

# **Annual Report 2015**

**Sugarcane Research Institute**

# **SUGARCANE RESEARCH INSTITUTE**

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**(after 09.02.2015)**

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## **Chairman**

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## **Director/Chief Executive Officer**

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

Hon. Minister,

**Annual Report of the Sugarcane Research Institute for the Period from  
01.01.2015 to 31.12.2015**

I am submitting herewith the Annual Report of the Sugarcane Research Institute for the period from 01.01.2015 to 31.12.2015, 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

31<sup>st</sup> March 2017

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## **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

### Up to end January 2015

Mr. S.K. Cyril	-	Appointed member (Chairman)
Dr. H.K. Sunil	-	Appointed member
Mr. D.H.V. Perera	-	Appointed member
Mr. S. Senanayake	-	Nominated member of the Ministry of Sugar Industry Development
Ms. T.Y.L. Munasinghe	-	Nominated member of the Ministry of Finance
Dr. A.P. Keerthipala	-	<i>Ex-Officio</i> member

### From end January to October 2015

Mr. N.V.T.A. Weragoda	-	Appointed member (Chairman)
Professor A.L.T. Perera	-	Appointed member
Dr. G. Chandrasena	-	Appointed member
Mr. K.B. Guruge	-	Nominated member of the Ministry of Plantation Industries
Mr. A.K.A.Y. Tharanga	-	Nominated member of the Ministry of Finance
Dr. A.P. Keerthipala	-	<i>Ex-Officio</i> member

### From November 2015

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. Hansika Kumarasinghe	-	Nominated member of the Ministry of Plantation Industries
Mr. A.K.A.Y. Tharanga	-	Nominated member of the Ministry of Finance
Dr. A.P. Keerthipala	-	<i>Ex-Officio</i> member

## Chairman's Review

The change of the Minister-In-Charge of the subject of sugar resulted in the change of the Board of Governors of the Sugarcane Research Institute twice during the year under review, and this caused some setback in the management of the institute. However, as has been planned, during the year 2015, research, technology transfer and development activities were carried out to contribute to development of the sugar industry by providing necessary technical inputs, and manpower and infrastructure development activities to provide necessary human resources and physical infrastructure to support the same.

In order to provide technical know-how for sugar industry development, a long-term research program and a technology transfer program were continued. The most significant achievements during the year 2015 were recommendation of a new sugarcane variety for commercial cultivation under both irrigated and rain-fed conditions, and tobacco extract and liquid dish wash for the control of sugarcane woolly aphid, a serious pest in sugarcane plantations in Sri Lanka. The technology transfer program mainly focused on the promotion of adoption of the new sugarcane varieties, SRI-developed sugarcane machinery, planting methods, intercropping short-duration crops with sugarcane, new low-cost planting methods, soil fertility improvement and management of pests and diseases. A development program consisting of production of foundation seedcane of the newly-introduced sugarcane varieties to supply genetically-pure healthy seedcane to sugar companies for further multiplication, production of tissue-cultured plants to produce disease-eliminated plant stocks for further multiplication and expansion of sugarcane cultivation in Badulla and Kilinochchi districts for small-scale sugarcane-based industries to improve livelihood of farmers was continued.

In order to provide the manpower requirements of the institute, 06 Technical Officer vacancies could be filled during the year under review. In addition, two Tractor Drivers, one Lab/Field Attendant and 25 workers were made permanent as per the Public Administration Circular 25/2014. Action was also taken to fill the vacancies of Senior Research Officer, Research Officer, Assistant Director (Administration), Technical Officer, Driver, Lab/Field Attendant and General Worker. In addition, action was initiated to increase the cadre to meet the manpower requirements of the institute.

The capacity building of all categories of staff was undertaken to improve the knowledge and skills of the staff. During the year under review, a Senior Research Officer was granted study leave for pursuing studies leading to PhD. Two Research Officers and a Senior Research Officer who were released earlier also continued their postgraduate studies. In addition, three Research Officers were trained in their respective disciplines in Pakistan. More than 25 staff members in research, technical, accounting and administrative categories was provided with opportunities for attending short training courses to improve skills relevant to their work.

During the year under review, the institute could develop some of the infrastructure requirements. They include completion of development of about 5 ha for foundation seedcane nursery at Uda Walawe, rehabilitation of a part of the D4 irrigation canal,

improvement of the research workshop, improvement of a part of the tissue culture laboratory, improvement of quarters for staff accommodation, fencing some field trials to protect them from wild boar and development of facilities at Kantale and Kilinochchi for seedcane production and research activities.

The financial requirement of the institute was entirely met by the funds provided by the Treasury. The activities of the institute were affected due to non-receipt of the funds requested in time. In addition to the insufficient staff for carrying out research and development and support functions, the limitation of funds affected the development of the most required research infrastructure for the institute. Development of manpower and infrastructure has to be given high priority to strengthen the institute to undertake its mandated functions.

*K.A.F. Karunasena*

K.A.F. Karunasena  
Chairman

## Director's Review

As per the mandate given under the Act No. 75 of 1981, the Sugarcane Research Institute continued its functions in 2015 for the development of the sugarcane industry of Sri Lanka by developing sugarcane technologies and dissemination of knowledge and technical know-how to sugar companies and farmers. 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 development of technical know-how to cater to the requirements of both the existing and new areas of sugar development. The technology dissemination and development program was also geared to the needs of the sugarcane industry development program in the country.

One of the most significant achievements under sugarcane crop improvement was releasing the new sugarcane variety SL 98 2524 with good ratooning ability and tolerant to major pests and diseases for commercial cultivation. This variety has the potential of producing a cane yield of 120 t/ha under irrigation and 70 t/ha under rain-fed. It is tolerant to smut and leaf scald diseases, and the incidences of white leaf disease and the pests, woolly aphid and stalk borers are low. The sugar recovery is about 10.0% – 10.5%. In addition, seven superior new sugarcane varieties have been identified from the varieties bred in 2000, and are in final stage of testing. Furthermore, another 12 varieties from 2000 series, 13 varieties from 2001 series, 33 varieties from 2002 series and 55 varieties from 2004 series have been identified as promising for further testing. The institute also could make a total of 1,640 new crosses in 2015 for producing seedling populations for subsequent selections. The sugarcane germplasm collection was enriched with 36 new sugarcane varieties imported; 30 from Vietnam and 06 from Australia, under mutual sugarcane germplasm exchange program. These varieties will be used, after completing necessary quarantine, in future breeding of sugarcane. These new sugarcane varieties will make a significant contribution to increase cane yield and sugar recovery rates, and hence, the sugar production in the country and incomes of farmers and sugar companies.

During the year 2015, the institute could design a new drainage layout for safe removal of rainfall run-off water to control soil erosion in sugarcane fields, develop management techniques to use cattle-shed waste as manure in sugarcane fields and integrated management practices of dairy cattle husbandry with sugarcane, identify the weedicide "Pelagonic acid 75%" as effective chemical for controlling weeds in the early post-emergence and post-emergence stages in sugarcane plantations and recommend kerosene oil for controlling the problematic weed, *Kiriwel* at Sevanagala.

The response of the sugarcane variety SL 83 06 to fertiliser was studied up to the second ratoon crop to determine the fertiliser requirements of new sugarcane varieties. Investigations on the possibility of disposal of the sugar factory waste, filter-mud and distillery effluent, vinasse, by preparing compost and application it to

sugarcane crop for improving soil fertility of the sugarcane-growing soils were carried out.

The crop protection program mainly focussed on controlling the vector spreading white leaf disease, sugarcane woolly aphid, sugarcane smut disease and white leaf disease. It was possible to confirm the possibility of using wild mustard extract for controlling sugarcane white leaf disease vector in an environment friendly manner. The fungicides Hexaconazole and Easer were also identified as effective in controlling the smut pathogen. The pyrilla infestation in Kantale sugarcane plantations was also successfully controlled by introducing the biological control agent *Epiricania melanoluca*. The institute also regularly monitored the pest and disease 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 contain spread of pests and diseases. 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 pests and diseases.

For sugarcane farm mechanisation, designing a prototype of sugarcane trash-cutting machine was completed, and the fertiliser applicator was modified including new fertiliser bin. The two-wheel tractor-mounted disc moulder was modified rectifying the defects in the previous model.

The processing and product development program mainly focussed on the diversification of sugarcane-based products by processing sugarcane and its by-products and differentiation of jaggery. They include production of jaggery and juice beverage from cane, fodder yeast from distillery sludge, and a carrier medium using filter-mud and vinasse for making phosphate-solubilising bio-fertiliser. A phosphate-solubilising bio-fertiliser was produced, in addition to continuation of isolation of phosphate-solubilising micro-organisms. A total of 134 phosphate-solubilising bacteria have been isolated with the 17 strains isolated in 2015. In order to develop efficient yeast strains, isolation and characterisation yeast strains were continued, and by the end of 2015, the total yeast germplasm was 78 with the 18 strains collected during 2015.

In order to improve the production of jaggery as a cottage industry, identification of suitable sugarcane varieties for jaggery production and studies on addition of different flavours; sesame, vanilla, chocolate, puff rice and ginger powder, were continued. The new sugarcane varieties, SL 04 618, SL 04 624, SL 04 1004, SL 04 5187 and SL 04 5378 were found as better varieties for making jaggery.

Promotion of application of the research findings was continued by conducting a technology transfer program. The emphasis was placed on the promotion of newly-introduced 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 on pest and disease management and soil fertility management.

In addition to contribution to sugar industry development by development and dissemination of sugarcane technologies, the institute contributed further to develop the sugar industry in the following ways:

- i. Establishment and maintenance of 10ha foundation seedcane nursery with new-improved commercial sugarcane varieties, SL 83 06, SL 95 4443, SL 96 128, and SL 96 328 at Uda Walawe and 35-ha foundation seedcane nursery with new-improved commercial sugarcane varieties, SL 88 116, SL 90 6237, SL 92 4918, SL 92 5588, SL 96 128, SL 96 328 and SL 98 2524 at Kantale.
- ii. Production and supply of 35,000 disease-free mericlonned plants to Lanka Sugar Company Ltd-Pelwatte to replace the existing disease-infected nurseries.
- iii. Providing 39 tonnes of genetically-pure disease-free seedcane to establish nurseries to replace the existing disease-infected sugarcane nurseries at Sevanagala.
- iv. Developing about 04 ha and establishing sugarcane nurseries on about 3 ha in Kilinochchi to supply seedcane to farmers.
- v. Expansion of sugarcane cultivation on 48 ha in Badulla district for jaggery production.

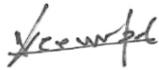
To provide the manpower requirements, the institute was able to fill 06 Technical Officer vacancies. In addition, two Tractor Drivers, one Lab/Field Attendant and 25 workers were made permanent as per the Public Administration Circular 25/2014. Applications were called for filling vacancies of Senior Research Officer, Research Officer, Assistant Director (Administration), Technical Officer, Driver, Lab/Field Attendant and General Worker. In addition, action was initiated to increase the cadre to meet the manpower requirements of the institute. Staff capacity building activities were continued by providing an opportunity for a Senior Research Officer for pursuing studies leading to PhD, in addition to continuation of the previously-released two Research Officers and a Senior Research Officer for undertaking their doctoral degrees. One Research Officer completed her PhD and resumed duties. In addition, three Research Officers were provided with a three-week training in their respective disciplines in Pakistan. Furthermore, research, technical, accounting and administrative staff was provided with opportunities for attending short training courses relevant to their work.

Development of infrastructure requirements for research and development work was continued. During the year 2015, the following achievements were made:

- i. Completion of development of about 5 ha for foundation seedcane nursery at Uda Walawe.
- ii. Rehabilitation of part of the D4 irrigation canal.
- iii. Improvement of the research workshop.

- iv. Improvement of part of the tissue culture laboratory.
- v. Improvement of quarters for staff accommodation.
- vii. Fencing some field trials to protect them from wild boar.
- viii. Development of facilities at Kantale and Kilinochchi for seedcane production and research.

The main limiting factor for the activities of the institute was limitation of trained and experienced manpower and timely availability finances. It is hoped that, if approval is granted for the revision of cadre, the problem of manpower could be solved to a certain extent. However, action has to be taken to retain staff in order to carry out and continue research activities without interruption. More funds need to be made available for improving infrastructure and increasing staff and training and retaining them.



