

SUGARCANE RESEARCH INSTITUTE

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Hon. Minister of Plantation Industries,
Ministry of Plantation Industries,
C wing, 11th Floor, Sethsiripaya 2nd Stage,
Battaramulla.

Hon. Minister,

**Annual Report of the Sugarcane Research Institute for the Period from
01.01.2017 to 31.12.2017**

I am submitting herewith the Annual Report of the Sugarcane Research Institute for the period from 01.01.2017 to 31.12.2017, including its progress, financial statements and Auditor General's report.

Yours faithfully,

SUGARCANE RESEARCH INSTITUTE

K. A. F. Karunasena

K A F Karunasena
Chairman
Board of Governors
30th May 2018

VISION

To be the centre of excellence in sugarcane technologies and the leader in sugarcane industry development in Sri Lanka

MISSION

Development and transfer of appropriate sugarcane technologies to enhance competitiveness of, and to contribute to expand and develop the local sugarcane industry in a sustainable manner

BOARD OF GOVERNORS

Mr. K A F Karunasena	- Appointed member (Chairman)
Mr. N V T A Weragoda	- Appointed member
Prof. A L T Perera	- Appointed member
Mr. T V D Dharmasiri	- Appointed member
Ms. J P ANiroshani	- Nominated member of the Ministry of Plantation Industries (from 14.02.2017)
Ms. M A M Arifa	- Nominated member of the Ministry of Finance (from 03 .02.2017)
Mr. M R V R Meepura	- Nominated member of the Ministry of Finance (from 18.08.2017)
Dr. A P Keerthipala	- <i>Ex-Officio</i> member

CHAIRMAN'S REVIEW

For the year under review, the Sugarcane Research Institute allocated Rs 446 million; Rs 325 million from the consolidated fund and Rs 121 million from the institute-generated funds, for its recurrent expenditures and capital development activities. The total allocation for recurrent expenditure was Rs 280 million; Rs 255 allocated from the consolidated fund and Rs 25 million from the institute-generated funds. For the capital expenditure, the total allocation was Rs 166 million; Rs 70 million from the consolidated fund which consisted of Rs 60 million directly from the Treasury and Rs 10 million for the infrastructure development at Kantale and Kilinochchi through the Ministry of Plantation Industries and Rs 96 million out of the institute-generated funds.

However, during the year 2017, the institute received only Rs 232.83 million from the Treasury. It consisted of Rs 205.13 for recurrent expenditures, Rs 27.7 million (Rs 17.7 directly from the Treasury and Rs 10.00 million through the ministry for the infrastructure development at Kantale and Kilinochchi) for capital expenditures. Thus, Rs 92.7 million allocated from the consolidated fund was not received. This significantly affected the performance of the institute, particularly the institute development activities.

The significant achievements of the research and development activities undertaken by the institute include release of five new improved sugarcane varieties for commercial cultivation, recommending the application of Diuron 46.8% + Hexazinone 13.2% formulation to control grasses and broad-leaved weeds in sugarcane and Fipronil for border treatment for controlling the sugarcane white leaf disease-spreading vector, development of a process for producing granulated jaggery from sugarcane and updating the costs and returns of sugarcane cultivation. For the dissemination of knowledge, a total of 1,389 farmers and 411 field officers were trained on new sugarcane technologies by conducting 53 training programmes/field demonstrations and 01 field day for farmers, and 12 training programmes for field officers in addition to distribution of advisory pamphlets and information sheets on different aspects of sugarcane cultivation and establishment and maintenance of 80 field demonstration sites in sugar mill areas. In order to develop small-scale sugarcane-based processing industries, establishment of nurseries and training farmers were continued. In addition, a memorandum of understanding was signed between the Department of Civil Security and the Sugarcane Research Institute to carry out cultivation of sugarcane and processing into jaggery and syrup. Furthermore, a program was initiated to replace the existing disease-infected sugarcane nurseries in Sevanagala, Pelwatte and Hingurana in collaboration with the respective sugar companies.

The institute also continued the development of infrastructure required for research and development activities and for providing facilities for the staff at Uda Walawe main station, pathology farm at Siyambalanduwa, quarantine station at

Hantane and hybridisation station at Enselwatte. To strengthen the staff, a total of 8 vacancies; one each Senior Research Officer and Development Officer, and two each Research Officer, Technical Officer and Management Assistant were filled. The process of revision of cadre of the institute was also continued to increase the staff required for research, technical and support functions. For capacity building of the staff, both long-term and short-term training opportunities were provided to the relevant staff. They include, in addition to continuation of the doctoral degree programmes of the previously-released Senior Research Officer and a Research Officer, one Research Officer was provided with an opportunity to follow a Masters Degree program. In addition, one Senior Research Officer, three Research Officers, two Development Officers, Assistant Director (Administration), Administrative Officer, Accounting Officer, one Technical Officer, two Management Assistants were trained overseas in the subjects relevant to their work at the institute. Furthermore, different categories of staff were trained locally in the areas of their job.

For international collaboration, the institute entered into agreement with the Yunnan Academy of Agricultural Sciences and the Yunnan Sugarcane Research Institute for exchanging genetic material, collaborative research, training scientists and exchanging scientists for sharing knowledge. In addition, process was continued for initiating collaboration with the Sugarcane Research Institute in Faisalabad, Pakistan.

Furthermore, action was initiated to amend the Sugarcane Research Institute Act to broaden its scope aiming at expanding the services of the institute, considering the current and future development needs of the sugarcane industry in the country.

The major bottleneck for the performance of the institute were non receipt of the finances in time, lack of trained staff, particularly for scientific and higher managerial positions and difficulty of recruiting and retaining staff with high calibre.

K. A. F. Karunasena

K. A. F. Karunasena
Chairman

DIRECTOR'S REVIEW

The Sugarcane Research Institute continued its functions in the year 2017 to contribute to developing the sugarcane industry of Sri Lanka by conducting research for generating new knowledge/technologies on sugarcane, disseminating the technical know-how to sugar companies, farmers and other relevant stakeholders, producing and supplying foundation seedcane and expanding sugarcane cultivation for small-scale processing industries. A long-term research program consisting of sugarcane crop improvement, crop and resource management, crop nutrition, crop protection, farm mechanisation and processing and product development was continued aiming at developing technical know-how to cater to the needs of the development of the sugarcane industry in the country. A technology transfer program was carried out to disseminate the knowledge/technologies generated by the research program to sugar companies, farmers and other relevant stakeholders. A development program consisting of production of foundation seedcane of the new sugarcane varieties recommended by the institute and expansion of sugarcane cultivation for small-scale processing industries in the areas where sugar mills are not available was also continued.

The most significant achievement of the crop improvement program was releasing five new improved sugarcane varieties, four bred in the year 2000 and one in the year 2004, for commercial cultivation. The four varieties bred in the year 2000 were SL 00 95, SL 00 354, SL 00 603 and SL 00 652. The varieties SL 00 95, SL 00 603, SL 00 652 were recommended for cultivation under both irrigated and rain-fed conditions, while the variety SL 00 354 was for cultivation under irrigation. The variety SL 04 624 bred in 2004 was recommended for high-quality jaggery production. There are many promising sugarcane varieties bred after the year 2000, and are at different stages of selection. The final stages of selection are those varieties bred in the years 2002, 2005 and 2006. These promising varieties; 28 from SL 2002 series, 25 from SL 2005 series and 23 from SL 2006 series are being tested for their performance, and it is hopeful that at least two varieties from each series will come out as superior to be released in the coming years. The variety SL 83 06 which was released for commercial cultivation in the year 1992 has become degenerated in the commercial plantations, and therefore, this superior variety was regenerated, and 8,000 regenerated plants were produced for multiplication to supply seed material for further multiplication by the sugar companies. In addition, some 3,000 disease-free plants of the varieties released earlier, SL 95 4033 and SL 95 4430 were produced for further multiplication. These new superior sugarcane varieties will contribute to increase sugarcane yields in sugarcane plantations and sugar recovery rates in sugar mills.

Under the sugarcane crop and resource management, testing of herbicides available in the market was carried out to find alternative herbicides to control

weeds in sugarcane. In the year 2017, the application of Diuron 46.8% + Hexazinone 13.2% formulation at the rate of 3.0-3.5 kg/ha mixing with 350-400 L water, at pre-emergent stage was recommended to control grasses and broad-leaved weeds in sugarcane. In addition, Hexazinone 25% SL and Isoxaflutole 75 WG have been found to be effective to control weeds in sugarcane fields at pre-emergent stage. The costs and returns of sugarcane cultivation and those of the competing crops in sugarcane-growing areas were also updated.

Recommendations on soil fertility management are provided by the research conducted under crop nutrition program. In the year 2017, in addition to collection of detailed information for revising the fertiliser recommendations given for Sevanagala, the fertiliser recommendations for the zone C at Pelwatte and Deegavapi zone at Hingurana were revised considering the fertility status of the soil in those areas. In addition, it was found that application of 40 m³ of vinasse with 10 tonnes of filter-mud per hectare improves the performance of the plant crop of sugarcane, and application of non-concentrated vinasse 40 m³/ha improves the quality sugarcane-growing soil by increasing the organic matter content, and thereby, the availability of N, P and K.

Under sugarcane crop protection, the highest priority was given to control white leaf disease (WLD) and sugarcane borers. To control sugarcane white leaf disease, studies on the control of vector were continued. The systemic insecticide Fipronil was found to be effective for managing the WLD vector population in the field. Treating soil with Fipronil (phenyl pyroazole/ Prince GR) at the rate of 18 kg/ha at planting and treating 2m-wide border from the outer boundary line of the field at monthly intervals, after the first application and until the crop reaches 6-month age, was recommended for controlling the vector. To control sugarcane borers, the delta trap was identified as the effective and efficient trap design for pheromones for controlling sugarcane borer. The institute also regularly monitored the disease and pest situations in commercial sugarcane plantations, and the relevant officials of the sugar companies were made aware of the prevailing situations to enable them to take timely action to curtail the spread of diseases and pests. Furthermore, regular awareness and training programmes were conducted for farmers and field-level officers to improve and update their knowledge on the management of sugarcane diseases and pests.

The sugarcane farm mechanisation program also conducted to support disease control by constructing the hot-water treatment plants at the Sugarcane Research Institute and sugar companies. Provisions were made for cold-soak treatment in the existing hot-water treatment plant at Uda Walawe and a new treatment plant with both cold-soaking and hot-water treatment was constructed in Kantale sub-station. The institute also provided service to the Gal Oya Plantations (Pvt) Ltd. to

construct its hot-water treatment plant. In addition, the institute produced five two-wheel tractor-mounted disc moulders for distribution among farmers.

The processing and product development program was continued for the diversification of sugarcane-based products by processing sugarcane and its by-products and differentiation of jaggery. A process was developed for producing granulated jaggery.

Promotion of application of the research findings was continued by conducting a technology transfer program. The emphasis was placed on the promotion of SRI-developed sugarcane varieties, SRI-developed tyne cultivator, furrow opener and disc moulder, spaced planting method and intercropping with sugarcane. Programmes were also conducted to increase the knowledge of the farmers and field officers of the sugar companies on soil fertility management and disease and pest management. Some selected farmers were also trained on the improvement of their entrepreneurship skills. A total of 1,389 farmers and 411 field officers were trained on new sugarcane technologies by conducting 53 training programmes/field demonstrations and a field day for farmers and 12 training programs for field officers. Furthermore, a total of 280 visits were made to farmers' fields and 260 students of universities and technical colleges, and 140 students of schools were also trained on sugarcane technologies. The following activities were also carried out to improve the knowledge of field officers, farmers and other stakeholders:

- i. Establishing and maintaining 80 field demonstration sites in sugar mill areas.
- ii. Publishing 6 information sheets on new sugarcane varieties and SRI newsletter- *Puwath Hasuna*, volume 07 No 01.
- iii. Reprinting 5,500 copies of 05 leaflets (Leaf Scald Disease in Sugarcane, White Leaf Disease in Sugarcane, Sugarcane Shoot Borer, Ratoon Management in Sugarcane and Intercropping with Sugarcane).and printing 4,000 copies of 02 revised information sheets (Cane Quality Improvement and Weed Management in Sugarcane).
- iv. Distributing 6,650 copies of a farmer manual and advisory publications on agronomic practices, farm machinery and disease and pest control among farmers/officers in sugar companies.
- v. Making the public aware of the Sugarcane Research Institute and its activities and services through the radio program *Sara Prabha Gira*.

The following activities were also carried out to contribute to develop the sugar industry:

- i. Establishing and maintaining foundation seedcane nurseries; 20 ha at Uda Walawe and 40 ha at Kantale to provide seedcane to sugar companies.

- ii. Maintaining the sugarcane nursery of about 3.5 ha in Kilinochchi to provide seedcane for expanding sugarcane cultivation in the Northern Province.
- iv. Establishing and maintaining sugarcane nurseries and conducting awareness programs to farmers to expand sugarcane cultivation in Badulla and Nuwara Eliya districts.
- v. Making arrangements with the Civil Security department to cultivate sugarcane in the Northern Province.

During the year under review, eight vacancies; a Senior Research Officer, two Research Officers, a Development Officer, two Technical Officers and two Management Assistants (Accounts) were filled to strengthen the manpower requirements of the institute. The Principal Research Officer/Technology Transfer Officer vacancies could not be filled due to non-availability of qualified candidates. The process of revising the cadre was also carried out to increase the staff requirements in scientific, and technical and administrative support staff to carry out the expanded research and development functions of the institute. Staff capacity building activities were continued by providing an opportunity for a Research Officer for pursuing studies leading to MPhil, in addition to continuation of the previously-released Senior Research Officer and a Research Officer for undertaking their doctoral degrees. A Senior Research Officer and a Research Officer who were on study leave resumed duties. In addition, a Senior Research Officer, three Research Officers, two Development Officers, the Assistant Director (Administration), the Administrative Officer, the Accounting Officer, a Technical Officer and two Management Assistants were trained overseas in the subjects relevant to their work at the institute. Furthermore, research, technical, accounting, and administrative staff was provided with opportunities for attending short training courses relevant to their work.

