pre-requisite by regulatory authorities & the pesticide industry to cooperate in further reducing risks by promoting the use of proper & affordable PPEs. Alternatively, there are regulations published under the Control of Pesticides Act No. 33 of 1980 to promote the farmers for using PPEs by the Government *Gazette Extraordinary* No.1113/5 dated 05.01.2000 *Vide* Regulation 6 (b). In this connection, under the guidance of the Department of Fiscal Policy (Ministry of Finance and Mass Media) on 21.09.2018, a draft Cabinet Memorandum was prepared & presented in order to request 30% CESS tax relief on Personal Protective Equipments (PPEs) in November 2018.

COMPLIANCE MONITORING & SAFETY DIVISION

Monitoring of pesticides quality & import approvals

Importation of pesticides into the country is subjected to regulation by the Section 17 of the Control of Pesticides Act No. 33 of 1980. The Registrar of Pesticides issues import approvals for pesticides upon receipt of requests from the companies on consignment basis, and the period of validity would be limited to 3 months

from the date of its issue. During the year 2018, 835 import approvals were processed through prior verification on product origin & quality control.

Laboratory Activities

The ROP laboratory has been functioning in compliance to the ISO/IEC 17025: 2005 accreditation certification since 11/05/2017 to conduct efficient, science-based sample analyses of pesticides for compliance verification, and enforcement within the Control of Pesticides Act. The ROP laboratory participated in compliance verification activities collaborates on international proficiency testing programs, viz. FAPAS Food Chemistry Proficiency Test 19244, Laboratory No. 47-pesticide residue in potato puree-in February 2018, achieving at 108 ppb over reference Tebuconazole assigned value at 105 ppb (Z score 0.1). In addition, FAPAS Proficiency Test No. 07301, on *Metallic Contaminants in Milk Powder* during January-February 2018 was in compliance to reference values on Arsenic (As), Cadmium (Cd), Mercury (Hg) & Lead (Pb).

In 2018, 742 samples were analyzed by the ROP laboratory in support of compliance monitoring & issued 261 market clearance certificates on pesticide formulations covering 22 active ingredients. Meanwhile, 165 Quality Certificates were checked against FAO specifications. In addition, 90 heavy metal impurity reports & 16 extended shelf-life reports on pesticide formulations were also assessed. Among compliance verification for legal actions, 19 confiscated samples of Glyphosate were analyzed & 11 reports were issued in support on court proceedings. During 2018, the analytical scope of pesticide

impurities in water, fruits & vegetables were extended from 4 up to 14, which include Diazinon, Chlorpyrifos, Deltamethrin, Cadusaphos, Fipronil, Prothiophos, Oxyflourfen, Tebuconazole, Phenthoate, Pretilachlor, Pirimiphos-methyl, Bifenthrin, Profenophos & Chlorothalonil.

In December 2018, Rs. 78 million worth Liquid Chromatography in tandem with Mass Spectrophotometer (LC-MS/MS) and auxiliary chemicals were acquired in order to strengthen & implementation of programs on Good Agricultural Practices (GAP) & pesticide residue monitoring on fresh fruits & vegetables.

The ROP laboratory staff participated & supported laboratory assessments of M/s SGS Lanka (Pvt.) Ltd. and SATREP Laboratory, Faculty of Engineering, University of Peradeniya. During February through November, 2018, 09 instrument-related trainings, laboratory support on auditing & inspection were provided by the Sri Lanka Accreditation Board (SLAB), Industrial Technology Institute (ITI), M/s Analytical Instruments (Pvt.) Ltd. & M/s Techno Instruments (Pvt.) Ltd. As a result of this qualifying status of the ROP laboratory, several student trainings were also conducted; for example, 20 university students were trained on Gas Chromatography (GC) & Gas Chromatography-Mass Spectrophotometer (GC/MS) instrumentation on 21.12.2018.

FORMULATION ANALYSIS ON PRODUCT QUALITY COMPLIANCE

The ROP issues import approvals for pesticides upon receipt of requests from the companies on consignment basis. Strict

monitoring of consignments is undertaken to make sure newly formulated consignments are shipped not exceeding 3 months from the date of formulation/manufacture. This process ensures that products are imported from the correct source of supply conforming to the required quality standards and prevents importing older stocks. Pesticide samples are cross-screened as a mean of compliance verification for the FAO quality standards before issuing of packing clearance on consignment basis. Under this monitoring program, 742 samples were analyzed during the year 2018.