Dr. A. P. Keerthipala  
Director/CEO



# **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
Ms D Manel BSc (Agric.), MSc	-	Research Officer (on Study leave up to 20.12.2015)
Mr W H Jayasinghe BSc (Agric.), MSc	-	Research Officer (up to 27.01.2015)
Ms A L C Kumari	-	Senior Technical Officer
Mr R A Premachandra	-	Senior Technical Officer
Mr D Weerasinghe	-	Senior Technical Officer
Mr B P G S Sandanayake Dip. (Agric.)	-	Senior Technical Officer
Ms L D D P Gunarathna Dip. (Agric.)	-	Technical Officer
Mr W G M J Perera	-	Lab/Field Attendant (up to 20.11.2015)
Mr S H Karunarathne	-	Lab/Field Attendant

### Achievements

#### Research

- Recommending and officially releasing the locally-bred new-improved sugarcane variety SL 98 2524, for commercial cultivation in Sri Lanka.
- Maintaining a breeder's seed garden with seventy two commercial and near-commercial sugarcane varieties to provide genetically-pure planting material for multiplication.
- *Ex-situ* conservation of sugarcane germplasm of 1,431 accessions in duplicate plots at Enselwatte.
- Importing thirty six sugarcane varieties; 30 from Vietnam and 6 from Australia, under sugarcane germplasm exchange program to enrich the germplasm collection for breeding.
- Multiplication of fifty seven sugarcane varieties imported from Pakistan at Uda Walawe for preliminary field evaluations.
- Establishing and maintaining the progenies of recurrent breeding for population improvement of *Saccharum officinarum* and high-sucrose breeding stock.
- Establishing and maintaining the first and second generation inter-specific and inter-generic hybrids developed for nobilisation of wild cane.
- Effecting a total of 1,640 crosses during 2015 hybridisation program.

- Generation of a genetically variable seedling population of 130,000 genotypes from SL 2014 series for selection.
- Initial selection of varieties with desirable features from SL 2013, SL 2012, SL 2011, SL 2010, SL 2009 and SL 2008 breeding series.
- Identification of 245 sugarcane varieties with desirable traits from SL 2006 and 2007 series for preliminary assessment of their yields.
- Multiplication of planting materials of 36 varieties of SL 2005 series for assessment of their yield performance under replicated conditions.
- Assessment of the yield performance of 138 promising sugarcane varieties of SL 2000, SL 2001, SL 2002, SL 2003 and SL 2004 series in plant crop, ratoon 1 crop and ratoon 2 crop under replicated conditions.
- Development of a new plant tissue culture protocol for *in-vitro* direct regeneration of sugarcane plants from leaf tissues.
- Creation of associated populations for mapping quantitative trait loci (QTLs) related to sucrose content in sugarcane using high-sucrose *Saccharum officinarum* and low-sucrose *Saccharum spontaneum* parents.
- Extraction of DNA for diversity analysis of 25 *Saccharum spontaneum*, 25 *Erianthus arundinaceus* and 60 *Saccharum officinarum* species.

### **Development**

- Establishment and maintenance of 10-ha foundation seedcane nursery with new-improved commercial sugarcane varieties SL 83 06, SL 95 4443, SL 96 128, and SL 96 328 at Uda Walawe.
- Establishment and maintenance of 35ha foundation seedcane nursery with new-improved commercial sugarcane varieties SL 88 116, SL 90 6237, SL 92 4918, SL 92 5588, SL 96 128, SL 96 328 and SL 98 2524 at Kantale to provide seedcane to Kantale sugar industry.
- Provision of 35,000 disease-free mericlones to Lanka Sugar Company-Pelwatte and 39 tonnes of hot-water-treated seedcane of new sugarcane varieties to Sevanagala for primary nursery establishment.

### **Training Trainees**

Mr. S Attanayake and Mr. A R Bandara (HNDT students) were provided with a six-month training on sugarcane crop improvement and sugarcane tissue culture in the Division of Crop Improvement.



**CROP AND RESOURCE MANAGEMENT DIVISION**



## CROP AND RESOURCE MANAGEMENT DIVISION

### Staff

Mr L M J R Wijayawardhana BSc (Agric.) MPhil	-	Research Officer-In-Charge
Mr A L C de Silva BSc (Agric.), MPhil	-	Senior Research Officer (on study leave from 01.01.2014)
Mr G A A Chaturanga BSc (Agric.)	-	Research Officer
Mr P R B Chandrasena BSc (Agric.), MSc	-	Farm Superintendent
Mr W G Nimal	-	Technical Officer
Mr S M D N D Seneviratne Dip (Agric.)	-	Technical Officer

### Achievements

#### Research

- Analysis of climatic conditions at Uda Walawe, Sevanagala, Pelwatte, and Hingurana areas in 2015. It confirmed that the sugarcane-growing areas experienced normal rainfall distribution. But Pelwatte area experienced severe drought during June and July.
- Development of a new drainage layout for safe removal of rainfall run-off water on undulating terrain for minimising soil erosion in sugarcane fields.
- Identifying the maturity patterns of SL 2000 series varieties. The results showed that SL 00 95 was an early maturing variety. The other varieties SL 00 354, SL 00 401, SL 00 584, SL 00 603, SL 00 619 and SL 00 652 were similar to Co 775 (mid maturing).
- Developing a rotational system of sugarcane cultivation for medium- to large-scale sugarcane farms by introducing staggered planting system and integrating management practices of dairy cattle husbandry into this system by adding cow dung and cattle-shed waste as manure to sugarcane fields, feeding cane tops-based rations to dairy cattle and fallowing parts of land to facilitate soil rehabilitation to develop an integrated system of sugarcane cultivation and dairy cattle management.
- Confirmation of "Palagonic acid 57%" as an effective herbicide that could be used to control weeds in sugarcane at early post-emergence and post-emergence stages of weeds, and the best concentration for controlling weeds in sugarcane was 4% - 5% solution (6 – 8 a.i. kg/ha).
- Confirmation of application of "kerosene oil" as an effective treatment in controlling problematic creeping weed in sugarcane, *Ichnocarpus frutescens* "kiriwel" and recommending application 20 – 50 ml "kerosene oil" at the base depending on thickness of stem 3mm – 5mm and repetition of this treatment 2 - 3 times on regenerated and unaffected plants until killing the plant.

## **Development**

Development of about 4 ha and establishment and maintenance of about 3.5 ha nursery in Vannerikulam, Kilinochchi, for providing seedcane to farmers.

## **Services**

- Developing lands and preparing 24.5 ha for field trials and 14.5 ha for seedcane nursery.
- Rehabilitating culverts in D3 research farm area and culverts and D4 channel of the seed cane nursery area.
- Supplying 39 tonnes of seedcane to Sevanagala.
- Harvesting completed trials and supplying 350 tonnes of sugarcane to Sevanagala sugar factory.



DETERMINATION OF THE EFFECT OF VINASSE AND  
FILTER-MUD ON SUGARCANE CROP AND ITS SOIL  
PROPERTIES.

DESIGN : SPLIT-SPLIT PLOT  
PLOT SIZE : 7M X 5 ROWS  
VARIETY : SL 96 128  
PLANTED : 1<sup>st</sup> - 2<sup>nd</sup> NOVEMBER -2014



DIVISION OF CROP NUTRITION  
SUGARCANE RESEARCH INSTITUTE



CROP NUTRITION DIVISION



## CROP NUTRITION DIVISION

### Staff

Mr B R Kulasekera BSc (Agric.)	-	Research Officer-In-Charge
Mr H A S Weerasinghe (BSc, MSc (NRM), MPhil, MI Biol)	-	Research Officer (on study leave from 01.12.2014)
Ms R A Sudarshani BSc (Agric.)	-	Research Officer
Mr G S Udawatte	-	Technical Officer
Ms B A Sujeewa Irangani Dip. (Agric.)	-	Technical Officer (from 09.03.2015)
Ms W A S Wijesuriya Dip. (Agric.)	-	Technical Officer (from 09.03.2015)
Mr J Gunasiri	-	Lab/Field Attendant
Mr P W D Kulatunga	-	Lab/Field Attendant

### Achievements

#### Research

- Identification of positive responses on yield and quality parameters of the sugarcane variety SL 83 06 to applied Nitrogen and Potassium.
- Finding that the application of filter-mud and vinasse improves the quality of soil and growth parameters of the variety SL 96 128, and hence, these factory and distillery wastes could be effectively disposed by applying them into sugarcane fields.
- Finding that the successful composting of filter-mud and vinasse, within 45 days duration by introducing a microbial culture.
- Confirming in preliminary studies conducted under laboratory conditions that vinasse increases the solubility of ERP and HERP.

#### Services

- Analysing 3,758 cane, jaggery and syrup samples for brix, pol and fibre contents (730 for Crop Improvement, 2,287 for Crop and Resource Management, 226 for Crop Nutrition and 515 samples for Processing Technology Divisions).
- Analysing 38 juice samples for pH adjustment for Processing Technology Division.
- Analysing soil, plant and compost samples for other divisions of the institute as shown below:

Soil – 26 for N, 45 for P, 46 for K 20 for organic matter, 42 for pH and electrical conductivity for Crop and Resource Management Division and 3 for P for Processing Technology Division.

Plant – 231 for N, 241 for P, 236 for K for Crop and Resource Management Division

Compost – 3 for K for Crop and Resource Management Division

### **Other activities**

- Analysis of the sugar samples received from Sevanagala sugar factory and submitting a report on the results.
- Analysing the soil samples obtained from six sugarcane allotments at Sevanagala and submitting the report on the results to Lanka Sugar Company (Pvt) Ltd.-Sevanagala.
- Submitting a report to Lanka Sugar Company (Pvt) Ltd.-Sevanagala on the suitability of allotment RF/1773 for growing sugarcane, based on the results of soil analysis.
- Estimating rates for soil and plant sampling and analysis.



**CROP PROTECTION DIVISION**



## CROP PROTECTION DIVISION

### Staff

Ms A N W S Thushari BSc (Sp)	-	Research Officer-In-Charge (from 14.07.2015)
Ms V K A S M Wanasinghe BSc (Sp), MSc	-	Research Officer-In-Charge (up to 13.07.2015)
Ms K M G Chanchala BSc (Agric.), MSc	-	Research Officer
Mr M K D Ubesena	-	Technical Officer
Ms L M M Obeyesena Dip. (Agric.)	-	Technical Officer (from 09.03.2015)
Mr M R Premalal	-	Lab/Field Attendant

### Achievements

### Research

- Identification of two types of leaf trichomes of different sugarcane varieties (Figure 1).

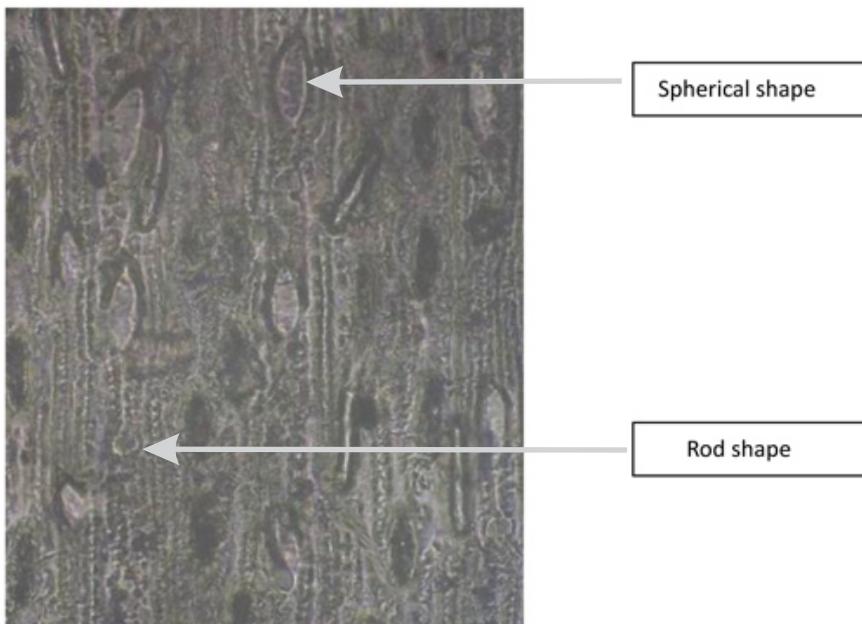


Figure 1: Two types of leaf trichomes on lower side of sugarcane leaves

- Finding that leaf trichome density has no effect on population growth, host-plant preference and feeding rates of woolly aphid in different sugarcane varieties, and

hence, confirming that leaf trichome density has no influence on woolly aphid infestation in different sugarcane varieties.