To provide the infrastructure requirements for research and development activities and for providing congenial working and living environment for the staff, the following activities were continued:

- i. Improvement of crop improvement, crop and resource management, crop nutrition, processing technology and bio-technology laboratories and conference room at Uda Walawe.
- ii. Renovation of the old office building for administration section and for an auditorium and improvement of farm office at Uda Walawe.
- iii. Construction of buildings in hybridisation station at Enselwatte, quarantine farm at Hantan and pathology farm at Siyambalanduwa.

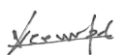
- iv. Improvement of quarters and roads, vehicle parking facility and store at Uda Walawe.
- v. Rehabilitation of D3 canal at Uda Walawe.
- vi. Construction of a Children's park at Uda Walawe.
- vii. Procurement of important laboratory instruments/office and household equipment and furniture.
- viii. Rehabilitation of a part of the perimeter fence at Uda Walawe.
- ix. Construction of a deep well for domestic water supply at Uda Walawe.
- ix. Development of facilities of the seedcane nursery at Kantale (construction of hot-water treatment and a weigh bridge, provision of facilities for irrigation, renovation of quarters).

The institute also provided training services to students from schools, technical colleges, agriculture schools and universities. In addition, necessary information was provided to interested parties for the involvement in sugarcane industry development in the country.

In order to undertake collaborative research, exchange sugarcane germplasm and share knowledge and training staff, two agreements were signed with the Yunnan Academy of Agricultural Sciences and the Yunnan Sugarcane Research Institute in China. Action was also taken to initiate collaboration with the Sugarcane Research Institute in Faisalabad, Pakistan.

Action was also taken to amend the Sugarcane Research Institute Act to broaden its scope and authority according to the current as well as future needs of the development of the sugarcane industry in the country.

The main limiting factors for fulfilling the mandate of the institute were shortage of trained and experienced manpower and the non-availability of finance in time. Recruiting and retaining staff at scientific, technical and managerial grades has to be given high priority for the sustenance of the institute to fulfil its mandated functions.



Dr. A P Keerthipala
Director/Chief Executive Officer

DIVISIONAL REPORTS



CROP IMPROVEMENT DIVISION

CROP IMPROVEMENT DIVISION

Staff

Dr A Wijesuriya BSc (Agric.), M Phil, PhD	- Principal Research Officer and Head
Ms A M M S Perera BSc, MSc	- Research Officer
Dr (Ms) D Manel BSc (Agric.), MSc, PhD	- Research Officer
Mr K P Wickramasinghe BSc (Agric.), M Phil	- Research Officer
Ms A L C Kumari	- Senior Technical Officer
Mr R A Premachandra	- Senior Technical Officer
Mr D Weerasinghe	- Senior Technical Officer
Ms L D D P Gunarathna Dip. (Agric.)	- Technical Officer
Mr B Witharana	- Works Supervisor
Mr S H Karunarathne	- Lab/Field Attendant
Mr R G S L Premaratne	- Lab/Field Attendant
Mr M B Rohan	- Lab/Field Attendant

Achievements

Research

- Releasing five new-improved sugarcane varieties; SL 00 95, SL 00 354, SL 00 603, SL 00 652, and SL 04 624 for commercial cultivation. The varieties SL 00 95, SL 00 603 and SL 00 652 were for cultivation under both irrigated and rain-fed conditions, the variety SL 00 354 was for cultivation under irrigation only. The variety SL 04 624 was for jaggery production.
- Releasing the forty sugarcane varieties imported (34 from Pakistan and 6 from Australia) from Sugarcane Quarantine Station after completing their quarantine process, and establishing their seed multiplication plots at Uda Walawe for further investigations.
- Conserving 1,460 sugarcane accessions *in-situ* in duplicate plots at the Sugarcane Breeding Substation at Enselwatte, Deniyaya, and maintaining the breeder's seed garden with 45 varieties in addition to multiplying 57 varieties imported from Pakistan using cold-water soaking and hot-water treatment.
- Performing 1,096 crosses using field lantern and solution crossing techniques and processing true seeds of those crosses. These crosses involved commercial crosses, crosses for nobilisation and crosses for population improvement of *Saccharum officinarum*.
- Selecting varieties with desirable features from SL 2013, SL 2012, SL 2011 and SL 2010 breeding series as follows for further evaluation in subsequent stages:

<u>Series</u>	<u>Number of varieties</u>
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2013 Stage 1	1841
2012 Stage 1	2711
2012 Stage 2	661
2011 Stage 1	411
2010 Stage 1	485

- Identifying 199 sugarcane varieties with desirable traits; 114 from SL 2008 and 85 from 2009 series and their multiplication.
- Identifying promising varieties; 23 from SL 2006 series, 25 from SL 2005 series and 28 from SL 2002 series.
- Producing 8,000 regenerated plants of the variety SL 83 06 and 3,000 disease-free seed stocks of the newly-released varieties SL 95 4033 and SL 95 4430 for multiplication.
- Identifying six genotypically more or less similar clusters from 25 *Saccharum spontaneum* accessions by analysing of the diversity of 600 accessions in sugarcane germplasm collection using Simple Sequence Repeats (SSR).

Development

- Establishing and maintaining foundation seedcane nursery; 40 ha at Kantale and 10 ha at Uda Walawe and producing seedcane 260 tonnes from Kantale nursery and 65 tonnes from the nursery at Uda Walawe.

Services

Training Trainees

- Supervising the study titled "Identification of inter-specific hybrid progenies in sugarcane crop improvement" carried out by Ms H V A Shehani Koshila, a final-year student of the Department of Botany, University of Ruhuna, for the partial fulfilment of the requirements for her B.Sc. special Degree in Botany.



CROP AND RESOURCE MANAGEMENT DIVISION

CROP AND RESOURCE MANAGEMENT DIVISION

Staff

Mr G A A Chaturanga BSc (Agric.)	- Research Officer-In-Charge
Mr A L C De Silva BSc (Agric.), MPhil	- Senior Research Officer
Mr L M J R Wijayawardhana BSc (Agric.) MPhil	- Research Officer
Mr P R B Chandrasena BSc (Agric.), MSc	- Farm Superintendent
Mr W G Nimal	- Senior Technical Officer
Mr P B G S Sandanayaka Dip (Agric.)	- Senior Technical Officer
Mr I P Manawadu	- Technical Officer (from 04.07.2017)
Mr M Sivapalan	- Lab/Field attendant

Achievements

Research

- Recommending application of Diuron 46.8 % + Hexazinone 13.2% formulation at the rate of 3.0-3.5 kg/ha mixing with 350-400 L of water, at pre-emergent stage to control grasses and broad-leaved weeds in sugarcane.
- Identifying that application of new herbicides, Hexazinone 25 % SL and Isoxaflutole 75 WG are effective to control weeds in sugarcane fields at pre-emergent stage.
- Collecting and computerising agro-meteorological data in Uda Walawe and finding that there was a well-distributed total rainfall of 1643.3 mm in the year 2017 with 2.5 mm in the driest month July and the maximum of 449.5 mm in November.
- Developing a GIS model for selecting suitable water pumps with appropriate power for lift irrigation of farmers' fields in the rain-fed sector at Sevanagala.

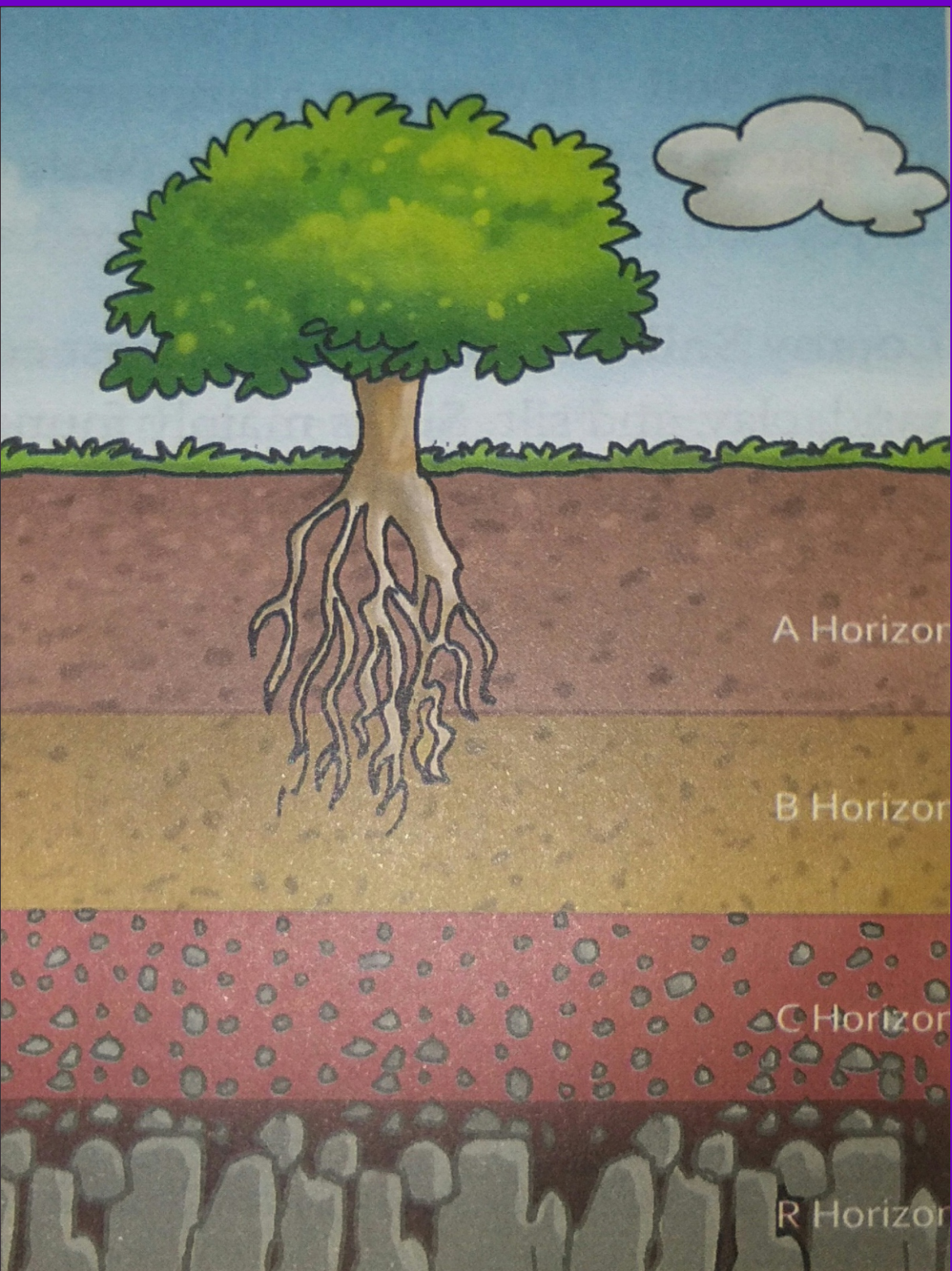
Development

- Maintaining 3.5 ha nursery at Vannerikulum, Kilinochchi, and harvesting 10 tonnes of seedcane for planting in the farm belonging to the Civil Security Department in Vishvamadu.
- Establishing and maintaining new sugarcane plantation of about 2ha in Vishvamadu, Bharathipuram farm in collaboration with the Civil Security Department.

Services

- Harvesting and providing 218 tonnes of sugarcane to the factory at Sevanagala.

- Preparing 20 ha for field trials.
- Developing 3.5 ha new land of the foundation seedcane nursery and 3 ha in D5 command area for field trials.
- Renovating 290 m of D4 irrigation channel to irrigate D4 nursery area and providing irrigation facilities for research.
- Planting 75 coconut and 200 fruit plants in Uda Walawe land.



CROP NUTRITION DIVISION

CROP NUTRITION DIVISION

Staff

Mr. B R Kulasekera BSc (Agric.)	-	Research Officer-In-charge
Mr. H A S Weerasinghe BSc, MPhil. MSc (NRM), MI Biol	-	Research Officer (on study leave from 01.02.2014)
Ms. R A Sudarshani BSc (Agric.)	-	Research Officer
Mr. G S Udawatte	-	Technical Officer
Ms. W A S Wijesuriya Dip (Agric.)	-	Technical Officer
Ms. S M A D Kumari Dip (Agric.)	-	Technical Officer (from 15.11.2017)
Mr. J Gunasiri	-	Lab/Field Attendant
Mr. P W D Kulatunga	-	Lab/Field Attendant

Achievements

Research

- Revising the fertiliser recommendations for the zone C at Pelwatte and Deegavapi zone at Hingurana.
- Identifying that the pH, Electrical Conductivity and Exchangeable Calcium and Magnesium of low-humic gley soils under rain-fed conditions were significantly higher while Exchangeable Potassium content of low-humic gley soil was significantly lower than that in reddish brown earth soils in the sugarcane-growing area at Sevanagala.
- Identifying that Calcium, Magnesium and Sodium salts have accumulated on the surface layers of low-humic gley soils under rain-fed conditions at Sevanagala.
- Finding that application of 40m³ of vinasse with 10 tonnes of filter-mud per hectare improves the performance of the plant crop of sugarcane.
- Finding that application of non-concentrated vinasse 40 m³/ha improves the organic matter content, and thereby, the availability of N, P and K in sugarcane-growing soil.
- Making recommendation on the allotment No. 21 in the rain-fed sector at Sevanagala for cultivating sugarcane, at the request of the Lanka Sugar Company (Pvt) Ltd. –Sevanagala.

Services

- Analysing 4,208 cane samples for brix, pol and fibre contents (3,012, for Crop Improvement Division, 1,165, for Crop and Resource Management Division and 06 for Lanka Sugar Company (Pvt) Ltd.-Sevanagala).