- As a routine practice, 235 packing & market clearances were issued during the year after quality analysis of samples on consignment basis. The scope of analysis was subjected to the current capacity stated in this report, elsewhere.

QUALITY ASSURANCE OF MCPA & DIAZINON FORMULATIONS

The ROP is committed to perform quality assurance of pesticides as per the FAO Specifications for Plant Protection Products. Recent random quality assessments of pesticides have found that some locally-formulated MCPA (60% SL) & Diazinon (5% GR & 50% EC) consignments are significantly sub-standard in terms of active ingredient content as per the tolerance levels established by FAO specifications; of 16 samples of MCPA 60% SL, 3 samples were non-authorized & out of 13 samples of Diazinon 50% EC, 5 samples were non-authorized. Meanwhile, 7 samples out of 24 samples of Diazinon 5% GR were also non-authorized. Non-compliance letters were issued for all

non-compliant consignments & requested to dispose of the products.

In this regard, further measures were taken by the Circular No. RP/2018/11-2 to introduce strict quality control systems for formulation facilities on locally-formulated consignments in order to undertake necessary adjustments and/or processes that are cross-checked by analytical facilities certified under ISO/IEC 17025 accredited systems as may be required & verified through pre-market clearance.

QUALITY ASSURANCE OF CHLOROTHALONIL/ MANCOZEB/ PROPINEB PRODUCTS

The ROP is committed to perform quality assurance of pesticides by toxicologically relevant impurities as per the annual performance targets. The following pesticide products were identified for quality assurance for major impurities as per the FAO specifications by an accredited laboratory (Table 2.1.3.8).

Table 2.1.3.8: Quality assurance on toxicologically –significant impurities

Pesticide product/ No. of samples	Impurity/Status
Chlorothalonil 50% SC (5)	Hexachlorobenzene (HCB) Comply (<20 ppm)
	Decachlorobiphenyl (DCB) Comply (<20 ppm)
Mancozeb 80% WP (5)	Ethylene thiourea (ETU) (Comply <0.03%)
	Water (Comply (<2%))
Propineb 70% WP (1)	Propylene thiourea (PTU) Comply <0.03%)

Obsolete Pesticide Disposal

The pesticide storage facility at Field Crop Research and Development Institute (FCRDI), Maha-illuppallama has been serving as a secure option for management of obsolete pesticides accumulated in regional centers of the Department of Agriculture & for storing of confiscated pesticide stocks from legal process. The above facility is operated by close scrutiny of the ROP & it has been licensed under the Scheduled Waste Management (License Number: 427/ A09/ WM/ CEA/ 2018 dated 07.03.2018) issued by the Central Environmental Authority.

In accordance with required pre-requisites for safe disposal of obsolete pesticides, steps were taken to dispose of the accumulated stock at M/s INSEE Eco Cycle before 15 December, 2018. Accordingly, M/s INSEE Eco Cycle completed the proposed Phase 1 pre-assessment and Phase 2 pre-processing steps on the accumulated stock of 1,232.55 kg of solid pesticides & 577.275 l of liquid pesticides, which is ready to be co-processed by incineration during the Phase 3 in early 2019.

National pesticide residue monitoring program

In total, Rs. 9.5 million was utilized for strengthening the National Monitoring Program for the Pesticide Residue analysis for Fresh Fruits and Vegetables in Sri Lanka including Exported & Imported Consignments.

In compliance with the current scope of accreditation (ISO/IEC 17025: 2005), 165 fresh samples of agricultural products comprising 30 types of vegetables were tested for most used pesticides, viz. Diazinon, Chlorpyrifos, Fipronil, Prothiophos,

Oxyfluorfen & Tebuconazole. Samples were collected at the National Plant Quarantine Station of Bandaranayake International Airport (Katunayake) from export consignments intended to the EU market before export processing.

The limited results showed that in overall 23 detections out of 990 tests (2.3%) in excess of minimum detection limits (MDL) of 0.04 ppm; in other words, the tests have found no pesticide residues in 97.7% of exported consignments. The most residue detected samples were Gotukola (10 out of 21 samples) & Onion flower (4 out of 13 samples). The present results are not conclusive to determine the rate of residue violation as at the European Union (EU), where residue violation has been set at 0.01 ppm (default). However, only 6 samples were exceeding the residue in excess of 0.1 ppm while another sample was exceeding the residue in excess of 1 ppm, i.e. Tebuconazole was detected @ 1.468 ppm in Gotukola.

The overall pesticide residue detection levels are shown in the Table 2.1.3.9 below.