- Evaluating within-leaf distribution of woolly aphid on a sugarcane leaf and finding that the insect prefers colonisation on the middle portion of the leaves than the top and the bottom due to wide area available and protection from sunlight and natural enemies.
- Identifying that the weight of the honeydew excreted as an accurate method to determine the feeding rate of woolly aphid on different sugarcane varieties.
- Confirmation of the absence of white leaf disease (WLD) vector, *D. menoni* in the Kantale nursery area during year 2015.
- Confirmation of the following regarding the *Deltocephalus menoni*:
  - As an insect with monophagy feeding behaviour.
  - *Sorghum bicolor* and *Saccharum spontanium* are alternative breeding and feeding hosts of *D. menoni*, but *Erianthus arundinasius* is a non-host plant.
  - Wild mustard (*Cleome viscosa*) extract is a repellent of WLD vector *D. menoni*.
  - Light traps can be used to monitor WLD vector *D. menoni* population level and of 7.30pm to 8.30 pm is the most active time period under artificial light (at night) condition.
  - The most vulnerable age of the sugarcane crop for WLD vector feeding under natural environment is 4-5 months.
  - Anaesthetisation remains 15 minutes at 4<sup>0</sup>C
  - Female WLD vectors are the most suitable for the feeding tests.
  - The dusk and the dawn are the most active feeding times.
  - SL 92 5588 and SLC 2009 01 are less preferred sugarcane varieties for feeding by the WLD vector.
  - Polythene mulches in sugarcane fields have no significant effect on egg laying by the WLD vector.
- Identifying 7 flowering plants species; Wal Kottamalli (*Scorpioides dulcis*), Maduruthala (*Ocimum sanctum*), Wal Aba (*Cleome viscosa*), Kurunegaladesi (*Tridax prostrata*), Wal Rajapotta (*Celosia argentea*) Ambilla (*Oxalis corimbosa*) and Mottuthana (*Cyperus*

*killingle*) which are common weeds associated with sugarcane plantations enhance the life span of *Cotesia flavipes*; a natural enemy of sugarcane borers (Biocontrol agent).

- Observing high incidence of smut disease in ratoon crops of three near-commercial varieties of SL 2000 series, namely, SL 00 589, SL 00 603 and SL 00 619 in Uda Walawe, Sevanagala and Siyambalanduwa.
- Giving recommendation to release SL 98 2524 for commercial plantations based on the varietal screening results, disease counts in replicated yield trials and in large-block trials.
- *In-vitro* identification of Hexaconazole and Easer as effective fungicides in controlling smut pathogen.
- Identifying 13 varieties of 2007 series; SL 07 2622, SL 07 2702, SL 07 2706, SL 07 2754, SL 07 2964, SL 07 2973, SL 07 2979, SL 07 3012, SL 07 3025, SL 07 3030, SL 07 3031, SL 07 3051 and SL 07 3077 as resistant to smut and 11 varieties; SL 07 2621, SL 07 2622, SL 07 2778, SL 07 2809, SL 07 2961, SL 07 2964, SL 07 3043, SL 07 3046, SL 07 3052, SL 07 3076, and SL 07 3077 as resistant to leaf scald disease.
- Identifying two types of spores based on morphology of smut pathogen.

## Services

- Conducting regular crop protection committee (CPC) meetings and reviewing the existing situation of pests and diseases in sugarcane plantations by conducting surveys.
- Confirming that 70 imported sugarcane varieties; 34 from Pakistan, 30 from Vietnam and 6 from Australia, are free of alien pests or diseases.
- Release of biological control agents of *Pyrilla perpusilla* (*Epiricania melanoleuca* and *Parachrysocharis javensis*) to control the *Pyrilla perpusilla* outbreak in Kantale seedcane nurseries. The population levels of those released agents have increased to keep the pest under control.
- Regularising inspection procedures of pests and diseases in the foundation seedcane nursery at Uda Walawe and in sugarcane plantations under a proper schedule of inspections.
- Giving necessary recommendations and instructions to produce healthy seedcane in Sevanagala, Pelwatte and Hingurana sugar companies to contain spread of WLD and smut diseases.

- Conducting lectures on sugarcane disease management, integrated management of sugarcane pests, WLD vector management and the use of healthy seedcane for sustainable sugarcane production for the training programmes organised by Technology Transfer and Development Division.

### **Training Trainees**

- Guiding an undergraduate student (W.K. Ishanka) from the University of Ruhuna for his final-year dissertation on the “Effect of leaf trichome density of sugarcane for the population growth, host plant preference and feeding rates of woolly aphid”.
- Training two students from the HARDI for six months; one on entomological research and the other on pathology 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
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 M B Rohan	-	Lab/Field Attendant
Mr D M Weerasiri	-	Lab/Field Attendant

### Achievements

#### Research

- Designing and fabricating a combine fertiliser applicator.
- Initiating ground work with the Department of Mechanical Engineering - University of Moratuwa, Norris ECT – Australia and sugarcane harvester manufactures in Thailand and China for designing / introducing an appropriate sugarcane harvester as a collaborative project.
- Designing a prototype of trash-cutting machine.

#### Services

- Establishing a solar-charging electric fence in SRI farm and regulating voltage and charging capacity of the solar-operated electric fence.
- Designing a CAD drawing for the office for Kilinochchi sub station.
- Establishing 3km wire mesh fence around the crop improvement trial area of the SRI farm.
- Construction of wire mesh fence around the SRI office in Kantale.
- Construction of a solar-operated electric fence around the nursery area in Kantale.
- Completion of construction of 47 field lantern frames for crop improvement program.

- Provision of machinery services required for research.
- Attending to more than 200 jobs for maintenance and repair of vehicles and farm equipment of SRI.

### **Training Trainees**

Supervision of the following BSc undergraduate research projects undertaken by the students from the Faculty of Agriculture, University of Ruhuna by Mr K T Ariyawansa:

- i. Design and development of a blow pollinator for artificial pollination of sugarcane (P A C P Wickramarathne).
- ii. Design and evaluation of pre-heating device for seedcane hot-water treatment plant (W B M A C Bandara).



**PROCESSING TECHNOLOGY DIVISION**



## PROCESSING TECHNOLOGY DIVISION

### Staff

Ms S M T A Maralanda BSc (Agric.)	-	Research Officer-In-Charge
Mr W G H Ruwanpura BSc (Agric.)	-	Research Officer

### Achievements

#### Research

- Maintaining 78 yeast strains including the 18 strains isolated in 2015, and evaluating their ethanol production abilities in molasses medium for producing a yeast strain for efficient fermentation of molasses into ethyl alcohol.
- Producing fodder yeast from yeast sludge.
- Maintaining 134 phosphate-solubilising bacteria strains including the 17 strains isolated in 2015, evaluation of their phosphate-solubilising ability and producing three bio-fertiliser mixtures using five of them with filter-mud and vinasse as the carrier medium.
- Increasing nitrogen-fixing bacteria strains to eight by isolating six bacteria strains in 2015 from the collected sugarcane samples from sugarcane leaves, stem, root and *Sesbenia rostrata* nodules and maintaining their cultivars.
- Identification of SL 04 618, SL 04 624, SL 04 1004, SL 04 5187 and SL 04 5378 as better varieties for making jaggery.
- Confirmation that *Daul Kurudu* cannot be used as clarificant for making jaggery and chocolate powder, rice puff, ginger, vanilla and sesame can be added to improve the flavour of jaggery.
- Production of sugarcane juice-based pineapple-flavoured ready-to-serve drink.
- Estimation of post-harvest loss of sugarcane; nearly 4 t/ha under irrigation and 9 t/ha under rain-fed, at Sevanagala.

#### Services

- Evaluation of the performance of the new sugarcane crusher purchased for Kilinochchi.
- Conducting training programme on sugarcane processing and by-products to Agriculture Instructors of Moneragala District and HNDT students.

- Conducting a training programme for the students of Wayamba University.
- Conducting training programme on jaggery production for farmers in Kilinochchi.
- Production of 1,512 kg of jaggery from cane harvested from field trials.

### **Training Trainees**

- Supervision of the following research projects carried out by of the student from the University of Ruhuna and University of Sabaragamuwa:
  - i. Shelf-life enhancement of sugarcane beverage – by Mr P D R Gunawardane, University of Ruhuna.
  - ii. Quantification of some post-harvest losses in sugarcane varieties, Co 775, SL 83 06 and SL 96 328 and Manganese application to minimise sucrose loss – by Mr A M D P Kumara, University of Sabaragamuwa.



**ECONOMICS BIOMETRY AND INFORMATION TECHNOLOGY DIVISION**



## ECONOMICS, BIOMETRY AND INFORMATION TECHNOLOGY DIVISION

### Staff

Mr K A D Kodituwakku BSc (Agric.), MAgR	-	Research Officer-In-Charge
Ms B D S K Ariyawansha BSc (Agric.), MPhil	-	Senior Research Officer (on study leave from 20.02.2015)

### Achievements

#### Research

- Updating costs and returns of sugarcane cultivation based on the prices of the year 2015. The average cost per hectare of cane cultivated was Rs. 237,678, Rs.198,340, Rs.128,691 and Rs.225,476 for Sevanagala irrigated and rain-fed sectors, Pelwatte and Hingurana respectively. The average net income from one hectare per year at Sevanagala was Rs 156,971 and 115,535 under irrigation and rain-fed respectively. At Pelwatte under rain-fed, the net income was Rs 95,183/ha/year and that at Hingurana under irrigation Rs 141, 274/ha/year.
- Estimation of cost of silage preparation using sugarcane tops as Rs. 11/Kg.

#### Services

- Updating the web site of SRI hosted under URL of [www.sugarres.lk/](http://www.sugarres.lk/) as and when required.
- Providing the following services to other divisions of SRI:
  - Designing experimental layouts for the experiments conducted by the Divisions of Crop Improvement, Crop Nutrition and Procession Technology.
  - Analysis of the agronomic and yield data of the preliminary and replicated yield trials harvested during the year 2015 and the data received from Crop Nutrition, Crop Protection, and Mechanisation Technology Divisions.
  - Implementation of IT activities within the institute.
- Providing the following services to other organisations:
  - Preparation of the INFORM database of SRI for the year 2014 and submitting the same to the Council for Agricultural Research Policy (CARP) to be included in the national database.

#### Training Trainees

- Two students from Vocational Training Authority (VTA) on the use of computer software packages for a period of nine months.
- One student from Technical College, Embilipitiya on the use of computer software packages for a period of 06 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 K P Wickremasinghe BSc (Agric.), MPhil	-	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.)	-	Development Officer
Mr A P J.Mohotti	-	Technical Officer
Mr G Somaweera	-	Management Assistant

### Achievements

#### Technology Transfer Activities

- **Promotion of sugarcane varieties produced by Sugarcane Research Institute: SL 83 06, SLI 121, SL 92 4918, SL 92 4997, SL 92 5588, SL 95 4033, SL 95 4430, SL 96 328, SL 90 6237, SL 95 4443 and SL 96 128 among cane growers**
  - Establishing 40 demonstration/multiplication fields (22ha) with SL 92 4918, SL 96 128 and SL 96 328 in Pelwatte and Siyambalanduwa area.
  - Conducting 13 demonstrations programs for 280 farmers and 20 field officers of the sugar companies.
  - Conducting 11 training sessions for 412 farmers at Sevanagala, Pelwatte, Siyambalanduwa and Hingurana.
  - Conducting 03 training programme on varietal improvement for 62 field officers at Pelwatte.
  - Conducting 05 training sessions on new varieties for 215 field officers (Development Officers, Agricultural Instructors, Samurdhi and Agric. Research and Production Assistants) at Siyambalanduwa.
  - Conducting 03 field trips for 110 farmers at Hingurana.
  - Providing 213 tonnes of seedcane of the varieties SL 92 4918, SL 96 128 and SL 96 328 to farmers for multiplication.
  - Publishing information sheets on the varieties, SL 90 6237, SL 95 4443 and SL 96 128.
- **Promotion of tyne cultivator, furrow opener and disc moulder for sugarcane cultivation**
  - Conducting 08 demonstration programs on tyne cultivator and furrow opener for 60 farmers and 12 field officers at Sevanagala, Pelwatte and Hingurana.
  - Providing 06 tyne cultivators for farmers/farmer organisations at Pelwatte and Siyambalanduwa.

- Publishing a leaflet on farm machinery.
- **Promotion of intercropping cucumber, ground nut, cowpea, water melon and chillies with sugarcane**
  - Establishing and monitoring 58 demonstration fields (intercropped with ground nut, and cowpea) at Pelwatte, Syambalanduwa and Hingurana.
  - Conducting 08 demonstrations and 19 training sessions for 532 farmers at Sevanagala, Pelwatte, Siyambalanduwa and Hingurana.
  - Conducting 05 training sessions for 215 field officers at Pelwatte and Siyambalanduwa.
  - Conducting 03 field trips for 110 farmers at Hingurana.
  - Producing 350kg of seed ground nuts by establishing 0.4 ha field at SRI and distributing them among farmers to establish demonstration fields.
- **Promotion of soil fertility management among farmers**
  - Conducting three training programmes and one method demonstration for 60 farmers at Hingurana.
  - Conducting 12 training sessions on soil fertility management for 252 farmers and 10 field officers at Pelwatte, Siyambalanduwa and Hingurana.
  - Conducting two training programmes on operation and maintenance of four-wheel tractors and land preparation practices for 104 farmers and field officers at Sevanagala and Hingurana.
  - Conducting 40 farmer field visits on fertiliser application and soil fertility management at Hingurana.
  - Producing 185kg of sunhemp seeds by establishing 0.2ha crop at SRI.
  - Making arrangements to establish 08ha fields at Pelwatte and Siyambalanduwa for producing sunhemp seed.
  - Conducting two farmer field trips for 70 farmers at Hingurana.
- **Promotion of spaced planting technique**
  - Conducting 18 training sessions for 218 farmers and officers at Sevanagala, Pelwatte and Hingurana.
  - One demonstration programme for 30 farmers at Sevanagala.
- **Improvement of cane quality by increasing farmer knowledge and adoption of best management practices**
  - Conducting 05 training sessions for 215 field officers at Siyambalanduwa.
  - Conducting 25 training sessions for 348 farmers on improvement of cane quality by adopting best management practices at Sevanagala, Pelwatte, Siyambalanduwa and Hingurana.
  - Conducting 02 one-day training programmes on cane quality improvement for 42 field officers at Pelwatte.