- Completing analysis of 12 soil samples for N, pH and EC on the request of Lanka Sugar Company (Pvt) Ltd.-Sevanagala and 05 soil samples for texture for Gal Oya Plantations (Pvt) Ltd.
- Completing analysis of soil samples – 102 for Ca and Mg 57 for Zn and Mn and 51 for CEC for the requirements of the MG Sugars Lanka (Pvt) Ltd., Kantale.
- Recording in-situ soil pH and analysing 50 soil samples for P for Processing Technology Division.
- Completing analysis of soil in five farmer fields at Pelwatte for their rehabilitation.



CROP PROTECTION DIVISION

CROP PROTECTION DIVISION

Staff

Ms V K A S M Wanasinghe BSc (Sp), MSc	- Research Officer-In-Charge
Ms A N W S Thushari BSc (Sp)	- Research Officer (on study leave from 01.02.2017)
Ms K M G Chanchala BSc (Agric.), MSc	- Research Officer (resumed duty on 01.02.2017 after study leave)
Mr Y A P K Dayasena BSc (Agric.), MSc	- Research Officer (from 06.07.2017)
Mr M K D Ubesena	- Technical Officer
Ms L M M Obeyesena Dip. (Agric.)	- Technical Officer
Ms B N L Kumaranayake Dip. (Agric.)	- Technical Officer
Mr M R Premalal	- Lab/Field Attendant
Mr J K U Madushanka	- Lab/Field Attendant

Achievements

Research

- Identifying 24, 25 and 23 varieties in RYT 2005 series with low incidence of smut, white leaf and leaf scald diseases respectively under natural conditions at Uda Walawe.
- Developing a PCR protocol for molecular detection of sugarcane smut pathogen.
- Identifying the viruliferous vector percentage as 35% in the natural population, according to the WLD symptom appearance on the infected plants.
- Identifying that a 3-row border of *Erianthus arundinasi* provides minimum penetration space for insects, based on light penetration intensity through the canopy.
- Identifying that border treatment of systemic insecticide, Fipronil (phenyl pyrazole/ Prince GR), is effective to manage the WLD vector population in the field. The schedule for the application is, treating soil with Fipronil at the rate of 18 Kg/ha at planting and treating 2m-wide border from the outer boundary line of the field at monthly intervals, after the first application and until crop reaches 6-month age.
- Identifying delta trap as the effective and efficient trap design for pheromones for controlling sugarcane borer.

Services

Crop Protection

- Avoiding outbreaks of diseases and pests by monitoring their status regularly and making the managers of the sugar companies aware of the situation and educating them on control measures if required. The following observations were made in different sugarcane-growing areas:
 - **Sevanagala:** High infestation of leaf mite.
 - **Pelwatte:** Yellowing and drying from tip of the leaves in KP 01 field in the Kukurampola seedcane nursery, sugarcane plants with yellow leaves, and a red patch on the mid-rib in the field no: 3/70 in the Kuda Oya seedcane nursery due to egg-laying of plant hopper; *Perkinsiella saccharicida* (Hemiptera: Delphacidae) (Figures 01, 02 and 03).



Figure 01: A sugarcane clump with yellowing and drying leaves in the Kukurampola seedcane nursery (3rd April 2017)



Figure 02: A sugarcane plant with yellow leaves and a red patch on mid rib (23rd March 2017)



Figure 03: Different types of plant hopper species *Perkinsiell saccharicida* (Hemiptera:Delphacidae) trapped from the Kukurampola seedcane nursery using sweep nets and light traps

- **Ethimale:** High infestation of sugarcane stalk borers.
- **Hingurana:** High infestation of woolly aphid in the V01/01 field in Varipathanchena zone and 0 to 0.96 incidence of smut and 0-1.85% incidence of White Leaf Disease in the seedcane nursery.
- **Kantale:** Severe damage of an army worm species in January 2017. Increased populations of *Pyrilla perpusilla* plant hopper in the 1st and 2nd quarter of the year and successful establishment of *Epiricania melanoleuca* (Lepidoptera: Epipyropidae); an external parasitoid of *Pyrilla perpusilla* (163 egg masses, 255 larvae, 754 cocoons and 24 adults on randomly-selected 120 sugarcane plants on 11th July 2017).
- Identification of hitherto unknown two borer species in sugarcane plantations with the help of CABI insect identification service in Pakistan (Figure 04).



Figure 04: Left: An adult of *Diatraea saccharalis*; Right: An adult of *Scirpopha nivella*

- Introducing field-collected 590 cocoons and 69 adults of *Cotesia flavipes* (Cameron) (Hymenoptera: Braconidae); a larval parasitoid of sugarcane shoot and stalk borers to the seedcane nursery at Galmaduwa in Hingurana and observing one parasitised borer larva in the released field on 15th March 2017.

Training

Training Ms H B M Hatarasinghe, a student of the National Apprenticeship and Industrial Training Authority, Ratnapura, for nine months from 15th February to 14th November 2017 on entomological research.



MECHANISATION TECHNOLOGY DIVISION

MECHANISATION TECHNOLOGY DIVISION

Staff

Mr K H D Abeyratne BSc (Agric.)	- Research Officer-In-Charge
Mr K T Ariyawansha BSc (Agric.), MSc	- Research Officer (on no-pay leave from 04.06.2016)
Mr A S M A Fernando NDT	- Technical Officer
Mr W M Anurapala	- Technical Officer
Mr V Abeygunawardane	- Welder
Mr G Ariyaratne	- Fitter
Mr W A Premachandra	- Blacksmith
Mr D M L Weerasiri	- Mechanic
Mr D M Weerasiri	- Lab/Field Attendant

Achievements

Research

- Designing a hot-water treatment plant for Gal Oya Plantations (Pvt) Ltd. and giving instructions for its fabrication and installation.
- Completing construction of cold-water soaking hot-water treatment plant at Kantale.
- Constructing cold-soak treatment unit with a capacity of 32,000L (8 tonnes/day) attached to the hot-water treatment plant at Uda Walawe.
- Fabricating two-wheel tractor-mounted five disc moulders for distribution among farmers.
- Purchasing small cultivator and special brush cutter for inter-row weeding.
- Installing solar recharge units for all electric fences in the research farm at Uda Walawe, replacing the old battery charging system.
- Erecting 2.5 km length electric fence for protecting the sugarcane crop from wild elephant in Vishwamadu farm.

Services

- Completing construction and installation of 1,500m length wire-mesh fence and landscaping areas along the main road of SRI.
- Fixing polythene for 12 open-top chambers.

- Completing renovation of 1,500sqft poly-tunnel of SRI.
- Supervising interlock paving work in the premises of Mechanisation Technology Division.
- Completing expansion 4,000sqft area of the vehicle park of SRI, Uda Walawe.
- Completing expansion of 2,400sqft area of the tractor park of the research farm at Uda Walawe.
- Completing construction and installation of four GI mesh gates (3'x15') for the area covered by the electric fence in the research farm at Uda Walawe.
- Completing construction and installation of two main gates (5'x15') along the main fence for the housing complex - 02 and 03 at Uda Walawe.
- Completing renovation and installation of 5000m length barbed-wire fence along the perimeter of SRI, Uda Walawe.
- Completing designing of 1,750sqft poly-tunnel for quarantine station at Hantane and supervising the construction work.
- Completing designing and construction of 16'x20' amano roof for the convertainer at Kilinochchi.
- Providing machinery services required for research.
- Repairing and maintaining vehicles and farm equipment of SRI.



PROCESSING TECHNOLOGY DIVISION

PROCESSING TECHNOLOGY DIVISION

Staff

Ms S M T A Maralanda BSc (Agric), MSc	-	Research Officer-In-Charge
Dr W L I Wijesekara BSc (Agric), MPhil, PhD	-	Senior Research Officer (from 02.01.2017 to 22.05.2017)
Ms M G G N Sewwandi BSc (Eng)	-	Research Officer (from 04.12.2017)
Ms M A R I Perera Dip. (Agric)	-	Technical Officer
Mr W K D S Karunarathna Dip. (Agric)	-	Technical Officer

Achievements

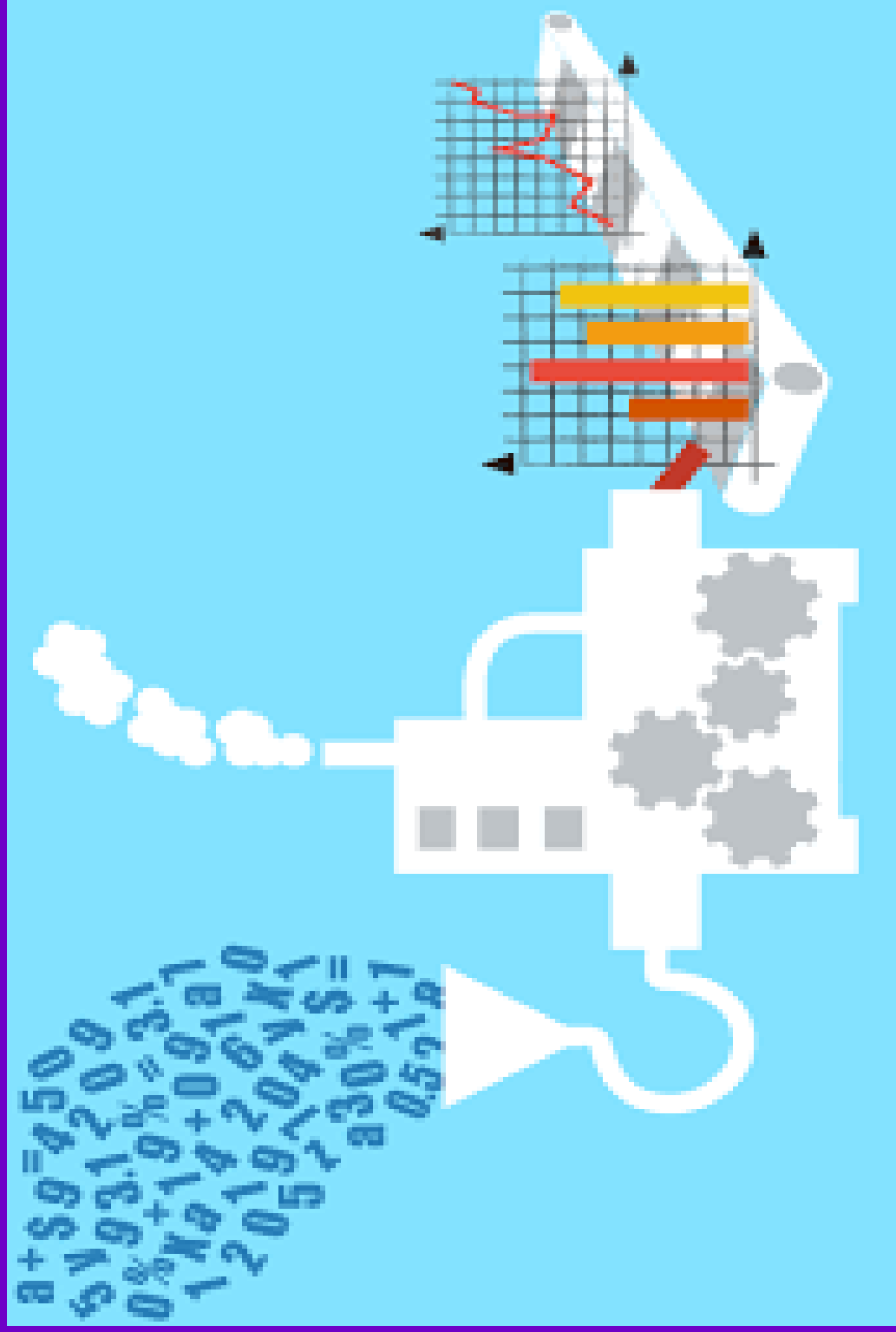
Research

- Development of a recipe for bagasse-incorporated biscuit production and conducting bio-chemical analysis of the product. According to the results of the sensory evaluation, cookies with a 5% bagasse from peeled sugarcane stalks showed the highest overall acceptability than the cookies enriched by incorporating a 5% bagasse from stalks without peeling and a 10% bagasse of peeled stalks.
- Development of a process for granulated jaggery production and analysing the biochemical properties of the product.
- Development of bagasse-incorporated health food by extrusion processing.

Services

- Conducting a training programme on sugarcane processing and by-products to students of Sabaragamuwa and Wayamba Universities.
- Conducting a training programme for investors from Wellawaya regarding granulated jaggery processing.
- Processing an artificial pest diet for Crop Protection Division.
- Producing sugarcane jaggery from SL 04 624 variety for its commercial release.
- Taking total plate count for the micro-organisms in the field trial on the evaluation of the effectiveness of the biofilm bio-fertiliser for sugarcane in the research conducted by the Crop Nutrition Division.
- Producing 2,938 kg of jaggery from the cane harvested from field trials.