Table 2.1.3.9: Pesticide residue detection above minimum detection limits (0.04 ppm) on agricultural products (fresh vegetables including leafy-vegetables) intended for the EU market

Sample type	Type of Pesticide	Level (ppm)
Gotukola	Fipronil	0.056
Gotukola	Oxyfluorfen	0.048
Gotukola	Tebuconazole	0.130
Winged bean	Oxyfluorfen	0.048
Gotukola	Tebuconazole	1.468
Gotukola	Tebuconazole	0.068
Gotukola	Tebuconazole	0.060

Sample type	Type of Pesticide	Level (ppm)
Gotukola	Tebuconazole	0.388
Chilli	Tebuconazole	0.066
Gotukola	Tebuconazole	0.144
Onion flower	Diazinon	0.102
Onion flower	Oxyfluorfen	0.048
Gotukola	Tebuconazole	0.264
Gotukola	Chlorpyrifos	0.064
Gotukola	Oxyfluorfen	0.126
Winged bean	Oxyfluorfen	0.048
Okra	Oxyfluorfen	0.048
Gotukola	Oxyfluorfen	0.048
Gotukola	Tebuconazole	0.060
Cucumber	Oxyfluorfen	0.048
Onion flower	Oxyfluorfen	0.050
Onion flower	Oxyfluorfen	0.048

At this time, it cannot be ruled out that the detected residue are of health concern; however, there are indications that some crops are of concern on possible export rejection in the EU market, e.g. minimum residue violations at or above 0.04 ppm were Gotukola, Onion flower, Cucumber, Chilli Okra & Winged beans. Further, 148 samples were collected from four layers in the field, viz. local market samples from Dedicated Economic Centers (DECs), farms and pack houses specially those who produce their products to the export market/local market (e.g. leafy vegetables), samples to be exported to the EU market. Further characterization of pesticide residue levels (against the EU default 0.01 ppm MRLs) are impending upon the results of above samples tested at the Industrial Technology Institute (ITI) will be made available in early 2019.

Foreign Trainings

- Ms. P.W.Y. Lakshani - Advance Application Training for Counterfeits and Illegal Pesticides Analysis by FTIR Machine, at Thermo Fisher Scientific India (Pvt.) Ltd., Mumbai, India – 19-23 March, 2018.
- Mr. D.G.G.S. Dharmarathne - Advance Application Training for Counterfeits and Illegal Pesticides Analysis by FTIR Machine, at Thermo Fisher Scientific India (Pvt.) Ltd., Mumbai, India – 19-23 March, 2018.
- Ms. P.W.Y. Lakshani - Seminar on the Chemical Weapon Convention and Chemical Safety and Security Management for Member States in the Asia Region Siem Reap, Cambodia 7-9 May, 2018.
- Ms. P.W.Y. Lakshani - Analytical skill development program by OPCW-Hyderabad, India 03-14 December, 2018.
- Ms. U.S.K. Abeysinghe - Training on bio-pesticides & pesticide residue analysis,

Bangladesh Agriculture Research Institute, Gazipur, Bangladesh. 7-11 October 2018.

Awards

Following awards were received at the Annual Symposium of the Department of Agriculture, 2018.

- The best scientific paper award to Ms. C. Magamage for the paper on “Analysis of pesticide residues in fruits & vegetables exported to the European Union”.
- The best presenter award to Ms. P.W.Y. Lakshani for the paper on “Pesticide residues in *Alternanthera sessilis* and *Centella asiatica* grown in selected locations in Sri Lanka”.
- The best presenter award to Ms. C. Magamage for the paper on “Potentially toxic trace metals in Mahaweli river in Sri Lanka during the dry season”.

STAFF LIST

Designation	No. Approved	No. Existing
Registrar of Pesticides	01	01
Principal Scientist (Toxicology)	-	01
Deputy Registrar of Pesticides	01	-
Assistant Director of Agriculture (Research)	08	03
Assistant Director of Agriculture (Development)	02	01
Assistant Director of Agriculture (Research) - Contract	-	01
Research Assistant (Special Grade)	01	-
Agriculture Monitoring Officer	02	01
Program Assistant (Agriculture)	02	02
Development Officer	04	04
Agriculture Instructor	06	07
Research Assistant	07	09

Designation	No. Approved	No. Existing
Research Assistant	07	09
Public Management Assistant	05	05
Technological Assistant	03	01
Driver	03	03
Store man	01	01
Research Sub Assistant	01	-
Office Employee	01	-
Watcher	02	02
Laborer	06	05
Laborer (Contract)	02	02
Total	58	49