- Conducting one-day training programmes on cane quality improvement for 30 farmers at Sevanagala.
- **Improvement of adoption of agronomic practices of sugarcane**
  - Conducting 23 training sessions for farmers at Sevanagala, Pelwatte and Hingurana.
  - Conducting 05 training sessions for 215 field officers at Pelwatte and Siyambalanduwa.
  - Conducting one demonstration programme on gap filling for 5 farmers at Pelwatte.
  - Conducting 02 demonstration programmes on weed management for 33 farmers at Aluthwela.
  - Conducting forty farmer field visits at Pelwatte and Hingurana.
  - Preparing a draft copy of farmer manual on sugarcane cultivation.
- **Improvement of knowledge and adoption of pest and disease management**
  - Conducting 15 training programmes/demonstrations for 450 farmers on pest and disease management at Sevanagala, Pelwatte, Siyambalanduwa and Hingurana.
  - Conducting 05 training sessions on pest and disease management for 215 field officers at Siyambalanduwa.
  - Conducting 02 field trips and one field day for 110 farmers at Hingurana.
  - Conducting 67 field visits on woolly aphid, WLD and smut at Pelwatte, Siyambalanduwa and Hingurana.
  - Conducting awareness program on smut and WLD control by displaying posters in Siyambalanduwa area.
  - Publishing a leaflet on control of shoot borer in Sinhala and Tamil languages.
  - Reprinting the leaflets on the control of WLD and smut disease in Sinhala and Tamil languages.
- **Improving sugarcane farmers' knowledge and skills on entrepreneurship**
  - Coordination with resource personnel and preparing a training module.
  - Conducting two training programmes for 52 selected farmers at Pelwatte and Siyambalanduwa.
- **Providing training/services at the requests of the sugar companies/other institutions and conducting exhibitions and carrying out other activities**
  - Publishing SRI newsletter.
  - Printing Sugarcane Sri Lanka Journal, Volume II.
  - Finalising a draft copy of Annual Report of SRI, 2013.
  - Conducting a 05-day training programme on jaggery production at SRI for 10 farmers from Killinochchi.
  - Conducting a training programme on sugarcane growing and processing for 60 students of Technical College, Moneragala.

- Conducting 02 one-day training programmes on sugarcane cultivation for 125 school children at Siyambalanduwa.
- Coordinating three training programmes for 220 students from the universities; Peradeniya, Ruhuna and Wayamba.

## **Development Activities**

- **Sugarcane Industry Development Programme, Badulla District**

- Harvesting 475 tonnes of seedcane and commercial cane and purchasing 457 tonnes of seedcane.
- Establishing 54 small-scale secondary nurseries (31ha) at Aluthwela, Hali Ela, Rideemaliyadda and Meegahakiula by providing 214 tonnes of seedcane (purchased from primary nurseries) along with fertiliser.
- Monitoring 44 ha nurseries in 163 farmers' fields in Badulla District.
- Establishment of a model sugarcane processing unit to be used for demonstrating good-quality jaggery at Aluthwela.
- Making arrangements for producing 1,130kg of high-quality jaggery.
- Conducting 05 training programmes for 272 farmers at UduKohowila, Katawatte, and HaliEla.
- Making arrangements to form farmer organisations under Agrarian Services Department in each DS division.

## PUBLICATIONS

Chanchala, K.M.G., Wanasinghe, V.K.A.S.M., and Hemachandra, K.S. 2015. Survival of the *Deltocephalus menoni* (Homoptera: Cicadellidae), the Vector of Sugarcane White Leaf Disease in Sri Lanka on Alternative Host Plants. Sugarcane Sri Lanka, Vol. 02.

Keerthipala, A.P. 2015. Sri Lanka Sugar Production Challenges and Development. Paper presented at the 3<sup>rd</sup> TTC Annual International Sugarcane Conference held on 16<sup>th</sup> July 2015 in Nha Trang City, Vietnam.

Keerthipala, A.P., and Weragoda, N.V.T.A. 2015. Potential of Sugarcane as a Source of Green Energy in Sri Lanka. Paper presented at the Energy Symposium Sri Lanka 2015 held on 26<sup>th</sup> June 2015 at Hotel Hilton, Colombo, Sri Lanka.

Kodituwakku, K.A.D. 2015. *Gain Profit by Cultivating Sugarcane (Sinhala)*. Puwath Hasuna 2015 March, Sugarcane Research Institute, Uda Walawe, Sri Lanka.

Kodituwakku, K.A.D. and Keerthipala, A.P. 2015. Competitiveness of sugarcane at Gal-Oya. Economic Publication Series 12, Sugarcane Research Institute, Uda Walawe, Sri Lanka.

Weerasinghe, H.A.S., Abeyasinghe, N.S., and Ariyawansa, B.D.S.K. 2015. The Effects of High-grade Eppawala Rock Phosphate as a Phosphorous Substitute on Yield and Quality of Sugarcane in Sri Lanka. Sugarcane Sri Lanka, Vol. 02.

Wijayawardhana, L.M.J.R., De Silva, A.L.C., W.R.G. Witharama, W.R.G. and W.G. Nimal, W.G. 2015. Analysis of Consecutive-day Maximum Rainfall at Uda Walawe, Sri Lanka. Sugarcane Sri Lanka, Vol. 02.

Witharama, W.R.G., Wijewardena, L.M.J.R., and Chaturanga, G.A.A. 2015. Effect of a Mixture of Diuron 80% Wp and Glufosinate Ammonium 150g./l Wsc(Basta) in Controlling Weeds in Sugarcane. Sugarcane Sri Lanka, Vol. 02.

Witharama, W.R.G., De Silva, A.L.C., and Wijewardena, L.M.J.R. 2015. Krismat 75 WG, A Novel Herbicide for Early and Late Post-Emergence Weed Control in Sugarcane. Sugarcane Sri Lanka, Vol. 02.





**ADMINISTRATION AND FINANCE DIVISION**



## ADMINISTRATION AND FINANCE DIVISION

### Staff

Dr A P Keerthipala BSc (Agriculture), MPhil, PhD	-	Director/Chief Executive Officer
Dr W R G Witharama BSc (Agriculture), MPhil, PhD	-	Deputy Director (Research & Technology Transfer)
Mr D G Manamudali BA (Economics) Sp., LICA	-	Deputy Director (Administration & Finance)

### Administration Section

Dr C Eritawala PhD (Moscow)	-	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	-	Management Assistant (Clerical & Typing)
Ms M M I M K Manikkadawara	-	Management Assistant (Clerical & Typing)
Ms M A R Samarasekera	-	Management Assistant (Clerical & Typing)
Ms O U Subasinghe	-	Management Assistant (Clerical & Typing)
Ms A K Rathnayake	-	Telephone Operator/Receptionist
Mr W A Sameera Madhushanka	-	Management Assistant (Clerical & Typing)
Mr 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 N A Prasanna	-	Driver
Mr H S A Susantha Kumara	-	Driver
Mr G W M P S Manawadu	-	Driver
Mr A M Wijayarathna Banda	-	Driver

### 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
Ms A K Amarakoon	-	Senior Management Assistant (Accounts)
Mr L S Dayananda	-	Senior Management Assistant (Accounts)
Mr D M P Nickson	-	Senior Management Assistant (Accounts)
Mr T Ranjith Peiris	-	Management Assistant (Accounts)
Ms T S Weerasinghe	-	Management Assistant (Accounts)
Ms G D N Anuruddhika	-	Management Assistant (Accounts)
Mr A G U S De Silva	-	Management Assistant (Accounts)

### **Store**

Mr R G Niroshana	-	Store Keeper
Mr K V C Jayasinghe	-	General Worker

### **Internal Audit Unit**

Mr S P Y Muneendra ICA (IMD), MAAT	-	Internal Auditor
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### **Procurement Unit**

Mr H P R Kumara BB Mgt.	-	Procurement Officer
Mr G M S Nandadeva	-	Senior Management Assistant (Accounts)
Ms S S Chathurani	-	Management Assistant (Accounts)

### **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 J Wickramarachchi	-	Mason/Plumber
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

### **Summary of the activities carried out during the year**

- Relocation of the Colombo Office from Battaramulla to Kirulapna.
- Updating the Fixed Asset Register of the Institute.
- Offering permanent appointments to 28 persons as per budget proposals 2014.
- Filling six vacancies of Technical Officers.
- Preparation of budget, annual accounts and progress reports.
- 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.
- Improvement of the performance evaluation of the employees.

### **Review of Financial Activities**

The total income of the institute during the period under review was Rs. 355.77million as compared to Rs. 234.19 million in the year 2014. Thus, there was an increase in income of Rs. 121.58 million.

The net surplus was Rs.56.44 million as against a deficit of Rs. 6.78 million in the previous year. The main reason for this surplus was receiving funds from the treasury.

## Staff Strengthening and Motivation

### Staff Recruitments

Ms. W.A.S. Wijesuriya	-	Technical Officer	09.03.2015
Mr. D.H.L. Kusumsiri	-	Worker	02.03.2015
Mr. P.T. Prasanna	-	Worker	02.03.2015
Mr. W.M.I.K. Rathnayake	-	Worker	02.03.2015
Ms. B.G. Sumanawathie	-	Worker	02.03.2015
Mr. T.H.R. Priyankara	-	Worker	02.03.2015
Mr. V.G.P.D. Kumara	-	Worker	02.03.2015
Mr. J.A.L. Rohana	-	Worker	02.03.2015
Mr. M.A.A.K. Samarasinghe	-	Worker	02.03.2015
Mr. W.P.S. Pushpakumara	-	Worker	02.03.2015
Mr. K.H.N. Priyantha	-	Worker	02.03.2015
Mr. M.J.P. Kumara	-	Worker	02.03.2015
Mr.J.W.Kumara	-	Worker	02.03.2015
Mr. A.G.I. Sugathadasa	-	Worker	02.03.2015
Mr. A.M. Jayasinghe	-	Worker	02.03.2015
Mr. Y.P.R. Kumara	-	Worker	02.03.2015
Mr. D.P.W.S. Pushpakumara	-	Worker	02.03.2015
Mr. K.D. Bandaranayake	-	Worker	02.03.2015
Mr. R.P. Premachandra	-	Worker	02.03.2015
Mr. V.G.R. Prashantha	-	Worker	02.03.2015
Mr P. Rameshraj	-	Worker	02.03.2015
Mr. K.M. Aruna Chaminda	-	Worker	02.03.2015
Mr. S. Sellahewa	-	Worker	02.03.2015
Mr. D.F.M.A.A. Kumara	-	Worker	02.03.2015
Mr. V. Chandramogan	-	Worker	07.05.2015
Mr. K.S.D. Priyankara	-	Tractor Driver	02.03.2015
Mr. K.M.N. Karunathilaka	-	Tractor Driver	02.03.2015
Mr. M. Sivapalan	-	Technical Officer	09.03.2015
Mr .L.M.M. Obesena	-	Technical Officer	03.09.2015
Mr.D.M.G.H.Chathuranga	-	Technical Officer	03.09.2015
Ms.B.A.S.Iranganie	-	Technical Officer	03.09.2015

### Staff Turnover during the year 2015

#### Retirements

Mr. A.K. Dharmadasa	-	General Worker	25.07.2015
Mr. W.G.M.J .Perera	-	Lab/Field Attendant	20.11.2015

#### Resignations

Mr. W.H. Jayasinghe	-	Research Officer	29.01.2015
Mr. T.P. Ekanayake	-	Technical Officer	13.08.2015

## **Staff Training and Visits (Foreign)**

- i. Mr. N.V.T.A. Weragoda, Chairman and Dr. A. Wijesuriya, Principal Research Officer, visited Sugar Research Australia, Australia, from 17<sup>th</sup> to 23<sup>rd</sup> May 2015.
- ii. Dr. A.P. Keerthipala, Director, participated in the 3<sup>rd</sup> International Sugarcane Conference in Vietnam from 14<sup>th</sup> to 15<sup>th</sup> July 2015.
- iii. Mr. W.G.H. Ruwanpura, Research Officer participated in the 7<sup>th</sup> International Summit on Food Processing Agribusiness and Dairy 2015 held from 03<sup>rd</sup> to 07<sup>th</sup> August 2015 in Ahmedabad, India.
- iv. Mr. H.A.S. Weerasinghe and Mr. M.B. Kulasekara, Research Officers of the Crop Nutrition Division participated in the training on UV-VIS Spectrophotometer (UV-VIS 2600 Shimadzu brand) in Singapore from 09<sup>th</sup> to 11<sup>th</sup> September 2015.
- v. Ms. A.N.W.S. Thushari, Ms. K.M.G. Chanchala and Mr. K.T. Ariyawansa, Research Officer underwent training in bio-tech-based disease identification techniques, bio-control of insect pests of sugarcane and design and fabrication of farm machinery respectively from 7<sup>th</sup> to 27<sup>th</sup> December 2015 in Pakistan.