- Supervising the following two research projects conducted by the students of the University of Sri Jayawardhanapura:
 - i. Physico-chemical characterisation of cookies supplemented with bagasse fibre - by Mr M.P.G. Vijerathna
 - ii. Comparative biochemical analysis of granulated jaggery from peeled and unpeeled sugarcane - by Mr W.K.D. Suvimal



ECONOMICS BIOMETRY AND INFORMATION TECHNOLOGY DIVISION

ECONOMICS BIOMETRY AND INFORMATION TECHNOLOGY DIVISION

Staff

Mr K A D Kodituwakku BSc (Agric.), MAGR	- Senior Research Officer and Head
Ms B D S K Ariyawansha BSc (Agric.), MPhil	- Senior Research Officer (on study leave from 20.02.2015)
Mr. K G S U R Bandara HNDIT, CCNA	- Technical Officer

Achievements

Research

- Updating the costs and returns of sugarcane cultivation based on the prices of the year 2017. The average cost per hectare of cane cultivated was Rs.280,721, Rs.237,164, Rs.174,781 and Rs.249,245 for Sevanagala irrigated and rain-fed sectors, Pelwatte and Hingurana respectively. The average net income from one hectare of sugarcane per year at Sevanagala was Rs 165,528 and 119,086 under irrigation and rain-fed respectively. At Pelwatte under rain-fed, the net income was Rs 85,219/ha/year and that at Hingurana under irrigation was Rs.100,755/ha/year.
- Estimating the net income per hectare per season of competing crops at the rain-fed area Pelwatte; Rs. 36,990, Rs. 30,250, Rs. 29,650, Rs. 47,750 and Rs. 59,450 for maize, cowpea, black gram, pumpkin and sweet melon respectively.
- Estimating the annual net income per hectare of competing crops in the irrigated area at Sevanagala; Rs. 351,860, Rs. 334,407 and Rs. 177,730 for banana (Ambul), banana (Kolikuttu) and paddy respectively.
- Estimating the commercial value of a tonne of sugarcane at Sevanagala and Pelwatte sugar industries during the year 2016 as Rs. 15,714 and Rs. 15,440 respectively. Accordingly, the commercial value of sugarcane produced from one hectare of land in the irrigated sector Sevanagala and rain-fed sector Pelwatte 2016 were Rs. million 1.4 and 0.8 million respectively, and it was much higher than the income of competitive crops.
- Estimating the average annual profit of a sugarcane syrup production unit in Siyambalanduwa area at nearly Rs. million 0.99 in the year 2017.

Services

- Re-designing the web site of SRI hosted under URL of www.sugarres.lk/ and updating it as and when required.
- Publishing the 3rd issue of the “Sugarcane Sri Lanka” journal.

- Providing the following services to other divisions of SRI:
 - Designing field experiments conducted by the Crop Improvement, Crop Nutrition and Procession Technology Divisions.
 - Implementation of IT activities within the institute.
- Preparing the INFORM database of SRI for the year 2016 for the Sri Lanka Council for Agricultural Research Policy.
- Training five students from Vocational Training Authority (VTA) on the use of computer software packages, for a period of six months.



TECHNOLOGY TRANSFER AND DEVELOPMENT DIVISION

TECHNOLOGY TRANSFER AND DEVELOPMENT DIVISION

Staff

Dr M S Perera BSc (Agric.), MPhil, PhD	-	Principal Research Officer and Head
Mr D P W Pottawela BSc (Agric.), PG. Dip. (BA)	-	Technology Transfer Officer
Mr R A P A Ranatunga Dip. (Agric.)	-	Development Officer
Mr S N Wickremasinghe BSc (Agric.), MSc	-	Development Officer
Mr W G M S Weragoda BSc (Agric.), MSc	-	Development Officer
Mr M K P C Gunawardene BSc (Agric.), MSc	-	Development Officer
Mr A P Karunathilake BSc (Agric.)	-	Development Officer (from 01.02.2017)
Mr A P J Mohotti	-	Senior Technical Officer
Mr G Somaweera	-	Management Assistant

Achievements

Technology Transfer Activities

- Training a total of 1,389 farmers and 411 field officers on new sugarcane technologies by conducting 53 training programmes/field demonstrations and 01 field day for farmers and 12 training programmes for field officers. A total of 280 visits were made to farmers' fields and 260 students of universities and technical colleges, and 140 students of schools were also trained on sugarcane technologies.
- Establishing and maintaining 80 field demonstration sites in sugar mill areas.
- Publishing 6 information sheets on new sugarcane varieties and SRI newsletter- *Puwath Hasuna*, volume 07 No 01.
- Reprinting 5,500 copies of 05 leaflets (Leaf Scald Disease in Sugarcane, White Leaf Disease in Sugarcane, Sugarcane Shoot Borer, Ratoon Management in Sugarcane and Intercropping with Sugarcane) and printing 4000 copies of 02 revised information sheets (Cane Quality Improvement and Weed Management in Sugarcane).

- Distributing 6,650 copies of a farmer manual and advisory publications on agronomic practices, farm machinery and pest and disease control among farmers/officers in sugar companies.
- Coordinating the sugarcane industry section of the *Sara Prabha Gira* radio programme.
- Preparing scripts and filming advisory videos on improvement of cane quality, ratoon management, planting techniques, intercropping and small-scale farm equipment.
- Drafting information sheets on the improvement of cane quality, weed management (revised) and nursery management.

In the training programmes/demonstrations for farmers, field officers and students, the prioritised technological aspects/subject areas covered were;

- **Promotion of new sugarcane varieties; SL 83 06, SLI 121, SL 89 1673, SL 90 6237, SL 92 4918, SL 92 4997, SL 92 5588, SL 95 4033, SL 95 4430, SL 95 4443, SL 96 128 and SL 96 328, SL 98 2524 among cane growers**
 - Establishing 05 demonstration/multiplication fields (2.2ha) with SL 83 06, SL 92 4918, SL 96 128, SL 96 328, SL 98 2524 in Sevanagala, Pelwatte and Hingurana areas.
 - Conducting 3 demonstration programs and 16 training sessions for 576 farmers at Pelwatte, Siyambalanduwa and Hingurana.
 - Conducting 09 training sessions on new varieties for 180 field officers (including Development Officers, Samurdhi and Agric. Research and Production Assistants) at Pelwatte, Siyambalanduwa and Badalkumbura.
 - Monitoring 05 demonstration fields at Siyambalanduwa.
 - Conducting 50 field visits at Buttala, Siyambalanduwa and Hingurana.
 - Publishing six information sheets on new sugarcane varieties; SL 98 2524, SL 00 95, SL 00 354, SL 00 603, SL 00 652, SL 00 624 and printing 500 copies from each.
 - Using 150 tonnes of seedcane obtained from the demonstration fields of new varieties established at Hingurana for further multiplication in farmers' fields.
- **Promotion of tyne cultivator, furrow opener and disc moulder for sugarcane cultivation**
 - Conducting 15 training sessions for farmers on tyne cultivator and furrow opener for 117 farmers and 18 field officers at Siyambalanduwa and Hingurana.

- Conducting 02 training programmes on the use of machinery for controlling weeds and earthing-up of sugarcane at Siyambalanduwa.
- Displaying tyne cultivator at field offices at Pelwatte.
- Reprinting 1,000 copies of the leaflet on small-scale farm equipment and distributing 600 copies of advisory leaflets on small-scale farm equipment among farmers and field officers.
- Preparing a video script and continuing filming on advisory video on farm machinery.
- **Promotion of intercropping cucumber, ground nut, cowpea, water melon and chillies with sugarcane**
 - Establishing and monitoring 59 demonstration fields (intercropped with ground nut and cowpea) at Pelwatte, Siyambalanduwa and Hingurana.
 - Conducting 11 demonstrations and 23 training sessions for 751 farmers at Sevanagala, Pelwatte, Siyambalanduwa and Hingurana.
 - Conducting 08 training sessions for 235 field officers at Pelwatte, Siyambalanduwa and Hingurana.
 - Conducting a field trip for 20 farmers at Buttala.
 - Providing 300kg of ground nut, 23kg of mung bean, 7.7kg of cowpea and small amount of water melon and cucumber to farmers to establish demonstration fields.
 - Printing 2,000 copies of the revised advisory leaflet on intercropping with sugarcane.
 - Distributing 1,100 copies of advisory leaflet on intercropping with sugarcane among farmers and field officers.
 - Preparing a video script and continuing video filming of advisory video on intercropping.
- **Promotion of soil fertility management among farmers**
 - Establishing 17 demonstration fields (1ha each) on improving the fertility of soil at Pelwatte.
 - Conducting 19 training sessions on soil fertility management for 354 farmers at Pelwatte, Siyambalanduwa and Hingurana.

- Conducting 07 training sessions on soil fertility management for 129 Field Officers at Badalkumbura, Pelwatte and Siyambalanduwa.
- Conducting 02 training programmes on water use efficiency for 54 field officers of Lanka Sugar Company (Pvt) Ltd.-Sevanagala and Pelwatte and Gal Oya Plantations (Pvt) Ltd. at Uda Walawe.
- Conducting 65 farmer field visits on fertiliser application and soil fertility management at Hingurana.
- **Promotion of spaced planting technique**
 - Establishing 02 demonstration sites at Hingurana.
 - Conducting 19 training sessions on planting techniques for 485 farmers at Siyambalanduwa, Hingurana and Pelwatte.
 - Conducting 11 training sessions on planting techniques for 176 field officers at Pelwatte and Siyambalanduwa.
 - Preparing a video script and continuing filming of advisory video on planting techniques.
- **Improvement of cane quality by increasing farmer knowledge and adoption of best management practices**
 - Conducting 22 training sessions for 433 farmers on improving cane quality by adopting best management practices at Siyambalanduwa and Hingurana.
 - Conducting 11 training sessions for 235 field officers at Pelwatte, Badalkumbura and Siyambalanduwa.
 - Conducting 03 training programmes for farmers at Sevanagala.
 - Preparing a video script for an advisory video on improvement of cane quality and continuing video filming.
 - Drafting an information sheet on the improvement of cane quality.
- **Improvement of adoption of agronomic practices of sugarcane**
 - Conducting 27 training/demonstration sessions for 708 farmers at Pelwatte, Siyambalanduwa and Hingurana.
 - Establishing a demonstration site on ratoon crop management at Hingurana.

- Conducting 11 training sessions for 235 field officers at Siyambalanduwa, Badalkumbura and Pelwatte.
- Preparing a video script and continuing filming for advisory video on ratoon crop management.
- Printing 2,000 copies of the revised advisory leaflet on ratoon crop management.
- Distributing 850 copies of farmer manual on sugarcane growing, 1,600 copies of the leaflets on weed management and ratoon crop management and 500 copies of the newsletter among sugarcane farmers and field officers.
- Conducting 105 farmer field visits on promoting management practices at Hingurana and Siyambalanduwa.
- **Improvement of knowledge and adoption of disease and pest management**
 - Conducting 22 training sessions for 685 farmers on disease and pest management at Pelwatte, Siyambalanduwa and Hingurana.
 - Conducting a training programme for farmers and field officers on disease and pest management at Hingurana.
 - Conducting 11 training/demonstration sessions on disease and pest management for 235 field officers at Siyambalanduwa, Badalkumbura and Pelwatte.
 - Conducting a training programme on the identification and management of vector of WLD for 20 staff members of the Ethimale Plantations (Pvt) Ltd. at SRI, Uda Walawe.
 - Conducting 140 field visits on woolly aphid, WLD and smut at Pelwatte, Siyambalanduwa and Hingurana.
 - Reprinting leaflets; 2,000 copies on smut control, 1,500 copies on wholly aphid control and 1,000 copies on shoot borer control.
 - Distributing 2,000 copies of advisory leaflets on WLD control, smut control, wholly aphid control and shoot borer control among farmers and field officers.
- **Improving sugarcane farmers' knowledge and skills on entrepreneurship**
 - Conducting 10 training sessions for selected farmers from Sevanagala, Siyambalanduwa and Badalkumbura
 - Conducting 02 two-day training programmes for 53 farmers/youths on entrepreneurship.
 - Conducting two training sessions for 43 field officers at Pelwatte.

- **Providing training/services at the requests of the sugar companies/other institutions and conducting exhibitions**
 - Conducting a 03-day training programme on sugarcane cultivation for 30 members of Civil Security Department at Killinochchi.
 - Coordinating a programme, in collaboration with the Coconut Cultivation Board and Sugar companies, for distributing coconut seedlings among selected sugarcane farmers for their homesteads in Sevanagala, Pelwatte and Hingurana areas.
 - Preparing and printing of Annual Report, SRI, 2015.
 - Preparing and printing draft of Annual Report, SRI, 2016.
 - Publishing SRI Newsletter (*Puwath Hasuna*) Vol. 07 (1).
 - Coordinating and participating in the sugarcane industry section of the *Sara Prabha Gira* radio programme.
 - Conducting lectures and demonstration sessions for 2 farmer training programmes organised by Lanka Sugar Company (Pvt) Ltd, Pelwatte.
 - Conducting a one-day training programme on sugarcane growing and processing for farmers at Buttala organised by *VIDATHA* centre.
 - Conducting a one-day training programme on sugarcane growing for 55 members of Civil Security Department at Kotiyagala.
 - Coordinating four one-day training programmes on improving managerial skills and changing attitudes of SRI staff.
 - Coordinating four training programmes on sugarcane growing and processing for 190 students of the Universities of Peradeniya, Wayamba and Sabaragamuwa, and Aquinas college.
 - Conducting two training programmes on sugarcane growing and processing for 70 students of the Technical College, Moneragala.
 - Conducting two training programmes on sugarcane growing for 140 students at Madulla and Siyambalanduwa.
 - Attending the divisional coordinating committee meetings at Buttala and District Agriculture committee meetings at Moneragala.

- Contributing to pre-preliminary study on feasibility of sugarcane growing at Maduru Oya right bank development area.
- Participating in the research forum on dissemination of the findings of the project on Capacity Development of Research-Policy-Technology personnel in Sri Lanka on Global Change and Sustainability at HARTI.
- Conducting two lecture sessions for induction course for planter trainees -2017 at NIPM, Athurugiriya.

Development

- **Sugarcane Industry Development Programme**

Badulla District

- Conducting 10 training programmes on sugarcane growing and jaggery production for farmers at Passara.
- Conducting a discussion with farmer representatives and field officers to monitor and evaluate the progress of training programmes conducted at Passara.
- Establishing and monitoring 0.5 acre nursery/multiplication field and 80 small-scale farmer fields at Passara.
- Distributing 400 leaflets on sugarcane jaggery production among farmers/jaggery producers.
- Attending District Agriculture Committee meetings in Badulla.

Nuwara Eliya District

- Conducting 16 training programmes on sugarcane growing and jaggery production for farmers at Hanguranketha and Walapane.
- Establishing and monitoring 0.5 acre nursery/multiplication field and 70 small-scale farmer fields at Serupitiya, Walapane.
- Holding discussions on expanding sugarcane cultivations in Walapane and Hanguranketha areas with the respective Divisional Secretaries.
- Inspecting the fields proposed for growing sugarcane at Walapane and Hanguranketha and conducting an awareness programme on sugarcane growing and its potential for selected farmers at Serupitiya.
- Distributing 200 leaflets on sugarcane jaggery production among farmers.

- **Replacement of the disease-infected sugarcane nurseries in Sevanagala, Pelwatte and Hingurana**
 - Establishing and monitoring 12.5 ha mother nursery fields at Sevanagala and Uda Walawe.
 - Maintaining 4 ha mother nursery field at Kantale and Uda Walawe.

PUBLICATIONS

- Anon. 2017. Gain Profit by Cultivating Sugarcane in “*Puwath Hasunda*” 2017.
- Balagalla, D.N., Wijesuriya, A., Ranathunge, N.P. and Perera, A.M.M.S. 2017. Protocols for *In-vitro* Direct Plant Regeneration from Leaf Tissues for Micro Propagation of Sugarcane, Tropical Agricultural Research, Vol. 29, pp.7.
- Kodituwakku, K.A.D. 2017. Factors Affecting Quantity and Price of Sugarcane and Sugar Production in Sri Lanka. Sugarcane Sri Lanka, Volume 03, Sugarcane Research Institute. Uda Walawe, Sri Lanka.
- Kodituwakku, K. A. D., and Keerthipala, A. P. 2017. Economic Assessment of Sugarcane Cultivation in Sri Lanka for the Year 2017/18.: Economic Publication Series 17, Sugarcane Research Institute, Uda Walawe, Sri Lanka
- Kodituwakku, K. A. D., and Keerthipala, A. P. 2017. Profitability of Sugarcane Comparing with Other Competitive Crops in Rain-fed and Irrigated Sugarcane-Growing Regions of Sri Lanka for the Year 2017/18. Economic Publication Series 18, Sugarcane Research Institute, Uda Walawe, Sri Lanka
- Manel Dapanage, Sumangala Bhat. 2017. Physiological Responses of Commercial Sugarcane (*Saccharum* spp. hybrids) Varieties to Moisture Deficit Stress Tolerance. Indian Journal of Plant Physiology, 1-8.
- Perera, A.M.M.S., Attanayaka D.P.S.T.G. and Wijesuriya A. 2017. “Assessment of genetic diversity among *Saccharum spontaneum* genotypes using SSR markers” Wayamba University Research Congress – 2017. Wayamba University of Sri Lanka, Makandura, Gonawila, Sri Lanka.
- Weerasinghe, H. A. S., Ariyawansa, B.B.S.K., and Wijesuriya, A. 2017. Response of Sugarcane (*Saccharum* hybrid spp.) Varieties SL 96 128 and SL 96 328 to Nitrogen, Phosphorous and Potassium under Irrigation at Uda Walawe, Sri Lanka: A Preliminary Analysis. Sugarcane Sri Lanka, Volume.03, Sugarcane Research Institute (forthcoming).
- Wijesuriya, A., Jayamali, L.B.C., Perera, A.M.M.S., Wijesuriya, B.W. 2017. Optimal Plot and Sample Sizes for Sugarcane (*Saccharum* spp. Hybrid) Varietal Assessment”. Sugarcane Sri Lanka, Volume.03, Sugarcane Research Institute (forthcoming).
- Wijayawardhana, L.M.J.R., De Silva, A.L.C., and Chathuranga, G. A. A. 2017. A New Device for Demarcating Furrow Lines for Sugarcane Cultivation on Undulating Terrain. In: Ranil D. Guneratne (ed) Proceedings of the 73rd Annual Sessions, Sri Lanka Association for the Advancement of Science, Colombo, Sri Lanka. pp 13.

FINANCE MANAGEMENT



ADMINISTRATION AND FINANCE DIVISION

ADMINISTRATION AND FINANCE DIVISION

Staff

Dr A P Keerthipala BSc (Agric.), MPhil, PhD	- Director/Chief Executive Officer
Dr W R G Witharama BSc (Agric.), MPhil, PhD	- Deputy Director (Research & Technology Transfer)

Administration Section

Mr P K N Priyadarshana BSc (Adm), CBA	- Assistant Director (Administration)
Dr C Eritawala PhD (Moscow), Dip. in HRM	- Administrative Officer
Ms T A D M G Jayathilaka	- Senior Management Assistant (Clerical & Typing)
Ms J K Chandralatha	- Senior Management Assistant (Clerical & Typing)
Ms T M K Senadeera	- Senior Management Assistant (Clerical & Typing)
Ms MM I M K Manikkadawara	- Management Assistant (Clerical & Typing)
Ms M A R Samarasekara	- Management Assistant (Clerical & Typing)
Ms O U Subasinghe	- Management Assistant (Clerical & Typing)
Mr W A Sameera Madhushanka	- Management Assistant (Clerical & Typing)
Ms A K Rathnayake	- Telephone Operator/Receptionist
Mr I Austin Perera	- Driver
Mr S L Peiris	- Driver
Mr H A U S Pamarathna	- Driver
Mr J P S P Karunathilaka	- Driver
Mr T P K Jayarathna	- Driver
Mr S Ekanayake	- Driver
Mr H S A Susantha Kumara	- Driver
Mr G W M P S Manawadu	- Driver
Mr A M Wijayarathna Banda	- Driver
Mr W M A K Priyashantha	- Driver
Mr K Duminda Manjula Abeysiri	- Driver

Maintenance Unit

Mr G S K Dahanayake BSc	- Works Superintendent
Ms D H S Wijesinghe	- Inspector of Works
Mr G Gamage	- Electrician
Mr R Palamure	- Electrician
Mr D W S Chinthana	- Carpenter
Mr R P Kulathunga	- Carpenter
Mr D H Dharmadasa	- Water Pump Operator
Mr H P Chandrawansha	- Water Pump Operator
Mr K H Weeraratne	- Water Pump Operator

Accounts Section

Ms D M J N Dissanayake BCom, MBS	- Accountant
Mr I B Kodagoda BCom	- Accounting Officer
Mr T M L S Thennakoon	- Book Keeper
Mr G M S Nandadeva	- Senior Management Assistant (Accounts)
Ms A K Amarakoon	- Senior Management Assistant (Accounts)
Mr D M P Nickson	- Senior Management Assistant (Accounts)
Ms T S Weerasinghe	- Management Assistant (Accounts)
Ms G D N M Anuruddhika	- Management Assistant (Accounts)

Procurement Unit

Mr.H.P.R.Kumara BB Mgt.	- Procurement Officer (up to 18.05.2017)
Ms S S Chathurani	- Management Assistant (Accounts)
Mr A G U S De Silva	- Management Assistant (Accounts)
Ms.W.G.S.Manike	- Management Assistant (Accounts) (from 15.11.2017)

Store

Mr R G S Niroshana	- Store Keeper
Mr T Ranjith Peiris	- Management Assistant (Accounts)

Internal Audit Unit

Mr S P Y Muneendra ICA (intermediate) MAAT	- Internal Auditor
Mr L S Dayananda	- Senior Management Assistant (Accounts)

Summary of the activities carried out during the year 2017

- Relocation of the Colombo Office at 21A, Palawatte Road, Thalangama South.
- Filling eight vacancies; a Senior Research Officer, two Research Officers, a Development Officer, two Technical Officers and two Management Assistant (Accounts)
- Obtaining security services from the W.E. Security Service (Pvt) Ltd. for the period from 01st August 2017 to 31st July 2018.
- Preparation of budget, annual accounts and progress reports.
- Improving and developing infrastructure facility of the Institute.
- Carrying out day-to-day administration, personnel management, maintenance and welfare activities and staff training for the requirements of the research and development activities of the Institute.

Staff Strengthening and Motivation

Staff Recruitments

Dr. W L I Wijesekara	Senior Research Officer	02.01.2017
Mr. A P Karunathilake	Development Officer	09.01.2017
Ms. P A Lakma	Management Assistant (Accounts)	09.01.2017
Mr. I P Manawadu	Technical Officer	04.07.2017
Mr. Y A P K Dayasena	Research Officer	06.07.2017
Ms. S M A D Kumari	Technical Officer	15.11.2017
Ms. W G S Manike	Management Assistant (Accounts)	15.11.2017
Ms. M G G N Sewwandi	Research Officer	04.12.2017

Staff Turnover during the year 2017

Retirements

Mr. W A Gunapala	General Worker	31.03.2017
Mr. J Wickramarachchi	General Worker	02.05.2017
Mr. K Ranjith	General Worker	23.11.2017
Mr. M Sivapalan	Lab/Field Attendant	24.12.2017

Resignations

Mr. S M A D N D Seneviratne	Technical officer	04.04.2017
Mr. H P R Kumara	Procurement Officer	18.05.2017
Dr. W L I Wijesekara	Senior Research Officer	22.05.2017
Ms. P A Lakma	Management Assistant (Accounts)	04.07.2017

Staff Training and Visits (Foreign)

Mr. S N Wickremasinghe, a Development Officer, attended training on Enterprise Promotion Strategies in Agri-Business ventures, in Hyderabad, India, from 27th February to 17th March 2017.

Mr. M K P C Gunawardhane, Development Officer, attended training on Crop Pest and Disease and import Export Agriculture Products in China from 03rd May to 01st June 2017.

Messrs. G A A Chathuranga and B R Kulasekara, Research Officers, participated in a training program on Sugarcane root system research by root system scanning at the Yunnan Sugarcane Research Institute in China from 28th April to 18 May 2017.

Mr. K A F Karunasena, Chairman, attended the 51st International Sugar Conference in El Salvador from 17th to 25th June 2017.

Dr. M S Perera, Principal Research Officer, participated in the Sugar and Cane fair FENASUCRO & AGROCANE in Brazil from 21st to 26th August 2017.

Mr. K A F Karunasena, Chairman and Dr. A P Keerthipala, Director/Chief Executive Officer made an official visit to China from 29th August to 2nd September 2017 to sign agreements with the Yunnan Academy of Agricultural Sciences (YAAS) and the Yunnan Sugarcane Research Institute (YSRI) of P.R.China.

Mr. A.L.C.De Silva, Senior Research Officer, Messrs. L M J R Wijewardhana and G A A Chathuranga, Research Officers participated in the training in photosynthesis system and lysimeter system in the United Kingdom from 24th September 2017 to 1st October 2017.

Mr. K H D Abeyrathna, Research Officer and Mr. A S M A Senior Technical Officer, participated in a two-week training program on the use of agricultural drones at the Asian Institute of Technology, Thailand from 15th to 28th October 2017.

Dr. C Epitawala, Administrative Officer, Mr. G M S Nandadewa, Senior Management Assistant (Accounts) and Ms. J K Chandralatha, Senior Management Assistant (Clerical & Typing) participated in a five-day workshop on Executive Competency Development Programme in Malaysia from 15th to 19th October 2017.

Mr. I B Kodagoda, Accounting Officer participated in a workshop on Executive Competency Development Training in Malaysia from 2nd to 6th December 2017.

Mr. P K N Priyadarshana, Assistant Director (Administration) participated in International Training Programme on Enterprises Project and Organisation Management from 10th to 16th December 2017 at Burapha University, Thailand.

Long-Term Training (Local)

Ms. B D S K Ariyawansa (Senior Research Officer in Economics, Biometry & Information Technology Division), and Mr. H A S Weerasinghe (Research Officer in Crop Nutrition Division) continued their postgraduate studies leading to PhD at the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka.

Ms. A N W S Thushari (Research Officer in Crop Protection Division) started her MPhil at the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka from 01st February 2017.

Training Programs/Workshops/Seminars Attended (Local)

Mr. D P W Pottawela, Technology Transfer Officer and Ms. S M T A Maralanda, Research Officer, A M M S Perera and Dr. Aruna Wijesuriya, Principal Research Officer participated in the workshop on “Work – Life Balance for Scientists: Key to Success” on 27th April 2017 at the Industrial Technology Institute, Colombo 7.

All relevant staff participated in a two-day training programme on Government Procurement Procedures conducted by Mr Piyatissa Ranasinghe on 30th May 2017 and 15th June 2017 at Sarathchandra Guest, Embilipitiya.

All scientific staff participated in a training programme on “Biometrical Applications in Agricultural Research conducted by Professor R O Thattil on 4th and 5th July 2017 at the Sugarcane Research Institute Uda Walawe.

Mr. P A Ranjith Palamure, Electrician participated a four-day workshop on Maintenance of Auto Electrical Systems on 13th to 16th July 2017 at Construction Equipment Training Centre, Colombo.

Mr. R G S Niroshana, Store Keeper and Mr. A G U S De Silva, Management Assistant (Accounts) participated in a Workshop on control of office equipment on 27th and 28th July 2017 at the Skills Development Fund Ltd., Colombo.

Mr. T M L S Thennakoon, Book Keeper, Ms. I M K Manikkadawara and Ms. M A R Samarasekara, Management Assistants (Clerical & Typing) participated in a three-day workshop on Clerical Skills on 24th to 26th July 2017 at the Skills Development Fund Ltd., Colombo.

Ms. M A R Samarasekara, Management Assistant (Clerical & Typing) participated in a 3-month training programme on Certificate Course in English Language from 28th July 2017 at the Skills Development Fund Ltd., Colombo.

Mr. P R B Chandrasena, Farm Superintendent, participated in a four-month certificate course in Human Resource from 29th July 2017 at the Skills Development Fund Ltd., Colombo.

Mr. L S Dayananda, Senior Management Assistant (Accounts) participated in a training program on Internal Auditing on 3rd August 2017 at PRAG Service (Pvt) Ltd. Colombo.

Mr. W A S Madhusanka, Management Assistant, participated in a Higher Certificate course on Transport Management on 11th August 2017 at the Construction Equipment Training Centre, Colombo.

Mr. N A H W Thilakarathna, General Worker (Office) and Mr. K. A. Vipul Kumarasiri, General Worker participated a training programme on the role Office Aides on improving

productivity of a institute on 25th August 2017 at the Construction Equipment Training Centre, Colombo.