## **Long-term training- Foreign**

Ms. D. Manel (Research Officer in Crop Improvement Division) completed her postgraduate studies leading to PhD at the University of Agricultural Sciences, Dharwad, Karnataka, India. (20<sup>th</sup> December 2015)

## **Long-term training- Local**

- i. Mr. A.L.C. De Silva (Senior Research Officer in Crop and Resource Management 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.
- ii. Ms. B.D.S.K. Ariyawansa, Senior Research Officer in the Economics, Biometry and Information Technology Division started her postgraduate studies leading to PhD from January 2015 at the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka.
- iii. Mr. H.P.R. Kumara, Procurement Officer, commenced his studies leading to MSc degree in Service Management at the University of Colombo.

### **Training programmes/workshops/ seminars attended by the staff (Local)**

- i. Mr. K.T. Ariyawansa, Research Officer, underwent a twelve-week part-time training on Parametric 3D Modelling Using Pro/E and Soil Works at Die and Mould facilitation and Development Centre of the University of Moratuwa.
- ii. Mr. R.G.S. Niroshana, Store Keeper, underwent a 5-month training program leading on computer accounting leading to diploma at the Esoft Metro College.
- iii. Mr. G. Somaweera, Management Assistant (Clerical and Typing), participated in a training programme on Computer-based printing patterns (114 Hours) at the Sri Lanka Printing Corporation.
- iv. Mr. P.G. Indika, General Worker, participated in a training programme on Book Binding and Finishing at Sri Lanka Printing Corporation.
- v. Mr. G.M.S. Nandadewa, Senior Management Assistant (Accounts) participated in a Workshop on Attitudes and Skills Development at the Institute of Human Resource Advancement, University of Colombo on 27<sup>th</sup> February 2015.
- vi. Ms. M.A.R. Samarasekara, Management Assistant (Clerical and Typing), participated in a training program on E-gov concept and the use of Information Technology in Office Management at the Skills Development Fund Ltd. on 6<sup>th</sup> to 7<sup>th</sup> April 2015.
- vii. Dr. C. Epitawala (Administrative Officer) and Mr. K. P. Wickramasinghe (Development Officer) participated in a training workshop on attitudes and skills development at the Institute of Human Resource Management, University of Colombo on 29<sup>th</sup> May 2015.
- viii. Dr. M.S. Perera, Principal Research Officer, attended a workshop on Business Proposal writing held on 29<sup>th</sup> May 2015 at the National Science Foundation, Colombo.
- ix. Ms. W.A.S. Wijesuriya and Ms. B.A.S. Iranganie, Technical Officers, participated in a training programme on Laboratory Quality Management from 10<sup>th</sup> to 12<sup>th</sup> June 2015 at the Sri Lanka Standards Institution.
- x. Mr. T.M.L.S. Thennakoon, Book Keeper, participated in a training program on Cash Management and Cash Flow Control at the Skills Development Fund Ltd. from 11<sup>th</sup> to 12<sup>th</sup> June 2015.
- xi. Ms. A.K. Amarasekara and Ms. G.D.N.M. Anuruddhika, Management Assistants, attended a training course on Employees' productivity and competence at the Skills Development Fund Ltd. on 18<sup>th</sup> June 2015.

- xii. Ms. G.D.N.M. Anurudhdhika, Management Assistant (Accounts), participated in a workshop on Role and Responsibility of Accounts Clerks at the Skills Development Fund Ltd. on 23<sup>rd</sup> June 2015.
- xiii. Mr. W.A. Sameera Madhushanka, Management Assistant (Clerical and Typing), participated in a training programme on Role and Responsibility of Leave Clerks at the Skills Development Fund Ltd. from 29<sup>th</sup> to 30<sup>th</sup> June 2015.
- xiv. Dr. C. Epitawala, Administrative Officer attended training on effective managerial skills for Directors, Asst. Directors and Administrative Officers of the public and private sector at the Skills Development Fund Ltd. from 29<sup>th</sup> to 30<sup>th</sup> June 2015.
- xv. Research Officers Messrs K.T. Ariyawansa, W.G.H. Ruwanpura, G.A.H. Chathuranga and B.R. Kulasekara and Ms. S.M.T.A. Maralanda, participated in a workshop on "Writing a high impact Research Article" organised by Young Scientists Forum (YSF) at the National Science and Technology Commission from 09<sup>th</sup> to 10<sup>th</sup> July 2015.
- xvi. Dr. M.S. Perera, Principal Research Officer, attended the International Conference on Promoting Socio – Economic Equity in South Asia: Challenges and Prospectus from 15<sup>th</sup> to 16<sup>th</sup> July 2015 at Kingsbury Hotel, Colombo.
- xvii. Ms. T.M.K. Senadeera, Management Assistant, underwent training on professional Development of Clerical and Allied Grades at the Skill Development Fund Ltd. from 27<sup>th</sup> to 28<sup>th</sup> July 2015.
- xviii. Fourteen farm workers attended a one-day training on 08<sup>th</sup> August 2015 on Handling and maintaining of bush cutter" held at the Hunter Company (Pvt) Ltd., Colombo 02.
- xix. Dr. A. Wijesuriya, Principal Research Officer and Ms. A.M.M.S. Perera, Research Officer participated in a Workshop on gene/QTL mapping in plants at the Wayamba University from 08<sup>th</sup> to 09<sup>th</sup> September 2015.
- xx. Research Officers Messrs K. T. Ariyawansa, W.G.H. Ruwanpura, and G.A.A. Chathuranga and Ms A.N.W.S. Thushari, Ms. K.M.G. Chanchala, Ms. S. M. T. A. Maralanda and Ms. Anoma Sudarshanie participated in a workshop on Effective Research Proposal Writing at the National Science Foundation on 09<sup>th</sup> September 2015.
- xxi. Mr. I.B. Kodagoda, Accounting Officer, participated in a workshop on Control of Office Equipment at the Skills Development Fund Ltd. from 14<sup>th</sup> to 15<sup>th</sup> September 2015.
- xxii. Dr. M.S. Perera, Principal Research Officer, participated in the discussions on Cleaner Production Policy and Strategy for Plantation Sector, held on 02<sup>nd</sup> December 2015 at the Ministry of Mahaweli Development and Environment at Battaramulla.

## **Audit and Management Committee Report**

The audit and management committee met thrice during the year 2015. Even though, a minimum four committee meetings had to be summoned for a year, this obligation was not able to be accomplished due to delay of appointing the Board of Governors to the institute. There were two elections (presidential and parliamentary elections) during the year 2015, and hence, the ministry-in-charge of the subject of sugar institute was changed. This caused for the delay of appointing the Board of Governors to the institute.

The various issues emerged from administration, finance and different research divisions were taken up for discussion deeply at the audit and management committee meetings, and necessary appropriate actions were taken to resolve them. Certain issues, which needs Board approval were forwarded to the Board of Governors for its attention.

Even though, only three meetings were summoned, the audit and management committee was able to review all audit quarries raised by external auditors and the final audit report and take necessary action accordingly. Therefore, the institute's audit and management committee was able to fulfil its obligations without any deficiencies during the year 2015 too.



S.P.Y. Muneendra  
Internal Auditor

15<sup>th</sup> February 2016

# Audited Financial Statements

SUGARCANE RESEARCH INSTITUTE					
STATEMENT OF FINANCIAL POSITION AS AT 31 <sup>ST</sup> DECEMBER 2015					
ASSETS	NOTES	2015 Rs.	2015 Rs.	2014 Rs.	2014 Rs.
<b>Non-current assets</b>					
Property, plant and equipment	1	209,469,360.42		59,909,036.19	
Investment	2	54,106,697.50	263,576,057.92	39,717,595.70	99,626,631.89
<b>Current assets</b>					
Consumable stock	3	16,457,595.04		11,120,879.99	
Livestock		225,201.00		519,375.00	
Advance payment for opening Letters of Credit		10,764,246.00		22,623,343.00	
Work in progress		2,780,752.00		5,597,552.00	
Trade and other receivables	4	48,310,366.99		49,831,114.00	
Investment ( S / T )	5	110,673,401.33		81,671,067.54	
Prepayments and other deposits	6	1,274,900.74		419,900.74	
Cash and cash equivalents	7	32,337,603.76	222,824,066.86	38,785,235.75	210,568,468.02
<b>Total assets</b>			486,400,124.78		310,195,099.91
<b>LIABILITIES</b>					
<b>Current liabilities</b>					
Payable	8	3,296,083.33		9,646,853.99	
Accrued expenses	9	5,723,276.66	9,019,359.99	6,265,933.88	15,912,787.87
<b>Non - current liabilities</b>					
Differed income		5.70		(0.50)	
Provision for medical (Schedule 09)		2,920,732.67		2,890,822.30	
Provision for audit fee		500,000.00		-	
Provision for gratuity (Schedule 10)	10	63,478,439.25	66,899,177.62	47,106,697.50	49,997,519.30
<b>Total liabilities</b>			75,918,537.61		65,910,307.17
<b>Total Net Assets</b>			410,481,587.17		244,284,792.74
<b>Accumulated fund</b>					
Accumulated fund	11		-		145,285,139.00
Reserve			275,152,478.66		78,031,428.74
Revaluation reserve			135,329,108.51		20,940,000.00
<b>Total Net Assets/Equity</b>			410,481,587.17		244,256,567.74

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.F.A. Karunasena  
Chairman



Dr. A.P. Keerthipala  
Director /Chief Executive Officer



D.M.J.N. Dissanayake  
Accountant

**SUGARCANE RESEARCH INSTITUTE**

**STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 31<sup>ST</sup> DECEMBER 2015**

Description	Notes	Year 2015 Rs.	Year 2014 Rs.
<b>Operating Revenue</b>			
Cess on sugar imports		-	86,242,649.50
Treasury funds	Capital	40,574,000.00	51,000,000.00
	2014	20,000,000.00	-
	Recurrent	259,500,000.00	61,800,000.00
	2015	1,711,520.74	-
	2014	17,298,720.00	10,000,000.00
Treasury grant for Ministry project		3,238,130.00	5,577,765.00
Cess on local sugar production (Additional Note 1.2)		13,446,571.06	19,573,463.96
Other income	12	<b>355,768,941.80</b>	<b>234,193,878.46</b>
<b>Operating Expenses</b>			
Personnel emoluments	13	159,202,581.59	116,445,339.86
Travelling and subsistence		2,906,551.18	2,885,309.09
Foreign visits		5,338,430.23	6,111,933.65
Supplies and consumables	14	2,044,616.03	3,268,660.71
Maintenance	15	25,960,485.71	23,993,977.36
Contractual services	16	36,429,026.49	26,098,731.91
Research and development	17	13,706,589.35	26,809,503.53
Depreciation and amortisation expenses		24,938,587.99	18,244,310.49
Other operating expenses	18	28,751,966.92	3,505,490.35
Total operating expenses		<b>299,278,835.49</b>	<b>227,363,256.95</b>
Surplus / ( Deficit ) from operating activities		56,490,106.31	6,830,621.51
Finance cost		51,832.49	49,785.33
Total non-operating revenue ( expenses )		<b>56,438,273.82</b>	<b>6,780,836.18</b>
Net surplus / ( Deficit ) before extraordinary items		-	-
Net surplus / (Deficit ) for the period		<b>56,438,273.82</b>	<b>6,780,836.18</b>