Ms. M A R I Perera, Technical Officer, participated in a workshop on Food Microbiology Techniques from 14th to 29th August 2017 at the Industrial Technology Institute, Colombo.

Dr. M S Perera, Principal Research Officer, Mr. D P W Pottawela, Technology Transfer Officer, Mr. H A S Weerasinghe, Research Officer, Mr. B R Kulasekara, and Mr. K P Wickramasinghe, Research Officer participated in the workshop on Untapped Potential of Sugar Industry in National Development on 11th September 2017 at the Institute of Chemistry, Rajagiriya.

Mr. W M A K Priyashantha, Driver, participated in a training programme on scientific, economic and safe driving of vehicles on 21st September 2017 at the Construction Equipment Training Centre, Colombo.

Mr. H M Lasantha, Peon/Messenger participated in a training programme on attitudes and job of the Office Aides on 27th and 28th November 2017 at the Skills Development Funds Ltd., Colombo.

Mr. P K N Priyadarshana, Assistant Director (Administration) participated in a training programme on Disciplinary Procedures on 4th and 5th December 2017 at the Skills Development Funds Ltd., Colombo.

Ms. M G G N Sewwandi, Research Officer, participated in a workshop on project proposal writing on 21st December 2017 at the Sri Lanka Council for Agricultural Research policy, Colombo.

AUDIT AND MANAGEMENT COMMITTEE REPORT

Four Audit and Management Committee Meetings were held during the year 2017. The progress of the institutes' research, technology transfer and development activities as well as progress and issues of the administrative and financial matters were taken up at the above meetings for discussion.

Internal audit queries that have been issued by the internal audit unit from time to time were discussed at the above meetings. The summarised reports and decisions taken on the audit matters at the committee meetings were referred to the Board of Governors of the institute for further discussion and to take decisions on the relevant matters. The institute was able to minimise queries raised by the Government Auditors by discussing them at the Audit and Management Committee, and rectifying any faults.

In addition, activities of the SRI were streamlined according to the circulars issued by the government from time to time and administrative set up of the institute. Necessary information was provided to the Board of Governors to take decisions, and thus, the institute's Audit and Management Committee was able to fulfil its obligations without any deficiencies during the year 2017.



S. P. Y. Muneendra
Internal Auditor

20th February 2018

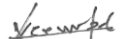
Audited Financial Statetments

SUGARCANE RESEARCH INSTITUTE
STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2017

ASSETS	NOTES	2017 Rs.	2017 Rs.	2016 Rs.	2016 Rs.
Non - current assets					
Property, Plant and Equipment	1		267,629,949.92		255,143,450.98
			267,629,949.92		255,143,450.98
Current assets					
Consumable stocks	2	22,899,519.36		21,526,424.72	
Livestock		338,100.00		252,695.00	
Advance payment for opening LC		4,221,623.09		22,365,615.01	
Work in progress		250,000.00		250,000.00	
Trade and other receivables	3	44,387,389.61		82,601,202.03	
Investment (S / T)	4	152,329,680.56		167,913,141.77	
Prepayments & other deposits	5	883,900.74		653,900.74	
Cash and cash equivalents	6	18,616,140.74	243,926,354.10	17,696,751.78	313,259,731.05
Total assets			511,556,304.02		568,403,182.03
LIABILITIES					
Current liabilities					
Payable	7	20,686,978.53		5,977,087.41	
Accrued expenses	8	3,682,401.92	24,369,380.45	5,053,913.82	11,031,001.23
Non - current liabilities					
Differed income				(5.62)	(5.62)
Provision for medical (Schedule 09)		3,108,344.90		3,150,030.84	
Provision for audit fee		300,000.00		300,000.00	
Provision for Doubtful debts		367,839.81		367,839.81	
Provision for gratuity (Schedule 10)	9	60,506,694.00	64,282,878.71	50,961,660.50	54,779,531.15
Total liabilities			88,652,259.16		65,810,532.38
Total Net Assets			422,904,044.86		502,592,644.03
Reserve - Retain Earnings		287,574,935.55			279,064,744.56
					88,198,790.16
Revaluation reserve	135,329,109.31			135,329,109.31	135,329,109.31
Total Net Assets/Equity			422,904,044.86		502,592,644.03

The governing body of an entity is responsible for the preparation and presentation of its financial statements and which should also contain a statement of responsibility. The accounting policies on pages..... to and Notes on pages ... to ... from and integral part of these financial statements. The Board of Governors is responsible for the preparation and presentation of these financial statements. These financial statements were approved by the Board of Governors and signed on their behalf.


K A F Karunasena
Chairman


Dr. A P Keerthipala
Director / CEO


D M J N Dissanayake
Accountant

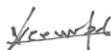
SUGARCANE RESEARCH INSTITUTE
STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 31ST DECEMBER 2017

Description	Notes	Year 2017 Rs.	Year 2016 Rs.
Operating Revenue			
Cess on sugar imports			
Treasury Fund (Additional note 1.8)	Capital	17,700,000.00	53,000,000.00
	Recurrent	205,130,000.00	250,000,000.00
Treasury Grant for Ministry Project		10,000,000.00	12,000,000.00
Cess on local sugar production (Additional Note 1.2)		4,484,550.00	1,437,670.00
Other income	10	22,678,341.63	23,038,027.14
Capital Grant for the Purchase of the Equipment			50,000,000.00
		<u>259,992,891.63</u>	<u>389,475,697.14</u>
Operating Expenses			
Personnel emoluments	11	179,771,941.65	179,594,282.69
Travelling and subsistence		2,344,695.63	2,513,622.20
Foreign visits		7,621,383.46	787,291.65
Supplies and consumables	12	5,195,863.14	3,862,315.28
Maintenance	13	28,992,400.36	17,384,252.06
Contractual services	14	36,744,192.10	12,747,881.56
Research and development	15	12,076,662.94	27,402,552.03
Depreciation and amortisation expenses		55,276,233.43	44,624,297.78
Other operating expenses	16	11,265,566.16	11,877,079.08
Doubtful debts			367,839.81
Total operating expenses		<u>339,288,938.87</u>	<u>301,161,414.14</u>
Surplus / (Deficit) from operating activities		<u>(79,296,047.24)</u>	<u>88,314,283.00</u>
Finance cost		106,364.12	115,492.84
Total non-operating revenue (expenses)		<u>(79,402,411.36)</u>	<u>88,198,790.16</u>
Net surplus / (Deficit) before extraordinary items			
Net surplus / (Deficit) for the period		<u>(79,402,411.36)</u>	<u>88,198,790.16</u>

The governing body of an entity is responsible for the preparation and presentation of its financial statements and which should also contain a statement of responsibility. The accounting policies on pages..... to ... and Notes on pages .. to... from and integral part of these financial statements. The Board of Governors is responsible for the preparation and presentation of these financial statements. These financial statements were approved by the Board of Governors and signed on their behalf.



K A F Karunasena
Chairman



Dr. A P Keerthipala
Director / CEO



D M J N Dissanayake
Accountant

SUGARCANE RESEARCH INSTITUTE
CASH FLOW STATEMENT FOR THE YEAR ENDED 31ST DECEMBER 2017

Description	2017 (Rs)	2016 (Rs)
Surplus /(deficit) from ordinary activities	<u>(79,402,411)</u>	<u>88,198,790</u>
Non - cash movements		
Depreciation	55,276,233	44,624,298
Provision for gratuity	9,545,034	-11,690,136
Provision for medicals	(41,686)	229,298
Provision for Audit fee	-	200,000
Prior - year adjustment	296,232	3,922,310
Livestock	85,405	-27,494
Differed income	-	-10
Operating profit / (Loss) before working capital changes	<u>(14,241,194)</u>	<u>125,457,056</u>
Increase / Decrease in trade and other receivables (without staff loan)	37,293,880	-34,753,530
Increase / Decrease in sundry stock	(1,373,095)	-5,068,830
Increase / Decrease in working progress	-	2,530,752
Increase/ Decrease advance payment for opening Letters of Credit	18,143,992	-11,601,369
Increase / Decrease in advance and prepayments	230,000	621,000
Increase / Decrease in staff loan	919,833	452,649
Increase / Decrease in creditors and other payables	13,338,379	2,011,641
Payment for gratuity	(1,168,022)	-826,643
Payment for medicals (from the provision)	(45,114)	-32,146
Cash generated from operating activities before income tax	<u>67,339,853</u>	<u>-46,666,476</u>
Cash flows from / (used) in investing activities		
Purchase of property, plant and equipment	(67,762,732)	-90,298,389
Net cash flow from / (used) in investing activities	<u>(67,762,732)</u>	<u>-90,298,389</u>
Net increase / decrease in cash and cash equivalents	(14,664,073)	-11,507,809
Cash and cash equivalents at the beginning of the year	185,609,894	197,117,703
Cash and cash equivalents at the end of the year	<u>170,945,821</u>	<u>185,609,894</u>
Analysis of the balance cash and cash equivalents shown in the balance sheet		
Bank balance	18,616,141	17,696,752
Treasury bill deposit	89,122,043	104,705,504
Fixed deposits	63,207,637	63,207,637
Total	<u>170,945,821</u>	<u>185,609,894</u>

SUGARCANE RESEARCH INSTITUTE
NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2017

		<u>2017</u> <u>Rs</u>	<u>2016</u> <u>Rs</u>
1	Property, Plant and Equipment		
2	Consumable stock	<u>2017</u> <u>Rs</u>	<u>2016</u> <u>Rs</u>
	Stationery	1,080,816.20	865,979.47
	Repair and maintenance of vehicles	1,621,722.00	2,055,625.60
	Repair and maintenance of buildings	11,723,161.88	13,802,160.08
	Repair and maintenance of machinery	1,063,256.56	947,432.10
	Fuel	626,996.00	970,928.00
	Staff welfare	166,204.00	166,204.00
	Research materials	6,551,617.95	2,718,095.47
	Miscellaneous	65,744.77	
	Total consumable stock	<u>22,899,519.36</u>	<u>21,526,424.72</u>
3	Trade and other receivables	<u>2017</u> <u>Rs</u>	<u>2016</u> <u>Rs</u>
	Advances :		
	Local purchases	3,523.31	53,723.31
	Travelling	158,860.20	125,860.20
	Fuel	17,071.05	6,071.05
	Advance payments	2,205,800.63	607,607.80
	Research	208,045.92	93,876.01
	Sundry	8,551.09	537,589.54
	Interest receivables :		
	F.D. - N.S.B.	3,345,061.01	2,674,898.13
	Treasury bill - P.B.	1,334,717.74	1,007,562.76
	Other Receivables :		
	Amendment charges for LCs	191,961.00	191,961.00
	Project fund from ministry & Treasury Grant		36,000,000.00
	Staff loans :		
	Housing loans (Schedule 02)	5,684,566.60	6,028,552.14
	Distress loans (Schedule 03)	23,477,701.85	22,038,970.99
	Festival advances (Schedule 04)	15,250.00	9,000.00
	Push cycle loans (Schedule 05)	(400.00)	(400.00)
	Motor cycle loans / Car (Schedule 06)	3,845,704.68	5,869,632.87
	Salary Advance	-	(500.00)
	Book Loan	2,500.00	
	Debtors :		
	Other Loans :		
	Kantale Sugar Industries Ltd. (Additional Note 1.3)	1,000,000.00	1,000,000.00
	Kantale Sugar Industries Ltd. (Additional Note 1.3)		385,333.00
	Lanka Sugar Co.(Pvt) Ltd- Sevanagala Sale of Sugarcane	1,063,130.80	3,317,317.00
	Gal Oya Plantations (Pvt) Ltd.		282,870.00
	Lanka Sugar Company (Pvt) Ltd.	1,825,343.73	758,593.73
	Ethimale Plantation (Pvt) Ltd.		1,131,752.50
	M.G.Sugars Lanka (Pvt) Ltd.		480,930.00
	Total Trade and other receivable	<u>44,387,389.61</u>	<u>82,601,202.03</u>

		<u>2017</u>	<u>2016</u>
		<u>Rs</u>	<u>Rs</u>
4 Investment (S/T) :			
	Treasury bill - P.B	89,122,043.18	104,705,504.39
	Fixed deposit (Scholarship)- N.S.B.	500,000.00	500,000.00
	Fixed deposit (Gratuity)- N.S.B.	62,707,637.38	62,707,637.38
Total Investment (S/T)		<u>152,329,680.56</u>	<u>167,913,141.77</u>
5 Prepayments and other deposits			
		<u>2017</u>	<u>2016</u>
		<u>Rs</u>	<u>Rs</u>
Prepayments -	Repair and maintenance of office equipment	6,160.00	6,160.00
	Withholding Tax	(26,234.26)	(26,234.26)
Other deposits	C.B. Ellepola	2,500.00	2,500.00
	Electricity Board	150,100.00	150,100.00
	Embilipitiya M.P.C.S. Ltd.	155,000.00	155,000.00
	Gas cylinder	118,375.00	118,375.00
	M.T.N Net Work	2,500.00	2,500.00
	Softlogic Information	1,500.00	1,500.00
	Sri Lanka Customs	-	10,000.00
	Kantale Multi Purpose Co-operative Society	90,000.00	90,000.00
	Ceylon Oxygen Ltd.	144,000.00	144,000.00
	A. G. Perera	90,000.00	
	D. Ajith	150,000.00	
Total prepayment and other deposits		<u>883,900.74</u>	<u>653,900.74</u>
6 Cash and cash equivalents			
		<u>2017</u>	<u>2016</u>
		<u>Rs</u>	<u>Rs</u>
People's Bank	Uda Walawe A/C No. 295 1001 - 0000000 - 5	6,642,838.06	239,676.70
People's Bank	Battaramulla A/C No. 080 - 1 -001-5-1334359	2,906,193.01	1,076,833.95
Bank of Ceylon	Battaramulla A/C No. 272977 - 5	4,670,961.71	6,617,704.83
		100,000.00	100,000.00
		100,000.00	100,000.00
People's Bank	Uda Walawe A/C No.295-100-8-0000186	544,384.53	178,103.83
Bank Savings	People's Bank - Ratmalana-A/C No. 080-2-001-3-1334359	71,937.40	567,428.47
	People's Bank – Uda Walawe - A/C No. 295-2-001-7-0020749	3,579,826.03	8,817,004.00
Total cash and cash equivalents		<u>18,616,140.74</u>	<u>17,696,751.78</u>
7 Payables			
		<u>2017</u>	<u>2016</u>
		<u>Rs</u>	<u>Rs</u>
Analytical Instruments (Pvt) Ltd.		2,237,762.03	559,354.63
Anuruddha Aluminium			422,293.25
Asean Industrial Trade ways			15,384.60
Bhoomi Tech			17,307.50
Refundable tender deposit (Schedule 07)		360,000.00	50,000.00
Retention (Schedule 08)		1,937,833.12	1,714,939.94
U.G. Stores			224,625.00
W.G. Nimal		(616.67)	(616.67)
Wasantha Auto Electrician		(1,050.00)	(1,050.00)
Wickrama Hardware		255,473.00	498,520.00
Libra Agency			261,188.00
Avon Pharmo Chem		175,037.12	
The Associated News Papers			45,540.00