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. F. A. Karunasena*

K. F. A. Karunasena  
Chairman

*Dr. A.P.Keerthipala*

Dr. A.P.Keerthipala  
Director /Chief Executive Officer

*D.M.J.N. Dissanayake*

D.M.J.N. Dissanayake  
Accountant

**SUGARCANE RESEARCH INSTITUTE  
CASH FLOW STATEMENT  
FOR THE YEAR ENDED 31 ST DECEMBER 2015**

Description	2015	2014
	(Rs)	(Rs)
Surplus /( deficit ) from ordinary activities	56,438,273.82	6,780,836.16
<b>Non-cash movements</b>		
Depreciation	24,938,587.99	18,244,310.49
Provision for gratuity	17,120,482.46	8,686,618.59
Provision for medicals	29,910.37	2,890,822.30
Provision for Audit fee	500,000.00	-
Prior-year adjustment	(4,602,362.90)	(10,218,697.99)
Written-off livestock	294,174.00	
Differed income	5.70	-
<b>Operating profit / ( Loss ) before working capital changes</b>	<b>94,719,071.44</b>	<b>26,383,889.55</b>
Increase / Decrease in trade and other receivables (without staff loan)	-	(17,845,973.00)
Increase / Decrease in sundry stock	-	(3,140,090.26)
Increase / Decrease in working progress	-	(5,347,552.00)
Increase/ Decrease advance payment for opening Letters of Credit	-	-
Increase / Decrease in advance and prepayments	(855,000.00)	88,400.00
Increase / Decrease in staff loan	-	(2,894,039.00)
Increase / Decrease in creditors & other payables	-	(7,826,575.91)
Payment for gratuity	(748,740.71)	(1,297,517.00)
Payment for medicals	(28,222.73)	-
<b>Cash generated from operating activities before income tax</b>	<b>(1,631,963.44)</b>	<b>(38,263,347.17)</b>
<b>Cash flows from / ( used ) in investment activities</b>		
Purchase of property, plant and equipment	(60,109,804.48)	(10,867,970.51)
<b>Net cash flow from / ( used ) in investment activities</b>	<b>(60,109,804.48)</b>	<b>(10,867,970.51)</b>
<b>Cash flows in financing activities</b>		
Investment in fixed deposit		
Withdrawal in investment		
Net cash flows used in financing activities		-
Net increase / decrease in cash and cash equivalents	32,977,303.52	(22,747,428.13)
Cash and cash equivalents at the beginning of the year	160,173,897.99	182,921,326.00
Cash and cash equivalents at the end of the year	<b>193,151,201.51</b>	<b>160,173,897.87</b>
<b>Analysis of the balance cash and cash equivalents shown in the balance sheet</b>		
Bank balance	32,337,603.76	38,785,235.75
Treasury bill deposit	110,173,401.33	81,171,066.54
Fixed deposits	54,606,697.50	40,217,595.70
<b>Total</b>	<b>197,117,702.59</b>	<b>160,173,897.99</b>

**SUGARCANE RESEARCH INSTITUTE**

**NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31<sup>ST</sup> DECEMBER 2015**

<b>1</b>	<b>Property, Plant and Equipment</b>		
	The all the categories of assets were re-valued on 31.03.2015 by an independent auditing company and the values are based on this report. After 31.03.2015, the values of the property, plant and equipment are stated at their historical cost.		
	Please see schedule 01		
		<b>2015</b>	<b>2014</b>
<b>2</b>	<b>Investment ( L/T )</b>	<b>Rs</b>	<b>Rs</b>
	Fixed deposit ( Gratuity Fund ) - N.S.B.	54,106,697.50	39,717,595.70
		<b>2015</b>	<b>2014</b>
<b>3</b>	<b>Consumable stock</b>	<b>Rs</b>	<b>Rs</b>
	Stationery	725,047.92	603,281.72
	Repair and maintenance of vehicles	-	1,517,125.73
	Repair and maintenance of buildings	8,774,622.35	5,308,603.66
	Repair and maintenance of machinery	589,077.50	883,950.50
	Fuel	756,526.40	436,493.20
	Staff welfare	244,360.45	160,502.48
	Research metirials	3,540,156.45	-
	Chemicals	1,657,413.27	2,050,902.80
	Other research materials	170,390.70	160,019.90
	<b>Total consumable stock</b>	<b>16,457,595.04</b>	<b>11,120,879.99</b>
		<b>2015</b>	<b>2014</b>
<b>4</b>	<b>Trade and other receivables</b>	<b>Rs</b>	<b>Rs</b>
	Advances Local purchases	1,024,290.86	418,163.85
	Travelling	117,060.20	131,797.70
	Fuel	136,471.05	130,226.05
	Advance payments for suppliers and other institutes	444,685.30	7,504,512.46
	Research	33,876.01	563,056.01
	Sundry	7,412.86	237,947.42
	Interest re F.D. - N.S.B.	1,111,132.19	1,339,481.01
	Treasury bill - P.B.		2,095,634.44
	Other Rec Amendment charges for LCs	206,426.00	-
	Project fund from ministry	7,498,720.00	-
	Staff loans: Housing loans (Schedule 02)	5,277,255.95	5,020,930.11
	Distress loans (Schedule 03)	22,811,309.77	22,577,404.39
	Festival advances (Schedule 04)	10,250.00	181,000.00
	Push cycle loans (Schedule 05)	3,000.00	15,700.00
	Motor cycle/car loans (Schedule 06)	6,306,135.71	4,993,728.47
	Book loans	-	203,500.00
	Debtors :		
	Other Loa 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	385,333.00
	Sundry de Janatha Fertiliser	250.00	250.00

Inland Revenue Department	9,222.74	9,222.74
Lanka Sugar Co.(Pvt) Ltd.- Sevanagala (sale of sugarcane)	1,531,591.00	2,443,500.00
Gal Oya Plantations (Pvt) Ltd. - Cess on sugar production	-	-
Funds from Pakistan	-	372,024.50
Lanka Sugar Company (Pvt) Ltd	361,076.23	172,833.73
Nanda Tractor Motors (Pvt) Ltd	34,868.12	34,868.12
<b>Total trade and other receivables</b>	<b>48,310,366.99</b>	<b>49,831,114.00</b>
	<b>2015</b>	<b>2014</b>
<b>5 Investment ( S/T ) :</b>	<b>Rs</b>	<b>Rs</b>
Treasury bill - P.B	110,173,401.33	81,171,067.54
Fixed deposit (Scholarship)- N.S.B.	500,000.00	500,000.00
Treasury bill - B.O.C	-	-
<b>Total Investment (S/T)</b>	<b>110,673,401.33</b>	<b>81,671,067.54</b>
	<b>2015</b>	<b>2014</b>
<b>6 Prepayments and other deposits</b>	<b>Rs</b>	<b>Rs</b>
Prepayme Repair and maintenance of office equipment	6,160.00	6,160.00
Withholding Tax	(26,234.26)	(26,234.26)
Other dep 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 Network	2,500.00	2,500.00
Softlogic Information	1,500.00	1,500.00
Sri Lanka Customs	10,000.00	10,000.00
Kanthale Multi Purpose Co- operative society	90,000.00	-
Key money for the Colombo office	765,000.00	-
<b>Total prepayment and other deposits</b>	<b>1,274,900.74</b>	<b>419,900.74</b>
	<b>2015</b>	<b>2014</b>
<b>7 Cash and cash equivalents</b>	<b>Rs</b>	<b>Rs</b>
People's Bank	15,442,595.81	4,104,591.73
People's Bank	2,361,469.35	3,955,266.90
Bank of Ceylon	3,196,290.54	21,885,990.28
_ Kanthale A/C No. 0077736038	100,000.00	-
_ Kilinochchi A/C No. 0077731905	100,000.00	-
People's Bank	384,991.57	277,236.78
Bank Sav - People's Bank-Baththaramulla A/C No-208-2-001-0-1334359	545,156.09	428,121.98
	10,207,100.40	8,107,958.08
Petty cash-Hantane	-	3,865.00
Petty cash -Buttala	-	5,000.00
Petty cash- Hingurana	-	5,000.00
Petty cash-Colombo	-	12,205.00
<b>Total cash and cash equivalents</b>	<b>32,337,603.76</b>	<b>38,785,235.75</b>

<b>8 Payables</b>	<b>2015</b>	<b>2014</b>
	<b>Rs</b>	<b>Rs</b>
A.S.Jayalath	-	600.00
Analytical Instruments (Pvt)Ltd.	12,550.00	2,011,496.90
D.M.N.Weerasinghe	-	250.00
K.K.I.S.Sarathchandra	-	4,965.00
K.Mahindapala	-	1,187.50
Prasad	-	891.66
Refundable tender deposit (Schedule 07)	230,750.00	235,750.00
Retention (Schedule 08)	338,303.91	150,917.68
Sarath Motor Engineering	-	102,655.00
U.G. Stores	383,762.70	204,637.00
United Motors Lanka	-	71,784.40
W.G. Nimal	(616.67)	(616.67)
Wasantha Auto Electrician	(1,050.00)	(1,050.00)
Lukshan Diesel Pump Services	-	95,620.00
Sumanagiri Trade Centre	-	470.00
Varuna Motors	-	204,725.00
Wickrama Hardware	-	117,408.00
Lab Masters (Pvt) Ltd.	-	200,936.72
Waruna Suppliers	-	20,960.00
Libra Agency	415,939.20	336,896.79
Popular Stationery	-	4,900.00
Sri Lanka State Trading	-	124,295.00
Royal Stationeries	-	20,000.00
Upali Auto Electricals	-	55,000.00
A.C. Paul & Co Ltd	-	322,963.00
Vino Enterprises	-	156,688.00
United Stationery	-	66,600.00
Amila Associates	-	77,280.00
Avon Pharmo Chem	174,031.01	111,294.40
U.K.Electricals	7,370.00	-
Sharpe Eye Network Solution	-	15,746.88
D.G.Lanka Security	681,763.13	695,553.20
Hemsons International	97,402.50	86,184.00
Organic Trading (Pvt) Ltd	13,431.00	32,760.00
Lakbima News Papers (Pvt)Ltd	-	52,012.80
Singer Sri Lanka PLC	-	199,080.00
Titan Steels	53,246.70	65,688.00
Cambridge Traders	-	48,655.00
Pathirana Hardware	-	8,900.00
Agva Metale	-	585,182.00
Office Network (Pvt) Ltd	-	74,592.00
Metropolitan Office Network (Pvt)Ltd	-	78,400.00
New Wasantha Motors	-	170,125.00
N S Safety Equipment	-	83,605.00
Mahanama Brothers	-	14,496.00
Damro Industries (Pvt) Ltd	115,130.70	255,750.00
Monara Steel Center	-	174,635.55
Logiventures (Pvt) Ltd	-	281,680.00

Science Land Information Technology	100,000.00	100,000.00
Sumbeam Trading	-	10,640.00
Thilina Motors	-	19,995.00
Kumara Motor Dealers	-	255,250.00
Kottawaththa Tyre	-	4,500.00
The Tyre Team	-	241,252.18
Smaart Stationery	-	42,129.00
Rainbow Stationery	-	34,538.00
Balawinna Concrete Yard	-	22,400.00
Technical Suppliers	-	643,250.00
Sigma Cemical (Pvt) Ltd.	-	91,840.00
Auditor General Department	-	250,979.00
Ceyco Metal Merchant(Pvt) Ltd	-	307,530.00
ACTA Electricals	5,150.00	-
Ajith Motor Stores	750.00	-
Asian Electricals	23,420.00	-
Farmers (Pvt) Ltd.	280,000.00	-
Narah Stationers	24,625.35	-
R.S.Global Traders	270,920.00	-
S & G Ref Engineers	17,500.00	-
Uni Royal Electricals	51,703.80	-
Total payables	<u>3,296,083.33</u>	<u>9,646,853.99</u>

9 Accrued expenses	2015	2014
	Rs	Rs
Electricity	458,265.70	549,133.04
Fuel	119,295.00	329,142.50
Overtime	709,458.81	998,113.27
Postage	19,200.00	15,884.00
Repair and maintenance of vehicles	22,270.00	11,670.00
Resource Personnel	134,869.81	106,806.15
Rent	8,000.00	24,000.00
Research materials	88,386.49	9,711.25
Stationery	1,172.00	-
Sugar sector development	272,905.90	443,963.62
Telephone	212,327.27	170,567.45
Travelling and subsistence	9,257.50	95,811.50
Water	14,855.09	1,994.64
News papers/Periodicals	2,030.00	2,610.00
Wages	413,069.83	983,621.35
Welfare	2,252.00	164.00
Translation	-	31,560.00
Harvesting and land preparation	-	27,000.00
Staff medical	-	6,995.75
PAYE Tax	10,885.26	9,768.54
Repair and maintenance of office equipment	5,500.00	42,000.00
Repair and maintenance of buildings	-	140,800.00

Repair and maintenance of Machine	22,139.50	-
News paper notification	-	49,140.00
Symposium	-	1,500.00
Gratuity	-	49,079.29
Land and land development	-	150,000.00
Employees' Provident Fund	2,791,668.52	1,786,008.23
Employees' Trust Fund	336,196.56	214,320.99
Salary and wage deductions	-	14,543.31
Kanthale project expenses	42,615.45	-
Kilinochchi project expenses	85,809.50	-
Fuel advances	(15,000.00)	-
Local purchase advances	(50,000.00)	-
Salary and wage deductions	3,030.47	-
Others	2,816.00	25.00
<b>Total Accrued Expenses</b>	<u>5,723,276.66</u>	<u>6,265,933.88</u>