Shakthi Enterprises	67,105.00	11,900.00
Science Land Information Technology	100,000.00	100,000.00
Ceyco Metal Merchant (Pvt) Ltd		37,710.00
Ajith Motor Stores		750.00
R.S.Global Traders	15,190.00	15,190.00
Brown & Company PLC	102,405.14	28,621.20
D.R.Industries		295,950.17
Director General Civil Security		981,656.55
Embilipitiya Agro Centre		31,000.00
EWIS Peripheral (Pvt) Ltd		30,000.00
Lakshman Saw Mills		111,167.70
Mega Heaters		180,853.14
Menaka Auto AC		73,500.00
Sarathchandra & Company		5,150.00
State Timber Ceylon	1,461,979.21	208,402.40
VijithaYapa Bookshop (Pvt) Ltd.		57,750.00
A.C.Paul Company	131,637.00	
Abans PLC	735,676.47	
Amila Tyre Mart	290,930.00	
Bimro Tiles	141,450.00	
Buddhi Auto Traders	30,000.00	
CIC Holdings	622,419.05	
Colombo Fertilizer	511,900.00	
Craft Lanka	56,350.00	
Evergreen	14,750.00	
Gamage Construction	2,284,272.14	
Geinus Associates	129,999.00	
Hayleys Agriculture	202,202.03	
Herath Traders	150,375.00	
Islandwide Scientific	4,958,030.00	
John Keels	581,250.00	
Metropolitan Office	55,150.00	
National Institute of Fundamental Studies	114,000.00	
NEC Technologies	9,500.00	
Pathirana Hardware	154,930.00	
Sandaru Curtains	79,457.50	
Saradha Lanka	142,300.00	
Sarathchandra Home Centre	31,300.00	
SCF Printers	319,500.00	
Singer Sri Lanka PLC	77,329.00	
Sioftlogic Information	615,000.00	
Sri Lanka Broad Casting	160,855.00	
The Associated Newspaper of Ceylon Ltd.	74,520.00	
The Tyre Max	97,000.00	
Toyota Lanka	91,320.05	
U & H Wheel	73,719.99	
U.G. Stores	374,782.50	
United Motors	4,329.00	
Venura Auto Electricals	15,600.00	
W.E. Security	644,026.85	
Total payables	<u>20,686,978.53</u>	<u>5,977,087.41</u>
8 Accrued expenses	<u>2017</u>	<u>2016</u>
	<u>Rs</u>	<u>Rs</u>
Electricity	423,253.71	436,847.91
Fuel	68,385.00	700,890.00
Overtime	790,477.32	707,452.63
Postal and Communication	166,580.93	313,677.51
Repair and maintenance of vehicles	81,650.00	17,730.00
Rent	125,500.00	
Research materials		113,010.50
Stationery	2,020.00	3,799.00

Sugar sector development	34,060.00	
Travelling and subsistence	78,501.50	63,808.00
Foreign travelling	3,000.00	
Salaries, Wages and Allowance	1,016,829.08	952,133.81
Welfare	368,328.33	765.00
Workmen compensation		3,762.50
Repair and maintenance of office equipment and machines	450.00	22,370.00
Repair and maintenance of buildings	2,210.00	20,825.00
Employees' Provident Fund	2,269,850.39	1,998,669.11
Employees' Trust Fund	272,382.01	247,353.35
Training Allowance	38,000.00	
Board of Governor's Expenses	105,043.00	
Kantale project expenses	676,131.62	
Others supplies	35,913.00	
Local Purchase Advance	(50,000.00)	
Salary and wage deduction	3,136.97	2,736.97
Other Allowance		17,500.00
Diets & Uniform	1,260.00	2,590.00
Other supplies	49,072.50	31,789.00
Security charges	797,612.57	18,300.00
Legal charges		63,837.30
Stamp duty		18,450.00
Research advance		(2,400.00)
Sundry advance	(4,840.00)	(631,740.00)
Fine		(30.00)
Special advance	(784,631.62)	(100,000.00)
Travelling advance	(15,000.00)	(11,000.00)
E.P.F.Control Account	(2,645,677.47)	(10,410.26)
E.T.F.Control Account	(227,096.62)	51,196.49
Total Accrued Expenses	<u>3,682,401.92</u>	<u>5,053,913.82</u>

9 Provision for Gratuity
Please see the schedule 11

SUGARCANE RESEARCH INSTITUTE
NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 31ST
DECEMBER 2017

	2017	2016
	Rs	Rs
10 Other Incomes		
Interest Income on staff loans	1,445,575.39	1,426,649.12
Interest Income on treasury bills	9,297,942.74	8,627,387.21
Interest Income on fixed deposits	6,226,512.01	4,314,845.19
Interest on savings A/Cs	175,103.93	264,673.06
Sale of seedcane/factory cane	1,362,486.00	3,174,465.00
Sale of Sugarcane	-	2,068,596.00
Sundry income	4,170,721.56	3,161,411.56
Total other income	<u>22,678,341.63</u>	<u>23,038,027.14</u>
	2017	2016
	Rs	Rs
11 Personnel Emoluments		
Salaries, wages and holiday Payment	141,880,661.04	137,668,767.00
Contribution to EPF and ETF	19,445,751.02	17,926,356.40
Overtime	9,648,225.72	11,833,072.77
Welfare programme	7,755,874.99	11,345,999.52
Other allowances	1,041,428.88	820,087.00
Total personnel emoluments	<u>179,771,941.65</u>	<u>179,594,282.69</u>
	2017	2016
	Rs	Rs
12 Supplies and consumables		
Printing and translation	3,308,825.00	1,851,295.55
Stationery	967,419.02	1,188,512.18
Medical supplies	8,709.00	21,781.49
Other supplies	910,910.12	800,726.06
Total supplies and consumable used	<u>5,195,863.14</u>	<u>3,862,315.28</u>
	2017	2016
	Rs	Rs
13 Maintenance		
License insurance and fitness certificates	1,817,239.97	1,736,322.63
Repair and maintenance of vehicles	10,455,551.44	5,717,012.86
Repair and maintenance of buildings	5,820,448.95	1,415,731.70
Repair and maintenance of machinery and lab equipment	3,089,296.15	1,553,401.85
Fuel and lubricants	7,809,863.85	6,961,783.02
Total maintenance	<u>28,992,400.36</u>	<u>17,384,252.06</u>

	2017	2016
	Rs	Rs
14 Contractual services		
Postage and telecommunication	2,807,577.46	2,556,481.84
Rent rates and taxes	1,885,721.00	3,551,296.94
Legal fee charges	662,267.00	129,293.30
Audit fees	-	106,185.00
Electricity and water	6,250,938.18	6,183,272.47
Security charges	13,091,849.48	10,702,316.55
Retirement benefits	10,713,054.50	(11,690,136.25)
Workmen's compensation	235,739.38	52,357.50
Cooperate Social Responsibility	100,000.00	
Other services	-	366,861.68
Stamp duty	-	(16,675.00)
Diets and uniform	400,353.70	307,883.46
Other transfers	596,691.40	498,744.07
Total contractual services	<u>36,744,192.10</u>	<u>12,747,881.56</u>
	2017	2016
	Rs	Rs
15 Research and Development		
Research materials	8,217,339.03	18,453,692.73
Irrigation and land preparation	870,826.20	2,975,464.00
Sugar sector development	2,876,487.61	3,633,471.48
Symposium		1,558,660.00
Research review expenses		100,000.00
Harvesting expenses	112,010.10	475,840.22
Other recurrent expenses		205,423.60
Total research and development	<u>12,076,662.94</u>	<u>27,402,552.03</u>
	2,017	2016
	Rs	Rs
16 Other operating expenses		
Transport	839,827.98	172,364.09
Scholarship	180,000.00	249,500.00
Board of Governors' expenses	608,379.20	
Board, Audit and Management meeting expenses	310,112.93	631,086.60
Miscellaneous	487,591.65	
Staff training	2,547,345.73	599,448.57
Kantale project expenses	5,714,936.17	8,886,225.53
Kilinochchi project expenses	577,372.50	1,338,454.29
	<u>11,265,566.16</u>	<u>11,877,079.08</u>

SUGARCANE RESEARCH INSTITUTE
STATEMENT OF CHANGES IN NET ASSETS FOR THE YEAR ENDED 31ST DECEMBER 2017

Description	Revaluation Reserve	Retained earnings/(Translation Reserve)	Total
Balance as at 01 January 2017	135,329,108.51	367,273,578.56	502,602,687.07
		-	-
Prior-year adjustment (Additional Note 1.1)	-	(296,231.65)	(296,231.65)
Surplus / (deficit) for the period	-	(79,402,411.36)	(79,402,411.36)
Balance as at 31st December 2017	135,329,108.51	287,574,935.55	422,904,044.06

Additional Notes

1.1 Prior-year adjustment

The previous year adjustment consist of followings:

Error correction of custom deposit	10,000.00
Increase of the livestock	(85,405.00)
Error correction of salary advance	(500.00)
Error correction of Kantale interest	385,333.00
Error correction in income	(752.29)
Error correction in D/L	(12,444.06)
Total	296,231.65

- 1.2 Cess on local production has been added to 2017 final accounts on cash basis. The receivable amounts from the local sugar production as at 31/12/17 are as follows:

Rs			
Description	Pelwatte	Sevanagala	Gal Oya
Balance as at 1/1/17	8,026,955.00	2,728.065.00	5,107,511.00
Amount to be received on the production in 2017	2,764,260.00	Production data not received	Production data not received
	10,791,215.00	2,728,065.00	5,107,511.00
Cash received in 2017	2,761,160.00	2,728,065	-
balance as at 31/12/17	8,030,055.00	-	5,107,511.00

Production details were requested from respective sugar companies to calculate cess on local sugar production for the year 2017, and full details were not received from Gal Oya Plantations (Pvt) Ltd. Lanka Sugar Company (Pvt) Ltd.- Sevanagala.

- 1.3 The receipt of the loan to Kantale Sugar Industries Ltd Rs 1,000,000 is doubtful.
- 1.4 Mr. S.D.N.U.S Wimalasuriya has been sent on retirement and he has filed a case in Labour Tribunal against the institute.
- 1.5 The year of purchase is not considered in calculating depreciation.
- 1.6 Fixed deposit stated at their cost value and Treasury bills are stated at their net realisable value.
- 1.7 Maturity date is not considered in calculating Treasury bills.
- 1.8 Income analysis from Treasury and Ministry

Rs Mn			
Source	Approved	Received	To be received
Recurrent	255.00	2015.13	49.87
Capital	60.00	17.70	42.30
Projects	10.00	10.00	Nil
Total	325.00	232.83	92.17

- 1.9. Livestock will be sold in the year 2018.

Schedule 1:

Property, Plant and Equipment

Description	Balance as at 01.01.2017	Cost (Rs.) Addition / Removal	Balance As at 31.12.2017	Balance as at 01.01.2017	Depreciation (Rs) Depreciation for the year	Balance as at 31.12.2017	N.D.V * (Rs.) 31.12.2017
Office equipment	11,775,776.31	5,544,357.79	17,320,134.10	1,220,070.47	1,766,366.45	2,986,436.91	14,333,697.19
Furniture fittings	10,202,929.29	3,646,424.09	13,849,353.38	1,990,138.91	1,530,439.39	3,520,578.30	10,328,775.08
Computer equipment	6,109,850.00	-	6,109,850.00	1,591,659.50	1,221,970.00	2,813,629.50	3,296,220.50
Laboratory equipment	70,769,468.87	20,575,754.73	91,345,223.60	11,604,924.49	10,615,420.33	22,220,344.82	69,124,878.78
Agricultural equipment	18,970,434.66	(0.46)	18,970,434.20	2,909,994.60	2,845,565.20	5,755,559.80	13,214,874.40
Field equipment	7,584,831.93	3,907,956.39	11,492,788.32	1,604,247.84	1,137,724.79	2,741,972.63	8,750,815.69
Workshop equipment	12,449,180.54	3,623,390.54	16,072,571.08	1,127,376.98	1,867,377.08	2,994,754.06	13,077,817.02
Other equipment	5,092,795.99	211,798.41	5,304,594.40	1,010,418.38	763,919.40	1,774,337.77	3,530,256.63
Bicycle	105,300.00	-	105,300.00	19,590.00	15,795.00	35,385.00	69,915.00
Motor vehicles	121,883,538.00	233,250.98	122,116,788.98	44,660,637.63	30,470,884.50	75,131,522.13	46,985,266.86
Computer software	924,574.00	-	924,574.00	96,582.40	92,457.40	189,039.80	735,534.20
Buildings	14,864,017.00	18,093,006.13	32,957,023.13	1,300,601.49	743,200.85	2,043,802.34	30,913,220.79
Library books	128,620.66	-	128,620.66	22,508.62	12,862.07	35,370.68	93,249.98
Infrastructure development	43,845,019.50	11,926,793.77	55,771,813.27	404,134.49	2,192,250.98	2,596,385.46	53,175,427.81
TOTAL	324,706,336.75	67,762,732.37	392,469,069.12	69,562,885.77	55,276,233.43	124,839,119.20	267,629,949.92

Auditor General's Report



විගණකාධිපති දෙපාර්තමේන්තුව
கணக்காய்வாளர் தலைமை அபிபதி திணைக்களம்
AUDITOR GENERAL'S DEPARTMENT



මගේ අංකය
எனது இல. }
My No. }

පිටල්පි/වි/එස්ආද්අයි/01/17/04
உமறு இல. }
Your No. }

දිනය
திகதி }
Date }

2018 සැප්තැම්බර් 21 දින

සභාපති,
උත් පර්යේෂණ ආයතනය.