#### 10 Provision for Gratuity

Please see the shedule 11

	2015	2014
	Rs	Rs
<b>11 Accumulated Fund</b>		
Government grant for capital	44,360,000.00	44,360,000.00
UNDP/FAO aid	474,116.00	474,116.00
World Bank aid	16,598,429.00	16,598,429.00
Japanese aid	82,064,952.00	82,064,952.00
Australian aid	1,287,642.00	1,287,642.00
Grant from Sugar Importers' Association	500,000.00	500,000.00
<b>Total accumulated fund</b>	<u>145,285,139.00</u>	<u>145,285,139.00</u>

### SUGARCANE RESEARCH INSTITUTE

#### NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 31<sup>ST</sup> DECEMBER 2015

	2015	2014
	Rs.	Rs.
<b>13 Other Incomes</b>		
Interest Income on staff loans	1,445,998.87	1,308,767.21
Interest Income on treasury bills	5,161,382.88	5,815,850.84
Interest Income on fixed deposits	2,647,106.89	2,923,972.78
Interest on savings A/Cs	672,945.33	748,120.46
Sale of seedcane/factory cane	484,481.50	65,855.00
Symposium	-	4,912,500.00
Sundry income	3,034,655.59	3,798,397.67
<b>Total other income</b>	<u>13,446,571.06</u>	<u>19,573,463.96</u>

	2015	2014
<b>14 Personnel Emoluments</b>		<b>Rs.</b>
Salaries and allowances	98,948,099.73	68,372,797.92
Contribution to Employees' Provident Fund	18,970,205.03	11,854,958.08
Contribution to Employees' Trust Fund	3,530,341.09	2,373,443.43
Overtime	10,693,986.63	9,517,213.33
Wages	13,805,146.58	13,655,541.94
Staff medical	11,265,541.82	10,023,744.91
Resource persons' honourarium and training allowance	1,989,260.71	647,640.25
<b>Total personnel emoluments</b>	<u>159,202,581.59</u>	<u>116,445,339.86</u>
	<b>2015</b>	<b>2014</b>
<b>15 Supplies and consumables</b>		<b>Rs.</b>
Printing	1,545,441.22	2,542,635.62
News papers and periodicals	92,925.00	88,662.00
Food and lodging	102,634.20	535,588.59
Spares of farm implements, tractors and pumps	-	59,200.00
Translation	17,809.50	42,574.50
Stationery	285,806.11	-
<b>Total supplies and consumables used</b>	<u>2,044,616.03</u>	<u>3,268,660.71</u>
	<b>2015</b>	<b>2014</b>
<b>16 Maintenance</b>		<b>Rs.</b>
Licence insurance and fitness certificates	1,849,413.64	1,869,890.42
Repair and maintenance of vehicles	8,004,150.02	5,764,612.62
Repair and maintenance of buildings	5,846,302.94	5,714,042.71
Repair and maintenance of office equipment	853,524.43	1,094,256.01
Repair and maintenance of machinery and lab equipment	1,342,666.27	400,347.21
Fuel and lubricants	8,044,698.41	9,131,128.39
Web maintainance	19,730.00	19,700.00
<b>Total maintenance</b>	<u>25,960,485.71</u>	<u>23,993,977.36</u>
	<b>2015</b>	<b>2014</b>
<b>17 Contractual services</b>		<b>Rs.</b>
News paper notification	235,014.75	483,901.60
Postage	133,168.00	139,828.00
Rent rates and taxes	1,402,221.11	1,119,058.83
Telephone, fax and internet	1,722,352.18	1,160,417.66
Legal charges	55,444.00	177,610.00
Audit fees	1,016,700.00	295,979.00
Electricity	5,787,996.07	5,604,414.23
Water	115,368.63	47,846.37
Security charges	8,659,589.65	8,237,401.05
Gratuity	17,120,482.46	8,686,618.59
Workmen's compensation	29,527.04	-
PAYE Tax	108,672.60	95,920.58
Staff requitment expenses	27,490.00	49,736.00
Cooperate Social Responsibility	15,000.00	-
<b>Total contractual services</b>	<u>36,429,026.49</u>	<u>26,098,731.91</u>

	2015	2014
<b>18 Research and Development</b>		<b>Rs.</b>
Research materials	6,393,721.19	8,027,590.74
Media, publicity and journals	13,610.00	93,676.80
Consultancy fees	12,000.00	20,000.00
Chemicals	393,489.53	346,307.16
Fertiliser	-	141,400.00
Harvesting and land preparation	705,898.85	4,263,359.60
Sugar sector development	6,069,304.78	6,163,182.23
Symposium	-	7,403,987.00
Infrastructure development activities	113,450.00	-
Reward scheme for scientists	-	350,000.00
Research review expenses	5,115.00	-
<b>Total research and development</b>	<u>13,706,589.35</u>	<u>26,809,503.53</u>
	<b>2015</b>	<b>2014</b>
<b>19 Other operating expenses</b>		<b>Rs.</b>
Entertainment	484,900.03	695,352.28
Staff welfare	255,017.54	156,808.73
Membership fee	-	6,348.60
Scholarship	255,750.00	144,000.00
Board of (Chairman's remuneration	1,023,122.21	931,227.83
Payment to other members	85,646.60	373,188.00
Board, Audit and Management meeting expenses	715,928.00	307,892.50
Miscellaneous	230,098.54	347,455.25
Staff training	711,315.00	543,217.16
Kanthale project expenses	15,258,173.36	-
Kilinochchi project expenses	9,437,841.64	-
Written-off livestock	294,174.00	-
	<u>28,751,966.92</u>	<u>3,505,490.35</u>

**SUGARCANE RESEARCH INSTITUTE**  
**STATEMENT OF CHANGES IN NET ASSETS FOR THE YEAR ENDED 31<sup>ST</sup> DECEMBER 2015**

Rs.

<b>Description</b>	<b>Accumulated Fund</b>	<b>Revaluation Reserve</b>	<b>Retained earnings/(Translation Reserve)</b>	<b>Total</b>
Balance as at 31 December 2014	-	20,940,000.00	78,031,428.74	98,971,428.74
Revaluation surplus in the year 2015	-	114,389,108.51	-	114,389,108.51
Prior-year adjustment (Additional Note 1.1) Correction of accumulated fund	(145,285,139.00)	-	(4,602,362.90)	(4,602,362.90)
Surplus / ( deficit ) for the period	-	-	145,285,139.00	56,438,273.82
Balance as at 31st December 2015	(145,285,139.00)	135,329,108.51	275,152,478.66	410,481,587.17

## Additional Notes

### 1.1 Prior-year adjustment

The previous year adjustment consists of the following:

01. Settlement of special advances given in the year 2014	(787,027.93)
	(2,500,000.00)
02. Error correction of the amounts of the treasury bills and fixed deposits taken into the financial accounts in the year 2014	(953,235.64)
03. Error correction of the accrued expenses in the year 2014	8,342.56
	(372,024.50)
05. Settlement of the petty cash imprest of the year 2014	(13,865.00)
06. Error correction of the loan account balances in year 2014	17,111.93
	3,335.68
	(5,000.00)
<b>Total</b>	<b>(4,602,362.90)</b>

1.2 Cess on local sugar production has been added to 2015 final accounts on cash basis. The receivable amounts from the local sugar production as at 31/12/2015 are as follows:

Description	Pelwatte	Sevanagala	Gal Oya	Total	Rs.
Balance as at 1/1/15	5,074,235.00	1,811,574.00	1,270,517.00	8,156,326.00	
Amount to be received on the production in 2015	290,045.00	432,995.00	363,221.00	1,086,261.00	
	<b>5,364,280.00</b>	<b>2,244,569.00</b>	<b>1,633,738.00</b>	9,242,587.00	
Cash received in 2015	1,796,430.00	1,441,700.00	-	3,238,130.00	
Balance as at 31/12/15	<b>3,567,850.00</b>	<b>802,869.00</b>	<b>1,633,738.00</b>	6,004,457.00	

Production details were requested from respective sugar companies to calculate cess on local sugar production for the year 2015 and total details were not received.

1.3 The receipt of the loan to Kantale sugar industries Ltd. Rs; 1,000,0000/= and the interest there on is doubtful.

1.4 Service of Mr.Lalith Wirthamulla has been terminated, and he has filed a case in labour tribunal against the insitute.

1.5 Mr.S.D.N.U.S.Wimalasooriya has been sent on retirement, and he has filed a case in Labour tribunal against the institute.

1.6 Rs. 65,000 land cost has observed in the year was not taken into the financial statements since from 1991.

1.7 The accumulated fund shows the depreciation value of assets received by the government and foreign grants. Corrected the accounting of deprecitation in the year 2015 according to the Board Resolution (LKAS 20)

1.8 The year of purchase is not considered in calculating the depreciation.

1.9 Fixed deposits are stated at their cost value and Treasury bills are stating at their net realisable value.

2.1 Maturity date is not consideredd the calculating of Treasury bills.

**Property, Plant and Equipment**

Description	Cost (Rs.)				Depreciation (Rs.)				
	Balance as at 01.01.2015 (N.D.V)	Revaluation 31/03/2015	Balance as at 31.03.2015 (Revalued Amount)	Addition After 31/03/2015	Balance As at 31.12.2015	Balance as at 01.01.2015	Current year Revalued amount	Balance as at 31.12.2015	N.D.V * (Rs.) 31.12.2015
	Office equipment	5,352,757.49	(1,532,642.49)	3,820,115.00	2,480,344.34	6,300,459.34	-	429,762.94	429,762.94
Furniture fittings	2,236,862.46	4,924,776.23	7,161,638.69	1,360,445.25	8,522,083.94	-	805,684.35	805,684.35	7,716,399.59
Computer equipment	-	4,160,050.00	4,160,050.00	1,949,800.00	6,109,850.00	-	624,007.50	624,007.50	5,485,842.50
Laboratory equipment	6,314,954.29	31,112,160.30	37,427,114.59	17,880,457.37	55,307,571.96	-	4,210,550.39	4,210,550.39	51,097,021.57
Agricultural equipment	6,045,555.25	4,944,244.75	10,989,800.00	667,528.20	11,657,328.20	-	1,236,352.50	1,236,352.50	10,420,975.70
Field equipment	2,789,129.55	(1,058,240.63)	1,730,888.92	797,955.00	2,528,843.92	-	194,725.00	194,725.00	2,334,118.92
Workshop equipment	4,551,128.84	(1,812,106.84)	2,739,022.00	344,486.00	3,083,508.00	-	308,139.98	308,139.98	2,775,368.03
Other equipment	171,907.72	3,540,162.28	3,712,070.00	45,535.40	3,757,605.40	-	417,607.88	417,607.88	3,339,997.53
Bicycle	-	67,800.00	67,800.00	11,950.00	79,750.00	-	7,627.50	7,627.50	72,127.50
Motor vehicles	15,704,645.09	69,987,904.91	85,692,550.00	28,680,589.00	114,373,139.00	-	16,067,353.13	16,067,353.13	98,305,785.88
Computer software	-	55,000.00	55,000.00	869,574.00	924,574.00	-	4,125.00	4,125.00	920,449.00
Buildings	14,864,017.00	-	14,864,017.00	-	14,864,017.00	-	557,400.64	557,400.64	14,306,616.36
Library books	128,620.66	-	128,620.66	-	128,620.66	-	9,646.55	9,646.55	118,974.11
Land and land development	1,749,457.07	-	1,749,457.07	5,021,139.92	6,770,596.99	-	65,604.64	65,604.64	6,704,992.35
<b>TOTAL</b>	<b>59,909,035.42</b>	<b>114,389,108.51</b>	<b>174,298,143.93</b>	<b>60,109,804.48</b>	<b>234,407,948.41</b>	<b>-</b>	<b>24,938,587.99</b>	<b>24,938,587.99</b>	<b>209,469,360.42</b>



**විගණකාධිපති දෙපාර්තමේන්තුව**  
**கணக்காய்வாளர் தலைமை அபிப்பதி திணைக்களம்**  
**AUDITOR GENERAL'S DEPARTMENT**



මගේ අංකය  
எனது இல.  
My No.

පීඑල්ඒ/ඩී/එස්ආර්අයි/01/15/04

ඔබේ අංකය  
உமது இல.  
Your No.

දිනය  
திகதி  
Date

2016 දෙසැම්බර් 30 දින



සභාපති,

උක් පර්යේෂණ ආයතනය

උක් පර්යේෂණ ආයතනයේ 2015 දෙසැම්බර් 31 දිනෙන් අවසන් වර්ෂය සඳහා වූ මූල්‍ය ප්‍රකාශන පිළිබඳව 1971 අංක 38 දරන මුදල් පනතේ 14(2)(සී) වගන්තිය ප්‍රකාර විගණකාධිපති වාර්තාව

මාගේ සමාංක හා 2016 නොවැම්බර් 15 දිනැති ලිපියට යොමුවේ.

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



ඒ.එම්.ඩී.නායනකාන්ත  
 අතිරේක විගණකාධිපති  
 විගණකාධිපති වෙනුවට.

- පිටපත් : 1. ලේකම් - වැවිලි කර්මාන්ත අමාත්‍යාංශය  
 2. ලේකම් - මුදල් අමාත්‍යාංශය



**විගණකාධිපති දෙපාර්තමේන්තුව**  
**கணக்காய்வாளர் தலைமை அபிபதி திணைக்களம்**  
**AUDITOR GENERAL'S DEPARTMENT**



මගේ අංකය } PLA/D/SRI/01/15/04  
 எனது இல. }  
 My No. }

මගේ අංකය }  
 உமது இல. }  
 Your No. }

දිනය } 15 November 2016  
 திகதி }  
 Date }

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 2015 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 2015 comprising the statement of financial position as at 31 December 2015 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. A detailed report in terms of Section 13(7)(a) of the Finance Act was issued to the Chairman of the Institute on 29 June 2016.

**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.



### 1.3 Auditor's Responsibility

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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 judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk 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

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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 2015 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**

Even though in the absence of a Sri Lanka Public Sector Accounting Standard that specifically applies to a transaction or event, the management should develop and apply a suitable accounting policy in terms of Sri Lanka Public Sector Accounting Standard 03, the accounting policy adopted by the Institute in respect of accounting for biological assets, allocation of gratuity and classification of fixed assets had not been disclosed.

#### **2.2.2 Accounting Deficiencies**

The following observations are made.

- (a) The fixed assets of the Institute had been revalued on 31 March of the year under review and depreciation of assets relating to the period of 03 months from 01 January to 31 March 2015 had not been made.
- (b) Cess levied on local sugar manufacture had been stated on cash basis and as such, cess income of the year 2015 had been understated by Rs.960,700.



### 2.2.3 Unexplained Differences

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A difference of Rs.3,475,790 was observed between the cess income receivable relating to sugar manufactured in the year 2015 in the two institutions of Pelwatte and Sevanagala according to the financial statements and cess income computed according to the production data obtained by audit.

### 2.3 Accounts Receivable and Payable

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The following observations are made.

- (a) Loans amounting to Rs.1,164,231 and Rs.172,834 from the Sevanagala Sugar Factory and Lanka Sugar Company (Pvt.) Ltd. respectively had not been recovered for over a period of 04 years.
- (b) A loan amounting to Rs.1,000,000 and interest thereon amounting to Rs.385,333 remained recoverable from the Kantale Sugar Company as at 31 December of the year under review.

### 2.4 Non-compliance with Laws, Rules Regulations and Management Decisions

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The following instances of non-compliances with laws, rules, regulations and management decisions were observed.

#### Reference to Laws, Rules, Regulations, etc.

- (a) Procurement Guidelines 2006
  - (i) Guideline 3.4.2 (A)

#### Non-compliance

When calling for quotations for purchase of electric equipment valued at Rs.729,370, specifications including information such as standard, certification of quality and warranty period of goods had not been indicated.



(ii) Guideline 3.4

On a request made by the institution which supplied the security service in the preceding year, that same institution had been selected with effect from May 2015 without inviting bids. A sum of Rs.8,158,718 had been paid for the year under review.

(b) Public Administration Circular  
No.30/2008 of 31 December 2008

Even though the basic salary of the officer for 10 months or Rs.250,000 , whichever is less should be paid as distress loan, contrary to that, distress loans which exceeded such limit by a total of Rs. 3,081,640 had been paid to 36 employees in the year under review.

(c) Circular No. PED/12 of 02 June 2003

(i) Section 9.12

Even though the approval of the General Treasury should be obtained to implement any welfare scheme whatsoever, contrary to that, an expenditure amounting to Rs.11,500,000 had been incurred in the year under review for the reimbursement of medical bills of the employees.

(ii) Section 9.14.2

The approval of the Department of Public Enterprises had not been obtained for the Manual Procedure on rules relating to the management of the Institute in terms of the circular.



### **3. Financial Review**

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#### **3.1 Financial Results**

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According to the financial statements presented, the financial result of the Institute for the year under review had been a surplus of Rs.56,438,274 as compared with the corresponding surplus of Rs.6,780,836 for the preceding year thus indicating an improvement of Rs.49,657,438 in the financial result of the year under review as compared with the preceding year. Even though the cess income from importation of sugar in the year 2015 had decreased by Rs.86,242,650 and the cost of staff and the other expenditure had increased by Rs.42,757,243 and Rs.25,246,476 respectively, the increase in the Treasury Recurrent Grants by Rs.197,700,000 had been the main reason for the above improvement.

An analysis of the financial results of the year under review and four preceding years revealed a financial surplus in the year 2011. Nevertheless, there had been a deficit in the years 2012 and 2013. However, there had been a surplus in the year 2014 and the year under review and the improvement of the surplus had been 732 per cent in the year under review as compared with the year 2014. Taking into consideration the employees' remuneration, depreciation for non-current assets and taxes paid to the Government, the contribution of the Institute which was Rs. 122,273,086 in the year 2011 had gradually decreased in the years 2012 and 2013. Nevertheless, it had improved again since the year 2014 and amounted to a sum of Rs.240,688,116 by the year under review.

#### **3.2 Legal Actions instituted against or by the Institute**

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Two cases had been filed, claiming compensation in the Courts against the Institute by two employees of the Institute who had left the service.



#### 4. Operating Review

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##### 4.1 Performance

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Objectives of the Institute are given below.

- Increase availability of sugarcane varieties with improved commercial attributes in local plantations and conduct researches thereon.
- Improve sugarcane crop management practices.
- Ensure efficient utilisation of land, soil and water resources in sugarcane production with minimum environment degradation.
- Diversify sugarcane lands and sugarcane- based products.
- Mechanise sugarcane farming.
- Improve processing efficiencies of sugarcane and of its co-products
- Increase stakeholder knowledge of sugarcane technologies and provide necessary institutional coordination and support for adoption/commercialisation of such knowledge.

##### 4.2 Management Activities

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The following observations are made.

- (a) The Sugarcane Research Institute had spent a sum of Rs.1,935,686 in the year under review for the maintenance of an office in a private building in Colombo without a permanent and continuous duty. Even though 05 employees had been recruited on daily basis, duties had not been assigned properly to those officers.
- (b) Even though the foundation stone had been laid on 11 November 2012 for the construction of a Sugarcane Hybridization Station for the Institute, constructions had not been commenced even by 31 December 2015.
- (c) Even though a cess should be charged from sugar manufacturing institutions on the quantity of sugar manufactured in terms of Section 18 of the Sugarcane Research Act, No.75 of 1981, the Management had not taken proper steps to recover that.



(d) Out of 59 researches implemented by the Sugarcane Research Institute, 38 researches had not reached the expected physical progress in the year under review and as such, it had been a hindrance in fulfilling the main objectives of the Institute.

#### 4.3 Operating Activities

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According to the Project on Sugarcane Cultivation and Manufacturing and Improving of Juggery in Badulla District, the main objective was to increase the manufacture of juggery up to 6,000 tons during 05 years. Even though sugarcane should be cultivated in 1,203 acres by the end of the year under review according to the Project Plan, only 110 acres had been cultivated and the quantity of manufactured juggery stood at 1.13 tons. Even though a total cost of Rs.16,224,417 had been incurred for the project in the year under review and the preceding year, the Institute had failed to achieve expected benefits from the project.

#### 4.4 Transactions of Contentious Nature

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A generator valued at Rs.4,216,335 had been purchased in December of the year under review from a private company. Even though it had been mentioned in documents that the purchased generator had been manufactured in the United Kingdom, it was revealed that the above machine had been manufactured by assembling parts produced in various countries.

#### 4.5 Idle and Underutilized Assets

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Two sugarcane grinding machines and the diesel water pump purchased at a cost of Rs.2,433,056 for the Sugarcane Cultivation Project in Kilinochchi had not been used even by 10 February 2016.



#### 4.6 Resources of the Institute given to External Parties

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An officer of the Institute had been released to the staff of a Member of Parliament for a period of 06 months and this officer had been paid a sum of Rs.322,012 as salaries, contributions to the Employees' Provident Fund and Employees' Trust Fund. Even though the period of release had been only for 6 months, salaries had been paid for a service period of 8 months even while being employed in the staff of the Member of Parliament.

#### 4.7 Identified Losses

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The institution which offered the lowest quotation for the supply of security services for the period from April 2014 to May 2015 had not been selected and as such, a loss of Rs.1,610,393 had been sustained by the Sugarcane Research Institute.

#### 4.8 Staff Administration

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The following observations are made.

- (a) The approved cadre and the actual cadre of the Sugarcane Research Institute had been 193 and 172 respectively and as such, 21 vacancies existed in 12 posts. It was observed in audit that successful conducting of research activities, which are the main objectives of the Sugarcane Research Institute, had failed due to existence of vacancies in posts such as Chief Research Officer, Senior Research Officer, Technical Officer and Laboratory/Field Assistant.
- (b) Action had not been taken to approve a post in the approved cadre of the Institute for the post of Librarian and a Technical Officer had been deployed in performing the duties of the Librarian.



(c) A Project Coordinator and 06 Field Officers had been recruited on contract basis for the Project on Sugarcane Cultivation and Manufacturing and Improving of Juggery, implemented by the Sugarcane Institute in Badulla District. However, evidence to establish the qualifications of the officers recruited had not been furnished to audit.

**4.9 Utilization of Motor Vehicles**

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A double Cab motor vehicle had been parked in the garage for over a period of two years by stating that it is for an engine repair and a jeep had been retained without being repaired in the Engineering Division from January 2015 to 11 February 2016, the date of audit.

**5. Systems and Controls**

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Deficiencies 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.

Areas of Systems and Controls -----	Observations -----
(a) Accounting	Even though adjustments had been made in accounts through journal entries, action had not been taken to prepare journal vouchers in that connection.
(b) Control of Income	Action had not been taken to obtain accurate production details and compute cess income.
(c) Stores Control	Goods purchased had been retained in the stores without distributing as those did not conform to relevant specifications.



(d) Purchases

Action had not been taken to make purchases in terms of the Procurement Guidelines.

(e) Provision for Doubtful Debts

Failure in making provisions for doubtful debts in respect of receivable balances remaining over a long period without being recovered.

H.M. Gamini Wijesinghe

Auditor General

## Financial Highlights from 2011 to 2015

### Income

Item	Rs Million				
	2011	2012	2013	2014	2015
Treasury grant	-	-	-	112.80	321.78
Cess on sugar imports/production	144.12	139.32	132.82	91.81	3.24
Ministry projects	-	-	-	-	17.30
Interest income and sundry income	17.00	24.04	29.55	18.93	12.96
Sale of sugarcane	0.90	1.65	1.85	0.65	0.48
<b>Total</b>	<b>162.02</b>	<b>165.01</b>	<b>164.23</b>	<b>224.19</b>	<b>355.76</b>

### Expenditure

Item	Rs Million				
	2011	2012	2013	2014	2015
<b>Recurrent:</b>					
Personnel emoluments	81.67	92.10	102.91	116.45	159.20
Travelling and subsistence	1.75	2.63	2.54	2.89	8.24
Research and development	5.91	9.88	9.31	27.00	13.71
Supplies and consumables	1.17	1.52	2.52	3.27	2.04
Contractual services	21.57	20.97	21.85	26.09	36.43
Maintenance	13.22	17.11	21.99	24.00	25.96
Other operating expenses	2.03	27.21	31.60	9.41	53.69
Finance cost	0.14	0.03	0.20	-	0.05
<b>Total</b>	<b>127.47</b>	<b>171.45</b>	<b>192.96</b>	<b>209.11</b>	<b>299.32</b>
<b>Capital:</b>					
Buildings	0.36	0.12	-	-	-
Office/Lab/Field equipment	2.32	3.21	5.50	3.76	24.37
Vehicles	-	6.50	21.05	-	28.68
Land development	1.20	-	-	0.38	5.02
Library books	0.05	-	0.06	0.02	-
Furniture	0.48	0.72	0.48	-	1.36
Other facilities	0.08	0.05	1.39	9.46	0.68
<b>Total</b>	<b>4.49</b>	<b>10.60</b>	<b>28.51</b>	<b>13.62</b>	<b>60.11</b>
<b>Total</b>	<b>131.96</b>	<b>182.05</b>	<b>221.47</b>	<b>222.73</b>	<b>359.43</b>