උත් පර්යේෂණ ආයතනයේ 2017 දෙසැම්බර් 31 දිනෙන් අවසන් වර්ෂය සඳහා වූ මූල්‍ය ප්‍රකාශන පිළිබඳව 1971 අංක 38 දරන මුදල් පනතේ 14(2)(B) වගන්තිය ප්‍රකාර විගණකාධිපති වාර්තාව

මාගේ සමාංක හා 2018 අගෝස්තු 31 දිනැති ලිපියට යොමුවේ.

02. ඉහත සඳහන් ලිපිය සමඟ එවන ලද මාගේ වාර්තාවේ ඉංග්‍රීසි අනුවාදය මේ සමඟ එවා ඇත.


පී.ඒ.ඒ. ආනන්ද

නියෝජ්‍ය විගණකාධිපති

විගණකාධිපති වෙනුවට



- පිටපත් -
1. ලේකම්, රාජ්‍ය ව්‍යවසාය හා මහනුවර නගර සංවර්ධන අමාත්‍යාංශය
 2. ලේකම්, මුදල් හා ජනමාධ්‍ය අමාත්‍යාංශය



විගණකාධිපති දෙපාර්තමේන්තුව
கணக்காய்வாளர் தலைமை அபிபதி திணைக்களம்
AUDITOR GENERAL'S DEPARTMENT



මගේ අංකය
எனது இல.
My No. }

PLA/D/SRI/01/17/04

ඔබේ අංකය
உமது இல.
Your No. }

දිනය
திகதி
Date }

31 August 2018

The Chairman,

Sugarcane Research Institute

Report of the Auditor General on the Financial Statements of the Sugarcane Research Institute for the year ended 31 December 2017 in terms of Section 14(2)(c) of the Finance Act No. 38 of 1971.

The audit of financial statements of the Sugarcane Research Institute for the year ended 31 December 2017 comprising the statement of financial position as at 31 December 2017 and the Statement of Financial Performance, Statement of Changes in Equity and Cash Flow Statement for the year then ended and a summary of significant accounting policies and other explanatory information, was carried out under my direction in pursuance of provisions in Article 154(1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with Section 13(1) of the Finance Act, No. 38 of 1971 and Section 19(3) of the Sugarcane Research Act No.75 of 1981. My comments and observations which I consider should be published with the Annual Report of the Institute in terms of Section 14(2)(c) of the Finance Act appear in this report.

1.2 Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Sri Lanka Public Sector Accounting Standards and for such internal control as the management determines is necessary to enable the preparation of financial statements that are free from material misstatements, whether due to fraud or error.

අංක 306/72, පොල්දූව පාර, බත්තරමුල්ල, ශ්‍රී ලංකාව. - இல. 306/72, பொல்துவ வீதி, பத்தரமுல்லை, இலங்கை. - No. 306/72, Polduwa Road, Battaramulla, Sri Lanka



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1.3 Auditor's Responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Sri Lanka Auditing Standards consistent with International Auditing Standards of Supreme Audit Institutions (ISSAI 1000-1810). Those Standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those assessments, the auditor considers internal control relevant to the Institute's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Institute's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. Sub-sections (3) and (4) of Section 13 of the Finance Act, No. 38 of 1971 give discretionary powers to the Auditor General to determine the scope and extent of the Audit.

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

1.4 Basis for Qualified Opinion

My opinion is qualified based on the matters described in paragraph 2.2 of this report.



2. Financial Statements

2.1 Qualified Opinion

In my opinion, except for the effects of the matters described in paragraph 2.2 of this report, the financial statements give a true and fair view of the financial position of the Sugarcane Research Institute as at 31 December 2017 and its financial performance and cash flows for the year then ended in accordance with Sri Lanka Public Sector Accounting Standards.

2.2 Comments on financial statements

2.2.1 Sri Lanka Public Sector Accounting Standards

Sri Lanka Public Sector Accounting Standard 01

According to the Paragraph 48 of the standard, assets and liabilities, and revenue and expenses shall not be offset. However, the minus balances amounting to Rs.26,634 and Rs.3,856,184 which were remained in 11 Assets and Liabilities Accounts as at the end of the year were offset and had been shown in the statement of financial position as Rs.44,387,389 and Rs.20,686,978 respectively as the balances receivable and payable at the end of the year under review.

2.2.2 Accounting Policies

According to the accounting policy of the Institute, the treasury bills should be shown in the financial statements to the realized value. However, according to the confirmation of balances received by the bank as at the end of the year under review, the realized value of treasury bills amounted to Rs.92,024,500, it had been shown as Rs.89,122,043 according to the financial statements.



2.2.3 Accounting Deficiencies

The following observations are made.

- (a) Even though the assets such as Lysimeter system, data loggers, air conditioners, computers valued at Rs.15,205,107 received on credit basis during the period from May to December in the year under review had been included in the Register of Fixed Assets, the relevant assets had not been included in accounts.
- (b) Even though according to the computation of audit in the year under review that the interest income of treasury bills amounted to Rs.10,305,506, the interest income of treasury bills had been understated by Rs.1,007,563 due to it had been shown as Rs.9,297,943 in the financial statements.
- (c) Even though a sum of Rs.250,000 had been shown under the Work-in- Progress Account from the year 2012 due to an accounting error, action had not been taken to rectify it by identifying the accurate accounts relating to that.
- (d) A sum amounting to Rs.90,000 which had been paid as security deposits in the renting out of a building in the year under review had been accounted as an expenditure.
- (e) The value of the land of 03 acres and 35 perch in extent belonging to the Institute had not been assessed and brought to accounts.

2.3 Accounts Receivable

Even though it was exceeded more than a period of 5 years that a sum of Rs.1,063,131 receivable for the sugarcane sticks from the Sugar Factory at Sevanagala, a sum of Rs.86,780 receivable for the molasses supplied to the Lanka Sugar Corporation in the year 2014, a sum of Rs.1,000,000 receivable from the Sugar Corporation at Kantale, action had not been taken to recover by the end of the year under review.



3. Financial Review

3.1 Financial Results

According to the financial statements presented, the operation of the Institute for the year under review had resulted in a deficit of Rs.79,402,411 as against the surplus of Rs.88,198,790 thus indicating a deterioration of Rs.167,601,201 in the financial results for the preceding year. Decrease in Government grants by Rs.80,170,000 and increase in foreign travelling expenses by Rs.6,834,091 and increase in agreed services by Rs.23,996,310 had been the main reasons for the above deterioration.

In the analysis of the financial results of the year under review and 04 preceding years, it had been indicated that a financial deficit amounting to Rs.28,730,918 in the year 2013. Even though the surplus amounted to Rs.6,780,836 in the year 2014 had been increased gradually, it had become a deficit of Rs.79,402,411 in the year under review. However, after making adjustments to personnel emoluments, depreciation on non-current assets, the contribution of Rs.96,000,245 had been continuously increased in the year 2013 and become Rs.312,417,371 in the year 2016 and it had been deteriorated up to Rs.155,645,764 in the year 2017.

3.2 Legal Cases initiated against the Institute or by the Institute

A case had been filed in the Courts against the Institute by an employee of the Institute who had been dismissed from service.

4 Operating Review

4.1 Performance

4.1.1 Performance and Review

The following observations are made.



- (a) Even though the main objective of the Sugarcane Research Institute is to Introduce suitable sugarcane varieties, control diseases, sugarcane crop management practices and popularizing the methodologies for increase sugar processing percentage among the farmers , the contribution given for the increase of the local sugar productivity by the Institute had been decreased due to failure to fulfill that objective successfully even about 37 years had been elapsed after establishment of the Institute. Local sugar production was 9 per cent out of the total sugar requirement from the year 2013 and it had been the same in the year under review as well.
- (b) As a remedy for the deficiency of the labour supply in sugarcane harvesting ,the Institute had not taken action to gain a quality sugarcane harvest by introducing modern production machinery and making awareness of the farmers on using those machinery .
- (c) Forty sugarcane varieties had been propagated for research purposes in a land of 15,743 hectares in extent during the period from the year 1986 to the year 2017. Twenty three sugarcane varieties of that had been introduced and out of that 16 varieties had been cultivated in a small land of 304 hectares in extent.
- (d) At present, sugar cane variety called SL 96128 which was introduced in the year 2012 had been propagated about 58 per cent out of the land which was sugarcane cultivated. Nevertheless, propagation of those varieties had been at a low level due to the attitudes of the farmers , lack of resistance for diseases and pesticides for the sugarcane varieties introduced recently.
- (e) Even though the awareness programmes and workshops on training relating to diseases and pesticides had been conducted , it had been failure to control the diseases such as Leaf Scald disease and Eye Spot disease existed in the sugar cane cultivation.



4.2 Management Activities

The following observations are made.

- (a) In terms of Section 18 of the Sugarcane Research Act, No.75 of 1981, there shall be charged, levied and paid a cess at a rate of 10 cents per one kilogram on sugar produced by the local sugar production Institute by the Institute. However, action had not been taken to charge this cess levy from the sugar factories at Sevanagala and Galoya in the year under review, a sum of Rs.2,794,864 had not been charged.
- (b) Action had not been taken to recover the distress loan amounting to Rs.264,988 recovered from 05 officers from the year 2016 due to left the service and deceased.
- (c) A medical scheme had been implemented for the employees of the Institute from the year 1984 without a Treasury approval and an expense amounting to Rs.7,755,875 had been incurred for the reimbursement of medical bills in the year under review.

4.3 Cadre Administration

The following observations are made.

- (a) As the approved cadre of the Institute was 193 and the actual cadre was 177, 16 vacancies were existed for 11 posts.
- (b) There had been a barrier to achieve the main objectives of the Institute due to action not taken to complete the posts such as Chief Research Officer, Chief Technical Transmission Officer, Senior Research Officer, Senior Technical Transmission Officer, Technical officer.



5. Sustainable Development

5.1 Achievement of the Sustainable Development Goals

All Government institution should follow the Sustainable Development Goals Agenda 2030 of the United Nations and the Sugarcane Research Institute had not been aware how to come into operation relating to the duties come under the new scope of the Institute relating to the year under review .

The following observations are made in this connection.

- (a) As a result of the Sugarcane Research Institute had not aware on the Agenda 2030 as mentioned above, action had not been taken to identify the sustainable development goals and targets relating to duties of the Institute and the landmarks for reach the targets as well as the indicators for reaching targets.
- (b) The functions identified by the Institute for reaching sustainable development goals had not been included in the Annual Action Plan and the financial provisions required for the execution of that functions had not been included in the Annual Budget.
- (c) Even though existence of an accurate data base is essential for measuring of the accurate performance of certain activity, the Institution had not taken action to create an accurate data base for the measuring of achieving the Sustainable Development Goals .

6. Accountability and Good Governance

6.1 Tabling of Annual Reports

The Institute had not tabled the Annual Reports relating to the year 2016.



7. Systems and Controls

Weaknesses in systems and controls observed during the course of audit were brought to the notice of the Chairman of the Institute from time to time. Special attention is needed in respect of the following areas of control.

Area of System and Control

Observations

(a) Cadre Administration

Failure to approve the Procedure Rules Code required for the execution of the administrative activities of the Institute

(b) Collecting Revenue

Action had not been taken to compute the revenue of cess levy by obtaining accurate information.

(c) Balances Receivable

Action had not been taken to recover the balances receivable which were un-recovered for a long period.

H.M. Gamini Wijesinghe,

Auditor General

Financial Highlights from 2013 to 2017

Income

Item	Rs Million				
	2013	2014	2015	2016	2017
Treasury grant	-	112.80	321.78	353.00	222.83
Cess on sugar imports/ production	132.82	91.81	3.24	-	4.48
Ministry projects	-	10.00	17.30	12.00	10.00
Interest income and sundry income	29.55	18.93	12.96	24.47	22.67
Sale of sugarcane	1.85	0.65	0.48	-	-
Total	164.22	234.19	355.76	389.47	259.98

Expenditure

Item	Rs Million				
	2013	2014	2015	2016	2017
Recurrent:					
Personnel emoluments	102.91	116.45	159.20	179.59	179.77
Travelling and subsistence	2.54	9.00	8.24	3.28	9.96
Research and development	9.31	26.81	13.71	27.40	12.07
Supplies and consumables	2.52	3.27	2.04	3.86	5.19
Contractual services	21.85	26.09	36.43	12.47	36.74
Maintenance	21.99	23.99	25.96	17.34	28.99
Other operating expenses	31.60	21.75	53.69	59.49	66.53
Finance cost	0.20	0.05	0.05	-	0.10
Total	192.92	227.41	299.32	303.43	339.35
Capital:					
Buildings	-	-	-	-	18.09
Office/Lab/Field equipment	5.50	3.76	24.37	33.96	30.01
Vehicles	21.05	-	28.68	7.50	0.23
Land development	-	0.38	5.02	37.07	11.93
Library books	0.06	0.02	-	-	-
Furniture	0.48	-	1.36	2.30	3.64
Other facilities	1.39	9.46	0.68	9.55	3.83
Total	28.48	13.62	60.11	90.38	67.73
Total	221.40	241.03	359.43	393.81	407.08